



Developing entrepreneurial skills of farmers SSPE-CT-2005-006500

D2: A Literature review of entrepreneurship in agriculture (Draft deliverable)

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Abstract

The present report is the first methodological stage of an EU funded project entitled 'Developing the Entrepreneurial Skills of Farmers'. The primary concern of this project is to recommend ways how conditions of the social, economic, political and cultural framework can be changed in order to facilitate the adoption of entrepreneurial skills for farmers and how farmers themselves can improve their entrepreneurial skills. The general hypothesis suggests that the appropriate necessary entrepreneurial skills set needed, is strongly dependent on the strategic orientation of the farm.

The aim of this literature review is to consider the models, methodologies, techniques, and data papers published on the subject of farmers' skills and entrepreneurial capacity. Together with the empirical research of the project, this leads to a definition of the concept of entrepreneurship and entrepreneurial skills in agriculture. Furtheron, it is examined to which extent policy implications are considered in the entrepreneurship literature and predominant research techniques and methods of data analysis are summarised.

As partners in six countries contributed to the literature search, an analytical framework was used which defined the topic areas to search and contained the four sections 'Topic Area', 'Policy Implications', 'Research Philosophy' and 'Key Words'. The examination of themes and publications focused on a total of 128 papers, 71 of which were specifically concerned with rural entrepreneurship.

The author comes to the conclusion that definitive definitions of farmer entrepreneurship and the entrepreneurial farmer cannot be provided at this stage of the research, as too many questions are unresolved. Therefore the research project will consider several research proposals, which are based on gaps of literature and questions derived from the literature review.

Key Words: Farm Entrepreneurship research, Farm Entrepreneurship, Farmers skills, Entrepreneurial Skills, Literature search, Policy Implications, Segmentation Framework

1 Introduction

1.1 Problem Definition and Research Questions

It has been suggested that the Common Agricultural Policy (CAP) reform will benefit farmers by allowing them for the first time to take responsibility for their businesses and theoretically, have more freedom to farm as they wish (European Communities, 2004). However, it is also widely argued that whilst farmers who have spent years relying on CAP subsidies have the ability to detect changes in national policy, they may well have subsequently lost the ability to critically look into their own individual farm businesses in order to monitor and anticipate the downstream effects of reform. While some may argue that farmers have lost the ability to be proactive, a less pejorative interpretation may be that farmers have to adapt from being semi-reliant on quasi non-market to being attentive to market forces.

In the last few years, farmers, agricultural business, researchers and governments have recognised the need for a more entrepreneurial culture in the farming business (examples are the research programmes of the Dutch government and projects as described in De Lauwere *et al.*, 2002). The development of entrepreneurial skills of farmers is a significant issue, which needs to be addressed by all stakeholders in the agricultural socio-economic network (i.e. farmers' associations, research and advisory organisations, market and chain parties, governmental and social agencies).

There are different strategies available to farmers in order to survive and be successful in changing their economic environment. One alternative is to intensify conventional production, by volume increase thereby engendering efficiency and effectiveness and by selective and well-managed specialisation and diversification. For example, the farm enterprise may be broadened through tourism or other forms of non-agricultural business, or by forward or backwards integration of the value chain by engaging in food processing, direct marketing, or through organic production. All of these options involve growing the business.

Furthermore, attempts to find new ways of cost reduction, e.g. by co-operative arrangements, are strategies worth serious consideration. (van der Ploeg et al, 2002; Lehmann, 2003). Of course a further option available is 'doing nothing'. Figure 1 overleaf, sets out these options. Much of the literature which is examined in this review assumes an important set of normative assumptions questions that we will actually test and evaluate in the main stages of the research i.e. that farmers who do not diversify lack entrepreneurial skill, that growth is a necessary condition of the farm enterprise and that 'the farmer' may not be equipped with the requisite skill set to engage in a market without the traditional 'comfort' of the CAP, for example.

Figure 1: Development strategies for income support of farms

<p>Enlargement of capacity by expansion of land use</p> <p>With or without expansion of animal production</p>	<p>Enlargement of capacity by expansion of animal production</p> <p>(internal increase)</p>	<p>Different use of capacity by change of degree of specialisation</p>
<p>Abandonment of farming</p> <p>Partly</p> <p>Whole farm</p>	<p>1 2 3</p> <p>8 4</p> <p>7 6 5</p> <p style="text-align: center;">Strategies for the development of the farm</p>	<p>Enlargement of capacity by services and vertical integration</p>
<p>Expansion of the non-agricultural employment</p> <p>Possibly combined with Addition to capacity or new organisation of the farm (simplification)</p>	<p>External business</p> <p>contractor</p>	<p>Co-operation with other farmers</p> <p>Collaboration, collective investment, fusion</p>

Source: Lehmann, 2003, translated

The diversity of strategic options can be seen as a possible starting point for studying the development of entrepreneurial skills. This assumption is also supported by the fact that the emergence of multifunctional farm enterprises is in line with the aims of

Agenda 2000, emphasising the contribution of agriculture to sustainable rural development. Rural development, as the second pillar of CAP, implies that a new, more active and market-oriented relation to the agro-food supply chain in addition to surrounding rural areas, will be adopted on farms. However, it is evident that the actual manifestations of these entrepreneurial relations vary, e.g., between of monoactive conventional farms and diversified farms. What is needed, therefore, is a careful examination of how the development of entrepreneurial skills is related to the above-mentioned strategic alternatives and to the contextual factors of these alternatives in rural areas.

The social and economic environment of farming should not be underestimated when studying and promoting the development of entrepreneurial skills. As entrepreneurship can be seen as a system innovation, it can only be improved when the entire agricultural socio-technical network is involved in the process. Thus strategies to stimulate and strengthen the entrepreneurial culture of the farming business and to contribute to sustainable development in rural areas are needed.

Therefore, the primary concern of the EU funded research project of which this literature review is an initial state is to recommend ways how conditions of the social, economic, political and cultural framework can be changed in order to facilitate the adoption of entrepreneurial skills for farmers and how farmers themselves can improve their entrepreneurial skills.

The general hypothesis suggests that the appropriate necessary entrepreneurial skills set needed, is strongly dependent on the strategic orientation of the farm.

1.2 Objectives of the Literature Review

Ratnatunga and Romano (1997) in their review of over 700 articles in 6 entrepreneurship journals identified a number of significant topic areas, but concluded that there was no coherent structure to research in the field. None of these articles were focussed on farm entrepreneurship. In a similar vein, Shane (2000) noted that 'rather than explaining and predicting a unique set of empirical

phenomenon [sic] entrepreneurship has become a broad label under which a hodgepodge of research is housed'. Likewise, Morris (2001) reported that 'little of what is published is positioned within a particular theoretical paradigm: nor does most published work attempt to formulate any theoretical advancement'. Grant and Perren however, found the entrepreneurship literature to be 'functionalist' in approach and so propose the existence of a structure that has coherence, albeit a structure that does not lend itself to theory development.

This literature review thus deals with an important question for rural policy – the potential for and implications of farm entrepreneurship and the extent to which it has been considered in the academic literature.

As we will see, research in the areas of entrepreneurship and small and medium enterprise has been identified as both a growing (Gibb, 1992; Gibb, 2000) and increasingly important (Grant and Perren, 2002; Hisrich and Drnosek, 2002) area of academic activity and output. The academic discipline of Entrepreneurship and its related fields of Small Business Management and Business Innovation are currently catered for by over 50 journals. In addition, research into entrepreneurship draws upon many disciplinary foundations including: anthropology, economics, history, politics, sociology and geography (Curran and Blackburn, 2000). Research into rural entrepreneurship draws upon work from similar disciplines. However, the research into the area of farm entrepreneurship and the applicability of research methods commensurate with other 'business' sectors is a relatively new phenomenon as is evidenced by the relative paucity of literature.

A primary driver of the expansion in the research interest in the farmer as entrepreneur, has been an increasing interest by policymakers, business practitioners and universities in notions, applications and manifestations of enterprise in the organisation, the economy and society (Audretsch, 2002; Gibb, 2000; Hisrich and Drnosek, 2002). The proliferation of publications in the mainstream entrepreneurship literature has generated debates as to the pattern and nature of enquiry (e.g. Harrison and Leitch, 1996), as well as raising concerns about the relative profile and credibility of the area within the wider business and management research community (Romano and Ratnatunga, 1996). The theoretical and policy

relevance and validity of much of this work has also been queried and analysed (Aldrich and Baker, 1997; Gibb, 2000; Grant and Perren, 2002; Hisrich and Drnosek, 2002). However, the same level of debate has not materialised on farm entrepreneurship. For Warren,

‘Farming is an important part of the UK small to medium-sized enterprise (SME) sector, although it rarely figures in discussions on small business development and entrepreneurship’ (2004.372).

For Knudson et al. (2004) except for a few important exceptions, the role of entrepreneurship and innovation has been given little emphasis in agricultural economics. However, whilst agricultural economists have not placed much emphasis on entrepreneurship and innovation, it has become a priority with policy makers and is a critical aspect of value-added agriculture. Furthermore, few of the techniques associated with the generic entrepreneurship literature have been used to inform farm entrepreneurship research. Indeed, this literature search identifies only a small number of articles that attempt to define farm entrepreneurship and only several, which attempt to apply literature from other sectors to the farm sector.

Analyses to date of publication patterns and trends in entrepreneurship and small and medium enterprise, therefore, have developed insight into the development and emergence of this area of research and publication. As indicated above, these analyses have tended to focus on three broad issues: (i) the ranking and rating of journals (ibid.); (ii) the theoretical underpinning and robustness of the literature (Gibb, 2000; Grant and Perren, 2002; Hisrich and Drnosek, 2002); and (iii) policy and practitioner relevance (Gibb, 1992; Gibb, 2000). The rural economy has been the subject of an extensive recent study (Winter and Rushbrook 2003) but there has been little consideration of the actual patterns within the literature, i.e. of the actual content of the literature and the changing foci of publication over time in journals with either a focus on entrepreneurship or the rural economy.

Of this overview several objectives for the present literature review can be deduced.

A. Definition of the concept of entrepreneurship and entrepreneurial skills

As stated above 'Entrepreneurship' is not a precise concept with a particular theoretical paradigm. Furthermore, entrepreneurship research in connection with agriculture is relatively scarce. It is therefore necessary to build a theoretical basis and to define what the entrepreneurship and entrepreneurial skills are in order to fulfil the objectives of the overall project.

The research project will finally define what skills and attributes a farmer needs in order to develop entrepreneurial capacity for the farm business. This literature review constitutes the first step in the definition process by providing a narrative account of farm entrepreneurship in the literature.

A crucial part for theory building will be played by a segmentation framework which reflects the entrepreneurial skills necessary for different farming strategies. A preliminary segmentation framework has been initially designed by Atherton and Lyon (2001). This segmentation framework classifies farmers by their personal characteristics, the characteristics of the farm enterprise, the activities and processes undertaken by the farmer and the specific needs of the farm enterprise. This preliminary segmentation framework has been adapted to the farm business and will be used in this literature review. In the course of the overall project, the segmentation framework will be further tested and enhanced.

B. Policy implications of farm entrepreneurship

One of the aims of the overall project is to develop policy recommendations. Also in the above mentioned literature it is stated, that the role of entrepreneurship and innovation in agriculture has become a priority with policy makers which leads to the expanse of the research interest in this area.

To examine the extent to which policy implications are considered in the entrepreneurship literature enables us to see if authors are aware of the practical outcomes of their work and its effects on policy and the reality of farmers.

C. Predominant research techniques and the subsequent method of data analysis

In an attempt to determine which (if any) theoretical and methodological trends and themes have emerged, this literature review considers the models, methodologies, techniques, and data papers published on the subject of farmers' skills and entrepreneurial capacity. In addition, the key themes and foci of all publications will be analysed and grouped by distinctive criteria.

In summary the objectives of the literature review are as follows:

- To provide a narrative account of farm entrepreneurship based on an analysis of the publication patterns and themes in farm entrepreneurship research in an attempt to provide initial definitions of farm entrepreneurship and entrepreneurial skills;
- To determine the pressures and barriers facing farmers;
- To determine what are the predominant research techniques and the subsequent methods of data analysis;
- To consider what policy implications if any are considered in the literature.

As stated above, this literature review represents the first step in defining the concepts of entrepreneurship and entrepreneurial skills. In the lifetime of the project, more relevant work about farm entrepreneurship will be published; the literature review as a consequence will be subject to further iteration.

At the conclusion of the project a final literature review will be produced.

1.3 Research Methodology

Conroy and Dusansky (1995) suggest that there are three problems in designing a literature search:

- the selection of journals on which to base the analysis;
- the choice of unit of analysis and
- the kind of information which is recorded in standard bibliographic databases.

The major challenge however is to organise a coherent and meaningful literature search over diverse countries, as such an attempt provides cultural and definitional problems.

To solve the latter problems the generic template after McElwee and Atherton (2005) was used. This analytical framework contains four sections 'Topic Area', 'Policy Implications', 'Research Philosophy' and 'Key Words' and follows therefore the above mentioned objectives of the literature review.

Topic areas to be looked for were deduced from several relevant publications. Key words used in the publications have been matched to the topic area in order to develop a more detailed understanding of key themes. Policy implications were described depending on government level (regional/local) and the research philosophy was differentiated in objective and subjective perspectives.

1.4 Structure of the report

The next section will describe in detail the methodology used for this literature review. The following section will contain the results of a number of key research themes, which our overview of the literature suggests. For each theme, the review identifies: i) the key research undertaken, ii) the conceptual or methodological issues that require further research work, as well as iii) the topics that appear to have been neglected in the research hitherto. The last section contains conclusions in respect to the aforementioned objectives and in respect to the limits of the research.

Throughout the review itself we will make suggestions, identified in boxes, concerning possible areas for future research. We will summarise these proposals in Appendix 2. We include these proposals because there appear to be significant gaps in both the literature and the research that has been undertaken in the areas of farm entrepreneurship; such proposals may stimulate further scholarship in this under researched area.

2 Methodology

2.1 Introduction

In this section we explicitly define what the core problem that this literature review addresses and the methodological approach taken is described. As has been noted, little empirical analysis has been undertaken of the content of publications on farm entrepreneurship and farmers skills, in terms of analysis of dominant research paradigms utilised and the specific focus of the literature.

Conroy and Dusansky (1995) suggest that there are three problems in designing a literature search: the first problem is the selection of journals on which to base the analysis; the second is the choice of unit of analysis; and the third is the kind of information which is recorded in standard bibliographic databases. In this study journals were selected on the basis of academic subject area, including but not exclusively:

- Business and Management
- Entrepreneurship
- Rural Studies and Geography
- Economics
- Farm Management

We also reviewed books and a limited number of government publications. Publications in languages other than English, were translated by the reviewers.

To this end the paper should be regarded as a qualitative examination of the changing foci of interest in farm entrepreneurship and farm skills within a number of publications, rather than as representative of the full body of literature. We did not for example, review the literature published in Tourism.

A further challenge consists in comparing the farm entrepreneurship literature over diverse countries as this provides both cultural and definitional problems. To resolve this challenge a generic template was used because it was deemed to have been

successful in an earlier study of entrepreneurship publications adopted by McElwee and Atherton (2005).

Over a period of 6 months, all partners in the consortium were asked to participate in collation and review of publications in order to contribute to this review. Each partner was asked to adopt the same framework, and hence any potential problems over uniformity and differences in approach were avoided.

The examination of themes and publications focused on a total of 128 papers, 71 of which were specifically concerned with rural entrepreneurship. However, only 34 were specifically directed to wards the farmer. The literature searches were made of work published in Dutch, English, Finnish, German, Italian, and Polish. We did not search under the specific term of ‘farm diversification’ although not surprisingly a number of papers specifically focussed on this issue. We recognise that a literature search of this nature is not exhaustive and that it will be subject to ongoing iteration. The categories that have been used to assess the published papers are outlined in Table 1 overleaf, followed by a broad explanation of this categorisation framework and the criteria that underpin and inform its development.

2.2 The Analytical Framework

This section provides definitions and descriptions in order to further understand the nature of the analytical framework, which forms the basis of this review.

Table 1: Categories for Published papers/Analytical Framework

TOPIC AREA	POLICY IMPLICATIONS	RESEARCH PHILOSOPHY	KEY WORDS
<ul style="list-style-type: none"> • Rural Entrepreneurship • Diversification and Barriers to Diversification • Strategic Capabilities/ Awareness of Farmers • Entrepreneurial Skills • Entrepreneurial Opportunity • Finance for Farm Entrepreneurs • Typologies of Farm Entrepreneurs • Agricultural Entrepreneurship • Entrepreneurial Strategy 	<ul style="list-style-type: none"> • Regional/local government • Management competency development • Local economic/ community development • Sustainable entrepreneurial organisations 	<ul style="list-style-type: none"> • Subjective • Objective • Theoretical 	

The analytical framework in Table 1 (above) was used for the following reasons:

- To determine whether the research areas of the published articles corresponded with extant research areas within the discipline of entrepreneurship or indicated new areas of research;
- To provide a simple model for categorising the research paradigms used;
- To determine if there is a predilection of authors' to engage with the policy implications of their work.

2.2.1 Topic Areas

The choice of topic areas is based on Westhead and Wright's (2002) categorisation of the most common publication areas in the Entrepreneurship literature. An additional topic area, which appears to be generating some interest, is that of Entrepreneurial Strategy, i.e. the extent to which farm entrepreneurs/entrepreneurial organisations engage in the strategy process. The choice of topic areas was further expanded following the segmentation framework originally developed by Atherton and Lyon (2001) which examined the small business sector and which was subsequently adopted by McElwee and Atherton (2005). The literature search attempted to discover to what extent, if at all, any of these topics were covered in the literature.

2.2.2 Policy Implications

Given the aims of the research project it is not surprising that the last category 'Policy Implications' is seen to be important for this study. This category enables us to identify not only what emergent trends exist in the literature but the extent to which researchers who publish in the area of farm entrepreneurship and skills are able to focus on policy. It is also regarded as an important issue because it enables us to begin to determine the extent to which authors are aware of the practical outcomes of their work and its effects on not only policy but the reality of farmers. As will be seen entrepreneurship is fundamental to regional development, however, discussion of policy initiatives in terms of farm entrepreneurship appears to be much more fragmented.

2.2.3 Research Philosophy

Classifying methodological techniques is complex and demands the development and application of rigorous analytical methods (Grant and Perren, 2002). Following Burrell and Morgan (1979) we chose to differentiate between methodologies that emphasise deductive or inductive approaches. This can be shown as a dichotomy between objective perspectives and subjective perspectives. Researchers utilising an objective perspective view the social world as 'if it were a hard, external, objective reality' (Burrell and Morgan, 1979.3) and tend to search for universal laws to explain this reality. Researchers utilising a subjective perspective are concerned 'with an understanding of the way in which the individual creates, modifies and interprets the world' (Burrell and Morgan *ibid*) and are interested in individual explanations of their unique experiences. A theoretical perspective is one that primarily relies on an analysis of literature to propose new theoretical or meta-theoretical positions.

2.2.4 Key Words

In addition, the key words used in each paper are related to the topic areas, and their incidence, i.e. the number of times used in the abstract. The incidence of key words has been matched to the topic area in order to develop a more detailed understanding of key themes.

3 Results

3.1 Topic Areas

3.1.1 Farmers as Entrepreneurs

This section will develop our understanding of, and make connexions between farmers and the concept of entrepreneurialism. We will provide a context and offer a number of perspectives of the concepts of farm diversification and entrepreneurship.

3.1.2 Changing Perspectives on Farm Entrepreneurship

Here we will provide a context and offer a number of perspectives of the concepts of farm diversification and entrepreneurship

As we have seen the role of the farmer in Europe is changing. Farmers are becoming more entrepreneurial and developing new skills and functional capabilities in order to be competitive. In one of the countries of this study, Poland, entrepreneurship is a relatively recent phenomenon. Entrepreneurship has very different meaning in terms of the collaboration between farmers as producer organisations. Within the planned economy years farmers were members of soviet type producer organisations. Poland was the only country within the former Soviet Block with the majority of privately owned agricultural land. This situation still has an influence on cooperation and makes the organisation of farmers much more difficult than in other countries because, according to a number of Polish authors (Duczkowska-Małysz, 1993; Gutkowska and Capiga, 2001) farmers have only recently developed an entrepreneurial spirit.

The emergence of the free market economy has resulted in the development of a new spirit of enterprise and responsibility for running their own businesses. In these studies farmers believe that being independent will make them more adoptive to the market.

For Duczkowska-Małysz (1993) farm entrepreneurship equates to all the activities, which help farmers to adjust to a free market economy. According to Firlej K. (2001)

the development of entrepreneurship means also a change of quality of management in the process of farming. The necessary condition for risk reduction in activities other than farming in rural areas necessitates the organisation and support of local community government. For Žmija (2001) entrepreneurial development in rural areas has been connected with a progressive modernization of agriculture and is connected with multifunctional rural development. The aims of entrepreneurial development in agribusiness are modernization and reconstruction of fragmented agriculture, building an agriculture environment and creating new jobs in rural areas.

Warren describes the 'new' functions which farmers have to engage in to be successful. He suggests that

'there is pressure for farmers to become more all-round entrepreneurs, diversifying away from the production of crops and livestock as raw commodities for transformation further up the supply chain. Examples might include the production of speciality food products for niche markets; the provision of services (for instance haulage or fieldwork) to other farmers and rural businesses; the use of agricultural assets (the farmhouse, the farm animals) to attract paying visitors); and the employment of the farmer and/or members of the farm household in other occupations such as teaching or consultancy' (2004.372)

Effective diversification does not specifically depend on the farms external environment and the threats and opportunities which that environment offers; to diversify farmers need to be externally aware and have the capability and capacity to diversify. Diversification should improve the economic viability of the farm businesses and reduce dependence on the production of primary subsidized agricultural commodities. The latest figures produced by the Centre for Rural Research located at the University of Exeter UK (2003) indicate that nearly 60% of all agricultural holdings in the UK have at least one form of diversified activity. From these figures, it might be concluded that entrepreneurial activity is common within the sector; however, at this stage of the research this conclusion may well be premature.

Farm diversification is not a new phenomenon, however. Such 'pluriactivity' has always been a feature of the farm sector (Hill, 1982; McInerney *et al.*, 1989). A

number of mainly economic studies were carried out as far back as 1952 (Heady) and later Greve et al. (1960) and Johnson (1967). The focus on farm diversification from a management and entrepreneurship perspective are relatively recent. This apparent focus on entrepreneurship may suggest that in the terms of the discourse of multi-functionality of the farm, activities that perhaps were once conceptualised as 'farming' are now perceived as diversification. The question to be asked is entrepreneurship synonymous with diversification. The next section discusses this phenomenon.

The importance of small and medium enterprises (SMEs) to the economies of all member states of the EU, in terms of employment is now widely accepted. The encouragement of entrepreneurial activity generally as a driver for economic growth receives equal recognition, although the language has altered in emphasis as the nature of the wider business environment has changed. The recent European Commissions' Green Paper on Entrepreneurship in Europe states that 'Europe needs to foster entrepreneurial drive more effectively' (2003.2). Furthermore,

'The challenge for the European Union is to identify the key factors for building a climate in which entrepreneurial initiative and business activities can thrive. Policy measures should seek to boost the Union's levels of entrepreneurship, adopting the most appropriate approach for producing more entrepreneurs and for getting more firms to grow.' (ibid.10)

3.1.3 Definitions of farm entrepreneurship

This section of the report provides an overview of research undertaken on the characteristics of the entrepreneurial activity of farmers.

The problem of definition is not confined to entrepreneurship for there are also issues of conceptualisation when terms such as 'farm' or 'the farm' are used. Furthermore, argue, Beedell and Rehman (2000) to understand the phenomenon necessitates understanding farmer's attitudes and motivation in an environmental/conservation awareness context.

For McElwee (2004) farmers are defined as those occupied on a part or full time basis employed on a range of activities, which are primarily dependent on the farm and agriculture in the practice of cultivating the soil, growing crops and raising livestock as the main source of income.

For Dollinger (2003) entrepreneurship is the creation of an innovative economic organization (or network of organizations) for the purpose of gain or growth under conditions of risk and uncertainty. This definition however assumes that all farmers are engaged in the farm business for financial gain or growth.

In this review we subscribe to Gray's definition of entrepreneur, which we think most appropriate and relevant to the farm sector.

'...individuals who manage a business with the intention of expanding that business and with the leadership and managerial capabilities for achieving their goals' (2002.61)

What is clear is that whilst many small business owners perceive themselves as entrepreneurs, running a small business and being an entrepreneur is not the same thing. For Corman and Lussier (1996) the ability to operate an organization requires different skills and abilities than those required for being an entrepreneur. For example, successful long-term operation of a business requires managerial skills, while being an entrepreneur requires innovative skills.

A further definition used in the EU Green paper is as follows:

'Entrepreneurship is the mindset and process to create and develop economic activity by blending risk-taking, creativity and/or innovation with sound management, within a new or an existing organization' (ibid.7).

For de Lauwere, Verhaar, and Drost (2002) the definition of entrepreneurship in agriculture has changed during over the years. In the past being a good entrepreneur was being a good craftsman, whilst striving for a high level of production and product quality and making efficient use of inputs (labour, nutrients,

crop protection and energy). The focus on craftsmanship to be cost efficient needs now to be combined with the challenge for sustainable production through finding a balance between People, Planet and Profit. According to Smit, (2004), entrepreneurship has become probably the most important aspect of farming and will increasingly continue to be so.

For Corman and Lussier (1996) the importance of adopting community, ethical and social responsibilities as a way of doing business is becoming increasingly necessary to the success of the farm business.

Bryant (1989) discusses the role and importance of farm and non-farm entrepreneurs in the rural environment. He suggests that the notion of entrepreneur is freely applied within the agricultural sector and the entrepreneurs themselves are argued to be key decision-makers in the political, social and economical environment. Rural entrepreneurial activity is considered challenging due to environmental constraints, but for Bryant, should be supported.

This theme is continued by Meccheri and Pelloni (2003). Fostering entrepreneurship and the creation and support of rural businesses is a crucial goal for the survival and integrated development of rural local economies. However, despite the recognition that entrepreneurship is one of the primary facets through which rural economic development can be achieved, empirical research on rural entrepreneurship in Italy is relatively sparse and this concept remains largely unknown as well as the role and the function of rural entrepreneurs, the driving force behind birth, survival and growth of rural enterprises. Their study into rural entrepreneurship in a mountainous area of central Italy, aims to provide a contribution in this direction presenting and analysing results from a questionnaire submitted to a sample of 123 rural businesses and entrepreneurs. This research emphasise the correlation between entrepreneurial human capital and business's use of instruments of assistance and on their role in stimulating entrepreneurship.

Many of the attempts to construct sustainable rural livelihoods involve a shift away from agriculture's traditional 'core' activities by means of a diversification with new on-

farm activities or 'conversion' to quality modes of production. This raises the question of how we should conceptualise the role of those enterprises that fall into the vast category of 'main-stream' farms within the process of rural development (van der Ploeg 2000).

From the above definitions it might be argued that farmers are not entrepreneurial and that they cannot be neatly compared to business in other sectors, for two main reasons, both of which need to be the subject of further extensive research. First of all many farmers have not had a history of entrepreneurial activity having occupied an economic stratum, which has hitherto not necessitated competitive activity. Some sectors of the farming industry are of course competitive exhibiting inter-firm rivalry, however it might be suggested that producers are often unable to influence prices, therefore they do not exist in a state of true competition. Secondly, it might be regarded as unlikely, certainly in the case of small farms, to have the leadership and managerial capability formalised through structured employment hierarchies.

3.1.4 Successful farm entrepreneurship

A key question for the research process, of which this literature review is an integral part, is how is success defined. This section considers some of the research, which has been carried out in this area.

Schiebel (2002) showed that successful entrepreneurs differ in terms of three personality traits (success factors):

- Locus of control of reinforcement (belief in the ability to control events);
- Problem-solving abilities Social initiative (the construct is a measure of the socialisation process and acts as a second estimate of control of reinforcement);
- Social initiative is expressed through a person's dominance, liveliness, social boldness, and abstractedness. This empirical assessment of the social initiative with a representative sample of male and female farmers in Austria (881 respondents) showed: a very low degree of social boldness and that liveliness increases with age. Female farmers were shown to have a higher degree of dominance than their male equivalents.

However, this position of management and business capability and the extent to which farmers are entrepreneurial is contested namely by Carter (1998), Carter and Rosa (1998), McNally (2001) and Borsch and Forsman (2001) who suggest that the methods used to analyse business entrepreneurs in other sectors can be applied to farmers. In essence for Carter (1998) farmers have traditionally been entrepreneurial. Indeed Carter and Rosa argue that farmers are primarily business owner managers and that farms can be characterised as businesses. Carter draws parallels between portfolio entrepreneurship in non-farm (business) sectors and farm pluriactivity. She suggests that farmers have multiple business interests and these (whilst counted alongside the central farm aspect) offer a lot to employment creation and rural economic development. Eikeland and Lie (1999) argue that pluriactive farmers are entrepreneurial, but as Alsos *et al.* (2003) acknowledge 'there is still a paucity of knowledge about which factors trigger the start-up of entrepreneurial activities among farmers'.

We now include the first of a series of research proposals.

Research Proposal 1

To examine the leadership, managerial capability and personalities of farmers.

For de Lauwere *et al.* (2002) it is possible to distinguish five groups of farmers:

- Economical entrepreneurs: the overpowering aim for them is trying to keep monetary costs as low as possible;
- Socially responsible entrepreneurs: they have a high score on social orientation and show interest for new company branches, nature and landscape management, organic agriculture or horticulture, etc., without really striving to be a large company;
- Traditional growers: these entrepreneurs show a high score on growth orientation. They strive for the highest possible production against the lowest possible costs;
- New growers: agricultural entrepreneurs who want to be large company in an unorthodox company structure with interest for renewals;
- Doubting entrepreneurs: these entrepreneurs are uncertain, and have a strategy of 'wait and see'.

A further taxonomy of generic types of entrepreneurs in the farm sector is proposed by Knudson *et al.* (2004) which examines farmers entrepreneurial skill set. However they acknowledge that additional research is needed to determine what capabilities entrepreneurs need to develop, and what training is necessary to be successful in their businesses. Where the entrepreneur is situated within the taxonomy will determine the capabilities which the entrepreneur possesses and the training which the entrepreneur needs. This article also makes recommendations for the role of entrepreneurship in agricultural markets, education of entrepreneurs, and recommendations for further research or a topic that has been neglected. However, Knudson *et al.* (ibid.1330) are only able to produce a taxonomy on generic skills of entrepreneurs using the entrepreneurship literature rather than those skills and competences necessary for farmers and do not adopt a working definition of the farmer entrepreneur.

Research Proposal 2

To determine the capabilities that farm entrepreneurs need to develop, and what training is necessary for their undertaking

Kallio and Kola (1999) in a study of farmers in Finland attempted to determine what factors gave farmers competitive advantage over other farmers. Their results suggested that characteristics of a successful farm and farmer can be roughly divided into seven groups:

- Profitable production seemed to be associated with continuous follow-up of production, incomes and expenditures;
- Constant development of cognitive and professional skills;
- Farmers seemed to benefit from such an attitude which indicates that they are ready to work hard and believe in what they are doing;
- Goal-oriented operation, i.e., the ability to set goals, to reach them and to set new ones;
- Utilization of recent information that is relevant for own circumstances and needs;

- Favourable starting points for the enterprise, meaning good condition of machinery, buildings, land or proper proportion between pricing of the farm and investments in production;
- Utilization of cooperation.

This issue of entrepreneurial identity was explored further in a large quantitative study of over 2000 farm businesses by Vesala and Peura (2002). The authors compared groups on-farm business diversifiers, conventional farmers and non-farm rural entrepreneurs along nine dimensions of entrepreneurial identity, and revealed that only two dimensions – economic utility and own independence – did not differentiate the groups from each other, i.e. these values were equally important for all of them. Major findings concerning the group of Finnish business diversifiers imply that they seem to have quite a strong entrepreneurial identity: they see themselves as growth oriented, prone to risk taking, innovative and have faith in the success of their enterprise. However, on two dimensions the business diversifiers have a weaker entrepreneurial identity than the non-farm entrepreneurs: they do not categorize themselves as entrepreneurs nor do they have such a strong sense of personal control as the non-farm entrepreneurs.

In answer to the question concerning the factors that influence entrepreneurial identity seems to be that, personal factors explained variation in entrepreneurial identity the least and the enterprise related factors the most. The business diversifiers' stronger entrepreneurial identity compared to conventional farmers was explained the most by their better competitiveness, bigger enterprise size and more active customer relationships. The more active customer relationships seem also to contribute to the fact that the non-farm entrepreneurs manifest the strongest entrepreneurial identity.

Riepponen's (1995) study of 50 rural entrepreneurs from the province of Mikkeli in South-East Finland, who were active in food processing, wood processing or in tourist industry attempted to explore factors that influence the start-up and success of rural enterprises. The data was divided into successful and non-successful entrepreneurs based on researchers' and entrepreneurs' own subjective evaluations

and the income derived from the business. The reasons to start a business distinguished the successful entrepreneurs from the non-successful ones: successful ones were motivated by market-related factors (e.g., demand, favourable location, recognition of a market niche) and non-successful ones were motivated by income-related factors (e. g. unemployment, need for compensating income, factors related to health). Thus, the successful ones seemed to benefit from favourable external circumstances related to the demand of products, whereas the non-successful ones seemed to have started the business, more or less, because of external pressures.

The successful ones had typically invented the business idea themselves and had also elaborated the idea for a lengthy time, whereas the non-successful ones had typically received the business idea from others and devoted shorter times for its elaboration.

This allows us to consider furthermore potential areas for research based on gaps in the literature:

Research Proposal 3

Can and should farmers be classified as entrepreneurs and secondly how should the businesses be categorised?

Alsos *et al.* (2003) attempt to use models from other disciplines to explain the phenomena of the 'entrepreneurial farmer'. Their unit of analysis was the farm household. They used 16 case studies of farmers who had started businesses in addition to the main farm business and thus were not categorised as traditional farm activities. Their analysis revealed ideal types of farm entrepreneurs which were classified as: i) pluriactive entrepreneurs, ii) resource based entrepreneurs, and iii) portfolio entrepreneurs. Alsos' 'ideal types' are to a lesser or greater extent dependent on the farm for their financial security.

Schiebel (2002) is another author who attempts to use personality traits and characteristics to provide a definition of rural entrepreneurs using labels which could be just as conveniently applied within other sectors. In his empirical assessment of

the entrepreneurial personality with a representative sample of male and female farmers in Austria (881 respondents) he showed, that approximately 10% of the sample have a combination of personality traits that corresponded to those required for entrepreneurial activity. He defines six 'Ideal Types' of personality. Hanf and Muller (1997) also consider personality/character traits, and painting a picture of an agricultural entrepreneur who has i) cognitive capacities that are more limited than would be necessary to be able to solve all identified problems (contrary to the theory of homo oeconomicus), ii) is aware of this restriction and iii) has a tendency to maximise his benefit (according to the theory of homo oeconomicus) and is responsible for management and operational tasks on his farm at the same time.

These attempts to match personality traits to entrepreneurial activity have been open to criticism and alternative interpretations e. g. (Vesala and Peura, 2002; Peura, *et al.*, 2002) suggest that to understand farmers as entrepreneurs we need to ask them how they perceive themselves i.e do farmers see themselves as being entrepreneurs.

So far this review suggests that the role of entrepreneurship has been given relatively little emphasis in either agricultural or business literature. Those who have attempted to engage with this question (Vesala and Peura for example), recognise that it should be regarded 'as a priority with policy makers and is a critical aspect of value-added agriculture.' However, we also recognise that there appears to be a growing interest in the area, albeit in a fragmented fashion. In the next section we will look at the issue of farmers entrepreneurial skills.

3.1.5 Entrepreneurial Skills

Hanf and Muller (1997) suggest that in a dynamic environment with fast technical progress, open-minded farm entrepreneurs will recognise more problems, as they are able to solve in a rational way. Therefore, an agricultural entrepreneur has to recognise problems and work with them until decision-making is possible, create and maintain his personal cognitive requirements for problem solving and decision-making and allocate limited time to management and operational tasks as well as to problems and decision-making.

Schelske and Seidl (2002) in a Swiss study identify four success factors for rural development initiatives: regional production capabilities; entrepreneurial initiative; the existence of a niche market for the developed products and finally support of regional organisations for the project. Therefore, for Schelske and Seidl (2002) a key determinant of entrepreneurial success is that a strong relationship between farmers, manufacturers, and consumers within the region is necessary.

According to Vesala (1996) in the study of entrepreneurship the values of economic individualism have been assumed as more or less self-evident in understanding the role of the entrepreneur. In economic theories of entrepreneurship three dimensions - risk-taking, growth orientation and innovativeness - are prominent.

1. Risk-taking dimension

The assumption is that an entrepreneur takes calculated economic risk, but also maximises profit by bearing the state of uncertainty caused by the possibility of failure.

2. Growth orientation dimension

The aim of maximizing the profit by expansion of business activities and growing the firm. The assumption is that entrepreneurs are not satisfied with simply earning their own living, but are expected to aim for growth.

3. Innovativeness dimension

The searching, developing and trying new products, markets, methods and so forth. Implicit in all of these dimensions is an expectation that a 'proper' entrepreneur is engaged in active, dynamic and competitive economic striving, in a continuing pursuit of opportunity (Stanworth and Curran 1973; Carland *et al.* 1984; Stevenson and Jarillo 1991; Vesala 1996).

The emphasis on the demand for active striving, and success in it, is evident also in the psychological literature on entrepreneurship (see Brockhaus and Horwitz 1986; Wärneryd 1988; Stevenson and Jarillo 1991). A number of models can be consid-

ered. Personal control is the central idea in the concept of locus of control, coming from Rotter's social learning theory (1966). When applied to the study of entrepreneurship this theory asserts that belief in internal control is characteristic of entrepreneurs. Essential in the psychological orientation proposed by this concept is the entrepreneur's belief in his/her ability to personally affect or control the conditions and the outcomes of his/her pursuit. Secondly, borrowing from the social learning theory of Bandura (1986), the concept of self-efficacy has been suggested to be relevant in describing the role of entrepreneur. Self-efficacy refers to a person's belief in his/her capability of performing those actions and activities that are needed for achieving the desired outcomes and goals (Boyd and Vozikis 1994).

Peura *et al.* (2002) in their study asked respondents whether they were comfortable with the label 'entrepreneur'. This quantitative study utilized samples of non-agricultural rural entrepreneurs, farmers with other business activities and conventional farmers in order to compare, how these actors in different positions differ in their entrepreneurial self-definitions (i.e., identities).

The results suggested a consistent difference in entrepreneurial identity between farmers and non-agricultural entrepreneurs, the farmers' identity being weaker. Clearly the social, cultural and political context shapes how farmers explain their business strategies. Compared to non-agricultural and diversified entrepreneurs, conventional farmers define themselves as lacking central entrepreneurial characteristics, such as innovativeness, growth orientation, risk taking and sense of personal control. However, farmers with other business activities seemed to have stronger entrepreneurial identity than conventional farmers, even though not reaching the level of non-agricultural entrepreneurs.

3.1.6 Opportunity recognition/exploitation in Entrepreneurship

Man *et al.*, (2002) categorized entrepreneurial competences in six key areas of related competences. The key clusters are opportunity, relationship, conceptual, organizing, and strategic and commitment competences. In the literature on competence profiles of entrepreneurs and managers, several competences that meet the outlined criteria and fit in one these six clusters can be recognized (Erkkilä, 2000;

Hoekstra and Van Sluijs, 1999, Van den Tillaart, 1987, Man *et al.*, 2002; Onstenk, 2003; Mulder, 2001; McClelland, 1987). Opportunity competences can be described as competences related to recognizing and developing market opportunities through various means. Underlying competences of opportunity mentioned in literature (based on Erkkilä, 2000; Hoekstra and Van Sluijs, 1999, Van den Tillaart, 1987, Man *et al.*, 2002; Onstenk, 2003; Mulder, 2001; McClelland, 1987) are general awareness, international orientation and market orientation.

In a recent review on entrepreneurship research Busenitz *et al.*, (2003) conclude that research at the boundary of constructs of individuals, opportunities, modes of organizing and the environment will present important areas for entrepreneurship research. Others argue that the domain of discovering and pursuing opportunities is one of the most promising candidates for a new framework of entrepreneurial competences. Moreover, most research on entrepreneurship investigates the entrepreneurial progress after opportunities have been discovered, and do not include the learning process that underlies this process (Shane, 2000). This leads us to propose two further research proposals.

Research Proposal 4

Examine the concept of opportunity clusters for farmers and 'collective entrepreneurship.

Research Proposal 5

Explore the issue of competence and competence development in the process of discovery and exploitation of entrepreneurial opportunities to examine how farmers as entrepreneurs learn, where they learn most from, whether the competences are shaped by the situation or that the situation 'enacted' these competences and how the learning of entrepreneurs can be stimulated and optimised in order to respond adequately to the changing environment.

The environment in which agricultural entrepreneurs operate is constantly changing and developing, as farmers adapt to the vagaries of the market, changing consumer habits, enhanced environmental regulations and so on. Running an enterprise successfully in this dynamic setting requires substantial tangible resources, such as physical or financial capital. Besides material assets, the success of the enterprise is also dependant on the more intangible resources embedded in the enterprise, such as entrepreneurial capital. It is recognised that in markets characterized by dynamic change some entrepreneurs become alert and develop knowledge, making (deliberate) information investments that others do not (Busenitz *et al.*, 2004).

de Lauweres study (ibid) of weaknesses in entrepreneurship selected seven critical success factors: management and strategic planning, ecosystem, staff, chain perspective, craftsmanship, search and learning behaviour and personal characteristics. It appears to be difficult to change the attitude of an entrepreneur towards taking risks. Their attitude stipulates to what extent an individual is risk avoidant, risk searching or risk accepting. At the most it is possible to change the risk perception of an entrepreneur by removing or reducing real dangers to decrease the uncertainty. de Lauwere goes on to suggest that the individuality of the entrepreneur can influence its entrepreneurship showed that it is possible to distinguish two groups labelled: 'traditional growers' 'new growers'.

For de Lauwere, a common starting point of business planning should be strategic-planning formulation which should clearly be an important function for farmers. To this we now turn.

3.1.7 Management Skills

We use the term management skills because in essence, the subject under investigation is the management skill of the farmer. Thus management skills are the complete package of skills that a farmer would use in order to develop the farm business.

For de Lauwere, the scope of management and strategic planning is based on a score of fourteen factors: objectives, purpose driven, business planning, sale increases, formulation of policy, information about management, time strategy, measuring of performances, social orientation, growth orientation, certificates, aims for certificates, financially conservative and concerns about the future.

Surprisingly the average score on management and strategic planning of the interviewed entrepreneurs from various sectors was low. The factor management and strategic planning turned out to have a positive relation with the other critical success factors. So a higher score on management and strategic planning means also a higher score on the other critical success factors. The results revealed that entrepreneurs spent relatively little time on tactically and strategic management. Medium and long term planning concerns aspects, which are important for the entrepreneurship in general (vision and strategy shaping). In follow-up studies Vermeulen and van der Lans (2002) found that entrepreneurs should pay more attention to strategic planning.

In an interesting Polish study of farmers' skills, Duczkowska-Malysz (1993) found that the entrepreneurial skills of farmers are mostly depending on their spouses' preferences. The more open to change are the spouses the more willing are the farmers themselves to take risk.

3.1.8 Diversification

In this section we consider the importance to farmers of business strategies such as farm diversification, pluriactivity and specialisation.

In an earlier study of farm diversification in the North of England, diversification was defined as:

‘a strategically systemic planned movement away from core activities of the business, as a consequence of external pressures, in an effort to remain in and grow the business’ McElwee (2004)

Note that this definition is not an attempt to exclude activities such as on-farm diversification but it does exclude off-farm work or employment. Meert *et al.* (2005) have recently provided a robust analysis of this type of activity.

With 60% of holdings in the UK engaged in diversification this definition might need refinement as the research progresses, because the change of activity may not be a strategically planned activity.

Research Proposal 6

Are those farmers who do not have an association with the farm enterprise and whose activities are outside of the sector any longer farmers? In this respect we may wish to consider the diversification as the new business.

Paradoxically, the Centre for Rural Research study (ibid) suggested that tenanted farms are *more* likely to diversify than wholly owned farms. Thus the suggestion is that tenant farmers in the UK as a whole are more likely to engage in diversification activities than those farmers who own their own farms/land. Our long terms aims are to 1) determine how predominant this phenomena is replicated across the study countries and 2) to discover if only specific types of diversification activities are open to exploitation. In other words we will seek to determine what personal and business characteristics create diversification opportunity. This was the focus of a Greek study, by Damianos and Skuras (1996) that examined farm diversification through

'adopting a business typology and looking at various paths of development'. It breaks down the characteristics of the farm and employees and argues these factors determine to an extent, the development of the farm business.

Padel (2001) examined how farmers convert into organic farming from more conventional approaches and views this as an innovative process undertaken by farmers with similar characteristics.

Pugliese (2001) shows how convergence between organic farming and processes of rural development has been progressively acknowledged and organic practices and practitioners have been effectively involved in various rural development projects in Italy. Nevertheless, organic farming's potential contribution to rural development processes has not been explored extensively in the specialized literature. Pugliese illustrates the synergies which exist between organic farming and sustainable rural development. The work identifies four main points of communality between organic farming and sustainable rural development: innovation, conservation, participation and integration. All of them, argues Pugliese, are critical aspects in current strategies for sustainable rural development, and, at the same time, key features of modern organic farming ideology and practices within a EU context.

Chaplin *et al.*, (2004) analysed and identified non-agricultural farm diversification undertaken across three central European countries. The outcomes of their research showed that levels are relatively small and new jobs provision from diversified enterprises is low suggesting that there would be difficulties transposing the model into Western Europe. This position is largely substantiated by the Polish literature.

The Dutch agricultural experience is characterised by decreasing prices and tightened up requirements to quality, food safety and environment. For this reason, it becomes more and more difficult for entrepreneurs to obtain their income exclusively from primary production. The Dutch government considers Dutch agriculture no longer only as a food producer, but more and more as a producer of services. The perception of the government is that diversification in agrarian entrepreneurship should be stimulated, because of the contribution to the vitality of

the agrarian sector and the rural area. In different regions in the Netherlands, agrarian entrepreneurs undertake non-agricultural activities within their existing business.

For Poot *et al.*, (2005) the reason for this is to increase the income of farmers and to develop the quality of the customer/producer relationship. Care, agrarian nature conservation, education, house sale, recreation and tourism, and energy are examples of non-agricultural activities, which can be found in more and more agrarian companies. The diversification of agriculture in the sector, and particularly in terms of policy, is regarded as a necessary development direction for the agriculture in the Netherlands. The outcomes of research into farm entrepreneurs, who have diversified, show that these entrepreneurs score high on risk attitude. These entrepreneurs call themselves pioneers, because they carry out an activity that is relatively new for the sector and can take a certain risk for that reason. Poot argues that the entrepreneurs can also be characterized as curious and orientated on society: citizens are their direct target group and that is why these companies want to be accessible for them.

We want to add a cautionary note at this point. The above arguments suggest that diversification is the normative strategy. However, it may well be the case that for some farmers, it is high specialisation, which may be the most appropriate strategy to ensure business success and survival of the farm business.

For example, according to Rantamäki-Lahtinen (2002) in a survey of all Finnish farms showed that Agriculture and forestry have traditionally been the most important sources of income in Finnish rural areas. Up until the late 1980's Finnish farms were quite diversified in agriculture (dairy, pigs, poultry etc.). However, increasing specialisation has occurred although most farms are pluriactive in the sense that they have forestry activities as well. Currently, most farms typically have one of the most important lines of production, e.g., dairy or crop production and then have additional supporting activities.

Earlier Finnish studies have shown that specialisation increases as farm size grows (Pyykkönen 1996). The number of farms has decreased steadily and the number of people employed in agriculture has fallen – on the other hand productivity has increased and the farms are bigger. However, relatively large portions of Finnish farms are pluriactive, i.e. they have diversified their activities outside of agriculture.

A number of conclusions can be generated each of which can be considered as potential areas for further work.

From the firm's perspective neo-classical economic theory has been influential: specialised firms are seen as more efficient – they can easier achieve economics of scale.

This has been supported by Flaminia and Pierluigi (2000) whose research points to the increasingly important phenomenon of on-farm butcher shops that have become predominant in the Central Italian region of Umbria, Italy. Theoretically, farm butcheries are analysed as multi-product farms that vertically integrate the primary production, processing and retailing of (mainly) beef and that considerably reduce the cost of each unit produced by jointly producing two or more interrelated goods or services. The practical value of farm butcheries lies in the preservation and valorization of the local Chianina cattle breed and of local resources in general, including social capital and landscape. Farm butcheries contribute to an endogenous type of rural development with major macro-economic returns and the case exemplifies the central position of the multifunctional farm in the renewal of the European countryside. The economic success of farm butcheries is explained in terms of the reduction of economic transaction costs and the achievement of economies of scope. The main conclusion of the paper is that the specificity of assets results in substantial competitive advantages for the organizational form of the multi-product farm in processes of rural development. Similar studies have been carried out in the Cheese Industry, de Roest, K., and Menghi, A. (2000) and in the Wine industry Brunori and Rossi (2000).

Diversification is regarded as a way for small firms to reduce risk of being too dependent on one product. Other reasons to diversify may be to try to fully satisfy their customers' needs to use spare resources, to obtain synergies from products, markets or technology.

Pluriactivity is regarded as a mechanism to achieve growth through a portfolio of businesses if individual firm growth is restricted due to sectoral reasons (e.g., Carter 1998). On the other hand pluriactivity can diversify entrepreneur's resources too much and become unprofitable for the enterprise (e.g., Markides 1995).

Carter's (1998) division concerning pluriactive farms is utilized in reflection of the survey results: i) farm centred diversification activities (e.g. agricultural contracting), ii) additional business ownership on and off-farm, and iii) external businesses located on farms. Finnish pluriactive farms can be divided in the similar way, although not much is known about businesses in category iii.

Research Proposal 7

Further examination of the extent of and integration of external, 'non-farm' businesses, located on farms. What relationships exist between them and the farmer? Are they examples of farm diversification?

Carter's results suggested that in diversified farms the most common lines of main agricultural production were crop and dairy production, as is also the case in conventional farming. However, the main line of agricultural production also tended to be associated with the industry of non-agricultural activity: for dairy farms it was typical to have machinery contracting and for horticultural farms to sell the products produced on farm straight to the customers.

In Finland, for example in most lines of production diversified farms are larger than non-diversified farms, pig farms being the only exception. It appears that farms have diversified in those areas where growth through agriculture is somehow restricted, but where markets and customers are near (Rantamäki-Lahtinen 2002). This finding is in line with the conclusions in other countries. In the case of Finland diversification

as a strategy is selected more often by younger farmers yet since many Finnish pluriactive farms are very diversified (they have agriculture, forestry and three or four other activities), there seems to be a risk of over-diversifying (Rantamäki-Lahtinen, *ibid.*).

It seems that for some, diversification is indeed a way out of agriculture, but nevertheless many of the pluriactive farms are going to stay diversified in the future (one reason being that their non-agricultural activity is closely linked to agriculture). However, there is also a third, large group: farms that have diversified but are going to re-focus back on agriculture. The reasons for this phenomenon do not appear to be fully understood. Notably, the author argues that neither diversification nor specialisation alone is the best solution for Finnish problems in agriculture; they are complementary to each other – diversified farms tend to use the services and products of the specialised and vice versa (Rantamäki-Lahtinen, *ibid.*).

An initial position would be that there might well be similar constraints, pressures and barriers placed on farmers who wish to embrace a specialisation strategy as there are for those who engage in a diversification strategy.

Kupiainen *et al.* (2000) focussing on the relationships between business characteristics and performance of Finnish small rural firms, suggested that only 30% of firms had positive net-income and these firms had no particular interest to grow or create new jobs. Growth orientation was associated with the highest sales turnover, medium level profitability, computer facilities, and entrepreneur's ability to take risks; those who have a positive and also self-reflective attitude on their own competence are among the best performers. Most profitable firms were those with medium levels of turnover, meaning medium sized units in this data. The smallest firms were associated with the poorest level of profitability rates.

However, it is not the purpose of this review to make comparisons between rural small firms and farm businesses.

3.1.9 Pressures on Farmers

The purpose of this section is to highlight the pressures and barriers on farmers. All of these pressures provide a set of drivers, which necessitate change of strategic business direction e.g. diversification, specialisation or indeed other strategies such as merger.

There are particular barriers for farmers who are rethinking their business strategy in order to take advantage of new opportunities. Similarly, there are barriers to diversification for any small business. A typical study by DGII of the European Commission (1996) lists the following barriers to diversification for small businesses:

- Uncertainties about appropriate business frameworks
- Concerns over total costs, equipment and training
- Security
- Interoperability of systems
- Legal issues
- Usability for more complex transactions.

To these we could add the following standard barriers, which face any business:

- Economies of scale
- Capital requirements of entry
- Access to distribution channels
- Position on the 'experience curve'
- Retaliation of existing businesses to new entrants in a market
- Legislation

Specific potential barriers to farm diversification include the following:

- Poor management skills of farmers
- Lack of entrepreneurial spirit
- Limited access to business support
- Farm tenancy agreements
- Regulation

Barriers will differ for different farms depending on the personal and business characteristics of the individual farm and farmer.

For McElwee (2004) those farmers who participate in diversification activities tend towards reactive, rather than proactive strategies. The reasons for this need to be further explored in the main study of this EsoF project. Furthermore, many of the diversification activities appear to be instigated and managed by the female partners and constitute activities, which have traditionally been associated with the role of the female on the farm, for example running farm accommodation, or a farm shop. There is little in the way of literature, which examines entrepreneurial activity by women. One such study is Bocks (2004) examination of Dutch farmwomen's entrepreneurial activity, which stresses that women entrepreneurs follow only small-scale activity and ensure that any new activities supplement their existing work 'so that neither the family nor farm is troubled by their initiatives'. Bocks paper encourages taking a more positive attitude towards woman farmer entrepreneurs, and argues that understanding this group will help provide them with more support. McElwee argued that the economic significance of these (womens') activities to the continual success of the farm enterprise is no longer a marginal activity. The suggestion is that current farm support policy may develop entrepreneurialism in men rather than women and thus there are gaps in policy, which need to be addressed.

In Poland, Kłodziński (2001) argues that the most significant barriers to growth of the business can be found in the farmers themselves, their level of education and their readiness to cooperate etc. and not in the lack of their physical resources.

Notwithstanding these barriers, it our contention that farmers do not systematically access Business Advice networks and that they are less likely to access opportunities because of limited social networks. As a consequence there is little professional interaction with other farmers who have experience of diversification into new business ventures. Recent research by Lowe and Talbot (2000) reinforce this contention. Their research indicates that farmers first and foremost access their accountants and bank managers rather than support groups. The second most popular point of contact is government agencies and Farmers Unions. Support is

more likely to be sought from family and friend networks before public sector agencies. Poor and inconsistent advice prevents many farmers from attempting to expand their business. Farmers tend to utilise a very small group of trusted advisors and do not use social networks for financial advice. Moreover, whilst many small-scale farmers may not have the entrepreneurial skill to enable them to diversify, those that are able to employ innovative diversification tactics are constrained to a numbers of small options (either because of restrictive practice through Tenancy agreements or interventionist policies of non governmental organisations e.g. National Parks). Thus how farmers engage in the decision making process is an interesting point. As Falconer (2000) argues an understanding of farmer's decision-making, attitudes and perceptions over government run schemes and their implementation would have value for policy development. Falconer's work is placed within a monetary transactional context, exploring how the providers of support and recipients (farmers) can be more efficient.

Inheritance is not of course an indicator that the inheritor is likely to be more market orientated and entrepreneurial than in previous generations. Indeed Newby *et al.*, (1978) argue that the opposite of this may be true, as second and third generation farmers are unlikely to be as entrepreneurial because of a better standard of living. The average age of farmers is increasing however, which may be a salient factor in assessing entrepreneurial behaviour. In the UK the average age of farmers is 54. According to a recent DEFRA study (2005) 29% of land holders in the United Kingdom were aged 65 years or older in 2003, up from 25% in 2000, while the number of holders younger than 35 years old fell from 5.2% in 2000 to 3.4% in 2003. The suggestion is that older farmers are less likely to be entrepreneurial. Furthermore, little is known about the extent of clustering and networking in the farm sector and requires further exploration.

The management of the small farm enterprise is of special interest. Farms of this size may have been owned or managed within the same family for generations. Some of the respondents, in the research conducted by McElwee and Robson (2005) are part of a family tradition, which goes back at least three generations. This

ownership/management role has militated against farmers from being entrepreneurial as they have been 'locked into a way of being', and have enjoyed a relatively secure pattern of work. It is hypothesised that historically the motivators for farmers have not been overtly financial: owning a farm and being solely responsible for the health of their own endeavour has been a major determinant of personal success. Furthermore an historical vacuum of strategic planning on the part of farmers compounds the pressures of the prevalent socio-economic factors: they have not needed to so do. This relative safety has changed. The primary motivator for many farmers now is one of business and personal survival.

In the past farmers have not needed to raise capital from sources external to the family network. As Gasson (1988) has cogently argued the family is the potential source of risk capital – capital, labour and information. As a consequence this provides advantages to the farm enterprise. In more recent years the 'natural inheritance' of farms has been eroded as a consequence of farmer's children becoming more mobile, less desirous of remaining in a declining industry. Property prices in villages and rural communities have escalated precluding ownership by indigenous community members. Of course the incentive to remain in a business where the annual returns decline year on year is minimal.

Other uncertainties in the farming industry include unpredictable seasonal climates changes and invasive pest, CAP reform, and labour market changes. Community changes in the rural economy are becoming more evident as the sector does not appear to regenerate its ageing population. The lack of younger farmers entering the farm business may well have serious implications for the farm sector.

A recent study of the transition of the Dutch agrarian sector to sustainability in its social/natural and economic surroundings the barriers to diversification have been examined by Poot *et al.*, (in press). They concluded that entrepreneurs who want to diversify nearly always have to deal with obstructions, particularly from law - and legislation. An important example of a barrier to diversification is that destination plans of the local government never take into account non-agricultural activities in the

agrarian area. Another barrier to diversification is that the legislation around working conditions and food safety frequently causes problems at the combination of care and agriculture. The last important obstruction may be protests and resistance to new developments, which the entrepreneur may experience from local residents, an example being the construction of a wind farm.

Clearly, the political, social and economic environment is important. For example, Polish agriculture is characterized by a highly fragmented agrarian structure. Small-scale production has a major influence on the functioning and competitiveness of Polish farms and results in high transaction costs and problems with sales, Halicka and Rejman (2001).

Other farmers continue to run their farm business whilst taking paid employment either within the sector, usually as agricultural sub-contractors, or outside of the sector. The inevitable consequence is that the management of the farm suffers because of the reduced time spent on it, leading to negative perceptions from other actors who have a stake in the enterprise which may or may not be financial e.g. Landlords, The Ramblers Association in the UK. This contention has been developed in other business sectors. For example, Curran and Blackburn (2000) argue that despite claims that policies and support help develop a strong enterprise culture and promote economic prosperity, the precise outcomes of these policies have been difficult to determine.

Interestingly, Sikorska (2001) concluded that in Poland the entrepreneurial activities of farmers are strictly connected with the demand for their services within the other the neighbourhood localization. She suggested that this means that the closer to conurbations the more activities are undertaken. In this respect the local business environment and thus support appears to be important. For Dąbrowska (2001) services are of essential importance for socio-economic change and business development. One of the determinants of undertaking business activities in the countryside is low level and absolute pattern of services consumption.

Gasson *et al.* (1988.2) have suggested although farms in the UK have increased in size over the past fifty years many of:

- the principals are related by kinship or marriage
- business ownership is usually combined with managerial control, and
- control is passed from one generation to another within the same family

Gasson also suggests that 'better-educated farmers are known to make greater use of information, advice and training, to participate more in government schemes and be more proactive in adjusting to change and planning for the future of the business'. Higher levels of education seem to be linked to characteristics of the farmers and farm, including larger farms and more pluriactive businesses.

MAFF (2000b) suggested that the smaller units are more vulnerable to the economic changes brought about by the market (CAP) and World Trade Organisation reforms in recent years. Larger farm units, particularly those over 100 hectares, benefit from economies of scale, being better able to spread their fixed costs, and are often better equipped as far as buildings and machinery than small farms. Because of these economies they are generally less vulnerable to economic pressures and more able to meet the increasingly demanding market specifications for farm products.

The impact of the current low and negative incomes on owner equity in some sectors, and especially for tenant farmers, is potentially critical for substantial numbers of businesses and families and is leading to uncertainty within these businesses and families. It is not surprising therefore, that the opportunities for diversification are a significant issue for farmers.

As Maskell *et al.* suggest

'some geographical environments are endowed with a structure as well as a culture which seem to be well suited for dynamic and economically sound development of knowledge, while other environments can function as a barrier to entrepreneurship and change.'

(1998. p 181).

It is almost certainly the case that 'spaces' contiguous to areas of natural or historic beauty, close to the sea or within day's drive of a large city have many more diversification opportunities than those in different spaces. The geographical location of the farm, the topography and economic infrastructure of the region, the entrepreneurial propensity of small farmers all have a bearing on potential business development.

3.2 Policy Implications

We define policy implications as findings and conclusions that, as a consequence of the research undertaken, indicate:

- how regional or local governments could take action to improve or enhance entrepreneurial development;
- how management competency can be developed;
- how local economies and communities can be developed;
- how sustainable entrepreneurial organisations can be developed; or,
- how universities can develop entrepreneurial and enterprising graduates.

Harvey (2003) reconsiders the evolution of farm policies and the economic assessment of their costs and benefits, and draws conclusions as to the general shape of reforms likely to reconcile economic efficiency with political acceptability. The paper concludes with a substantial challenge to the agricultural economics profession.

According to Gnyawali and Fogel (1994) the entrepreneurial environment can be grouped into five dimensions: 1) government policies and procedures, 2) socio-economic conditions, 3) entrepreneurial and business skills, 4) financial support to businesses, and 5) non-financial support to businesses.

MacFarlane (1996) explored the relationship and interaction between the farm and the farmer and examines the related decision making process under conditions of

agricultural and rural policy change. The findings are modelled and the author argues strongly for the importance of the work for policy makers:

1. Government policies and procedures:

Government can influence the market mechanisms and make them function efficiently by removing conditions that create market imperfections and administrative rigidities.

2. Socio-economic conditions:

A favourable attitude of the society toward entrepreneurship and a widespread public support for entrepreneurial activities are both needed to motivate people to start and run a business.

3. Entrepreneurial and business skills:

Unless entrepreneurs are well equipped with technical and business skills, they may not be able to overcome various problems they encounter at different stages of their business development.

4. Financial support to businesses:

Generally, entrepreneurs require financial assistance for at least one of three processes: to diversify or spread the start-up risk, to accumulate start-up capital and to finance growth and expansion.

5. Non-financial support to businesses:

Entrepreneurs need support services in addition to financial assistance. Networks are useful mechanisms to enhance business capability of entrepreneurs. Networks provide four essential ingredients to entrepreneurship: support and motivation, examples and role models, expert opinion and counselling, and access to opportunities, information and resources.

An overview of the effect of the EU LEADER programme is provided by Perez (2000) who argues strongly for its positive effects on the country in terms of rural development. The paper continues by exploring the effects in terms of the

development of democratic and co-operative cultures, which provide an environment for rural entrepreneurs.

Winter (1997) argues that farmers 'need new skills and knowledge if environmentally sustainable agriculture is to be achieved'. Support to farmers needs to sit within a policy and technology transfer context.

In an overview on Finnish agriculture and rural industries Niemi and Ahlstedt (2005) suggest that National agricultural policy continues to emphasize that the unfavourable natural conditions of Finnish agriculture should be compensated, e.g., by developing CAP to take permanent competitive disadvantage better into account. They note that agricultural income has been steadily falling despite the growth in the support payments; structure of Finnish agriculture has changed rapidly since the EU membership (1994: 103 000 farms, 2004: 71 000 farms); cereal area has grown; constant concentration of food industry and trade is going to continue and record levels in meat production except beef production.

In Italy farming activities have experienced a period of restructuring following market and policy evolution. Higher levels of integration and quality standards are required for agricultural enterprises to compete in global markets. The changing countryside and the new rural development model offer agricultural enterprises new opportunities for implementing a wider range of activities e.g. direct sales, organic and typical foods, agro-tourism, environment, etc.

The Italian legislative Decree No. 228 issued on 18 May 2001 entitled "Orientation and modernization of the agricultural sector" tries to take into account these changes, by introducing important legal innovations in the definition of rural activity. The decree also introduces new tools for implementing agricultural and rural policies at a local level (agro-food and rural districts). Belletti *et al.*, (2003) analyse the main elements of the Klegislative Decree No. 228, with special emphasis on the new definition of agricultural activity in the light of diversification and multifunctionality and the characters of the new local governance forms.

Ruuskanen (1995) examined the ways in which entrepreneurship figures in practical language-use, by utilizing a discourse analytical approach. Language-use related to entrepreneurship is examined from two samples, in politico-administrative parlance and in the parlance of Northern Finnish wood processing entrepreneurs. Results show that in politico-administrative parlance a new entrepreneurial spirit and model is being constructed, which emphasizes the role of individual economic motivation, self-help and individual's own responsibility for his/her well-being, while at the same time downplaying the role of welfare and social services offered by the state. The discourse of the rural entrepreneurs, however, is quite different: it more or less ignores the idea of a dynamic capitalism, where the entrepreneurs would figure as motors of innovation and growth; instead, the entrepreneurs strongly emphasize the importance of earning the family's living in ones own native place – the idea of independence is stressed very much. The ideas of independence and liberty contradict with governmental aims, which would rather urge entrepreneurs to form new models of cooperative networks. Thus the study concludes that although the rural entrepreneurs passively carry out the demands of labour flexibilisation, the model of entrepreneurship and firms working through dynamic, cooperative networks are no exhaustive solution to the crises of Finnish rural areas.

3.3 Methodological Results

This section provides an overview of the main issues derived from the literature search.

3.3.1 Topic Areas

Classifying the topic areas chosen by authors is a complex task. Very few articles were published in mainstream entrepreneurship journals, which suggests that the farm sector is relatively ignored as a research area by entrepreneurship scholars. Table 3 shows the incidence of topic areas, which were considered. The results suggest that further work is necessary to understand the phenomenon of the farm business.

3.3.2 Policy Implications

- Of the 71 papers concerned with the agricultural sector, 16 identified policy implications.

Of these 16 papers that explicitly addressed policy issues, the match against the definition of policy implications outlined above is detailed in Table 2. The table shows the incidence of references to each of the delineated policy implications.

Table 2: Policy Implications in Published Papers

Policy Implications	Incidence
Regional/local government	8
Management competency development	7
Local economic/community development	5
Sustainable entrepreneurial organisations	2

3.3.3 Research Philosophy

Our analysis showed that of the 71 papers specifically concerned with farm entrepreneurship 16 Qualitative, 31 Quantitative and 11 Theoretical Papers were published. The remaining 13 were a combination of mixed methodological based papers. We determined these categories by evaluating the stipulated intentions of

authors in terms of the articulated methodology and the extent to which the chosen methodology fitted into the ideal type scenario depicted in Table 1 above. We are not surprised that there were more quantitative papers than qualitative papers, however, the high number of theoretical papers is interesting, particularly given Grant and Perren's (2002) findings. There may of course be other explanations to understand this phenomenon. Note that an emphasis on a theoretical approach does not necessarily mean 'theoretically robust', supporting Morris' already indicated position (ibid).

3.3.4 Key Words

Key words are those words that an author highlights as being the significant identifying words, which a researcher will literally type into a search engine or database. Analysing the use of key words is an imperfect science. We can make a number of propositions about authors' choice of key words.

- Authors choose key words carefully and are instrumentally rational in their choice. Authors will seek to maximise 'hits' on their work both within their own field and related fields. Key words are used which will be picked up by researchers in other disciplines. This instrumental rationality is most sensible for authors who are looking to maximise their performance in research assessment exercises at either a national government level or within their own university departments.
- There appears to be no correlation between the key words and the topic areas of the published articles.
- Authors use arbitrary key words. The use of key words is not rationalised.
- Some journals do not use key words.

We searched only those articles, which explicitly related to the central issue of this literature search i.e. farmers' entrepreneurship and business skills. A summary of findings is presented in tabular form (see Table 3, overleaf). A note of caution is important bearing in mind the bullet points above. Our use of key words may not have generated all of the relevant publications. As we have noted, authors' use of key words can be arbitrary; therefore the table indicates the key words used. The key words are derived from papers specifically focussed on the farm sector.

Table 3: Topic Area and Key Words

Topic Area	Incidence	Key Words in Abstract	Total Incidence
Rural Entrepreneurship	2	Rural Entrepreneurship Farm Enterprise Farm Entrepreneurship	2 1
Diversification in Entrepreneurship Barriers to Diversification	6 2	Diversification Pluriactivity Barriers to diversification	7 1 3
Strategic Capabilities/ Farmers Awareness	4 1	Strategy Strategic Capability	3 5
Entrepreneurial Skills/Education	1	Farmers Education	1
Entrepreneurial Opportunity/Innovation	2 4	Innovation Agri Food Networks Opportunity Recognition	2 1 2 2
Business Support/Finance for Farm Entrepreneurs	4	Farm Income Business Advice	4 1
Typologies of Farm Entrepreneurs	2	Pluriactive farmers Conventional farmers Entrepreneurial identity Farm characteristics	2 1 2 1
Agricultural Entrepreneurship Rural Policy	2 8	Agriculture Agricultural Business Rural Policy Agricultural Policy	5 3 8 1
Women Entrepreneurs	1	Women's Strategies	1
Portfolio Entrepreneurship	1		1

4 Conclusions

4.1 Definition of farm entrepreneurship and entrepreneurial skills

As Beaver and Ross (2000) have argued 'the management of small firms is unique. It bears little or no resemblance to management processes found in large organisations' (2000.25). Whilst we have not explicitly compared the management of small firms to the management of the farm enterprise, we suggest more detailed investigation is required because the characteristics of the farm and farmer in terms of entrepreneurship are not easily understood. Farms may have been owned or managed within the same family for generations. We also suggest that historically the motivators for farmers have not been overtly financial: owning a farm and being solely responsible for the health of their own endeavour has been a major determinant of personal success. The relative safety of the farm enterprise has changed, as the primary motivator for many farmers now is one of business and personal survival.

To conceive of farmers as a homogeneous group is a mistake and hinders policy development. Whilst we fully agree with Beaver and Ross that in smaller enterprises, management is a personalised process which is characterised by the prejudices and attitudes of the owner owner/manager and that the 'nature of managed activity depends on the characteristics of the person fulfilling the role' (ibid.26) we find it more difficult to accept the thesis that expansion or contraction is dependent upon the needs and personality of the owner owner/manager - at least in the small farms sector. In short the barriers preventing farmers needing to act and think strategically are multi-faceted; some of these have been explored here.

In this literature review we have attempted to show that this sector is a complex area. Preliminary research indicates that farming is not a homogeneous sector and it operates in a complex and multi-faceted environment. Perhaps one of the major questions that will be further posed is which should be the unit of analysis – the farmer or the farm? A further area for investigation is the concept of 'constrained entrepreneurship'. By this we suggest that farmers operate in a tightly constrained

and regulated environment, which acts as a significant barrier to entrepreneurial activity.

This leads us to the conclusion that definitive definitions of farmer entrepreneurship and the entrepreneurial farmer cannot be provided at this stage of the research, as too many questions are unresolved. Therefore the research project will try to consider the following research proposals.

Research Proposal 8

What is the unit of analysis for farm entrepreneurship – the farm or the farmer?

Research Proposal 9

To what extent are farmers constrained entrepreneurs?

Research Proposal 3

Can and should farmers be classified as business people and secondly how should the businesses be categorised?

Research Proposal 4

Examine the concept of opportunity clusters for farmers and ‘collective entrepreneurship’.

Research Proposal 6

Are those farmers who do not have an association with the farm enterprise and whose activities are outside of the sector any longer farmers? In this respect we may wish to consider the diversification as the new business.

Research Proposal 7

Further examination of the extent of and integration of external, ‘non-farm’ businesses, located on farms. What relationships exist between them and the farmer? Are they examples of farm diversification?

Throughout the review we have also sought to suggest that farm entrepreneurship is a special case in the entrepreneurship discipline. The review generates many questions, which will be the subject of the larger research programme. These questions raised include: the effects of the changes in the CAP; the debates surrounding specialisation versus diversification; the barriers and opportunities that face farmers, how those barriers may be ranked and how they determine how farmers use networks.

The central question of farmers' entrepreneurial skills is of course one of the central elements of the research. The longer-term goal is to attempt to map the skills and competencies of farmers with a view to informing policy. The results of the search indicate that little research has been carried out in this area. The following research proposals will consider these issues.

Research Proposal 1

To examine the leadership, managerial capability and personalities of farmers.

Research Proposal 5

Explore the issue of competence and competence development in the process of discovery and exploitation of entrepreneurial opportunities to examine how farmers as entrepreneurs learn, where they learn most from, whether the competences are shaped by the situation or that the situation 'enacted' these competences and how the learning of entrepreneurs can be stimulated and optimised in order to respond adequately to the changing environment.

The literature review has not informed any significant changes to the segmentation framework (see Appendix 2). However, it is anticipated that the segmentation framework will, as a consequence of this research, be modified. The framework will be used to inform the next stage of the research project, which is the fieldwork. The methodology will comprise a pilot study of structured qualitative interviews with about eight farmers and twelve stakeholders in each country. The main study will comprise structured interviews with about twenty farmers in each country.

The research has adopted this framework for two reasons. Firstly, because it offers a comprehensive mechanism for analysis of a particular sector and secondly, the segmentation framework is a device, which enables the classification of farmers by;

- their personal characteristics;
- the characteristics of the farm enterprise;
- the activities and processes undertaken by the farmer and
- the specific needs of the farm enterprise.

As far as we are aware such a framework is unique in attempting to classify the farm sector. Furthermore, the framework identifies different types of entrepreneurial farmers, which is clearly the driver for the research. The resulting segmentation framework shows different types of entrepreneurial farmers reflecting the strategic orientation of the farm. Furthermore, different strategic orientations in farming may require different skills. It is anticipated that the segmentation framework, will seek to determine what these skills are. In this way a gap analysis of the core skills which farmers possess, and the skills and support which they may need in order to become more entrepreneurially aware, is provided.

The segmentation framework is not designed to simply determine business characteristics, activities and processes. It is intended that it will be used as an iterative device, which can in itself be used as a predictive tool. It is clear, as Shane and Venkataraman (2000) have indicated, that entrepreneurial behaviour is not stable. We anticipate that the framework will be enhanced as the research progresses and as we generate results.

4.2 Policy Implications

There appears to be few academic studies of the implications for and of policy on the role of the entrepreneurial farmer. It does not appear to be the case that the significant issues addressed in section 4.3.2 above have been researched. This leads us to conclude that further work is necessary in this area.

4.3 Methodological conclusions

4.3.1 Research techniques and data analysis

To summarise, in this literature review we have analysed the publication patterns and themes in farm entrepreneurship research. We have suggested that there are some limited emergent trends in the literature being farm diversification and farm entrepreneurship. There appears to be a slight predilection for quantitative methodological research techniques to be favoured over qualitative approaches. However, we recognise that we have not used any statistical techniques to evaluate this bias. Finally, we suggest that researchers are engaging in discussion about the policy implications of their work.

Analysis of the topics and key words suggests that published research areas are fairly 'conservative' and 'safe'. There is little in the way of critical, reflective and reflexive material, for example the majority of contributions appear to accept that farmers can develop their entrepreneurial capacity using techniques associated with other business sectors. In terms of emergent subject areas (within the farm entrepreneurial field) there are no or limited contributions on topics such as business strategies (and general business skills) for farmers, the role of women farm entrepreneurs, support for farmers and clustering to name but a few.

4.3.2 Limitations of the research

Analysis of the articles published has identified a broad profile of patterns and trends in publication in the field of farm entrepreneurship and farmers skills. Although potentially useful as an overview of recent publication trends, two broad limitations can be identified. The first relates to the application of this analysis to a relatively small number of journals. This inevitably means that the findings are indicative, in that they do not represent all or part of the broader population of farm entrepreneurship and small and medium enterprise journals. The second limitation is that coordination of a literature search across cultures is difficult.

The main problem is a standardised comprehensive framework for analysis, which all partners 'understand'. There are difficulties of working across cultures: even though

the common language is English there are problems of interpretation and interpretative understanding. The benefits of course are that there is an exciting exchange of experience and ideas and a willingness to engage in critical reflective discourse.

We accept that this literature review is not fully comprehensive: we have not reviewed government publications in any detail, not have we reviewed the literature in some academic disciplines, for example the Tourism literature. This we intend to do in further iterations.

4.4 Overall conclusions

At this point we can ask - does this type of research provide a useful framework for understanding, a) trends in the literature, b) a predictive function for entrepreneurial research and c) policy implications. From a relatively small sample of 71 published papers it is clear that there are a number of key areas that are receiving higher levels of attention in farm entrepreneurship research. We also note that publications on farm entrepreneurship feature in only five entrepreneurship based journals. There are, however, topics and areas that have not been considered and these will form the basis for potential areas of further research. These include family business and franchising and women farmers both of which have been the subject of multiple papers and special issues in mainstream entrepreneurship journals. Here now we can make some further suggestions to future research.

Research Proposal 10

Examine the extent to which farmers engage in franchising.

Research Proposal 11

What is the role of women entrepreneurs on farms?

We conclude that the research suggests that a major challenge for the agricultural sector is to enable farmers to develop their entrepreneurial skills. This requires

economic support and greater emphasis on education and training. It is hoped that this research will assist in this challenge.

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Further limitations may surround the choice of topic areas we used to 'code' the published articles. For example some of published papers do not focus on a specific topic area. The interpretative understanding of the editor plays a significant part here. A normative assumption is that a rigid codification of the topic areas should not occur.

It is anticipated that the next stages of this research project will shed further light on the important issues, which confront farmers in a demanding social and economic environment.

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Appendix 1: Future Research Priorities

In this final section, we pull together the proposals made throughout this report which seek to highlight areas of research on economic activity in rural areas which warrant considerably more investigation than has been the case hitherto. We are indebted to Winter and Rushbrook (ibid) earlier study, which utilised this approach.

Research Proposal 1

To examine the leadership, managerial capability and personalities of farmers

Research Proposal 2

To determine the capabilities that farm entrepreneurs need to develop, and what training is necessary for their undertaking

Research Proposal 3

Can and should farmers be classified as business people and secondly how should the businesses be categorised

Research Proposal 4

Examine the concept of opportunity clusters for farmers and 'collective entrepreneurship'

Research Proposal 5

Explore the issue of competence and competence development in the process of discovery and exploitation of entrepreneurial opportunities to examine how farmers as entrepreneurs learn, where they learn most from, whether the competences are shaped by the situation or that the situation 'enacted' these competences and how the learning of entrepreneurs can be stimulated and optimised in order to respond adequately to the changing environment.

Research Proposal 6

Are those farmers who do not have an association with the farm enterprise and whose activities are outside of the sector any longer farmers? In this respect we may wish to consider the diversification as the new business.

Research Proposal 7

Further examination of the extent of and integration of external, 'non-farm' businesses, located on farms. What relationships exist between them and the farmer? Are they examples of farm diversification?

Research Proposal 8

What is the unit of analysis for farm entrepreneurship – the farm or the farmer?

Research Proposal 9

To what extent are farmers constrained entrepreneurs?

Research Proposal 10

Examine the extent to which farmers engage in franchising

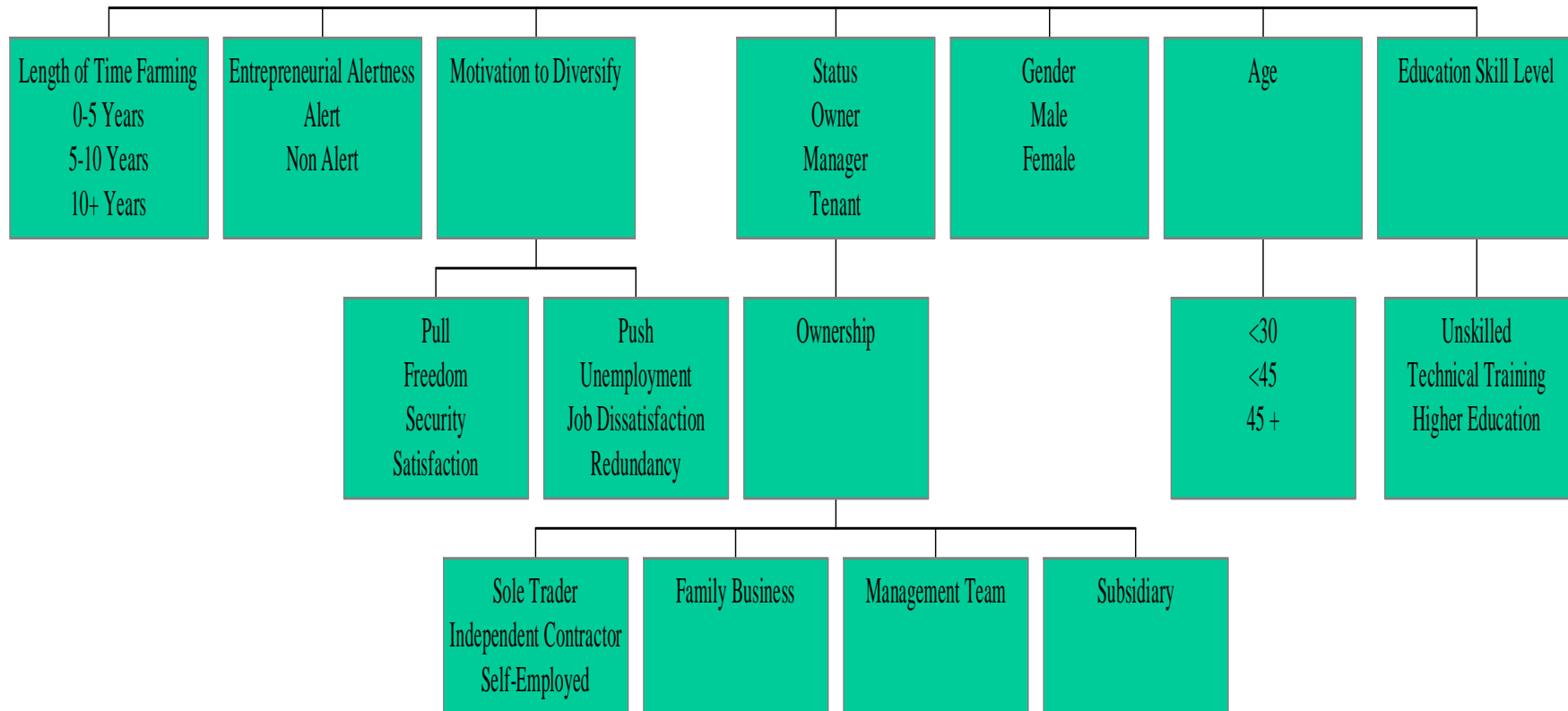
Research Proposal 11

What is the role of women entrepreneurs on farms?

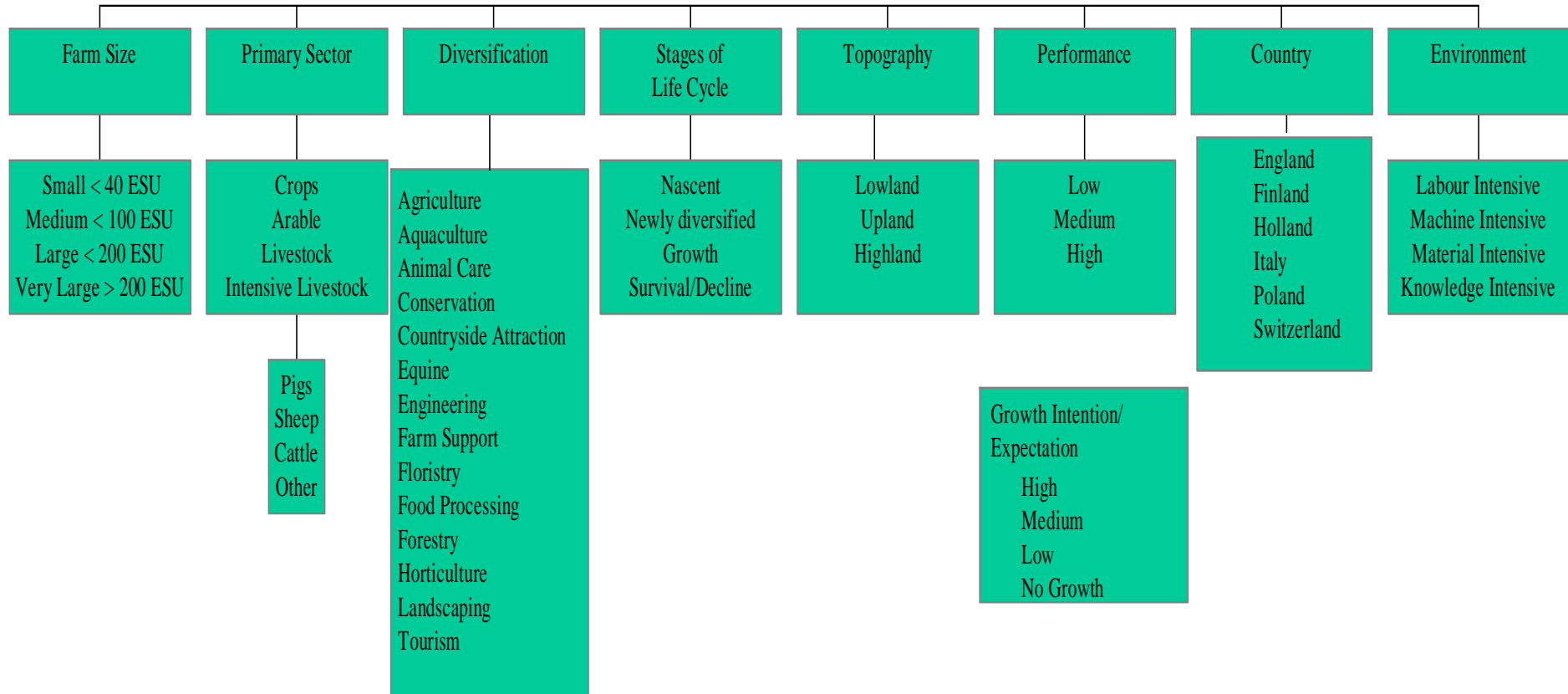
Appendix 2: The Segmentation Framework

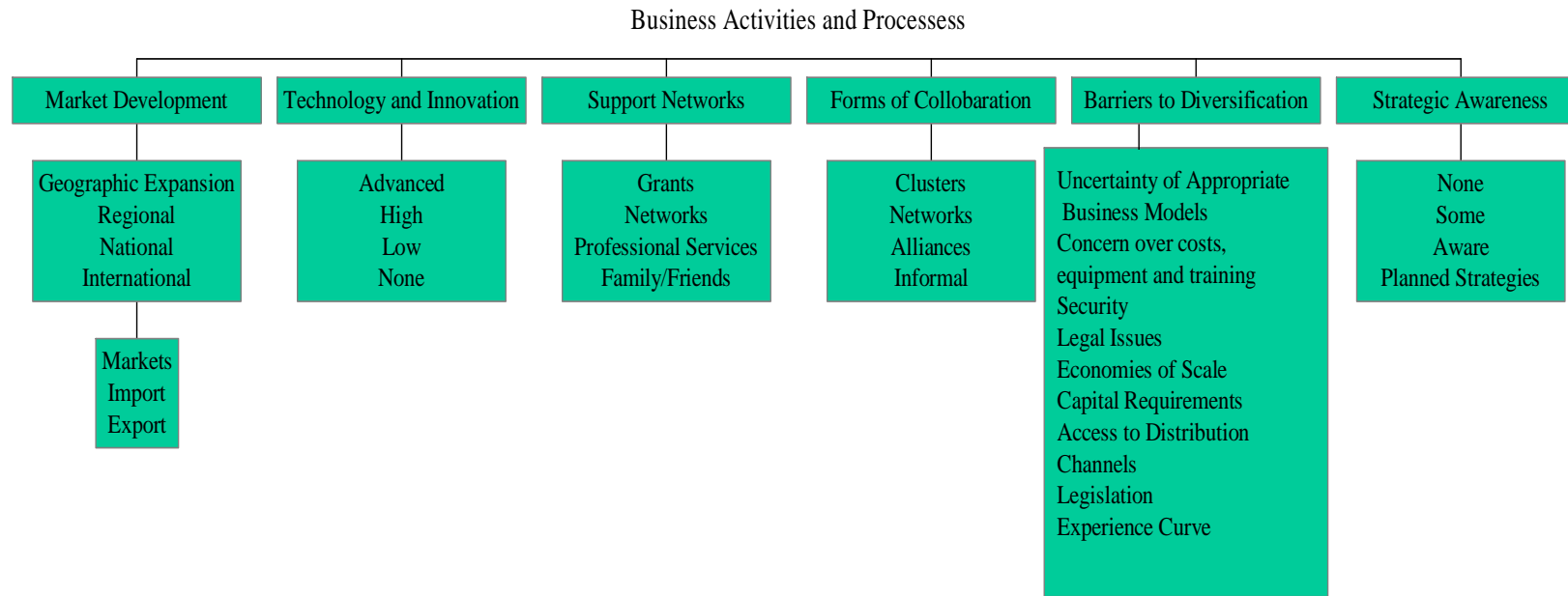
Adapted from Atherton, A., and Lyon, F, (2001)

Personal Characteristics of Farmers



Business Characteristics





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