

Forest sector entrepreneurship in Europe – summary of country studies of COST Action E30

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What is COST action E30?

COST is an intergovernmental framework for European co-operation in the field of scientific and technical research, allowing the co-ordination of nationally funded research on a European level. COST is formed of Actions, which cover basic and pre-competitive research as well as activities of public utility.

COST action E30 “*Economic integration of urban consumers’ demand and rural forestry production*” is one of the largest COST actions thus far under the domain on forests and forestry products. COST action E30 has 21 participating countries: Austria, Bulgaria, Croatia, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Lithuania, the Netherlands, Norway, Poland, Portugal, Romania, Sweden, Switzerland and United Kingdom.

The main objective of COST action E30 is to gain better understanding of the problems and possible solutions to forest-based entrepreneurship in small-scale forestry, wood processing, and non-wood forest products and services aiming at improved employment and income in rural areas. The Action has three working groups (WG):

- small-scale forestry
- wood processing industries
- non-wood forest products and services

In these working groups, the action focuses on:

- competitiveness of forest – wood / non-wood / services – consumer chain
- barriers and prospects of entrepreneurship
- problems and opportunities for enterprise development

The action has been implemented in two phases. Action phase one was aimed to build a strong state-of-the-art on information relevant for action working groups and the action research questions. The state-of-the-art information was used to determine key issues for in-depth analysis in action phase two. The country studies presented in the two volumes of *Acta Silvatica & Lignaria Hungarica* are based on the work in the action phase one.

Forests, enterprises and rural economic development

Forests provide a fundamental basis for ecologically, socially and economically sustainable development in all European countries. At the centre of the actions supporting sustainable forest management are the decisions of approximately 15 million small-scale forestry holdings, covering nearly 40 million hectares of land in EU. These forests provide a substantial share of the resources used for employing more than six

million people in forestry and wood processing industries in Europe, and an uncounted number of other people in processing and services in non-wood forest sector. The role of enterprises and entrepreneurship in economic development is likely to increase in the future because of the limited possibilities to expand public sector activities in most European countries. Especially in the forest sector, small- and medium-scale enterprises (SMEs) play a central role in the employment of people in local processing, recreation and forest-based tourism activities. Enterprises in forestry—wood/non-wood-processing/services—chains, if innovative and competitive in the markets, may bring value added to rural areas and closest to the origin where trees are growing.

The COST action E30 rationale is based on the challenge to gain better knowledge on the value added chains which link (especially urban) consumers' demands and the supply of various and increasingly numerous forest products and services from rural areas. This can be seen as a promising means to improve business opportunities, employment and income in the rural areas. The key in finding a better linkage between consumption and forest production is to develop entrepreneurship to utilise the existing forests and forest resources.

Theoretical background for the country studies

From a theoretical point of view, the closest link to economic development in rural regions (since such a discipline as rural economics does not exist) is regional economic theories and multidisciplinary field of rural studies (Terluin 2001). Although inputs to the topic of economic development in rural areas may be found in other branches of economics such as development economics, land use economics, natural resources economics and industrial economics, for this action the *regional economic theories* were considered to provide a solid theoretical framework. The variety of regional economic theories reflects the varying emphasis of interests in explaining development, a certain historical stage of development, the different intellectual environments and the evolution of theoretical ideas, as defined more in detail in Tykkyläinen et al. (1997) and Hyttinen et al. (2002). The regional development theories and their relative importance in implementing regional development strategies have changed in the late 20th century as illustrated in Figure 1.

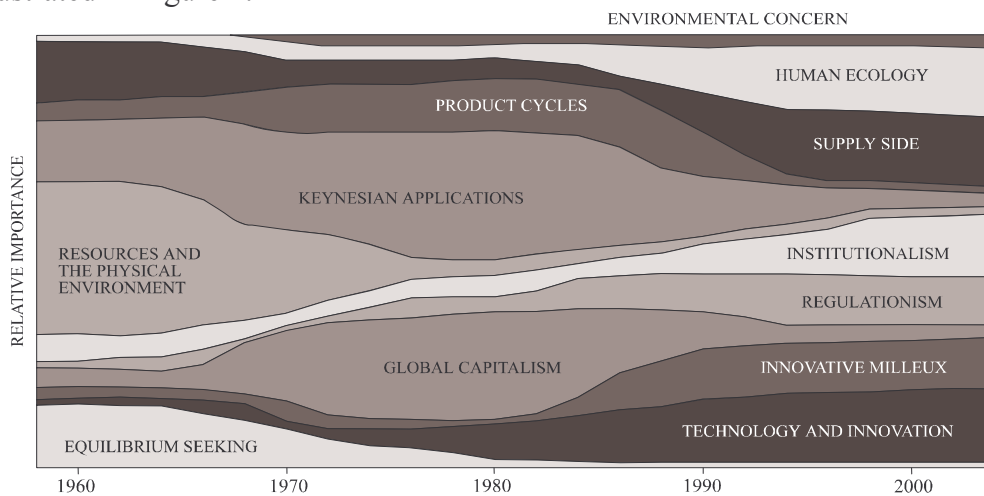


Figure 1. Importance of development theories in the late 20th century (Hyttinen et al. 2002).

Another way of classifying theories on regional economic development is found in Terluin (2001), where the competitiveness of companies is considered a key element for regional economic development and the theories on regional development are classified accordingly. The result of Terluin (2001) is the grouping of regional economic theories into 'traditional models', 'pure agglomeration models', 'local milieu models' and 'innovation models' (Table 1).

Table 1. Classification of theories on regional economic growth by Terluin (2001).

Models	Theories
Traditional models	Neo-classical growth theory Keynesian approach: Export base theory
Pure agglomeration models	Cumulative causation theory Growth pole theory
Local milieux models	Endogenous growth models Theories based on the changes in the organisation of labour
Innovation models	Incubator theories Product life cycles Theory of innovative milieu Porter's theory on competitive advantage of nations Storper's theory — region as a nexus of untraded interdependencies

Common for many regional economic development theories is to emphasise innovations in explaining economic development. In general, innovation research is mainly done by disciplines and sub-disciplines of economics and/or policy such as institutional economics, political economics, and evolutionary economics as well as in economic geography and regional sciences. These disciplines have developed several concepts, which are used in innovation research. Systems of innovation, path dependencies, tacit knowledge, learning organisation, cultural theory, network theory and governance are some of these building blocks of innovation models (see Kubeczko and Rametsteiner 2002).

The concept of systems of innovation, which is the main research field in institutional economics, builds a general approach to analyse the whole system of fostering or hampering innovation. This system concentrates on the relation between the different actors in the innovation process rather than on single actors. In the system of innovations, considerable research efforts have been undertaken in the last decade on 'National Innovation Systems, NIS', as well as on the nature of the innovation process at the local and regional level, i.e. 'Regional Innovation Systems, RIS'. Most of the contributions on the nature of innovation in the RIS refer to innovative dynamics based on technological change, organisational learning and path dependency. In this respect, interactive regional innovation systems are focused, in contrast to the old types of linear innovation systems. Third branch of research analyses is 'Sectoral Innovation Systems, SIS'. This approach looks at the firm level, inter-firm level aspects as well as the institutional level aspects both of market and non-market relations within a sector.

Innovation models on the business to business (b2b) -level use the network concept as a key-element. Networks are introduced as intermediate organisational forms between markets and firms when these fail in efficiency and efficacy. Trust, demand or supply specificity and possibilities for co-operation are at the basis of a choice for supplier-producer and buyer-subcontractor network relationships. Extended family networks, co-operative networks, etc. have formed the organisational structure of small local production systems where the market has been earlier unavailable.

Among the most relevant theories for the COST action E30 focusing on rural economic development via enterprise development is Porter's theory on the comparative advantage of nations. This theory has been also used to explain not only national but also regional economic development (see Porter 2000, 1998a). Porter's theory is based on a question why do firms based on certain nations or regions achieve international success in distinct segments and industries. Porter (1990) presents a 'diamond model' which is a broad explanatory framework for economic development, based on competitiveness of enterprises in a nation (or a region). The 'diamond model' has been widely used to illustrate countries' or regions' international competitiveness (Hazley 2000). According to Porter, four characteristics of a firm environment are instrumental to the firm's competitiveness:

- (i) factor conditions,
- (ii) demand conditions,
- (iii) related and supporting industries, and
- (iv) firm strategy, structure and rivalry.

Together with political and legal conditions, technological and macroeconomic conditions and coincidence, these factors impact the competitiveness of a single firm (Porter 1990).

Although the innovation system approach perspective requires information on production conditions, it also places considerable emphasis on institutions at different levels and interactions in terms of structures and functions of the institutions as well as material and knowledge flows. In terms of information the following details are required:

- (i) company structures and interactions, including business to business networks and intra-firm structures and interactions
- (ii) structures, interaction and instruments used by organisations/institutions such as administration, research, education & training, extension and consultancies
- (iii) economic frame conditions in terms of factor inputs, markets and competition.

Structure of the country studies

The discussion on the theoretical background of regional/rural economic development above was used in the action to build a common framework for country studies on the state-of-the-art of information relevant to action working groups and action research questions. The country studies follow approximately the same structure as presented below:

PART 1: Consumption

- 1.1 State-of-the-art and historical development on the consumption of forest products and services
 - 1.2 Forest products' and services consumption
 - 1.3 Market demand for forest products and services
 - 1.4 Main problems and research questions in consumption for enterprise development
- Annex: Organisations studying forest products' consumption and main publications and information sources

PART 2: Small-scale forestry practices

- 2.1 State-of-the-art knowledge and historical development
 - 2.2 Small-scale forest holdings
 - 2.3 Small-scale forestry practices
 - 2.4 Policy framework and production conditions
 - 2.5 Supporting and limiting factors for enterprise development in small-scale forestry and barriers to entrepreneurship
- Annex: Organisations studying small-scale forestry and main publications and information sources

PART 3: Wood-processing industries

- 3.1 State-of-the-art and historical development
 - 3.2 Wood processing industries
 - 3.3 Wood processing industries' practices
 - 3.4 Policy framework and production conditions
 - 3.5 Supporting and limiting factors for enterprise development in wood-processing industries and barriers to entrepreneurship
- Annex: Organisations studying wood processing industries and main publications and information sources

PART 4: Non-wood forest products and services

- 4.1 State-of-the-art and historical development
- 4.2 Case studies of successful marketing strategies

PART 5: Forests and ownership

- 5.1 State-of-the-art and historical development
- 5.2 Forest resources
- 5.3 Forest ownership
- 5.4 Main problems and research questions in forest resources and ownership for enterprise development

Summary of findings from the country studies

Key findings of the country studies can be summarised as:

- in forest – wood / non-wood / services – consumer chain, the consumer demand is not properly understood or instruments to follow the changes of demand developed
- entrepreneurial thinking and managerial skills are underdeveloped in many parts of the chain
- forest ownership is fragmented and the attitudes and values of the forest owners diversified; thus it is uncertain how the private forests can maintain their role to support timber demand in the future
- the possibilities to internalise indirect benefits that forests provide to the well-being of the forest owners is significantly underdeveloped
- traditional wood manufacture culture dominates in the production and R&D, although the increase in demand may be especially in green products and services in the future
- industries in mechanical wood processing, non-wood forest products production, as well as in forest-based services are small and non-integrated; this has led to the lack of innovations, marketing power etc.
- industries and institutions in forestry are mainly oriented in increasing the efficiency of forestry – wood chain rather than in developing new product innovations.

Small-scale forestry

It is obvious according to the country studies that in small scale (non-industrial private) forestry the demand to satisfy multiple objectives in the same forest area is increasing throughout Europe. This provides a challenge especially for those areas and countries where timber production is the main objective in forest management. The key questions in these areas are how to manage forests in the future to satisfy the various demands and how to avoid the risk of losing potential for timber production.

Another challenge for small-scale forestry is the decreasing interest of the forest owners on the economic return on land. In Europe the size of the forest holdings and the net contribution to owners' well-being is often small. This leads to little or no motivation of forest owners to actively manage their forests.

Still, a third challenge to traditional timber production exists. The new or 'urban' demand on forests is often based on the recreational, amenity and landscape services that forests contribute rather than on timber production. This is antagonistic to traditional production forestry in densely populated areas, in particular, but also increasingly elsewhere.

From a viewpoint of timber production, all the defined challenges call for joint research efforts on the attitudes and values of forest owners. The results of such work should give a better understanding on the forest owners' interests on their property, factors behind their interests and description on the means on how timber production objectives could gain more attention in decision-making. Also, the role of forest owners' associations and co-operatives should be studied more closely.

From a viewpoint of non-timber production, it would be equally important to study which concrete benefits and how the multifunctional management of forests can bring to the forest owners. In some areas the indirect impacts of forests on economic well-being and business life are clear. This can be seen as a 'halo' effect of forests to other businesses in the economy, for example in cases where forests support the value of environment, tourism, housing or manufacturing (Slee 2005). Often the problem is, however, that the indirect benefits cannot be transformed to direct benefits for the forest owners.

Wood processing industries

The challenges to especially small- and medium scale wood processing industries in Europe include productions' low profitability and low technological development. This has resulted in relatively low levels of investments and too few innovations in the production.

From the point of view of the industrial management, the SMEs in wood processing industries often suffer from weak networking. This includes both the weak networking between enterprises and research institutes as well as between different enterprises. There is clearly less cluster formation in mechanical wood processing industries with SMEs, unlike in chemical wood processing industries. Also the internalisation of the production is insufficient. In the future, there could thus be changes in efficiency improvement with structural development and integration in mechanical wood processing.

Research needs to support the future development of SME wood processing industries to include the analysis of reasons and consequences of the delocalisation of mechanical wood processing industries, and the studies on evolving business branches (like timber frame industries, forestry contracting and bioenergy production). Equally important would be to gain better understanding on the market demand for forest and wood products, especially since this was reported most often as a weak point in the functioning of forestry – wood – consumer chain in the conducted country studies.

Non-wood forest products and services

In general, there exists great potential to develop non-wood forest products and services (NWFP&S) sector and new entrepreneurship in this particular field in Europe. This is due to a rising demand for individual, green and even luxury products together with improvement in citizens' welfare.

The obstacles for the development are, however, numerous. For example, the legal framework and forest policies are often constructed to support timber production rather than the production and use of forest on non-wood purposes. This is clear if looking, for example, the supporting structures in the societies, such as education, consultancies, legislation etc., which easily tend to favour timber production.

Another obstacle to develop NWFP&S sector and the new entrepreneurship is because of many of these products and services are public goods. For example, the everyman's right common especially in the northern Europe, allows collecting forest berries, mushrooms etc., as well as a free access to forests, regardless of the forest ownership.

This leaves fewer opportunities to utilise the demand on NWFP&S or to develop new entrepreneurship on forests.

Beside the free access and undefined property rights, a major obstacle for enterprise development with NWFP&S is the lack of new innovations and market information on the demand of these particular products and services.

COST action E30 phase two

The state-of-the-art information from the country studies was used to identify key issues for a further in-depth analysis in action phase two. These issues and themes, under which specific articles will be prepared and published by June 2006, are illustrated in Table 2.

Table 2. Issues and themes of Action sub-groups in phase two.

	Issues and themes
Cross-cutting issues	Consumer demand for forest products Ownership and property rights
WG1: Small-scale forestry	Attitudes and values Forest owners associations Legislation, policies and projects
WG 2: Wood processing industries	Delocalisation of industrial activities Timber frames Forestry contractors and bioenergy Demand for forest products
WG 3: Non-wood forest products and services	NWFP&S definitions Indicators 'Competence for change' Innovation Marketing

Acknowledgement

The country studies presented in this publication (in two volumes) are based on the work of approximately 100 researchers in 19 countries. The work was based on wide networks of researchers at national and international levels, following the mission of COST to support scientific networking and capacity building. The coordination of the country studies was at the responsibility of COST action E30 management committee members. The country studies were discussed in two working group meetings under the guidance of action working group chairmen. Dr Laszlo Jager from the West Hungarian University did the technical editing of the country studies. Ms Saija Miina coordinated the delivery of reports and other information. On behalf of COST action E30 management committee, I wish to thank all who have contributed to the preparation and publishing of these country studies. I hope that researchers, graduate students as well as policy makers and administrators in forest sector find these studies useful.

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