

**The collective organisation
of a sector for the local valorisation
of agricultural resources:
the example of cheese processing**

"RURAL INNOVATION"

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Prepared by **Daniel Pujol**, this dossier follows on from the LEADER II seminar ***“The potential of innovation in certain key product lines: the example of cheese production”*** organised in Oloron-Sainte-Marie (Aquitaine, France) in December 1995.

Daniel Pujol was initially senior executive in charge of international marketing in a large multinational firm. He then managed the “Mission agro-alimentaire Pyrénées”, whose purpose was to support projects for the economic organisation of mountain farmhouse and craft products. Now a consultant, Daniel Pujol intervenes in similar projects, particularly in LEADER areas in France, Spain and Portugal. He is also member of the “Local Products” thematic group of the LEADER European Observatory.

Contents

Introduction	5
Part one	7
Cheese processing: a representative and successful example of local valorisation of agricultural resources through a collective economic organisation structure	7
1.1 - Cheese processing: a key example of local valorisation of an agricultural resource	9
1.2 - A good level of profitability for the producer	9
1.3 - The individual system shows its limits	10
1.4 - Different possible schemes for collective economic organisation	12
1.5 - Summary analysis of the “Pyrenean Farmers” case	15
Part two	17
Technical and economic analysis of the different functions in the cheese sector	17
2.1 - Cheese-making technical support	19
2.2 - The collective non-industrial cheese dairy	20
2.2.1 - Economic analysis of the cheese dairy of the Aspe valley cooperative	20
2.2.2 - Analysis of the economic model of the “Queijos da Beira Baixa” cooperative	22
2.3 - Collective maturing	23
2.4 - The marketing function	24
2.4.1 - Marketing networks	24
2.4.2 - The cost of marketing	25
Conclusions	29
Location of cheese production	30
Conclusions	31

Introduction

Maintaining viable agricultural activities is a major challenge for most disadvantaged rural areas. However, it is no secret that conventional production models today generally do not enable profitability and a level of remuneration in agriculture that are acceptable in these areas.

The structural handicaps of a large number of mountain regions, for example (limited farmland, division of parcels, sloping terrain, remoteness from supply and consumption centres), make an already difficult situation worse for regions where conditions are much more favourable.

In many regions, the only conceivable way around this is to **provide a strong value added coefficient by processing agricultural raw materials and turning them into quality food products**. Combined with effective marketing, this approach shows its entire relevance with incontestable results.

In some cases, the mere professionalisation of a built marketing approach leads to a very significant value added for fresh products; the valorisation of cherries in the Jerte valley (Valle del Jerte LEADER area, Extremadura, Spain) being a good example of this [1].

While the strategy of seeking value added for production appears to be rather conclusive, its actual application generally proves more delicate: the farmer is, in fact, generally not very prepared for the approach to the market and his immediate environment usually does not have much more expertise in these areas.

A previous dossier, “**Exploiting local agricultural resources: the experience of LEADER I**”, sums up the principles and methods proposed to set up and develop local agri-food valorisation projects [2].

A technical and economic analysis of the valorisation of milk into cheese, the subject of this dossier, examines the approach in detail and provides a concrete illustration of it. In many aspects, the lessons derived from this analysis can be transferred to other sectors of activity.

The purpose of this document is not to be all-inclusive, in particular:

- it takes the institutional and area-based context of the valorisation approach very little into account but remains essentially centred on a technical and economic analysis of existing references, with the main lessons that are derived from this;
- it does not paint a complete picture of farmhouse and artisanal cheeses in Europe but only uses known experiences of initiatives limited to Southern Europe.

The lessons resulting from these experiences should nonetheless shed useful light on new collective approaches to valorisation – including in other sectors – in the context of LEADER II.

[1]

*This example is described in the “**Innovative actions of rural development**” Directory produced by the LEADER European Observatory (first quarter 1997).*

[2]

Community regulations on the promotion and production of quality agricultural products and foodstuffs are also summarised in this dossier (1995).

Part one

Cheese processing:

**a representative and successful example
of local valorisation of agricultural resources
through a collective economic organisation structure**

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1.1 Cheese processing: a key example of local valorisation of an agricultural resource

Among the cases of local valorisation of agricultural resources through quality, a major classic is clearly emerging in many European regions: the processing of milk to make cheese.

It is simultaneously the most widespread activity and the one that carries the most economic weight.

Farmhouse cheese [1] is found in most LEADER areas, particularly in Southern Europe (Portugal alone produces over twenty varieties of traditional farmhouse cheeses) but also in the North (the Netherlands produces 10 000 tonnes of farmhouse cheeses; in Ireland, production of farmhouse cheese is up sharply).

In terms of economic weight, a few French examples illustrate the importance of a sector that provides a very respectable income to a large number of agricultural households:

- the annual production of farmhouse goat's cheese is 17 000 tonnes (30% of national production), produced by roughly 10 000 holdings located for the most part in regions in difficulty;
- with 4 700 tonnes, Saint-Nectaire farmhouse cheese accounts for 50% of all production under that name. It provides work for 420 agricultural families in the mountain areas of Auvergne;
- the annual production of Reblochon farmhouse cheese is 3 400 tonnes (24% of the total). 240 holdings in Haute-Savoie (Rhône-Alpes) derive their income from this.

1.2 A good level of profitability for the producer

The processing of milk to make farmhouse cheese generates a significant coefficient of revalorisation of the raw material: in a system where the cheese is sold directly, the value of the milk used is multiplied by a coefficient that varies according to the types of products from 2 to 3.5.

Some French examples are:

cheese (region of production) and coefficient of valorisation

<i>Saint-Nectaire (Auvergne)</i>	2.00
<i>Pyrénées vache (cow's)</i>	2.25
<i>Crottin de Chavignol (Centre)</i>	2.50
<i>Pyrénées chèvre (goat's)</i>	2.50
<i>Sainte-Maure (Pays de la Loire)</i>	2.75
<i>Reblochon (Rhône-Alpes)</i>	3.00
<i>Pyrénées brebis (sheep's)</i>	3.00
<i>Munster (Alsace)</i>	3.30
<i>Rocamadour (Midi-Pyrénées)</i>	3.50

Under the same conditions, the coefficient of valorisation of the raw material is 2.3 for Idiazabal in the Spanish Basque region and 2.5 for Portuguese Serra da Estrela.

The level of net remuneration per hour of processing work varies widely according to:

- the type of product,
- the volume of production (economy of scale),
- the local marketing situation.

[1]

for the interpretation
of this term, see
the boxed inset on p. 14.

Two examples, with similar results, can be given:

- for producers of Pyrenean sheep's cheese, who are members of the cheese cooperative of the Aspe valley (Aquitaine, France), the remuneration per hour of work varies, according to the daily volume processed, from ECU 6.5 to ECU 35 (see table below);
- in Catalonia (Spain), a recent analysis of the case of farmers processing cow's milk reveals an hourly remuneration ranging from ECU 7 to ECU 30.

Using another approach, it can be seen that in the case of a producer of Rocamadour farmhouse cheese (Midi-Pyrénées, France):

- a herd of 100 goats brings in ECU 73 000 worth of cheese;
- the value of the milk used only accounts for 30% of this total, or ECU 21 430;
- production costs, including the use of family labour at ECU 6 / hour, account for 23%, or ECU 17 140;

- marketing costs, including packaging and the labour used as above, also account for 23%, or ECU 17 140;
- the balance of ECU 17 290 constitutes a net profit.

Another important economic factor is the relatively small investment to be made, and although Community health legislation has led to higher requirements, translating into larger investments than in the past, the fact remains that investment in the farmhouse cheese processing tool remains very modest in relation to the sales turnover obtained and the value added generated.

According to a 1992 survey of 85 producers of Reblochon in the French Alps, the average investment in processing equipment (not including the workshop) was ECU 17 140 in 1992.

Corroborating this, the standard investment for new cheese-making facilities in the Béarn Pyrenees (Aquitaine, France), including equipment and building (under existing roof), was about ECU 36 000 in 1996.

PYRENEAN FARMHOUSE CHEESE: CALCULATION OF THE REMUNERATION PER HOUR OF PRODUCTION WORK (1994)

Sheep's cheese

(breakdown of costs in ECUs for 1 kg of cheese)

- 5.5 litres of milk x ECU 0.81	4.45
- gas + rennet	0.14
- depreciation of vat and cheese dairy	0.43
- cost of maturing (estimate based on 1993)	0.60
Total production cost	5.62
Initial price	8.44
Remuneration production work	2.82

Producer	Small	Medium	Large
Daily production (kg)	8	20	45
Total remuneration (ECU)	22.56	56.40	126.90
Hourly remuneration (ECU) [*]	6.50	16.12	36.25

[*] Regardless of the volume processed and the size of the cheese manufactured, production time is 3.5 hours.

1.3 The individual system shows its limits

Whether traditional or "neo-rural", the farmhouse cheese-maker naturally finds himself within an individual logic and has therefore learned to assume alone:

- the production of milk,
- the making of cheese,
- its marketing.

In terms of marketing, **direct selling** (at the farm, along the road and/or at markets) is generally preferred. Then comes the **short network** (supply of a certain number of retailers and restaurants within a relatively close distance). Finally, when the local potential has been exhausted and the volume of production increases, the farmhouse cheese-maker turns to **wholesalers** from other regions and, sometimes even **supermarkets**.

Two cases are possible:

- **overall production is low and the local market is large** (a good illustration of this is *Idiazabal* in the Spanish Basque region, where farm production does not exceed 150 tonnes for a basin of 2.3 million consumers);
- **overall production is relatively high, the local market is small** (a typical example of this is cheese from the Pyrenees in the Béarn valleys; direct selling locally only represents 4% of the 240 tonnes marketed by the union of cooperatives "Les Fermiers des Pyrénées").

In the first case, the individual model generally lasts: everyone finds his place in the local landscape, even if a few economic problems are a source of concern from time to time.

In the second case (the most common), the individual approach gradually shows its limits:

- direct selling takes up a large amount of time in relation to the small volume sold;
- direct selling and short networks only allow for a small percentage of the growing overall production to be marketed.

Distributors outside the region therefore have to be found; an unknown and surprising universe has to be discovered: supermarkets.

However, individual producers lack the time and expertise to fully develop a marketing function.

Other obstacles arise, for example:

- how does one list a single product with a wholesaler, or worse, with a supermarket?
- how does one find customers who accept carriage-free 50 kg or 80 kg of a small cheese that does not keep for very long (for example: 50 kg = 1000 packaged *Rocamadour* cheeses).

Finally, if competition is visible and concrete on local markets, the same gradually becomes true between distributors and wholesalers. They see a multiplicity of suppliers come to them in no particular order, and take maximum advantage of this by imposing their conditions little by little and therefore pushing prices down. Actors accustomed to doing everything themselves then ask: **"How can we organise ourselves collectively? What do we have to do, and how do we do it?"**

Beyond the problem of marketing, the same type of question arises when it comes to the cheese-making technique: the producer first thinks that, after an initial period of theoretical training and practical learning, he will have definitively acquired the necessary expertise and know-how. With experience, he discovers that mastering the technique is a long-term endeavour whose success is continually called into question. There should therefore be a permanent resource providing technical support for cheese making in order to enable:

- overall monitoring to ensure professionalisation of the production method;
- emergency intervention when an accidental problem arises.

In fact, although there are veterinarians to meet the individual needs of livestock farmers for animal care, there generally does not exist an individual local solution to provide technical support for cheese making. Therefore, producers in one way or another have to **join forces** to implement a technical support function for a sufficient number of producers in a given sector.

The individual approach also shows its limits in a third area: **maturing** (for long maturing cheeses). Two problems need to be addressed here:

- the cost of investing in an air-conditioned cellar is proportionately higher for a small volume (and is on top of the cost of installing the cheese dairy);
- the dairies lack manpower, because the number of family members working in them is often in decline and these members have to assume multiple and demanding tasks.

Over the past 20 years, these various conclusions have led some producers to envisage the implementation of collective solutions. *This was the case in particular in the Alps (Reblochon), the Béarn Pyrenees, the French Basque region (Pyrénées-sheep's), the Spanish Basque region (Idiazabal), the Asturias (range of cheeses), the Centre region of Portugal (Castelo Branco cheese, sheep's cheese), Catalonia (Formatge d'Atura), etc.*

1.4 Various possible models for the collective economic organisation

In response to the problems observed, several types of initiatives have emerged to collectively implement one or several of the functions concerned.

The various collective methods can be classified in the following categories:

- **Technical support – producers form an association or group so that together they have technical support for cheese making.**

This is the case of the 35 farmhouse cheese-makers in Catalonia who, in 1982, created ACREFA (Associació Catalana de Ramaders Formatgers Artesans), and for the whole of the Pyrenees where the Association des Fromagers Fermiers et Artisans des Pyrénées was set up about 12 years ago. Some of them do not have a full-time technician working exclusively for them and therefore have a contract with a competent support structure (this is the case for Munster in Alsace);

- **Collective maturing – producers participate in a project to have a collective room for maturing in order to minimise individual investments** (and, in some cases, minimise the use of family labour as well).

It is worth mentioning two cases in the French Basque region: the Garazi Cooperative (30 members) and the Soule Cooperative (about 10 members). The producers of these two structures also have professional technical support (Chamber of Agriculture) and market their product individually;

- **Collective marketing – Three cases can be mentioned of collective structures specialised in marketing:**

- > *The small cooperative of Chevières du Tarn (Midi-Pyrénées, France) which offers a wide range by pooling part of the production of about 8 processors;*
- > *COASA, in Asturias (Spain), a limited company comprising 32 farmer producers who are shareholders and offering a wide range of traditional cheeses;*
- > *The cooperative of Rocamadour Fermier (Lot, Midi-Pyrénées, France), made up of 12 producers and markets, to this day, a single farmhouse goat's cheese: Rocamadour.*

Certain initiatives have combined **two functions**, for example:

- **Technical support and maturing – this is the case of the Artzai Gazta cooperative comprising 120 farmhouse cheese makers of the Spanish Basque region and Navarra (Idiazabal sheep's cheese). This structure has a full-time cheese technician and is also setting up a collective room for maturing for some of the members.**
- **Maturing and selling – this was the approach initially chosen by the cooperative of Queijos da Beira Baixa (LEADER area of Raia Centro Sul, Centre, Portugal) for the local sheep's cheese called "Castelo Branco".**

Finally, a comprehensive sector approach is possible

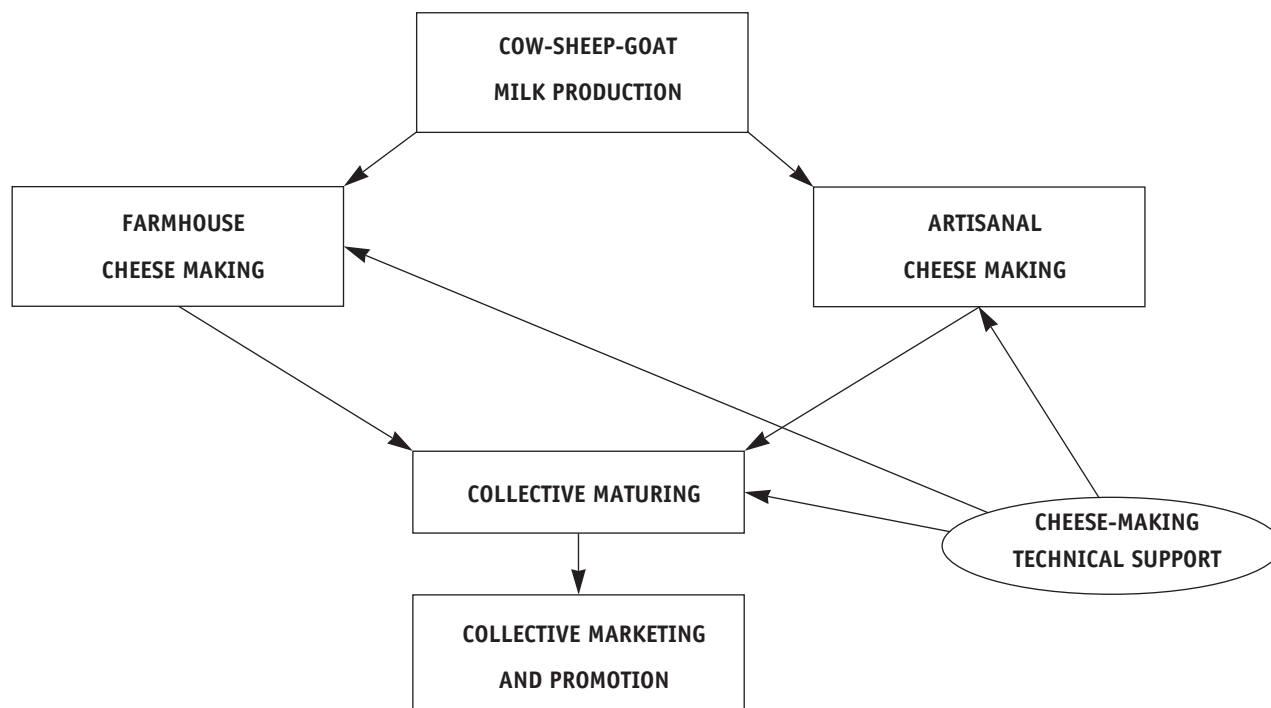
Clearly, it is the only option possible for managing a collective economic approach without risk.

Any other model has its vulnerable points which may, under certain circumstances, be detrimental to the sector as a whole. There are very few examples, and only two can be mentioned:

- *The cooperative of Reblochon Fermier in Haute-Savoie comprises 80 producers who benefit from three functions: technical support, collective maturing and collective marketing. This structure is developing a very significant volume of activity: roughly ECU 600 000 per year;*
- *The union of cooperatives "Les Fermiers des Pyrénées", which also incorporates the three functions for 100 farmer producers of Béarn grouped together, depending on the valley they come from, in three basic structures for maturing.*

In addition to mastering a comprehensive sector approach for farmhouse cheese, the two examples above also include a **collective processing activity at the cheese dairy** for artisanal cheeses made from raw milk which complement the sale of farmhouse cheese(s).

DIAGRAM OF A COMPLETE SECTOR APPROACH
CASE OF THE UNION OF COOPERATIVES "LES FERMIERES DES PYRÉNÉES"



The cheese dairy or non-industrial collective processing

Extremely common in the Alps and Jura Mountains of France and Switzerland, the cheese dairy (small-scale collective processing of milk into cheese in a non-industrial installation) is an option for economic organisation that can be an alternative or complement to the farmhouse cheese option. It is generally run by a small group of milk producers from a particular area (one or more villages). It is very similar to farmhouse processing on at least two counts:

- the first reason, and the most fundamental, is that it is another way for the producer to use the raw material, milk, by turning it into a quality food product (traditional raw milk cheese). The Alpine tradition is a good example of this: the cheese dairy cooperatives of Beaufort (Savoie, Rhône-Alpes, France) pay ECU 0.46 per litre of milk, or 50% more than the milk collected by the industry (ECU 0.30/litre). In the hands of local producers, this type of organisation, if well managed, therefore has the same strategic purpose as that of farmhouse cheese;

- at the commercial level, it is also worth noting the proximity of farmhouse and artisanal cheeses made with raw milk. These are, in the minds of the distributor and consumer, two similar versions of noble cheeses.

Outside the Alps and Jura Mountains, there exist a number of non-industrial processing structures which have been successful, for example:

- the "Coopérativa de Queijos da Beira Baixa" (Central Portugal) in its recent reconversion formula;
- SARL Garazi, which is run by 12 operators in the French Basque region (Ossau-Iraty sheep's cheese);
- the cooperatives of Oridizia and Azpeitia (Idiazabal sheep's cheese) in the Spanish Basque region;
- the cooperative of "Pélardon des Cévennes" (goat's cheese) in Lozère (Languedoc-Roussillon, France);
- the "Nuova Agricoltura" cooperative which, in the Maiella LEADER area (Abruzzi, Italy), processes sheep's milk to make "Pecorino Abruzzo".

It should be noted that **the cheese dairy formula may be easily combined with a farmhouse organisation** by harmoniously complementing it (additional option for producers, better depreciation of maturing capac-

ities, wider market range, etc.). *The examples of the Reblochon Fermier cooperative and the Union de Coopératives Pyrénéenne are a perfect illustration of this.*

COMPARATIVE TABLE OF FORMULAE

FARMHOUSE PROCESSING AND CHEESE DAIRY PROCESSING

farmhouse formula

advantages:

- upmarket position of product;
- optimisation of value added for producer;
- control by producer all the way to the finished product;
- use of family labour.

constraints:

- investment in cheese dairy;
- investment in maturing (if not collective);
- labour for production and possible maturing;
- marketing (if not collective)

cheese dairy formula

advantages:

- upmarket positioning of product;
- value added on raw material in comparison with price of industrial collection;
- no need for investment in cheese dairy or maturing;
- no need for labour beyond milk production.

constraints:

- few constraints on farm;
- need to invest in creation then management of collective structure.

"FARMHOUSE CHEESE", "ARTISANAL CHEESE", "PRODUCTION WITH RAW MILK": DIFFERENT INTERPRETATIONS

A few comments would be useful on the terms **"farmhouse cheese"** and **"artisanal cheese"** and **"production with raw milk"**.

Very substantial variations can be observed in these two areas from one country to the next: hence, the French concept of "fromage fermier", comparable to the "farmhouse cheese" of the British isles, is clearly defined as cheese made from the milk of a single farm;

The French term "fromage artisanal" or what in English could be described as non-industrial or "artisanal cheese" does not have any precise official definition: in Spain the term "queso artesano" covers the French concept of "fromage fermier" and the product resulting from small-scale production using several milks; in Portugal, "queijo artesanal" is a term normally reserved for farmhouse production.

In France in particular, raw milk is generally considered to be a decisive factor in differentiating noble cheeses. However, it should be noted that the Spanish health authorities more often than not interpret the EEC regulation in the sense that pasteurisation is compulsory.

The conclusion therefore is that there is little homogeneity between neighbouring regions in the definition of the terms "farmhouse cheese" and "artisanal cheese" and in their usage by health authorities.

1.5 Summary analysis of the case of “Les Fermiers des Pyrénées”

This is an interesting example, because it combines several criteria:

- it is a comprehensive sector approach;
- it is organised for farmhouse cheese and artisanal cheese;
- “Fermiers des Pyrénées” offers a wide range of pressed cheese products (sheep, cow, goat);
- it is a two-level structure (3 basic cooperatives comprising a union of cooperatives);
- the organisation is very professional.

The Béarn valleys (Aquitaine, France) are a traditional place of production (over 1000 years of history) for “Pyrénées Fermier”, which is virtually the only cheese produced by this mountain area.

At the end of the 1970s, the situation became extremely worrying:

- the quality of the product was irregular and heterogeneous, because producers had not sufficiently mastered the technique;
- production facilities did not comply with all the health standards;
- maturing was done in individual drying rooms that lacked air conditioning, a fact that only contributed to the random quality;
- marketing was done via traditional local traders with obsolete methods;
- outlets were very uncertain.

Braving individualism and fatalism, a small group of producers in the Aspe valley (Pyrénées-Atlantiques, Aquitaine, France) began a series of meetings in 1977 which led, in 1979, to the creation of a cooperative based on the following principles:

- collective maturing;
- collective marketing;
- a continuing programme to develop facilities complying with Community standards.

Collective maturing in an air-conditioned drying room began on a small scale in 1979. In terms of mentalities, it caused quite a stir, because the project broke with the pervading individualism.

The technical approach was no major difficulty, but this was not the case when the time came to begin the marketing approach: the farmers concerned in fact

had no marketing expertise and would have achieved nothing for quite some time had they not received help from the “Mission agro-alimentaire Pyrénées”. In 1980, this support structure, which is specialised in the economic organisation of agri-food products and which was set up with public funding, began providing them with decisive support to begin a professional approach in this field.

The Aspe valley cooperative became specialised in traditional “Pyrénées Béarnais” cheese. It is an uncooked pressed tomme that is “blind” (without holes) and weighs 4 to 5 kg. The range includes:

- pure sheep's cheese, matured for at least four months and benefiting from a registered designation of origin: “Ossau-Iraty-Brebis-Pyrénées”;
- pure cow's cheese;
- goat's cheese;
- mixed cow and sheep's cheese.

Two artisanal cheeses made with raw milk have been added to this farmhouse range: a pure cow's cheese (open cheese with rustic rind) which the cooperative has been producing since 1986; a pure sheep's cheese similar to the Basque version (1 and 2 kg tommes) which is being made in cooperation with a non-industrial collective structure of the Basque region.

In 1982, a farmhouse cheese cooperative was created in the neighbouring Ossau valley. It adopted the same articles of association and the same rules of procedure as its counterpart in the Aspe valley.

In 1984, the two structures created a union of cooperatives to which they assigned the functions of technical support and marketing.

A series of investments were made that helped spur the growth of business:

- 1986: an investment of ECU 350 000 to the village of Accous to equip the rooms of the union of cooperatives, double the maturing capacity (10 000 cheeses, or 50 tonnes) and install the non-industrial cheese dairy;
- 1992: doubling of the maturing capacity of the Ossau valley (to also 10 000 cheeses);
- 1996: increase in the maturing capacity of the Aspe valley; development of a third site that will enable the collective maturing of farmhouse cheeses in a third valley (Baretous) and in the Soule region (neighbouring LEADER area).

The volume of activity began at 33 tonnes and with a turnover of ECU 170 000 in 1981, reaching 240 tonnes and over ECU 2 million in turnover in 1995.

It can be broken down in the following way:

- 2/3 farmhouse cheese, 1/3 artisanal cheese;
- 45% sheep's cheeses, 33% cow's cheeses, 10% cow and sheep, 12% goat.

The clientele segments are:

- supermarkets: 51%
- traditional trade: 37%
- export: 8%
- direct selling: 4%

It is interesting to note that sales are essentially made outside the "greater Southwest region" (Aquitaine and Midi-Pyrénées), which absorbs less than 15% of the total.

After a period of gearing up during which they just balanced or were slightly negative, the management results have regularly been positive for the past few years.

At the social and human level, the results are also very favourable with:

- the development of confidence among the actors who control their destiny themselves;
- the sector's continuation;
- the entry of young farmers made secure by the presence and efficiency of the collective structure set up (many of them would not have taken over from their parents under the original conditions).

Since their initiative got under way, the Fermiers des Pyrénées have ensured that two very important criteria are observed:

- great professional rigour in all areas, in particular:
 - > technical command and quality control,
 - > the marketing approach,
 - > management analysis,
- a sizeable investment in the main area of marketing:
 - > market research, studies on the marketing location, France and exports,
 - > implementation of a full range of communication props (prestigious plaques, brochures for consumers, price markers, posters, videos).

These are two major factors of their success.

The main condition that enabled the actual implementation of this professional approach lay in the decisive support provided by the "Mission agro-alimentaire Pyrénées": beginning with an awareness and political will on the part of the farmers, the performance of this structure in fact made it possible to research, design then launch and oversee a genuine realistic, viable and sustainable economic project.

Another significant asset: the union of cooperatives has set up, with 15 companies from all over the Pyrenees, the "Saveurs des Pyrénées" association, which is responsible for promoting a large range of quality products (salt meats, cold cooked meats, foie gras and derived products, suckling lamb, jams, liqueurs, fruit juices, pastries, honey) in France and on the export market. Saveurs des Pyrénées is also responsible for part of the marketing of the union of cooperatives, accounting for 43% of all the association's sales in 1995. It handles in particular all exports (Northern Europe and North America) of the union of cooperatives.

part two

Technical and economic analysis

of the different functions in the cheese sector

Technical and economic analysis

of the different functions in the cheese sector

2.1 Cheese-making technical support

In the initial phase of mastering the technique, for example during training programmes, producers often want to learn a “recipe” which, when always applied in the same way, will enable them to have a successful production each time.

They are then disappointed to learn that this is not the case. On the contrary, depending on the different parameters of the raw material which vary in time (the acidity of the milk, for example), they have to **adapt the conditions of their production** (e.g. curdling time).

As was underlined above, in addition to the initial training, **permanent technical monitoring is of the utmost importance.**

This is especially true in the case of an economic organisation ensuring collective marketing: while individual direct selling makes it possible to sell the most diversified products, **professional marketing through a long network requires, on the contrary, that presentation and quality be uniform and regular.** Otherwise, the market's disapproval will be immediate and very severe (irremediable loss of distributor customers).

There is therefore a **very direct link between the marketing and technical functions:** involvement in marketing almost immediately leads to the conclusion that **the market is extremely demanding** when it comes to quality, and this involvement also provides an important factor of motivation for **efficient technical support.**

In the case of “Fermiers des Pyrénées”, the initial review was extremely unfavourable in the case of quality: production varied greatly in terms of shape, colours, textures and tastes. It was also extremely variable in time (depending on whether it was at the beginning or end of the marketing year for sheep's cheese, for example).

Fifteen years of technical support have enabled a high level of steady uniform quality to be achieved today. This is the major factor that has enabled the growth in sales observed. It is, in all cases, a sine qua non condition of success.

The technician generally pays a visit to each producer at the start of the cheese year (for sheep's cheese, mixed cheese and goat's cheese), during which he monitors the overall production and conducts a series of tests. The visits are then spaced out and take place mainly on request when the producer or cellar technician notices a problem.

Soft white cheeses moved for maturing are also systematically inspected. Analyses are primarily carried out to check for coliforms, staphylococcus and listeria. The follow-up is assured in cooperation with the head of the department of veterinary services.

The type of solution to be adopted for the implementation of technical support must be **“tailor-made” according to local conditions.**

Hence, for example, a group of producers may sign a contract with a structure that will ensure a reasonable timetable of interventions throughout the year.

It must be emphasized that **technical support integrated in an economic structure that markets its own production generally proves much more efficient**: the daily testing of the market leads to a high level of requirement and usefully orients certain parameters, e.g. texture of cheese, colour of rind, etc. Lastly, it should be noted that, in addition to his specific job, **the cheese technician is an important conveyor of information**. In daily contact with producers, he is able:

- to inform them and raise their awareness, beyond the strictly technical field, of the operating conditions of the economic structure, market trends, etc.;
- to register the needs, concerns and desires of producers, which are all factors that should be dealt with in the economic organisation set up.

2.2 The cheese dairy or non-industrial collective cheese making

The interest of this method was enlarged upon in **point 1.4**.

The cheese dairy can constitute a single organisation or complement a basic farm structure.

To illustrate this, we will analyse the economic models of two references:

- *the cheese dairy of the Aspe Valley cheese cooperative, which is complementary to the farming activity;*
- *the cooperative of Queijos da Beira Baixa (Portugal). In 1989, this group first began by maturing and marketing farmhouse cheese (known as "Castelo Branco"). Labour constraints and the large volumes to be processed then led the members to switch from the organisation that they initially opted for to the cheese dairy formula.*

2.2.1 Economic analysis of the cheese dairy of the Aspe Valley cooperative

The investments made in this cheese dairy in 1986 have remained very modest.

The cheese dairy is part of a complex built by local authorities (total cost: ECU 230 000) and leased to the cooperative and the union for a period of 15 years.

The cheese dairy only occupies 20% of the built area of the cooperative.

Value of investments:

<i>Cheese dairy building</i>	<i>ECU 30 000</i>
<i>Dairy facilities</i>	<i>ECU 65 000</i>
<i>Dairy equipment</i>	<i>ECU 18 000</i>
<i>Total investments</i>	
<i>for cheese dairy</i>	<i>ECU 113 000</i>

These various investments have benefited from a level of public aid of roughly 50% (French State and Aquitaine Region).

The organisation model in place enables the management to be analysed in a way that is both simple and precise (base financial year 1994/1995):

- ECU 0.40/l is paid for milk (delivered to the cooperative);
- maturing, which is carried out jointly with the maturing of the farmhouse cheese, is evaluated on the same basis of calculation of cost, which turns out to be ECU 0.27/kg;
- the finished product is sold to the union of cooperatives at ECU 4.87/kg, and the union is responsible for its marketing.

The profit and loss account below indicates:

- a gross profit margin of 27.4% (which would become 42% if the cheese dairy took care of marketing itself with a cost of 20%);
- a variable cost rate of 11.9% (production) + 5.5% (maturing) = 17.4%;
- a variable profit margin or margin of contribution to structural costs of 10% (gross profit margin minus variable cost rate), or ECU 0.49/kg;
- a structural cost volume of ECU 23 348.

On these bases, 30 tonnes worth of business is insufficient for the tool to be profitable. The break-even point is:

$$\frac{23\,348}{\text{ECU } 0.49} = 48 \text{ tonnes}$$

It should be noted that the tool has a production capacity of roughly 100 tonnes.

ASPE VALLEY CHEESE COOPERATIVE - CHEESE DAIRY PROFIT AND LOSS ACCOUNT 1994

Unit: ECU	Amount	%
Production	148 033	100
- advance payment/sale ECU 4.57 ECU X 30 185 kg	137 945	
- price supplement ECU 0.3 X 30 185 kg	9 056	
- stock differential	1 052	
Milk purchase (303 136 l x ECU 0.35)	107 483	72.6
Gross profit margin	40 550	27.4
Variable production costs	17 567	11.9
- wages	3 723	
- expenses	1 411	
- supplies + maintenance repairs	9 530	
- management costs	1 135	
- participation of technician/cheese dairy	1 768	
Maturing	8 088	5.5
Fixed costs	23 348	15.8
- water and electricity	2 954	
- rent	1 462	
- insurance + fees	1 195	
- taxes	1 372	
- financial expenses and loans	1 066	
- provision of services	1 143	
- depreciation	14 156	
Profit / Loss	-8 452	-5.7

ASPE VALLEY COOPERATIVE
SIMPLIFIED ECONOMIC MODEL OF CHEESE DAIRY PRODUCTION
(BREAKDOWN OF COSTS IN ECUS FOR 1 KG OF COW'S CHEESE)

Analysis / 1 kg	amount (ECU)	%
Transfer price	4.86	100
Raw material: 9.97 l x ECU 0.35 ECU/l	3.53	72.5
Gross profit margin	1.33	27.5
Variable production costs	0.58	12
Cost of maturing [*]	0.26	5.5
Sub-total of variable costs	0.84	17.5
Margin of contribution to structure costs	0.49	10

[*] the cost of maturing artisanal cheese is less than that for farmhouse cheese, because it requires less work and maturing time is shorter (1 month instead of 2 or more for farmhouse cheese).

2.2.2 Analysis of the economic model of the “Cooperativa de Queijos da Beira Baixa”

The investment, made in 1992, amounted to ECU 923 000. Of this amount, 50% was made up of public aid from the Portuguese State and the EAGGF. Depreciation amounts to ECU 46 000 a year.

Roughly ECU 1/l is paid for sheep's milk, collected from member producers.

The average selling price for the cheese is ECU 8.7/kg. Problems with quality limited it to ECU 8/kg in 1993/1994.

Since 1994/1995, the whey has been retained to make “requeijão” (soft white cheese).

In the table below, the 1993/1994 figures are real and the figures for 1994/1995 and following years are estimates. The 1994/1995 figures, however, have turned out to be fully in line with projections.

The following points should be noted:

- an unfavourable situation in the start-up year due to a volume of production which was still insufficient (61 tonnes) and a reduced average selling price;

- a gross profit margin rate which gained 10 points in 1994/1995 (from 30% to 40%) and which should continue to improve over the following years for three reasons:

- > improvement of cheese output;
- > quality control = improvement of average selling price;
- > use of whey to make requeijão;

- a variable cost rate of 8%; the variable profit margin or margin of contribution to structural expenses is therefore 32% (40%-8%);

- a very profitable net result from 1994/1995 onwards (+7%) with further improvement expected in the next few years and a volume of activity increasing from 95 to 154 tonnes in 2 years.

The break-even point is:

$$\frac{\text{ECU } 213\,000 \times 100}{32} \text{ [1]} = \text{ECU } 665\,625$$

or **75 tonnes of cheese.**

[1]

ECU 213 000 = fixed costs + depreciations (1994-95);
 32 = variable profit margin or margin of contribution to structural expenses.

COOPERATIVA DE QUEIJOS DA BEIRA BAIXA

PROJECTED BUSINESS AND PROFIT AND LOSS ACCOUNTS 1993/94 TO 1996/97

Unit: ECU	1993/94		1994/95		1995/96		1996/97	
Litres of milk	332 500		500 000		700 000		800 000	
Yield L/KG	5		5		5		5	
KG cheese	61 000		94 300		134 600		153 800	
Average price/kg	8		8		9		9	
Sales cheese	487		798		1 173		1 341	
Sales requeisao	51		90		123			

Traditionally, the area's private maturers are paid by keeping 1 cheese out of the 12 matured for themselves: maturing therefore costs the equivalent of 8.3% of the value of production.

In the case of cooperative maturing above, rates of 1 to 2 points less can be noted, despite superior conditions (air-conditioned room, very regular maintenance, monitoring and inspection by cheese technician).

ASPE VALLEY COOPERATIVE	
PROFIT AND LOSS ACCOUNT MATURING 1994	ECU
Products:	79 677
invoicing maturing farmer members:	67 939
artisanal cow's maturing:	8 088
margin on sales supplies:	2 279
FAFCASO subsidy:	1 371
Variable costs:	53 250
wages:	29 288
expenses:	9 708
services:	3 580
supplies + maintenance repair:	4 553
management expenses:	1 135
participation of technician/maturing:	4 986
Fixed costs:	15 414
water and electricity:	2 901
rent installation relays:	5 846
insurance, fees:	2 787
taxes:	1 372
financial expenses:	49
provision of services:	1 143
depreciation:	1 316
Profit	10 870

2.4 The marketing function

2.4.1 Marketing networks

Depending on the country, the specific situations of each structure, the size of the volumes to be sold and the share of the various marketing channels can vary sharply.

Direct marketing

For the volumes of production of a collective structure, direct marketing generally accounts for a small proportion. However, in some circumstances, its role can be considerable, in particular in **sectors with strong local consumption and in areas where rural tourism provides a steady flow of customers.**

The cooperative of Beira Baixa directly sells 36% of its production in this way.

The traditional short network

This involves directly supplying retailers, dairies or grocery stores and/or caterers.

The cost of sub-contracted transport, which is high for small quantities, reduces the potential of this niche to a limited geographical area.

The cost of direct distribution to small retailers also proves generally high, especially since direct distribution often concerns a single product or a limited range of products.

Nonetheless, it may be possible in certain locations (the proximity of a large consumer basin, for example) to make an exception to the rule. However, **generally speaking, it is still more rational and economical to go through a wholesaler.**

The traditional wholesaler

The wholesaler is the ideal trading partner for an economic structure offering farmhouse and/or artisanal cheeses.

For a given geographical sector, the choice of wholesaler should preferably be the distributor most specialised in noble cheeses; the one with the best reputation among upmarket retailers.

SHARES OF THE DIFFERENT MARKETING NETWORKS (%)

	direct selling	traditional short network	traditional wholesalers	supermarkets	export
Cooperativa da Beira Baixa (95 t)	36	7	47	10	0
Coopérative les Fermiers du Rocamadour (48 t)	0	11	46	43	0
Union les Fermiers Des Pyrénées (240 t)	4	5	32	51	8

Supermarkets

Only 12 years ago, this sector was out of bounds for quality cheeses. Since then, the situation has greatly evolved:

- supermarkets have gradually diversified from the “discount” product to middle-of-the-range and top-of-the-range products;
- the potential offered by traditional distribution has steadily declined.

This is particularly true in France and Northern Europe, but this development, which has not occurred everywhere at the same time, can now also be witnessed in Spain and Portugal. Hence, certainly still at different degrees, **supermarkets have, in most European Union countries, become an unavoidable trading partner for any cheese economic organisation that is at all significant.**

This situation does, however, present serious problems which are not improving with time:

- there is a cultural rift between two universes which are not made for one another;
- the standardisation of listing conditions [2] results in a stream of successive costs that are difficult to bear in the case of farmhouse or artisanal products;
- the accelerated centralisation of purchasing requires levels of production that are too high for any small-scale / farmer supplier;
- small structures, which sometimes depend on a single buying group for 30% or more of their sales, are putting themselves in a very vulnerable position.

Generally speaking, the share occupied by supermarkets grows with the volume of activity developed.

Hence, despite an effort to optimise the traditional network, “Les Fermiers des Pyrénées” cannot reasonably envisage making less than 50% of their sales in supermarkets.

2.4.2 The cost of marketing

The cost of marketing varies greatly depending on the situations and networks used.

With direct selling, for example, the selling price level is optimised but, of course, results in a higher selling cost than in the case of wholesaling. **Consequently, in some cases, direct selling may in the end prove less profitable than selling through the long network.**

The bottom line is that only one criterion is important in assessing the performance of a type of network: the net remuneration that the producer is able to obtain.

By way of example, we shall now analyse the trading margins and costs of the union de coopératives “Les Fermiers des Pyrénées” during the period 1994/1995.

Depending on the product, the average gross profit margin (between price paid to the producer and average selling price) is between ECU 1.5 and 2.3 / kg, or 20% to 25% of the selling price of the product concerned.

[2]

set of trading conditions and constraints imposed on the supplier for accessing a chain of shops

UNION LES FERMIERS DES PYRÉNÉES

PRODUCER PRICE, AVERAGE SELLING PRICE AND GROSS PROFIT MARGIN

1994/1995

ECU/kg	Producer price	Average selling price	Gross profit margin	%
Farmhouse cow's	5	6.7	1.67	24.9
Farmhouse mixed	7.07	9.3	2.22	23.9
Farmhouse sheep's	8.44	10.5	2.08	19.8
Farmhouse goat's	7.84	10.01	2.26	22.4
Artisanal cow's	4.87	6.42	1.55	24.1
Artisanal sheep's	8	10.25	2.26	22.1

It should be noted that some costs are proportional to the weight sold (labelling, packaging and transport, for example), regardless of the value of the product.

Others, on the contrary, are proportional to the value of the product (representatives' commission, for example).

Finally, there are numerous fixed or semi-fixed costs (rent, insurance, various fees, depreciation).

Analysis of the 1994 marketing profit and loss account of the "Fermiers des Pyrénées" indicates:

- a total expense rate (including packaging) of 20.5%;
- 3.2% of expenses directly proportional to the weight sold;
- 8.8% of expenses proportional to the sales turnover;
- 8.5% of fixed expenses.

The classic problem during the start-up phase of a business structure (and a processing structure) is depreciating all the fixed expenses that cannot be reduced in the gearing-up period.

In fact, when an economic structure is created, a whole range of means proves necessary, such as real investments, but also operating costs which, from the start, will constitute fixed expenses to be depreciated on the business done by the undertaking. This is true for both processing and marketing. Regardless of the volume of activity anticipated in the initial phase, there is a level below which the minimum means needed to begin running the undertaking cannot be implemented. Hence, in the case of selling, for example, a minimum range of communication tools will cost initially at least ECU 7 000, regardless of the volume of activity in the start-up phase. Similarly, when a sales manager is appointed, it is generally difficult to hire that person part time: it is a full-time job that the business will have to support. These two examples illustrate a recurring problem that makes for a very painful debut for small local economic structures.

It means that the volume of activity has to rise as quickly as possible to reach the break-even point that makes it possible to achieve a variable profit (or direct cost) margin volume equal to the overall amount of structural expenses and therefore finance these expenses to achieve the management balance.

UNION LES FERMIERS DES PYRÉNÉES - TRADING PROFIT AND LOSS ACCOUNTS 1993 - 1994

Unit: FRF	1993		1994	
(1 FRF = 0,15 ECU)	Amount	%	Amount	%
Sales turnover excluding taxes	12 976 956	100	14 296 569	100
Cheeses	12 809 317		13 972 208	
Other sales and services	166 270		190 989	
Variation in inventory	1 369		133 372	
Purchases	10 175 979	78.4	11 221 482	78.5
Cheeses	10 039 832	77.4	11 098 300	77.6
Non-members' cheeses	0		0	
Packaging	136 147	1	123 182	0.9
Various purchases	0	0		
Gross profit margin	2 800 977	21.6	3 075 087	21.5
Consumable supplies	29 295		41 989	0.3
Rent	28 814		28 814	0.2
Maintenance	22 133		27 265	0.2
Insurance	32 086		35 417	0.2
Fees	13 000		17 500	0.1
Commission	725 289	5.6	829 874	5.8
Advertising - promotion of sales	334 124	2.6	228 795	1.6
Transport	281 084	2.2	282 604	2
Travel	40 035		48 895	0.3
Mail and telephone	57 453		49 958	0.3
Miscellaneous	62 284		43 913	0.3
Taxes	37 348		39 971	0.3
Wages	552 660	5.9	674 675	4.7
Social security expenses	218 929		270 061	1.9
Management expenses	19 176		27 757	0.2
Financial interest	10 362		8 858	0.1
Depreciation	52 500		80 219	0.6
Provisions	22 525		66 622	0.5
Total expenses	2 539 097	19.6	2 803 187	19.6
Net profit	261 880	2	271 900	1.9

Comparative analysis of the net profitability per type of marketing network shows rather substantial differences. On the basis of the 1993/1994 financial year, it can be seen that:

- supermarkets have a slightly negative net margin;
- the traditional sector for France and exports has a net profit exceeding 3%;
- direct sales have a net profit rate close to 10%.

An original situation can be observed here:

- direct selling gives the same gross profit margin rate (before discounts) as the long network (26%)
- its cost is 10 points less than that of supermarkets.

UNION LES FERMIERS DES PYRÉNÉES

COMPARATIVE ANALYSIS OF PROFITABILITY PER TYPE OF MARKETING NETWORK (1993/1994)

%	total	supermarkets	traditional distribution	export	direct selling
Gross profit margin					
rate before discounts	26.2	26.3	26.3	26.2	26
Complete marketing cost	24.5	26.4	23.1	23.1	16.3
Net profit	1.7	-0.1	3.2	3.1	9.7

In comparison, the Coopérative des Fermiers de Rocamadour is seen to have a marketing cost rate of 31.4%, or 11 points more than above.

There are several explanations for this difference:

- *a packaging cost much higher for a very different product (40 grams/unit), packed in small wooden boxes (in this case, packaging represents 5.9% of the sales turnover, compared with 0.9% in the Pyrenees);*
- *a transport cost which is also much higher (6.2% of the sales turnover compared with 2.2% in the Pyrenees). The single product, Rocamadour, which is shipped in small unitary quantities (limited preservation), has a transport cost that is almost three times higher;*
- *finally, structural expenses for a greater volume of activity (the cooperative of Rocamadour, with some ECU 500 000 in sales turnover, is in the initial gearing-up phase).*

On the other hand, the Beira Baixa cooperative has a very low marketing cost (roughly 10%).

The local situation is, in fact, much more favourable:

- *there are few competitors for a quality professional offer;*
- *traditional distribution is still extensive;*
- *a lesser effort, therefore a lower cost, must be made to sell the same volume.*

The three cases examined therefore show us the full range possible for the cost of the marketing function.

Establishing an expanded range of farmhouse and/or artisanal cheeses made with different kinds of milk is a major asset to minimise the marketing cost:

- *by reducing transport costs;*
- *by depreciating, for a greater volume of activity, inevitable structural expenses that cannot be reduced.*

Conclusions

LOCATION OF CHEESE PRODUCTION



1 Artzai Gazta Idiazabal

2 Formatge d'Atura

3 COASA

4 Sainte-Maure

5 Crottin de Chavignol

6 Saint-Nectaire

7 Reblochon

8 Pélardon des Cévennes

9 les Fermiers des Pyrénées

10 Garazi Soule

11 Chevriers du Tarn

12 Munster

13 Rocamadour

14 Pecorino Abruzzo

15 Castelo Branco

16 Queijos da Beira Baixa

17 Serra de Estrela

Conclusions

Increasing the value of milk by producing cheese from it, a prime example of a local valorisation strategy for agricultural resources, is a fundamental part of development for many disadvantaged rural areas.

It has great potential in Europe, if one considers the great number of traditional cheese-making activities carried out, in addition to the innovative initiatives such as the introduction in 1988 of the production of sheep's milk and its processing into cheese in the Clare LEADER area in Ireland.

The limits to the full development of this sector of activity are more often than not a result of the atomisation of individual approaches:

- quality insufficiently mastered;
- limited range of action and marketing impact;
- nominal investments in marketing.

The means to be implemented and the principles to be observed so that the potential becomes a lasting economic reality are well known. They are the same that prevail for the local agri-food valorisation of any agricultural resource and can be summed up in three points:

- a **collective approach** which makes it possible to move forward together where it is no longer possible to move forward individually. A converging set of reasons justify the collective organisation, three of which are:
 - > the **economy of scale**, which makes it possible to better depreciate investments, better cover fixed expenses and, as a result, obtain lower costs and greater profitability for the producer (maturing cost and marketing cost, for example);
 - > a **minimum size** is needed to have truly professional means that are not only technical but also and especially commercial;
 - > the **growing share of supermarkets** which has often become unavoidable (France, Spain, Portugal, Northern Europe) fully justifies a concern to pool supply in order to face the centralisation of generalised purchases;

- a **network approach**, with simultaneous and coordinated action throughout the chain, from top to bottom, in order to have the future of a production truly under control;
- a **professional approach** because constant technical rigour is necessary in all fields of expertise: technical, marketing, management, etc.

The agri-food economic organisation is not a simple enlargement of the agricultural framework but really entry into a new world: that of the company confronted with its market.

The local players are more often than not poorly prepared for this type of change, because they are generally strongly impregnated with the agricultural culture alone and find themselves isolated, with insufficient technical support.

The services of a generalist coordinator are not enough to get a group going, to implement the successive phases of assembly of a project and to assist in its development. The intervention of specialised technical support is, however, usually necessary, although there are very few references for this type of resource.

The LEADER network has considerable assets to design, test and implement tools of this kind, which are fundamental for the success of future projects.

In this sense, it would be possible:

- to take advantage of existing experiences;
- to implement the approach on a few of the most appropriate sites;
- to develop intense and steady transnational cooperation, not only between technicians but also between economic actors with projects.

Implementing and coordinating such a programme is a major challenge for LEADER II.