



Swedish University of Agricultural Sciences  
Faculty of Natural Resources and Agricultural Sciences  
Department of Economics

# Protected Designation of Origin Protected Geographical Indication

-their significance for the growth of the food industries in France  
and Sweden

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# Summary

Protected Designation of Origin (PDO) is a quality control system created by the European Union (EU) to protect integrity of certain food and drinks that are produced in a specific area in a unique way. By protecting these products, the EU can certify that the traditional region-specific methods of food and drink production are preserved. The EU countries that follow such a system are mostly from Southern Europe. For instance in France, the PDO system has helped improve the income for farmers, boosted the rural development and assured protection for farmers against the abuse of their brand and the selling of their products by outsiders. In Sweden, there are no PDO products yet, instead there is Protected Geographical Indication (PGI) and Traditional Speciality Guarantee (TSG) that are not as protective as PDO.

However, there are many local products in Sweden that have a potential to be protected under the PDO system. The aim of this study is to find the reasons behind the absence of the PDO and to find possibilities to implement such a system in Sweden. The methods used are literature review, subject-specific websites and interviews that were carried out with two French companies following the system and two Swedish companies using PGI and TSG. Interviews with two scientists were also conducted to understand the cause of absence of PDO system in Sweden. This study showed that French companies are well aware of the PDO system, while knowledge of the PDO system is still poor among the Swedish companies. Furthermore, the Swedish government is yet to be convinced that the PDO system is for the benefit of the producers. Interestingly, EU rules concerning PDO do not seem to encourage the Swedish government to adopt the system all the way.

# Sammanfattning

Skyddad ursprungsbeteckning (på engelska: Protected Designation of Origin, PDO) är ett system för kvalitetskontroll som skapats i Europeiska Unionen för att skydda integriteten för vissa livsmedel och drycker som produceras i ett visst område på ett unikt sätt. Genom att skydda dessa produkter kan Europeiska unionen (EU) intyga att den traditionella region-specifika metoder för att producera ett visst livsmedel och dryck bevaras. De EU-länder som följer ett sådant system är i stort sett från södra Europa. T.ex. i Frankrike har PDO-systemet bidragit till att förbättra inkomsterna för jordbrukare, stärkt landsbygdsutvecklingen och säkerställt skydd för jordbrukarna mot olaglig kopiering och försäljning av deras produkter av utomstående. I Sverige finns det inga PDO produkter ännu, istället finns det skyddad geografisk beteckning (PGI, på engelska: Protected Geographical Indication) och traditionell specialitet garanterad (TSG, på engelska: Traditional Speciality Guarantee ) som ger ett sämre produktskydd än det som utlovas av PDO. Emellertid finns det många lokala produkter i Sverige som har en potential att få skydd av PDO systemet. Syftet med denna studie är att finna orsakerna bakom avsaknaden av PDO och att hitta möjligheter att genomföra ett sådant system i Sverige. Metoderna som används är litteraturstudie, genomgång av ämnesspecifika webbsidor och intervjuer som genomfördes med två franska företag som följer PDO och två svenska företag som använder PGI och TSG. Intervjuer med två forskare utfördes också i syfte att förstå orsaken till frånvaron av PDO i Sverige. Denna studie visade att de franska företagen är väl medvetna om fördelar med PDO system, medan kunskap om PDO är fortfarande knapphändig bland de svenska företagen. Dessutom är den svenska regeringen ännu inte övertygad om att PDO egentligen är till fördel för producenterna. Intressant nog verkar EU: s regler om PDO inte uppmuntra den svenska regeringen till att införa systemet för svenska producenter.

# Abbreviations

AB: Organic Agriculture

AO: Designation of Origin

AOC/AOP/PDO/SUB: Protected Designation of Origin

DO: Designation of Origin

EC: The European Commission

EEG: The European Economic Community

EU: The European Union

GI: Geographical Indication

INAO: The National Institute for original and quality

MAAPAR: Ministry of Food, Agriculture and of the Fisheries

OA: Organic Agriculture

PGI/SGB/IGP: Protected Geographical Indication

SIFO: National Institute for Consumption Research

SLU: Swedish University of Agricultural Sciences

TSG: Traditional Speciality Guarantee

WTO: World Trade Organization

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# 1 Introduction

In the early 20<sup>th</sup> century, the industrialization of the agricultural and food sector adopted new technologies to improve food production (Nicolas & Valceschini, 1995, p 167). Between 1960s and 1980s the intensification of agriculture and animal husbandry based on use of chemicals made consumers to doubt about the product quality (Nicolas & Valceschini, 1995, p 169). The lack of proper directives for controlling these resulted in development of hygiene laws and strategies based on recognition of the quality of food and food products (Nicolas & Valceschini, 1995, p 169). As a result, the signals of quality were developed which gave birth to the "Designation of Origin"(DO). The DO or Appellation d'Origine (AO) was established in 1919 by the French Agricultural policy (O'Connor, 2006, p 182). From 1935 to 1955 AO became Appellation of Origine Contrôlée (AOC), with the creation of the National Institute for original and quality (INAO). INAO controlled and recognized the product as an AOC equivalent to Protected Designation of Origin (PDO) (O'Connor, 2006, p 182). Since 1992, AOC covers all food and agricultural products such as meat, fruits and vegetables (Nicolas & Valceschini, 1995, p 169). The DO informs consumers about the origin of the product and of the characteristics that are related to soil and knowledge of people in this area (Bérard *et al.*, 2005, p 177-182). In 1992, the European Union introduced in the market the labels Protected Designation of Origin (PDO) and the Protected Geographical Indication (PGI). The first label indicates the name of a product whose production, processing and preparation must take place in a given geographical area where the required know-how exists (Bérard *et al.*, 2005, p 179). With the second label, PGI, the product must have a quality that can be attributed to the geographical origin claimed on the label (Bérard *et al.*, 2005, p 179). In the European market we find yet another label, namely: the Traditional Specialty Guaranteed (TSG). This label specificity is needed to protect a traditional composition or production of a food product (Holland & Pope, 2003, p 127). This label is used in Sweden for one product, Falukorv<sup>1</sup>. The label Organic Agriculture (OA, also known as "Krav"), also adopted in Sweden, indicates the methods of cultivation and processing of the product that are environmentally friendly and meets the definition of Organic Farming. However, the large number of food labels leads to confusion among the consumers, since some deal with concepts of quality and others with product origin. The consumers are unable to verify the labels truthfulness and they continue to be uncertain about the quality of the product (Huynh & Besancenot, 2004, p138-140).

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<sup>1</sup> Falukorv is a traditional Swedish sausage

Excessive marking undermines the credibility of official labels and increases consumer confusion given the growing concern of consumers. "The PDO sign is used as an official quality standard and as an effective tool for product with unique characteristics, which are then guaranteed to meet consumers' expectations" (Céline, 1998, p 4).

## 1.1 The PDO system and the legislation

A PDO indicates "the name of a region or place or in exceptional cases, a country used to describe an agricultural product or foodstuff originating from that region, specific place or country whose quality and characteristics are essentially or exclusively due to the geographical environment, including natural and human factors, and the production, processing and preparation take place in the geographical area " (Petit, 1999, p 35).

The roots of the PDO system dates back several hundred years, and in the 1600's and 1700's The Bordeaux region set up a proper quality system of the product of the soil, defining the quality of the Bordeaux wine (Gelber, 2009, p127). The first formal legislation regarding the PDO system arrived in the early 20th century. In 1919, a law defined the appellations as a collective ownership associated to the arable land (Bérard, *et al.*, 2005 p183). Those laws were not sufficient to solve the overproduction of table wines or the misuse of the Bordeaux name. In 1927, the law cleared that the product to have the right to the appellation must be linked to the geographical origin, so is the conditions of production (Bourdieu *et al.*, 2004, p 167).

A PGI indicates the system where "the name of a region or place or in exceptional cases, a country used to describe an agricultural product or foodstuff originating in that region, specific place or country with a determined quality, reputation or other characteristic that can be attributed to its geographical origin and the production and / or processing and / or prepared in the geographical area. It is possible that, the raw materials such as live animals, meat and milk come from a geographical area different from the processing area?"(Petit, 1999, p 35). In 1935, the "AOC" appeared for wine (O'Connor, 2004, p 167). The administration was independent from the state and done by a professional structure, the "Comité National des Appellations d'Origine" (National Committee for the Origin Appellation), which became the National Appellation Authority (INAO) in 1947 (Unwin, 1996, p 316). The INAO is responsible for the implementation of the French policy on the products under official signs identifying the origin and quality, designation of origin, IGP,

label rouge<sup>2</sup> and farming. It is also the institution that regulates the use of noteworthy names, “appellations”, in France (Bérard, *et al.*, 2005, p 181). In 1970, EU took over the control of the quality system for wine production and vineyard development (O’Connor, 2004, p176-177). After 1990, EU regulations harmonized trade by establishing a set of common symbols for these different appellation systems. In 1992, the Regulation on the Protection of Appellations of Origin and Geographical Indications was established in the EU (O’Connor, 2004, p 168). According to Giacomini (2000 p 113-117), this regulation was necessary to protect products on the European single market. By not having this regulation, this could lead to that typical products could be threatened by competition from other countries with similar products.

Rules on applications for the Traditional Specialty Guarantee (TSG) and their meaning are in EU Regulation No 509/2006. (Communauté Européenne,(CE), 2006).The establishment of the EU regulation motivated the birth of several PDO-products; especially in France that currently has more than 600 registered names ((Bérard, *et al.*, 2005, p 181). There is a sequence of events behind this multitude of AOC’s. This is treated in the next chapter.

## 1.2 Overview

In June 2008, 779 names had been registered in EU as PDO or PGI, i.e. 446 PDOs and 333 PGIs” (www, European Commission, Europa, 2009). More than 40 % of these registered products come from France or Italy. Together with Germany, Spain, Greece and Portugal these countries have 90 % of all protected names (www, European Commission, Europa, 2009). Research has been made by the European Commission to understand the producer’s interest on adapting such a system, and the result shows that a big part of the interest is linked to marketing and protection of use of the names and signal to consumers (www, European Commission, Europa, 2009). In addition, producers located in remote areas, small producers or producers on a large scale does profit from the PDO system. The profit is evident in terms of their increased business reputation and stability (www, European Commission, Europa, 2009).

In Italy it has been shown that the PDO system has solved many different problems connected with agricultural products such as protecting intellectual property (Hall *et al.*, 2003, p 35). The Parmesan cheese in Italy, for instance, illustrates a problem that can be faced initially: it is a traditional product that is produced on a large scale. The product has been a major

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<sup>2</sup> “red label”

international success. Due to that success, producers outside Italy try to produce the Parmesan cheese.

However, they cannot market the cheese with that name, because the Italians label their cheese "Parmisiano Reggiano", a PDO that is accepted (protected). Hence, the idea is to defend a specific quality, knowhow and origin of the product. Folkesson (2006, p 60) mentioned that, the Parmesan is consumed throughout the world; the Parmisiano Reggiano is produced in the region Emilia Romagna, in Italy (Dyan, 2009, p 112). This is done in order to protect the economic interests of the producers, i.e., the dairy farmers, companies that make cheese; and the refining meaning the processing industry. She mentioned again that an old product that had virtually disappeared became interesting again, through marking it as a PDO-product. Re-introducing more products with similar track-records, might result in an economic success, while informing the consumer of the link between product and soil. This allows a niche type of marketing and geographical indication-labeling that can be a way to safeguard consumers' loyalty by consumers associating specific attributes with specific geographical regions.

The insight that at the moment Sweden has not any PDO product and that France has more than 600 has raised questions, some of which are as described below particularly as a guide throughout this thesis.

What is the impact of a PDO system on food industries and regions?

How did the region Comté and Auvergne in France expand with the PDO system?

Why has not more Swedish companies adopted the PDO system, besides Arlafoods and Melkers Falukorv?

## 1.3 Background

Before answering the questions above, it is good to knowledge what went before the appreciation of the PDO system in France and Sweden

### 1.3.1 PDO in France

According to Bérard et al (2005, p 249-252), the 1980s in France was a period of huge admiration and value for the rural society in regard of their cultural richness, their knowledge in management of the natural resources and their expertise in agriculture and medicine. The government understood that the rural community which used traditional methods had the

potential and the technology to be developed. The general attitude was that the rural society had the practices and capacity for innovation that could benefit the world.

Traditional farming was seen by the French government as the key for development and conservation of a large number of products in agriculture, forestry and medicine. France has succeeded in valuing its' traditions and diversity of food and beverages by keeping identity and quality very close. Regional authorities and local associations have been particularly active for decades to preserve and promote this and the government has supported the promotion of local products by establishing and assessing the "AO" system (Ibid). The promotion and protection were given to farmers and producers; then consumers have picked up the message and associated the offered of food and beverages with quality. From the traditional farming,

French products that are easily identifiable are now traded worldwide and generate high economic revenues for producers active in the rural community. In many countries for example Sierra Leone and Uganda such customary methods in rural community have been lost. Efforts are being made however, in some rich countries as France and Italy to preserve the traditional knowledge of disappearing. This experience could inspire poor countries as well which are also anxious to preserve their countryside expertise in economy and Agriculture (Ibid).

### **1.3.2 PDO in Sweden**

The Swedish rural areas are rich in natural resources, variety of local products, a healthy environment and creative population (Balducci, Steering committee on local & regional democracy, 2001, p 75) .The rural areas have played an extremely important role for Swedish economic growth, and there are in fact a number of industries which are clearly linked to the rural society (Karlsson *et al.*, 2009, p 318). At the end of 1980, organic farming was accepted in Sweden, and in 1994, the Swedish parliament set a target that by the end of 2000, 10% of the arable land will be using organic methods (Dabbert, *et al.*, 2004, p 59).

In 2000 more than 10% of arable land was organically certified (Dabbert et al 2004, p 60). Concerning the PDO system, the Swedish government answered to the EU green paper in December 2008, to give their position about it. Sweden underlined that; "the production quality must be based on knowledge about what consumer wants not on what producer wants to sell" (www, European Commission, Europa, 2008). They add that the obligatory labeling on origin does not aware directly consumer, that, it is high cost and many administrative charges on companies (Ibid).

The Swedish government thinks also that the labeling on origin and the indication of information on origin and place of production must be optional so that consumers are not confused in this type of labeling (www, European Commission, Europa, 2008). The possibility to choose on labeling on origin can be used as a competitive advantage by those companies wishing to do so (Ibid).

Sweden has not yet supported the promotion of regional products in accordance with such a system to the same extent as in France as mentioned in 1.3.1. Some of the explanations about it are: the PDO system requires the product to be regional and Sweden has many regional products that have become nation specific.” There is a strong tradition of trademarks in Sweden today” (www, European Commission, Europa, 2008). “Companies with registered trademarks often lack financial incentives to apply their products to the EU system (Ibid). In addition, “such association may be regarded as negative, since it means that the producer is forced to submit detailed information about the product” (www, European Commission, Europa, 2008).

Hence it will be a disadvantage for Sweden to consider the system (www, European Commission, Europa, 2008). Moreover, the system is new for most Swedish food producers (Ibid).

To date, Sweden has registered four products under the regulation 2081/92 and 2082/92: The Svecia cheese and the Spettkaka<sup>3</sup> as a PGI, and the Hushållost<sup>4</sup> and the Falukorv as TSG. Four other products have applied for registration, i.e., the Strömming<sup>5</sup>, the Getmese<sup>6</sup> (from Jämtland), the Vålåloffen (kit cheese from Jämtland) and Herrgård<sup>7</sup> cheese (Folkesson, 2006 p 68). So far, no products in Sweden are labeled PDO, when France has more than 600 product registered. The elements from interviews are expected to give answers to this issue in chapter five.

## 1.4 Aim

The aim of this study is to describe the reasons for the lack of PDO system in Sweden and to examine the impact of the introduction of this system in France on food industries and regions. This study has the ambition of creating a deep understanding of the concept

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<sup>3</sup> Pastries

<sup>4</sup>“It is a Swedish cheese, produced for home consumption” (Axler, 1970, p123).

<sup>5</sup> Sill fish

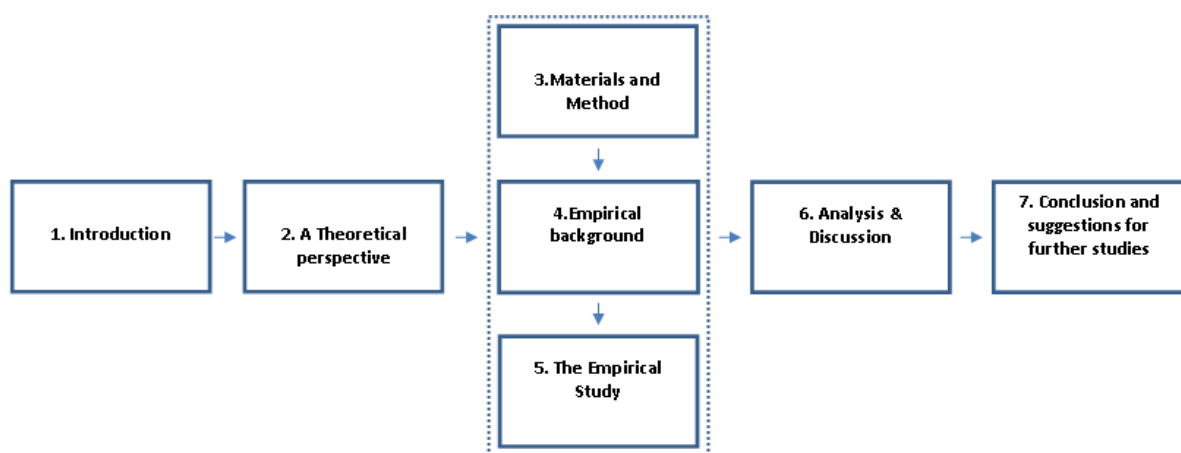
<sup>6</sup> It is” a soft, Swedish, sweet, whey cheese made from goat's milk” (Axler, 1970, p 119).

<sup>7</sup>“It is a skimmed cows- milk cheese”(Axler, 1970, p 122).

“Protected designation of origin” among producers and consumers. The studies are based on analyses of literature, internet sources and interviews, aiming at establishing the effectiveness in France and Sweden of the PDO/PGI/GTS schemes.

## 1.5 Outline

This thesis is presented as six chapters with conclusion at the end. See figure 1 below:



*Fig. 1: Outline of the study*

The first chapter is the introduction (see p1). This gives a broad perspective on how the world started to care about quality, hygiene and marketing of products from the agriculture and food industries. The second chapter presents a brief literature review of various economic theories used in this thesis trying to understand the concept of PDO/PGI. From the information about the product itself (quality and origin) to the market context, many related economic concepts have been described such as: asymmetry of information, signaling of quality, price discrimination, trademark, advertising and geographic indications. The third chapter describes the method and means used to approach the subject. The fourth chapter contains interviews with individuals and researches in different companies with similar interest in the subject, including two French and two Swedish companies. The fifth chapter holds the details of the investigation and interview of specific companies in France and in Sweden, and interviews with two scientists actively working in the subject. In chapter six, an analytical approach and discussion of the subject is presented interpreting results from the investigation as well as answering questions that arose along the way. Some disadvantages of PDO are also presented. Conclusions and further study ends this work in chapter seven.

## 2. A theoretical perspective

Many economic concepts consider the value of a product and its market (Anderson & National Council on Economic Education, 1996, p 28). A product has more value only when it meets consumers' expectations, i.e. consumers are willing to pay a maximum amount for a product (Anderson & National Council on Economic Education, 1996, p 28). The value of a product is expressed in terms of the information on its quality, the origin of the product and/or just its availability. The information around the product is a key factor. Some important theories of information surrounding a given product on the market are presented below.

### 2.1 Asymmetry of information

The theory of asymmetry of information helps to analyze behaviors and situations common to a market economy. Most of the time, we find that in a market one of the two agents has better information, he knows more than the others concerning the conditions of trade, for example: product quality, work done etc. (Huynh & Besancenot, 2004, p 32-35).

Two situations of asymmetric information can appear which are:

**1. Adverse selection:** When the market offers a homogenous product, the consumer may purchase the product without any risk to any of the suppliers. However, when the product quality presents differences, consumer would like to be aware of the product specificities, before making any transaction. In case of imperfect information on quality, the consumer will choose in random between products. Sometimes consumer uses subjective criteria such as colour, and exterior aspects to make up his mind. If the product quality is controlled by the producer and if the production costs are increasing with the degree of product quality, the process of choice leads to the elimination of good quality products with goods of inferior quality. There is no reason for the producer to maintain the quality of his product. (Huynh & Besancenot, 2004, p 139)

**2. Moral hazard:** Many alternatives are open to producer when it comes to indicate the quality of their products. Producer may ensure the product information regarding the quality of his product by using expert services from an independent company. He may also offer an important guarantee that lasts over a period. Such method may cause bad effect called Moral hazard. The guarantee offer by supplier may push consumers to use the goods outside the normal use just to emphasize it in case of trouble.



The quality of the product can also be determined if the production respect certain rules. For example the manufacture of a product after a code of practice, can guarantee a certain quality on the product. Nowadays in agriculture, labels that stand for quality or the PDO have contributed to the development of regional productions. However establishing rules for the manufacture of a product may also create moral hazard, in eliminating low product quality. (Huynh & Besancenot 2004, p140)

## 2.2 Signalling quality

The issues addressed in this section concern the tools used by producers for signaling quality. For consumers, when they do not know the product quality before purchasing, reputation, price and advertising can be the indicators (Ginger & Andrew, 2006 p 983). Producers in this case report the product quality by using a trademark or a signal of quality, as a label, which includes geographic indication. (Vincent 2006). In general it is not possible to distinguish the quality of products based on brand or price (Strauss, 2008,p 99-100).When consumers are faced with the need for a trial product or choices between unfamiliar products, they must collect the necessary information, by gathering information through sales signals or on the product characteristics (Kotler, *et al.*, 2008. p 279). The trademark is among the most important elements in marketing that can report aspects of quality to consumers (see for example Gardner, 1971, p 241-243; Jacoby & Rafael, 1971 p 570-579). Price is also an indicator the consumer uses as a tool to recognize the product with good quality. A food label another indicator to signal a product specifics quality so that consumer can make an informed choice (Krissoff, *et al.*, 2002, p 11). The geographical is one of the informative labels. It is established by the EU regulation No 2081/92 and indicates the name of a region, a specific place and sometimes the name of a country. A closer look on how these indicators can influence the image of the trademark will be presented in the following section, starting with reputation.

### 2.2.1 Reputation

Consumers buy products that they perceive are good quality. What they perceive is strongly influenced by the signals that are sent by companies (from marketing). It is from this information that consumers identify and gives meaning to trademarks and products (Frewer *et al.*, 2001, p 73-74). According to Shapiro (1983, p 659-679) the reputation can be used as a mechanism to ensure the quality of a product in a market of perfect competition. He states

that when the reputation of a producer is established, quality products are sold at a premium. This premium generates a profit for the producer and compensates for costs that were incurred during the period in which he has invested on his reputation. According to Bureau *et al.*, (1999 p 15), it is the “good information that helps to maintain the quality over time and to avoid the corrupt on the market”. In the absence of relevant information consumers tend to infer from the reputation of a company, the quality of its product or service. So, a good reputation helps to increase sales (Shapiro, 1982 p.20-35), allows better penetration of the target market and builds a relationship of loyalty with customers (Fombrun, 1996, p 5-7).

However, OECD (1999, p 39) mentions that, a producer has an economics interest in preserving his reputation. If he sold a low quality product, with a high price and consumers detect it after consuming the product, they won't buy again from the same producer. Hence it is important for a producer to signal the product quality with the correct information, and maintain the product quality over time. To differentiate a product can help companies to maintain the reputation and be distinctive in the market. The differentiation of the product is expand in the next section.

### **2.2.2 Differentiation of the product**

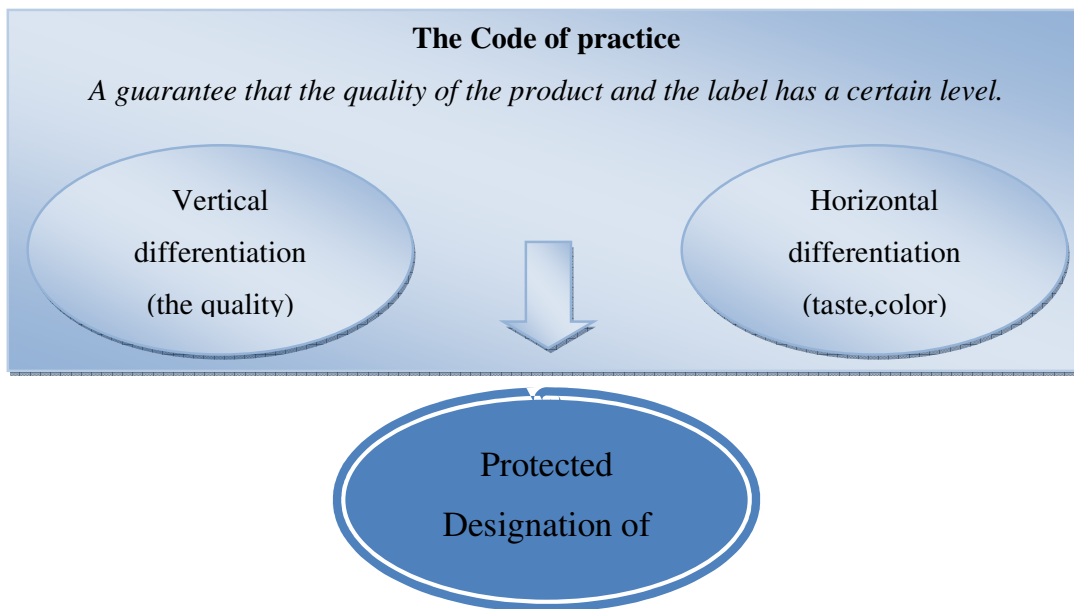
The term product differentiation is used when companies produce a variety of the same products (Beath, & Yannis, 1991, p 9). According to Georges, *et al.*, (1992 p 213), products are differentiate when consumers perceive two or several products close<sup>8</sup> to each other but not as a substitute for each other. They recognize two types of product differentiation: horizontal and vertical. The horizontal differentiation is when the market is filled with products of equal price, which helps the consumer to find a product of his/her choice. The vertical differentiation is where the quality comes into play. Consumers are willing to pay more to benefit from the flattering image of the product. In this case consumers differ in their ability to pay for higher quality.

According to Hassan & Monier-Dilhan, (2002, p 24-36), the designation of origin (AO) or Protected Designation of Origin (PDO) would be a sign for a hybrid corresponding to vertical and horizontal differentiation. The PDO is differentiates vertically because the specifications,

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<sup>8</sup> If two homogeneous goods are offered at different prices, consumers will always prefer the one whose price is the lowest (Huynh & Besancenot, 2004, p 75).

present in *the code of practice*<sup>9</sup> guarantee a minimum quality of the product. Similarly, it differentiates horizontally because of the specificity of the product, linked to local and traditional production methods. *Figure 2* below illustrates vertical and horizontal differentiation in relation to the PDO based on the data from Hassan & Monier-Dilhan (2002, p 24-36) information.



*Fig. 2: PDO as a hybrid reflecting characteristics of vertical and horizontal differentiation*  
When a company decides to differentiate the product, it decides as well about the price to charge (Georges, *et al.*, 1992, p 215).

### 2.2.3 Price discrimination

According to Tirole (1988 p 133-135), price discrimination occurs when at least two groups of customers pay different prices for a similar product or service. In some markets, certain customers pay differential prices based on volume, geography or timing of purchases. These falls into three general degrees of price discrimination according to Pigou (2001, p279): Discrimination of the first degree, which occurs when the company sells its product at a

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<sup>9</sup> The code of practice from French name “Cahier de charge”. It is a document which aims at comprehensively defines the basic specifications of a product or service to achieve. Besides the basic specifications, it describes its implementation rules. It is a contract between the customer and the provider / seller. It helps to fill the generality of information the seller or supplier toward his client (Moinet, 2002, p 118).

different price to each purchaser (perfect discrimination in terms of price). Discrimination of the second degree: is when a price of the same product varies, depending on what quantities are purchased, but not as individuals. Finally, discrimination of the third degree, which occurs when the company sells a homogeneous product on several previously segmented markets. The market segmentation can be based on age, preferences, and the level of knowledge, income or where the buyer comes from, i.e. geographically (Varian, 1992, p 697; Shepherd, 1997, p 447; & Dominique, 1987, p 409). According to Tirole, (1989, p 479), it is this form of price discrimination which is the most frequent, while discrimination of the second degree is the most general. A geographical product is not a homogeneous product. It is a product with a typical character, with a reputation built over time, which led to price discrimination (O E C D, 1999 p 22). The next section discusses trademark.

#### **2.2.4 Trademarks**

A trademark is a sign used by a company to distinguish its products and services from other companies (Pressman & Stim, 2009. p11). It gives its owner the right to prevent others from using the trademark (Pressman & Stim, 2009. p11). According to Kizza (2010, p 113) there are three categories of trademarks:

1. A service mark, usually used in the sale or advertising of a service. It is uniquely identifies that service
2. A certification mark is used as a verifier or to authenticate the characteristics of a product, a service or a group of people who offer a certain service.
3. A collective mark is mainly used by a group of people to indicate membership in an organization or association.

If a trademark quality over time is not maintained, according to Groves (1997, p 529), consumers will find out and they will be reluctant to pay more for the trademark.

Consequently consumers will not increase the cost of search and companies will pay more for the trademark than for the product Groves (1997) continues and says that to keep a trademarks value requires a lot of resources, so that consumers can recognize what they are buying without much effort. A trademark brings information so that consumers can identify the source of the good. Therefore a trademark is a very important element in advertising which is expanded in the section below.

### 2.2.5 Advertising

Advertising is a channel companies use to inform consumers about and promote goods and services (Petley, 2003, p 4). According to Petley, advertising helps companies to increase sales by attracting people's attention. It also helps reduce search costs for consumers in some cases (Tirole, 1989 p 479). Moreover, according to Tirole (1989 p 479), under conditions of monopolistic competition, producers are encouraged to manufacture high quality products because it provides an incentive for producers to reveal the quality.

In the literature of Cabral (2000, p223), he distinguishes two forms of advertising:

Informative and persuasive advertising. *Informative advertising* informs the consumers of the existence of the product, the price, the appearance and the place where the product is sold.

*Persuasive advertising* does not necessarily inform consumers, because it is more subjective. It is intended to change consumers' preferences. The consumer is essentially a rational being whose act of purchase depends on a carefully considered decision. He acts with reason and calculation to best meet his needs. Both advertising tactics are important according to Cabral (2000, p 224) who mentions that informative advertising plays an important role when firms introduce new products. On the other hand, persuasive advertising helps companies to maintain the market situation. Empirical studies shows that the advertising /sales ratio is three times greater for experience goods<sup>10</sup> than it is for search goods<sup>11</sup> (Cabral, 2000, p 225)

### 2.2.6 Geographical indications

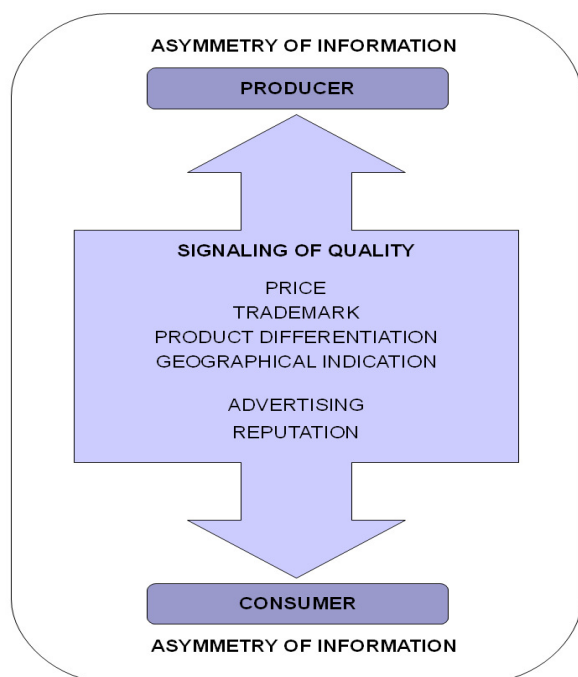
Cook (2004, p 53) says that a geographical indication takes the form of a sign or label when it is associated with the goods. Mahé (1997 p 480-503) says that geographical indications and trademarks are adequate tools to protect and to ensure product quality. Labels and geographical indications can transform an attribute of experience goods or credence goods to search goods attribute (Hobbs, 2001, p 269-285). However, Fink & Smarzynska (2002, p 403-412) point one difference between labels and geographical indications. Thereby labels do not prevent the manufacturing of an identical product as a substitute, even if it is sold under a different brand. In the case of geographical indication, product specificities are tied to immobile factors such as climate and soil. It is difficult for a company to manufacture a perfect substitute especially when the region is protected.

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<sup>10</sup> Goods, whose characteristics is known by consumer after consumption

<sup>11</sup> Goods, whose characteristics is known by consumer before purchase

According to McCalman (2002, p 37), it may be advantageous for a company to use, in some cases, both a geographical indication and a trademark to market a product. Thus, according to him, a geographical indication may encourage a company to invest and improve product quality by a trademark, as the indicator of origin is strictly reserved for goods produced in the specific region (Ibid). As it is for trademarks, McCalman (2002, p 37), mentions that the development of geographical indications also requires a lot of resources spent on advertising and marketing and most of the time, it is associated with a certain degree of quality. It requires large amount of resources to promote a region, and without these resources all benefits accredited to geographical indication can not be realized (McCalman 2002, p 38). Studies have been performed according to Vincent (2006, p 85), to find out the impact on retail prices of a product when the trademark is used with a geographical indication. Hassan & Monier-Dilhan (2002, p 24-36) found that the geographical indication allows the differentiation of price when it is traded by the distributor. However in the final report of Dolphins (Sylvander, 2004), it is mentioned that the geographical indication and the trademark does not compete with each other but actually complement each other because they have different functions. The figure 3 below summarizes this section.



*Fig. 3: Asymmetry of information and signals of quality*

The asymmetry of information is present in the market for both the producer and the consumer, when it comes to the information regarding the product quality. In order to correct

this failure, companies report the quality of product by using signals of quality: reputation, pricing, advertising or by using a label or a geographical indication. Regarding the geographical indications, it has been mentioned that geographical indicators may play a similar role to trademarks, by reducing consumers search costs. When the consumer search cost is reduced, companies can be able to obtain an additional profit margin .

## 3 Materials and Method

Different methods have been used to answer to the aim of this study. According to Mueller (1984) method allows other to see how we arrived to our conclusions. The qualitative and quantitative research was chosen. Questionnaire and interviews were also made to get deeper answers.

### 3.1 Quantitative research

Since this study aim is to discover the reasons for lack of PDO in Sweden and the impact of the introduction of this system in France on food industries and regions, this study was based on the qualitative research method. This is because the qualitative approach allowed a deeper understanding of the satisfaction than a quantitative method (Holme & Solvang, 1997, p. 78). The study is conducted with few companies, which would no have allowed the use of a quantitative method, but it instead permitted a comprehensive qualitative study (Sörqvist, 2000, p.53, Hill & Alexander, 2006, s 64). To implement a quantitative study, a large amount of companies would be needed for the research. Hence, as time for research was limited, it was preferable to do the qualitative research based on interviews. Furthermore, there is a greater adaptability in collecting information when complex concepts are involved by using the qualitative method (Holme & Solvang, 1997, p. 80).

### 3.2 Qualitative research

Qualitative research is a type of scientific method where strategy development and understanding comes from (Donavan & Henley, 2010, p 158). It helps peoples to express their points of views (Donavan & Henley, 2010, p 158). The three most common qualitative methods are: participant observation, in-depth interviews and focus groups (Stacks, 2010, p 173). For this study, the in-depth interview is used as it encourages participants to express their views at length (Kvale, 1996, p 73). The qualitative research interview seeks to describe and seeks the meanings of central themes in the world of the participant. An interview is a conversation which has a structure and purpose. The interview in a qualitative study is often open (Kvale, 1996 p 86). The main task of interviewing is to understand the meaning of what the interviewees say.



### 3.3 Questionnaire

Two of the companies are in France and two are in Sweden. Financially limited to travel and meet personally the four companies, a questionnaire to the companies was sent by internet, to get their professional point of view on the subject. The questionnaire which is in appendix one is based on theory from the previous chapter, and from a literature review. The notions of asymmetry of information and signaling quality facilitated the formulating of this qualitative research.

### 3.4 Qualitative interview

The purpose of a qualitative study is to obtain a greater understanding of a subject. A qualitative study takes a small selection of people from the larger population being studied with a view to reaching an in-depth knowledge of the studied phenomenon (Sörqvist, 2000, p. 51). The fact that only a small proportion of the population is studied, in combination with that the selection was not made random, leads to a result that cannot be generalized to the rest of the population which is not the purpose of a qualitative study (Holme & Solvang, 1997, p. 82).

### Selection of case study companies

Being aware of non-response from informants in France, the choice of a higher amount of companies for the study was made to overcome this problem. Eight companies in France were contacted two of which took part in the study. In Sweden only two companies work with the PDO System. To add more information to this study, two researchers having an interest in PDO products were contacted one in Sweden and one in Norway. The study was carried out through performing interviews with targets in France and Sweden. The selection of interviewees in the French companies was made by searching people with certain positions, relevant to the study's aim such as information and marketing managers in corporate marketing. Then an e-mail with preliminary information about the study was sent to the respondent. This was made to determine whether the person was the right person to answer the questions, and if so, to provide more relevant answers to this study.

## Interview

An interview was carried out at the interviewee's convenience, after sending in advance the questionnaire to prepare informants. The questions were open, to give interviewees opportunities to answers with their own words. See questionnaire in the appendix 1.

Interviews by telephone were most appropriate because of the distance. During the interview, an MP3- player was used to records the conversation. After the interview, a transcription of the information was sent to the interviewees for verification. After the confirmation the information was transcribed to this thesis. In the section following below some background of the empirical approaches using selected companies is presented.

## 4. Empirical background

The background for the empirical study mainly serves to describe the companies, their operations, their economic impact in the country and their market situation. It is important to note that the two selected French companies have been working with the PDO system for many years, as opposed to the Swedish companies who does work with the system for the last 12 years. In the following companies are present and categorized after countries

### 4.1 French Companies

The information about the French companies has been drawn from their websites, because these companies recommended referring to their sites to collect all information needed.

#### 4.1.1 Comté

Comté Cheese has been in the market for years, but it was not until 1958 that it obtained its Appellation d'Origine Contrôlée (AOC). (www, Comte 1, 2010)

The region Franche Comté, based on a production area in the center of France. The region gathers four departments<sup>12</sup>: Doubs, Haute-Saône, Jura and Territoire de Belfort, on the border to Switzerland. It is a mountainous area with heights of on average, between 500 and 1500 m in the altitude zone of Jura. The cheese production started in the 12th century, by shepherds who spent the summer in their remote huts in the Jura Mountains. The cheese needed to mature over a period of several months. The milk was pooled among neighbors, and the enormous cheese was stored before being placed on the market at the end of the season.



*Fig. 4: Administrative map of the region of Franche-Comte. Designed by Jérôme Blum on 7 August 2007, according to the original design of User: Ben Sherman.*

Source : ( www, Wikimedia 7, 2010)

<sup>12</sup> Department is an administrative division in France (Batchelor & Chebli-Saadi, 1997, p 129).

Eight departments are now entitled to produce this cheese, which surrounds the Franche-Comte, and also including parts of Rhone-Alpes (www, Comte 2, 2010).

The Comté supply labour in the Jura Massif: More than 3 000 farms are present, 16 refining facilities and many others suppliers. The Jura massif has about 160 production workshops, called “Fruitière”<sup>13</sup>. The Turnover was 7,646 million euro in 2005 and the volume of production 50 000 tons/year (www, Comte 3, 2010).

A fruitière generally is a cooperative; the original form of village organization was born eight centuries ago. The values of solidarity and sharing on which Fruitière’ was founded upon have never been abandoned, values that make this big Comté cheese (www, Comte 4, 2008).

The Jura Massif plays an important role in expanding employment, planning, landscape maintenance and environmental protection (www, Comte 5, 2008). Milk producers in the Comté region contribute significantly to the dynamism of the Jura Mountains along with other activities in the sector, thereby realizing the objective of maintaining employment at a large geographic disadvantage (www, Comte 6, 2008)

#### 4.1.2 Auvergne

The Auvergne is a region in France. It includes four departments: Allier, Cantal, la Haute -



Loire and le Puy-De-Dôme (www, recits-occitan 1, 2010). Two departments essentially produce the Bleu d’Auvergne: Puy-De Dôme and Cantal (www, Auvergne, Chambagri, 2 2010). The region Auvergne has 5 PDOs, which is the highest number of any French region. We have the PDO Cantal, Salers, Saint-Nectaire and Fourme d’Ambert or Montbrison Bleu d’Auvergne (www, Fromages, Aop, Auvergne 3, 2010).

Fig. 5: The region Auvergne

Source: ( www, Peinture,murales,free 2, 2010)

<sup>13</sup> “Is a company of small farmers, who bring their milk and cream into one common stock and central establishment to be converted into cheese”(Murray, 2007, p 593).

The Bleu d'Auvergne in English the blue cheese from Auvergne was defined by a decree for the first time in 1937. Antoine Roussel began developing the cheese in 1854. At that time, AOC, or standards of manufacturing were not considered important. Many Auvergne producers produced this cheese in their own way, and even in their own cellars. The process was unorganized and inconsistent results were common, including cheeses that were sometimes "blue". (www, Auvergne, chambagri 4, 2008)

Roussel noticed that this "blueing" gave a special pleasant flavour, and perfumed the cheese. He decided to study and control the development of the blueing of the cheese. After numerous unsuccessful attempts, he had the idea one day to incorporate the blue mold of rye bread in the cheese White fourme<sup>14</sup>. To do so, he invented the "piqueuse"<sup>15</sup> as the technique of stitching. The "Roussel Cheese" had such success that it was soon copied by producers throughout the region. Antoine Roussel continued to refine its manufacturing processes and standardize the format of what would become, in 1975, the AOC "Bleu d'Auvergne". (www, Auvergne, chambagri 4, 2010)

AOC Bleu d' Auvergne is the most famous French blue cheese, and is manufactured in a large part of the region, in a mountainous area. More than 8 000 tons of Bleu d'Auvergne is manufactured annually by 1 dairy farmers and 6 others dairy companies (www, Auvergne, chambagri 5, 2010).

The production of Bleu d' Auvergne in 1990 was 4 800 tons. Since, the production has been increasing. From 2007, the tonnage of Bleu d' Auvergne appears to have stabilized at around 7 100-8 000 tons (www, Draf, Auvergne, Agriculture, Gouv, 6, 2010)

## 4.2 Swedish companies

From the Swedish companies, documents have been received and some information has been taken from their websites.

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<sup>14</sup> White Fourme is a rich and creamy cheese from the Auvergne region of France. This comes in the form of a cylinder 13 cm in diameter, 19 cm tall and weighing about 2 kg (www, Fourme, Ambert 8, 2010).

<sup>15</sup> It is an operation that consists to perforate the dough with needles, to cause the development of *Penicillium Roqueforti* and the appearance of the blue (www, Auvergne, chambagri 9, 2010).

#### 4.2.1 Arlafoods

Arlafoods is Europe's largest dairy company with a total milk production weighing in at around 8.4 million kilograms and a turnover of around 59.2 billion SEK<sup>16</sup>. It is a cooperative

owned by about 8 500 Danish and Swedish dairy farmers.

Arlafoods produces milk-based foods in twelve countries and has sales offices in 27 countries. With roots in arable land, on both the Swedish and Danish side of the Oresund Bridge, Arlafoods export dairy products to the entire world. The operation encompasses the whole process from production to finished products. (www, Arlafoods 1, 2008)



Fig. 6: Region of Kalmar

Source: ([www.hittafestlokal.se](http://www.hittafestlokal.se) 4, 2010)

Svecia has over the years formed the basis for the development of diverse types of cheeses. It is based on old, Swedish cheese tradition; probably from the 13<sup>th</sup> century. The cheese got its name from the Latin name Svecia meaning Sweden. The name Svecia is now EU-protected - as Swedish cheese, and is made under the original recipe (www, osframjandet, 2009).

The Svecia cheese is produced in the province Kalmar, which is situated in the south of Sweden. The province Kalmar has a cost line and has more than 2000 lakes. In addition, 64% of the land area is forest land (www, Regionfakta 4, 2010). In Kalmar we find more than 220 dairy farmers when the total number for Sweden being 6 880 (www, svenskmjolk, 2010).

According to Synovate Sweden AB, the Kalmar production figures for Svecia has been decreasing from 2005 to 2008 the table below present how much in tons the Svecia were produced.

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<sup>16</sup> 8,233 billion U.S. dollars (www,Forex ,2009)

*Table 1: Production of Svecia cheese*

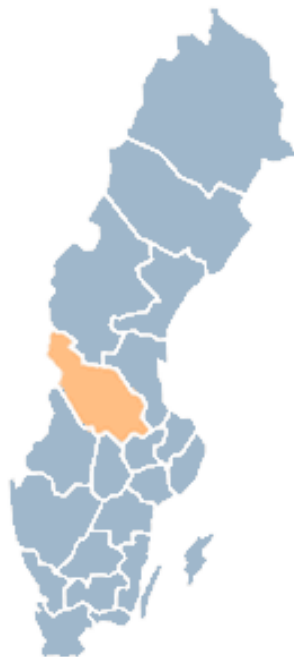
<b>Year</b>	<b>Tons</b>
2005	839
2006	774
2007	600
2008	500

*Source: Synovate Sweden AB 2008*

The table shows that from 2005 to 2008 the production of the Svecia cheese went down from 839 tons to 500 tons, which is a decrease by 40%.

#### **4.2.2 Melkers**

Melkers Chark AB is situated in Falun in Dalarna, which is a province in north-western Svealand in central Sweden. See fig 7 below. Dalarna consists of 1, 9 million hectare forest land and only 400.000 hectares is used (www, lantmaterialet, 2010).



Melkers Chark AB is a family company runs by fourth generation Olssons. The company uses a traditional process to produce sausages and the company focuses on the product quality. Melkers, as the company is called in everyday speech, is one of the largest family owned meat processing companies in Sweden with distribution all across the kingdom (www, Melkers 1, 2010).

*Fig. 7: Region of Dalarna*

*Source: ([www.hittafestlokal.se](http://www.hittafestlokal.se) 3, 2010)*

The economic situation of the company is as follows: Turnover: 150 mkr; volume: 3 300 tons; number of employees 95. Melkers' goal is to provide customers with the right product at the right price (www, Melkers 1, 2010).

The company also aims to develop profitable products, using safe and good quality commodities. Their leading products are Melkers genuine and smoked sausage. Melkers is not the only private, large Swedish producers of Falukorv<sup>17</sup> but is the only company that manufactures Falukorv in Falun. Now Falukorv enjoys a status that is almost unique in Sweden, it is recognized as a regional specialty of the EU (www, Melkers 2, 2010).

Table 2 below presents a summary of the volume production of the four companies and their turnover. The Blue d'Auvergne cheese and Svecia cheese turnover were not found.

*Table 2: Comparison of target companies*

	<b>Manufacturer or fruitière</b>	<b>Turnover</b>	<b>Volume Production/year</b>	<b>Producers or employees</b>
<b>COMTE</b>	170 fruitières	7,646million euro	50 000 tons	3 000 producers
<b>Bleu d'Auvergne</b>	1 manufacturer	-	8 000 tons	8 producers
<b>Kalmar Arlafoods</b>	1 manufacturer	-	500 tons	220 producers
<b>Melkers</b>	1 manufacturer	15,6 million euro	3 300 tons	95 employees

*Source: ( www, Comte 3, 2010, www,Auvergne 5, 2010, www,Arlafoods 1, 2010, www,Melkers 1, 2010)*

The Comté have more dairy producers, and high volume production when compare to Bleu d'Auvergne, Kalmar Arlafoods and Melkers.

To summarize this chapter, the two French companies and the two Swedish companies have some similarities and differences. Comté, Auvergne, and Arlafoods operate in the dairy industry, while Melkers operate at the meat industry. All four companies work under the protected indication system, but French companies have been in the system longer. The French milk and cheese production increases almost every year, while Svecia cheese production decreases. Melkers production on the other hand is stable. In the following section is present the empirical fraction.

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<sup>17</sup> Falukorv is a traditional Swedish sausage



## 5 The empirical study

Four representatives from the four companies presented above were interviewed. This section summarizes the information that emerged from the interviews. The questionnaire (see appendix 1) used to interview the target companies was based on the theories presented in chapter two. The answers received from the companies are shown in tables 1-8 (appendix 2).

### 5.1 French and Swedish companies

*The answers regarding asymmetry of information can be found in table 1 in appendix 1. Here follow a summery.* Comté and Auvergne inform consumers about the product quality through advertising. A large part of their budget goes to advertising. The use of code of practice contains instructions and methods about the product which complete the advertising.

Arlafoods inform the consumer about the product through advertising as well. Arlafoods do not inform about the way the product is manufactured. Melkers on the other hand, does not have enough resources to use advertising. Melkers counts on the product quality to do their advertising for them, i.e. after the consumption of the product the consumer will spread the information by word of mouth. The information about the product manufacturing is not revealed either. AOC Comté and AOC Bleu d’Auvergne are categorized as search, experience and credence goods. Arlafoods product and Melkers Falukorv on the other hand are categorized as experience goods, for the reason that consumers experience its quality after consumption.

*Table 2 in appendix 1 shows answers about signalling of quality:* In brief, Comté and Auvergne use their label to signal the product quality. When product is traded outside France, Comté and Auvergne cheeses are marked with a geographical indication label. Arlafoods and Melkers use their trademark as a sign to signal their product quality. Arlafoods add on their product packages some other specific signs (for example Krav) to inform consumers that the products uses purely organic. Melkers beside the trademark, inform about the ingredients used when manufacturing the product.

*Table 3 in appendix 1 shows opinions regarding product reputation and product differentiation:* In brief, Comté and Auvergne cheese are manufactured by the book of charges which guarantees the product quality and differentiates them from competitors. The duration of the conservation of the cheese provides a unique flavour to the product. The

product taste may vary for the reason that it collects from different Fruitière. Arlafoods and Melkers differentiate their products, by adding different value on their products..

*Table 4 in appendix 1 shows views regarding the price discrimination:* in brief, there is no price discrimination on the AOC product in France, since it is sold as a premium product and has a high price. Different buyers get different prices depending on the buyers' purpose and the quantity purchased. There is no price discrimination in Sweden either regarding Svecia cheese and the sausage Falukorv. Products are not sold as a premium product, but buyers get different prices when purchasing a large quantity.

*Table 5 in appendix 1 shows views regarding trademark:* briefly, Companies marketing AOC products in France combine their trademark with the AOC label to differentiate their product and to show the product to the consumer. Comté and Auvergne use a specially designed label. On the other hand, Swedish companies use their trademarks to indicate that the product they are offering is a quality guarantee. Arlafoods and Melkers trademark are well established trademarks in the Swedish market. Consumers are confident when perceiving these trademarks.

*Table 6 in appendix 1 shows views regarding advertising:* in brief, Comté, Auvergne and Arlafoods use advertising to capture the attention of the consumer, and to encourage them to change their preferences. The sales numbers increase and the export increases as well. While Melkers resources are limited so they cannot to use advertising as a tool to directly reach directly consumers, the company gets help from consumers when they talk about the product quality after consumption.

*Table 7 and 8 in appendix 1 shows views regarding geographical indication and the International trade of the PDO product:* in brief, all interviewees have the knowledge of what PDO stands for. They agree that the sign guarantees a distinctive quality of the product and its terroir. The French companies believe that adding a geographical indicator to a trademark has a positive effect on the product. Kempe for Arlafoods on the other hand do not believe that a geographical indicator can influence their trademark, because Arlafoods already stands for good quality and consumers are aware of it and do trust it. Swedish consumers trust the brand. Melkers Falukorv does agree that a geographical indicator on their product would have a positive effect. The international trade in products with GI is successful for the French

companies. Many channels have been opened and efforts continue to be made to create others to distribute more cheese. The Swedish PGI Svecia cheese and Melkers Falukorv till now were local products. These local products do have possibilities to become PDO. Why aren't they PDO? In the following section present the interviews made with two researchers who answer to the question why Sweden does not have any PDO product?

## 5.2 Interview with experts

To answer the question "Why Sweden does not have any PDO products while France has more than 600 registered products?" an interview was conducted with 1) Virginie Amilien senior researcher at SIFO (National institute for Consumer Research) Oslo, Norway. She works on Norwegian food culture, local identity and food system in tourism.

([www.sifo.no](http://www.sifo.no), 2008), and 2) Anonymous Researcher at CUL (Centrum för uthållig Lantbruk, Sveriges Lantbruksuniversitet, Uppsala). The person is involved in projects aiming at studying success factors for local and regional food and the EU's protected designation of food.

### 5.2.1 Virginie Amilien, SIFO

Here is a summary of the answers given by V. Amilien in a telephone interview this 2008-11-03.

The system of Protected Designation of Origin is a system that has existed for long time in some countries of the EU. This system seems to work well in France, Italy, and Spain, given the growing number of food products with the PDO brand.

The Scandinavian producers are more hesitant with the PDO system. The interest of such a system is difficult to combine, and understand, in the countries of northern cultures. Where food products are often related to industrial value and the quality based on standardization and hygiene. On the other hand, there are few consumers that are aware of the meaning of PDO (in France 10-12% are not aware of the PDO and it is less than 10-12% in Scandinavia).

The fact that the production is consumed locally could also be one of the reasons of little interest to the PDO. When production would be intended for export, it might be the time for producers to consider using AOC to protect their product to the worldwide wrongdoing

market. It would be a commercial. The original value is underlined by the marketing of research products indicating that consumers find it easier to remember a relationship between the origin and quality of the trademark and quality (Guerrero, 2001).

It is in the habits of French consumers to link the original relation to the quality. A behavior that can be arbitrary rather less common in Scandinavia. It is true in an initial phase this system is suitable for small industrialists rather than farmers. It's more for people who want to sell abroad the local.

Not long ago, Norway as one of the Scandinavian countries showed interest in PDO system. It is often the appropriate institution that goes towards producers to encourage them to register their products as PDO. Many producers don't waste time with a request for a PDO, because the system in which they work is doing well. They are often criticizing the long waiting time with the new system prior to getting their products recognized as PDO. They do not see why they should waste their time like years waiting for a label that is useless. Some producers who do use the PDO system are rather idealistic, often they are people who went to France or Italy, who have taken courses and dream of having PDO. This attitude is often adopted not to generate profit.

In France it is often the producers who actually go towards the institution (INAO) regarding the Appellation system. They also use this system when a product are not doing well in the market or is challenged; then they make a request for PDO. When they realize that most consumers do not buy a certain kind of cheese, then they make requests to upgrade the cheese to a PDO cheese.

In Scandinavia there is apparently no need to develop the system at the present even though it, maybe desirable in the future. Politicians are very interested; they think it will be important to have the PDO system; they have a sense about the future and want the country to be ready.

The AOC system seems to work in France; the question that remains to be asked is whether there are other compatible systems better suited to Scandinavia than the PDO system?

Normally it's free to register products as AOC. Norway is the exception where the cost is

20 000 NOK<sup>18</sup> to apply to the responsible institution. It is more for the paper work. Either the producers pay someone to do the paper work or they do themselves. In Norway most people make them themselves. It takes a lot of time, sometimes one year of work. When an application is made there is fee to be paid before is taken into account.

The process is long. The form must be is extremely accurate because it requires a lot of data.

In France it is the INAO which handles requests, and other European countries have their own institutions dealing with requests too. These institutions are based on EU rules, except for France, Italy and Spain who still have their own rules but they run parallel to the EU ones. They already had the system before the EU adopted it. In France AOC has automatically become a PDO. Producers do not need to make two requests if INAO agrees. Getting an AOC is a very long procedure which, takes between two to ten years.

### **5.2.2 Anonymous; CUL,**

Here is a summary of the answers given by an anonymous person in a personal interview.

In Sweden, there is not yet any product that is protected by PDO, which is the highest class of protection in the EU schemes to promote and protect names of quality and agricultural products and food stuffs. In the EU generally there are three classes; PDO (protected designation of origin), PGI (protected geographical indication) and TSG (traditional speciality guaranteed). However, some countries have four labels. In Italy for example, there is a label for wine called Denominazione di origine controllata e garantita, (see appendix 4). This class has additional regulations. The traditional wine making countries have additional regulations. In France there is an entire institute that works with denominations of origin. Anonymous has written an application for a PDO for the recreated Vålåloffen cheese from the region of Jämtland. It has not yet been forwarded to the authorities because of problems in the producer consortium.

There is a conflict between France and Switzerland regarding the Gruyère cheese, which is available in both countries. The French were quick to protect their Gruyère using the labelling schemes above which gave rise to a conflict.

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<sup>18</sup> 2 500 Euro (Forex 2010)

There was a Danish cheese originally marketed as Danish feta cheese. Greece objected stating that feta cheese is a Greek specialty. This case was processed for a long time by the Court of Justice of the European Communities, and the court judged in favour of Greece. The Danish cheese is now called Apetina.

EU has started to work with specific characters of products from third world countries. EU has started to make individual agreements regarding labelling of products of specific character with non-EU countries, for instance regarding coffee.

According to Anonymous there is no PDO in Sweden partly because the producers don't know the system, and partly because they do believe that the costs of the efforts required to label products will not be covered by higher product prices. The system is also relatively unknown to the Swedish market. It has become a negative spiral where the market does not know the labelling enough to perceive and appreciate the added value that it brings and the producers don't apply for labelling of their products because they do not believe that the market will pay for it. Moreover, the producers don't contribute to expose the label to the market to make it more known.

Products labelled with PDO, PGI or TSG are often premium products, i.e. products which carry more added value than the ones produced in bulk i.e. in larger quantities. Premium products cost more to produce while adding value, consequently they require additional payment.

Choosing PDO products as a consumer is a question of priorities within ones individual consumption pattern. It is not desirable that all products, whether food or other products, should have such a price that they are accessible to everyone at all times of purchase.

Sweden has been very "good" at cutting food prices. According to estimates made by SCB in 2007, 12.6%<sup>19</sup> of the Swedes' disposable income went to food, including beverages. This very small percentage of the Swedes' income goes to food. The focusing on price has resulted in a loss of product diversity. However, there is now an increasing demand for food with identity.

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<sup>19</sup> See appendix 5

The purpose of the labelling schemes for products with unique characteristics is to protect the consumer. The label helps consumers to find authentic products, thus assisting in not to buy copies of other, often lesser quality. It is a way to aid the consumers to identify these products. Since consumers receive help to find these products the producers also benefit.

This is to a large extent a question of development and information. We, the consumers must also generate a demand for these products. The wholesale and retail play essential roles; it is about interaction between the different actors of the market, i.e. the producers, consumers, wholesalers and the retailers.

### **5.2.3 Summary of the two interviews**

The system of PDO has existed for a long time in some EU countries. Since this system is comparatively new in Scandinavia, producers are hesitant to consider it. The PDO system has a certain class for categorizing products and Sweden happens to have the two lower classes; GTS and PGI. The highest class corresponding PDO is not yet available in Sweden.

The PDO system facilitates countries to solve conflicts such as; who is the real name holder. The purpose of the system is also to guarantee the quality to the consumer. It helps consumers find authentic products, so they do not buy copies of dubious quality. PDO has a regulatory framework; "the book of charge", with rules that producers have agreed to. These rules must be followed to get or retain a PDO label.

The focus of the Swedish government has earlier been on price of the food but the focus has shifted to the food quality. Few Swedish producers understand what PDO stands for, because in the Nordic countries the food products are often related to security of industry and quality based on standardization of hygiene. It seems to be easier for e.g. for the French consumer to link the product to the original quality than for Swedish consumers.

The PDO system is beneficial for small industrialists, farmers and exporters. The systems which Scandinavian producers follow seem to work well. Also the producers feel that the market is not aware of the system properly. Normally it is supposed to be free to register a product as a PDO, except for Norway. In France it is the INAO which handles all requests and other countries have own institutions dealing with such requests. It is a very long

procedure, which can take several years. Therefore the Scandinavian producers may not want to put efforts on a PDO application.

A PDO-product is a premium product; the price is higher than the price of non-PDO products. There is no reason for a PDO-product not to exist in competition with others. Choosing to consume a PDO-product is a matter of individual consumption pattern and economic well being.

To implement the PDO system in Sweden; it is partially a question of generating demands for these products and developing information systems,



## 6 Analysis and discussion

In this chapter the results derived from the interviews in chapter 5 are presented and discussed. An attempt is made to address the case study questions presented in chapter 1. The theoretical framework and the empirical data help to give answers to the questions.

Companies are analysed and discussed according to the different theories presented in the chapter 2.

### 6.1 AOC Comté and Bleu d'Auvergne

#### 6.1.1 Asymmetry of information:

Two situations of asymmetric information are present on the market according to Huynh & Besancenot, (2004, p 32-35): adverse selection and moral hazard. The Comté and the Bleu d'Auvergne cheese quality seems to be different because they are produced after the rules established by the code of practice. The code of practice is used for obtaining the high quality of the product. We may assume that both products are non homogenous product. According to (Ibid), the consumer would like to be aware of the product specificities before buying it when the quality is different. According to the study made by Hassan & Monier-Dilhan (2005) on officials' signs of quality, the AOC sign is a sign of high quality that French consumers recognize when purchasing a product. However, producers from Comté and Auvergne cheeses use technique and traditional knowledge when producing their cheeses. To inform the consumer about it, their product is marked with the AOC sign. The sign of quality may not always help the consumers to make up their mind when purchasing a product. Consumers may not be able to verify the quality that the producer offers just by seeing the sign of quality. They do not have competence to estimate if the producers correctly fulfill their obligations. According to Huynh & Besancenot( 2004, p 139), if the product quality is controlled by the producer and if the production cost are increasing with the degree of product quality the process of choice leads to the elimination of good quality products with goods of inferior quality. The AOC Comté and Bleu d'Auvergne are products related to the tradition knowledge. They are produced in mountainous areas which require high cost of production. They are sold as premium product. However, AOC Comté and Bleu d'Auvergne may face competitions from non-AOC products, produced according the tradition knowledge and adapted after the consumers taste. The non AOC product may taste as good as the AOC

product. If the consumer is not able to pay for a high priced AOC product linked to the soil, we may assume that the non AOC product could dominate the market.

The AOC Comté and the Bleu d'Auvergne as mentioned above are produced according to the code of practice. However, Huynh & Besancenot (2004, p 140) mentions that establishing rules for the product manufacture may create moral hazard, in eliminating low product quality. The rules are not only established for producers, they are also established for consumers. When consumers are aware of how the product has been manufactured for example according to certain rules, they may trust that product more than other products manufactured under different circumstances. If a big amount of consumers behave that way, we may join Huynh & Besancenot (2004) that products manufactured according to certain rules may eliminate products manufactured without such rules. AOC Comté and Bleu d'Auvergne are produced after the code of practice. The non AOC product might still in demand by consumers because not all consumers are interested in products link to the soil or produced after the code of practice. As long as the non AOC product offers a good quality or a quality equivalent to the AOC Comte and Bleu d'Auvergne, it may not eliminate the low quality product; they may compete in the market.

### **6.1.2 Reputation**

AOC Comté is a cheese that has existed for years and it is a product very familiar to most consumers in France. Since the sign of quality is used by companies to inform consumers about the company existence and about the product quality (Frewer *et al.*, 2001), the Comté Producer uses the label AOC to help consumers recognizing the cheese. The AOC Comté quality and good reputation is associated with the traditional process of transformation, the duration of refining, the taste, the color and the openness. Shapiro (1983) quotes that, the reputation can be used as a tool to ensure the quality of a product in a market of perfect competition. To ascertain if the AOC Comté has good reputation among consumers, Comté producer organized a marketing survey that shows a growing awareness of the product. For example, they asked consumers to choose between three AOC products presented to them. Will the consumer choose the AOC Comté or one of others? Most of the time consumers choose AOC Comté as their favorite. Every day Comté notices the increasing awareness and number of household buyers of AOC Comté. Nowadays the sign AOC Comté and AOC Bleu d'Auvergne when perceived by consumers send a strong and positive message. The good reputation of the Comté and Auvergne cheeses may encourage producers to not only maintain the product quality but to improve it as well. The reputation of a product has an economic

interest (OECD, 1999). The AOC Comté and Bleu d' Auvergne are not only consumed locally, they are consumed in France and abroad. The cheeses import increases almost every year. For that matter the producer of AOC Comté and Bleu d' Auvergne are in this case constrained to maintain the quality of their product in order to maintain their good reputation among consumers.

### **6.1.3 Product differentiation and price discrimination:**

When companies produce a variety of the same products, the product in this case is differentiated (Beath, & Yannis, 1991). The AOC Comté and the Bleu d' Auvergne producers offer to the market products manufactured after the code of practice. According to Hassan & Monier-Dilhan (2002), the Designation of Origin can be a sign for a hybrid corresponding to vertical and horizontal differentiation. The AOC Comté and Bleu d' Auvergne producers use a traditional production, which for them guarantees moreover the product quality. The rules in the code of practice provide specific characteristics for texture and taste of the cheeses. These ways of processing may differentiate both products from those produced by competitors. The AOC Comté and Bleu d' Auvergne may also be considered as differentiated, when at least some consumers considered one cheese as better than the other. Both products serve the same purpose but have characteristics sufficiently different that the consumer may not want to replace one with the other indiscriminately. This differentiation might also be observed in the product demand. When at least two groups of customers pay different prices for a similar product, Tirole (1988) described it as price discrimination. The AOC Comté and Bleu d' Auvergne are premium products. The reputation of both cheeses is built over time, because of their typical character (OECD, 1999). The cheeses particularity might lead to price discrimination. Consumers that are aware of AOC Comté and Bleu d' Auvergne quality are also aware of the price. According to the French person's interviewees, French consumers are willing to pay more for the AOC Comté and Bleu d' Auvergne to benefit from the product's high quality. Companies that distributed AOC Comté and AOC Bleu d' Auvergne might use different prices when selling these products depending on the market segmentation based maybe on age, preferences and on where the store is situated.

### **6.1.4 Trademark**

Pressman & Stim (2009), point out that trademark laws prevents companies from using the names of others companies services or products. The chain Comté and Auvergne does not use

a trademark<sup>20</sup> but the label AOC<sup>21</sup>. The AOC sign seems to offer the same purpose as trademark. The difference that can be pointed out is that the AOC sign inform of the product origin. When The Cheese Comté and Bleu d' Auvergne are traded outside France, the label AOC Comté and Bleu d' Auvergne are marked with the EU geographical indication sign, so that consumers outside France can know the product origin

The indication sign is used as a verifier that the product is from where it says it is from; also that it contains the characteristics it says it contains. Labels AOC Comté and Bleu d' Auvergne are labels that have good reputation among French consumers. According to Groves (1997), the quality of a product has to be maintained over time, otherwise consumers won't pay for less quality. Producers of both cheeses manage successfully to preserve their product reputation by maintaining the good product good quality over time. French consumer faith in these labels is maybe built around the quality and consistency guarantee offered by Comté and Auvergne.

### **6.1.5 Advertising**

Advertising is the tool used by the companies to inform the consumers about the quality of its products (Petley, 2003). Almost 60% of the AOC Comté budget goes to advertising because producers understand the power behind advertising. In order to continuously improve the communication strategy of the Comté and meet consumer demands, the Comté chain agreed to a number of studies: Awareness, Balance Sheets campaign, Uses and Attitudes, Consumer Panels etc.(www, Comté 7, 2010). To inform consumers of the existence of the product, the price, the appearance and the place where the product is sold (informative advertising), Cabral (2000), the CIGC publishes and distributes annually a wide range of media messages. The website www.comte.com opens the doors of a personal relationship with consumers. The Bleu d' Auvergne producers in the other hand carries out promotional activities, i.e. organizes annual festival in August: feast of Bleu d' Auvergne. They also distribute leaflets and posters, make sheet recipes based on Blue d'Auvergne that are distributed thereafter. Advertising helps companies to increase sales by attracting people's attention Petley (2003). Figures 8 & 9 below presents the evolution of Comté cheese tonnages exported to USA and Belgium. In 1998, the export to USA was 42 249 kg and has increased every year. In 2008 the export was

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<sup>20</sup> "Trademark is a distinctive word, phrase, logo, or other graphic symbol that's used to distinguish one product from other "(Fishman, 2008 p 42).

<sup>21</sup> "Label is a distinctive name, which identifies a particular unit of functionality"(Hunter & Johnson, 1996, p 131).

523 990 kg. In Belgium the export in 1998 was 314 896kg; the volume increased to 75% in five years; in 2008 the export rose to 827 582kg.

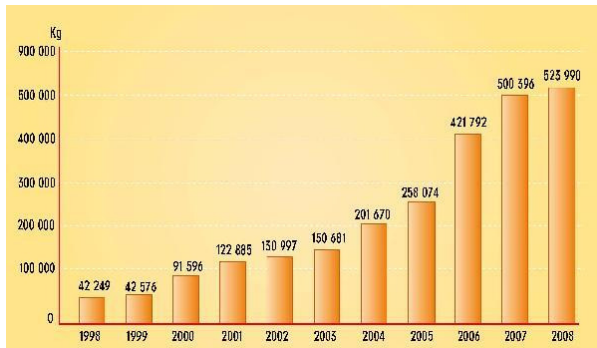


Fig. 8: Evolution of Comté cheese tonnages exported to USA

Source: www, Comte 7, 2010



Fig. 9: Evolution of Comté cheese tonnages exported to Belgium

Source: www, Comte 7, 2010

The Japanese market of the Comté cheese has stabilized since 2005 at around 50 tons. Consumption is based primarily on quality and product knowledge. Japan is a key market in terms of image as it is a gateway to Asia. With a sales volume of 1300 tons, Germany is the market leader in import (www, Comte 7, 2010)

Figure 10 presents the evolution of Bleu d'Auvergne production. The demand of the cheese being high, the production in 1981 was 90 tons in 1996 the production was 250 tons by 2005 it had dropped down to 210 tons.

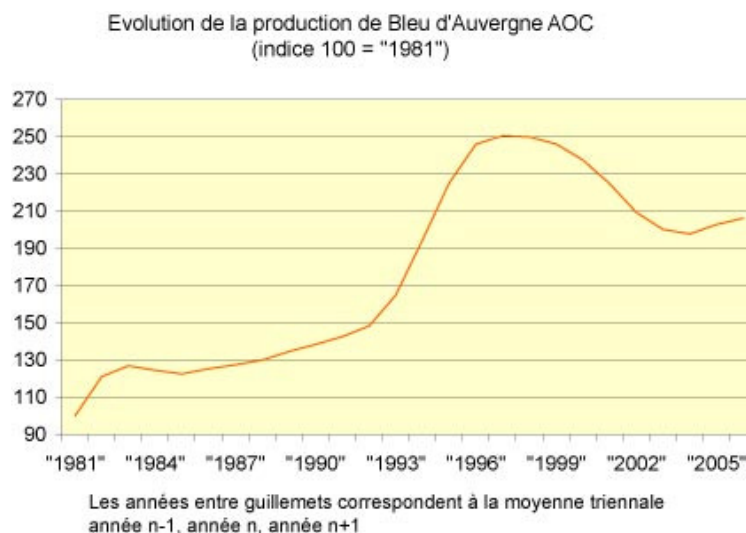


Fig. 10: Evolution in Bleu d'Auvergne production

(Source : www, Auvergne 6,2009)

Source: Agreste - Enquête Annuelle Laitière

It is quite remarkable; to observe how much both companies maintain the market situation. It is maybe because they use advertising in an effective way. Advertising might encourage consumers to change their preferences (persuasive advertising) Cabral (2000), by choosing AOC Comté or AOC Bleu d'Auvergne.

### **6.1.6 Geographical indication**

The producers of the cheeses Comté and Bleu d'Auvergne use the sign AOC on their product Cook (2004). The sign AOC is used as a sign to protect the cheeses Comté and Bleu d'Auvergne from being manufactured somewhere else, as an identical product or as a substitute Fink & Smarzynska (2002). AOC is also used by the French producers because it is a sign that stands for high product quality. When the Comté cheese and Bleu d'Auvergne are traded outside France; they are marked with the sign Appellation d'Origine protégée (AOP). AOP is a European identification sign for French, Belgian, and Luxembourg products. When consumers see the sign AOC, for the first time, they may be curious and may want to experience such product (Hoobs, 2001). The specific characteristics that both products have come from ingredients or process that are difficult to find elsewhere. That can be one of the reasons consumers may purchase the product.

McClaman (2002) quotes that; it may be advantageous for company to use, in some cases, both geographical indication and a trademark to market a product. The AOC Comté and Bleu d'Auvergne organization do not use any trademark, only the label AOC. Companies that distribute both cheeses use their company trademark together with the AOC sign. According to the interviewees, it is a benefit for the distributor's companies that sell their products. The geographical indication label enhances for example Carrefour which is a French leading distribution groups as a trademark because Carrefour sells an AOC product (Monier-Dilhan, 2004).

## **6.2 Svecia cheese and Melkers Falukorv**

### **6.2.1 Asymmetry of information**

The Svecia cheese and the sausage Melkers Falukorv may be qualified as homogenous products. Neither product presents specific characteristics (Huynh & Besancenot, 2004), when they are compared to AOC Comté and Bleu d'Auvergne, which are produced under strict rules. The quality of the Svecia cheese is reported to consumers through brand and

advertising. Melkers uses no specific methods to inform consumers about the quality of the product, the only information you find on Melkers Falukorv is the information available on the label, which sits on the packaging. Arlafoods and Melkers hold most of the information regarding the process of manufacturing the product quiet. This may allow both companies the possibility of careless manufacturing the product. Huynh & Besancenot (2004) quote that in a case of imperfect information on quality, the consumer will choose in random between products. To preserve an image of professionalism and credibility to consumers Arlafoods and Melkers may offer before-sales services to both producer and consumers. For example: consumers could visit the company to witness the process of production, and producers can apply for a label that certifies the product quality.

Arlafoods as a producer of the Svecia cheese uses its brand name to signal the product quality. Every new product put on the market by the company under the brand name assumes the trust of the consumers. However Arlafoods provides health information on the packaging to inform consumers about what they are purchasing. Arlafoods also has a taste symbol on all its cheeses. The symbol informs consumers that the cheese is of high quality. Arlafoods as a trademark is serving as an indicator of quality. Melkers does not have enough resources to inform consumers by campaigns, newspapers, television advertisements, etc. It is important for Melkers to reach their consumers, but because of lack of resources, Melkers lives on its brand reputation. As long as Melkers stands for good quality products and has a good reputation among consumers the consumers may, in turn, spread the reputation to others. In this way, Melkers maintains its reputation over time. The Svecia cheese quality and the sausage Melkers Falukorv is controlled by their producers. Huynh & Besancenot (2004) underlines that if the product quality is controlled by the producer and if the production costs are increasing with the degree of product quality, the process of choice leads to the elimination of good quality products with goods of inferior quality. The Svecia cheese and the sausage Falukorv are selling at an average price when compared to other similar products. Not all brand names are trustworthy to the Swedish consumer especially when considering the reliability of production methods and their validity. The Svecia cheese and the sausage Melkers Falukorv are products with good quality. If the production cost is high because of the degree of the product quality, it is not easy to conclude these products will disappear from the market. In their manufacture, the Svecia cheese and the sausage Falukorv when manufacture, follows certain rules of production that guarantee a certain quality. If the demand of a product with high quality is high, may be a probability for the product with high quality to in the long run eliminate products with low quality (Huynh & Besancenot, 2004).

### **6.2.2 Reputation**

Arlafoods and Melkers as trademarks are well known among Swedish consumers. Swedish consumers, when they perceive these trademarks, are more confident because Arlafoods and Melkers stand for good quality (Frewer *et al.*, 2001).

The good reputation helps companies to improve the product quality (Shapiro, 1993).

Arlafoods and Melkers offer a product that meet consumers' expectations. When expectation is reached, consumers spread the reputation, which is a form of advertising (*Melkers Chark AB, Göran Olsson, Melkers Production*). The reputation may allow Arlafoods and Melkers to fully manage their communications strategy in order to benefit optimally (Bureau *et al.*, 1999). The Svecia cheese and the sausage Melkers Falukorv reputation need to be maintained because the consumer may give their opinion, which may in turn make or break a product or even company success. A defective product or a lack of service can end the reputation of a product or the company as a whole (Bureau *et al.*, 1999). Melkers trusts its consumers to advertise their products. The problem may be that the consumer has the power to spread a bad reputation on their products. That is why Arlafoods and Melkers need to preserve their reputation otherwise an economics situation may occur (OECD, 1999). Arlafoods and Melkers may also follow information trade by consumer, to better understand consumer concerns and reactions of criticism so that they can adapt and improve the product quality.

### **6.2.3 Product differentiation and price discrimination**

Arlafoods does differentiate products by secondary brand names, information on packaging, marketing and advertising placement (Beath & Yannis, 1991). Arlafoods differentiates the Svecia cheese by using the brands Kvibille and Arla Ko. In addition, Kvibille is stored longer and cost more than Arla Ko (Georges, *et al.*, 1992). Melkers like Arlafoods also has a secondary brand name: Norman Falukorv. It is a cheaper version of their sausages. Melkers also differentiate their products by producing sausages with 15% lower fat, an extra smoked and a bit rough and more common sausages (Georges, *et al.*, 1992). Arlafoods and Melkers secondary brand name may have the same price than competitors. This may facilitate consumers to find product of their choice. When it comes for Svecia cheese and Melkers Falukorv, Arlafoods have applied for a PGI sign and Melkers for a STG sign to inform consumer about the product quality and to inform consumer about the product being protect under specifics laws.

Pigou (2001) talk about three degrees on price discrimination. Arlafoods and Melkers sell their product at the same price to each consumer. Different distributors of the Svecia cheese



and the sausage Melkers Falukorv may use different prices on the product when selling it. The price might vary depending on where geographically the store is situated (Tirole 1989).

#### **6.2.4 Trademark**

Arla Foods uses Arla as a trademark to discern the product from other companies (Pressman & Stim, 2009). Consumers know that a product from Arla has certain characteristics that meet certain expectation. The company uses other labels to enhance the products such as the Krav label. Arlafoods does not yet use a geographical indication sign on their product. At the moment, the person interviewed does not believe that the geographical indication can complete Arla as a trademark. Melkers on the other hand faces many other Swedish companies that manufacture sausages. Melkers Falukorv is the only company that manufactures sausage in its original region Falun. So a geographical indication label might be an advantage for Melkers, i.e. the geographical indication label may inform consumer about the product origin, the use of the traditional method and it might give Falun the right to be the only region that can produce Falukorv (Pressman & Stim, 2009). Regarding the consumer the trademark together with the geographical indication label may be a form of certification that the product is of good quality. So the consumer might decrease the cost of search, because they can identify easily what they want and may pay more for this form of product (Groves, 1997). A good trademark can influence the market demand. So a trademark with a bad reputation may disappear from the market because consumer may not trust it enough to purchase. Therefore Arlafoods and Melkers may need to work hard to maintain the product quality over time in order to continue gain consumer trust.

#### **6.2.5 Advertising**

Arlafoods uses two ways to inform consumers of their products quality (Petley, 2003):

a) Packaging: here Arlafoods communicates ingredients, information on the location of the production, taste, strength of flavor, fat content, etc. it is an informative advertising. It allows consumers to make better choices when purchasing a product (Cabral 2000).

b) Advertising: Magazines, Internet, TV, etc. Here, Arlafoods communicates the value of the brand, what Arlafoods stand for.

By using those two advertising tactics, Arlafoods reaches consumers, especially when new products are released on the market so that consumers may change their preferences (Cabral, 2000).

Melkers does not promote or inform consumer about their product quality through advertising. Their resources are so limited that they rely on the reputation of the product. The only information about the sausage Melkers Falukorv is on the package, where they mention ingredients used when manufacturing the product. The Melkers website also provides some information to consumer regarding their products. Melkers might need to invest on advertising, because it is a strong tool to reach consumer and inform about the existence of the product. In addition, with advertising especially media advertising, consumers are easily reached and their attention is captured.

### **6.2.6 Geographical indication**

Arla and Melkers name are trademarks that stand for a good product quality. It is not a sign or label like Krav or PDO. To protect to some degree the Svecia cheese and the Melkers Falukorv and to ensure the product quality Arlafoods apply for the PGI sign and Melkers for the TSG sign (Mahé 1997). The fact of adding a PGI sign on the Svecia cheese and the TSG on Melkers Falukorv may not influence so much the trademark Arla or Melkers but it might complete them (Hassan & Monier-Dilhan, 2002). Mahé (1997) says that the geographical indication and trademark are tools to protect and ensure product quality. So we might assume that when consumers notice the trademark Arla or Melkers they may have the same sureness as when perceiving a PGI sign. The only difference that is worth to point out is that trademark does not prevent the manufacturing of an identical product as a substitute but the PGI/TSG does (Fink & Smarzyńska, 2002). If Arlafoods and Melkers use both the trademark and the PGI/TSG sign, on some level we might say that Arlafoods and Melkers have some advantages because the Svecia cheese or the Sausage Melkers Falukorv will be produced only by Arlafoods and Melkers respectively and not by any other company (McCalman, 2002). So Arlafoods and Melkers will have the opportunity to invest and improve the product quality

## **6.3 The impact of PDO product on French food industries & regions. Case Comté**

A PDO it is more than a label, it is more than a product for making money on the market; it is a “terroir<sup>22</sup>”. It can be people working on a sector, or just people who are involved in a

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<sup>22</sup> French word for soil

product and who live with it. A PDO is a population that has huge interest and is very motivated around a product because they consider that it meaningful for their region. The impact of PDO on Comté region is presented in brief in the following. I chose Comté as an example is because of its large contribution to the France dairy industry. All data is from their website.

The PDO system contributes to maintaining agriculture on the Jura Mountains because of all the factors it contains. The system offers employment. As a traditional product, it helps attract tourists to the region. It also contributes to the development of the catering and hotel industries. The area does not allow the use of systems with low cost of milk production like in the western of France. . The milk price is higher than in other areas. If the AOC, by recognition that consumers agreed to, did not bring the added value when selling cheese, producers would have insufficient income to live for and would disappear. The cheeses' high price does not mean that the AOC Comté producers are richer than other dairy producers in France. They live in the region with the wealth of their local terroir. Publicly they are not dairy producers but Comté producers.

## 6.4 What Swedish companies may learn from this study

The appellation system is one of the strategies of rural development. It might be different from other rural strategies because the producers, often small in number and scattered in a vast geographic area, can reach an agreement on what they want in the market especially on the price, quantity and characteristics of goods.

The importance of the PDO system maybe considered as interesting since it solves many different problems related to agricultural products. First of all, it defends intellectual property. Secondly, old products experiencing problems on the market may gain interest from consumers if these consumers chose PDO product. Re-introducing additional products with similar track records might result in economic success. Thirdly it links product and territory which opens up a niche type of marketing and geographical indication-labeling. It may become a way to safeguard consumers' loyalty since consumers associate specific attributes with specific geographical regions.

This system may have positive effects, as noticed in the remarkable development of the Comté region. Comté region inhabitants were able to organize themselves around a product, around the code of practice and around an organization called “Fruitière”.

The appellation system in the region Comté has brought innovation; collective learning, training and support are provided to facilitate self-help, and entrepreneurship. A common understanding is created, communication is improved (from outside to inside and from inside to outside), information is provided and distributed, resources are pooled (financial, practical, material or symbolic), the ability to influence decision making at regional or national level is increased (www, Comte, 1, 2010).

The PDO system provided jobs directly and indirectly; preventing rural migration. Once it was implemented traditional knowledge, biodiversity and the environment were preserved. It might be worth noting that the PDO system can transform the working of an entire region. However, every system has risks. In the following chapter are presented some risks to take in consideration when dealing with PDO.

## 6.5 Disadvantages with the PDO system

The attention on food products produced with local know-how and with a defined geographical origin, bearing a geographical indication (GI) is growing and consumers are increasingly demanding such products.

The protected designation may be meant to protect both the producer and the consumer, but this can often become a subject of conflicting interests between consumers and producers. From a consumer’s perspective to have more confidence in that the product that it is genuine, it is an advantage that they have assurances that a product is what it says it is, is from where it says it is and that it is a quality product. Otherwise they are also likely to experience many disadvantages. These include increased cost of products and restrictions of choice or availability due the restrictive nature of the system and the limited numbers of suppliers that may be able to produce products due to the stringent criteria. Restriction of selling cheaper products in a geographic region is unfair since it does not allow competition with other products. Competition usually leads to lower prices.

Some of the risks associated with origin labeling are listed below:

- (1) Bureaucratic costs associated with the introduction of the original label are high.
- (2) The demand on the quality standards is complex, which may cause some producers to stop production.
- (3) Too many symbols and logos indicating compliance with EU farming requirements, other than those related to hygiene and safety confuse consumers.
- (4) The production is often in a limited zone, which also limits the market inspiration. It limits opportunity and innovation on the market for similar products to PDO products,
- (5) A product once it has been registered, even if it no longer manufactured, no other company can ever use the name or the recipe.

## 7 Conclusion and suggestions for further studies

The objective of this study was to find out why there is not yet any PDO product in Sweden while in France the impact of the introduction of the PDO system in food industries and for regions is well established. Based on the results of this study, the following concluding remarks can be made: Swedish consumers and producers may not be sufficiently informed about the system but the two Swedish companies interviewed agreed that the geographical indication is good as a protecting system, but they are not so convinced that the geographical indication label can enhance their already strong trademarks. The Swedish government might also be skeptical about the system. The government thinks that “labeling on origin should be optional and can be used as a competitive advantage by companies wishing to do so”, and that the registration of EU quality designation should be simplified. The two French companies believe that the geographical indication contributes to the development in the region. They also think that the geographical indication as a label can enhance trademarks and can prevent the moral hazard situation on taking place in the market.

The PDO System may supply largely to the French dairy industries. Could the system have the same impact in Sweden as it has had in France? There are several areas to be aware of, since the system is related to political, economic, environmental and climate issues. By understanding the components of political, economic environmental and climate risks, it might be easier to define a model for risk management and decision-making and to collect appropriate data for analysis. The study of these areas mentioned above may prevent countries that choose to implement such a system, to be unsuccessful.

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## Personal messages

Anja Kempe 2008-10-27, Arlafoods, Stockholm, Telephone interview, 2008-11-03

Amilien Virginie, Oslo, Telephone interview, 2008-11-03

Anonymous (?), Uppsala, Personal interview, 2008-11-03

Denise Renard, Comté, France, Telephone interview, 2008-11-10

Eric Chevalier, Comté, France, Telephone interview, tel: 2008-11-11

Göran Bengtsson, Arlafoods Kalmar, Telephone interview, 2008-10-27

Göran Olsson, Melkers AB, Falun, Telephone interview, 2008-10-27

Jean Louis Galvaing, Auvergne, France Telephone interview, 2008-11-03

# Appendix 1 Questions to the target companies

## In French

### **Asymétrie de l'information**

4. Comment informez vous la qualité de vos produit au consommateur?
5. Les économistes ont distingués trois types des biens en ce qui concerne la qualité d'un produit :a) les biens de recherche dont la qualité du produit est connue avant l'achat, b) les biens d'expériences dont la qualité n'est connue qu'après l'achat, et c)les biens de confiance dont la qualité n'est jamais connue par le consommateur par exemple les produits avec signes du respect de l'environnement, le bien être animal.Parmis lequel de ces biens votre produit est il en harmonie ?
6. Le prix reflète t-il la qualité du produit ?
7. Y-a-t-il autres attributs à part le prix que les consommateurs considère en ce qui concerne la qualité du produit? Lesquels?

### **Rapports sur la qualité**

Plusieurs méthodes sont utilisées par les producteurs en ce qui concerne le signal de la qualité du produit telles que la réputation, le prix, la publicité, les marques de commerce ou d'un signal de la qualité comme une étiquette qui comporte l'indication géographique

1. Laquelle utilisez-vous pour rapporter la qualité de vos produits?
2. que représente l'étiquette avec indication géographique pour vous?
3. Etes-vous d'accord pour dire que si le coût de la publicité est élevé et que la marque de commerce est forte les coûts de la recherché du consommateur vont diminuer et le producteur recevra un prix plus élevé?
4. Quel est l'effet sur le prix au producteur quand l'indication géographique est utilise sur un produit?

### **La différentiation du produit**

1. Différenciez vous vos produit?
2. Vos produits ont ils une bonne réputation auprès des consommateurs? Cette réputation vous permet elle d'améliorer ou de maintenir la qualité de votre produit?
3. La différentiation de vos produits vous apporte t'elle un pouvoir monopolistique sur le marché?

4. Que pensez vous de l'indication géographique comme étant une voix rapprochant au monopole? Dans le sens qu'avec une indication géographique, il y a restriction à l'entrée de nouvelles entreprises sur le marché. Seule l'entreprise située à l'intérieur de la zone géographique peut fabriquer le produit.

### **La discrimination par les prix**

1. comment évolue la demande de vos produits d'appellation?
2. vos produits sont ils vendus à des prix différent pour different acheteur?

### **Publicité**

1. Utilisez-vous la publicité pour vendre, ou promouvoir ou pour différencier vos produit?

### **Marque de commerce**

1. Utilisez-vous une marque de commerce quelconque pour vos produit?
2. Pourquoi?
3. Est-ce que votre marque de commerce est protégée? De le sens que si l'usage de la marque de commerce n'est pas protégée cela pourrait entrainer d'autres compagnies à produire le même produit mais avec une qualité inférieure.

### **Indication géographique**

1. Qu'est-ce une indication géographique pour vous en tant que producteur?
2. Pensez-vous que d'une indication géographique est un mécanisme visant à assurer la qualité des produits?
3. Est-il avantageux d'utiliser une indication géographique et les marques de commerce pour commercialiser un produit?
4. Pouvez-vous dire que l'indication géographique complète la marque de commerce?
5. Avez-vous des profits lors de l'importation de votre produit avec indication géographique?

# In English

## **Asymmetry of information**

1. Do you inform the quality of your product to the consumer?
2. Economist distinguishes three types of goods quality: search goods: goods which the quality is known before purchase by the consumer, experience goods: goods which the quality is known after purchasing goods, and credence goods: goods which quality is hard to verify by the consumer, example: labels with sign about the respect on the environmental, a label on the welfare of animals. Which category of goods your product fit in?
3. Is the price a sign to your product quality?
4. Is there more attribute customer consider other than price regarding the quality of the product?

## **Signalling of quality**

Several methods are use by producers to signal the quality of their product as reputation, price, advertising, trademark or a signal of quality as a label which includes geographical indication label

1. Which one do you use to report your quality?
2. Do you know anything about the geographical indication label?
3. Can you agree that if the advertising is high and that the trademark is strong, consumer research cost will decrease and the producer will receive a higher price?
4. What is the effect on price to producer when using a geographical indication as a label on the product?

## **Differentiation of product**

1. Do you differentiate your product?
2. Do you r product have good reputation among consumer? Is your product reputation encouraged you to improve or to maintain the quality of your product?
3. Do you notice any changes among consumer behavior on their purchase when differentiating your product?

4. Is the geographical indication a way of limited the market? Meaning in the case of geographical indication there is restriction on the entry of new firms into the market. Only company located inside the geographical area can manufactured the product.

### **Price discrimination**

1. How is the demand of your product as a geographical Indication product?
2. Do you use different price to trade your product?

### **Advertising**

1. Do you use advertising as a method to promote or differentiate your product?

### **Trademark**

1. Do you use any trademark on your product?
2. Why?
3. Is your trademark protected? Meaning if the use of the trademark by a company is not protected another company may be tempted to use it and produces a lower product quality.

### **Geographical indication**

1. What represent a geographical indication for you as a producer?
2. Do you think a geographical indication is a mechanism to ensure product quality?
3. Is it advantageous to use both a geographical indication and trademark to market a product?
4. Can you state that the geographical indication complete the trademark?
5. Do you have any benefit on trading your product by using a geographical indication label?

## Appendix 2 Tables

**Table 1** Detailed answers by the French and Swedish companies' on *Asymmetry of information*

Companies	Asymmetry of information
<p><b>AOC</b> <b>Comté</b> (Renard, and Chevalier 2008)</p>	<p>By advertising, 60% of our revenue goes to advertising</p> <p>Comté is fit in all three categories, with years of experience Comté cheese is largely fit in the category of credence goods</p> <p>The quality of Comté cheese is not only reflected by the price, other attributes such as traditional knowledge, and the duration of refining, etc are included in the reflection of the quality taste, dough, the opening, crusting and form.</p>
<p><b>Bleu d'auvergne</b> (Galvaing, 2008)</p>	<ul style="list-style-type: none"> <li>- By Confrérie. The “Confrérie<sup>23</sup>” aims to transmit handwork cheeses recipe of Auvergne, and the love of this heritage flavor. Others Confrérie are to promote the Chambérat and ensure the regularity of its quality. Its members meet regularly to perform sensory tests throughout the production chain analyses these activities leads to scores for granting the appellation "Chambérat", making some product entitled others know the Fourme d'Ambert. Others Confrérie mission are to stand out through France and Navarre the exception of Auvergne quality products.</li> <li>- Bleu d' Auvergne is found in all three categories</li> <li>- not necessarily, they take into account other attributes</li> <li>- Other attributes such as the cheese is an integral part of history and civilization Auvergne from generation to generation, men have taken care to transmit know-how and manufacturing methods.</li> </ul>
<p><b>Arlafoods</b> (Kempe, 2008)</p>	<ul style="list-style-type: none"> <li>- Arlafoods use generally of 2 ways to communicate the quality of their products: (1) packaging, which communicate ingredients, information on production location, taste, strength, fat, etc. and (2) Advertising: (magazine / internet / TV, etc.) which communicated the brand values.</li> <li>- Quality is known after the purchase.</li> <li>- No answer</li> <li>- Taste and the strength of the cheese.</li> </ul>
<p><b>Melkers</b> (Olsson, 2008)</p>	<ul style="list-style-type: none"> <li>- Melkers do not have enough resources to use publicity as a way to communicate to our consumer the quality of our product, but they do put some information's on packages because the law requires it.</li> <li>- The quality is known after the purchase</li> <li>- Not really because on the market there are other sausage which are more expensive than ours.</li> <li>- Consumer does consider other attributes than price when purchasing our product</li> </ul>

<sup>23</sup> Corporation, an association of people doing the same work

**Table 2** French and Swedish companies' responses regarding *Signalling of quality*

Companies	Signalling of quality
<p><b>AOC Comté</b> (Renard, 2008)</p>	<ul style="list-style-type: none"> <li>- Comté does not use a trademark, a brand of AOC label is used to guaranty the product quality</li> <li>- The trademark is being put in place, but it's an advantage towards the consumer, it will improve the visibility of the product and its identifiable with a quality product</li> <li>- It is our goal, if the cost is high advertising must find a balance between expenditure and more advertising costs which we can share a fair wage differences operators in the sector and develop markets.</li> <li>- No answer</li> </ul>
<p><b>Bleu d'auvergne</b> (Galvaing, 2008)</p>	<ul style="list-style-type: none"> <li>- A brand of AOC is used</li> <li>- An AOC on Bleu d'Auvergne has a positive implication on our product, how mainly by the famous who is known far</li> <li>- It is true that we are making large expenditures in advertising, and to have a high price returning to us as a producer is our goal.</li> <li>- It will depend on the attitude of the consumer</li> </ul>
<p><b>Arlafoods.</b> (Kempe, 2008)</p>	<ul style="list-style-type: none"> <li>- Our brands guarantee quality. In addition, we have the experience of power symbols in all of our Swedish-produced cheeses. Svecia cheese has also origin etiquette.</li> <li>- The product is manufactured in accordance with fixed rules and a certain quality.</li> <li>- No answer</li> <li>- No answer</li> </ul>
<p><b>Melkers</b> (Olsson, 2008)</p>	<ul style="list-style-type: none"> <li>- We rely on the reputation of our brand among consumers.</li> <li>- The product should keep a certain quality and should be produced according to certain rules</li> <li>- No comment</li> <li>- No comment</li> </ul>

**Table 3** French and Swedish companies' responses regarding **the Differentiation of the product**

Companies	Differentiation of the product
<p><b>AOC Comté</b> (Renard, 2008)</p>	<ul style="list-style-type: none"> <li>- We have a brand that is the Comté mark which is presented to consumers as having much variety in taste because we do not have a production industry plant but 165 small workshops that have their own personalities, then sellers who put the product on the market, which, depending on their different labels and different commercial specifications of customers on its strengths of any such production.</li> <li>- It is measured through studies. The consumers are interrogated spontaneous to choose between three different AOC. The result is measured every day. This increased awareness and number of buyers of the Comté cheese.</li> <li>- We use the good quality of the product to improve the reputation.</li> <li>- Not really</li> <li>- No answer</li> </ul>
<p><b>Bleu d'auvergne</b> (Galvaing, 2008)</p>	<ul style="list-style-type: none"> <li>- Some products are made from raw milk; our Bleu d'Auvergne is made according to rules found on the book of charge.</li> <li>- They do not differentiate their product to benefit from the monopolistic competition. The product is consumed locally in the mountains of Auvergne and throughout France. It has a good reputation since it is even consumed outside our borders. - They organize days of tastings, and participates in fairs like the International exhibition for agriculture. The reputation we use to improve the quality of our products.</li> <li>- AOC Bleu d' Auvergne does not differentiate their product.</li> </ul>
<p><b>Arlafoods.</b> (Kempe, 2008)</p>	<ul style="list-style-type: none"> <li>- With the help of brands and communication (packaging, selling placement, advertising, etc.)</li> <li>- Our products generally have a good reputation.</li> <li>- No</li> <li>- It is not a way to move closer to a monopoly.</li> </ul>
<p><b>Melkers</b> (Olsson, 2008)</p>	<ul style="list-style-type: none"> <li>- Melkers manufacture Falukorv with 15% fat, with very extraordinary smoked, with a little rough, and the usual Falukorv.</li> <li>-Everyone knows that Falukorv should keep a certain quality, but there are good and bad Falukorv, what we hope is that people buy Melkers Falukorv because it is good.</li> <li>- No, on the market there are products that are cheaper than ours even with the differentiation</li> <li>- No answer</li> </ul>



**Table 4** French and Swedish companies' responses regarding *Price discrimination*

Companies	Price discrimination
<b>AOC Comté</b> (Renard, 2008)	- Sales improved by 4%. It was 38000t in 1990 to 50 000t sales, thus increasing demand - There are no selling standard prices. They do everything on the law on competition. - Price is different depending on the quality of products. The price is not standard and can vary more depending on the buyer
<b>Bleu d'auvergne</b> (Galvaing, 2008)	- There is an increased demand because their production volumes grow. - Prices are negotiated with the distribution -
<b>Arlafoods.</b> (Pers with Anja Kempe and Göran Bengtsson, 2008)	When you look at Svecia cheese volume production was 839 tons in 2005 and has fallen to 500t in 2008, one can assume that the demand of Sveciaost is elastic, it may not depend on the price, and it may be another reason that makes the volume of production declined. - No
<b>Melkers</b> (Olsson, 2008)	- No answer - No answer

**Table 5** French and Swedish companies' responses regarding *Trademark*

<b>Companies</b>	<b>Trademark</b>
<b>AOC Comté</b> (Renard, 2008)	<ul style="list-style-type: none"><li>- Trademarks are used by companies that market the Comté cheese.</li><li>- To differentiate their Product.</li><li>- Some of these brands are protected and some not.</li></ul>
<b>Bleu d'auvergne</b> (Galvaing, 2008)	<ul style="list-style-type: none"><li>- Trademark are used by companies that market Bleu d' Auvergne</li><li>- To differentiate their product</li><li>- No answer</li></ul>
<b>Arlafoods.</b> (Kempe, 2008)	<ul style="list-style-type: none"><li>- They use the trademark for any distinguishing products</li><li>Just to differentiate our products and make clear to the consumer what the product stands for.</li><li>- Our trademark is protected</li></ul>
<b>Melkers</b> (Olsson, 2008)	<ul style="list-style-type: none"><li>- They use Melkers as trademark and Normans to make clear to the consumer what the product stands for.</li></ul>

**Table 6** French and Swedish companies' responses regarding *Advertising*

<b>Companies</b>	<b>Advertising</b>
<b>AOC Comté</b> (Renard, 2008)	- Advertising is used to promote, and sale their product, but more to publicize its origin
<b>Bleu d'auvergne</b> (Galvaing, 2008)	- Advertising is used to promote and sale their product , but more to make known its origin
<b>Arlafoods.</b> (Kempe, 2008)	- Advertising used to sale, promote and differentiate the product.
<b>Melkers</b> (Olsson, 2008)	- No advertising is use because of less resources

**Table 7** French and Swedish companies' responses regarding *Geographical indication*

<b>Companies</b>	<b>Geographical indication</b>
<p><b>AOC Comté</b> (Renard, 2008)</p>	<ul style="list-style-type: none"> <li>- It is a way to recognize the source, territory, and the origin and avoid being copied, being stung by the expertise of people who are not holders of origin.</li> <li>- It ensures the quality, protection of this product on the territory of which it is produced.</li> <li>- Yes it is an asset for companies that use these two brands because it is a way to make their products more visible.</li> <li>- Yes the GI completes the trademark.</li> </ul>
<p><b>Bleu d'auvergne</b> (Galvaing, 2008)</p>	<ul style="list-style-type: none"> <li>- It is most the notion of terroir, the concept of product that is produced on the mountains of Auvergne and not elsewhere.</li> <li>- It ensures the quality, protection of this product on the territory of which it is produced.</li> <li>- Yes it is an asset for companies that use these two brands because it is a way to make their products more visible.</li> <li>- Yes the GI complete the trademark</li> </ul>
<p><b>Arlafoods.</b> (Kempe, 2008)</p>	<ul style="list-style-type: none"> <li>- An ability to communicate and to guaranteeing the consumer that the product is manufactured in accordance with fixed rules and a certain quality.</li> <li>- Yes, if the label is known</li> <li>- Geographic indication is not a complement of the brand.</li> </ul>
<p><b>Melkers</b> (Olsson, 2008)</p>	<ul style="list-style-type: none"> <li>- That the product is manufactured according to certain rules and contains a certain quality</li> <li>- yes the GI complete and enhances the trademark</li> </ul>

**Table 8** French and Swedish companies' responses regarding *the international trade in product with G.I*

<b>Companies</b>	<b>The international trade in product with G.I</b>
<b>AOC Comté</b> (Renard, 2008)	-There are significant sales in Belgium, Germany, Japan and the USA. Without the international trade, the corresponding tonnage will be in the cellar .These are channels that are important even if it requires effort trading.
<b>Bleu d'auvergne</b> (Galvaing, 2008)	- With 6000 tons produced, there are 1500 tones that are exports. The country that imports the most is Spain, after the Eastern countries and then just across Europe
<b>Arlafoods.</b> (Kempe, 2008)	- Svecia cheese is sold in Sweden, has not started to sell abroad.
<b>Melkers</b> (Olsson, 2008)	- The product is consumed locally in Falun, Stockholm and all over the Kingdom.

# Appendix 3 Code of practice

Source: [www.europa.eu](http://www.europa.eu)

<http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2006:093:0001:0011:FR:PDF>

Community legislation in force Document 392R2081

Regulation (EEC) No 2081/92 of 14 July 1992 on the protection of geographical indications and designations of origin for agricultural products and foodstuffs

Official Journal L 208, 24/07/1992 p. 0001 - 0008

Finnish special edition...: Chapter 3 Volume 43 P. 153

Swedish special edition...: Chapter 3 Volume 43 P. 153

CONSLEG - 92R2081 - 13/06/1997 - 21 p.

Changes:

Implemented by 393R2037 (OJ L 185 28.07.1993 p.5)

Amended by 194N

Amended by 397R0535 (OJ L 083 25.03.1997 p.3)

Amended by 397R1068 (OJ L 156 13.06.1997 p.10)

Amended by 300R2796 (OJ L 324 21.12.2000 p.26)

Text:

REGULATION (EEC) No 2081/92 of 14 July 1992 on the protection of geographical indications and designations of origin for agricultural products and foodstuffs

Article 4

1. To qualify for a Protected Designation of Origin (PDO) or a Protected Geographical Indication (PGI), an agricultural product or foodstuff must comply with a specification

2. The specifications include at least the following:

a) The name of agricultural product or foodstuff including the designation of origin or geographical indications;

b) A description of the agricultural product or foodstuff including raw materials, if any, and principal physical, chemical, microbiological and / or organoleptic characteristics of the

product or foodstuff;

c) The geographical area and, where appropriate, details indicating compliance with the requirements of Article 2 paragraph 4;

d) Evidence that the agricultural product or foodstuff are from the geographical area, within the meaning of article 2, paragraph 2, paragraph a) or b), respectively;

e) A description of the method of obtaining the agricultural product or foodstuff and, where appropriate, local methods and unvarying;

f) Elements justifying the link with the geographical environment or the geographical origin within the meaning of article 2, paragraph 2, paragraph a) or b), respectively;

g) Details of the control structures provided for in Article 10;

h) The specific labelling related to the indication PDO or PGI, as appropriate, or the equivalent traditional national;

i) Any requirements lay down by Community and / or national.

## Appendix 4 Denominazione di origine controllata e garantita.

Source: <http://www.answers.com/topic/denominazione-di-origine-controllata> (2010-07-23)

“Denominazione di origine controllata e garantita (DOCG) is an Italian quality assurance label for food products and especially wines, using rigorous rules than those of the Denominazione di Origine Controllata (DOC). It was instituted in 1963 and overhauled in 1992 for compliance with the equivalent EU law on Protected Designation of Origin, which came into effect that year

There are three levels of labels in Italy:

DOCG — Denominazione di Origine Controllata e Garantita

DOC — Denominazione di Origine Controllata

DO — Denominazione di Origine

These three labels require that a food product be produced within the specified region using defined methods and that it satisfies a defined quality standard.

DOCG regions are sub-territories of DOC regions that produce outstanding products that may be subjected to more stringent production and quality standards than the same products from the surrounding DOC region.

The need for a more restrictive identification label, DOCG, arose when the DOC denomination, in the view of many Italian food industries, was given too liberally to different products.

An additional regulation was set up in Italy especially for wines year 1992 according to which DOCG labeled wines are analyzed and tasted by government staff before being bottled. The DOCG labeled wine bottles then are sealed with a numbered governmental seal across the cap or cork. Italian legislation additionally regulates the use of the following qualifying terms for wines:

E.g. for Chianti Classico Riserva 1995, the word Classico: is reserved for wines produced in the region where a particular type of wine has been produced "traditionally". This "traditional region" is defined by a decree from July 10, 1932. ‘Riserva’ may be used only for wines that have been stored at least two years longer than normal.



## Appendix 5 Estimate % total expenditure on food per household in Sweden

The following link explains how to calculate the average of total expenses on food based on data from SCB

<http://www.ssd.scb.se/databaser/makro/Visavar.asp?yp=tansss&xu=C9233001&omradekod=HE&huvudtabell=HUTutgift5&omradetext=Hush%E5llens+ekonomi&tabelltext=Utgifter+f%F6r+hush%E5ll+%280%2D79+%E5r%29+%28HUT%29+efter+disponibel+inkomst+och+utgiftsslag%2E+%28Urvalsunders%F6kning%2E%29++%C5r&preskat=O&prodid=HE0201&deltabell=&deltabellnamn=Utgifter+f%F6r+hush%E5ll+%280%2D79+%E5r%29+%28HUT%29+efter+disponibel+inkomst+och+utgiftsslag%2E+%28Urvalsunders%F6kning%2E%29++%C5r&innehall=Andel&starttid=2006&stopptid=2007&Fromwhere=M&lang=1&langdb=1>

Choose:

1. "Andel av totala utgifter per hushåll"
2. **disponibel inkomst:** "samtliga hushåll med inkomstuppgifter"
3. **utgiftsslag:** "köpta livsmedel"
4. **år:** 2007
5. Press:"Fortsätt"

This results in: 12.6%