



SECTORAL STUDY

MEAT AND FISH PRODUCTS AND PROCESSING

Project Leader: Ms Mathildi Saritza
Researchers: Dr Panagiotis Kotsios, Ms Foteini Theodorakioglou,
Mr Papadakis Theodoros, Mr Savvidis Michalis, Ms Tsiasidou Despoina

PLANNING AND IMPLEMENTATION: **AMERICAN FARM SCHOOL**

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Agriculture · Environment · Life Sciences
New Agriculture for a New Generation:

*Recharging Greek Youth to Revitalize the Agriculture and Food Sector of the
Greek Economy*

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EXECUTIVE SUMMARY

The current study is focused in the Greek meat and fish processing sectors, in order to explore and evaluate chances for youth entrepreneurship and job creation. A variety of secondary and primary sources was utilized to cover the objectives of the study.

The importance of the meat and fish industry in total food manufacturing is relatively high in terms of employment and production value, when considering the total number of companies in the sector. The processed meat sales exceeded 1,4 billion € in 2013, whilst the processed fish sector hardly reaches the 340 m €. The value of crafted meat products prepared in the traditional butchereries is not included, because of lack of reliable data.

Despite the severe economic crisis, the employment in the processing sector was relatively stable, although variations were exhibited through the years. It should be noted though, that the total number of employees in the processing sector lacks far behind the number of independent traditional butchereries, that have the license to offer locally both to consumers and food service operants a limited variety of traditional processed meat products as defined by the Greek regulations.

The number of meat processing firms remains relatively stable during the years of the economic crisis whilst the number of fish processors increased in the same period. Unfortunately, a substantial decline in the value added could be noticed for both sub- sectors during the period of the economic crisis in Greece.

The meat sub-sector is highly depended on imported raw materials, as Greece shows very low levels of self sufficiency in most meat categories. On the other hand, the fish sector is based both on the domestic production of raw materials from fisheries and aquaculture, as well as on imports.

The food regulatory framework in Greece is characterized by a restless nature. However, the impact of food legislation does not seem to affect the operations of small producers. In contrast, small scale producers such as butchers perceive hygiene and safety legislation as one of the bigger threats to their way of doing business. It should be noted though, that traditional production is subject to national derogations from hygiene requirements.

The sector produces a wide range of products with diversity in the ways of producing and raw materials used, which results in a great variety of processed meat and fish products. The meat sub-sector is relatively traditional, with large and medium

companies to include traditional or specialty product lines in their offerings. Many of the small scale processors produce traditional regional products, applying traditional production methods. Some small-scale producers successfully focus on specialization, such as using local raw materials or meat from Greek breeds or rare meat types or processing methods, aiming in offering unique product characteristics. Some of them do not see benefits in the protection of unique product character, whilst others use patents as source of competitive advantage. Whilst there is a recognized number of traditional meat delicacies, the sales potential for protected geographic indication and “traditional speciality guaranteed”, remains unexploited for the sector.

Wholesalers, retailers and food service companies are an important link between the processors and consumers. Small size processors are lacking the power to cooperate with S/M chains, although they control almost 95% of the overall food sales. Butchers are the most important group among the specialized retailers. Deli shops, mini markets, restaurants, hotels and culinary tourism are the main focus areas of the small scale processors that focus on tradition and locality.

The analysis has shown that the meat processing sector offers a number of opportunities for entrepreneurship and job creation by existing firms. The sector can take advantage of a number of opportunities in order to foster new youth employment opportunities. The most important ones are the creation of better quality products, culinary tourism, the demand for traditional products as well as the growing demand for poultry. More longterm opportunities are the demand for gourmet products, the international demand for specialty products, the international niche markets and import substitution potential. Regarding the fish processing sector, even though this is viable sector that offers about 1800 employment positions in the Greek economy, there are no immediate opportunities relative with the project's goals.

ΠΕΡΙΛΗΨΗ

Η παρούσα μελέτη επικεντρώνεται στους τομείς της μεταποίησης κρέατος και ψαριών, προκειμένου να διερευνηθεί και να αξιολογήσει τις προοπτικές για νεανική επιχειρηματικότητα και δημιουργία θέσεων εργασίας. Μια ποικιλία δευτερογενών και πρωτογενών πηγών χρησιμοποιήθηκαν για τους στόχους της μελέτης.

Η σημασία της βιομηχανίας επεξεργασίας κρέατος και ψαριών στο σύνολο της μεταποίησης τροφίμων είναι σχετικά υψηλό όσον αφορά την απασχόληση και την αξία παραγωγής, κατά την εξέταση του συνολικού αριθμού των επιχειρήσεων του κλάδου. Οι πωλήσεις επεξεργασμένων κρεάτων ξεπέρασαν τα 1,4 δισεκατομμύρια € το 2013, ενώ ο τομέας των μεταποιημένων ψαριών φτάνει σχεδόν τα 340 €. Η αξία των προϊόντων με βάση το κρέας στα παραδοσιακά κρεοπωλεία δεν συμπεριλαμβάνεται, λόγω της έλλειψης αξιόπιστων στοιχείων.

Παρά τη σοβαρή οικονομική κρίση, η απασχόληση στον τομέα της μεταποίησης ήταν σχετικά σταθερή, αν και παρουσιάστηκαν διακυμάνσεις στο πέρασμα του χρόνου. Όμως, ο συνολικός αριθμός των εργαζομένων στον τομέα της μεταποίησης είναι μικρός σε σχέση με τον αριθμό των ανεξάρτητων παραδοσιακών κρεοπωλείων, τα οποία έχουν την άδεια να προσφέρουν, τοπικά, τόσο για τους καταναλωτές όσο και για την εστίαση, μια περιορισμένη ποικιλία παραδοσιακών μεταποιημένων προϊόντων κρέατος, όπως ορίζεται από την ελληνική νομοθεσία.

Ο αριθμός των επιχειρήσεων επεξεργασίας κρέατος παραμένει σχετικά σταθερός κατά τη διάρκεια των ετών της οικονομικής κρίσης, ενώ ο αριθμός των εταιριών επεξεργασίας ψαριών αυξήθηκε κατά την ίδια περίοδο. Δυστυχώς, μια σημαντική μείωση στην προστιθέμενη αξία θα μπορούσε να παρατηρηθεί και για τους δύο υποτομείς, κατά την περίοδο της οικονομικής κρίσης στην Ελλάδα.

Ο τομέας του κρέατος εξαρτάται ιδιαίτερα από εισαγόμενες πρώτες ύλες, όπως η Ελλάδα παρουσιάζει πολύ χαμηλά επίπεδα αυτάρκειας σε αρκετές κατηγορίες κρέατος. Από την άλλη πλευρά, ο τομέας των ψαριών στηρίζεται τόσο στην εγχώρια παραγωγή πρώτων υλών από την αλιεία και την υδατοκαλλιέργεια, όσο και στις εισαγωγές.

Το κανονιστικό πλαίσιο των τροφίμων στην Ελλάδα χαρακτηρίζεται από μια ανήσυχη φύση. Ωστόσο, ο αντίκτυπος της νομοθεσίας για τα τρόφιμα δεν φαίνεται να επηρεάζουν την λειτουργία των μικρών παραγωγών. Αντίθετα, τα κρεοπωλεία αντιλαμβάνονται την υγιεινή και την ασφάλεια ως μία από τις μεγαλύτερες απειλές για τον τρόπο που διεξάγονται οι δουλειές. Θα πρέπει να σημειωθεί, ότι η παραδοσιακή παραγωγή υπόκειται σε εθνικές παρεκκλίσεις από τις απαιτήσεις υγιεινής.

Ο τομέας παράγει ένα ευρύ φάσμα προϊόντων με διαφορετικούς τρόπους παραγωγής και των πρώτων υλών που χρησιμοποιούνται, η οποία οδηγεί σε μια μεγάλη ποικιλία επεξεργασμένου κρέατος και προϊόντων ψαριών. Ο τομέας του κρέατος είναι σχετικά παραδοσιακός, με μεγάλες και μεσαίες επιχειρήσεις να συμπεριλαμβάνουν παραδοσιακές σπεσιαλιτέ ή σειρές προϊόντων σε προσφορές τους. Πολλοί από τους μεταποιητές μικρής κλίμακας παράγουν παραδοσιακά τοπικά προϊόντα, εφαρμόζοντας τις παραδοσιακές μεθόδους παραγωγής. Ορισμένοι παραγωγοί μικρής κλίμακας έχουν επικεντρωθεί με επιτυχία στην εξειδίκευση, όπως είναι η χρήση τοπικών πρώτων υλών ή κρέας από ελληνικές φυλές ή σπάνια είδη κρέατος ή μεθόδους επεξεργασίας, με σκοπό να προσφέρουν προϊόντα με μοναδικά χαρακτηριστικά. Ορισμένοι μικροί παραγωγοί δεν βλέπουν τα οφέλη για την προστασία του μοναδικού χαρακτήρα ενός προϊόντος, ενώ άλλοι χρησιμοποιούν τα διπλώματα ευρεσιτεχνίας ως πηγή ανταγωνιστικού πλεονεκτήματος. Ενώ υπάρχει μια αναγνωρισμένη σειρά από παραδοσιακά εδέσματα με βάση το κρέας, το δυναμικό των πωλήσεων με προστατευόμενες γεωγραφικές ενδείξεις και το «ειδικό εγγυημένο παραδοσιακό προϊόν», παραμένουν ανεκμετάλλευτα για τον τομέα.

Οι χονδρέμποροι, λιανοπωλητές και οι εταιρείες παροχής υπηρεσιών εστίασης αποτελούν σημαντικό κρίκο μεταξύ των μεταποιητών και των καταναλωτών. Οι εταιρείες επεξεργασίας μικρού μέγεθους δεν έχουν την δύναμη να συνεργαστούν με αλυσίδες S/M, παρόλο που ελέγχουν σχεδόν το 95% των συνολικών πωλήσεων τροφίμων. Τα κρεοπωλεία είναι η σημαντικότερη ομάδα μεταξύ των ειδικευμένων λιανοπωλητών. Τα ντελικατέσεν, τα μίνι μάρκετ, τα εστιατόρια, τα ξενοδοχεία και ο γαστρονομικός τουρισμός αποτελούν το κύριο μέλημα των μικρών εταιριών που εστιάζουν στην παράδοση και την τοποθεσία.

Η ανάλυση έδειξε ότι ο τομέας της μεταποίησης κρέατος προσφέρει μια σειρά από ευκαιρίες για επιχειρηματικότητα και δημιουργία θέσεων εργασίας από τις υπάρχουσες εταιρίες. Οι σημαντικότερες από αυτές είναι η τάση για ποιοτικά προϊόντα, ο γαστρονομικός τουρισμός, η ζήτηση για παραδοσιακά προϊόντα, καθώς και η αυξανόμενη ζήτηση για πουλερικά. Πιο μακροπρόθεσμες ευκαιρίες είναι η ζήτηση για προϊόντα gourmet, η διεθνής ζήτηση για specialty προϊόντα, οι διεθνείς niche αγορές και οι δυνατότητες υποκατάστασης των εισαγωγών.

Στο τομέα της μεταποίησης ιχθύων, αν και είναι βιώσιμος τομέας που προσφέρει περίπου 1800 θέσεις εργασίας στην ελληνική οικονομία, δεν υπάρχουν άμεσες ευκαιρίες σε σχέση με τους στόχους του συγκεκριμένου προγράμματος.

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1. INTRODUCTION

According to the National Statistical Service of Greece, Greek unemployment rate was 24.6% in September of 2015. This was the lowest rate since May of 2012, as the number of unemployed declined while the number of employed rose slightly. Unemployment rate in Greece averaged 14.94% from 1998 until 2015, reaching an all time high of 27.89% in September of 2013 and a record low of 7.30 % in May of 2008. Youth unemployment rate in Greece increased to 49.50% in September from 48.20% in August of 2015. Youth Unemployment Rate in Greece averaged 33.94 percent from 1998 until 2015, reaching an all time high of 60.50% in February of 2013 and a record low of 20.10% in May of 2008. The current study is focused in the Greek meat and fish processing sectors, in order to explore and evaluate chances for youth entrepreneurship and job creation in these two sectors.

The study begins with a literature review about food consumption, production and trends as well as with an outline of the study's goals. Following is a description of the study's methodology. The analysis begins with an extensive description of the meat and fish processing sectors, which includes meat and fish consumption, self sufficiency levels, number of enterprises, turnover, production value, value added, number of employees, international trade, projections and stakeholder analysis. The analysis continues with the description of processed meat and fish products and processing techniques. Following is an analysis of the relative hygiene, safety, traceability and labelling legislation, as well of special legislation for the butcher shops. The next part of the analysis concerns specific character food certification schemes such as PDO/PGS/TSG and the procedures to certify them. The following two parts of the analysis focus on the marketing aspects of SMEs, meat products, fish products and retail trade in Greece, as well in the role of culinary tourism as a mean for the sector's growth. Last is a SWOT analysis for each sector. Conclusions and policy recommendations sum up the whole study and evaluate entrepreneurship and job creation prospects.

2. LITERATURE REVIEW

It is now three decades since Levitt (1983) introduced the notion of the homogenization of consumer taste, advocating the merits of a global marketing strategy and economies of scale. Since that time, the competition for a market share of food purchases intensified as a result of the presence of powerful players such as the large multinationals and the increased purchasing power of the supermarket chains, especially in developed countries. Hence, it is a fact, that small agricultural enterprises and farmers are often in a disadvantageous position in relation to other bigger players in the food chain.

However, the global food and drink industry is still a highly diversified sector with many companies of different sizes ranging from small and medium sized, often family-owned enterprises, to major multinational companies. The worldwide food and drink industry represents a rather heterogeneous industrial sector in terms of food processed products, as consumers still demand diversity and variety in food consumption. Regardless of a slower economy this past decade, there was a rise in consumer interest towards specialty foods.

Several researchers recognize a constant struggle between the homogenizing forces of globalization and its oppositional dynamics of heterogenization. As a result, there is a global main stream proliferation of chain restaurants, pre-cooked and processed foods which is resisted from substantial efforts to re-establish and articulate the local food systems, resulting in the continuation or resurgence of the local cuisines as justified by the increasing demand for imported foreign foods, and ethnic restaurants all over the world (Henderson, 1998; Lang, 1999),

It is widely accepted that during the last decades, there was heightened consumer demand for food products with individual characteristics which derive from specific production methods or composition or origin. This trend is highlighted as a major opportunity, for the farmers and small and medium sized processing companies that operate in the agro-industrial sector, as it frees them from having to compete on price with the generic and standardized products of the multinationals and big size processors. Both in developed and developing countries there is purchasing trend for food or agro-industrial products that are true to their roots and retain the quality of the past, on a price premium. (Van de Kop et al. 2006; FAO 2008)

The consumer preference for what is perceived as authentic and genuine is largely seen as reaction to the changes brought about the global marketing strategies of the

multinationals, aiming in standardization, which resulted in homogenization of product offerings and initiated a consumer trend to turn back to tradition (UNIDO, 2010).

Numerous studies show that consumers are increasingly looking for traditional food products (Adams and Salois, 2010; Jordana, 2010, Banterle et al., 2008; Gellynck i Kühne, 2007).

Results from qualitative and quantitative tests show that traditional foods are defined by European consumers as food products that are “well-known”, that “one can eat often” and that “were eaten already by our grand-parents”. (TRADEIT Project,2015) At the same time, most specialty food consumers base their food choices on weight control and health reasons and traditional products are perceived as high quality products with positive health aspects and positive image. (Willet, 2006; Guerrero et al.,2009; Giraud et al., 2013).

Traditional foods represent a growing segment within the European food market and are considered a significant element of the cultural heritage of each member state and critical economic input to many regions (TRADEIT Project,2015).

Although Europe, is not regarded as a market of homogeneous food culture, (Askegaard and Madsen, 1998), traditional foods are strongly associated with the attributes of “good quality”, “consistent quality” and “good taste” and carry a positive perception across Europe.

As a result, the number of traditional food products has been increasing every year and the “freedom of movement” policy between EU member states resulted in the availability of a wide variety of traditional food products from all over Europe. Today, a substantial number of traditional food products are produced with reputation and high awareness among consumers.

Such products have long history, and are part of traditions of their regions, contributing to their cultural identity and the pride of the local communities (Licitra, 2010; Bessièrè, 1998, Weichselbaum et al., 2009, Almlì, 2012).

At the same time those products are facing series of offences that raised the need to introduce quality schemes under different labels within the European Union, to distinct fraudulent and genuine traditional food products.

In now days, consumers look for higher dietary, hygienic and healthy products, but they also look for certification and reassurance of products’ origins and production methods.

Protection of original and traditional food from the EU is not only an important factor in preserving cultural and national traditions in the EU member states but also an important dimension of marketing for producers, taking into consideration consumers' interest and confidence (Nagyová et al. 2011).

The European Union protects European food heritage by highlighting its diversity and emphasising the qualities associated with the origin of its products (Directorate General for Agriculture and Rural Development, 2015)

The three protection schemes linked to geographic indication within the European Union, are used as a means of product differentiation especially for the unbranded or generic agricultural products (Verbeke and Roosen, 2009) and have built on a long history of regional and traditional specialities, especially in southern European countries (Teuber, 2010).

Engagement in activities to meet the growing demand for locally processed agricultural products is the challenge for small food processors aiming in substantial product differentiation (Avermaete et al., 2004; Barjolle, 2015) in order to compete individually with cheap, standardized industrial products. A focused approach to traditional products locally produced is considered to be substantially rewarding for their efforts to maintain and improve market position as well as expand their business activity internationally. Furthermore, this trend can strengthen the competitiveness of rural areas (Barjolle and Chappuis 2000; Barjolle et al. 2005), while at the same time positively affect post- production activities such as distribution and retail and thus has a multiplication effect on the local community by generating employment opportunities. This has become even more important in the current economic crisis.

Additionally, local produce adds authenticity to the tourist experience and provides motivation for visitors to come to a location (Sims, 2009). Consumption is an integral aspect of the tourist experience, with the tourist consuming not only the sights and sounds, but also the taste of a place. Local food is a fundamental component of a destination's attributes, adding to the range of attractions and the overall tourist experience (Symons, 1999). The importance of local cuisines to tourists is highlighted by the fact that 46% of the meals consumed by the tourists were local cuisines (Torres, 2002). In an increasingly competitive world of tourism marketing, every region or destination aims to differentiate from other destinations by promoting unique food products. The growth of culinary tourism is seen as an outcome of a consumer trend to

pursue their interest in food as a part of a leisure experience such as watching cooking shows, dining out and the like (Sharples, 2003).

Food has developed to being regarded as an essential element of regional culture. (Ritchie & Zins, 1978; Jones and Jenkins, 2002). Hence, the culinary tourists are also recognized as cultural tourists, eating and drinking being ultimately cultural affairs (Murcott, 1986).

Traditional food produce goes further than the tourist consumption; it is considered as a means of developing new niche markets, supporting regional identities, developing quality tourism and sustainable tourism.

In accordance with the aforementioned and under the reorientation of the Common Agricultural Policy (CAP), the farmers are encouraged to switch to forms of integrated rural development through the diversification of rural production.

Producers are encouraged to promote their products with special characteristics, achieving better market prices which would improve their income whilst at the same time consumers would have access to quality products with guarantees for the production, processing and geographic origin.

Based on these considerations, this study provides a conceptual framework for small- scale specialty meat and fish food processors to face unique challenges and opportunities when marketing their products.

Within this context, the objectives of this study, are :

1. The mapping of the SME's engaged in the processing of traditional products and an analysis of the existing traditional industrial activities of small and medium Greek companies of the meat and fish sector.
2. Identification and promotion of potential meat and fish products for PDO or PGI certification and assisting in the certification process • Sectoral SWOT analysis • User friendly guide for potential entrepreneurs regarding the development of new operating units
3. User friendly manual for the implementation of the required hygiene and safety standards in existing enterprises in order to increase consumer acceptance
4. Report, based on market research on the suitability of local meat and fish products as substitutes of international food offerings.
5. To explore the potential of the sector for the promotion of culinary tourism.

3. METHODOLOGY

The current study about the meat and fish processing sector combines both secondary research in terms of data, information and legislation gathering, as well as primary research in terms of onsite interviews to meat and fish small medium enterprises, as follows:

Desk Research and Secondary data

- Literature review on specialty foods & traditional products
- Literature review on processing methods internationally
- Research based on NACE and CN Codes Statistics from various sources
- Research on legislation and regulations for hygiene & safety, labeling and the protection schemes/ intellectual property/geographic indicators
- Research on published interviews and databases
- Search aiming to identify product varieties from companies web-sites and company literature/leaflets

Desk research and Primary Data

- A study on the growth prospects of the butcher stores by the National Federation of Butchers and IME GSEVE, based on a collection of primary data
- Analysis and evaluation of market data collected directly from the Super Markets by IRI Hellas

Primary Qualitative Research

- In depth interviews with small size processing firms using a semi structured questionnaire aiming to evaluate:
 - Company
 - Performance
 - Corporate SWOT
 - Supply Chain
 - Extroversity levels and activities
 - Barriers to entry for new entrants
- Interviews with stakeholders to gather empirical data Ministry and State Organizations

- Academic
- Controlling Bodies
- Equipment
- Suppliers
- Trade Fair MEAT DAYS and Conferences

The analysis will be structured in a series of consequent steps. These are the following:

- Description of meat and fish as food and a popular protein source and their global consumption trends
- Description of meat and fish consumption in Greece and the country's self-sufficiency levels
- Description of the Greek meat and fish processing sectors in terms turnover, production value, value added, number of employees, imports and exports, projections & stakeholder analysis.
- Description of processed meat and fish categories & processing techniques
- Analysis of meat traditional products
- Analysis of hygiene and safety legislation, traceability and labelling legislation and special legislations for retail shops
- Description of PDO, PGS, TSG products, legislation and certification procedures
- A description of the meat and fish products marketing mix
- Analysis of the conclusions drawn from the interviews to meat and fish processing SME's
- An analysis of the role of culinary tourism in Greece
- SWOT analysis for the meat and fish processing sector
- 2 business plans for the establishment of a meat and a fish processing firm

In the last part of the study the conclusions will be drawn in order to point out chances that are in accordance with the *"Recharging Greek Youth to Revitalize the Agriculture and Food Sector of the Greek Economy"* project's goals, meaning youth employment opportunities in agro-food sectors as an economic driver for Greece.

4. ANALYSIS: MEAT AND FISH PROCESSING SECTORS Meat

Meat has long formed an important part of the European diet, providing a high quality source for European consumers' protein requirements. Energy is also derived via the fat content of meat. Other constituents such as A and B vitamins, iron, phosphorus and zinc also contribute to good health. The so-called 'red meats' (beef/veal and sheepmeat/goatmeat) and 'white meats' (pigmeat and poultrymeat) offer a variety of positive properties and a choice of tastes and textures. In addition, meat is a very versatile culinary product and has become a vital element of European cuisine and culture.

Seafood

Seafood is any form of sea life regarded as food by humans. It prominently includes fish and shellfish. Seafood is consumed all over the world. It provides the world's prime source of high-quality protein and 14-16% of the animal protein consumed worldwide. Over one billion people rely on seafood as their primary source of animal protein. Fish in particular provides a good source of high quality protein and contains many vitamins and minerals. It may be classed as either white, oily or shellfish. White fish, such as haddock and seer, contain very little fat (usually less than 1%) whereas oily fish, such as sardines, contain between 10-25%. The latter, as a result of its high fat content, contain a range of fat-soluble vitamins (A, D, E and K) and essential fatty acids, all of which are vital for the healthy functioning of the body (Fellows & Hampton, 1992).

Processing

According to the European Commission Regulation No 853/2004 Article 2(1) :

- "Processing" means any action that substantially alters the initial product, including heating, smoking, curing, maturing, drying, marinating, extraction, extrusion or a combination of those processes;
- "Unprocessed products" means foodstuffs that have not undergone processing, and includes products that have been divided, parted, severed, sliced, boned, minced, skinned, ground, cut, cleaned, trimmed, husked, milled, chilled, frozen, deep-frozen or thawed;

- “Processed products” means foodstuffs resulting from the processing of unprocessed products. These products may contain ingredients that are necessary for the manufacture or to give them specific characteristics.

Meat Processing

Meat processing technology comprises the steps and procedures in the manufacture of processed meat products. Processed meat products, which include various different types and local/regional variations, are food of animal origin, which contribute valuable animal proteins to human diets. Animal tissues, in the first place muscle meat and fat, are the main ingredients, besides occasionally used other tissues such as internal organs, skins and blood or ingredients of plant origin (Heinz & Hautzinger, 2007).

Fish processing

The term fish processing refers to the processes associated with fish and fish products between the time fish are caught or harvested, and the time the final product is delivered to the customer. Although the term refers specifically to fish, in practice it is extended to cover any aquatic organisms harvested for commercial purposes, whether caught in wild fisheries or harvested from aquaculture or fish farming.

A central concern of fish processing is to prevent fish from deteriorating, and this remains an underlying concern during other processing operations. Fish processing can be subdivided into fish handling, which is the preliminary processing of raw fish, and the manufacture of fish products. Another natural subdivision is into primary processing involved in the filleting and freezing of fresh fish for onward distribution to fresh fish retail and catering outlets, and the secondary processing that produces chilled, frozen and canned products for the retail and catering trades.

4.1 GLOBAL PROCESSED MEAT & FISH MARKETS Meat

According to a report by market research company MarketsandMarkets (2014), the global processed meat market was worth \$361.6 billion in 2012. Fueled by rising demand for high-quality and ready-to-eat meat products, the global processed meat market is predicted to expand by a compound annual growth rate of 14.3 percent over the next five years, reaching \$799 billion by 2018.

The main factors that are influencing the processed meat market are the rising population worldwide and increasing disposable income in developing economies, such

as Latin American countries and countries in the Asia Pacific, which constitute a large segment of the market.

Fish

The market for processed seafood was estimated to be worth around \$165 billion in 2012 and is expected to reach \$211 billion by 2018, growing at a CAGR of 4.1% from 2013 to 2018 (MarketsandMarkets, 2014). Seafood has come up as a very well accepted alternative for protein source for meat. Processing has gained importance among the seafood consumers as finding and cooking fresh seafood is difficult. According to the European Commission’s Directorate General for Maritime Affairs and Fisheries (2015), the most popular fish and shellfish species in the EU, are for the wild species: Anchovy, Bluefin tuna, Cod, Eel, Hake, Herring, Norway lobster, Sharks and Sole and plaice, while for the farmed fish and shellfish: Eel, Carp, Sturgeon, Trout, Oysters, Mussels, Seabass, Cod, Seabream and Salmon.

4.2 MEAT AND FISH CONSUMPTION IN GREECE

According to the yearly Greek Statistical Authority’s Research on Family Budgets 2015, food expenses on 2014 were estimated at 20,5% of a family’s budget, at around 299€ per month. This figure was higher on 2013 at 307€ per month, even though the percentage of food expenses was lower at 20,4%. This decrease is due to the general decrease in average family monthly consumption, which fell from 1509€ on 2013 to 1460€ on 2014. It is important to mention that the average monthly consumption on 2010 was 1956€ and food expenses represented a 18% percent.

Regarding meat and fish consumption in specific, the sums, percentages and quantities are presented in the tables below.

Table 1 Average monthly meat and fish consumption in Greece

Average monthly consumption	2014		2013	
	Percent	Euros	Percent	Euros
Total	100	1460	100	1509
Food	20,5	299	20,4	307
Meat	22,7 (of food consumption)	68,06	22,9 (of food consumption)	70,51

Fish	7,2 (of food consumption)	21,6	7,1 (of food consumption)	21,9
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Source: ELSTAT

Table 2 Average meat and fish monthly consumption quantity in Greece

Average monthly consumption	2014	2013	2013/2014
	Grams	Grams	Percent change
Meat	10.376	10.413	-0,2
Fish	2.972	2.947	0,8

Source: ELSTAT

From the two tables above we can observe consumption patterns for fish and meat in Greece. Both variables are directly related with available income. For meat we can notice that in 2014 average consumption was 10,3 kilos and about 68€ per month. Meat consumption has fallen from the previous year (2013), -0,2% in kilos and -0,2 in euros. Fish consumption on the other hand presents an increase in consumption, by 0,8% in quantity and by 0,1% in euros. However, as the average monthly family budget has fallen from 1509€ to 1460€, the result is that 0,3€ less are spent for fish consumption each month.

Regarding the type of meat and fish that are consumed by the Greek consumers, according to ELSTAT consumption for 2014 was as follows (Tables 3 & 4):

Table 3 Consumption by type of meat 2011-2014

Meat category	2011	2012	2013	2014
	%	%	%	%
Bovine meat	40,97	41,38	40,14	39,61
Swine meat	14,91	16,03	16,58	17,38
Sheep meat	11,13	10,26	11,39	10,30
Poultry meat	17,65	16,74	17,12	18,65
Sausages, salted, smoked meat ect	12,49	12,76	12,34	11,90
Other kinds of processed meat	2,23	2,22	1,83	1,65
Other kinds of meat	0,62	0,62	0,61	0,51

Source: ELSTAT

Bovine meat is the most popular type of meat for Greek consumers, followed by poultry and swine meat. Processed meat corresponds to 13,5% of total meat consumption.

Table 4 Consumption by type of fish 2011-2014

Fish category	2011	2012	2013	2014
	%	%	%	%
Fish (raw, frozen or chilled)	71,06	74,17	73,56	75,09
Other kinds of seafood (raw, frozen or chilled)	17,75	15,45	16,03	14,35
Salted, dried, smoked or canned fish	4,16	4,20	4,20	4,26
Other kinds of canned seafood	7,03	6,21	6,21	6,30

Source: ELSTAT

The most popular type of fish is raw, frozen and chilled with 75%. Regarding processed fish, it represents only 10,5% of the average monthly total fish consumption.

4.3 MEAT AND FISH SELF-SUFFICIENCY

Even though meat and fish consumption is particularly popular among Greek consumers, Greece is not self-sufficient in their production. In Tables 5 to 9 and Figures 2 to 6, there is going to a presentation of data related with Greece's self-sufficiency levels in meat and fish.

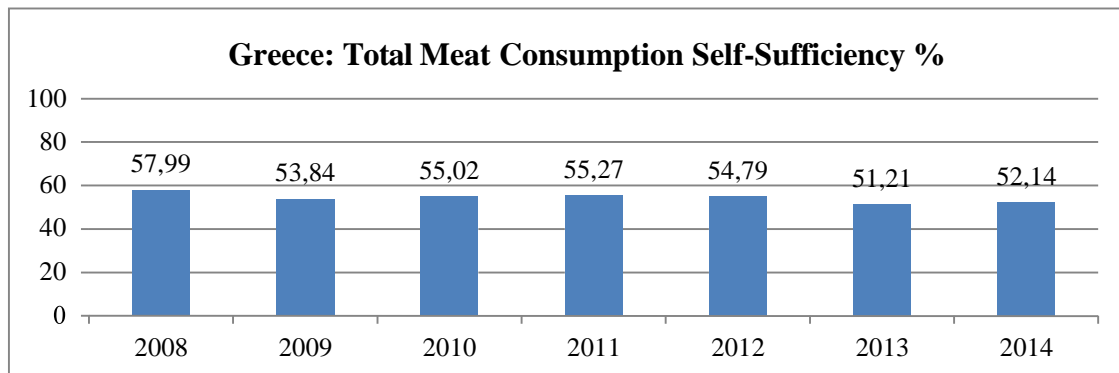
Table 5 Greek Meat Production-Consumption Balance in tonnes

Greek Total Meat Production-Consumption Balance in tonnes			
Year	Total Domestic Production	Consumption	Self-Sufficiency %
2008	524.250	904.050	57,99
2009	514.690	956.050	53,84
2010	504.500	916.870	55,02
2011	502.740	909.640	55,27
2012	493.050	899.810	54,79
2013	434.960	849.340	51,21
2014	450.060	863.180	52,14

Source: ICAP and Ministry of Rural Development and Food

Greece produces about half of the total meat that is consumed in the country. The self-sufficiency ratio fell from almost 58% in 2008 to 52% in 2014. Moreover, production

fell by 74.000 tonnes between 2008 and 2014 and consumption also fell by 41.000 tonnes.



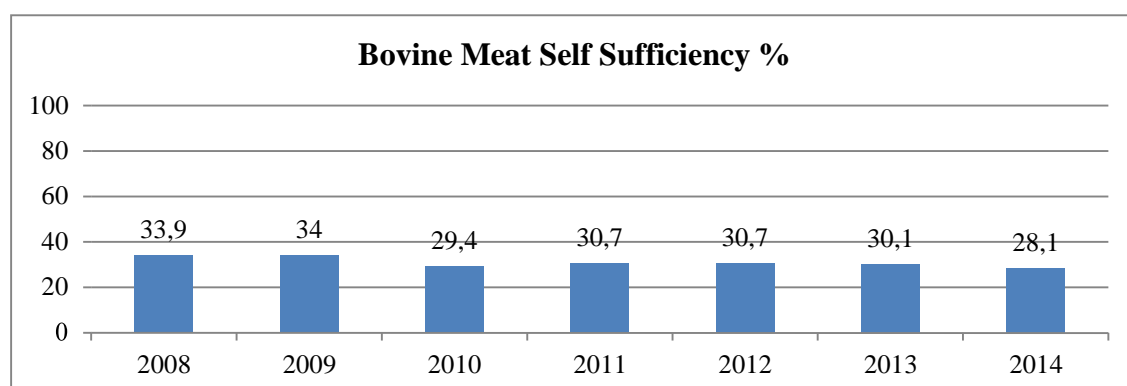
Source: ICAP and Ministry of Rural Development and Food

Figure 1 Greece: Total Meat Consumption Self-Sufficiency

Table 6 Greek Bovine Meat Production-Consumption Balance in thousands of tonnes

Greek Bovine Meat Production-Consumption Balance in thousands of tonnes			
Year	Total Domestic Production	Consumption	Self-Sufficiency %
2008	56,2	165,7	33,9
2009	59	173,4	34
2010	61,1	207,5	29,4
2011	57,04	185,72	30,7
2012	54,5	177,7	30,7
2013	49,1	163	30,1
2014	45,8	162,9	28,1

Source: ICAP and Ministry of Rural Development and Food



Source: Ministry of Rural Development and Food

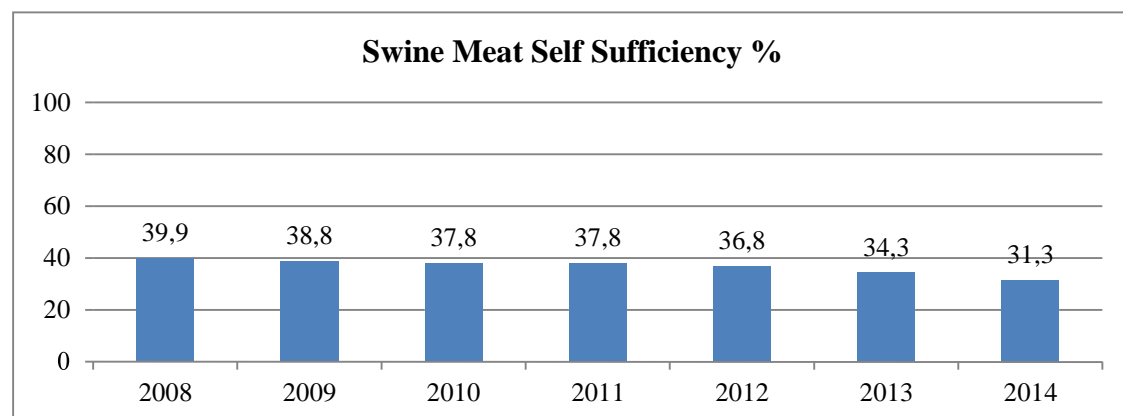
Figure 2 Bovine Meat Self-Sufficiency %

Bovine meat production fell by almost -20% between 2008 and 2014. In the same was only 28% in 2014, which means that the demand for bovine meat is met through imports.

Table 7 Greek Swine Meat Production-Consumption Balance in thousands of tonnes

Greek Swine Meat Production-Consumption Balance in thousands of tonnes			
Year	Total Domestic Production	Consumption	Self-Sufficiency %
2008	118,5	296,9	39,9
2009	114,8	295,8	38,8
2010	111,3	294,1	37,8
2011	119,5	316	37,8
2012	111,3	302,6	36,8
2013	106,7	310,9	34,3
2014	92,9	296,4	31,3

Source: ICAP and Ministry of Rural Development and Food



Source: ICAP and Ministry of Rural Development and Food

Figure 3 Swine Meat Self-Sufficiency

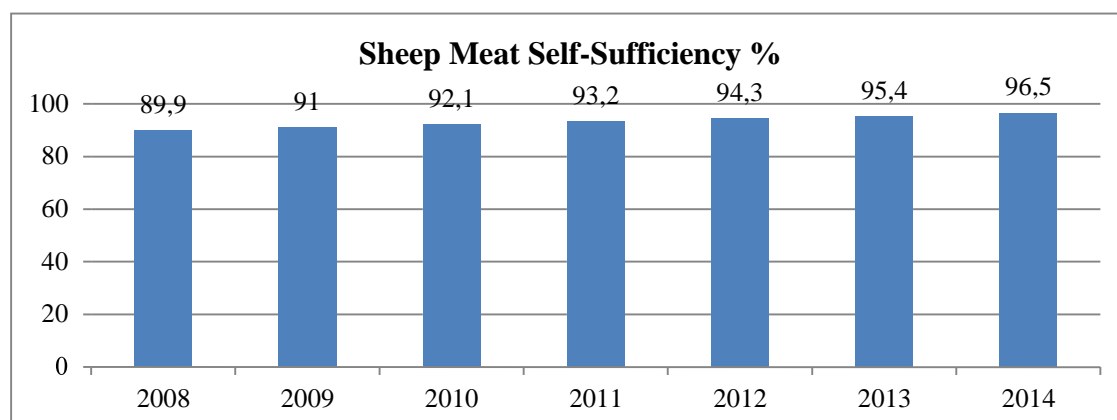
Regarding swine meat, again like bovine, self s-sufficiency rates are very low, at 31% in 2014, down from almost 40% in 2008. This fall in self-sufficiency is largely due to the decline in domestic production from 118.000 tonnes to 92.000.

Table 8 Greek Sheep Meat Production-Consumption Balance in thousands of tonnes

Greek Sheep Meat Production-Consumption Balance in thousands of tonnes			
Year	Total Domestic Production	Consumption	Self-Sufficiency %
2008	108	120,1	89,9

2009	108,8	119,5	91
2010	102,3	109,9	92,1
2011	102,8	110,3	93,2
2012	94,9	99,1	94,3
2013	60,1	64,1	95,4
2014	80	84,2	96,5

Source: ICAP and Ministry of Rural Development and Food



Source: ICAP and Ministry of Rural Development and Food

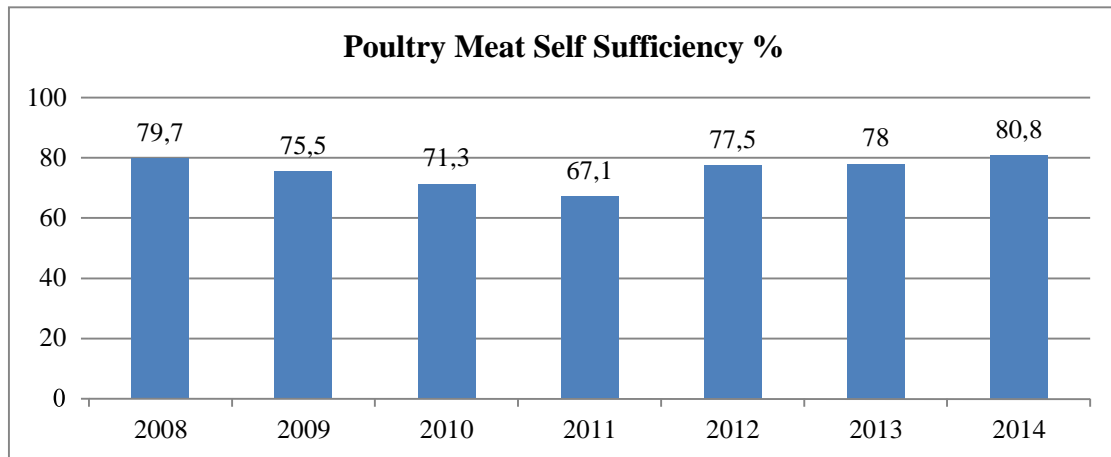
Figure 4 Sheep Meat Self-Sufficiency

Greece is almost self-sufficient in consumption of sheep meat. The self-sufficiency rate increased from 89% in 2008 to 96% in 2014. This increase in self-sufficiency is largely due to the fall in domestic consumption.

Table 9 Greek Poultry Meat Production-Consumption Balance in thousands of tonnes

Greek Poultry Meat Production-Consumption Balance in thousands of tonnes			
Year	Total Domestic Production	Consumption	Self-Sufficiency %
2008	193	242,2	79,7
2009	187,8	248,7	75,5
2010	187,3	235,3	71,3
2011	180,5	228,6	67,1
2012	193,1	249,2	77,5
2013	187,8	240,9	78
2014	198,3	245,5	80,8

Source: ICAP and Ministry of Rural Development and Food



Source: ICAP and Ministry of Rural Development and Food

Figure 5 Poultry Meat Self-Sufficiency

Poultry meat self-sufficiency was 79% in 2008, fell to 67% in 2011 and then increased again to 80% in 2014. Domestic consumption rose by 1,2% between 2008 and 2014 and production also rose by 2.5%.

Regarding fish, Greek domestic fish consumption is calculated at about 21.000 tons per year (Federation of Greek Maricultures, 2015). The domestic production of fish was calculated for 2013 at 113.877.767 kgs or 435.868.470 €. The market is self-sufficient for all Mediterranean fish species like bream and sea bass, but is importing other popular fish species like salmon and trout.

4.4 GREEK MEAT AND FISH PROCESSING SECTORS

Greece hosts a large number of meat and fish processing enterprises, which are spread around the country. The numbers presented are drawn from the European Statistical Services's (Eurostat) Structural Business Statistic Database (SBS) and the Hellenic Food Authority (EFET). The corresponding NACE codes are the following: Section D - Manufacturing SubSection DA - Manufacture of food products, beverages and tobacco

- 15.1 : Production, processing and preserving of meat and meat products
 - " 15.11 : Production and preserving of meat
 - " 15.12 : Production and preserving of poultrymeat

- 15.13 : Production of meat and poultrymeat products
 - 15.2 : Processing and preserving of fish and fish products
- The numbers of meat processing companies in Greece during the period 2008 to 2014 are presented in table 3, while the numbers of fish processing companies are presented in table 4.

Table 10 Greek meat processing companies 2008-2014

Year	2008	2009	2010	2011	2012	2013	2014
Number of meat processing companies	510	523	501	439	452	477	472
Percent Change		2,55	-4,21	-12,38	2,96	5,53	-1,05

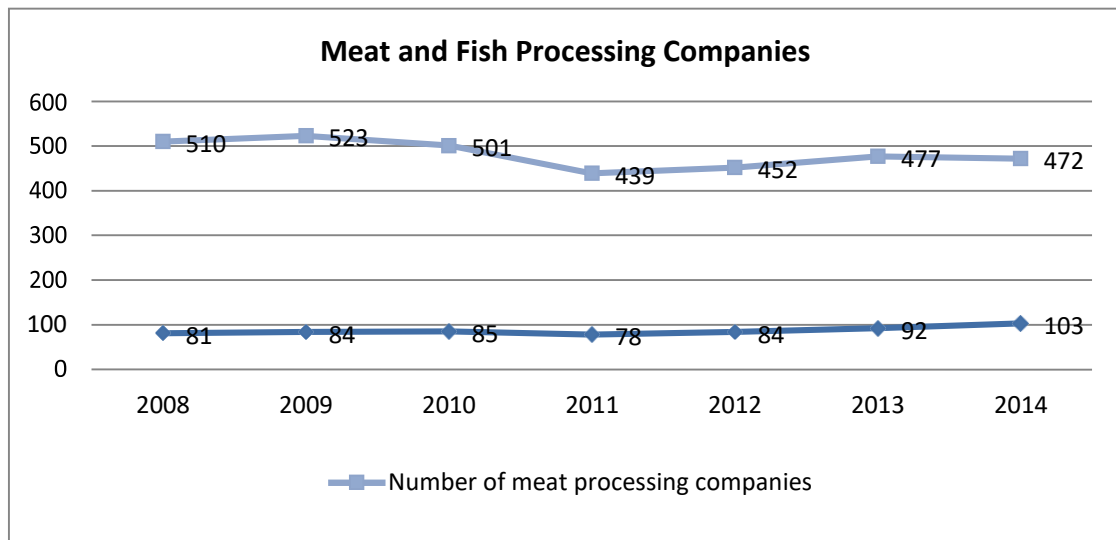
Source: Eurostat and EFET

Table 11 Greek fish processing companies 2008-2014

Year	2008	2009	2010	2011	2012	2013	2014
Number of fish processing companies in Greece	81	84	85	78	84	92	103 ¹
Percent Change		3,70	1,19	-8,24	7,69	9,52	26,09

Source: Eurostat and Ministry of Agricultural Development and Food

¹There is a difference between the number of fish processing firms between Ministry of Agricultural Development and Food (which passes data to ELSTAT and Eurostat) and the Hellenic Food Authority (EFET). In the Ministry's list there are 103 processing firms while EFET lists only 68. After contacting the Ministry, it was concluded that the list is longer because it includes firms that clean, fillet and freeze fish. However, according to EC regulation 852, cleaning and filleting fish is **not** considered processing. Therefore EFET's list is more accurate and will be used in the sector's analysis.



Source: Eurostat and EFET

Figure 6 Meat and Fish processing Companies in Greece 2008-2013

From the two tables and the graph we can notice that in both sectors the number of enterprises has decreased between 2008 and 2014, by -7,4% in meat processing and by -16% in fish processing.

Eurostat offers statistical information regarding the size of the sector's companies. The main classes used for presenting the results are:

- micro enterprises: with less than 10 persons employed;
- small enterprises: with 10-19 and 20-49 persons employed;
- medium-sized enterprises: with 50-249 persons employed;
- small and medium sized enterprises (SMEs): with 1-249 persons employed;
- large enterprises: with 250 or more persons employed.

The results are presented in Tables 5 and 6 and Graphs 1 and 2 for meat and fish processing sectors respectively.

Table 12 Greek meat processing companies by size class

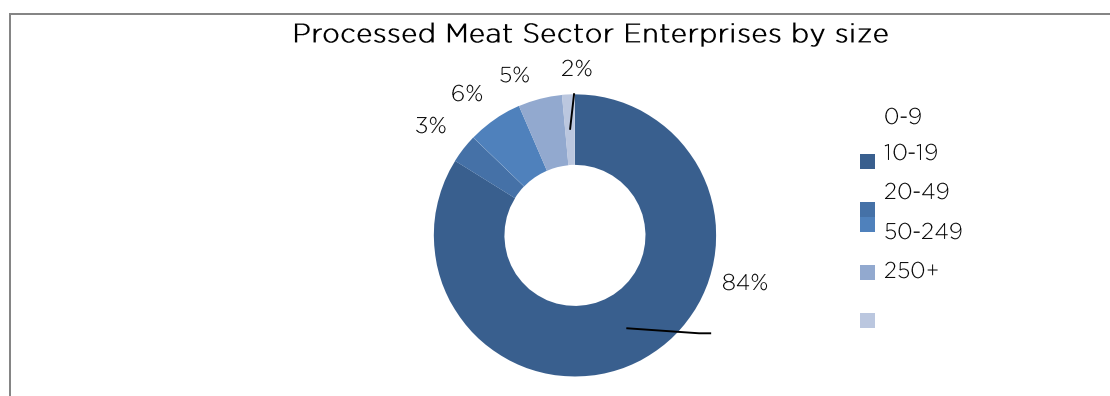
Size/Year	2008	2009	2010	2011	2012	2013
Micro (0-9 employees)	426	431	418	358	363	400
Small (10-19 employees)	31	30	24	24	27	16
Small (20-49 employees)	35	43	36	35	37	30
Medium (50-249 employees)	12	12	15	15	19	24

Large (250+)	6	7	8	7	6	7
Total	510	523	501	439	452	477

Source: Eurostat (blue values are estimates because data were missing)

Most Greek meat processing firms are categorized as micro and their number in 2013 was 400. In the sector only 7 large enterprises were operating. Figure 3 presents the percentages of enterprises by class size for the year 2013 (latest available year in Eurostat).

As we can observe from the Graph, 84% of the sector's enterprises are categorized as micro, 9% of them small, 5% of them are medium and only 2% are large. SMEs in total account for 98% of the sector's enterprises.



Source: Eurostat

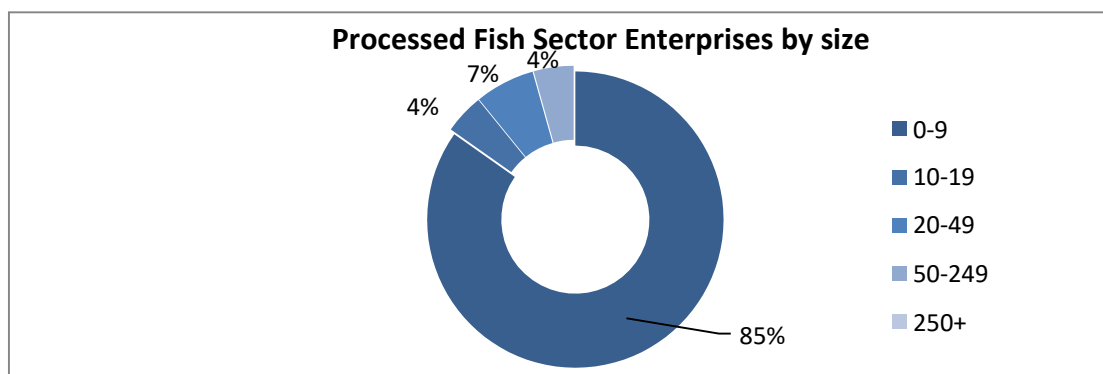
Figure 7 Greek meat processing companies by size class 2013

For the fish processing sector the values are alike. Again, most Greek fish processing firms are categorized as micro and their number in 2013 was 78. In the sector, according to Eurostat, there are no large enterprises. Figure 4 presents the percentages of enterprises by class size for the year 2013.

Table 13 Greek fish processing companies by size class

No of employees/Year	2008	2009	2010	2011	2012	2013
0-9	70	72	70	63	69	78
10-19	2	3	5	5	5	4
20-49	5	6	7	6	8	6
50-249	4	3	3	4	2	4
250+	-	-	-	-	-	-
Total	81	84	85	78	84	92

Source: Eurostat (blue values are estimates as data were missing)



Source: Eurostat

Figure 8 Greek fish processing companies by size class 2013

It can be observed from the Graph that 85% of the sector's enterprises are categorized as micro, 11% are small and 4% of them are medium. SMEs in total account for 100% of the sector's enterprises (there are no large enterprises).

According to the records kept by the Hellenic Food Authority (EFET), the exact number of companies involved in each type of meat and fish processing in 2014 were the following:

Table 14 Number of Greek licensed companies involved in the Meat and Fish Processing 2015

Company Type	Number
MEAT PRODUCTS	358
POYLTRY PROCESSING	104
BLADDER, INTESTINE, STOMACH AND BY-PRODUCTS PROCESSING PLANTS	11
FISH PROCESSING	68

Source: EFET²

The country is divided into 13 first-level administrative divisions called peripheries. These geographical divisions along with their population are presented in Table 15.

Table 15 Administrative regions of Greece and their population in 2011

No	Administrative Region	Population	Per Cent
1	Attica	3.827.624	35,35%

² Appendices 1, 2, 3, 4 present a geographic mapping of the companies in each processing sector and subsector. The full list of Greek meat and fish processing companies is presented in Appendices 5,6,7 and 8.

2	Central Greece	547.390	5,06%
3	Central Macedonia	1.880.058	17,38%
4	Crete	623.065	5,76%
5	Eastern Macedonia and Thrace	608.182	5,62%
6	Epirus	336.856	3,11%
7	Ionian Islands	207.855	1,92%
8	North Aegean	199.231	1,84%
9	Peloponnese	577.903	5,34%
10	South Aegean	308.975	2,85%
11	Thessaly	732.762	6,77%
12	Western Greece	679.796	6,28%
13	Western Macedonia	283.689	2,62%
	Total	10.815.197	100%

Source: ELSTAT

The numbers of meat and fish processing companies in Greece, presented according to the administrative region that they are settled are presented in Table 16.

Table 16 Greek meat and fish processing companies by administrative region

No	Administrative Region	MEAT PRODUCTS	POULTRY PROCESSING	BLADDER et al PRO. PLANTS	FISH PROCESSING
1	Attica	56	20	2	9
2	Central Greece	22	15	-	8
3	Central Macedonia	66	23	5	13
4	Crete	30	8	-	-
5	Eastern Macedonia and Thrace	40	7	1	8
6	Epirus	12	9	-	5
7	Ionian Islands	12	2	-	-
8	North Aegean	9	5	-	5
9	Peloponnese	27	7	-	2

10	South Aegean	7	3	-	3
11	Thessaly	46	2	1	7
12	Western Greece	12	2	2	7
13	Western Macedonia	19	1	-	1
	Total	358	104	11	68

Source: EFET

The region with the largest number of meat processing companies is Central Macedonia, followed by Attica and Thessaly. The region with the largest number of poultry processing companies is again Central Macedonia, followed by Attica and Epirus. The region with the largest number of bladder, intestine, stomach and byproducts processing companies is again Central Macedonia. Finally, the region largest number of fish processing companies is Central Macedonia once again, followed by Attica and Eastern Macedonia and Thrace. In total we see that in both the meat and fish processing sector, Central Macedonia is the area that hosts the most companies, while the South Aegean region is the one that hosts the least (13 in total).

4.3.1 MEAT AND FISH PROCESSING: TURNOVER

The data presented are drawn from Eurostat and refer to the total amount of sales of the two sectors.

Table 17 Greek meat processing sector turnover 2008-2013

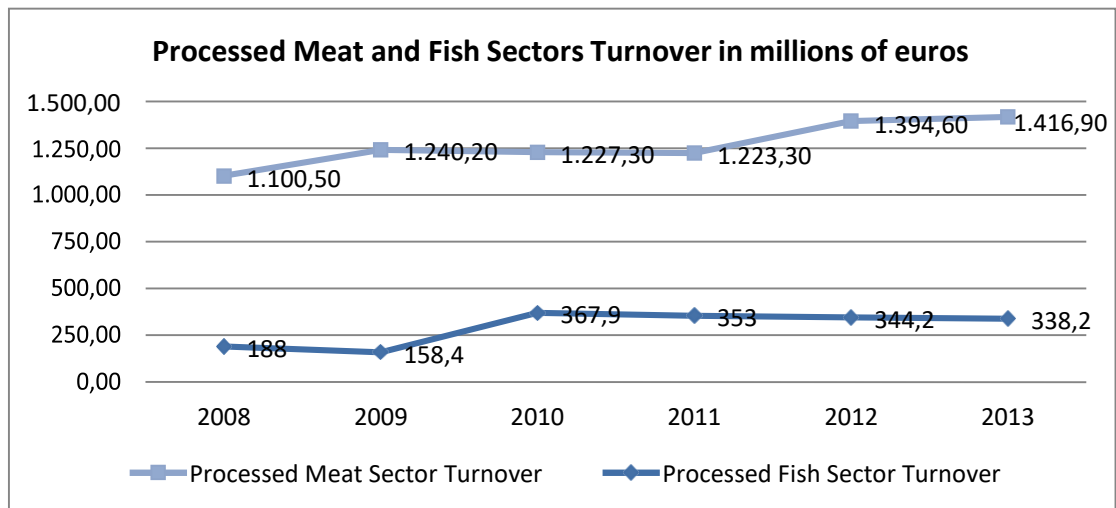
Year	2008	2009	2010	2011	2012	2013
Turnover in millions of €	1.100,5	1.240,2	1.227,3	1.223,3	1.394,6	1.416,9
Percent change	-	12,69	-1,04	-0,33	14,00	1,60

Source: Eurostat

Table 18 Greek fish processing sector turnover 2008-2013

Year	2008	2009	2010	2011	2012	2013
Turnover in millions of €	188,0	158,4	367,9	353,0	344,2	338,2
Percent change	-	-15,74	132,26	-4,05	-2,49	-1,74

Source: Eurostat

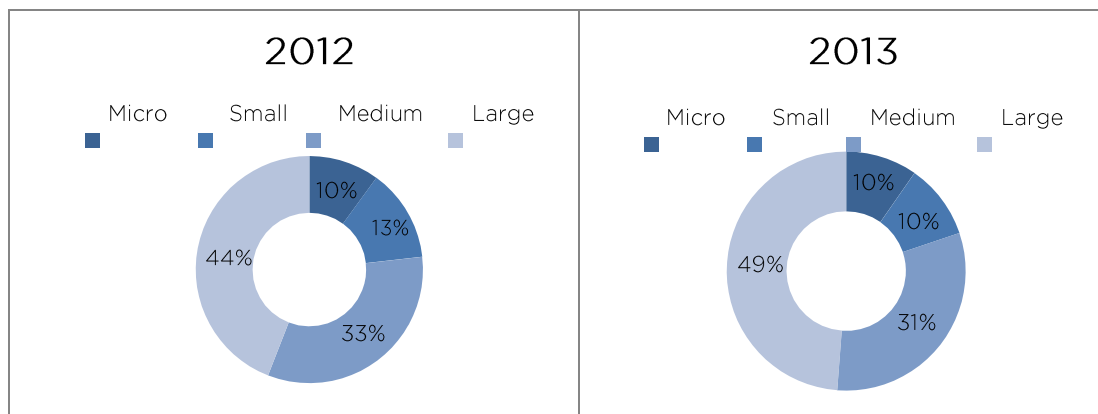


Source: Eurostat

Figure 9 Greek meat and fish processing sector turnover

As we can see from the tables and graph, the processed meat sector's turnover is upward moving, totaling 1,4 billion euros in 2013 from 1,1 in 2008. The processed fish sector's turnover presented a large increase of 132% between 2009/2010, and has been slightly decreasing since then.

Regarding the total sales by each class size in the two sectors, the analysis for the meat processing sector is presented below:



Source: Eurostat

Figure 10 Total sales of meat processing sector by class size

From the 2 figures it can noticed that large companies have a large percentage of the sector's sales (44% in 2012 and 49% in 2013). Micro enterprises are responsible for 10% of total sales.

Unfortunately the corresponding data for the fish processing sector had to many missing values to include them in the analysis.

4.3.2 MEAT AND FISH PROCESSING: PRODUCTION VALUE

According to Eurostat, production value measures the amount actually produced by a unit of production, based on sales, including changes in stocks and the resale of goods and services. Tables 12 and 13 along with Figure 6 present the 2 sectors' production value.

Table 19 Greek meat processing sector production value 2008-2013

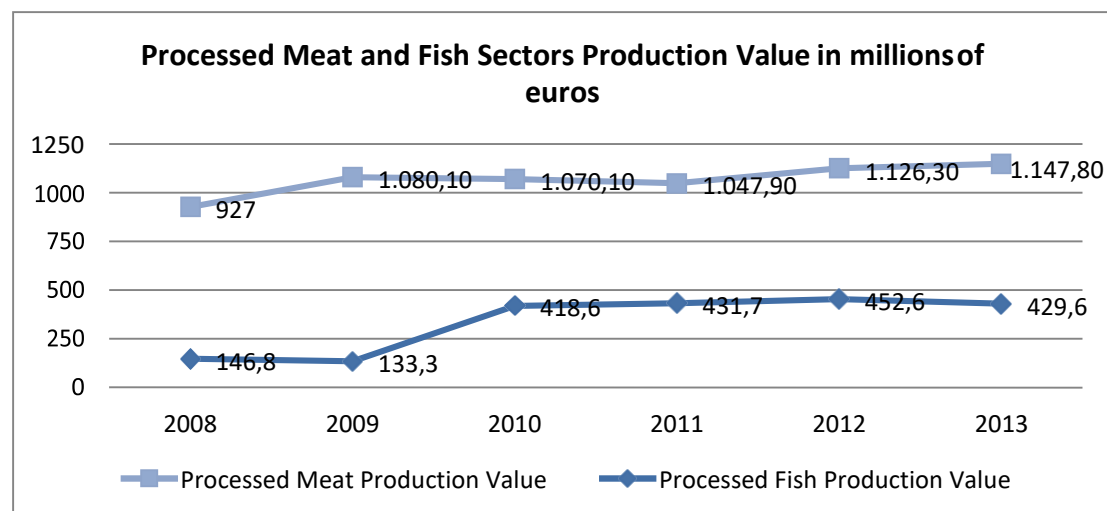
Year	2008	2009	2010	2011	2012	2013
Production Value in millions of €	927,0	1.080,1	1.070,1	1.047,9	1.126,3	1.147,8
Percent change	-	16,52	-0,93	-2,07	7,48	1,91

Source: Eurostat

Table 20 Greek fish processing sector production value 2008-2013

Year	2008	2009	2010	2011	2012	2013
Production Value in 1000 tns	146,8	133,3	418,6	431,7	452,6	429,6
Percent change	-	-9,20	214,03	3,13	4,84	-5,08

Source: Eurostat



Source: Eurostat

Figure 11 Greek meat and fish processing sector production value

The meat sector's production value was recorded by Eurostat at 1,1 millions € in 2013, while the fish sector's was 429 million €. Production value in the meat sector has increased substantially between 2008 and 2013 from 927 million to 1,1 billions € in 2013 (+18%). A very large increase of 193% is noticed in the fish processing sector's production value for the same period.

4.3.3 MEAT AND FISH PROCESSING: VALUE ADDED

According to Eurostat, value added at factor cost is the gross income from operating activities after adjusting for operating subsidies and indirect taxes. It can be calculated as: turnover (+) capitalized production (+) other operating income (+) increases (+) or decreases (-) of stocks (-) purchases of goods and services (-) other taxes on products which are linked to turnover but not deductible (-) duties and taxes linked to production. Tables 21 and 22, along with Figure 13 present the two sectors' value added.

Table 21 Greek meat processing sector value added 2008-2013

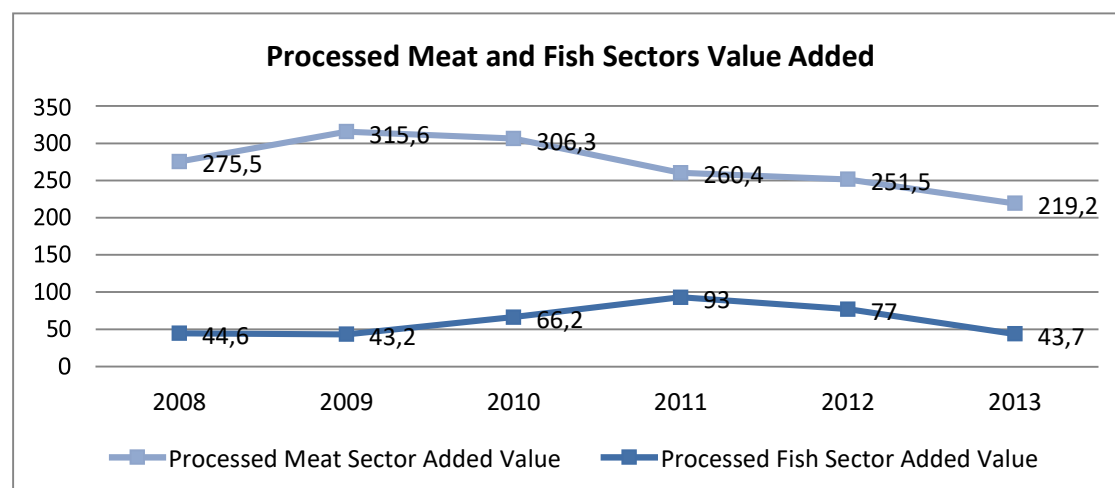
Year	2008	2009	2010	2011	2012	2013
Value added at factor cost	275,5	315,6	306,3	260,4	251,5	219,2
Percent change	-	14,56	-2,95	-14,99	-3,42	-12,84

Source: Eurostat

Table 22 Greek fish processing sector value added 2008-2013

Year	2008	2009	2010	2011	2012	2013
Value added at factor cost	44,6	43,2	66,2	93,0	77,0	43,7
Percent change	-	-3,14	53,24	40,48	-17,20	-43,25

Source: Eurostat



Source: Eurostat

Figure 12 Greek meat and fish processing sector value added

Both sectors value added has fallen the last years. The meat processing sector's value added has fallen by 30% between 2009 and 2013, while the fish processing sector's value added presents large fluctuations, from +53% between 2009/2010 and -43% between 2012/2013. Total value added in 2013 was 43,7 million €.

4.3.4 MEAT AND FISH PROCESSING: NUMBER OF EMPLOYEES

Both the meat and fish processing sectors provide employment in a large number of Greek employees and scientists. Tables 23 and 24 present the number of employees occupied in the meat and fish processing sectors correspondingly.

Table 23 Greek meat processing sector number of employees 2008-2013

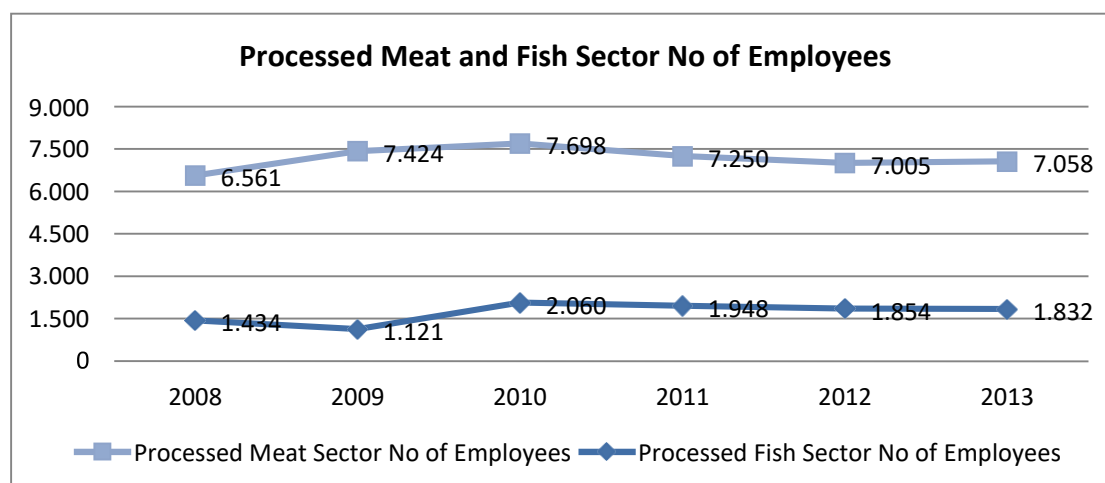
Year	2008	2009	2010	2011	2012	2013
Number of employees	6.561	7.424,0	7.698	7.250	7.005	7.058
Percent change	-	13,15	3,69	-5,82	-3,38	0,76

Source: Eurostat

Table 24 Greek fish processing sector number of employees 2008-2013

Year	2008	2009	2010	2011	2012	2013
Number of employees	1.434	1.121	2.060	1.948	1.854	1.832
Percent change	-	-21,83	83,76	-5,44	-4,83	-1,19

Source: Eurostat



Source: Eurostat

Figure 13 Greek meat and fish processing sector number of employees

As we can see from the tables the meat processing sector provides more than 7.000 working positions in the Greek economy. However the sector presented a decrease in the number of employees by 245 employees during 2011 and 2012. The fish processing sector offers around 1800 employment positions. In this sector also we notice a decrease in employment since 2010 by 222 employees. Both decreases are directly related with the decrease in the number of companies presented in Tables 10 and 11.

4.3.5 MEAT AND FISH PROCESSING: IMPORTS AND EXPORTS

Greece is very active in international trade of meat and fish. Following there is going to be an analysis of the country's meat and fish imports and exports, while part 4.3.5.2 focuses specifically on trade of processed meat and fish products.

4.3.5.1 MEAT IMPORTS AND EXPORTS

Greece relies heavily in imports in order to cover domestic consumer consumption and business processing and production needs. The most popular imported species are beef, swine, lamp and poultry. Tables 25 to 29 present import and export data for these categories of meat.

Table 25 Greece: meat imports and exports

CN02 - Meat and edible meat offal				
Year	Meat Imports		Meat Exports	
	Value in euros	Weight in kgs	Value in euros	Weight in kgs
2008	1.102.524.882	421.649.069	57.855.118	40.806.572
2009	1.093.539.897	426.326.927	46.208.654	34.672.939
2010	1.038.437.994	406.491.420	48.793.339	36.974.071
2011	1.068.750.135	403.846.738	53.703.151	41.431.040
2012	1.087.109.928	402.654.214	49.592.383	39.163.883
2013	1.054.050.062	401.386.821	51.079.150	35.426.215
2014*	1.039.448.032	403.865.584	57.950.363	41.089.270

Source: ELSTAT (values for 2014 are temporary)

Total meat imports were reduced by -5,7% in the period 2008-2014, reaching 403 thousand tons in 2014 (1,03 billion € worth of value). Exports fluctuated in the same period, ending in 41 thousand tons or 57 million € in 2013.

Table 26 Greece: bovine meat imports and exports

CN0201 - Meat of bovine animals, fresh or chilled, CN0202 - Meat of bovine animals, frozen					
Year	Imports		Exports		Balance
	€	kgs	€	kgs	€
2008	460.054.045	131.051.993	10.040.972	4.518.208	-450.013.073
2009	490.044.941	133.986.783	8.130.804	3.135.597	-481.914.137
2010	456.547.305	128.694.265	7.909.958	2.938.521	-448.637.347
2011	457.963.573	121.406.752	5.144.122	1.538.341	-452.819.451
2012	458.825.892	114.386.854	1.758.924	558.170	-457.066.968
2013	418.429.747	106.117.967	1.800.461	500.228	-416.629.286
2014*	406.351.868	107.112.922	1.484.759	361.772	-404.867.109

Source: ELSTAT (values for 2014 are temporary)

In 2014, 107 thousand tons of bovine meat were imported in Greece. Import value declined the period 2008-2014 by -11,67%. The main importing countries for 2014 were: France (47%), Holland (14%) and Italy (10%). The main export partners are Cyprus (42%), Bulgaria (36%) and France (3,6%).

Table 27 Greece: swine meat imports and exports

CN0203 - Meat of swine, fresh, chilled or frozen					
Year	Imports		Exports		Balance
	€	kgs	€	kgs	€
2008	410.082.827	200.527.204	9.832.418	6.690.952	-400.250.409
2009	387.184.380	195.472.731	7.218.346	4.836.701	-379.966.034
2010	372.090.247	191.149.611	9.039.867	6.256.350	-363.050.380
2011	397.133.038	193.398.476	8.550.812	4.833.897	-388.582.226
2012	429.975.211	193.147.760	10.694.583	6.618.770	-419.280.628
2013	435.516.106	196.867.375	6.288.700	3.690.527	-429.227.406
2014*	427.184.865	195.918.986	6.389.155	3.338.400	-420.795.710

Source: ELSTAT (values for 2014 are temporary)

In 2014, 195 thousand tons of swine meat were imported in Greece, while 3 thousand tons were exported. The main importing countries for 2014 were: Netherlands (48%), Germany (21%) and France (11%). The main export partners were Cyprus (47%), Bulgaria (22%) and Germany (13%).

Table 28 Greece: sheep meat imports and exports

CN0204 - Meat of sheep or goats, fresh, chilled or frozen					
Year	Imports		Exports		Balance
	€	kgs	€	kgs	€
2008	46.323.416	13.112.714	13.760.888	1.988.625	-32.562.528
2009	43.326.065	11.965.867	9.354.352	1.558.596	-33.971.713
2010	34.425.169	9.013.756	11.552.957	2.083.653	-22.872.212
2011	39.652.646	8.764.050	12.737.840	2.216.235	-26.914.806
2012	23.084.198	5.539.089	12.835.511	2.065.937	-10.248.687
2013	25.240.429	6.628.182	18.328.044	3.272.289	-6.912.385
2014*	30.406.155	7.553.147	20.851.665	3.963.107	-9.554.490

Source: ELSTAT (values for 2014 are temporary)

The import value of sheep meat swine in 2014 was 30,4 m €, while the export value was 20,8 m €. The main importing partners for 2014 were New Zealand with 48%, Romania with 14% and FYROM and Spain with 12%. The main export partners were Italy (49%) and Spain (34%).

Table 29 Greece: poultry meat imports and exports

CN0207 - Meat, edible offal of domestic poultry					
Year	Imports		Exports		Balance
	€	kgs	€	kgs	€
2008	143.215.693	58.727.826	15.841.698	16.939.021	-127.373.995
2009	126.999.867	57.873.089	11.248.765	14.019.584	-115.751.102
2010	126.536.728	57.575.182	11.067.477	16.366.445	-115.469.251
2011	128.402.736	61.260.219	17.072.917	21.781.280	-111.329.819
2012	132.834.510	71.688.954	16.237.998	22.858.549	-116.596.512
2013	131.600.080	74.372.302	18.094.678	21.806.782	-113.505.402
2014	127.242.886	78.868.965	21.459.160	25.601.837	-105.783.726

Source: ELSTAT (values for 2014 are temporary)

Regarding poultry meat in general, imports declined between 2008 and 2014 by -11%. On the other hand exports increased by 51%. The main importing partners for 2014 were the Netherlands with 24%, Bulgaria with 24% and Italy with 19%. Export partners were Bulgaria with 50%, Cyprus with 14% and Hong-Kong with 9,2%.

4.3.5.2 FISH IMPORTS AND EXPORTS

Even though there in Greece there is a negative trade balance in international meat trade, in the fish sector the trade balance is positive. Tables 24-28 present the country's fish imports and exports value, imports and exports by preservation and processing method, main trade partners and the most popular trade species. The data have been drawn from the Hellenic Statistical Authority (ELSTAT) and the European Commission's Joint Research Centre database.

Table 30 Greece: fish imports and exports

CN03 - Fish, crustaceans, molluscs, aquatic invertebrates				
Year	Fish Imports		Fish Exports	
	Value in euros	Weight in kgs	Value in euros	Weight in kgs
2008	403.228.689	114.177.487	456.284.194	134.711.136
2009	369.508.769	108.842.744	480.274.178	135.091.839
2010	341.278.996	92.559.279	534.732.560	135.533.005
2011	369.788.726	89.955.970	609.133.815	128.440.208
2012	314.980.619	76.986.439	601.676.152	129.277.432
2013	292.374.012	76.905.161	553.180.676	123.301.163
2014*	330.647.042	84.578.494	551.713.986	114.929.535

Source: ELSTAT (values for 2014 are temporary)

Greek fish, crustaceans, molluscs, aquatic invertebrates trade balance was positive by 221 million. Export quantity in 2014 was 114 thousand tons. The main importing countries in 2014 were Spain (14%), the Netherlands with (13%) and Italy (6%), while export partners were Italy (41%), Spain (13% and France (8,6%).

Table 31 Greek fish imports and exports by preservation method

Preservation method		2011	2012
		%	%
Dried-salted-smoked	Imports	5,7	9,56
	Exports	1,3	8,35
Fresh	Imports	17,71	14,4
	Exports	84,96	79,28
Frozen	Imports	46,4 4	37,72

	Exports	8,39	9,45
Prepared-preserved	Imports	29,16	37,35
	Exports	4,45	2,38

Source: European Commission, JRC & DG MARE

Regarding the preservation method of the fish that were imported and exported, exported fish in 2012 were fresh by almost 80%, while almost half of the imported fish were frozen, a third was prepared-preserved and the rest were fresh and dried-slatted- smoked.

Table 32 Greek fish imports and exports by processing method

Processing method		2011	2012
		%	%
Byproducts	Imports	17,22	23,56
	Exports	0,22	0,23
Cut	Imports	25,58	28,32
	Exports	9,75	15,4
Other	Imports	0,9	1,32
	Exports	0,99	0,54
Whole	Imports	56,21	46,79
	Exports	89,12	83,73

Source: European Commission, JRC & DG MARE

DG MARE database also offers information regarding Greece's international fish trade by processing method. In 2012 almost half of the imported fish were whole and the rest were cut (28%) and byproducts (23%). Exported fish were whole at 83% and the rest were cut (15%).

Greece's main fish import partners are Spain and Italy, followed by Denmark and the Netherlands. The export partners are mainly Italy, followed by Spain and France.

Table 33 Fish imports and exports by species (2012)

Fish Imports by species 2012	%	Fish Exports by species 2012	%
Non food use	34,85	Other marine fish	42,94
Tunas	12,7	Salmon	39,69
Squid	11,92	Tunas	6,12

Other marine fish	11,64	Squid	4,65
Salmon	10,88	Shrimps	4,22
Cod	6,83	Tropical Shrimp	1,44
Shrimps	6,13	Cod	0,05
Tropical Shrimp	3,78	Coldwater shrimp	0,04
Herring	0,73		
Coldwater shrimp	0,54		

Source: European Commission, JRC & DG MARE

Finally regarding the fish imports and exports by species, imported species are mainly fish for non-food use (e.g fish feed), tunas, squid, other marine fish and salmon. Exported species are other marine fish like seabream and seabass, salmon and tuna.

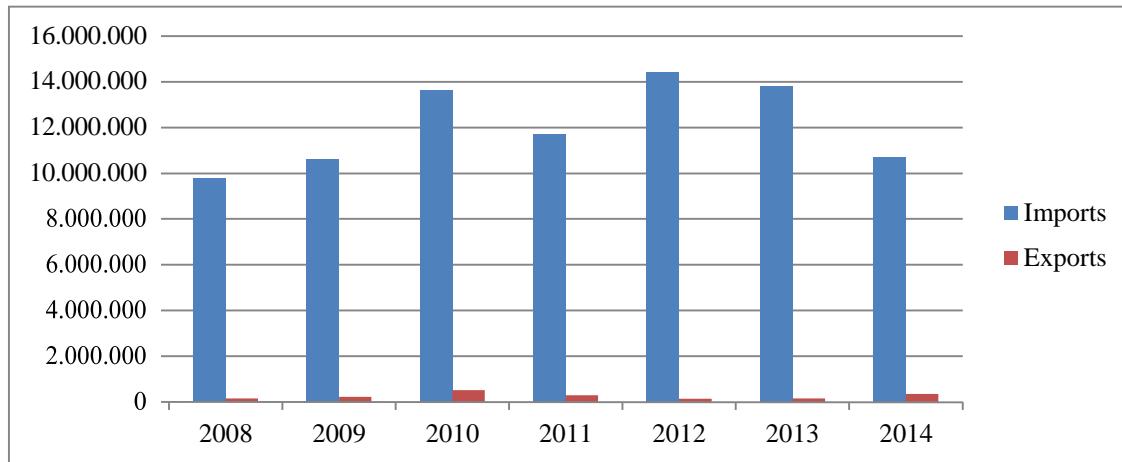
4.3.5.3 PROCESSED MEAT AND FISH IMPORTS AND EXPORTS

Regarding Greek imports and exports of fish and meat **processed** products, the available data from ELSTAT are presented in tables 34-38 below.

Table 34 Greece: processed meat imports and exports

CN0210 - Salted, dried or smoked meat or offal, flour and meal					
Year	Imports		Exports		Balance
	€	kgs	€	kgs	€
2008	9.788.606	1.988.058	162.694	105.575	-9.625.912
2009	10.618.012	5.018.031	229.274	85.038	-10.388.738
2010	13.625.986	6.172.757	515.948	406.351	-13.110.038
2011	11.699.992	5.850.512	292.415	146.796	-11.407.577
2012	14.406.330	6.315.758	146.937	71.116	-14.259.393
2013	13.782.558	7.591.859	160.041	93.027	-13.622.517
2014*	10.707.670	4.066.302	349.618	174.957	-10.358.052

Source: ELSTAT (values for 2014 are temporary)



Source: ELSTAT

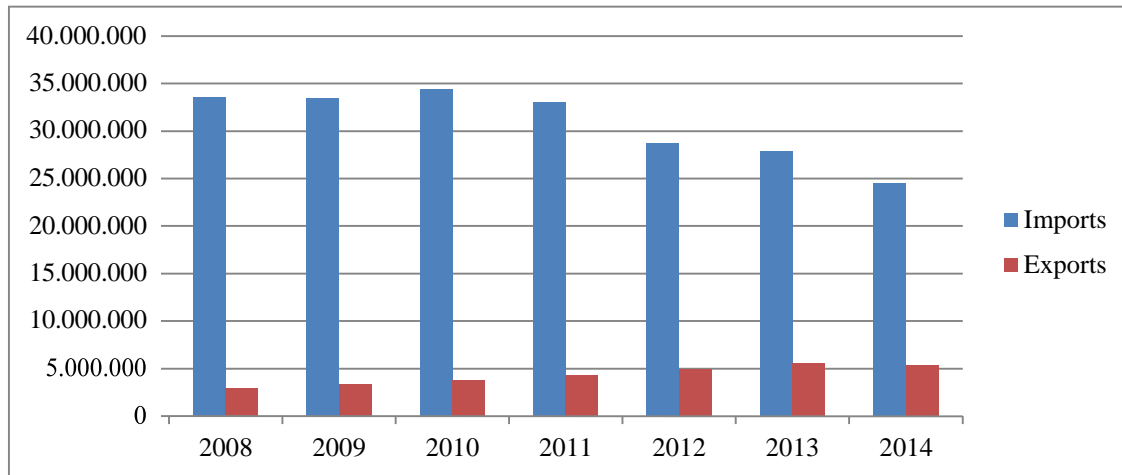
Figure 14 Salted, dried or smoked meat or offal, flour and meal Imports & Exports

Salted, dried or smoked meat imports amounted at 10 million € in 2014, while exports were only 349 thousand €. It is encouraging that export value doubled between 2013 and 2014. The main export partner countries were Bulgaria (40%), the UK (17%) and Cyprus (17%). The main import partners were Italy (26%), the Netherlands (23,5%) and Germany (16%).

Table 35 Greece: Sausages, similar products of meat, meat offal & blood imports and exports

CN1601 - Sausages, similar products of meat, meat offal & blood					
Year	Imports		Exports		Balance
	€	kgs	€	kgs	€
2008	33.495.798	10.614.272	2.901.811	947.751	-30.593.987
2009	33.435.797	10.023.431	3.333.610	1.079.136	-30.102.187
2010	34.369.620	10.175.619	3.778.134	1.161.442	-30.591.486
2011	33.040.724	10.650.632	4.324.695	1.592.096	-28.716.029
2012	28.676.382	8.762.198	4.916.705	1.512.569	-23.759.677
2013	27.880.170	9.060.117	5.526.933	1.791.619	-22.353.237
2014*	24.482.292	8.756.709	5.348.763	1.839.037	-19.133.529

Source: ELSTAT (values for 2014 are temporary)



Source: ELSTAT

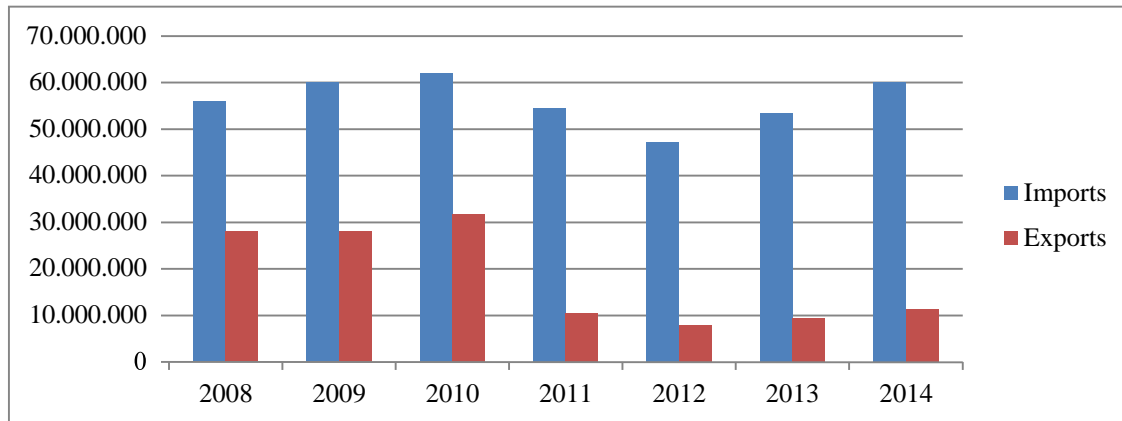
Figure 15 Sausages, similar products of meat, meat offal & blood Imports & Exports

Greece in 2014 imported 24 million € worth of sausages and exported 5,3 million €. Sausage import value declined by -27% between 2008 and 2014, while export value rose by 82%. The imports came from Germany (54%), Italy (23%) and Spain(10,8%), while exports went to Cyprus (63%) and Bulgaria (20%).

Table 36 Greece: Prepared or preserved meat, meat offal and blood, nes imports and exports

CN1602 - Prepared or preserved meat, meat offal and blood, nes					
Year	Imports		Exports		Balance
	€	kgs	€	kgs	€
2008	56.022.837	16.788.584	28.049.476	6.540.319	-27.973.361
2009	59.954.554	19.822.829	28.125.051	8.491.862	-31.829.503
2010	61.958.524	18.805.614	31.600.153	8.504.335	-30.358.371
2011	54.440.093	16.673.349	10.481.050	4.199.907	-43.959.043
2012	47.083.401	15.044.666	7.793.258	3.010.316	-39.290.143
2013	53.329.863	17.899.316	9.358.938	4.268.913	-43.970.925
2014*	60.071.411	18.632.499	11.294.719	3.242.001	-48.776.692

Source: ELSTAT (values for 2014 are temporary)



Source: ELSTAT

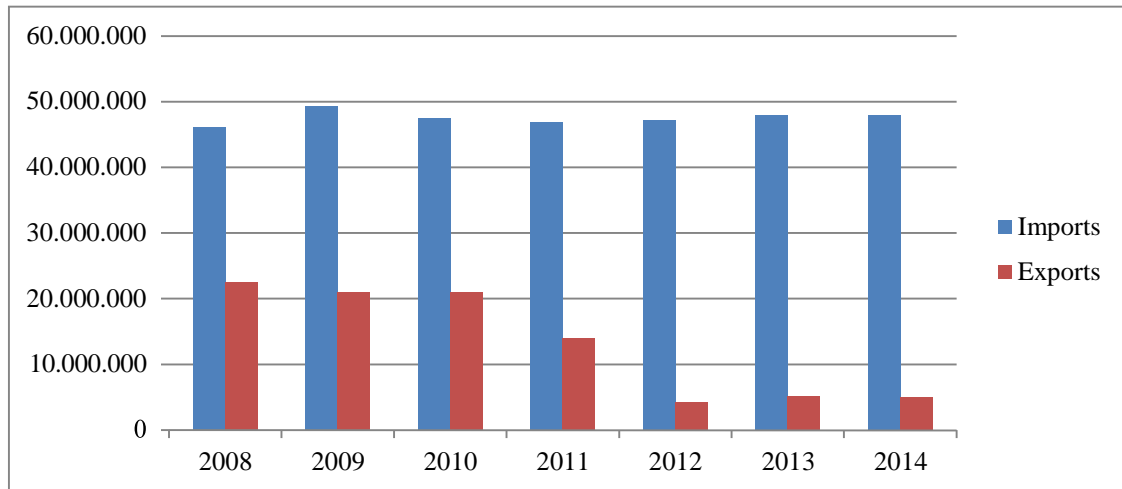
Figure 16 Prepared or preserved meat, meat offal and blood, net Imports & Exports

In 2014 Greek international trade of prepared or preserved meat had a negative balance of -48 million in 2014. 30% of imports came from the Netherlands, 24% from Germany and 18% from Italy. Exports went by 22% to the Netherlands, 21% to Cyprus and 14% to Germany.

Table 37 Greece: Prepared or preserved fish, fish eggs, caviar imports and exports

CN1604 - Prepared or preserved fish, fish eggs, caviar					
Year	Imports		Exports		Balance
	€	kgs	€	kgs	€
2008	46.130.568	11.307.442	22.418.378	3.209.692	-23.712.190
2009	49.300.162	12.038.665	20.883.643	2.984.815	-28.416.519
2010	47.494.643	11.700.040	20.962.082	2.906.354	-26.532.561
2011	46.871.881	11.199.843	13.954.122	1.856.141	-32.917.759
2012	47.177.639	10.282.929	4.242.863	869.833	-42.934.776
2013	47.949.623	10.267.337	5.115.188	994.125	-42.834.435
2014*	47.848.934	10.522.349	5.018.137	966.205	-42.830.797

Source: ELSTAT (values for 2014 are temporary)



Source: ELSTAT

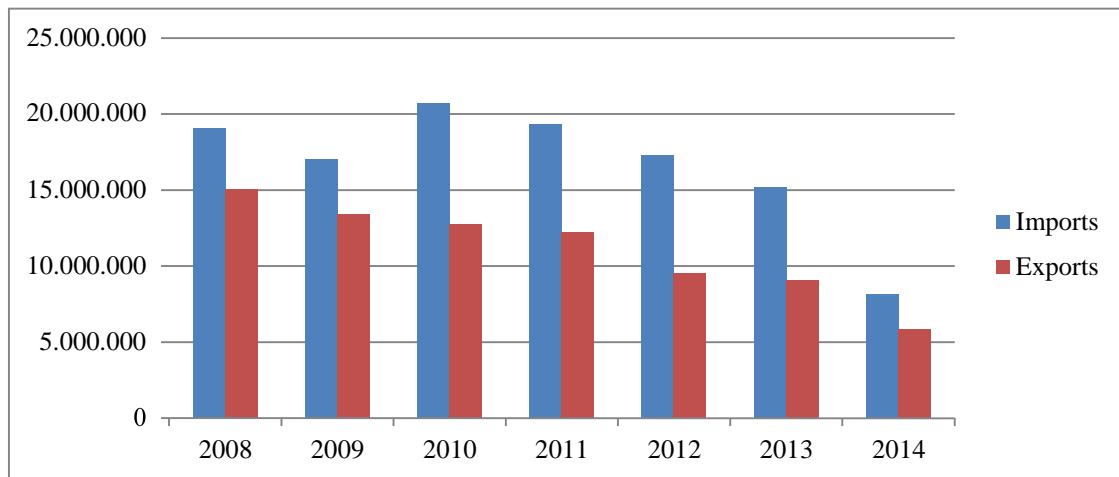
Figure 17 Prepared or preserved fish, fish eggs, caviar Imports & Exports

Regarding international trade of prepared or preserved fish, Greece again had a negative trade balance throughout the period 2008-2014. 41% of imports came from Italy and 16% from Thailand. Exports went mainly to Cyprus (36%) and Australia (7,2%).

Table 38 Greece: Crustaceans, molluscs, etc, prepared or preserved imports and exports

CN1605 - Crustaceans, molluscs, etc, prepared or preserved					
Year	Imports		Exports		Balance
	€	kgs	€	kgs	€
2008	19.053.242	4.454.398	15.018.372	2.346.574	-4.034.870
2009	16.997.453	3.939.358	13.395.490	2.120.559	-3.601.963
2010	20.673.451	4.767.841	12.708.688	2.127.263	-7.964.763
2011	19.278.352	4.064.267	12.243.192	2.083.988	-7.035.160
2012	17.287.501	3.435.025	9.478.923	1.676.118	-7.808.578
2013	15.167.637	3.424.673	9.072.240	1.497.036	-6.095.397
2014*	8.099.746	1.859.449	5.820.741	810.436	-2.279.005

Source: ELSTAT (values for 2014 are temporary)



Source: ELSTAT

Figure 18 Crustaceans, molluscs, etc., prepared or preserved Imports & Exports

The trade balance in the international trade of crustaceans and molluscs in 2014 was negative at -2,2 million. Imports in 2014 came from India (16%), Chile (16%) and Spain (13%), while exports went to France (81%) and FYROM (4,4%).

In particular, the most popular imported processed meat products are the following:

- Salami
- Porcine sausages
- Beef sausages
- Turkey sausages
- Chicken sausages
- Swine sausages
- Frankfurt Sausages
- Chicken burgers
- Porkine burgers
- Beef burgers
- Swine Schnitzels
- Chicken Schnitzel
- Turkey Schnitzel
- Lamp leg
- Ham
- Bacon

- Jamon
- Speck
- Mortadella
- Bresaola
- Leverwurst
- Pate
- Fua gra
- Camel pastourmas
- Prosciutto

The most popular imported processed fish products are the following:

- Smoked Herring
- Smoked salmon
- Salted cod
- Caviar
- Fish roe
- Trout eggs
- Brik/salmon eggs
- Crabmeat

4.3.6 PROJECTIONS

It is interesting to see some projections regarding the future of these two Greek sectors. Business Monitor International (BMI) through its BMI Research database offers projections about some popular processed meat and fish products. These projections go up to 2019. Tables 31 and 32 present these projections that concern the following product categories: Meat: ham/bacon, Fish: Frozen and preserved fish.

Table 39 Greece - Ham/Bacon and sausages production, sales, exports and consumption projections

Bacon/Ham	2014	2015	2016	2017	2018	2019
Production, tonnes	8026,4	8036,4	8046,3	8058,1	8069,8	8082,4
Production, tonnes, % y-o-y	0,0	0,1	0,1	0,1	0,1	0,2
Sales, tonnes	8924,0	8968,0	9012,6	9059,7	9107,5	9157,0

Sales, tonnes, % y-o-y	-0,4	0,5	0,5	0,5	0,5	0,5
Exports, tonnes	91,6	120,4	150,3	181,3	213,7	247,3
Exports, tonnes, % y-o-y	16,1	31,4	24,8	20,7	17,8	15,7
Kg per capita	0,8	0,8	0,8	0,8	0,8	0,8

Source: BMI

Ham and bacon production is expected to increase slightly the following years, reaching 8082 tonnes in 2019. Sales are expected to increase steadily between 2015 and 2019 by 0,5% each year, reaching 9.157 in 2019. Exports are expected to increase significantly, reaching 247 tonnes in 2019 from 91 tonnes in 2014.

Table 40 Greece - Frozen and preserved fish production, sales, exports and consumption projections

Frozen fish	2014	2015	2016	2017	2018	2019
Production, tonnes	4169,1	4168,9	4168,6	4168,4	4168,1	4167,8
Production, tonnes, % y-o-y	0,0	0,0	0,0	0,0	0,0	0,0
Sales, tonnes	13477,1	13598,7	13723,1	13850,5	13980,9	14114,4
Sales, tonnes, % y-o-y	-0,8	0,9	0,9	0,9	0,9	1,0
Exports, tonnes	3624,0	3696,7	3772,4	3851,1	3932,9	4018,1
Exports, tonnes, % y-o-y	0,9	2,0	2,0	2,1	2,1	2,2
Kg per capita	1,2	1,2	1,2	1,2	1,3	1,3
Preserved fish						
Production, tonnes	3307,6	3307,0	3306,5	3305,9	3305,3	3304,6
Production, tonnes, % y-o-y	0,0	0,0	0,0	0,0	0,0	0,0
Sales, tonnes	8746,9	8780,6	8813,3	8844,6	8874,6	8903,1
Sales, tonnes, % y-o-y	-2,1	0,4	0,4	0,4	0,3	0,3
Exports, tonnes	2666,8	2880,9	3103,6	3335,3	3576,1	3826,7
Exports, tonnes, % y-o-y	3,7	8,0	7,7	7,5	7,2	7,0

Kg per capita	0,8	0,8	0,8	0,8	0,8	0,8
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Source: BMI

Both frozen as well as preserved fish production is to expected remain relatively stable during the following 4 years. Frozen fish sales are expected to rise by almost 1% every year, while preserved fish sales are expected to rise on average 0,4% every year. However, preserved fish exports are expected to rise steadily until 2019, by more than 7% each year, while frozen fish exports will rise by 2% each year. Consumption per capita in both categories are expected to remain relatively stable.

4.3.7 BUTCHER SHOPS

Butcher Shops are usually small shops located in commercial roads that sell fresh, packaged or processed meat. There are butcher shops in literally every neighborhood in Greece, as meat is a popular food in the Greek diet. The most popular products they sell are fresh chicken, pork, lamp and beef meat, chopped meat, minced meat, burgers, soulvaki and traditional sausages. The exact number of butcher shops in Greece is in question, as the National Interprofessional Organization of Meat (EDOK) and the Pan- Hellenic Confederation of Unions of Agricultural Co-operatives (PASEGES) mention 14.953, while the Butchers' Federation of Thessaloniki claims that they are between 8.500-9.500.

4.3.8 STAKEHOLDER ANALYSIS

Both the meat and fish processing sectors affect and are affected by a large number of public and private institutions and individuals. These are the 2 sector's main stakeholders. The most important ones are mentioned below.

GREEK MINISTRY OF RURAL DEVELOPMENT AND FOOD 37.987252, 23.726848

The Ministry of Agricultural Development and Food is responsible for overseeing the agricultural, veterinary, fisheries and food sectors in Greece. It is composed by various departments as the directorate general of sustainable plant production, directorate general of sustainable rural development, directorate general of sustainable animal production and veterinary services, directorate general of sustainable fisheries. The Ministry has branch offices in all the countries large cities.

HELLENIC FOOD AUTHORITY (EFET)

37.995149, 23.768062

The Hellenic Food Authority (EFET), founded in 1999, is a Governmental Organization supervised by the Ministry of Agricultural Development and Food. Its principal aim is to take all the necessary actions to ensure that food produced, distributed or marketed in Greece meets the standards of food safety and hygiene as described by the national and European legislation. The Hellenic Food Authority also acts as the national contact point of the European Union for the management of the Rapid Alert System of Food (RASFF) and for the Codex Alimentarius as well as the local point of the European Food Safety Authority (EFSA).

HELLENIC ORGANISATION OF MILK AND MEAT (ELOGAK)

40.591132, 22.962995

ELOGAK was firstly established in 1993 as Greek Milk Organization (ELOG) and was converted in 2008 to its current form . It is a private organization belonging to the wider public sector and supervised by the Minister of Rural Development and Food. ELOGAK's scope and responsibilities relate with the supervision of milk and meat production and processing, maintaining quality and safety controls, giving advice and guidance to farmers as well as exercising an advisory role to the Ministry of Rural Development and Food.

NATIONAL INTERPROFESSIONAL ORGANIZATION OF MEAT (EDOK)

37.987790, 23.766527

The National Interprofessional Organization of Meat (EDOK) was founded in 2013. Its goals is to connect and coordinate all professional groups that work around meat, in order to promote mutual benefit and the sector's development. Its formation was the result of successive processes and dialogue among the six following professional bodies active in this area: Greek Association of Livestock (TEC), Pan-Hellenic Confederation of Unions of Agricultural Co-operatives (PASEGES), Panhellenic Association of Meat Trade Representatives, Association of Greek Meat Processing Industries (SEVEK), PanHellenic Association of Industrial Slaughter Houses and Meat, Panhellenic Federation of Butcher Shops (POKK). These organizations represent various stages of the meat production, processing and trade process. Through EDOK they try to coordinate their actions in order to achive the sector's development, strengthen local markets, safeguard quality and safety of the products, promote research and development and design policies that will promote the productiona and consumption of meat.

ASSOCIATION OF GREEK MEAT PROCESSING INDUSTRIES (SEVEK)
37.974152, 23.733430

SEVEK is the sectoral Association of licensed and recognized companies involved in the production of sausages and meat processing products. It was founded on 1977. Its goals are the technical and qualitative improvement of the production of meat products, strengthen the confidence of consumers and developing communication relations and solidarity, both among its members and with the business community and the authorities.

ASSOCIATION OF GREEK FOOD INDUSTRIES (SEVT)
38.081315, 23.814859

SEVT represents the Greek Food & Drink Industry in national european and international level. SEVT membership is made up of food and drink companies and sector associations. SEVT's mission is to facilitate the development of an environment in which all food and drink companies, whatever their size, can meet the needs of consumers and society, while at the same time competing effectively for smart, sustainable and inclusive growth. It represents about 55 industry-members.

PANHELLENIC FEDERATION OF BUTCHER SHOPS (POKK)
37.984925, 23.725867

The Panhellenic Federation of Butcher Shops was founded in 1964 and represents butcher shops and their associations from all over Greece. It is based in Athens and has 41 members which are local butcher shop associations. Its goals are to serve the butcher shops' common interests, record the sector's problems and develop a spirit of cooperation and training among the members. The total number of butcher shops in Greece, according to PASEGES is about 15.000.

PANEHELLENIC ASSOCIATION OF MEAT TRADE REPRESENTATIVES

The Panhellenic Association of Meat Trade Representatives was founded in 1975. It is estimated that over 70% of imported meat quantities are handled by its members, while demand is increasing.

NORTHERN GREECE ASSOCIATION FOR THE PROTECTION AND DEVELOPMENT OF GREEK PRODUCTION - MARKETING AND MANUFACTURING OF MEAT (SPAKVE)

40.686077, 22.810583 (address of chairman)

SPAKVE was founded on 2010 in order to protect the interests of professionals and industries related with production, processing and trade of meat. It has about 70 members from all over Northern Greece.

GREEK ASSOCIATION OF LIVESTOCK (PEK)

40.547599, 23.020588

The Greek Association of Livestock (PEK) was established in 2008 and is the largest nationwide organization related with livestock. Its members are stock breeders, associations, cooperatives and companies related with all sectors of livestock (cattle, goats, pigs, poultry). The association's goal is to strengthen the livestock sector as a driving force for the country's development.

PANHELLENIC ASSOCIATION OF INDUSTRIAL SLAUGHTER HOUSES AND MEAT

The PanHellenic Association of Industrial Slaughter Houses and Meat was founded in 1999 and is the primary professional organization. Its members are about 80 industrial type slaughterhouses with EU license. Overall in the country operate about 150 slaughterhouses, out of which about half belong to municipalities in remote mountainous and island areas and the other half are private, placed close to central cities of the mainland. The aim of the association is to preserve and promote the business, economic, and social interests of its members.

CENTRAL MARKET AND FISHERY ORGANIZATIONS (OKAA)

37.961212, 23.682791

The Central Market and Fishery Organizations was founded in 1955 under the name "Athens Central Fruits and Vegetables Market". It is owned by the Hellenic Ministry of Finance and is supervised by the Ministry of Development and Ministry of Rural Development and Food. It owns and manages the 11 major fish markets presented in Table 42.

Table 41 Major fish markets in Greece

No	Name	City/village/street	Municipality
1	Piraeus Fishmarket	Keratsini	Piraeus
2	Nea Mixaniona Fish market	Nea Mixaniona	Thessaloniki
3	Kavala Fish market	Kavala	Kavala
4	Patra Fish market	Patra	Achaia

5	OKAA SA, Alexandroupoli branch Fish market	Alexandroupoli	Evros
6	Etanal SA, Mesollogi Fish market	Mesollogi	Aitolokarnania
7	Etanal SA	Kalumnos	Dodekanisa
8	OKAA SA, Preveza branch Fish market	Preveza	Preveza
9	Etanal SA, Chalkida Fish market	Leoforos Makariou	Evia
10	Etanal SA, Chania Fish market	Souda	Chania
11	Chios Fish Market	Chios	Chios

Source: Hellenic Ministry of Rural Development and Food

The 11 local branches - fish wharves of CMFO throughout Greece, ensure the toil and effort of the Greek fisherman, supplying fresh and quality fish across the country. At the same time they stimulate the local economy of each region through commercial activity developed both inside and around them, supported by added-value services such as packing centers, increasing the value of the raw material for the benefit of the producer and the trader, and facilitate the export process through facilities certified by the competent authorities of the EU.

Smaller, fish markets operate in all small ports and marinas around the country.

HELLENIC CONFEDERATION OF PROFESSIONALS, CRAFTSMEN & MERCHANTS (GSEVEE)

37.990012, 23.728371

GSEVEE was founded in 1919, and constitutes the major and most massive association of Professionals, Craftsmen and Merchants all over the country. GSEVEE is active in promoting and consolidating the professional, economical, cultural and broadly social, interests of small and medium entrepreneurs (SMEs). It incorporates 88 federations,

1.100 main unions with 160.000 natural persons (entrepreneurs).

SUPER MARKETS

In Greece there is a very large number of super markets chains, Hyper Markets and Cash & Carry. The largest chains in Greece by number of stores in random order are Carrefour Marinopoulos owned by Marinopoulos Group, Alfa-Beta Vassilopoulos owned by Delhaize Group, Lidl owned by Schwarz Group, Masoutis owned by Diamantis Masoutis and Veropoulos, Chalkiadakis and Sklavenitis stores owned by Sklavenitis Group. Apart from these large supermarket chains there are tenths of

smaller chains, like ELOMAS, Bazaar, Kritikos, Market In, Proton, Anytime, My Market, Smile etc, and hundreds of small convenient stores in every neighborhood. All of them offer processed meat and fish products to their customers. According to a study carried out by ICAP, the number of supermarkets in Greece was 4.508 in 2013.

ASSOCIATION OF GREEK FOOD ENTERPRISES

The Association of Greek Food Enterprises is the oldest Greek Association in the food industry. It was founded in 1932. In the association participate industrial and commercial food businesses. Membership includes almost all of the super market chains, major food industries and distribution companies.

RESTAURANTS

All over Greece there are thousands of restaurants. They are particularly concentrated in city centers and popular tourist areas. Even though all of them have the common characteristic that they sell cooked food, they can be categorized according to the type of food they sell. The main types are the following:

Estiatório: The estiatório (plural estiatória) is a type of modest restaurant in Greece. They have been described as "something of a vanishing breed".[4] An estiatório may purvey dishes such as casseroles, meat and game stews, baked meat and fish, macaroni pie and mayirefta in the form of moussaka.

Gyradiko: Giradiko(or giradika) restaurants purvey the popular Greek dish gyros. In Greece, gyros are typically prepared using spiced ground pork shoulder meat, while in the United States they are commonly prepared with ground lamb sliced from a vertical rotisserie spit.

Souvlatzidika: Souvlatzidika are restaurants that seel mostly souvlaki. Eventhough souvlaki may be served in all other restaurant types, for souvlatzidika it is the main product and attraction. It is usually accompanied with fried potatoes, salads and wine. **Mezedopoleio:** Meze restaurants are known as mezedopoleío (singular)[2] or mezedopoleía (plural), and serve appetizers known as meze or orektiko (plural mezedes/orektika) to complement beverages. Some meze restaurants simply serve whatever has been prepared that day, not offering menus.

Ouzeri: Establishments known as ouzerí are a type of café that serves drinks such as ouzo or tsipouro, are similar to mezedopoleio and souvlatzidiko restaurants, and also provide similar foods and service. A tsipourádiko is a "local variant of an ouzerí".

Souvlatzidiko; Souvlatzidiko restaurants purvey the well-known Greek dish souvlaki.[2] Souvlaki is prepared using cubed pork leg meat that is cooked as a kebab.[2]

Taverna: Tavernas are typically medium-sized restaurants with affordable pricing[2] that purvey a variety of Greek dishes, foods and beverages. Tavernas originated in Greece.

PANHELLENIC FEDERATION OF RESTAURANT AND RELATED OCCUPATIONS (POESE)

37.986330, 23.730497

POESE was founded in 1992 and is the union of catering and leisure professionals. POESE counts 153 associations, representing about 120,000 businesses throughout Greece. It is the largest sectoral Federation. The aim of the Federation is the best representation of professionals and cooperation with the state with a view to resolving industry's problems and creating action plans and policy.

GREEK TOURISM CONFEDERATION (SETE)

37.973771, 23.735195

The Greek Tourism Confederation (SETE) was established in 1991. It is consisted from 14 Unions of Tourism Enterprises & 455 Tourism Enterprises. SETE aims at constantly boosting competitiveness and demonstrating the key role of tourism in the Greek economy. SETE represents national sectoral associations of tourism businesses as well as individual businesses involved in the tourism economy in general covering the entire range of tourism activities. The number of tourism arrivals reached 23 million in 2014 and is expected to reach 26 million on 2015. Most hotels offer food and drink facilities to their customers, and this why they can be considered as clients of the meat and fish processing industries.

HELLENIC CHAMBER OF HOTELS

37.978829, 23.732659

The Hellenic Chamber of Hotels operates since 1935 as a Legal Entity of Public Law. It is the institutional consultant of the Government as far as tourism and hospitality issues are concerned. Its members are, by law, all the hotels and camping sites of the country. Greece is a popular tourism destination. According to the Greek Tourism Business Association (SETE) on 2014 there were 9.677 hotels with 773.445 beds in Greece.

DELIS

Delicatessen is a term meaning "delicacies," or "fine foods." In English, "delicatessen" originally meant only specially prepared food. In time, the delicatessen store where this food was sold came to be called a delicatessen, and in this sense is often abbreviated to deli. In Greece there are deli shops in all the big cities and popular touristic destinations.

4.5 MEAT PRODUCTS & PROCESSING

4.5.1 PROCESSED MEAT CATEGORIES

According to the Greek Codex Alimentarius, processed meat³ products are categorized in four broad groups, based on the processing technologies used and the treatment of raw materials:

- " **Category A: *processed products*** resulting from the processing⁴ of meat, so that the cut surface shows that the products no longer have the characteristics of fresh meat⁵. Cured meats (entire meat pieces or chopped meat) may a) undergo a processing period which comprises curing, fermentation and ripening in controlled climatized conditions, which makes the products palatable without any heat treatment during their manufacture (these products are consumed raw/uncooked, e.g. raw ham), b) or undergo heat treatment after the curing process of the raw muscle meat in order to achieve the desired palatability (e.g. cooked ham, bacon). Heating treatment of processed meat varies in temperature and time depending on the type of product (e.g. Frankfurt sausages, mortadella).
- " **Category B: *meat preparations***, means fresh meat that has been reduced to fragments, which has had foodstuffs, seasonings or additives added to it or which has undergone processes insufficient to modify the internal muscle fibre structure of the meat and thus to eliminate the characteristics of fresh meat. Such products are: kebabs (gyros), souvlaki, schnitzel, burgers, meat balls, fresh (traditional) sausages, chicken nuggets, marinated meat.

³"Meat" means edible parts of the animals, including blood (Regulation EC 853/2004).

⁴"Processing means any action that substantially alters the initial product, including heating, smoking, curing, maturing, drying, marinating, extraction, extrusion or a combination of those processes. "Unprocessed products" means foodstuffs that have not undergone processing, and includes products that have been divided, parted, severed, sliced, boned, minced, skinned, ground, cut, cleaned, trimmed, husked, milled, chilled, frozen, deep-frozen or thawed (Regulation EC 852/2004).

⁵"Fresh meat" means meat that has not undergone any preserving process other than chilling, freezing or quick-freezing, including meat that is vacuum-wrapped or wrapped in a controlled atmosphere (Regulation EC 853/2004)

- " **Category C: *pre-cooked meat products (canned, chilled or frozen)***, such as corned beef, luncheon meat and chopped meat. There are two heat treatment procedures involved in the manufacture of precooked-cooked products. The first heat treatment is the precooking of raw materials and the second heat treatment is the cooking of the finished product mix at the end of the processing stage. Precooked-cooked meat products are distinguished from the other categories of processed meat products not only by the processing method but also by utilizing the greatest variety of meat, animal by product and non-meat ingredients. Precooked-cooked meat products contain mixes of lower-grade muscle trimmings, fatty tissues, head meat, animal feet, blood, skin, liver and other slaughter by-products. Corned beef is canned and fabricated from cooked beef. Luncheon meat, known widely as a canned product, is usually manufactured from pork and/or beef, but it may contain also other meat types (e.g. chicken) (FAO, 2007).
- " **Category D: other products such as *broth, bouillons, soup, sauces, dressings, gelatine and collagen***. Gelatine is the natural, soluble protein, gelling or non- gelling, obtained by the partial hydrolysis of collagen produced from bones, hides and skins, tendons and sinews of animals. Collagen is a protein-based product derived from animal bones, hides, skins and tendons⁶.

4.5.2 MEAT PROCESSING TECHNIQUES

Meat processing combines the steps and procedures in the manufacture of processed meat products. All processed meat products on the market have been physically and/or chemically treated. These treatments go beyond the simple cutting of meat into meat cuts or meat pieces with subsequent cooking as meat dishes. Modern meat processing involves a range of physical and chemical treatment methods. One single method can be applied but it is often a combination of various methods. According to Article 89a of the Codex Alimentarius of the General Chemical State Laboratory of Greece (G.C.S.L.)⁷, and the Food & Agriculture Organization of the United Nations (FAO), the meat processing technologies are:

1. Heat treatment (pasteurization, sterilization)

⁶Regulation EC 853/2004

⁷Article 89a of the Codex Alimentarius in Greece is included in the Greek regulation YA 260/2013.

2. Smoking
3. Salting
4. Tumbling
5. Mixing
6. Maturing
7. Meat drying
8. Marinating
9. Application of spices
10. Others

Basic meat processing can be carried out manually using simple tools and only limited equipment. Increasingly modern meat processing is more mechanized using specialized equipment and tools.

1. Heat treatment (or thermal treatment)

Heat treatment of processed meat serves two main purposes:

- " Enhancement of desirable texture, flavor and colour in order to make meat products more palatable and appetizing for consumption.
- " Reduction of microbial content, thus achieving
 - o Preservation effects for an extended shelf life (storability) of the products, and
 - o Food safety effects by eliminating potential food poisoning agents

The heating parameters to be applied in meat processing can vary considerably in temperature and time depending on the type of product. Heat treatment methods cause various physical-chemical alterations in meat, which result in the beneficial sensory and hygienic effects on the processed products. Heat treatment of meat or meat products can be distinguished to:

- o Heat treatment at temperatures below 100°C, mostly in the temperature range of 60-85°C, also called "pasteurization" or simply "cooking"
- o Heat treatment at temperatures of above 100°C, also called "sterilization".

2. Smoking

Depending on the product, smoke is applied at different temperatures. There two principal smoking techniques:

- " **Cold smoking:** this is the traditional way of smoking of meat products and was primarily used for meat preservation. Nowadays it serves more for flavor and colour formation. The optimal temperature for cold smoking is 15-18°C (up to 26°C). Cold smoking is used for fermented meat products (raw-cured ham, raw- fermented sausage).
- " **Hot smoking:** is carried out at temperatures of +60 to 80°C. The thermal destruction of the wood used for smoking is normally not sufficient to produce these temperatures in the smoking chamber. Hence, additional heat has to be applied in the smoking chamber. How smoking is used for a range of raw- cooked sausages, bacon, and cooked ham products.
- " **Liquid smoke** can be used as an ingredient to sausages in smoke impermeable casings in order to achieve a certain degree of smoke flavor. Liquid smoke can be added to the sausage mix during the manufacturing process.

3. Salting

Besides adding to flavor and taste, salt also is an important functional ingredient in the meat industry, which assists in the extraction of soluble muscle proteins. It is properly is used for water binding and texture formation in certain meat products. The preservation effect, which is a microbial inhibition and extension of the shelf-life of meat products by salt in its concentrations used for food (on average 1,5-3% salt), is low. Meat processors usually combine this method with other preservation methods such as reduction of moisture or heat treatment. In summary, when salt is added to meat, it provides with the following benefits:

- " Adds flavor
- " Prevents microbial growth.
- " Increases water retention, and meat and fat binding.

In order to achieve the desired red or pink colour, meat or meat mixes are salted with common salt (sodium chloride NaCl), which contains a small quantity of the curing agent sodium nitrite (NaNO₂). Sodium nitrite has the ability to react with the red meat pigment to form the heat stable red curing colour. Curing is applied for most chopped meat mixtures or sausage mixes for which a reddish colour is desired.

4. Tumbling

Tumbling mechanical process is assisted by the addition of salt and phosphates to meat in order to achieve equal brine distribution and liberates muscular protein for the meat tissue (protein extraction). Tumbling improves the distribution of liquid media (such as brine), improves meat tenderness and increases salt-soluble protein extraction and migration to the surface of the meat. Increased moisture holding, yields, and overall product quality are all accomplished in a controlled tumbling environment⁸. Tumblers are used for the processing of meat products such as whole-muscle or reconstituted hams.

5. Mixing

During the mixing process, additives such as cereal grains, common legumes, vegetable, roots and spices are used as fillers and blend with coarse or finely chopped meat to increase volume and decrease costs. Non-meat ingredients are commonly used for simple meat preparations, some of them being rural or ethnic specialties. Maize, wheat, rice, beans, peas etc act as good fillers for low-cost meat products. Traditional sausages are filled into longer strands are filled into natural (mostly sheep) or collagen casings. Mixers are used to blend meat and non-meat ingredients. The difference between tumbling and mixing processing is that mixing does not modify the internal muscle fibre structure of the meat nor improve the distribution of liquid media.

6. Maturing

A process for maturing meat products characterized in that the products is let in a substantially sealed environment of specific conditions for a period of time, i.e. air temperature, humidity and optimum ventilation of substantially atmospheric pressure. Maturing stimulates the growth of lactic acid bacteria and thus the production of organic acids. The organic acids cause a decrease on the PH which has as a result the denaturation of the meat's proteins and the decrease of microbial count. As the meat matures it develops flavour and becomes more tender (e.g. bacon), as natural enzymes work on the meat.

⁸"Profitability through Tumbling Techniques", Chuck Sartell

Meat maturation takes place in the maturing cabinets or maturing chambers. High safety of the processes in maturing cabinets / chambers is ensured by:

- " efficient and economic air flow system,
- " automation of work with given humidity and temperature,
- " growth control of undesired mould and dye penetration,
- " control of water activity on the surface of products,
- " microclimate allowing for obtaining clean and dry surface on a product what has an influence on the general appearance, structure and consistence of the products

7. Meat drying

In physical terms, drying is the lowering of the water activity a_w in meat and meat products. Meat drying is not clearly defined technology. Drying may be done for the single purpose of dehydrating fresh meat for extension of storage, but it may also be one of various processing steps during the manufacture of specific meat. Meat drying techniques:

- " Sun drying:
- " Solar drying: it takes place in closed systems (solar dryers).

After completion of the drying process, the dry meat is normally packaged, preferably in moisture-proof plastic bags, to avoid absorption of moisture during storage.

8. Marinating

Marinade technology has been used in the meat industry for several decades. Given the demands of our current lifestyle, marinated meat has gained rapid popularity.

Normally, most marinades include three key components:

- First, an acidic ingredient, such as vinegar, wine, tomatoes, yogurt, or citrus juice. The acid agent makes meat easier to digest, helps slow the growth of harmful bacteria, and allows moisture and flavor to permeate the meat.
- Next, an agent that adds sweet, spicy, or salty notes. Good options include Dijon mustard, soy sauce, honey, chopped chili peppers, or other vegetable or fruit purees.
- Finally, an accent of dried spices or fresh ginger, garlic, or herbs.

Meat marinade which contains acids causes protein denaturation and simultaneously lower or even eliminates microbes.

Marinated products have limited shelf-life.

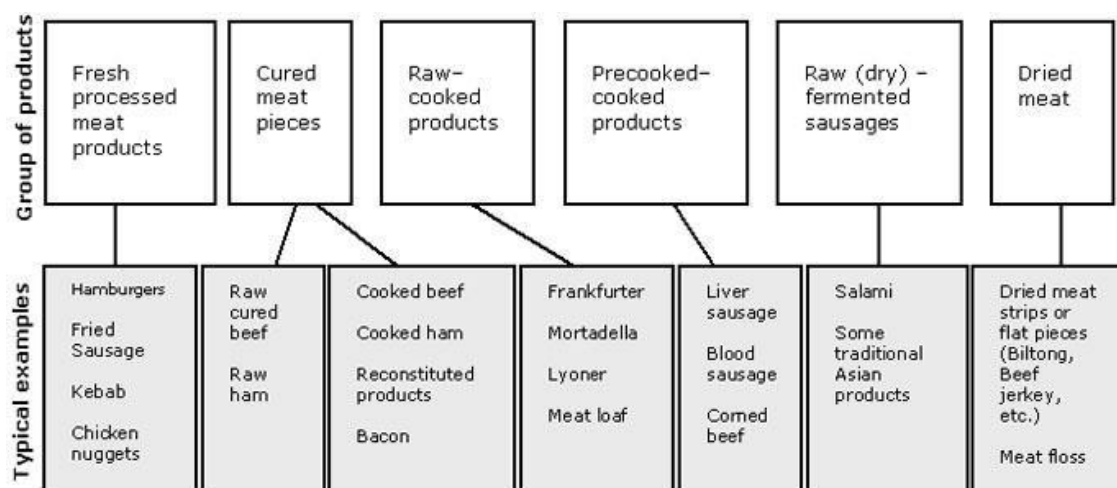
9. Application of spices

Mixtures of seasonings have developed in order to serve as flavouring agents for various meat products. Seasonings are normally parts of plants which flavor food. The trade in and the processing of spices has developed into an important support industry for food processing operators in order to meet consumer preferences (Meat Place, June 2015). The most important natural spices are pepper, paprika, cinnamon, coriander. The most important herbs are basil, oregano, thyme. The addition of spices, herbs and oil to the meat products do not modify the meat's protein denaturation.

10. Others

Other meat processing technologies exist, for example the technology of heat treatment in high pressure conditions.

Meat products grouped according to the processing technology applied



Source: "Principles of the meat processing technology", Food and Agriculture Organization of the United Nations (FAO), 2007.

4.5.3 TRADITIONAL MEAT PRODUCTS

Some popular traditional products, their ingredients and preparation method are described in the Food and Drink Code (no 525-28/2/2014). These are the following: **Traditional Village Sausages:** The most famous and popular traditional sausages in Greece despite the fact that they have partially lost the traditional mode of production

and characteristics. In the past their production was made from the pork that was slaughtered in Christmas and were, along with kavourmas, one of the main meat stocks. Their production was simple. The meat with a sufficient amount of fat was cut to larger or smaller pieces, depending on the area, mixed with salt and spices, and encased in the washed small intestine of the pig. Depending on the region, in the filling various other ingredients may be added such as leeks in Thessaly and Central Macedonia, orange peels or orange in the Mani region, wine in different regions of the Peloponnese, cumin and cayenne in Thrace and several local herbs in Crete.

The possibility of microbial infection in the early stages was faced mainly by salt and the low temperatures during winter, since their production was executed mainly before Christmas. As the time passed the products were dehydrated, thereby losing up to 30% of their original weight. The sausages they could then be preserved and for the warmer seasons. For better preservation they were placed in clay pots and covered with melted lard or olive oil. In other cases, to prevent surface mold growth they were placed immediately after encapsulation in intense cold smoking usually outdoors or their surface was brushed with olive oil. In Kozani area they used to place them for short time in boiling water, after their encapsulation.

Today these products are produced and marketed fresh chilled, having in this case a very short shelf life. These sausages are produced mainly by butchers.

A variation of traditional sausages are the "patita". These were usually depressed during the dehydration process to prevent drying of the casing (planking). The meat mass is encased in pork intestines and dried for 24-36 hours. The product is then squeezed by a rolling pin, once in the morning and once in the evening in order to transfer the moisture from the inner layers to the outer. Afterwards the products remain suspended in well ventilated cold areas.

Vinegar sausage of Krete: The vinegar sausage of Crete is produced from pork meat, lard, spices, salt and vinegar. The most famous of the kind is the "vinegar sausage" from Lassithi. Basic maintenance factor is the low pH because of marinating lean meat with vinegar and heat treatment of the fat, which boils before cutting and mixing with the other ingredients.

It is produced mainly from pork and lard. Lard usually is cut into strips and blanched in hot water. Then it is mixed with lean meat and they are cut in the mincer with plate diameter 12-14cm. This mixture is mixed with salt and spices and covered directly with vinegar. After 24 hours of staying in vinegar, they were subjected to kneading and then

placed in slotted bins to remove excess vinegar. The mixture is encased in natural intestine and subjected to heat treatment and fumigation. Vacuum packed, can be stored for more than six months.

Soutzoukia: They are made from beef and lamp meat mass that is rolled in intestines, including spices like cumin and pepper.

Although not considered purely Greek traditional product, they are still produced today with a special traditional way in several parts of Greece. Their characteristic is the strong flavor of garlic, red pepper and cumin, and their dark reddish brown color. Although they are a product of fermentation-maturation product and dewatered relatively intensely, the use of starch is necessary for its production. This was likely to cause the outset a fall in the quantity of active water and ensure so that in cooperation with the antibacterial substances in garlic, the success of its production. Other bacterial barriers that develops during their production is the fall in the value of pH.

They are produced usually from beef and ship meat and the meat mass is encased in intestines of diameter 26-32mm. They are subjected to a mild fermentation and possibly hot smoking, so as the heat to be an additional bacterial barrier. The total production time is no more than 14 days. They are maintained without refrigeration.

Salami Aeros Lefkadas: A product of fermentation and saturation. It is made from pork meat, fat, pepper, garlic, salt, sugar and nitrates rolled in port intestine. It is one of the first sausages of modern Greece. Its production dates back to the late 19th century in the Ionian Islands and especially in Lefkada, with Italian expertise. They were usually produced in the winter and consumed in the summer, hence the traditional name, "summer salami". The particular climatic conditions of the island, gave a fermentation-maturation product with excellent organoleptic characteristics. Because of slow fermentation, due to low ambient temperatures during the initial stages of its production, create an excellent flavor and a mild rather strongly acid taste. This is mainly due to the action of "aromatogonon" microorganisms that survived for a longer time. Today the product is still produced in Lefkada, in modern maturation chambers and fermentation temperatures reaching 25 ° C. To improve the stability of the traditional nature of this product, we should firstly follow the traditional maturation process (cold temperatures in the early stages) and if pure cultivation starters are used, they should come from typical traditional salami of Lefkada.

Salami Aeros Thassou: It is a salami produced by matured sliced meat. Its main are the large pieces of fat. It has been produced and marketed by Greek industries.

Pastourmas: It is an example of a traditional product that retained its character and production process virtually unchanged. Even today it is produced in the same manner and its quality characteristics have not changed at all.

It is a product of fermentation-maturation, which is dewatered relatively strongly. The dehydration process is accelerated by the application of strong compression, which reaches to the point of exit and causing the meat broth. Today is mainly produced from beef which is cut into strips of 12-20 cm, thickness of about 5-8 cm and a length of 40- 50 cm. The salting is always dry and lasts 7-10 days. After salting the meat is washed with plenty of cold water and hung in special areas to dehydrate. During the dehydration is compressed to promote moisture loss. Once the dehydration is complete, the meat pieces are coated externally with a malleable mass, consisting of garlic, cements, red pepper and possibly some other seasonings. Then this external mass it is allowed to dry. An element that restricts the consumption of pastourma is the sharp taste and smell, which affects the natural secretions of the human body. In this product some variations could be made to the production process in order to adapt the quality characteristics to modern consumer demands, without losing its traditional character.

Pastourmas Liastos: The production is similar to pastourmas. It differs in the final step after compression of the meat. Instead of being covered with the mass of garlic, red pepper containing and cements, it is dipped for a short time in hot water and then dried in the air and sun.

Santirmas: Traditional Pontic and other Asia Minor meat product. It is a variant of kavourmas with special additives and production technology that makes it look a little more *pikti*. It is made from head and shoulder meat. Meat is salted with sea salt which may include nitrates. After salting it is boiled in plenty of water in which leek, red pepper and other plant foods are added. After cooking, the meat is deboned, cut into small pieces and mixed with the vegetable food and the cooking broth. In the past it was encased in pork stomachs, and once cooled, the mass solidified and could be cut into slices. Today the product can encased in artificial casings.

Sigklino: Salted, smoked and boiled pork meat that is preserved covered with olive oil (today) or melted pork lard or "glyna" (in the past). During production, the lean meat is salted for 4-6 days and then marinated in red wine for a few extra days. Following was fumigation in open hearths, which could take up to 24 hours. After fumigation the pieces of meat were rinsed with hot water, were cut into smaller pieces of about 150 grams and there were wet heat treated (boiled) in water with wine in which previously

spices like pepper, cedar seeds, cinnamon pieces, clove and orange peel were added. These pieces were then placed in clay pots and covered with melted lard glyna (hence syglino) or olive oil.

Sigklino of Crete: This product is similar to the kavourmas produced in other regions of Greece. It has some variations, the most important of which is that the meat is boiled in water, cut into small portions, until it is ready. It has to be made sure that the meat is always covered with water and occasional skimming is needed so as the finished product to look "clean" and be tasty. Once the meat is cooked well, it has to be drained and placed in clay vessels (gastri), adding salt and spices. Then the fat is melted in low heat and poured hot in a clay pot. Once the fat thickens and solidifies, the product is ready.

Apaki: Local traditional product of Crete. Made from lean pork cut into strips dimensions 3x3x15-20cm. Often the fillet is used from sows. The key feature of the production process, is that the meat is placed for two to three days in vinegar to 'cook'. Once removed from the vinegar and wiped externally so as not to stay wet, it is salted and covered with various spices and herbs, and air dried for several days. In some areas it is smoked for a day. The low value of pH and active water, contribute so as the product to be preserved without refrigeration for a long period of time.

Noumpoulo Kerkiras: It is a product of maturation obtained from porcine steak. It is much like the Italian "carpaccio", of which possibly it descended. Typically only the elongated dorsi muscle is used, cleaned of fat and connective tissue. Its production of in the past was made mostly in the cold months of the year. The necessary conditions for its production were low temperature and high humidity environment. The meat was salted with coarse salt, in which nitrates and sugars can be added. The curing is short, because the product must have a "sweet" flavor and not too salty. After salting it is left in special areas to mature and develop its characteristic flavor. The humidity should be relatively high to prevent the surface of dehydration and "planking". Special feature of this product is its rich aroma.

Lountza Mukoniatiki: A typical traditional product of Mykonos which is very similar to the noumboulo of Corfu. A product of maturation produced from pig steak. It is slightly salted and then dewatered and matures after being placed in the "blind" calf intestine, which before must be specially treated. Because of its placement in the cecum, the dehydration process is not necessary to be carried out in controlled conditions. The

gut protects the meat from excessive dehydration resulting in the final product to remain tender and juicy. It has a special characteristic aroma derived partly from the intestine. **Omathies or Karkavitsa:** A product that Cretans claim that the roots reach to the Minoan era. Meanwhile habitants of the city of Volos claim that it is the food that Jason took to the Argonautic Campaign (mythology). It also looks like the food that Homer describes in the Odyssey. The main raw materials used are lungs and liver and heart, which were placed together with rice, seasonings and in some cases raisins in the large intestine of the pig. After they are boiled thoroughly in plenty of water, then it was dried and maintained for cold seasons. Besides rice it can contain other cereals as oatmeal, as well as shredded pork meat.

Mathies: Similar to the previous product. But instead of the lung, liver and heart, it is made using only pork lard rolled in pork stomachs or bladder.

Pikti: A well-known product produced by the meat from a pig's head. It is a product of heat treatment with the addition of a significant quantity of vinegar, which contributes substantially to its maintenance. The heads usually boils in abundant salted water for several hours until the meat is completely softened. After cooking the bones are removed and the meat is cut into small pieces. The broth in which the heads is boiled, passes through a filter that retains the various remnants and is subjected to further boiling to condense even further. When the reduction of the quantity is sufficient, vinegar and cuts of meat are added, and the mixture is placed in special clay utensils and is left to cool and solidify.

Pork salted lard: It is pork lard from the ridge with thickness of over 2 cm. It is salted with plenty of coarse sea salt, and placed in layers in wooden containers. All the product is covered with a layer of salt and remains there until the moment of consumption. Today this product is produced as smoked and in some cases considered delicatessen. The smoking is cold and is carried out after salting. It can last up to one month, depending on the thickness of fat. This is mainly due to the low content of water in the fat and thus the delay of the salt's entry in the inner layers. Before smoking the surface salt is completely removed, rinsed with cold water and dried.

Tsigarides: Residual product resulting from melting pork fat. Crisp particles composed mainly of connective lard tissue, muscle tissue particles which may exist in the fat and a small amount of fat which has not been liquefied. They have a pleasant crunchy texture and are used more in fresh salads as a seasoning rather than as food.

Tsiladia: Traditional meat products prepared for the day of Easter. A tasty product from a very old recipe. The materials used are pork from the shoulder or loin which is cut into portions, plenty of lemon juice, vinegar, black pepper and salt. When boiling the meat we use some trotters and pig ears for their gelatin. After the heat treatment it is poured in clay pots and add cold water and vinegar. When the product is frozen and can be cut into slices it is ready for serving and consumption. It is a kind of gel with pork meat.

4.6 FISH PRODUCTS & PROCESSING

4.6.1 FISHERY PRODUCTS CATEGORIES

“Fishery products” means all seawater or freshwater animals (except for live bivalve molluscs, live echinoderms, live tunicates and live marine gastropods, and all mammals. Reptiles and frogs) whether wild or farmed and including all edible forms, parts and products of such animals (Regulation EC 853/2004).

Fishery products are either fresh or processed⁹, and according to the Greek Codex Alimentarius and distinguished in eight categories as follows:

1. **Fresh fishery products** means unprocessed fishery products, whether whole or prepared¹⁰, including products under vacuum or in modified atmosphere, that have not undergone any treatment to ensure preservation other than chilling¹¹.
2. **Frozen fishery products** are unprocessed and have perceived no treatment other than freeze.
3. **Dried fishery products**
4. **Salted fishery products**
5. **Smoked fishery products**
6. **Marinated fishery products**
7. **Fish eggs** such as Caviar, preserved fish roe, roe
8. **Others, such as Fishmeal and Fish Oil.** Around 20% of fish products are processed into fishmeal and fish oil. Fishmeal is a ground solid product that is obtained by removing most of the water and the oil from the fish or fish waste.

⁹“Processed fishery products” means processed products resulting from the processing of fishery products or from further processing of such processed products (Regulation 853/2004)

¹⁰“Prepared fishery products” means unprocessed fishery products that have undergone an operation affecting their anatomical wholeness, such as cutting, heading, slicing, filleting, and chopping (Regulation EC 853/2004)

¹¹Regulation EC 853/2004

This industry was launched in the 19th century, based mainly on surplus catches of herring from seasonal coastal fisheries to produce oil for industrial uses in leather tanning and in the production of soap, glycerol and other non-food products. Only where it is uneconomic or impracticable for human consumption, should the catch be reduced to fishmeal and oil¹².

4.6.2 PROCESSING OF FISH & FISH PRODUCTS

Fish is extremely perishable food. It is a low acid food and is therefore very susceptible to the growth of food poisoning bacteria. Spoilage begins as soon as fish dies, and processing should therefore start quickly to prevent the growth of spoilage bacteria. The spoilage of fish is directly related to temperature. The higher the temperature, the faster the spoilage.

Processing fish involves primarily the application of preservation techniques in order to retain quality and increase shelf life. It may also deal with value-adding to produce a wide variety of products. Preservation methods cause changes to the flavor and texture of the fish which result in a range of different products.

A number of methods are used to preserve fish. Some employ techniques based on temperature control, using ice, refrigeration or freezing. Others on the control of water activity and include drying, salting, smoking and freeze-drying. Techniques may rely on the physical control of microbial fish loads, such as through microwave heating or ionizing irradiation, or on chemical control of microbial activity and loads by adding acids, for example, to fish products. Techniques are also used that are based on oxydo- reduction, such as vacuum packaging. Most often a combination of different techniques is used to preserve fish¹³.

Therefore, preservation techniques for fresh and processed fish & fish products can be classified as follows:

1. Techniques based on temperature control

These technologies decrease the fish temperature to levels where metabolic activities (catalyzed by autolytic or microbial enzymes) are reduced or completely stopped. This

¹²"Further processing of fish", Food of Agriculture Organization of the United States (FAO).

¹³"Processing fish and fish products" and "Preservation techniques for fish and fish products", Food of Agriculture Organization of the United States (FAO), Fisheries and Aquaculture department

is possible by refrigeration or freezing where the fish temperature is reduced, respectively, to approximately 0 °C or < - 18°C.

2. Techniques based on the control of water activity

Water activity (a_w) is a parameter that measures the availability of water in fish flesh. It is expressed as the ratio of water vapour pressure in fish vapour pressure of pure water at the same temperature and pressure.

Water is necessary for microbial and enzymatic reactions and several preservation techniques have been developed to tie up this water (or remove it) and thus reduce the a_w . These include drying, salting, smoking, freeze-drying and a combination of these. They can be implemented very simply, e.g. by salting, solar drying, or using fully automated equipment with temperature control, relative humidity, etc. In detail:

a) Drying

The heat of the sun and the movement of air remove moisture causes the fish to dry. In order to prevent spoilage, the moisture content needs to be reduced to 25% or less, depending on the oiliness of the fish and whether it has been salted. Sun-drying depends upon weather conditions and also exposes the fish to attack by insects or vermin and allows contamination by dirt. The use of solar or artificial dryers minimizes the drying time and increases product quality.

b) Salting

Most food poisoning bacteria cannot live in salty conditions. Thus, fish preserving by salting has a longer shelf-life. Salt can be applied in many different ways; Traditional methods involve rubbing salt into the flesh of the fish or making alternative layers of fish and salt. However, the concentration of salt in the flesh is not sufficient to preserve the fish if it is not uniformly applied. Brining involves immersing the fish into a solution of salt. In this case, salt penetration is more uniform. Brining is often used in conjunction with drying. Salted codfish is the most common salted fish.

c) Smoking

The preservative effect of the smoking process is due to drying and the deposition in the fish flesh of the natural chemicals of smoke which prevent bacteria growth and enzyme activity that cause spoilage. Smoking can be categorized in:

" Cold smoking: in this method, the temperature is not high enough to cook fish

" Hot smoking: in this method, the temperature is high enough to cook fish. Hot smoking process requires less control than cold processing and the shelf-life of the hot smoked product is longer, because the fish is smoked until dry. However, it has the disadvantage that the fish consumes more fuel than the cold smoking method.

Cured fish involves the techniques of drying, dry salting/brining (soaking in salt solution) or smoking. These may be used alone or in various combinations to produce a range of products with a long shelf-life. These techniques reduce the water content in the flesh of the fish, and thereby prevent the growth of spoilage microorganisms.

3. Techniques based on the physical control of microbial fish loads, its chemical and enzymatic activity

These methods use heat (cooking, blanching, pasteurizing, sterilizing), ionizing irradiation (for pasteurization or sterilization) or microwave heating. Cooking or pasteurizing are processes that do not allow complete inactivation of microorganisms and thus often need to be combined with refrigeration to preserve fish products and increase their shelf life. This is not the case of sterilised products and which are stable at ambient temperatures (< 40°C). These require packaging in metal cans or retortable pouches before the heat treatment, thus the term "canning".

Fish canning is a method for industrial processing of raw fish which enables to keep the final product suitable for consumption at ambient temperatures over a longer period of time. Fish canning is a sophisticated and relatively expensive method of commercial fish processing. About 9% of world-wide harvested fishery products end up into canned products, for example canned sardine, tuna, salmon and fish pastes.

4. Techniques based on the chemical control of microbial activity and loads

These techniques are designed to add anti-microbial agents or decrease the fish muscle pH to levels that are inhibitory to microbial growth and proliferation. The decrease of pH is obtained by fermentation, marinades or by adding acids (acetic, citric, lactic, etc.) to fish products.

Fermentation is a process by which beneficial bacteria are encouraged to grow. These bacteria increase the acidity of the fish and therefore prevent the growth of spoilage and food-poisoning bacteria, thus extend the shelf-life of the fish. This technique is often referred to as bio-preservation. Other preservatives include nitrites, sulphites, sorbates, benzoates or natural ones such as essential oils.

There are many types of fragmented products, such as:

- " Fish which retains its original texture
- " Pastes
- " Liquids/ sauces

Additionally, salt is used to prevent the action of spoilage bacteria and allow the fish enzymes and the beneficial acid-producing bacteria to soften the flesh.

5. *Techniques based on the control of the oxydo-reduction potential*

Some spoilage bacteria and lipid oxidation require oxygen. Reducing the oxygen around fish will increase its shelf life. This is possible by vacuum packaging or by controlling or modifying the atmosphere around the fish. Vacuum packaging, CA and MA storage are often combined with refrigeration for fish preservation

6. *Combination of several preservation techniques*

Two or more of the above described techniques can be combined to improve preservation efficiency while reducing undesirable effects such as the denaturation of nutrients by severe heat treatments. Combinations already in use include pasteurization- refrigeration, CA (or MA)-refrigeration, salting-drying, salting-smoking, drying- smoking and salting-marinating.

Although traditional processing represents a low-cost option for the small scale producers, there may be large losses in terms of wasted fish. Improved technologies require more expensive equipment but improve the quality of the fish and the efficiency of the process.

- licensing authority for startup, which performs ex-post legal controls.

4.7 HYGIENE AND SAFETY LEGISLATION

This manual focuses on defining the food hygiene and safety regulations in the meat and fish industries in Greece. Member States bring into force the laws, regulations and administrative provisions necessary to comply with Community regulations. Food operators are responsible for adopting measures to be implemented in order to

guarantee a high level of consumer protection in relation to food information and food safety.

Purpose	To sets out the legal requirements that apply to food business operators in the meat and fish sectors in Greece. Also, includes web links of sources of information.
Intended audience	Existing enterprises in order to increase consumer acceptance, as well as prospective food businesses seeking an approval to start such operations.
Legal status	The legal requirements of the EU and the Greek food hygiene, safety, traceability and labeling legislation with which such businesses have to comply are set out.

This manual should be helpful for prospective food businesses seeking an approval to start meat and fish operations; however regulations are subject to change.

4.7.1 FOOD HYGIENE LEGISLATION

Food hygiene legislation emphasizes every food business operators' responsibility to produce food safely by applying good hygiene practices and food safety management procedures based on hazard analysis and critical control point (HACCP) principles.

Three EU Food Hygiene Regulations have applied in all Member States from 1 January 2006, replacing 17 directives, including eight relating specifically to meat. These regulations are:

- " Regulation EC 852/2004: Hygiene of Foodstuffs
- " Regulation EC 853/2004: Specific Hygiene Requirements for Food of Animal Origin
- " Regulation EC 854/2004: Organisation of Official Controls on Products of Animal Origin intended for human consumption.

Implementation of some requirements was delayed by up to four years by:

- " Regulation 2076/2005: Transitional Arrangements.

Food safety is a result of several factors. **Regulation EC 852/2004** sets out general hygiene rules to be applied by all food businesses to protect consumers. These include structural, cleaning, maintenance and training requirements. The implementation of these “pre-requisite” hygiene requirements and permanent procedures based on hazard analysis and critical control point (HACCP) principles ensure achievement of the objectives of this regulation. The HACCP system is an instrument to help food operators attain a higher standard of food safety. Food business operators shall adopt the following hygiene measures:

- “ Compliance with microbiological criteria for foodstuffs.
- “ Procedures necessary to meet targets set to achieve the objectives of this regulation.
- “ Compliance with temperature control requirements for foodstuffs.
- “ Maintenance of the cold chain.
- “ Sampling and analysis.

Food business operators shall put in place, implement and maintain a permanent procedure based on the HACCP principles and provide the competent authorities with evidence of their compliance.

Regulation EC 853/2004 complements Regulation EC 852/2004 on the hygiene of unprocessed and processed products of animal origin. It does not apply to food that contains both products of plant origin and processed products of animal origin. Regulation rules cover the following sectors: meat, shellfish, fish and milk. In the meat sector, these rules cover slaughterhouses, cutting and boning, health marketing, as well as storage, transport and maturation. For wild game meat, hunters must be trained in health and hygiene. The rules for shellfish and fishery products cover everything from production and harvesting to equipment, facilities, processing and transport. Regulation EC 853/2004 sets general obligations for the importation of products of animal origin from third countries. Food imported should comply with the general requirements of Regulation EC 178/2002.

Regulation EC 854/2004 includes the specific requirements for the organisation of official controls on products of animal origin intended for human consumption. The competent authority shall carry out official controls to verify operations’ compliance

with hygiene and safety rules. The official controls include audits of good hygiene practices and HACCP principles, as well as specific controls whose requirements are determined by sector (fresh meat¹⁴, bivalve molluscs, fishery products, milk and dairy products). The Commission draws lists of third countries from which the importation of products of animal origin is authorized.

Traditional products

Flexibility is needed so that foods with traditional characteristics can continue to be produced. Member States have already granted derogations for a wide range of such products under the legislation in force before 1 January 2006. Food business operators should be able to continue without interruption to apply existing practices after that date. A procedure allowing Member States to exercise flexibility is provided for in Regulations EC 852/2004, 853/2004, 854/2004. Foods with traditional characteristics should therefore be defined and general conditions applicable to such foods should be laid down, by way of derogation from the structural requirements laid down in Regulation EC 852/2004, with due regard to food health objectives. "Foods with traditional characteristics" means foods that, in the Member State in which they are traditionally manufactured, are

- a) Recognized historically as traditional products, or
- b) Manufactured accordingly to traditional production methods, or
- c) Protected as traditional food products by a Community, national, regional or local law.

According to Article 7 of Regulation EC 2074/2005, Member States may grant establishments manufacturing foods with traditional characteristics individual or general derogations from the requirements set out in Regulation 852/2004¹⁵.

Microbiological criteria

¹⁴ "Fresh meat" means meat that has not undergone any preserving process other than chilling, freezing or quick-freezing, including meat that is vacuum-wrapped in a controlled atmosphere (Regulation EC 853/2004 Annex I).

¹⁵ Chapter II (1) and Chapter V of Annex II to Regulation EC 852/2004

Foodstuffs should not contain micro-organisms¹⁶ or their toxins or metabolites in quantities that present an unacceptable risk for human health. Microbiological criteria also give guidance on the acceptability of foodstuffs and their manufacturing, handling and distribution processes. The use of microbiological criteria should form an integral part of the implementation of HACCP-based procedures and other hygiene control measures.

Regulation EC 2073/2005 lays down the microbiological criteria for certain micro-organisms and the implementing rules to be complied with by food business operators when implementing the general and specific hygiene measures referred to in Article 4 of Regulation EC 852/2004. Microbiological criteria are set for products of animal origin including carcasses of cattle, sheep, pigs, goats and horses, broiler chicken and turkeys, and for minced meat, meat products and meat preparation. Food business operators shall perform testing as appropriate against the microbiological criteria based on HACCP principles and good hygiene practice. The competent authority shall verify compliance with the rules and criteria laid down in this Regulation in accordance with Regulation EC 882/2004.

Two years later, **Regulation EU 1441/2007** amends Regulation EC 2073/2005 on microbiological criteria of foodstuffs¹⁷, including meat and fishery products.

Further Legislation

Various amendments have been made to the above Regulations, as follows:

[Table 42 Amendments of food hygiene regulations](#)

¹⁶“Micro-organisms” means bacteria, viruses, yeasts, moulds, algae, parasitic protozoa, microscopic parasitic helminths, and their toxins and metabolites (Regulation EC 2073/2005 Article 2)

¹⁷Annex I to Regulation EC 2073/2005 is replaced by Annex I to Regulation EU 1441/2007.

TOPIC	REGULATION	SCOPE	HYPERLINK
TRICHINELLA IN MEAT	EC 2075/2005	Lays down specific rules on official controls for trichinella in meat. Sets the sampling and testing criteria for trichinella in carcasses of domestic swine.	http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32005R2075&qid=1446109717837&from=EN
AMENDS EC 853/2004	EC 1662/2006	Clarifies the requirement for a new identification mark where a previously marked product is further processed or its packaging removed. It allows the muzzle and lips of bovine animals to be left unskinned and corrects the omission of porcine tonsils from those required to be removed.	http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32006R1662&qid=14461097178324&from=EN
AMENDS EC 854/2004	EC 1663/2006	Deletes references to removal of tonsils responsibility which is an operator (see Regulation 1662/2006).	http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32006R1663&qid=1446109550774&from=EN
AMENDS EC 2075/2005	EC 1665/2006	Clarifies the possibility of health marking carcasses tested for Trichinella before the results are known	http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32006R1665&qid=1446471059784&from=EN
AMENDS EC 2074/2005	EC 1244/2007	Amends the requirements concerning official controls for the inspection of meat.	http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32007R1244&qid=144647119765&from=EN
AMENDS EC 853/2004 & 2076/2005	EC 1020/2008	Among others, clarifies the provisions for identification marking and lays down specific rules for certain fishery products.	http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32008R1020&qid=144647112043&from=EN
AMENDS EC 854/2004 & 2076/2005	EC 1021/2008	Amends the training requirements for staff assisting with official controls in slaughterhouses	http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32008R1021&qid=1446471374398&from=EN
AMENDS EC 853/2004	EU 558/2010	Makes amendments to Annex III in particular regarding hygiene during and after cutting and boning of poultry meat and others.	http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32010R0558&qid=1446471414673&from=EN
AMENDS EC 853/2004	EU 150/2011	Amends Annex III to Regulation EC 853/2004 as regards farmed and wild game and meat game	http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2011:046:0014:0016:EN:PDF
AMENDS EC 854/2004	EU 151/2011	Amends Annex I to Regulation EC 854/2004 as regards farmed game.	http://aolex.fao.org/docs/pdf/eur100660.pdf

National implementation Regulations on food hygiene

Accordingly, national Regulation KYA 15523/2006 establishes the Greek state authorities and the official controls for the implementation on the food hygiene and safety requirements as set by the regulations EC 178/2002, 852/2004, 853/2004, 854/2008 and 882/2004, and for the licensing of the food operators.

The following competent authorities in Greece carry out on-the-spot inspections to food operators at any stages of the production, processing and distribution, on the basis of risk analysis, in order to ensure their compliance with the law:

1. The Hellenic Food Authority “EFET”
2. The Ministry of Rural Development and Food
3. The competent authorities of the Prefectural Directorates, i.e.
 - 3.1. Department for rural economy and development

3.2. Department for public health

3.3. Department for veterinary

3.4. Department for trade

In case of breaches of regulations, a national system of sanctions is applicable.

The national rules for the implementation of EC 852/2004 and 853/2004 are set at the national Regulations KYA 3724/2014 and KYA Υ1γ/ΓΠ/96967/2012. Derogations from the general hygiene provisions may be granted in order to facilitate the implementation of HACCP principles for small businesses, taking into account the relevant risk factors¹⁸. Small meat businesses are defined those producing less than 3 tons of processed meat, minced meat and meat preparations per month. Small fish businesses have a monthly production of processed fish up to 3 tons. Also, national measures aim of enabling the continued use of traditional methods at any stages of production, processing and distribution of food¹⁹.

On the basis of EC 852/2004 and KYA 15523/2006, EFET has developed the national guides

- «Οδηγός Υγιεινής για τα Κρεοπωλεία», No.14, Athens, 2004, for the good practice of hygiene conditions at the butcher shops.
- «Κατευθυντήριες οδηγίες για την ευέλικτη εφαρμογή συστήματος αυτοελέγχου βάσει αρχών του HACCP», 4.2.2014, for the good practice for hygiene and for the application of HACCP principles²⁰.

4.7.2 TRACEABILITY AND LABELLING LEGISLATION

General requirements for food traceability

EU traceability legislation is based primarily on the need to endure food safety.

Regulation EC No 178/2002 - known as the General Food Law- notes that it is necessary to establish a comprehensive system of traceability within food and feed businesses. Traceability means the ability to trace and follow a food, feed, animal or

¹⁸The general hygiene provisions are described at Annex I & II of EC 852/2004

¹⁹Article 13 of EC 852/2004

²⁰The development of national guides is described at Articles 7&8 of EC 852/2004.

substance that may be incorporated into a food or feed through all stages of production, processing and distribution.

Traceability requirements are described under Article 18 of the General Food Law and apply to food business operators at all stages of the food/feed chain. These operators shall be able to identify and person from whom they have been supplied with a food, a feed or a food-producing animal, or any substance incorporated into a food/feed (“one step back – one step forward”). Thus, they shall have in place systems and procedures which allow for such information to be made available to the competent authorities on demand. When food is not in compliance with the food safety requirements, operators shall immediately withdraw it from the market and inform the competent authorities.

From July 2012, the provisions set out in implementing **Regulation EU No 931/2011** on the traceability requirements set by the General Food Law in respect of food of animal origin are applicable. Regulation EU 931/2011 applies to food of animal origin defined as “unprocessed and processed products” and does not apply to food which contains products of plant origin together with processed of animal origin. According to Article 2(1) of Regulation EC No 852/2004:

- ” “Processing” means any action that substantially alters the initial product, including heating, smoking, curing, maturing, drying, marinating, extraction, extrusion or a combination of those processes;
- ” “Unprocessed products” means foodstuffs that have not undergone processing, and includes products that have been divided, parted, severed, sliced, boned, minced, skinned, ground, cut, cleaned, trimmed, husked, milled, chilled, frozen, deep-frozen or thawed;
- ” “Processed products” means foodstuffs resulting from the processing of unprocessed products. These products may contain ingredients that are necessary for the manufacture or to give them specific characteristics.

Regulation EU No 931/2011 places an obligation on food business operators to have the following information:

- a) An accurate description of the food

- b) The volume or quantity of the food
- c) The name and address of the food business operator from which the food has been dispatched
- d) The name and address of the consignor (owner) if different from the food business operator from which the food has been dispatched
- e) The name and address of the food business operator to whom the food is dispatched
- f) The name and address of the consignee (owner) if different from the food business operator to whom the food is dispatched
- g) A reference identifying the lot, batch or consignment
- h) The date of dispatch.

This information must be updated on daily basis and be kept, at least, until the food has been consumed.

In addition to comply with the general rules of EC No 178/2002, **Regulation EC No 853/2004** requires that products of animal origin placed on the market bear either a health mark or an identification mark. Identification mark must indicate the last approved establishment in which the product was prepared i.e. the country where the establishment is located (which may be written out in full or shown as a two-letter code in accordance with the relevant ISO standard) and its approval number. Establishments located within the Union must be indicated as EC (or equivalent abbreviation in other languages). When the mark is applied directly to products, the colours used must be authorized in accordance with Community rules on the use of colouring substances in foodstuffs. In the case of packaging containing cut meat or offal, the mark must be applied to a label fixed to the packaging.

Importation from third countries

Imports of live animals and animal products from third countries are governed by detailed legislation in the veterinary field. Regulation EC No 853/2004 sets general obligations for the importation of products of animal origin from third countries. Food imported should comply with the general requirements of Regulation EC No 178/2002. Live animals and meat can only be imported from countries and establishments that are

on approved lists maintained by the DG SANCO Food and the Veterinary Office (FVO).

Beef and Veal traceability

In the wake of the crisis over mad cow disease (or bovine spongiform encephalopathy), the European Union adopted new provisions concerning the identification of bovines and the labelling of their meat. **Regulations EC No 1760/2000** and **EC No 1825/2000** provide detailed specifications for traceability of individual bovine animals and fresh, chilled or frozen beef products with recording of birth, rearing and slaughtering on the product label.

Regulation EC No [1760/2000](#) establishes a system for the identification and registration of bovine animals and regarding the labelling of beef and beef products. The regulation establishes:

- " a cattle identification and registration system.
- " a compulsory labelling system and a voluntary labelling system.

Each EU country must set up a cattle identification and registration system comprising the following elements:

- " ear tags;
- " computerised databases;
- " animal passports;
- " individual registers kept on each holding.

Regulation EU No 653/2014 amends Regulation EC No 1760/2000 as regards electronic identification of bovine animals and labelling of beef. All animals on a holding shall be identified by at least two means of identification, one of which shall be visible. The competent authority of the Member State shall set up a computerized database, and Member States may exchange electronic data between their computerized databases.

Sheep and goat meat traceability

Regulation EC No 21/2004 concerns the identification and registration of sheep and goats to permit individual traceability throughout their lifetime via electronic

identification for animals born after 1 January 2015. National computerized databases must contain certain information relating to the holdings and animal movements. Individual traceability enables each sheep and goat to be traced from the moment of birth and through any intra-community trade in which it is involved on the one-step- back/one-step-forward basis.

Traceability of sheep and goat meat falls under the general provisions of Regulation EC No 178/2002 (General Food Law), as previously described.

Pig meat traceability

The identification and registration of pigs is a system of traceability which is of crucial importance for the control of infectious diseases. This system allows each animal to be individually identified and the holding of origin or where it came from to be traced. According to **Council Directive [2008/71/EC](#)**, the system of identification and registration of pigs is based on the following elements:

- " an eartag or a tattoo;
- " the keeping of a register on each holding;
- " a national computer database, which is kept up-to-date and gives details of the mark(s) used to identify all holdings that keep pigs on the national territory.

Identification marks must be applied before animals leave the holding of birth.

Animal keepers of pigs are required to keep records of movements of animals entering and leaving a holding.

Pigs imported from third countries to be slaughtered on Community territory do not necessarily have to be identified by a mark if they pass the [veterinary checks](#) laid down for animals coming from third countries and if they are slaughtered within thirty days after having passed those tests.

AGROCERT has established the AGRO3 series standards, which determine requirements and rules ensuring hygiene and safety from pig feed production to pork meat packaging.



Poultry meat traceability

Traceability of poultry meat is covered by the general provisions of Regulation 178/2002, as described above.

Labelling²¹ for foodstuffs

The European Union is improving the rules concerning the labeling of foodstuffs so that consumers have essential, legible and comprehensive labeling at their disposal in order to make informed choices when buying products. The new rules strengthen protection against allergens.

The new Regulation EU No 1169/2011 on the provision of food information to consumers entered into application on 13 December 2014. The obligation to provide nutrition information will apply from 13 December 2016.

The new law merges together Directives:

- " 2000/13/EC - Labelling, presentation and advertising of foodstuffs
- " 90/496/EEC - Nutrition labeling for foodstuffs.

All foodstuffs (delivered to the final consumer and to mass caterers) marketed in the European Union (EU) must comply with EU labelling rules.

There are two types of labelling provisions which are applicable to foodstuffs:

- " General rules on food labeling.
- " Specific rules which are applicable to specific foods, in addition to generic rules, such as:
 - o Foods packaged in certain gases
 - o Foods containing sweeteners
 - o Frozen meat, frozen meat preparations and frozen unprocessed fishery products: the date of freezing or the date of first freezing in cases where the product has been frozen more than

²¹ "Labelling" means any word, particulars, trade marks, brand name, pictorial matter or symbol relating to a food and placed on any packaging, document notice, label, ring or collar accompanying to such food (Regulation 1169/2011)

The labelling must not mislead the purchaser as to the characteristics or effects of the foodstuff. The use of information that attributes medical properties to food is prohibited. The information provided by labels must be easy to understand, easily visible, clearly legible and indelible and must appear in the official language(s) of the Member State where the product is marketed. However, the use of foreign terms or expressions easily understood by the purchaser may be allowed. Indications of the origin of food (on a voluntary basis), in order to draw consumers' attention to the qualities of the product, should apply with harmonized criteria. It is appropriate to use on the labelling the term "salt" instead of corresponding term of the nutrient "sodium".

General rules on food labeling for foodstuffs

The following mentioned particulars must appear on the packaging or on a label attached to pre-packaged²² foodstuffs. In the case of pre-packaged foodstuffs intended for mass caterers (foodstuffs sold in bulk), the compulsory labelling particulars must appear on commercial documents while the name under which it is sold, the date of durability or use-by-date and the name of manufacturer. In the case of non-prepacked food, the provision of ingredients causing allergies is mandatory.

Table 43 Mandatory indications on food labeling

The name of the food	The name of the foodstuff shall be its legal name.
The list of ingredients and the quantity of certain ingredients	<p>The list shall include all ingredients (including additives or enzymes) in descending order of weight as recorded at the time of their use in the manufacture and designated by their specific name. The indication of the quantity of an ingredient or category of ingredients used in the manufacture or preparation of a food shall be required where such an ingredient/category of ingredients:</p> <ol style="list-style-type: none"> 1. appears in the name of the food or is usually associated with it by the consumer;

²² Pre-packed food is defined in Regulation 1169/2011 as any single item of presentation whether such packaging encloses food in such a way that the contents cannot be altered without opening or changing the packaging. Pre- packed food does not cover foods packed on the sales premises at the consumers' request.

	<p>2. is emphasised on the labelling in words, pictures or graphics; or</p> <p>3. is essential to identify a food and to distinguish it from other similar products.</p>
The ingredients causing allergies or intolerances	Cereals containing gluten (wheat, rye, barley, oats, spelt, kamut), Crustaceans, Eggs, Fish, Peanuts, Soybeans, Milk (including lactose), Nuts (almonds, hazelnuts, walnuts, cashews, pecan nuts etc), Celery, Mustard, Sesame, Sulphur dioxide, Lupin, Molluscs
The net quantity of the food	To facilitate the comparison of products in different package sizes, it is mandatory to refer nutrition declaration to 100g or 100ml amounts, and, is appropriate, to allow addition portion-based declarations.
The date of minimum durability	It shall be the date until which the foodstuff retains its specific properties when properly stored. The date shall consist of day, month and year in that order and preceded by the words "best before" or "best before end".
Storage conditions	In cases where foods require special storage conditions, these conditions shall be indicated. Appropriate storage conditions shall be indicated after opening the packaging.
The country of origin or place of provenance ²³	The origin of meat appears to be consumers' prime concern. The indication of origin is mandatory for beef and beef products following the bovine spongiform encephalopathy crisis ²⁴ .

²³Regulation 1169/2011 defines "Place of provenance" any place where a food is indicated to come from, and that is not the "country of origin". Concerning the "Country of origin", Regulation EEC 2913/1992 (Articles 23-26) specifies that a) goods originating in a country shall be those wholly obtained or produced in that country; b) goods whose production involved more than one country shall be deemed to originate in the country where they underwent their last, substantial, economically justified processing or working in an undertaking equipped for that purpose and resulting in the manufacture of a new product or representing an important stage of manufacture.

²⁴Regulation EC 1760/2000

	The specific origin requirements differ from one type of meat to another according to the characteristics of the animal species.
Instructions for use	Instructions for use of a food shall be indicated
Nutrition <p style="text-align: center;">declaratio n (unprocessed products that comprise a single ingredient or processed products which the only processing that have been subjected to is maturing and that comprise a single ingredient are exempted)</p>	<p>Nutrition declaration, which will be mandatory from 13th December 2016, shall be included in the label with the following contents:</p> <ul style="list-style-type: none"> • energy value • the amounts of fat, saturates, carbohydrate, sugars, protein and salt <p>The content of this mandatory declaration may be supplemented with additional information on the amounts of mono-unsaturates, polyunsaturates, polyols, starch or fibre.</p>

Foods for which the labels must include one or more additional particulars:

- " Meat products, meat preparations and fishery products which may give the impression that they are made of a whole piece of meat or fish, but actually consist of different pieces combined together by other ingredients, including food additives and food enzymes or other means, shall bear the following indication in Greek: "μορφοποιημένο κρέας» and «μορφοποιημένο ψάρι».
- " Frozen meat, frozen meat preparations and frozen unprocessed fishery products, the date of freezing or the date of first freezing in cases where the product has been frozen more than once, must be declared.
- " In the case of foods that have been frozen before sale and which are sold defrosted, the name of the food shall be accompanied by the designation 'defrosted'.
- " In the case of meat products, meat preparations and fishery products containing added proteins as such, including hydrolysed proteins, of a different animal origin, the name of the food shall bear an indication of the presence of those proteins and of their origin.

- " In the case of meat products and meat preparations which have the appearance of a cut, joint, slice, portion or carcass of meat, the name of the food shall include an indication of the presence of added water if the added water makes up more than 5 % of the weight of the finished product. The same rules shall apply in the case of fishery products and prepared fishery products which have the appearance of a cut, joint, slice, portion, filet or of a whole fishery product.
- " If a sausage casing is not edible, this must be indicated.
- " Etc.

Beef and Veal Labeling²⁵

Compulsory labeling system according to Regulations EC 1760/2000, EC 1825/2000 and EU 653/2014: operators marketing European or imported beef are obliged to label the beef at all stages of the marketing process. When the product is not pre-wrapped, they must supply relevant information in written and visible form to the consumer at the point of sale. Processed beef (e.g. roast beef and corned beef) and products containing beef (e.g. sausages) are not covered. The following information must be included on the label:

- " the reference number or code linking the meat to an animal or groups of animals from which the meat was derived;
- " the Member State or third country of birth;
- " the Member State or third country of rearing;
- " the Member State or third country of slaughter and the license number of the slaughterhouse;
- " the Member State or third country where cutting was performed and the license number of cutting plant.

Where the beef is derived from an animal born, bred and slaughtered in a single country, this information may be grouped together under one heading as "Origin: Name of Member State / third country". When full information is not available for beef imported

²⁵ Labelling means the attachment of a label to an individual piece or pieces of meat or to their packaging material, or, in the case of non-pre-wrapped products, the supply of appropriate information in written and visible form to the consumer at the point of sale, according to Article 13 of EU 653/2014

from a third country, it may be permitted to state “Origin: non-EC” followed by the name of the non-EU country in which it was slaughtered²⁶.

The same Regulations specify labeling rules for minced beef²⁷.

Voluntary labeling system: operators marketing beef may include information complementary to what is required in their labelling. To this end, they must send a specification for approval to the responsible authority of the EU country in which the beef in question is produced or sold.

National implementation Regulations on labeling of beef

Accordingly, national Regulations KYA 412013/2000, YA 232149/2002, KYA 2260/155064/2014 and YA A2-861/2013 set implementation rules on the traceability and labeling requirements for beef and beef products in Greece.

Operators and organisations, including slaughterhouses and butchers, marketing beef are obliged to supply the following information to their customers in written and visible form:

- “ the reference number or code linking the meat to an animal or groups of animals from which the meat was derived;
- “ the approval number of the slaughterhouse or the Member State or third country of slaughter;
- “ the approval number of the cutting or the Member State or third country of cutting (with the exemption of un-packed beef meat being cut inside the butcher shop).

Additionally, according to **National Regulation 412/8932/2012**, operators and organisations, including slaughterhouses and butchers, are obliged to provide on labels of beef meat, except processed beef and products containing beef, indication of:

²⁶ Article 15 of EU 653/2014

²⁷ “Minced beef” is defined as meat that has been minced into fragments or passed through a spiral-screw mincer (Article 5 of Regulation EC 1825/2000). “Minced meat” means any boned meat that has been minced into fragments and contains less than 1 % salt and that falls within CN codes 0201, 0202, 0206 10 95 and 0206 29 91 (Article 13 of EU 653/2014. .

" the country of Origin, i.e. the Member State or third country where the animal was born.

For beef meat coming from third countries but origin information is limited, the label should contain the indication "Origin: non-EU and Slaughtered in: Name of the third country".

When beef meat comes from animal which was born, reared and slaughtered in Greece, label should be in a blue layout as indicated:

ΕΛΛΗΝΙΚΟ ΚΡΕΑΣ ΒΟΟΕΙΔΩΝ
ΚΩΔ. ΖΩΟΥ:
ΧΩΡΑ ΚΑΤΑΓΩΓΗΣ: ΕΛΛΑΔΑ
ΚΩΔΙΚΟΣ ΣΦΑΓΕΙΟΥ:
ΑΡΙΘ. ΣΦΑΓΗΣ ΖΩΟΥ:
ΗΜ. ΣΦΑΓΗΣ:
ΤΑΞΙΝΟΜΗΣΗ ΖΩΟΥ:
(ΚΑΤΗΓΟΡΙΑ/ΔΙΑΠΛ/ΒΘ.ΠΑΧΥΝ)

ΒΑΡΟΣ:

ΒΟΕΙΟ ΚΡΕΑΣ

ΚΩΔ. ΖΩΟΥ:
ΧΩΡΑ ΓΕΝΝΗΣΗΣ:
ΧΩΡΑ ΕΚΤΡΟΦΗΣ:
ΧΩΡΑ ΣΦΑΓΗΣ:
ΚΩΔΙΚΟΣ ΣΦΑΓΕΙΟΥ:
ΑΡΙΘ. ΣΦΑΓΗΣ ΖΩΟΥ:
ΗΜ. ΣΦΑΓΗΣ:
ΤΑΞΙΝΟΜΗΣΗ ΖΩΟΥ:
(ΚΑΤΗΓΟΡΙΑ/ΔΙΑΠΛ/ΒΘ.ΠΑΧΥΝ)
ΒΑΡΟΣ:

Indication of label when beef meat comes from animal which was born outside Greece, reared more than 1 month in Greece and slaughtered in Greece:

Labeling rules for mince beef are

described at Article 4 of YA 412013/2000 and YA 232149/2002.

If breeding of at least 5 months and slaughter take place in Greece, operators can add on labels of bovine meat the indication "Breeding in Greece for more than 5 months". Specifications on this voluntary labelling are described at national Regulation YA 393/33759/2015.

Operators and organizations marketing meat are also obliged to keep monthly records of meat balance sheets where the country of origin of meat is specified²⁸.

Labeling of Origin of Swine, Sheep/Goat and Poultry meat

As described above, the origin of meat appears to be the consumers' prime concern on general food labelling. Because of the growing competition on international markets, consumer sensitivity to origin has become a relevant issue for commercial managers as well as policy makers. Origin is important for retailers, who seek to maximise the benefits of favourable connections to specific countries or regions on consumer product evaluations ("Study on mandatory origin labelling for pig, poultry, sheep and goat meat", European Commission, 3 June 2013).

Regulation EU 1169/2011²⁹, provides for mandatory indication of country of origin or place of provenance³⁰ for unprocessed meat of pigs, poultry, sheep and goats, as from 13 December 2014.

Table 44 Types of meat for which the indication of the country of origin or place of provenance is mandatory³¹

CN codes (Combined Nomenclature 2010)	Description
0203	Meat of swine, fresh, chilled or frozen
0204	Meat of sheep or goats, fresh, chilled or frozen
Ex 0207	Meat of the poultry of heading 0105, fresh, chilled or frozen

The Regulation includes the possibility to differentiate products from different origins at EU level, country level and also indicate origin from a particular region within a country.

²⁸ National Regulation 412/8932/2012.

²⁹ Regulation EU 1169/2011, Article 26

³⁰ "Place of provenance" means any place where a food is indicated to come from, and that is not "the country of origin" as determined in accordance with Articles 23 and 26 of Regulation EEC No 2913/1992. According to EEC No 2913/1992, goods whose production involved more than one country shall be deemed to originate in the country where they underwent their last, substantial, economically justified processing or working in an undertaking equipped for that purpose and resulting in the manufacture of a new product or representing an important stage of manufacture. Thus, the wording "country of origin or place of provenance" in Regulation EU 1116/2011 extends the options for origin labeling beyond the customs definition described previously (i.e. country of last substantial change).

³¹ Regulation EU 1169/2011, Annex XI

However, it is for the Member States to decide whether to require the provision of origin on a mandatory basis for no pre-packed unprocessed meat (including meat packed on the sales premises at the consumer's request or pre-packed for direct sale) by means of national measures.³²

Since 1st April 2015, new rules on the modalities requiring (with some exceptions) the indication of the place of rearing and of slaughter for pre-packed fresh, chilled and frozen meat of swine, sheep, goats and poultry, have been applicable according to Regulation EU 1337/2013. The label shall contain the following indications of the country of origin or place of provenance:

Table 45 Mandatory indications of origin of swine, sheep/goat and poultry meat

Place of rearing	<p>Swine:</p> <ul style="list-style-type: none"> • if slaughtered older than 6 months, the Member State or third country in which the last rearing period of at least 4 months took place. • If slaughtered younger than 6 months, the Member State or third country in which the rearing period after the animal has reached 30 kg took place • If slaughtered younger than 6 months and with a live weight less than 80 kg, the Member State or third country in which the whole rearing period took place <p>Sheep and goats:</p> <ul style="list-style-type: none"> • The Member State or third country in which the last rearing period of at least 6 months took place, or • If slaughtered younger than 6 months, the Member State or third country of the whole rearing period <p>Poultry:</p> <ul style="list-style-type: none"> • The Member State or third country in which the last rearing period of at least 1 month took place, or
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³² Regulation EU 1169/2011, Article 44

	<ul style="list-style-type: none"> If slaughtered younger than 1 month, the Member State or third country in which the whole after the animal was placed for fattening took place
Place of slaughter	The Member State or third country in which the slaughter took place
Batch code	
Place of origin	If animal has been born, reared and slaughtered in one Member State or third country, then the indications of rearing and slaughter can be replaced by indication "Origin: name of Member State or third country"
Several pieces of meat	<ul style="list-style-type: none"> The list of the Member States or third countries for each species as described above The batch code

For meat from third countries and when there is not information about the country or rearing, the label shall contain the indication "Reared in: non-EU and Slaughtered in: Name of the third country"

Decorations for minced meat and trimmings are described in Article 7 of Regulation 1337/2013.

Food business operators may supplement compulsory label indications with additional voluntary information concerning the provenance of the meat³³.

Labeling of Poultry meat

Detailed rules as regards the marketing standards of poultry meat (fresh, pre-packed, frozen) are specified at **Regulation EC 543/2008**, such as the appropriate temperature storage and distribution conditions, the presentation of poultry meat, the minimum age of slaughter, the weight etc.

³³ Regulation EU 1337/2013, Article 8.

Poultry meat may be sold using the indications highlighting the particular characteristics of the types of farming³⁴, with the exemption of organic farming, using the terms;

- a) Fed with%....
- b) Extensive indoor (barn-reared)
- c) Free-range
- d) Traditional free range
- e) Free range - total freedom

These terms may be supplemented by indications referring to the particular characteristics of the respective types of farming.

National regulation as regards the indication of the country of origin of Swine, Sheep/Goat and Poultry meat

National Regulation KYA 412/8932/2012 sets out, among others, the obligation of operators and organizations marketing meat to keep monthly records of meat balance sheets where the country of origin of meat is specified. Regulation applies for fresh, chilled, frozen, pre-packaged, minced meat, and meat preparations.

- For swine, sheep and goat meat, country of origin is the Member State or third country of birth of the animal.
- For poultry meat and rabbits, country of origin is the Member State or third country of slaughter. In case the poultry has been slaughtered in Greece but reared in another country, then the country of fattening should also be considered.

The Hellenic Food Authority³⁵ summarizes compulsory label indication about origin of meat as follows:

Table 46 Compulsory label indication about origin of meat

Meat of bovines	Country of birth
	Country of rearing
	Country of slaughter

³⁴ Regulation EC 543/2008, Annex V

³⁵ "Labelling of meat, meat preparations, and products made of meat according to the European and Greek legislation", The Hellenic Food Authority, Protocol No. 11891/14.9.2015

	In case of birth, rearing and slaughter took place in one country, then one indication of “country of origin”
Meat of Swine, Sheep and Goats	Country of rearing Country of slaughter In case of birth, rearing and slaughter took place in one country, then one indication of “country of origin”
Meat of Rabbits	The country of origin is the country of slaughter

For products in which meat is used as an ingredient, the provision of the information of the country of origin of meat is not mandatory.

AGROCERT³⁶ has issued a Certification Regulation for the optional (voluntary) labelling of beef meat, which enables the detection of the farm and the slaughterhouse which the meat carcasses come from as well as the exact and checked information of the meat package. The warranties provided by this optional system enhance consumer confidence in high quality beef meat and safeguard high level of protection of public health.



Hellenic Agricultural Organization Demeter has undertaken the management of Special Poultry Farming inspection and certification system, as well as the respective labeling of such products. Up now, more than 50% of the overall local chicken production has been certified.



³⁶ Agricultural Products Certification and Supervision Organization, under the distinctive title AGROCERT, is a Private Law Legal Entity under the supervision of the Ministry of Rural Development and Food in Greece

PDO, PGI and TSG

The requirement for mandatory origin labelling of meat applies without prejudice to more specific measures, particularly **Regulation EC 510/2006** on Protected Designation of Origin (PDO) and Protected Geographical Indication (PGI) and in **Regulation EC 509/2006** on agricultural products and foodstuffs as Traditional Speciality Guaranteed (TSG). PDO, PGI and TSG identify products and foodstuffs farmed and produced to exacting quality standards. PDO and PGI schemes are linked to specific geographical areas. The TSG scheme is based on the specific and traditional character of a product and there does not need to be a link to a geographical area specialties guaranteed.

Labelling of materials intended to come into contact with food

According to **Regulation (EC) No 1935/2004**, packaging material and containers intended to come into contact with foodstuffs, shall be labelled "for food contact" or shall bear the symbol with a glass and fork.

Labeling of food additives and flavorings

Additives and flavorings must always be labeled on the packaging of food products by their category (anti-oxidant, preservative, color, etc.) with their name or E-number. Other provisions on labeling of additives sold as such to food producers and consumers are laid down in **Regulation (EC) No 1333/2008**.

Sanctions / Inspection Authorities

A national system of sanctions applicable in case of breaches of regulations is set in order to ensure their implementation, as set at the **national Legislation 4235/2014**. On- spot inspections on the basis of risk analysis are carried out by the veterinarians at the slaughterhouses and the responsible authorities, i.e. ELGO-DIMITRA³⁷, Hellenic Food Authority "EFET", the competent food authorities of the Prefectural Directorates, the General Veterinary Directorate of the Ministry of Rural Development and Food, as well as the General Trade Secretariat and Consumer Protection of the Ministry of

³⁷National Regulation KYA 6477/27509/2013 establishes "ELGO DIMITRA" as the state authority for the inspection of slaughterhouses, meat transportation, recording of monthly meat balance sheets, as well as the application of Article 18 of Regulation EU 931/2011 concerning the traceability of foodstuffs of meat origin.

Development and Competitiveness, to ensure that checks are in compliance with the European and National legislation.

4.7.3 SPECIAL LEGISLATION FOR THE BUTCHER SHOPS

According to the Greek Legislation 4254/2014 and YA 464/92592/2014, meat preparations can be produced by butchers, in compliance with the following requirements;

- " "Meat preparations" means fresh meat³⁸, including meat that has been reduced to fragments, which has had foodstuffs, seasonings or additives added to it or which has undergone processes insufficient to modify the internal muscle fibre structure of the meat and thus to eliminate the characteristics of fresh meat³⁹.
- " The sales of meat preparations cannot exceed the 100 kg or 30% of the total sales per day, with the exception of Christmas and Easter periods.
- " In order to avoid contamination of meat and products, butchers should ensure separation in space or time of the operations.
- " Different equipment must be used for the production of meat and poultry preparations.
- " Meat preparations should be stored in different space at the point of sale.
- " Meat preparations should be sold only within the municipality where they are produced.

4.8 THE LEGAL FRAMEWORK ON SPECIFIC CHARACTER FOOD CERTIFICATION SCHEMES

In a glance

It is widely accepted that the last years, the predominant trend in agro-industrial is a growing consumer demand for food products with individual characteristics which derive from specific production methods or composition or origin⁴⁰. As a result, the number of traditional food products has been increasing every year and the "freedom

³⁸"Fresh meat" means meat that has not undergone any preserving process other than chilling, freezing or quick freezing, including meat that is vacuum-wrapped or wrapped in a controlled atmosphere, EC 853/2004, Annex 1 "Definitions"

³⁹EC 853/2004, Annex 1 "Definitions"

⁴⁰United Nations, Industrial Development Organization, "Adding value to traditional products of regional origin. A guide to creating a quality consortium", https://www.unido.org/fileadmin/user_media/Publications/Pub_free/Adding_value_to_traditional_products_of_regional_origin.pdf, Copyright© 2010

of movement” policy between EU member states resulted in the availability of a wide variety of traditional food products from all over Europe. In addition, the predominant trend in agro-industrial markets reveals a growing interest among consumers in traditional products that are closely linked to a specific place of origin. The EU regulatory framework for “Designation of Origin” (PDO), “Geographical Indication” (PGI) and “Traditional specialties guaranteed” (TSG) provides protection of those agricultural and food -related closely linked to the geographical area of production.

Today, in Greece a substantial number of traditional food products and specialties are offered with reputation and high awareness among consumers locally and internationally. Greece has become a main supplier of agricultural products in OECD countries but at the same time, numerous agro-food products with such characteristics remain unexploited, and have not yet managed to expand abroad. The number of such food products are still low especially in the ‘Meat’ and ‘Fish’ industry. The reasons are many and the need to find ways to overcome them and to emphasize the potential of ‘success stories’ and economic growth is of paramount importance. One could claim that such products and especially the meat and fish industry has a significant potential of growth, namely it can increase its profitability to farmers and local economy by producing added value products with unique characteristics and specifications. In an economic of ‘crisis’, such growth is more than essential.

This report discusses all the above while the emphasis is to identify the potentials of growth in the meat and fish PDO /PGI /TSG .

In More Details

A strong trend in agro-industrial markets, both in developed and developing countries, reveals a growing interest among consumers in traditional products that are closely linked to a specific place of origin⁴¹. End-customers are showing a greater propensity to purchase agro-products with higher dietary, hygienic and healthy products, but they also look for certification and reassurance of products’ origins and production methods deeply-rooted in the various popular cultures, even if this means paying higher prices. At the same time those products are facing a series of offences that raised the need to introduce quality schemes under different labels within the European Union, to distinct fraudulent and genuine traditional food products. So, theoretically speaking, on a fair

⁴¹Ibid.

competition conditions, agricultural products and food quality with such characteristics can enhance the rural economy particularly in disadvantaged and remote regions⁴².

The situation for the PDO/PGI/TSG is particularly favorable, as global consumer shift observed in the Mediterranean diet. But at the same time there is a huge enemy: imitations, which multiply rapidly. On the top of that, multinationals come with a variety of substitute products. The extensive distribution network, negotiating power and especially the economic strength they have, can limit a role "sidekick" or even to displace entirely the Greek producers the shelves of foreign supermarkets.⁴³ It also affects post-primary production activities such as processing, distribution and retail and thus has a multiplication effect on the local community by generating employment opportunities. This has become even more important in the current economic crisis. Public support for local agriculture and direct sales could help maximize these benefits.

Unfortunately, numerous agro-food products in Greece remain unexploited, since only 102 are certified (while only 3 are at the process), where the opposite is happening in most EU countries. In addition, the Greek agro-products (and even the PDO certified ones) which hold comparative advantages recognized by the EU, have not yet managed to expand abroad. One of the main reasons is the limited production volume of products increases the cost and does not allow export.⁴⁴

Other problems are probably the high cost of product standardization, a phenomenon that is particularly acute in the olive oil market, which is only 20% of total production the standardized. Problem also considered the fact that many times the Greek PDO who have found placement abroad in most cases are available at low prices. Indicatively, the slice into several super market chains in Europe is sold cheaper than even non-PDO sheep cheese other countries. The great danger, however, faced by Greek products are imitations and copies by the competition.⁴⁵ "The view is widespread that EU farmers bear additional costs which many non-EU competitors do not have, in terms of quality standards, health and hygiene compliance,

⁴²Agrocert.gr, <http://tinyurl.com/ox2q7v9>

⁴³Hmerisia Online News, <http://www.hmerisia.gr/article.asp?catid=26519&subid=2&pubid=113480147>⁴⁴

<http://www.newsbomb.gr/oikonomia/epixeirhseis/stori/591959/xanontai-ekatommyria-apo-ti-mi-axiopoiisi-ton-pop>

⁴⁵<http://newmoney.gr>

traceability and origin requirements, as well as environment protection, preservation of biodiversity, countryside management etc”⁴⁶.

As denounce themselves, producers are under pressure due to the lack of liquidity and high production costs, while stressing that the efforts of promotion of Greek products in international markets, it is most times fragmented, thereby not give the expected results. “Unfortunately, the country suffers at the exploitation of PDO products, especially in the slice, which is now being sold at very low prices compared to other European PDO cheeses”, he said recently President and CEO of industry Tyras, Dimitrios Sarantis, thus expressing outraged by the situation.⁴⁷

The president of the Panhellenic Exporters Association, Ms. Chr. Sakellaridi, in the newspaper “Imerisia”⁴⁸ denotes that, “[..] All PDO and PGI products in Greece, are goods added value and appeal to consumers with a high sense of nutritional awareness and healthy eating options,” and adds that “it is no coincidence that our country has become a main supplier of agricultural products in OECD countries, namely in the more developed and therefore more demanding markets -in terms of quality-standards “. Ms. Chr. Sakellaridi considers particularly crucial negotiations between the EU -US Transatlantic Trade and Investment Agreement (TTIP), in order to protect the uniqueness of PDO and PGI products to be extended substantially and outside European Union borders.

Ms. Chr. Sakellaridi also talks about the need of targeted promotion of PDO products abroad on the basis of an attractive narrative and the connection with history and culture. Still, considers that this view should be attached to international scientific data that highlight their highest nutritional value to yield more results. Today, in markets outside the EU, there are ‘rampant’ imitations; thus Greek products receive strong competition from products from other countries that are not certified PDO or PGI and millions of euros is lost in revenue.

Finally, as a criticism on the quality schemes certification, is that “Somewhat paradoxically the PGS framework can be posited as both a protectionist move against global agro-economic policy, and a market-based neoliberal tool of agricultural governance. This makes it an equally important battle-ground for both the anti- globalization movement, and the free-trade proponents of Australia and the United

⁴⁶ CAP after 2013, Debate Report summary, http://ec.europa.eu/agriculture/cap-post-2013/debate/report/summary-report_en.pdf (4.1.3)

⁴⁷ <http://www.imerisia.gr/article.asp?catid=26519&subid=2&pubid=113480147>

⁴⁸ Ibid.

States. Either way, a number of criticisms have been put forward. This will be discussed in a later section.

The Assumption

The assumption is that Meat and Fish product industry can increase its profitability by producing added value products with unique characteristics and specifications as a result of the following actions:

- Taking advantage of high quality raw material such as buffalo meat that exhibits unique characteristics and nutrition value and local varieties such as the black swine.
- Certificating certain products as PDO and PGI thus contributing vastly to the rise of the local economy.
- Developing new low processed foods that do not contain artificial preservatives and exhibit improved nutritional value

Objectives

So the objectives of a report will be the:

- The understanding of the legal framework and procedure
- Identification and promotion of potential meat and fish products for PDO or PGI certification and assisting in the certification process.
- The conduct of a thorough S.W.O.T sectoral and Stakeholder Analysis and
- and analysis on the suitability of local meat and fish products as substitutes of international food offerings.
- The promotional aspects and importance of special characteristics products
- In addition, the potential of the sector for the promotion of culinary tourism.

The Report

In this report we will analyze:

1. Definitions, The terms and Conditions of PDO , PGI, TSG
2. Important points of the relevant EU and National Legislation
3. Procedures involved in PDO, PGS, TGIS
 - *Submission and scrutiny procedures for registration applications*
 - *Oppositions*

- *Register of protected designations of origin and protected geographical indications and quality certifications (DOOR database)*
4. The PDO and other PGI certified products
 - a. A list of the ones that have already been a PDO PGI TSG.
*Greece List of the Greek PDO and PGI products and Specifications*⁴⁹
 - b. Comparisons with other countries
 - c. Growth of GIs certified products
 5. A sectoral S.W.O.T Analysis to identify advantages and disadvantages to the key players and the consumers. Discussion on potential products that are not already PDOs
 - a. Identification and promotion of potential meat and fish products established in the local (and foreign) market but have not been yet PDO- PGI certified.
 - b. Report, based on market research on the suitability of local meat and fish products as substitutes of international food offerings.

4.8.1 DEFINITIONS, TERMS AND CONDITIONS

Three EU schemes known as PDO (protected designation of origin), PGI (protected geographical indication) and TSG (traditional specialty guaranteed) promote and protect names of quality agricultural products and foodstuffs. EU law lays down stringent requirements guaranteeing the standards of all European products. In addition, EU quality schemes identify products and foodstuffs farmed and produced to exacting specifications.⁵⁰ The following signs of quality are NOT trademark and NOT own by a company but ruled by the European Community.

As a "**designation of origin**"(PDO) means the name that identifies a product, which comes from a particular place, region or, in exceptional cases, country, whose quality or characteristics are essentially or exclusively due to a particular geographical environment with its inherent natural and human factors and whose all stages of production take place in the defined geographical area.

In other words, to receive the PDO status, the entire product must be



Figure 19 PDO sign

⁴⁹ <http://www.minagric.gr/index.php/en/farmer-menu-2/pdo-pgi-tsgproducts-menu/440-listpdoproducts-cat>
⁵⁰ <http://ec.europa.eu/agriculture/quality/>

traditionally and entirely manufactured (prepared, processed *and* produced) within the specific region and thus acquire unique properties. (see figure 1.)

As a "**geographical indication**" (PGI) means the name that identifies a product, which comes from a particular place, region or country where a particular quality attribute, reputation or other characteristic can be attributed mainly to its geographical origin and whose at least one production stages takes place in the defined

geographical area. The Protected geographical indication is the name of an area, a specific place or, in exceptional cases, the name of a country, used as a description of an agricultural product or a foodstuff,

- which comes from such an area, place or country,
- which has a specific quality, goodwill or other characteristic property, attributable to its geographical origin,
- whose production, processing or preparation takes place within the determined geographical area.



Figure 20 PDI Sign

In other words, to receive the PGI status, the entire product must be

traditionally and at least partially manufactured (prepared, processed *or* produced) within the specific region and thus acquire unique properties. (see figure 2.)

"**Traditional specialties guaranteed**" (TSG). An agricultural product intended for human consumption or foodstuff with a traditional composition, or produced according to a traditional production method may become a traditional specialty guaranteed (TSG). A product may only be registered if:

- it is produced using traditional raw materials;
- it is characterized by a traditional composition or by a method of production/processing that corresponds to a traditional production/processing method⁵¹.



Figure 21 TSG Sign

Under Art. 3 of Regulation 1151/12 "traditional" is defined as "proven usage on the domestic market for a period that allows transmission between generations; this period is to be at least 30 years".

⁵¹<http://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=URISERV:l66043&from=EN>

As a TSG quality scheme aims to provide a protection regime for traditional food products of specific character. Differing from PDO and PGI, this quality scheme does not certify that the protected food product has a link to specific geographical area. A TSG creates an exclusive right over the registered product name. Accordingly, the registered product name can only be used by producers who conform to the registered production method and product specifications. (see figure 3.)

4.8.2 DEVELOPING A GEOGRAPHICAL INDICATION (GI) ⁵²

There is a short answer, geographical indications and quality certifications (GIs) indications are seen as useful tools in marketing strategies and public policies, for which there has been growing interest in the last two to three decades. GIs are considered a differentiation tools in marketing strategies, namely to start from mere source indicators and to make brands.

Consumers increasingly pay attention to the geographical origin of the products they buy, and care about specific characteristics. This has favored the development of specific markets for products with certain characteristics linked to their place of origin. In some cases, the “place of origin” suggests to consumers that the product will have a particular quality or characteristic that they may value. Often, consumers are prepared to pay more for such products.

In addition, geographical indications and quality certifications can be a key element in developing brands for quality-bound-to-origin products. Geographical indications and quality certifications convey information about the origin-bound characteristics of a product and gives a ‘brand’ recognition in many cases. They therefore function as *product differentiators* on the market by enabling consumers to distinguish between products with geographical origin-based characteristics and others without those characteristics.

Furthermore, it is important for PDO/PGI certification applicants to record the needs and characteristics of the whole of the production process and then to determine the breadth of the geography and quality specification. Experience through case studies

⁵²http://www.wipo.int/edocs/pubdocs/en/geographical/952/wipo_pub_952.pdf

indicates how a broadly drafted product specification can be of considerable advantage, providing producers with the means to exercise control over the conditions of product processing, not only locally, but also throughout the EU.⁵³

Someone may ask whether PDO/PGI/TGS are giving advantages over other systems of protections such as **Community Trade Mark (CTM)**. Some analysis reveals that the GIs system as offering the broader protection against direct competition, going so far as to prohibit unauthorized references to registered PGIs or PDOs, such as 'Feta-style' or 'Colombian blend', that are evocative of the protected designation. In contrast, while the CTM system cannot offer geographical names the same breadth of protection, its chief advantage is lies in its flexibility as an instrument capable of accommodating variations in land use, climate, crop yields, the sourcing of raw materials and production outputs.⁵⁴

As mentioned already earlier, there is a certain criticism over the protectionism that GIs system is put in place by EU. Some indicative issues are shown below and are regarded as issues of governance⁵⁵:

- ❑ **Conceding the market as the locus of regulation.** [...] The market is seen as the ideal 'arms-length' mechanism with which to foster growth, re-balance imperfections in the connected industries and add previously uncalculated value to European produce. [...] That is, generating a societal reaction to the 'dehumanizing' effects of the self-regulating market.
- ❑ **Creating markets where none previously existed.** By creating so-called 'ethical food markets', food producers have been able to command a greater price for their goods. The PDO/PGI regimes foster the creation of ethical food markets, predicated on 'local' produce. [...]
- ❑ **Providing barriers to entry.** The drawing of boundaries around certain food and drink produce prevents other actors entering particular markets. [...]

⁵³ <http://fordhampconference.com/wp-content/uploads/2010/08/GailEvans.pdf>

⁵⁴ *ibid.*

⁵⁵ https://en.wikipedia.org/wiki/Geographical_indications_and_traditional_specialities_in_the_European_Union

- ❑ **Narrowing competition in existing markets.** Where markets already exist, there is the propensity for the narrowing of competition, if certain PGS applications are accepted. [...]
- ❑ **Geographically fixing capital.** Due to the nature of the PGS framework, capital is concentrated in particular areas. [...]
- ❑ **Devolving power to consumers.** [...] This is part of a broader shift from forms of 'government' to 'governance' seen in a "neoliberalizing" world, where a raft of non-state actors, arguably, make informed decisions about where and what to purchase.

Specific attention is drawn to the **cost implications involving procedures and the need for inspection** by the producer side. A PGI or PDO is only valid in so far as the product is certified to be in conformity with the specification and inspection procedures. Producer groups, should carefully consider whether they have access to the infrastructure, skills and resources needed to comply with the conditions of the product specification. Therefore, key considerations in selecting a PGI or PDO, will be the existence of suitable and permanent structures by the home country and the producer, the costs involved in maintaining an inspection system, and not least, the technical skills needed to verify the required standards.

"The immediate cost of verifying compliance with the specification is borne by the producer group, who are the 'operators' subject to those controls. Therefore, producers will only be in a position to reap the benefits of GI protection provided they are able to sustain the costs of regular inspections".⁵⁶

The capacity to comply with a system of product inspection is particularly significant for producers in countries like Greece. Without adequate support from government, producers themselves may need to invest in the technologies required to perform the necessary tests. Consequently, for all the competitive benefits that producer groups may derive from GI protection, there may be practical and resource-based considerations that make it a less attractive, more costly and possibly uncertain form of protection.⁵⁷

⁵⁶ <http://fordhampconference.com/wp-content/uploads/2010/08/GailEvans.pdf>

⁵⁷ *ibid.*

Finally, when considering the *scope of protection*, in the quest of choosing between a PDO or PGI to certify a product, it seems that the PDO, is capable of providing the stronger rights as it normally includes all elements of production and processing in the specification. However, if production necessitates the sourcing of raw materials from outside the defined geographical area, then the PGI is the better choice.

4.8.3 THE POLICY AND LEGAL FRAMEWORK

Policy

The European Union claims that its priorities strive to create the conditions for a more competitive economy with higher employment and the Europe 2020 strategy is about delivering growth. Growth and job creation depend on healthy, well connected markets, where competition and consumer access stimulate business and innovation. Individual consumers should be able to buy goods and services from other EU countries with greater ease and confidence, in particular on-line.

Among other, the new Common Agricultural Policy of EU (CAP) take into consideration the following:

- Protect the environment and biodiversity, conserve the countryside, sustain the rural economy and preserve/create rural jobs, mitigate climate change;
- Rethink the structure of the two support pillars and clarify the relationship between them; make adequate resources available for successful rural development;
- Implement a fairer CAP – fairer to small farmers, to less-favored regions, to new member states;
- Introduce transparency along the food chain, with a greater say for producers;
- Create fair competition conditions between domestic and imported

products; In the a report about the CAP after 2013 is mentioned that “EU should ensure that rules on the origin of food are made clear and that food is clearly marked as to its provenance and other quality characteristics”.⁵⁸ On the other hand “The view is widespread that EU farmers bear additional costs which many non-EU competitors do not have, in terms of quality standards, health and hygiene compliance, traceability and origin requirements, as well as environment protection, preservation of biodiversity,

⁵⁸http://ec.europa.eu/agriculture/cap-post-2013/debate/report/summary-report_en.pdf

countryside management etc. “ and a new CAP policy should outbalance the differences and remedy the problems.

A special emphasis is given to support young farmers since only 14% of EU farmers are under 40 years of age. “From 2015, all young farmers entering the sector will have the opportunity to get an additional first pillar payment, which can still be complemented by a start-up aid under the second pillar”.⁵⁹

The EU Rural Development Priorities as mentioned in the official documents⁶⁰ comprise the following six (table 1):

Figure 22 EU Rural Priorities

1. Fostering knowledge transfer and innovation in agriculture, forestry, and rural areas
2. Enhancing farm viability and competitiveness of all types of agriculture in all regions and promoting innovative farm technologies and sustainable management of forests
3. Promoting food chain organization, including processing and marketing of agricultural products, animal welfare and risk management in agriculture
4. Restoring, preserving and enhancing ecosystems related to agriculture and forestry
5. Promoting resource efficiency and supporting the shift towards a low carbon and climate resilient economy in agriculture, food and forestry sectors
6. Promoting social inclusion, poverty reduction and economic development in rural areas

Source: DG Agriculture and Rural Development

In addition, the European marketing standards encourage EU farmers to produce products of given quality, in conformity with the consumers' expectations. They allow a comparison of prices between various qualities of the same product. They also ensure

⁵⁹EU CAP Policy Brief, p.7 http://ec.europa.eu/agriculture/policy-perspectives/policy-briefs/05_en.pdf

⁶⁰http://ec.europa.eu/agriculture/rural-development-2014-2020/index_en.htm

minimum quality for the consumer and facilitate the operation of the internal market and the international trade.

The objectives of the governance of the EU for Agriculture involve⁶¹

- Diversify the farm production,
- Promote traditional food products,
- Increase the income of farmers,
- Keep rural population in their original area,
- Give better information to consumers.

Conclusively, the emphasis of the CAP after 2013 is on “greener farmers”, “ensure a fair competition”, “back to roots farming”, “support especially new young farmers entry”, “boosting small agro businesses”, “adapt to climate changes” and “subside innovation in agro and farming production methods”, are the main emphasis of the new reformed CAP EU policy.

Regulation

The Systems of protection of Geographical indications and quality certifications (GIs) in the EU, involve ‘Agricultural products and foodstuffs’, ‘Wines, except wine vinegars’ and ‘Spirit drinks’. The analysis of this report is focusing on the first category. The signs of quality related to tradition and territory exists and these are the ‘PDO’ , ‘PGI’ and ‘TSG’ as explained before. The main interest of the quality procedure in EU for a food product is to present a Geographical identity rather than being a regulation. Having said that, we present shortly, the actual regulations and what they denote.

The main Council Regulations are the following:

- Council Regulation (EC) No 510/2006 (before: Council Regulation (EEC) No 2081/92)
- Commission Regulation (EC) No 1898/2006, laying down detailed rules of implementation of Council Regulation (EC) No 510/2006, where the situation before is dealt by the Commission Regulations (EEC) No 2037/93 and (EC) No 383/2004, amended by Commission Regulation (EC) No 628/2008, which amends the Community symbols contained in Annex V to Regulation No 1898/2006 (which in any case may be used until 1 May 2010).

⁶¹http://europa.eu/rapid/press-release_MEMO-13-631_en.htm

Regulation (EU) No 1151/2012 has repealed and replaced Council Regulations (EC) No 509/2006 of 20 March 2006 on agricultural products and foodstuffs as traditional specialties guaranteed and (EC) No 510/2006 of 20 March 2006 on the protection of geographical indications and quality certifications and designations of origin for agricultural products and foodstuffs.⁶²

The Regulation (EU) No 1151/2012 on quality schemes for agricultural products and foodstuffs entered into force in the beginning of 2013.

The key elements of the new Regulation include:

- more coherence and clarity of the EU quality schemes,
- a reinforcement of the existing schemes for protected designations of origin and geographical indications and quality certifications (PDOs and PGIs),
- overhauling the traditional specialties guaranteed scheme (TSGs),
- a new framework for the development of optional quality terms to provide consumers with information about product characteristics, including a creation and protection of the optional quality term "mountain product",
- clarification of rules on controls and faster registration procedures .

A compilation of the some important points of the regulation that will start and lighten the discussion further on:

" The implementation of quality systems for manufacturers that their reward for their efforts to produce a diverse range of quality products can benefit the rural economy This is particularly true for the less-favored areas, mountain areas and the most remote regions, where agriculture industry covers a significant part of the economy and production costs are high. In this way, quality systems and can contribute to rural development policy and the policies of market support schemes and income under the Common Agricultural Policy (CAP), to supplement these policies. In particular, they contribute in areas where the agricultural sector has greater economic importance, particularly in disadvantaged areas.

" This Regulation shall not apply to spirit drinks, aromatized wine or wine products as defined in Annex XIb to Regulation (EC) No. 1234/2007, with the exception of wine vinegars.

⁶²[http://www.europarl.europa.eu/RegData/docs_autres_institutions/commission_europeenne/comitologie/ros/2013/D027315-03/COM-AC_DR\(2013\)D027315-03_EN.doc](http://www.europarl.europa.eu/RegData/docs_autres_institutions/commission_europeenne/comitologie/ros/2013/D027315-03/COM-AC_DR(2013)D027315-03_EN.doc)

- " The scope for designations of origin and geographical indications and quality certifications should be limited to products for which there is a material link between the characteristics of the product or foodstuff and its geographical origin.
- " The specific objectives of protecting designations of origin and geographical indications and quality certifications ensure fair return for farmers and producers, as regards quality and characteristics Since the product or the production of, and provide clear information on products with specific characteristics linked geographical origin, so that consumers are better informed when choosing the products they buy.
- " Agricultural products or foodstuffs bearing such a geographical description should meet certain conditions set out in the specification as images specific requirements aimed at protecting the natural resources or landscape of the production area or improving the welfare of farm animals.
- " To qualify for protection in the territory of the Member States, designations of origin and geographical indications and quality certifications should only be registered at Union level.
- " The registration procedure at Union level allows objections by a natural or legal person.
- " The registration of protected designations of origin and protected geographical indications and quality certifications in a register should also provide information to consumers and those involved in the trade through movement of products.
- " [...] As regards protected designations of origin and protected geographical indications, which require producers to use in packing the appropriate Union symbols or indications. In the case of Union names, the use of such symbols or indications should be made obligatory in the case of Union names [...]
- " In view of W.T.O. requirements, the use of such symbols or indications should be voluntary for geographical indications and quality certifications and designations of originating in a third country.
- " The added value of the geographical indications and quality certifications and traditional specialties guaranteed is based on consumer confidence. To establish this trust, should the evidence be accompanied by effective verification and controls.

Some clarifications of the above follows.

The “**Designations of origin**” denotes the name of a region, a specific place or, in exceptional cases, a country, used to describe an agricultural product or a foodstuff originating in that region, specific place or country. In addition, it declares the quality or characteristics of which are essentially or exclusively due to a particular geographical environment with its inherent natural and human factors, and the production, processing and preparation of which take place in the defined geographical area.

The “**Geographical indication**” has the meaning of the name of a region, a specific place or, in exceptional cases, a country, used to describe an agricultural product or a foodstuff originating in that region, specific place or country, and which possesses a specific quality, reputation or other characteristics attributable to that geographical origin, and the production and/or processing and/or preparation of which take place in the defined geographical area.

As for the regulation for “**traditional specialty guaranteed**” (TSG) “The legal function of the TSG is to certify that a particular agricultural product objectively possesses specific characteristics which differentiate it from all others in its category, and that its raw materials, composition or method of production have been consistent for a minimum of 30 years. Thus, TSG food denominations are registered trade signs with a distinctive function.”⁶³ Therefore to qualify for a TSG a food must be of “specific character” and either its raw materials, production method or processing must be “traditional”. Under Art. 3 of Regulation 1151/12 “specific character” is defined as “the characteristic production attributes which distinguish a product clearly from other similar products of the same category”. Under Art. 3 of Regulation 1151/12 “traditional” is defined as “proven usage on the domestic market for a period that allows transmission between generations; this period is to be at least 30 years”. For a food name to be registrable under the TSG scheme it must (a) have been traditionally used to refer to the specific product; or (b) identify the traditional character or specific character of the product.

Implications and common features of PDO and PGI are the they have the same level of legal protection and the same registration procedure. Practically they have the same legal requirements while the registration is absolutely a necessary condition

⁶³ https://en.wikipedia.org/wiki/Geographical_indications_and_traditional_specialities_in_the_European_Union#cite_note-7

requirement. In addition, the PDO PGI cannot become generic name/category and it can be cancelled if compliance with the conditions no longer ensured.

There are some **Exclusions from registration**, and these are the “Generic names” and the “Names which are misleading for the consumer”. Some criteria to consider are existing situation in the Member States and in areas of consumption such as the Feta cheese of there are relevant national or Community Laws. Also if the names are liable to mislead the consumer in relation to names which conflict with the name of a plant variety or an animal breed, total or partially homonymous names with that of a name already registered under this Regulation, unless there is sufficient distinction in practice such as Jambon sec et noix de jambon sec des Ardennes, France, and Jambon d’Ardenne, Belgium and the trademarks in the light of a trademark’s reputation and renown and the length of time it has been used.

Genericness is a common problem faced by applicants for the registration of geographical names. A geographical name can, over time and through use, become generic in the sense that consumers come to regard it chiefly as an indication of a certain type of product. The Geographical Indication Regulation, Article 3(1) the name of an agricultural product or a foodstuff which, although it relates to the place or the region where this product or foodstuff was originally produced or marketed, has become the common name of an agricultural product or a foodstuff. defines a ‘name that has become generic’ as: As a general principle, under both the GI and CTM Regulations, names that have become generic may not be registered. For example, in many EU Members the designation Feta was considered the generic name for a type of soft, white cheese. Prior to its recent protection as a PDO, any producer in any Member State was able to use the name to refer to the soft white cheese made from the milk of sheep or goats.⁶⁴

According to the EC regulation, for the quality schemes can apply only

- a “group”, namely, any association of producers or processors with any legal form or composition, working with the same agricultural product or foodstuff
- A natural or legal person may be treated as a group if is the only producer in the area willing to submit an application, or the defined “geographical area” or

⁶⁴<http://fordhamipconference.com/wp-content/uploads/2010/08/GailEvans.pdf>

“product” possesses characteristics which differ appreciably from “those of” or “those produced in” neighboring areas.

Recognition of such indications, whether through registration, is not enough, to realize the potential benefits. Protecting such Indications is of course important, but is not the only condition for its success. In order for such Indications to effectively create brand equity for a product, or to have a positive effect on rural development, it is necessary to develop a comprehensive quality/geographical indications and quality certifications scheme. This is the set of rules and mechanisms underlying the functioning of such Indications.

Eligible products

Most food and drink products intended for humans to eat can be registered , including (Table 24):

Figure 23 Eligible Products for PDO/PGI/TSG

<ul style="list-style-type: none"> ● meat, dairy and fish ● honey ● fruits and vegetables ● drinks made from plant extracts 	<ul style="list-style-type: none"> ● bread, pasta, pastries, cakes and biscuits ● sweets and chocolate ● beer and cider
---	--

Applying for a PDO or PGI protection certification also include:

<ul style="list-style-type: none"> ● natural gums and resins ● hay ● essential oils ● mustard paste ● cork ● cochineal 	<ul style="list-style-type: none"> ● flowers and ornamental plants ● wool ● wicker ● scutched flax ● cotton ● salt
--	--

Applying for a TSG protection mark, the applicant can apply to protect:

<ul style="list-style-type: none"> ● prepared meals ● beer ● bread, pastry, cakes, confectionary, biscuits and other baker’s wares 	<ul style="list-style-type: none"> ● beverages made from plant extracts ● pasta ● salt
---	---

4.8.4 PROCEDURES TO CERTIFY PDO/PGS/TSG

Protected Origin or Geographical indication - what is involved?⁶⁵

There are 3 protection marks one can apply to the EU for:

- protected geographical indication (PGI)
- protected designation of origin (PDO)
- traditional specialty guaranteed (TSG)

Developing such Indications scheme involves a number of important steps:

- " identifying the product's characteristics and assessing whether it has potential in internal or external markets;
- " strengthening the cohesion of the group of producers and other operators involved, who will be the pillars of the quality/geographical indications and quality certifications scheme;
- " a code of practice or regulations of use: setting up standards, sometimes called a code of practice or regulations of use. Among other things, circumscribes the product's geographical region of production, and describes the production and processing methods. It may also describe the factors, natural and/or human, that are present in the region and contribute to the characteristics of the product;
- " devising a mechanism to effectively attribute the right to use the indication to any producer and other operator concerned who produces the product within the established boundaries and according to agreed standards;
- " establishing traceability, verification and control schemes in order to ensure continued quality and compliance with the code of practice or regulations of use;
- " devising marketing strategies;
- " obtaining legal protection for the quality/geographical indications and quality certifications and designing an enforcement strategy.

It is important to notice that anyone can pick a name that someone else has already trademarked for another product - if the application is successful, that trademark will no longer be valid.

What are the costs?

⁶⁵Geographical Indications An Introduction, WIPO.
http://www.wipo.int/edocs/pubdocs/en/geographical/952/wipo_pub_952.pdf

It is evident that there are costs associated with developing such Indications/Quality scheme. It would be difficult, and beyond the purpose of this publication, to quantify the costs involved in each of the steps mentioned above. Moreover, those steps are not single, isolated acts. Protecting such Indications does not only involve obtaining a right through registration or other appropriate means, but also enforcing that right. Verification and control must take place regularly throughout the lifetime of such Indications, not just once. Promoting the quality/geographical indications and quality certifications is a continuing process. In short, such Indications scheme must be managed throughout its existence.

How long does it take?

It may take several years (usually up to 4 years), to establish a complete quality/geographical indications and quality certifications scheme, as this involves several actors and requires taking into account different interests and policy considerations. In case of Greece, according to the ministry of Agricultural Development, the procedure takes up to 2 years.

The actual time taken to develop a complete quality/geographical indications and quality certifications scheme may depend on some of the following factors, among others:

- the level of cohesion and organization of the group of producers and other operators concerned;
- the number and degree of conflicting interests and the way in which such interests are managed;
- the number and level of obstacles to legal protection of the quality/geographical indications and quality certifications - domestically or in foreign markets; and
- the existence of institutional support.

The Application Procedure

The application procedure has two phases, the National and the Community phase⁶⁶. The National phase and is valid only for geographical areas located in member states. Filing with the national authorities :

- " scrutiny by the Member State of the compliance with the conditions of the regulations

⁶⁶Source:http://www.wipo.int/edocs/mdocs/geoind/en/wipo_geo_in_09/wipo_geo_in_09_medina.ppt

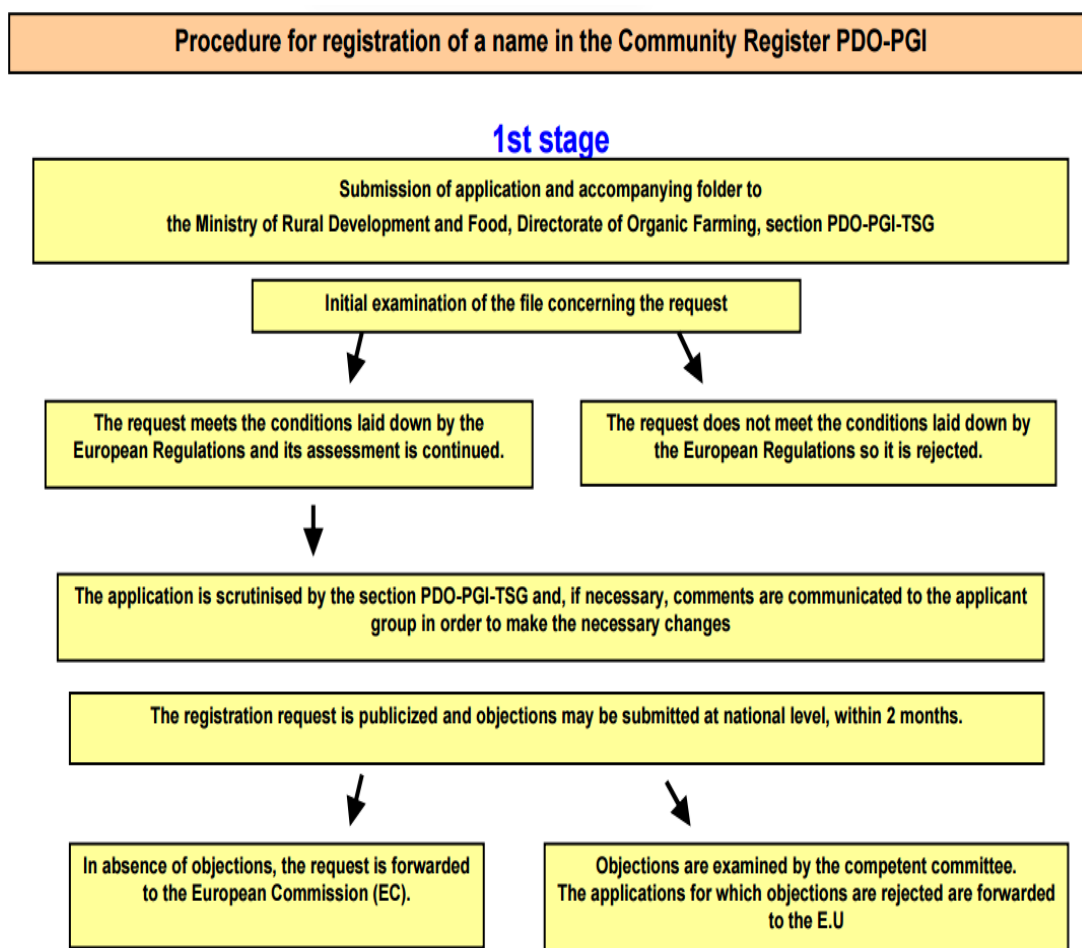
- " if approved, then publication for opposition purposes
- " national opposition procedures (only nationals or residents in that Member State). Reasonable period possible provisional national protection
- " possible transitional adjustment period at national level (for undertakings that have legally marketed the products in question, using the names concerned continuously for at least the past 5 years and have made that point in the national opposition procedure).
- " it forwards to the Commission a conformity declaration of the member state of origin, the single document, identification of the applicant and reference to the publication of the application.
- " Community phase which is common to EU and non-EU member states: Scrutiny by the Commission ("should not exceed 12 months")
- " publication for possible EU opposition procedure (for those non established or resident in the country of origin).
 - Opposition deadline: 6 months.
 - Decision.
 - Publication of decision.

The National procedures (Ministry of Rural Development and Food)⁶⁷

"The applicant group shall submit the registration application to the Directorate of Organic Agriculture of the Ministry of Rural Development and Food (Section PDO-PGI-TSG) Acharnon 29, Athens P.C 104 39. The folder shall include: a) the registration application according to the model of the Annex I of the C.M.D 261611/2007 as amended by the C.M.D 290398/2008. b) the single document according to the model of the Annex I of the Reg. (EC) 1898/2006 c) the product's specifications d) a statement that the conditions of article 2 of the Regulation 1898/2007 are met in the case where the interested party is a natural or legal person. The folder is assessed in the first stage, for the completeness and quality of the submitted data by the Section of PDO-PGI-TSG of the Directorate of Organic Farming of the Ministry of Rural Development and Food. In case the application is justified and complies by the regulations, then the relevant request is widely publicized at national level and national objection procedure is initialized. Any natural or legal person having a legitimate

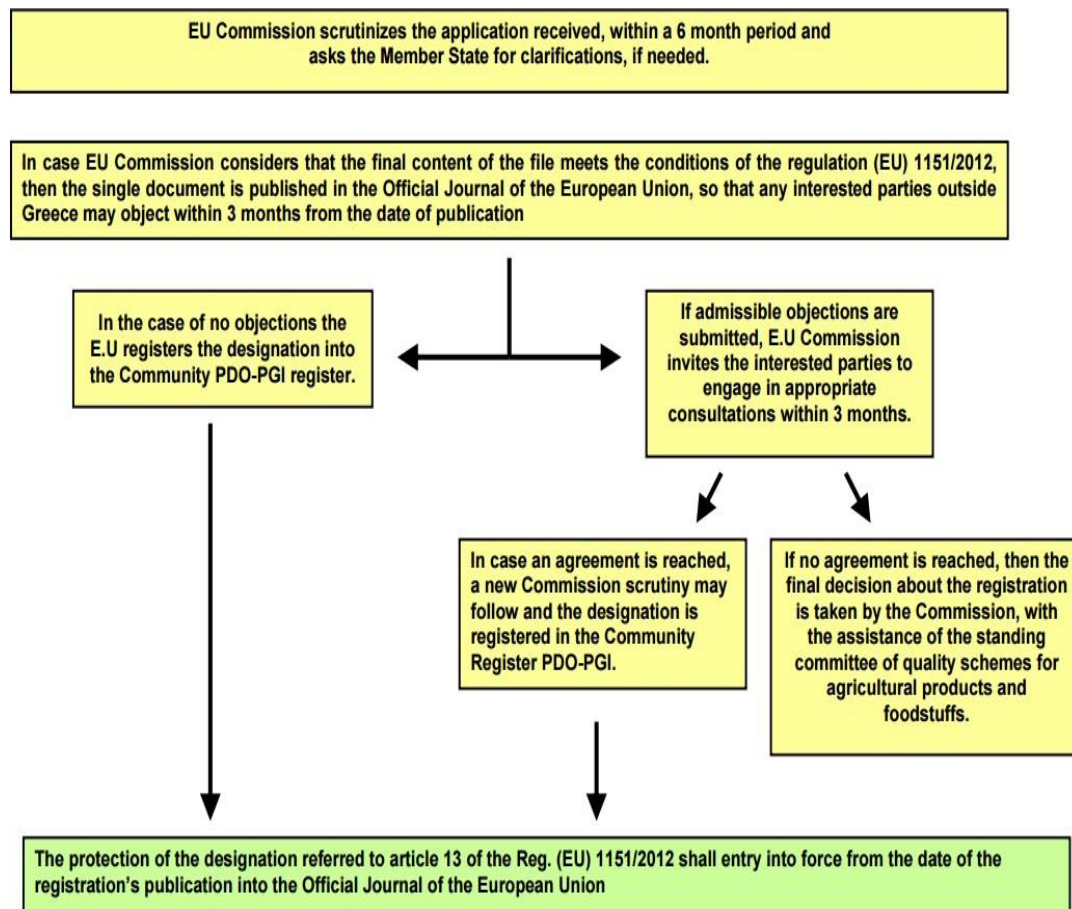
⁶⁷<http://www.minagric.gr/index.php/en/farmer-menu-2/pdo-pgi-tsgproducts-menu/submission-menu>

interest and established or resident in Greece may lodge an objection to the application. After the examination of the objections, if any, the application is either accepted at national level or rejected. In any case, a relevant decision of the Minister of the Rural Development and Food is issued. Then, the folder is communicated to the European Commission to be scrutinized at second stage. Where the Commission considers that the conditions are met, the single document is published in the Official Journal of the European Union. Any legal or natural person having legitimate interest at international level, may object to the proposed registration. Following the objections' examination, the designation is registered to the Community Register for the Protected Designations of Origin and the Protected Geographical Indications. In case the application is finally rejected by the Commission, the relevant Ministerial decision is recalled. The use of the indications POD PGI may start from the date of issue of the EU registration regulation.” (see Figure 25 and Figure 26).



Source: http://www.minagric.gr/images/stories/en_docs/en_pop_pge/diad_ypov_fak_engl.pdf

Figure 24 Procedure of Registration of a Name



Source: http://www.minagric.gr/images/stories/en_docs/en_pop_pge/diad_ypov_fak_engl.pdf

Figure 25 EU Procedures

(See more on Application Form in Appendix 13)

The EU application form

The application form has at least the following content of :

- identification of the **applicant**
- product **specification**, name, description of the product, definition of geographical area, evidence that originates there, method of obtaining the product, labelling and packaging requirements, the link between the geographical origin or environment and the name and the characteristic, reputation, etc., product any requirements laid down by national or EU Law; Identify the authorities or bodies verifying compliance with the provisions of the specifications and their specific tasks

- **single document**, a document, which contains the most relevant information of the specification and a description of the link between the geographical origin and the good
- **proof of protection in the country of origin** , in the case of third countries. The actual application form follows, see figure 27.

**APPLICATION FOR REGISTRATION
OF A DESIGNATION OF ORIGIN OR GEOGRAPHICAL INDICATION**

Language used for submission of application
Applicant
Name of legal or natural person
Full address
(street number and name, town/city and postal code, country)
Legal status, size and composition
(in the case of legal persons)
Nationality
Tel, fax, e-mail
Intermediary
• Member State(s) ^(*)
• Third-country authority (*)
<i>[(*) delete as appropriate]</i>
Name(s) of intermediary(ies)
Full address(es)
(street number and name, town/city and postal code, country)
Tel, fax, e-mail
Name to be registered
Designation of origin ^(*) Geographical indication ^(*)
<i>[(*) delete as appropriate]</i>
Proof of protection in third country
Categories of grapevine products

Figure 26

Application Form

(Find full form in Appendix 14)

Eligible persons or bodies to register a product name

One can apply as an individual food producer or a group with other interested parties, eg someone who supplies one raw materials or someone who sells the product.

- " A natural or legal person may be treated as a group if is the only producer in the area willing to submit an application, or the defined "geographical area" or "product" possesses characteristics which differ appreciably from "those of" or "those produced in" neighboring areas.
- " a "group", namely, any association of producers or processors with any legal form or composition, working with the same agricultural product or foodstuff. The group can include as many people as the group desires.

Registering a product name

According to the EU regulations and procedures for registration⁶⁸ firstly a producer or a group of producers should define the product according to precise specifications given to the regulations given and compile the Application Form. Then the application then is forwarded to the country's local authority, if the applicant is within the EU or directly to the Commission corresponding office (or via a national authority). The above are taken electronically or by mail. A given Guide to Applicants is given with specific instructions on the above⁶⁹. Electronic forms and applications should be sent by electronic means to: AGRI-CONTACT-EBACCHUS@ec.europa.eu (more in http://europa.eu/index_el.htm).

Objections to a name proposed for registration

It is not rare that a given proposed name for registration under the GIs protection schemes are facing objections from various interested and affected parties.

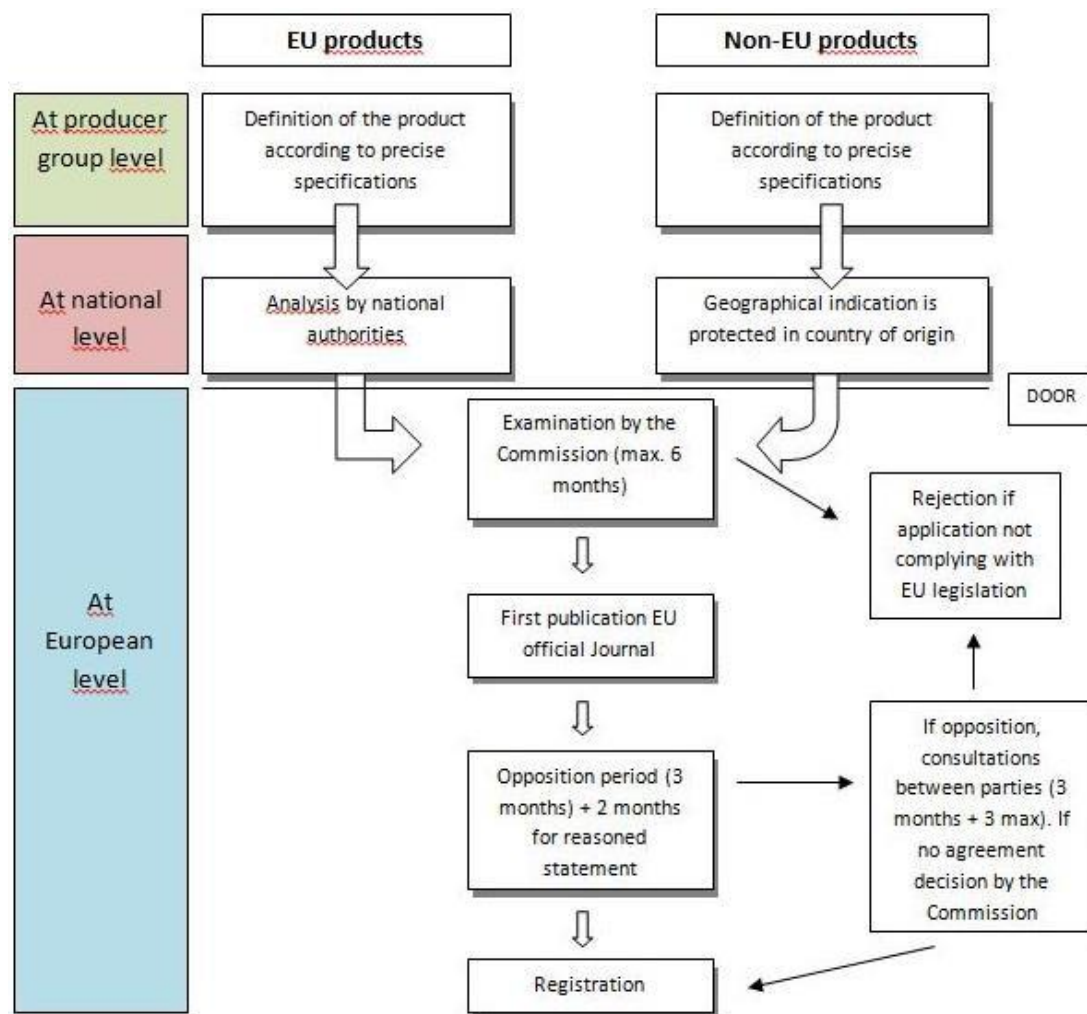
In that case , a private individual or/and organization **within the EU**, put all claims by sending the objections to the national authority and in the case of Greece (Ellada), this is the "MINISTERE DU DEVELOPPEMENT RURAL ET DES DENREES ALIMENTERES DIRECTION DE L'AGRICULTURE BIOLOGIQUE SECTEUR DES PRODUITS A.O.P. - I.G.P. & S.T.G. 29, rue Axarnon, 104 39 Athenes - Grèce

⁶⁸http://ec.europa.eu/agriculture/quality/schemes/index_en.htm

⁶⁹http://ec.europa.eu/agriculture/quality/schemes/guides/guide-for-applicants_en.pdf

No.Telephone: 00 30/210 8232025 No.TeleFax: 00 30/210 8821241 E-mail: yq3popge@otenet.gr⁷⁰.

This is the whole procedure in figure 28.



Source: http://ec.europa.eu/agriculture/quality/schemes/graph_en.jpg

Figure 27 EU Application Procedures

In case of objections **outside the EU**, the applicant can lodge an objection sending it directly to the Commission or via the national authority, electronically or by normal mail.

(For more see Appendix 15)

Any electronic forms and applications should be sent by electronic means to: **AGRI-CONTACT-EBACCHUS@ec.europa.eu** (more in http://europa.eu/index_el.htm).

AGRI-CONTACT-EBACCHUS@ec.europa.eu

⁷⁰A comprehensive [List of EU national authorities](http://ec.europa.eu/agriculture/quality/schemes/national-authorities_en.pdf) can be found in http://ec.europa.eu/agriculture/quality/schemes/national-authorities_en.pdf

Authorities in charge and controls of specifications

The actual Authorities or the competent Control Bodies enforcing compliance with PDO-PGI-TSG obligations in respect of product placed on the market (Art. 38 of Reg. 1151/2012) are listed by the EU Commission's site and can be found in http://ec.europa.eu/agriculture/quality/schemes/compliance-authorities_en.pdf

Specific Instructions/Guide to Make a draft product specification⁷¹

To apply for a product name protected under the GIs schemes, the applicant need to make a draft product specification. Specifications be made as clear as possible - it needs to show how another producer in the area associated with the product could make the same product.

1. The product name

Include the product name and the protection mark the applicant applies for. The product name must be in current commercial use and recognized by consumers - evidence of its commercial use is provided.

2. Applicant details

An application form should provide

- the name and the names of anyone in the applicant group
- any contact details for the applicant group, e.g. postal and email address, a phone number or a fax number

To make things clear, a group means any number of people working with the same agricultural product or foodstuff. One can apply as an individual if meets both of the following conditions:

- is the only producer of the food or agricultural product in the area we want to associate it with

⁷¹Source: <https://www.gov.uk/guidance/eu-protected-food-names-how-to-register-food-or-drink-products>

- the geographical area defined for the product differs substantially from neighboring areas, or the product itself differs from products made in those areas

If there are other producers of the same product, the competent authority may ask the individual to form a group first with them and apply afterwards.

3. The product class

The product class must be defined and declared, and the applicant can consult the European Commission class of the product is in - Annex XI⁷².

4. Brand name of the product

The product name must be defined and declared in be added in the EU protected name register. If one applies for a PDO or PGI mark, the name must reference the area to associate with the product. The product name doesn't have to reference the area if one applies for a TSGmark. The name picked should be one that is already commercially used to describe the product.

It is important to notice that a name can be chosen that someone else has already trademarked for another product. In this case, if 'our' application is successful, that trademark will no longer be valid for the other product.

5. The product description

The product description can include:

- details of the raw materials (if relevant)
- the main physical, chemical, microbiological or organoleptic (taste and smell) characteristics

6. The area definition/designation

The application need to define the area to associate with the product name by explaining how the two are linked. The description should allow other producers or inspection bodies to know where the product is grown and made. If one applies for a PDO designation mark then all stages of production must happen in this area.

7. Prove the product's origin

The applicant should show how the product is produced and that any raw materials, feed or other items one use to make it come from the area one want to associate with it.

8. Explanations for the Product

For the product there is a need to explain:

⁷²<http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014R0668&from=EN>

- ” the raw materials used and where they came from
 - why the source of the raw materials matters for the product
 - the criteria raw materials must meet to be used to make the product
- The records anyone producing the product must keep to:
- allow someone to trace raw materials and the outgoing finished product traceable back to source
 - show the internal quality checks that the product goes through

9. Describe the method of production

The method of production is the way the product must be made for it to use the name one applies to protect. The applicant should describe the local methods that must be used and any variations that you'll allow. If the application includes rules that mean the packaging must take place in the area the applicant wants to associate with the product, he/she should describe how this must be done. The applicant should also explain any restrictions about methods of production to be part of the product's protected status.

10. Link the product to the area

- ✓ Explain the link between specific qualities and characteristics of the product and the area the applicant wants to associate it with.
- ✓ To do this, give details of the geographical area, including natural and human factors that influence the quality or characteristics of the product.
- ✓ Check the in DOOR database⁷³, the list of protected food products to see how other products have done this.

11. Nominate an inspection body

The applicant must nominate an inspection body who'll check that the product matches the description of it.

The applicant should include name of the inspection body along with the following contact details, postal and email address, telephone number, fax number

12. Labelling information

Include information about existing labelling requirements which the product may have – e.g. any producer group logos or local branding.

When these points are given the right attention and preparation, then the application is forwarded to the National Agency where it is analyzed and any mistakes are noted and returned to the applicants. After any amendments the application is subject to objections

⁷³<http://ec.europa.eu/agriculture/quality/door/list.html?locale=en>

for two months. If no objections lodged then the application is completed in the EU Form and forwarded to the EU Commission Agency for scrutiny which takes up to 6 months to answer. (For detailed procedures see diagrams above).

4.8.5 CURRENT PDO AND OTHER PGI CERTIFIED PRODUCTS

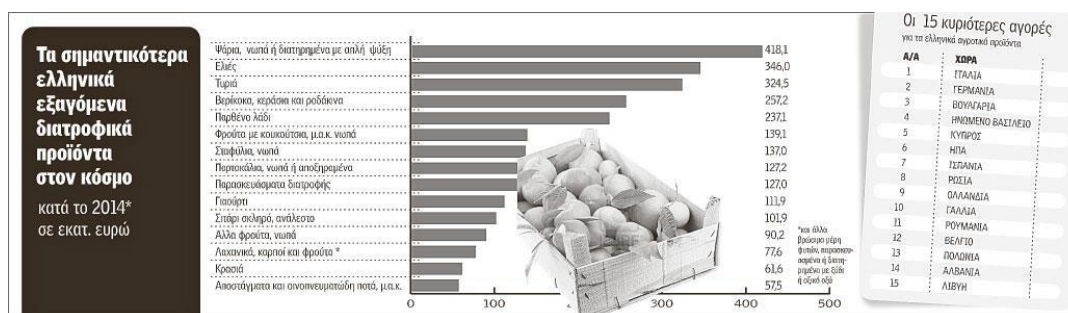


Figure 28 The most important Greek exported products and the 15 best markets

A review through the DOOR database ("Database Of Origin & Registration")⁷⁴ shows the reality of the GIs in European Union. The following tables, show in a clear manner that in contrast to other European countries, Greece has a very limited number of GIs certified, compared to many other countries. Searching in this database a list of the following certified Greek products have been shown, in total numbers (Table 43):

Class- Description	TYPE	No
1.1 Meat and Products	PDO	2
1.3 Cheese	PDO	21
1.5 Cooking Oils	PDO	19
1.5 Cooking Oils	PGI	11
1.6 Fruits-Vegies	PDO	27
1.6 Fruits-Vegies	PGI	18
1.7 Fresh Fish-shells	PDO	1
1.8 Spices etc	PDO	2
2.4 Bakery products	PGI	1
2.5 Natural Gum	PDO	2
3.2 Essence Oil	PDO	1
Greek PDO/PGI/TGS products		
as in NOV 2015		
	TOTAL	105

Table 47 Certified Greek products have been shown, in total numbers

More specifically, the cases of Animal products and Fish products that are certified in Greece are presented and discussed.

Table 48 Products Class 1.2

OTHER PRODUCTS OF ANIMAL ORIGIN (1.2)			
PRODUCT	PGI/PDO	REGISTERED NAME	SPECIFICATIONS

⁷⁴ <http://ec.europa.eu/agriculture/quality/door/list.html> is the EU database to find out which product names are registered or have been applied for PDO, PGI and TSG.

Μέλι Μαινάλου Βανίλια	Ελάτης	P.D.O	Meli Menalou Vanilia	313049 / 14-01-1994 (O.J.no. 16/14-01-94)
Αρνάκι	Ελασσόνας	P.D.O	Arnaki Elassonas	C307/2010 pg.2 4 (L195/2011 pg.34)
Κατσικάκι	Ελασσόνας	P.D.O	Katsikaki Elassona s	C323/2010 pg.31 (L260/2011 pg.3)

Table 49 Products Class 1.7

FRESH FISH, MOLLUSCS, AND CRUSTACEANS AND PRODUCTS DERIVED THEREFROM (1.7)			
<i>PRODUCT</i>	<i>PGI/PD</i>	<i>REGISTERED NAME</i>	<i>SPECIFICATIONS</i>
Αυγοτάραχο Μεσολογγίου	P.D.O.	Avgotaracho Messolongio u	269858 / 05-01- 1994 (O.J.no. 3/07-01- 94)

As one can note in Tables 4 & 5 above, the number of certified products in this category is a very limited number. Actually, there are only 3 products of category 1.2 - Other products of animal origin (category 1.2). It is very distinctive from the DOOR database that there is not even one case of TSG .

In contrast, the certified products in the European Union are actually tenfold compared to Greece.

It is notable that most for the GIs are PGS, which counts almost the 80% of the total while the TSG are nonexistent.⁷⁵ | a first reading, this might shows that PGS either are easier to certify and/or more flexible form in terms of how stringent is to follow the ongoing (annual) auditing procedures.

⁷⁵The later, are only 64 cases in the total of 667 of all GIs products in all categories (The DOOR Database)

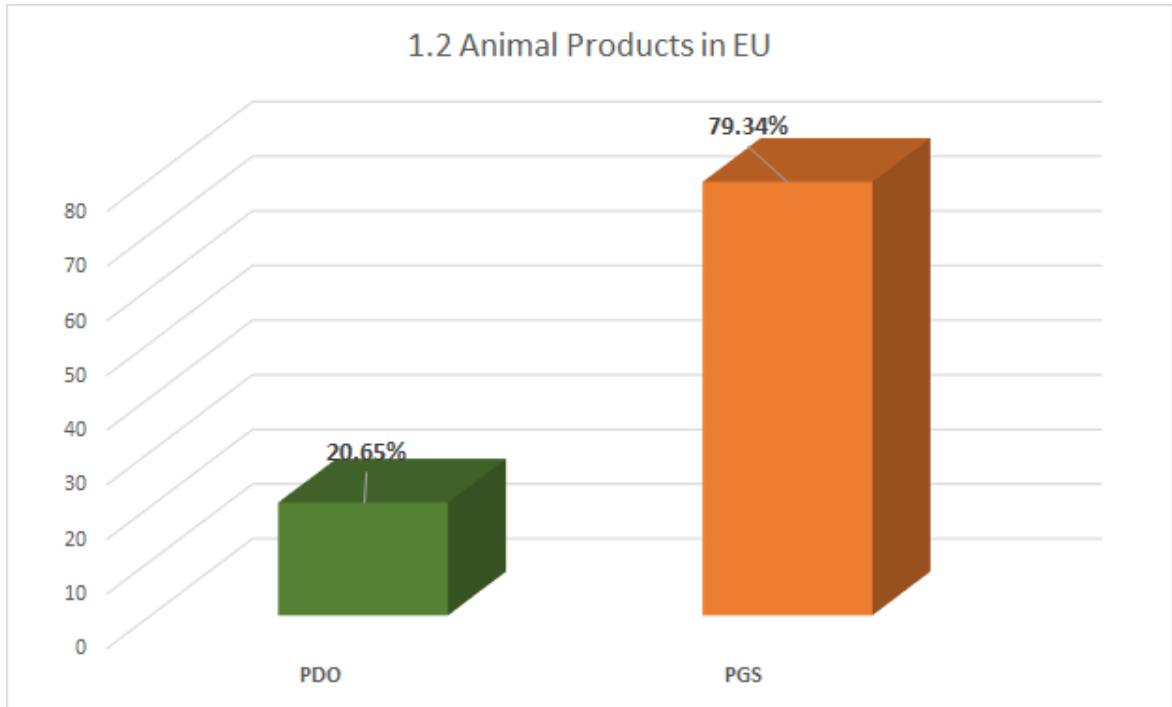


Figure 29 Category 1.2 – Animal Products in EU

Consulting the DOOR database one can find that the total actual number is 667 of all GIs certified products in all categories, which is quite low with the real products and consumer goods exist in the market. Having said that, the later diagrams show a steady growth development and a progressive related sales revenue (see diagrams below)

1.2 Meat Products		
Country	QTY	%
IT	43	23,37%
PT	41	22,28%
FR	20	10,87%
DE	19	10,33%
ES	19	10,33%
SI	9	4,89%
HR	6	3,26%
GB	5	2,72%
HU	4	2,17%
BE	3	1,63%
TR	3	1,63%
AT	2	1,09%
FI	2	1,09%
PL	2	1,09%
BG	1	0,54%
CY	1	0,54%
IE	1	0,54%
LU	1	0,54%
NO	1	0,54%
RO	1	0,54%
total:	184	

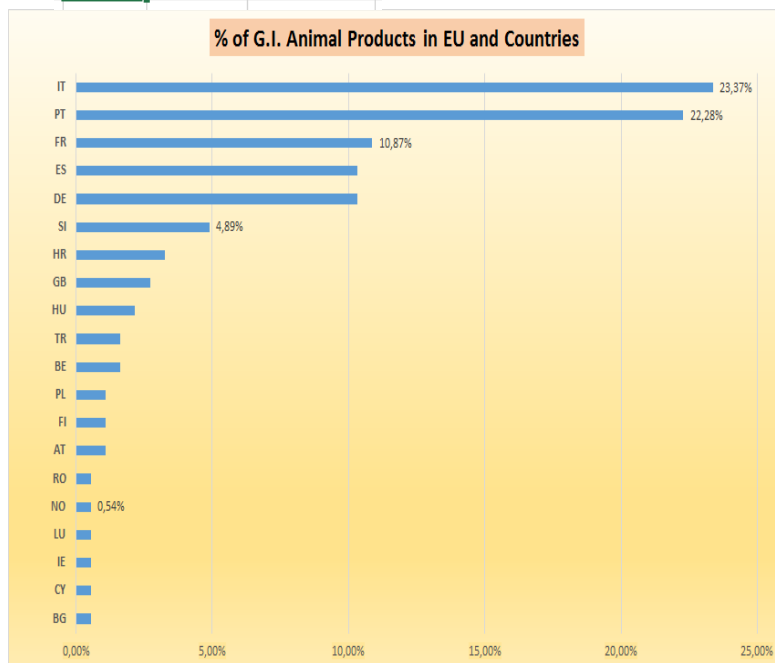


Figure 30 Meat Products in EU and Countries

As for the actual certified in category 1.2 (meat products) the totals are 38 PDOs , 147 PGI and 0 TSG while in category.

The diagrams shows that **Italy** is at the top of the list while it presents the 23.37% of the total certified products in EU as a whole. In total number category 1.2 21 PDO 22 PGS, 0 TSG. **Portugal** is a similar case with most certified products being PGS and no TSG.

Table 50 Fish Products Class 1.7

1.7 Fish Products			
<i>Country</i>		<i>Qty</i>	<i>%</i>
United Kingdom	GB	14	28%
Germany	DE	7	14%
Italy	IT	5	10%
Spain	ES	5	10%
France	FR	4	8%
Czech Republic	CZ	2	4%
Finland	FI	2	4%
Poland	PL	2	4%
Brazil	BR	1	2%
China	CN	1	2%
Greece	GR	1	2%
Ireland	IE	1	2%
Latvia	LV	1	2%
Norway	NO	1	2%
Romania	RO	1	2%
Sweden	SE	1	2%
Viet Nam	VN	1	2%
Total		50	

As for the actual certified in category *1.7 (fish products)* (see table 45) the total actual Number is 15 PDO, 35 PGI and 0 TSG. The total actual number is only 50 while

Germany shows a strong presence with a 28% of the total in this category 1.7. with a number of 7, all of them PGIs. In Italy, the numbers are 2 PDO, 3 PGS, 0 TSG. Of course is worthwhile to check the contribution of external EU countries. In both cases, the numbers are low even for external countries as one can see in the diagrams/tables.

A general conclusion from the above show that in Greece the actual GI certified products are only a fraction of the total number of 75 products in Europe. Having said that, even in Europe the number of our own 775 products is quite low compared to the large number of products that exist in the consumer market. in addition, the number of traditional specialties guaranteed is extremely low in the whole European Union.

Next figures (see figures 32 & 33) display the progression of growth of Sales Revenue directly related to the growth of the number of GIs certified products.

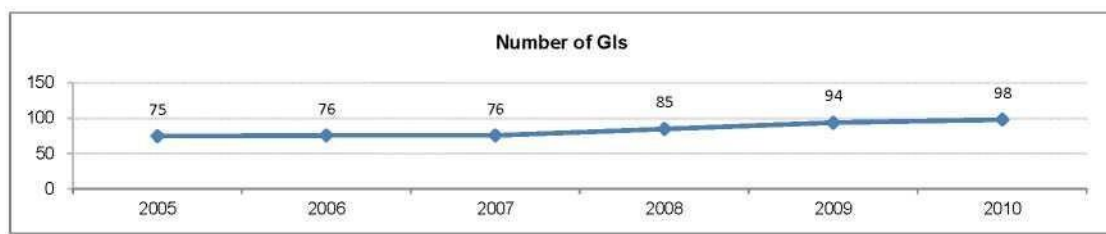


Figure 31 Number of GIs

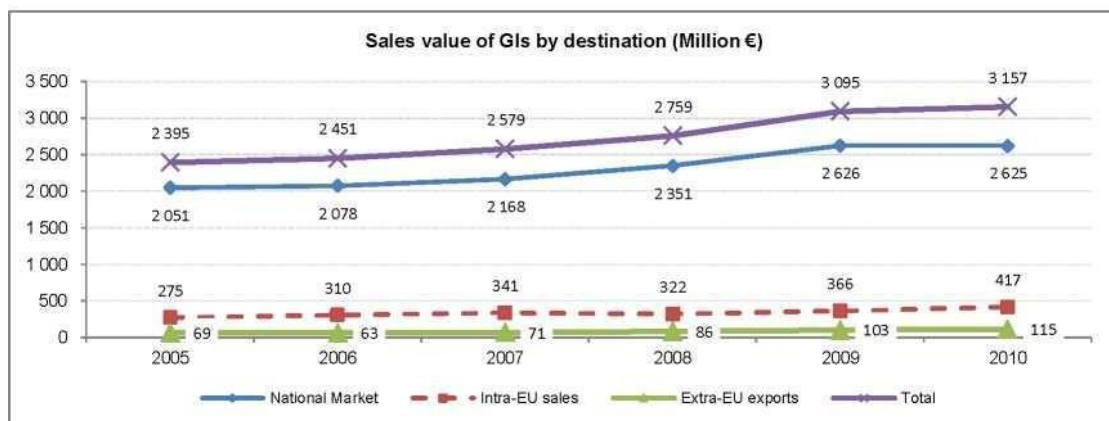


Figure 32 Meat products - PDO and PGI - Reg. (EC) No 510/2006

As one can observe, there is a correlation/dependence between the actual increase of the number of GIs and the sales value by destination. This is more obvious from the charts that the National Markets sales is increasing even more that the intra-EU and the

external EU exports. According to the above tables, we could infer in general, that the increasing of the number will contribute to increasing sales revenue and therefore makes it worthwhile investing in certifying products in GIs schemes especially in the National Markets and secondary to Intra-EU or other. This is more notable to the animal origin products. This might be due to the small number starting point in 2005 and in 2010 almost doubled. The encouraging again, is that the sales revenue followed this trend and has almost doubled in the same period (see more in actual numbers of sales value in APPENDIX III).

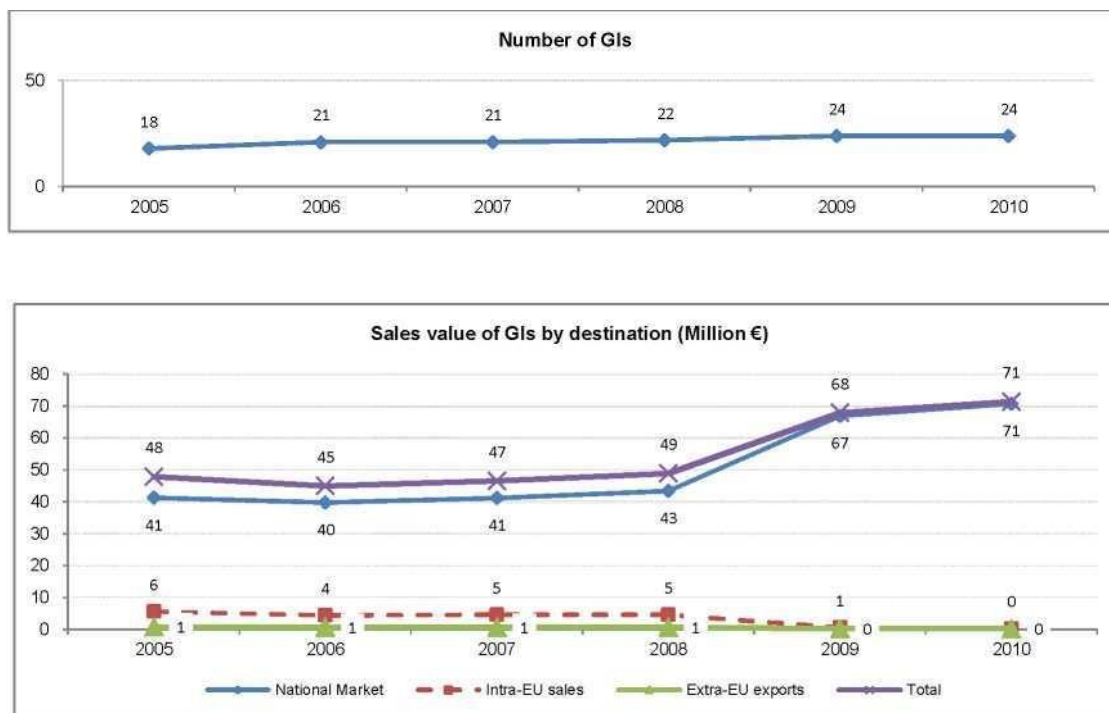


Figure 33 Oth. prod. of ani. origin- PDO and PGI - Reg. (EC) No 510/2006

The case of the Traditional Specialty Guaranteed (TSG)

The small number of TSG in existence in the whole EU may be to the fact the it is a protected scheme which was introduced more recently. As one can observe in the following table (Table 7 & 8), in Class 1.2 and 1.7 they were introduced in EU after 2005 and most of them were publicized after 2010.

Table 51 Class 1.2. Meat products (cooked, salted, smoked, etc.) TSG

a/a	Designation	Country	Status	Submission date	Publication date

1	Pastarma Govezhda	Bulgaria	Publishe d	25/08/2014	09/07/201 5
2	KAYSEROVAN VRAT TRAKIYA	Bulgaria	Publishe d	23/07/2012	14/03/201 4
3	<i>Pražská šunka</i>	Czech Republic	Publishe d	21/10/2010	19/09/201 2
4	ROLE TRAPEZITSA	Bulgaria	Register ed	23/07/2012	05/04/201 4
5	File Elena	Bulgaria	Register ed	23/07/2012	08/03/201 4
6	LUKANKA PANAGYURSK A	Bulgaria	Registe r ed	28/02/2013	28/03/201 4
7	<i>Kabanosy</i>	Poland	Register ed	22/01/2007	09/07/20 09
8	<i>Kiełbasa jałowcowa</i>	Poland	Register ed	05/12/2006	11/07/200 9
9	<i>Kiełbasa myśliwska</i>	Poland	Register ed	19/03/2007	14/07/200 9
10	<i>Liptovská saláma / Liptovský salám</i>	CZ/SK/Multi- country	Register ed	04/08/2006	22/04/201 0
11	<i>Lovecký salám / Lovecká saláma</i>	CZ/SK/Multi- country	Register ed	04/08/2006	16/04/201 0
12	<i>Spišské párky</i>	CZ/SK/Multi- country	Register ed	18/01/2007	15/04/201 0
13	<i>Špekáčky / Špekačky</i>	CZ/SK/Multi- country	Register ed	21/05/2007	14/04/201 0
14	<i>Skilandis</i>	Lithuania	Register ed	15/06/2005	08/05/20 09
15	<i>Falukorv</i>	Sweden	Register ed		10/03/200 1

16	<i>Jamón Serrano</i>	Spain	Registered		01/12/1998
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It is also important to notice that the Class 1.7 is the less utilized category of TSG products.

Many countries in EU and in Greece also, even though there are plenty of specialties candidate to become TSG they have not been yet reached to that point.

Table 52 Class 1.7. Fresh fish, molluscs and crustaceans and products derived therefrom

a/a	Designation	Country	Status	Submission date	Publication date
1	Hollandse Nieuwe	Netherlands	Registered	06/11/2013	12/05/2015
2	Bacalhau de Cura Tradicional Portuguesa	Portugal	Registered	10/01/2011	08/10/2013
3	Moules de Bouchot	France	Registered	28/12/2006	09/08/2012

Some popular traditional products, their ingredients and preparation method are described in the Food and Drink Code (no 525-28/2/2014). These are the following⁷⁶: Next, we will attempt a SWOT analysis in the GIs schemes and their potentials for Greece and producers/farmers. Through the analysis, an extra effort will be carried out to find potential strengths and opportunities, especially in the class 1.2 and 1.7 quality schemes and to realize concrete opportunities especially for the TSGs since there not even a single one publicized yet in Greece.

4.8.6 A SECTORAL S.W.O.T ANALYSIS

According to the EU regulation, “The implementation of quality systems for manufacturers that their reward for their efforts to produce a diverse range of quality products can benefit the rural economy particularly. This is true for the less-favored areas, mountain areas and the most remote regions, where the agricultural sector covers a significant part of the economy and production costs are high. In this way, quality systems and can contribute to rural development policy and to market supporting

⁷⁶<http://tinyurl.com/8q7mngl> and also <http://faghta-giagias.blogspot.com/2012/12/choirino-kreas.html>.

policies and income under the Common Agricultural Policy (CAP), to supplement these policies. In particular, they contribute in areas where the agricultural sector has greater economic significance particularly in disadvantaged areas. " (Regulation (EE) No . 1151/2012 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 21 November 2012 on agricultural products and food quality systems).

Let us categorize some of the strengths, opportunities and also weaknesses and threads in the next section.

STRENGTHS

- " The certifications of specific meat products, namely, Katsikaki and Arnaki Elassonas.
- " The association of GIs growth and a corresponding Sales of Revenue Growth.
- " The recognition of traditional recipes by the Code of Food and Drinks.
- " The patent application in recipes.
- " Raw material in fish and the production of fish products with an already exporting activity

OPPORTUNITIES

- " The existence of specific animal Greek original breed of genetically certified/recognized such as the Black Swine, the Blonde-coloured, Cow of Polygyros Chalkidiki which is a succesful a breed especially for meet production⁷⁷, the well-known ancient Sykia cattle breed give strong opportunities for new quality schemes and meet products. On the other hand, many fish products from Greek sees and rivers such as the Greek Trout (salmo trutta «fario») can become new certified quality products. In addition, traditional recipes such as "Sygklino" or "Syglino", "Tsigarides", "Pichti (Πηχτή ή τσιλαδιά), Apaki(Απάκι), Louza (Λούζα ή λούτσα), Chiomeri (Χοιρομέρι), Kavourmas (Καβουρμάς ή καβρουμάς), Λουκάνικα(Sausages)".⁷⁸
- " GIs may support and enforce the local productions and cooperation's
- " GIS may propel sales and sales revenue in national an EU/International level due to the *authenticity* and the *recognition* and brand-awareness that PDO PGI and TSG can create to consumer.

⁷⁷<http://www.tanea.gr/news/economy/article/4654032/?id=2>

⁷⁸<http://faghta-giagias.blogspot.com/2012/12/choirino-kreas.html>

A number of opportunities is listed according to a study on “Assessing the added value of PDO/PGI products”⁷⁹ as following:

1. *“To what extent have GI products a higher price in comparison with their corresponding standard products?”*: In most cases GI products achieve a price premium over the corresponding standard products even if extreme variability in the extent of the price premium for GI products was observed.
2. *“Does a potential higher price for a GI product compared with a ‘standard’ product, translate into a higher gross margin for the producers (and farmers in particular)?”*
 - “ As far as producers of final products are concerned, in most cases the gross margin for final GI products was higher than that for standard products.
 - “ As for farmers supplying agricultural raw materials, the situation was less conclusive
3. *What are the key factors for obtaining a gross margin that is higher/lower?*
 - “ Intrinsic product differentiation was identified as a key factor for obtaining a positive differential margin compared to standard production.
 - “ Higher gross margin for GI products was also the result of effective marketing strategies and tools, including the use of short market chains and export-oriented strategies.
 - “ Other factors like support to promotion and consumers’ awareness played a role.
4. *What other added value is there for producers of GI products?*

A number of elements of added value other than higher gross margins was identified in the case studies:

 - “ protection of intellectual property rights;
 - “ improved visibility; access to new markets;
 - “ better access to promotion funds and investment aid;
 - “ better support under rural development; positive impacts on the GI area as a whole.

⁷⁹http://ec.europa.eu/agriculture/external-studies/2013/added-value-pdo-pgi/exec-sum_en.pdf

- *What are the enabling and disabling factors for the generation of added value?*
Due to the great variety of GIs, a variety of factors plays a role in generating added value for GI producers: intrinsic product differentiation;
 - " use of shorter, more direct marketing channels;
 - " achievement of greater production volumes and/or stronger orientation towards exports;
 - " adequate levels of awareness of, trust in and willingness to pay for GI products among consumers;
 - " strong supply-chain organization;
 - " attention to GI production from policy makers and competent institutions
- " Other opportunities involve the development of the so called "Culinary Tourism" associated especially to TSG ("Γαστρονομικός Τουρισμός")
- " Subsidies and other funding by national and EU funds.
- " Potential Development of Certified products outside of EU, where for example in the KOREAN market, where there is no single Greek product⁸⁰

WEAKNESSES and THREATS

- numerous agro-food products in Greece remain unexploited
- Only 14% of Europeans recognize the PDO/PGI⁸¹
- Potential lack of recognizable certified products associated with specific Regions. Consumer cannot associate easily a PDO or PGI with the origin of the product.
- Significant lack of adequacy of raw material, meat and fish to support a Certification in many areas in Greece. This is similar to the METSOVO cheese case, where deciding to make it PDO they could not support it since the area did not have enough local milk to produce a certified product.
- Potential Lack of identified and uniquely recognizable species of fish particularly.

The implementation of quality systems for manufacturers involve high costs. the cost implications involving procedures and the need for inspection by the

⁸⁰http://eeas.europa.eu/delegations/south_korea/press_corner/all_news/news/2013/20131104_01_en.htm
⁸¹http://ec.europa.eu/agriculture/promotion/policy/regulation-post-2015/2015-10-13-synoptic-presentation_en.pdf

producer side. A PGI or PDO is only valid in so far as the product is certified to be in conformity with the specification and inspection procedures. Producer groups, should carefully consider whether they have access to the infrastructure, skills and resources needed to comply with the conditions of the product specification. Therefore, key considerations in selecting a PGI or PDO, will be the existence of suitable and permanent structures by the home country and the producer, the costs involved in maintaining an inspection system, and not least, the technical skills needed to verify the required standards.

4.8.7 BODIES AND ORGANIZATIONS INVOLVED

A number of bodies and organizations are involved , here is a list of them.

1. The Hellenic Ministry of Rural Development and Food, with competence for agricultural markets, (<http://www.minagric.gr>) which:
 - o accepts, evaluates and forwards applications for registration and applications to change the product's specification to the European Commission,
 - o conducts proceedings in the event that another state raises an objection to an application for registration filed by Poland,
 - o receives objections and conducts proceedings in the event that Poland raises an objection to an application for registration filed by another country,
 - o submits information to the European Commission on authorities and bodies with competence for products' control and certification.
 - o authorizes the certification bodies (AGROCERT) to carry out controls and to issue and withdraw certificates confirming that products registered as PDO, PGI and TSG meet the requirements laid down in the specification.
2. AGROCERT ("DIMITRA") (www.agrocert.gr)

Agricultural Products Certification and Supervision Organization, under the distinctive title AGROCERT is a Private Law Legal Entity operating for the public benefit under the supervision of the Ministry of Rural Development and Food (L. 2637/98).

Since 1/6/2006 the Greek Agricultural Organization "DIMITRA" (former Organization for Certification and Supervision of Agricultural Products-OPEGEP bearing the distinctive title AGROCERT), is responsible for the implementation of national policy on quality in agriculture.

The main competences of AGROCERT are as follows:

- o Certification of agricultural production systems
 - o Certification of agricultural products
 - o Evaluation, approval and supervision of Control and Certification private bodies, accredited by the National Accreditation System.
 - o Preparation and publication of optional sectoral standards and development of specifications towards quality assurance of agricultural products.
3. **World Intellectual Property Organization (WIPO),**
 [\(http://www.wipo.int/portal/en/index.html \)](http://www.wipo.int/portal/en/index.html)

The World Intellectual Property Organization (WIPO) is one of the 17 specialized agencies of the United Nations.

WIPO was created in 1967 "to encourage creative activity, to promote the protection of intellectual property throughout the world." [\(http://www.wipo.int/portal/en/index.html \)](http://www.wipo.int/portal/en/index.html). It recognizes TRADEMARKs but also the Quality schemes such as PDO PGI TSG in EU and outside.

4.8.8 CONCLUSION

There is a clear strategy by the EU on providing "support especially new young farmers entry" on "boosting small agro businesses" and on promoting "back to roots farming"; a supported policy coupled by the appropriate regulation for Quality schemes and Geographical Indications such as the PDO , PGI and TSG. Even if they are not yet fully developed within EU countries and especially Greece there is a clear increasing trend through the last years, both in numbers and variety. Still, TSG is the less developed.

In Greece the actual certified products are only a fraction of the total number of certified products in Europe; even in Europe the number of certified products is quite low compared to the large number of products that exist in the consumer market.

The number of traditional specialties guaranteed is extremely low in the whole European Union, but in Greece there are no certified Traditional Specialty Guaranteed recipes, although a substantial number of traditional recipes exist in the market.

One can conclude also that there is a direct correlation/dependence between the actual increase of the number of GIs and the sales value by destination. This is more obvious from the charts that the National Markets sales is increasing even more than the intra- EU and the external EU exports. We could infer in general, that the increasing of the number will contribute to increasing sales revenue and therefore makes it worthwhile investing in certifying products in GIs schemes especially in the National Markets and secondary to Intra-EU or other. This is more notable to the animal origin products. This might be due to the small number starting point in 2005 and in 2010 almost doubled. The encouraging again, is that the sales revenue followed this trend and has almost doubled in the same period.

The costs of the whole quality schemes systems can be a prohibiting factor especially for small producers but can be reduced significantly if dealt by a group of producers and with the help and support by the Greek authorities.

The real and main problem in certifications of products in Greece is the lack of bottom up interest of the producers to exploit the benefits of GI schemes matched with the low self-sufficiency numbers both in meat and fish products.

On the other hand, both PDO and PGI but especially the TSG show a clear opportunity for development due to the heavy imports of similar products and non-existence of such specialties. To support the argument, TSG could be coupled with culinary tourism and with a strong promotion may become the spear of the new quality and certified products in Greece.

A strong initiative by the relevant stakeholders is necessary to proceed with the preparation of relevant files to be submitted for qualification to the relevant EU Authorities, following the procedure discussed before.

There is an urgent need to proceed the soonest possible, as there is a long bureaucratic procedure that needs to be followed until the publication of the application.

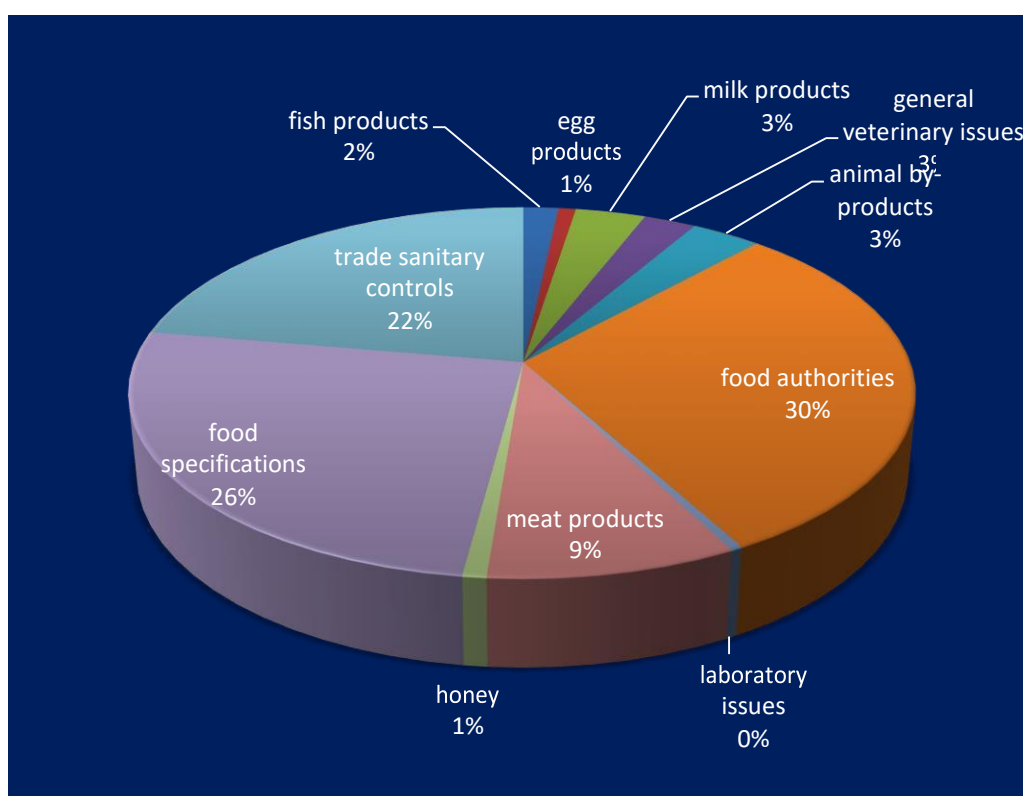
4.9 MARKET OVERVIEW ANALYSIS

4.9.1 THE LEGAL FRAMEWORK

The food industry is a highly regulated industry that had to cope with the substantial and continuous adaptations of the legal framework that regulates its operation.

The last years of the economic crisis, the meat and fish processing sectors in Greece, had to adapt to a substantial number of changes in the legal framework. A 26% of the changes and new legislation introduced concerned alterations regarding food authorities, 26% were related to changes in the food specifications and 22% concerned sanitary controls, as illustrated in the following figure:

FIGURE: CHANGES IN LEGISLATION THE YEARS OF ECONOMIC CRISIS



Source: Veterinary Legislation Database, www.ktino.gr

The meat processing sector had to cope with a substantial number of specific subsector legal measures, which overall represented 9% of the newly introduced measures; fish processing measures were also included, but at a lower level.

4.9.2 THE MARKET STRUCTURE AND THE RETAIL TRADE OUTLETS

The food retail landscape in Greece has changed considerably, as there has been a shift from the independent to chain stores, although the concentration of power is not as high as in other European Countries.

However, although the super market chains plays a leading role in the sales of food products, this is not applicable for the case of meat products.

According to Papadopoulos (2011) on an investigation on the role of the Greek butchers, the predominantly conservative nature of Greek eating culture has elevated the trust bond to an effective barrier against the domination by supermarkets of the fresh meat market; about 70% of the market is still served by 'traditional' butchers.

The findings of a recent research from the Hellenic Confederation of Professionals, Craftsmen and Merchants (IME GSEVEE) confirm the above findings, although the market share in 2015 is estimated to be 68% of the market, and hence a shift to S/M purchasing could be noted during the last years of economic crisis.



Numerous small butcher shops operate in Greece; they are mostly papa-and-mama operations, often handed down to the next generation and organized in geographic Associations; they represent a group that seemed to lack entrepreneurial impulses, but rather one that is happy to ride the long term wave of increased meat consumption by the

Greek households. The research highlighted an innovative behavior "think meal not meat", related to the introduction of semi-prepared meat dishes in the offering of the butcher shop, apart from the traditional butcher sausages; the average revenue from semi-prepared dishes was at that time just under 25% (Papadopoulos, 2011).

Today, the majority of the urban butchers, are following a "think meal not meat" approach, and this specialized retail sector represents a substantial player in the meat processing subsector, which however is not possible to measure in terms of actual turnover, because of lack of a formal database and official data to analyze, in order to evaluate the production output of meat meals and traditional meat products.

Most of the retailers, explore the allowances of the current legal framework and



according to EU Reg. 2004-853, they include a small meat processing unit, next to their retail outlet. As a result, traditional butchers today, offer a great variety of meat preparations in their windows, aiming to

developed through the are not able to enter the sector, mainly because they cannot afford to hire new personnel for the processing activities. In any case, according to the hygiene laws and the EU Reg. 2008-1333, they are limited to produce meat preparations but they are not allowed to produce processing methods for the production of meat products in their small processing units.

According to a research, traditional butchers, represent an important source of employment, considering the number of available stores, throughout Greece, as follows:

Estimated Nr of butcher stores	11.500
Average Nr employees per store	2,4
Number of butchers with license to process meat products	68% (>90% in urban areas)

Source: IME GESEBE Study, 2015

Despite their efforts to innovate and increase revenues in order to survive during the years of severe economic crisis, butchers today, are faced with a substantial turnover decrease, as a result of the severe economic crisis. An interview with the President of Mr Stavros Perros, President of the National Butcher’s Federation, highlights the unfavorable effects: The survival of the butchers especially after the capital controls is under real threat, with lots of debts accumulated by the butchers.

The subsector is faced with significant store closures in almost all Greek cities; loss of



income results in the traditional papa- and- mama operations, to be hard to be handed down to the next generation, as not enough income is generated anymore to occupy members of the family, who might be unemployed because of the current situation. As a result, most of the

Butchered with a decline in the number of stores currently in operation, mainly because new professionals are demotivated to enter the sector. The Federation continuously requires from the State to alter the legal framework and allow them to produce more products by applying more processing methods, as a measure to reinforce their income with the production of additional product variety, and increase employment.

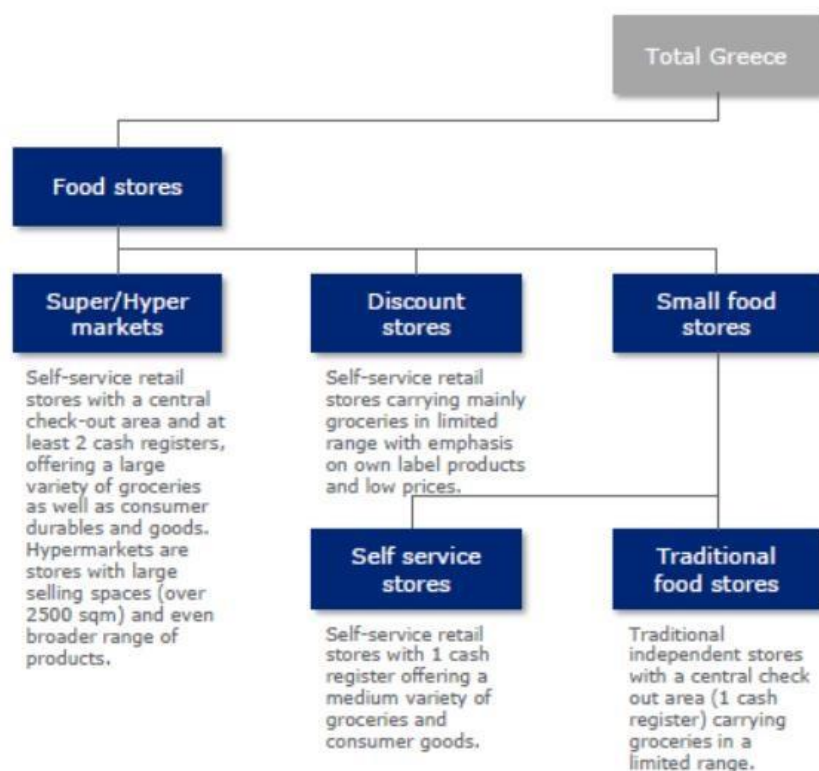
The personal interview with the representative of the Federation of Butchers in Thessaloniki, revealed further information about this market.

According to him, there are about 8.500-9.500 butcher shops in Greece nowadays, that deliver 65% of the total quantity of meat. Four years ago, 11.000 - 12.000 butcher shops existed, delivering 85% of the total quantity of meat in the market. This sector faces difficulties in recent years, as consumers increasingly seek out the cheapest meat from the supermarkets. In order to overcome this threat, local butchers can capitalize on better product quality and on personal relations (service) with their customers (final consumers, local hotels, local restaurants...). Also, they can enrich their product variety with cuts of meat or with ready-to-cook meat preparations that their customers cannot find at the mainstream market. Ready-to cook meat preparations include kebabs (gyros), souvlaki, schnitzel, burgers, meat balls, traditional sausages, crafted chicken nuggets etc. By adding dried spices, herbs and other seasonings to fresh meat, butchers can produce various products. The interviewee commented that the butchers produce 75% of the total quantity of traditional sausages in Greece, while small processing companies produce the rest of it. Given the demands of our current lifestyle, with a higher proportion of women in the workforce, marinated (ready to cook) meat is gaining rapid popularity. There are special legal requirements on the production of meat foods by the butchers, as described in part 4.8.3 of this study.

The interviewee also commented on the negative effects of the recent (26 October 2015) WHO's announcement that processed meat was classified as carcinogenic to humans (Group 1), based on sufficient evidence in humans that the consumption of processed meat causes colorectal cancer. WHO experts concluded that each 50 gram portion of processed meat eaten daily increases the risk of colorectal cancer by 18%.

Besides the butchers, meat and fish products are available in a variety of retail outlets. The retail trade channels outlook for food products in Greece, are listed as below:

FIGURE: FOOD RETAIL TRADE LAYOUT



Source: IRI, 2015

A trend to strengthen national buying by sourcing local food producers was one of the main trends, during the years of the economic crisis, mainly because there is notable consumer preference to seek and buy Greek products.

IRI executes on a yearly basis a rolling sampling census of the FMCG retail outlets covering the mainland of Greece (including Evia) and the island of Crete, and the findings are listed below:

FIGURE: NUMBER OF FOOD STORES

YEAR 2014		YEAR 2013	
Super/Hyper markets	2,498		2,440
Discount stores	208		207
Self service stores	5,562		5,426
Traditional food stores	4,725		4,674
Total food stores	12,993		12,747

Source: IRI, 2015

Supermarkets and hypermarkets dominate food retail sales in Greece. Large-scale, established retailers, with operating businesses that benefit significantly from economies of scale and the ability to employ aggressive pricing schemes, which cannot be matched by smaller retailers, enjoy a significant advantage. Strong branding exercises and fast paced expansion deepens this market control. Large retailers often maintain relationships with a wide range of suppliers, which ensures stability and helps to offset the dangers of local sourcing problems or price fluctuations. This strengthens retailers standing in relation to their suppliers as their dependency is reduced, meaning any risks to retailers are minimized.

The number of Super/Hyper markets slightly increased in the 2013/2014 period, mainly because of the opening of new stores in the Attica area, as per below:

FIGURE: NUMBER OF STORES BY GEOGRAPHICAL AREA

YEAR 2014		YEAR 2013	
Attica	874		795
Salonica	334		331
North	416		427
Centre	408		450
Peloponnese	301		284
Crete	165		153
Total Super/Hyper markets	2,498		2,440

Source: IRI, 2015

The number of discount retail stores has grown during the years of the economic crisis, and is likely to increase further. Lidl, is one of the most aggressively growing companies, especially during the years of the economic crisis in Greece; it accounts almost 15% of grocery purchases. In order to compete with the discount stores, traditional grocery stores have been quick to respond to their shoppers by offering

discounts on selected food products. Retail prices remain competitive between the two groups and forecasts indicate the discount segment of the market will continue to grow.

On the one hand, a large number of independent or specialty retailers hold a significant proportion of this industry, where market entry would be relatively easier. Smaller retailers, such as the deli and organic outlets, may find negotiations with suppliers more difficult. The limited number of suppliers in niche areas and the centrality of product quality restrict the available range of sourcing options. With switching costs subsequently higher, the balance of power shifts somewhat from smaller retailers to specialist suppliers. Specialty, luxury or organic retailers can, due to the high level of product differentiation, justify price levels that would otherwise be unsustainable, yet the limited volume of consumers restrains the power of such players. A number of retailers operate incentive schemes, mainly price-offs, to secure customer retention.

A slight increase of the traditional food stores is recorded during the 2014/2013 period, which is mainly because of new store openings in Thessaloniki, Central Greece, and Peloponnese, according to the following figure:

FIGURE: NUMBER OF TRADITIONAL STORES BY GEOGRAPHICAL ARE

YEAR 2014		YEAR 2013	
Attica	658		660
Salonica	221		210
North	1,265		1,280
Centre	1,598		1,557
Peloponnese	734		708
Crete	249		259
Total traditional food stores	4,725		4,674

Source: IRI, 2015

An interview with the owner of a deli shop, who also operates as a wholesaler, describes the situation in this sector:

Competition is high and small retailers may face difficulties if they are newcomers without relevant previous experience. Consumers visit local special shops in order to buy crafted foods (processed meat and fish, olives, dressings, cheese etc.) that they cannot find at the mainstream market. Final consumers are willing to buy more

expensive crafted products if quality is better than commodities and packaging is attractive. The interviewee emphasized also the importance of personal service at the point of sales.

On the other hand, customers from the horeca market (restaurants, bars, hotels) know in advance what to order. By offering a variety of different types of crafted food in the shop, either from Greece or from abroad, the retailer eliminates the dangers of local sourcing problems and price fluctuations.

Since foods have limited shelf life, the withdrawal of products that have expired can result in a substantial cost, since suppliers may not accept such returns from retailers.

The overall turnover of food products supplied by the retail trade channels, slightly declined during the 2013/2014 period, in almost all the trade formats.

The estimated turnover by store format, is as follows:

FIGURE: ESTIMATED TURNOVER BY STORE FORMAT

YEAR 2014		YEAR 2013	
Channel	In mio Euro		In mio Euro
Super/Hyper markets	7,470		7,772
Discount stores (LIDL)	1,268		1,241
Small food stores	469		475
Traditional food stores	138		137
Self service stores	331		338
Total food stores	9,207		9,488

Source: IRI, 2015

There are few substitutes to food retail. Food service (Restaurants, mobile food service activities, event catering, takeaways, beverage serving activities) can be seen as a substitute to food retail products; however, for the vast majority of people, food service accompanies food retail rather than replaces it.

The key indicators for the food service operators are illustrated bellow:

TABLE: KEY INDICATORS FOR FOOD SERVICE ACTIVITIES

	Number of enterprises	Turnover
	(thousands)	(EUR million)
EU-27	1.519,0	330.732
Greece	79,5	7.494,1

Source: Eurostat (online data code: sbs_na_1a_se_r2), 2009

Hotels in Greece that include food service activities, are another important category for servicing food products. Their contribution to the sales of food products, is illustrated to the following figure:

TABLE: KEY INDICATORS FOR ACCOMODATION & FOOD SERVICE

	Number of enterprises	Turnover
	(thousands)	(EUR million)
EU-27	1.786,0	467.513
Greece	97,8	11.492,4

Source: Eurostat (online data code: sbs_na_1a_se_r2), 2009

Subsistence farming, is a more direct substitute, in which individuals or families farm food to provide for their own personal needs or to their relatives and friends. The threat from substitutes is assessed as weak (MarketLine, 2015).

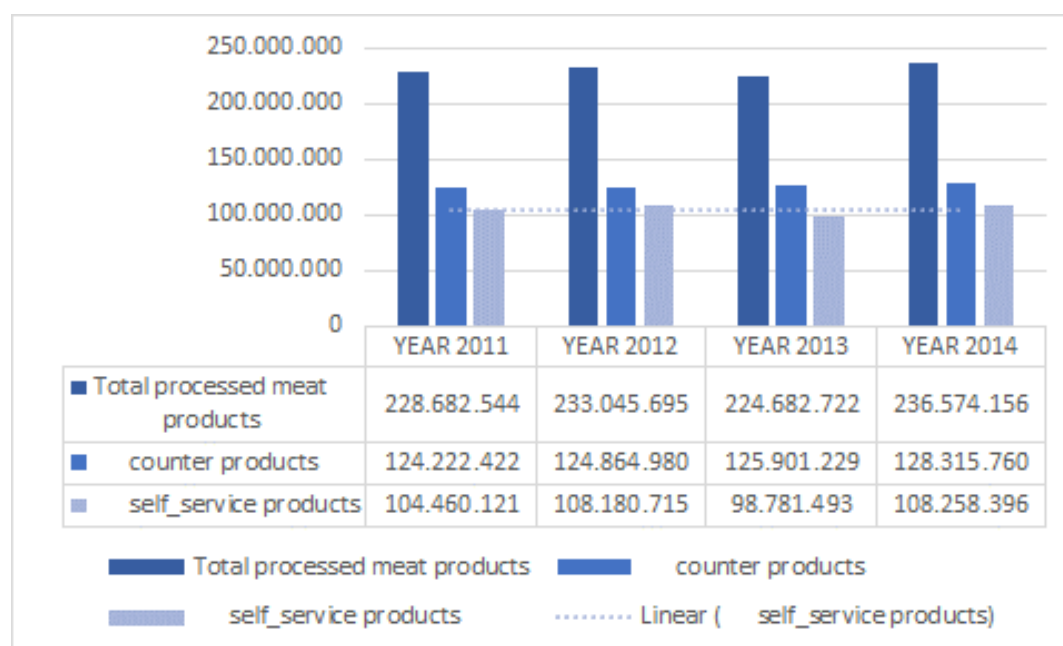
4.9.3 THE PLACEMENT OF MEAT AND FISH PRODUCTS IN THE CHAIN STORES

Meat and fish products are well positioned in the Super Markets throughout the country; both categories are either served at the deli counter or they are pre-packed on the self- service cool isles.

IRI HELLAS collects sales data from the super markets on a regular basis, analyzes them, and offers them to interested processors, in order to plan their marketing activities based on real market data. Sales data though, were available only for the processed meat products and not for fish, because of the limited turnover in the retail outlets and the lack of interest on behalf of the fish processors to acquire relevant data; as a result the analysis is limited to the analysis of the meat products.

The value of processed meat product sales increased in value, during the years of the economic crisis, and exceeded 235 millin euros, as illustrated below:

FIGURE : SALES VALUE OF MEAT PRODUCTS FROM S/M



Source : IRI, 2015

The value of the products served from the counter, exceeded the value of the pre-packed meat products, during all those years.

The volume of sales increased substantially in 2014, whilst consumer preference is divided between individual packs and service from the deli counter, as illustrated below:

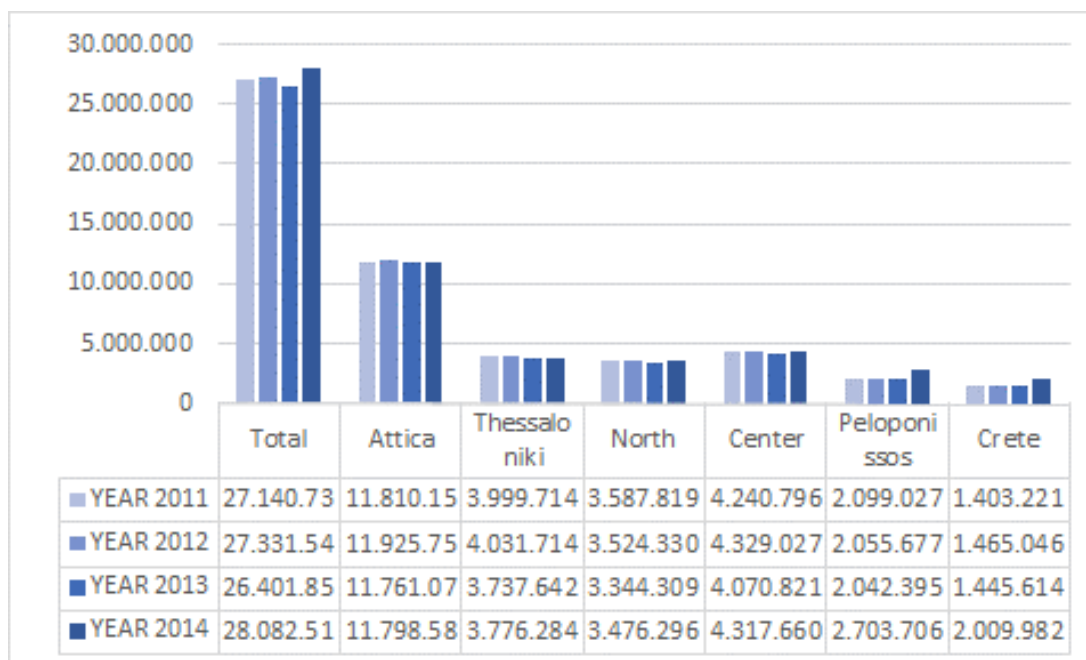
FIGURE : SALES VOLUME OF MEAT PRODUCTS FROM S/M



Source : IRI, 2015

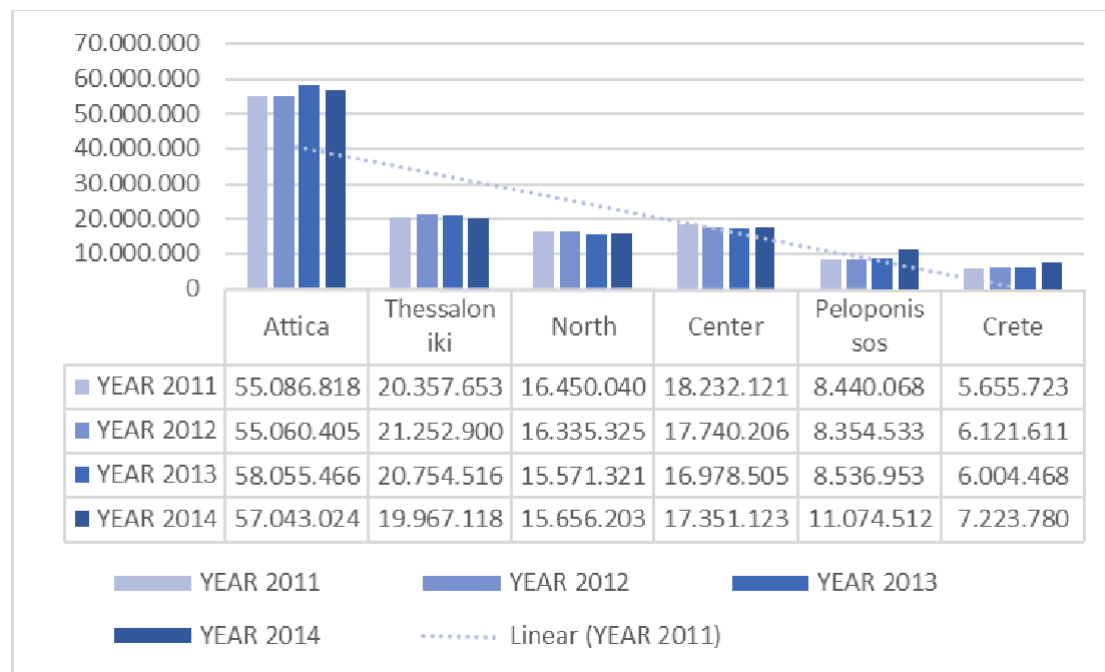
The regional consumer preference for meat products is illustrated below:

FIGURE : REGIONAL SALES VOLUME OF MEAT PRODUCTS



In Attica, the purchased meat products represent almost 42% of the total sales volume in Greece. An increase in the purchased quantities is noted; a substantial increase in consumed quantities in Peloponissos and Crete, in 2014.

The regional sales value of meat products from the deli-counter is illustrated below: **FIGURE : REGIONAL SALES VALUE FROM THE DELI COUNTER**

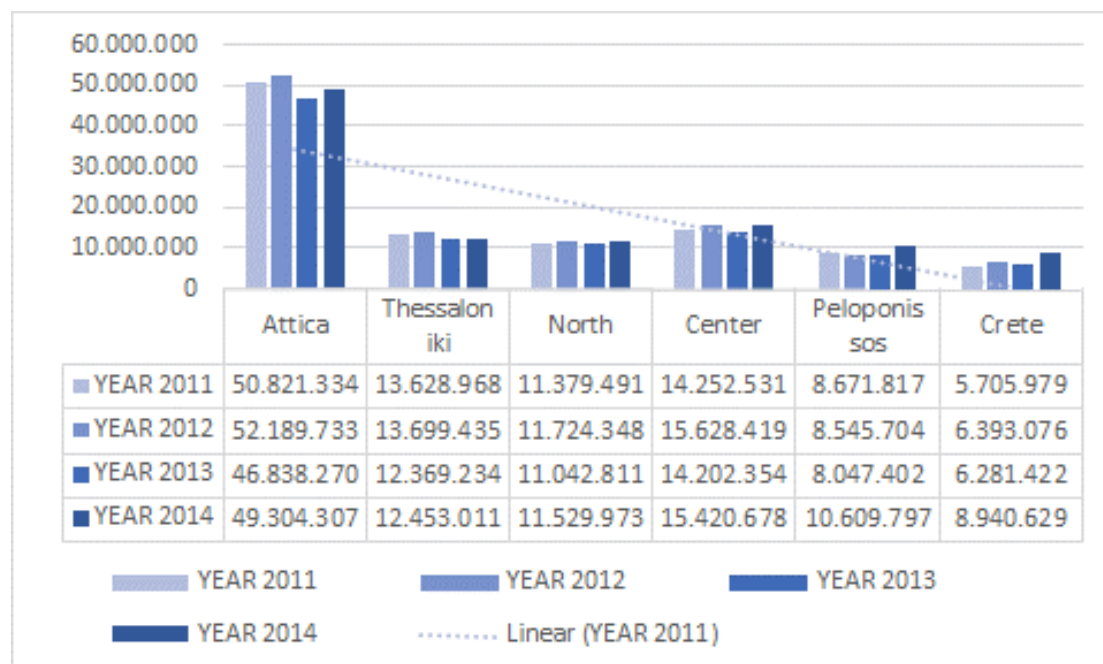


Source : IRI, 2015

Attica is the key consumption region, where however a decline in sales could be noted in 2014; Peloponissos is the region with the highest increase in sales in 2014, which could be the result of intensive marketing efforts of the producers in the region.

The same trends are applicable for the sales value of the self-service products, as illustrated in the figure below:

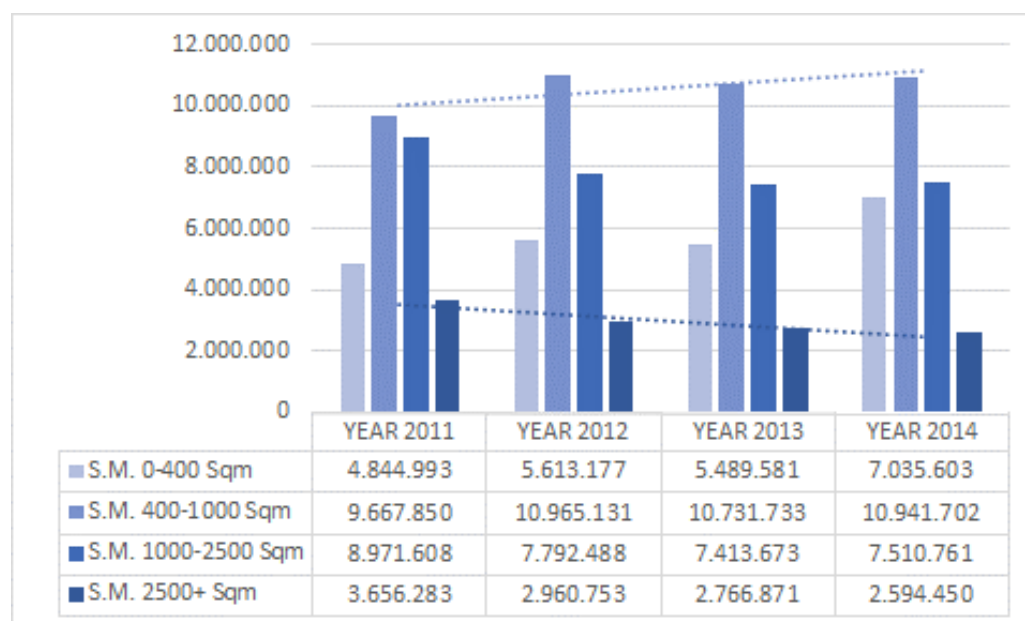
FIGURE : REGIONAL SALES VALUE FROM THE SELF SERVICE ISLE



Source : IRI, 2015

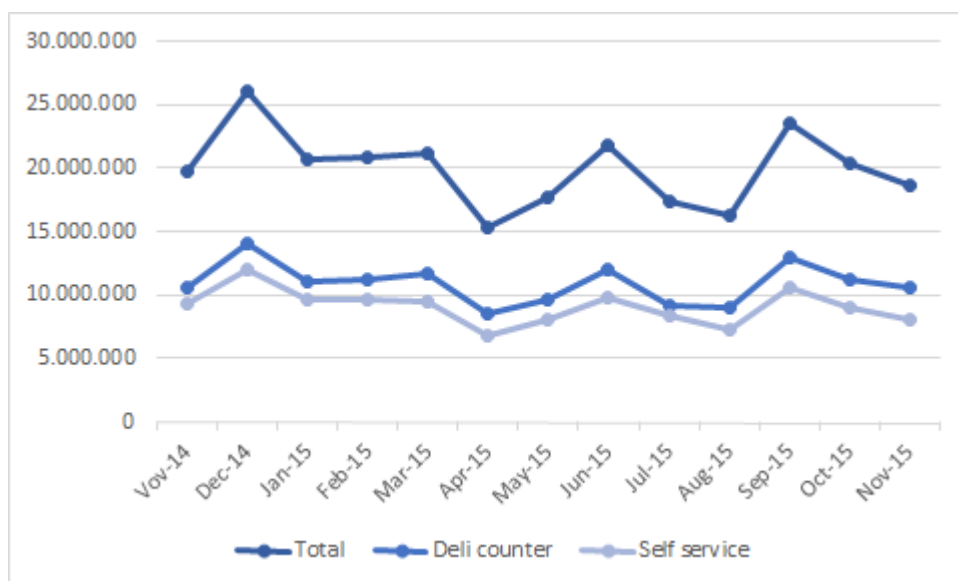
The consumer purchasing habits are concentrated on Super Markets of 400-1,000 square meters, whilst a reduction of purchased quantities is noted in the hypermarkets, mainly because cannot afford anymore to make bulk purchases in a period of economic crisis. In contrast, a consumer trend to buy from the neighbor, small surface, super market is obvious, when considering the fact that the quantities from the smallest stores, almost doubled during the period of the last 4 years.

FIGURE : SALES VOLUME BY RETAIL OUTLET FORMAT



Source : IRI, 2015

A clear seasonality pattern during the year 2015, is illustrated on the following figure: **FIGURE : MONTHLY SALES VALUE FROM THE S/M IN 2015**



The consumer preference on specific meat products from the deli counter, is illustrated below:

TABLE : SALES VOLUME OF MEAT PRODUCTS FROM THE DELI COUNTER

	YEAR 2011	YEAR 2012	YEAR 2013	YEAR 2014
Counter products	14.067.601	13.971.357	14.115.962	14.360.194
<i>bacon</i>	734.467	742.966	768.523	769.083
<i>brizola</i>	164.795	124.003	129.051	141.644
<i>turkey/fileto</i>	4.656.389	4.747.354	5.353.285	5.793.659
<i>sausages_coctail</i>	55.470	56.627	46.908	36.036
<i>sausage_frankfourtis</i>	568.078	495.068	422.011	411.418
<i>sausages_traditional</i>	1.526.578	1.541.148	1.503.902	1.456.245
<i>mortadella</i>	555.078	518.116	462.625	490.860
<i>pariza</i>	3.009.614	3.073.318	2.921.084	2.858.927
<i>parizaki</i>	308	3.256	4.336	2.241
<i>salami_aeros</i>	546.244	527.841	503.680	460.068
<i>salami_vrasto</i>	280.219	233.975	235.516	220.665
<i>omoplati</i>	1.120.179	1.110.466	940.931	792.331
<i>zambon</i>	640.338	606.746	635.190	694.424
<i>all_others</i>	209.836	190.466	188.917	232.594

Source : IRI, 2015

A clear preference on the healthy choice of turkey fillets (40% of the total sales) purchased from the deli-counters, and an increased volume of purchase, followed by boiled pariza, which however declined the last year, 2014; traditional sausages are a clear preference from the deli-counter.

TABLE : SALES VOLUME OF SELF SERVICE MEAT PRODUCTS

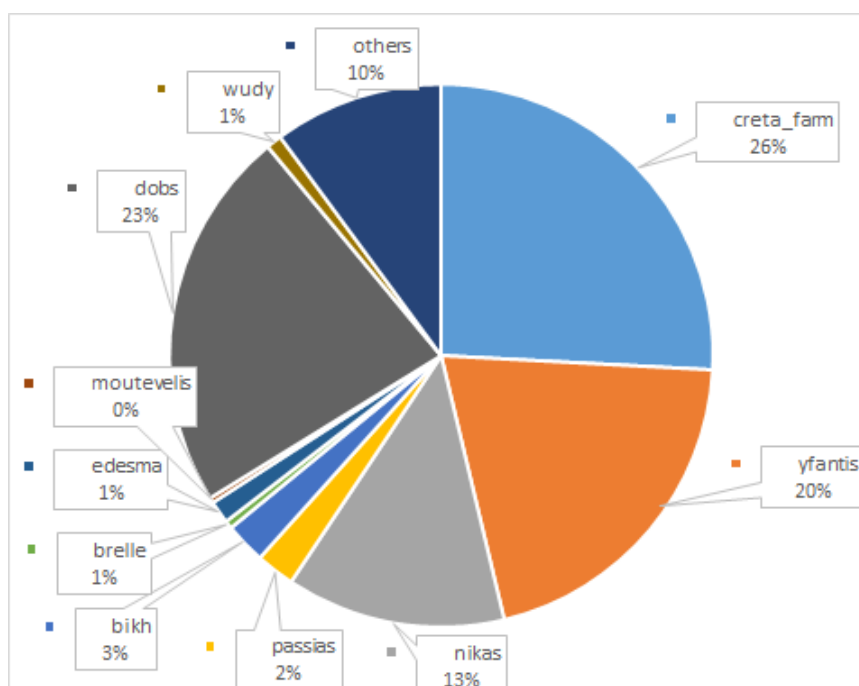
	YEAR 2011	YEAR 2012	YEAR 2013	YEAR 2014
Self-service products	13.073.133	13.360.192	12.285.897	13.722.322
<i>bacon</i>	597.315	721.174	755.467	820.296
<i>brizola</i>	115.598	125.474	127.264	121.061
<i>turkey/fileto</i>	1.492.292	1.655.868	1.836.023	2.112.883
<i>small turkey/fillet</i>	141.362	152.705	170.337	187.082
<i>sausages_coctail</i>	521.489	527.041	468.890	467.275
<i>sausage_frankfourtis</i>	1.740.522	1.869.964	1.688.862	2.188.246
<i>sausages_traditional</i>	1.191.744	1.386.675	1.290.128	1.678.043
<i>mortadella</i>	343.041	395.414	408.948	421.065
<i>pariza</i>	1.185.669	1.208.830	1.181.648	1.207.133
<i>parizaki</i>	3.947.274	3.448.559	2.639.532	2.883.089
<i>salami_aeros</i>	480.986	474.321	463.907	531.142
<i>salami_vrasto</i>	208.985	220.844	257.236	184.418
<i>omoplati</i>	422.203	455.631	447.468	394.340
<i>zambon</i>	546.834	588.551	437.869	400.969
<i>all_others</i>	137.818	129.142	112.318	125.281

Source : IRI, 2015

4.9.4 THE POSITIONING OF KEY MARKET PLAYERS IN S/M

Large meat and fish companies position their produce in the Super Markets, nationwide. Unfortunately, there are no available data for the processed fish products, and as a result the analysis that follows is concentrated on processed meat products.

The market shares in 2015 (sales values until November 2015) are illustrated as follows:



The S/M sales are monopolized by three key players that dominate 59% of the total sales value in processed meat products: Creta Farm 26%, Yfantis 20% and Nikas 13%.

TABLE : MARKET SHARES BASED ON SALES VALUE

	YEAR 2011	YEAR 2012	YEAR 2013	YEAR 2014	YEAR TO DATE NOV2015
creta_farm	↑ 20,0	↑ 20,8	↑ 24,3	↑ 25,2	↑ 25,8
yfantis	↑ 21,5	↑ 21,4	↑ 20,3	↑ 18,8	↑ 20,4
nikas	⇒ 13,4	⇒ 11,7	⇒ 12,2	⇒ 13,1	⇒ 13,0
passias	↓ 3,1	↓ 2,9	↓ 3,0	↓ 2,7	↓ 2,3
bikh	↓ 8,5	↓ 6,2	↓ 4,4	↓ 3,1	↓ 2,4
brelle	↓ 0,5	↓ 0,6	↓ 0,4	↓ 0,6	↓ 0,5
edesma	↓ 1,8	↓ 1,9	↓ 1,4	↓ 1,5	↓ 1,4
moutevelis	↓ 0,4	↓ 0,4	↓ 0,4	↓ 0,3	↓ 0,3
dobs	⇒ 17,1	↑ 21,3	↑ 21,3	↑ 22,5	↑ 22,8
wudy	↓ 0,6	↓ 0,7	↓ 0,7	↓ 0,9	↓ 0,9
others	⇒ 13,1	⇒ 12,1	⇒ 11,6	⇒ 11,2	⇒ 10,1

TABLE : MARKET SHARES BASED ON SALES VOLUME

	YEAR 2011	YEAR 2012	YEAR 2013	YEAR 2014	YEAR TO DATE NOV2015
creta_farm	⇒ 18,1	⇒ 18,1	↑ 22,9	↑ 22,0	↑ 22,2
yfantis	⇒ 17,9	⇒ 18,1	⇒ 16,9	⇒ 15,8	⇒ 17,2
nikas	⇒ 10,9	↓ 9,3	↓ 9,7	⇒ 10,8	⇒ 10,9
passias	↓ 2,7	↓ 2,4	↓ 2,6	↓ 2,3	↓ 2,1
bikh	⇒ 9,8	↓ 7,6	↓ 5,8	↓ 4,3	↓ 3,4
brelle	↓ 0,6	↓ 0,8	↓ 0,4	↓ 0,6	↓ 0,5
edesma	↓ 1,9	↓ 1,7	↓ 1,3	↓ 1,5	↓ 1,4
moutevelis	↓ 0,6	↓ 0,6	↓ 0,5	↓ 0,5	↓ 0,5
dobs	↑ 22,7	↑ 26,9	↑ 26,3	↑ 28,6	↑ 28,6
wudy	↓ 1,3	↓ 1,6	↓ 1,7	↓ 2,0	↓ 2,0
others	⇒ 13,5	⇒ 13,0	⇒ 11,9	⇒ 11,6	⇒ 11,3

Source : IRI, 2015

Creta farm, is a clear leader of processed meat goods, that grew its market share through the years of economic crisis. It worths mentioning that it is Greek company, that followed a path of development in the meat and deli meats sector in Greece, based on innovation and a balanced healthy diet focus; it revolutionized the deli meat market with its En Elladi (translation :in Greece), in which they use prime quality meat cuts incorporated with extra virgin olive oil in its natural form, thus managing to change dietary habits in the country and abroad, but also gained the recognition of the international scientific and business communities.

A great variety of brand names, product lines is managed by the company, with a substantial breadth and width.

Yfantis, is a Greek company, with an international focus, holding subsidiaries in three countries: Bulgaria, Romania, Cyprus, and a substantial export activities. The company dominates the pariza (boiled cut meat) section, with a share that exceeds 30%; it was achieved through substantial investment on advertising, targeting specifically the kids segment. The company includes a variety of brand names and product lines, aiming to target different market segments.

Nikas, with a history of almost 40 years, lost the market leadership some years ago. Still, the company continuous to be loyal to its long tradition, targeting to an established place around the family table, offering tasty, quality and innovative products for the whole family and for any time of the day.

Nikas, the last years, put substantial effort to increase its market share in the leading product of turkey fillets, as illustrated in the figure below:

TABLE : MARKET SHARES BASED ON TURKEY SALES VOLUME

	YEAR 2011	YEAR 2012	YEAR 2013	YEAR 2014
total_creta_farm_turkey/fileto comp.	27,1	27,5	30,4	33,3
total_0-3%_turkey/fileto br.	7,3	5,9	4,5	3,9
total_en_elladi_turkey/fileto br.	15,2	14,2	14,8	17,9
total_filiko_turkey/fileto br.	4,2	5,1	4,9	3,0
total_snack_turkey/fileto br.	0,2	0,1	0,1	0,1
diafano creta_farm turkey/fileto	0,2	1,8	3,4	4,2
total_others_creta_turkey/fileto br.	0,0	0,4	2,9	4,2
total_yfantis_turkey/fileto comp.	23,0	23,2	21,3	19,1
total_yfantis_turkey/fileto br.	23,0	23,2	21,3	19,1
total_nikas_turkey/fileto comp.	15,3	13,5	17,0	18,1
total_nikas_turkey/fileto br.	14,7	13,4	14,5	12,3
total_fuego_turkey/fileto brand	0,0	0,0	1,1	2,4
total_eklektas_farmes_turkey/fileto br.	0,0	0,0	1,1	2,1
total_amer_georg_sxol_turkey/fileto br.	0,0	0,0	0,3	1,3
diafano nikas turkey/fileto	0,6	0,1	0,0	0,0
total_passias_turkey/fileto comp.	1,6	2,3	2,8	2,4
total_passias_turkey/fileto br.	1,6	2,3	2,8	2,4
total_bikh_turkey/fileto comp.	6,9	4,0	2,4	1,7
total_bikh_turkey/fileto br.	4,0	2,9	2,2	1,7
diafano bikh turkey/fileto a	2,9	1,1	0,1	0,0
total_brelle_turkey/fileto comp.	0,3	0,5	0,4	0,5
total_brelle_turkey/fileto br.	0,1	0,1	0,1	0,0
total_lakonikh_turkey/fileto br.	0,0	0,0	0,0	0,1
diafano brelle turkey/fileto	0,2	0,4	0,3	0,4
total_edesma_turkey/fileto comp.	1,0	1,3	0,7	0,8
total_edesma_turkey/fileto br.	1,0	1,3	0,7	0,8
total_dobs_turkey/fileto comp.	17,1	21,9	19,8	20,0
total_others_turkey/fileto comp.	7,8	5,8	5,1	4,1

Passias, Viki, Brelle, and Edesma, are small local traditional companies, that are active for many years in the sector, and although they have a nationwide presence, their market shares are higher in the areas that are established.

Moutevelis, is a small family business, committed to offer the Greek market a complete line of traditional country sausages of high quality and precious flavor. Originated from Kalamata, the company holds 0,5% market share only by offering hand-made country sausages with the same authentic and traditional way, for more than 40 years.

The sales value of traditional sausages in 2014 exceeded 18 million euros, and hence represent an important product to market. An increased trend for traditional sausages that exceeded 13% is noticed in 2015, especially from the self-service section, with the value of traditional sausages to reach 9.785.899 euros in a period from JAN-NOV 2015, from 8.648.932 euros, in the corresponding period of 2014.

The market shares of the companies in terms of sales volume are illustrated below:

TABLE : MARKET SHARES - TRADITIONAL SAUCAGES SALES VOLUME

	YEAR 2011	YEAR 2012	YEAR 2013	YEAR 2014
total creta farm sousages traditional comp.	7,3	9,4	8,2	11,0
total_en_elladi_sousages_traditional br.	4,0	3,4	3,4	3,7
total_filiko_sousages_traditional br.	0,9	1,0	0,9	0,6
total_family_sousages_traditional br.	0,1	0,1	0,1	0,0
total_snack_sousages_traditional br.	0,1	0,0	0,0	0,0
diafano creta farm sousages traditional	2,2	4,4	1,4	0,9
total_others_creta_sousages_traditional br.	0,0	0,7	2,4	5,8
total yfantis sousages traditional comp.	5,7	5,8	5,8	4,5
total_yfantis_sousages_traditional br.	5,7	5,8	5,8	4,5
total nikas sousages traditional comp.	6,4	5,0	3,8	3,4
total_fuego_sousages_traditional br.	0,0	0,0	0,0	0,1
total_nikas_sousages_traditional br.	6,4	5,0	3,8	3,3
total passias sousages traditional comp.	3,1	2,7	2,6	2,3
total_passias_sousages_traditional br.	3,1	2,7	2,6	2,3
total bikh sousages traditional comp.	7,6	4,4	8,1	7,9
total_bikh_sousages_traditional br.	2,5	1,7	2,3	1,9
diafano bikh sousages traditional	5,1	2,7	5,8	6,1
total brelle sousages traditional comp.	0,7	0,9	0,5	0,7
total_brelle_sousages_traditional br.	0,1	0,1	0,0	0,0
total_jakonikh_sousages_traditional br.	0,0	0,0	0,1	0,2
diafano brelle sousages traditional	0,6	0,8	0,4	0,4
total edesma sousages traditional comp.	1,4	1,7	1,4	1,1
total_edesma_sousages_traditional br.	1,4	1,7	1,4	1,1
total moutevelis sousages traditional comp.	5,6	5,3	4,8	4,2
total_moutevelis_sousages_traditional br.	5,6	5,3	4,8	4,2
total dobs sousages traditional comp.	9,5	10,3	9,9	10,2
total others sousages traditional comp.	52,6	54,5	55,0	54,8

4.9.5 THE POSITIONING OF SPECIAL MEAT PRODUCTS BY SMEs

Marketing mix decisions form a major aspect of marketing concept implementation and have positive or negative implications on the marketing performances of the companies. Marketers need to plan and implement successful marketing mix tactics so that they satisfy or exceed customer needs better than competition.

In order to analyze their marketing mix plans, the managers of nine SMEs (i.e. six companies operating in the meat sector and three companies operating in the fish sector) gave oral explanations on the relative questions in the questionnaires and showed relative supporting material regarding the same matter. The qualitative findings gave better insights into specific relevant topics. Furthermore, more personal interviews have been conducted with two representatives of the National Federation of the Butchers in Greece and from a delicatessen shop, in order to get insight information about the retail market.

The qualitative findings of the empirical research are presented as follows:

- " The marketing mix of special meat products (buffalo meat, pork meat from indigenous black swine fed with olive oil pulp, rabbits and roosters)
- " The marketing mix of other meat products
- " The marketing mix of seafood
- " The food retail market in Greece

Although personal interviews are expensive and time consuming in comparison to other research techniques, they are useful when dealing with questions which require clarifications (Paurav Shukla, 2008). Three personal interviews have been conducted with producers of special meat processed products.

The first respondent, who is a 2nd generation farmer, had the innovative idea to produce fresh and cured pork meat from an indigenous Greek breed. Therefore, he bought certified sows with a DNA profile similar to that of the ancient Greek black swine. The Greek black pig is a breed raised in Greece and is known for the high quality of its meat for cured products. Today, he has a farm of 200 sows pure breeds. Additionally, in order to differentiate his products from competition, he feeds the indigenous black pigs

on his farm with olive oil pulp. Due to this special nutrition, pork meat has unique characteristics, such as special aromas, flavor and nutritional elements (higher level of $\omega 3$ & $\omega 6$ fatty acids and iron (Fe) compared to the common pig or the black swine that is not bred with olives). The production of meat products from indigenous black pigs is quite distinct from other meat products obtained from selected pigs raised under intensive conditions on industrial farms, and it is a good example of high quality and highly prized meat product. In the last few years, despite the economic crisis in Greece, there is an increasing demand for these products. Therefore, there are more efforts for breeding, in order to increase the production capability and satisfy the renewed demand for top quality meat and cured products. The product range of this company includes smoked pork ham, sausages and smoked pork pancetta. These are not mainstream products but target specific groups of customers.

The respondent compares his products with the meat products of the black Iberian pig. The black Iberian pig lives primarily in southwestern Spain and in some areas in Portugal. The pigs roam in pasture and are fattened on acorns and olives. After slaughter, the curing process takes from 12-48 months, for the production of the famous *jamonés ibéricos* (ibérico hams). Iberico ham is one of the world's most exquisite foods with a sweet, nutty and not too salty flavor.

Mainly, the products of the first respondent are being sold to the gourmet restaurants. Today, there are 17 gourmet restaurants in Greece with stable number of loyal guests. Restaurants can lead culinary trends and introduce unexpected foods. The interviewee targets the maîtres of these restaurants, since maîtres advise guests on menus and can influence their choices by 35%. Promotional activities include the organization of special culinary events, during which maîtres have the opportunity to test the meat products and receive free samples. The respondent participates also in the MEAT DAYS exhibition in Greece and in culinary competitions. Additionally, he has a web site for his company and advertises his products on special magazines (e.g. Gastronomos, Meat Place, Meat News, The Grill). However, he considers other promotional activities or participation in more exhibitions, either in Greece or abroad, as a waste of money, since he targets only specific group of customers and has a limited production capacity.

Another respondent, who is a 2nd generation butcher, had the idea to produce a range of buffalo meat products, such as sausage, the patented buffalo kavourmas, salami, smoked steak and burgers. He describes his products as traditional, special and innovative. Although he is not a breeder of buffalo by himself, he cooperates with buffalo breeders around the lake Kerkini. Today, there are 12 units inhabiting free water buffaloes in the region, and Kerkini is becoming a gastronomic destination, in the terms of enterprising activities and gastronomy tourism. According to the respondent, the buffalo meat is of highest quality; more protein, twice iron, less fat (unlike milk which is thicker) and full-bodied flavor doesn't differ a lot from veal's one. The respondent owns also a farm of pigs, however his core business is the processing of buffalo.

Despite the economic crisis in Greece, there is an increasing demand for buffalo meat products. Therefore, the businessman is increasing his product range and his turnover too. The competitive advantages of his products are their superior quality, innovation and heavy advertising & promotion. On the package of each product, there is a unique code trace ID. Consumers can scan the trade ID on their mobile phone or type it on the web site of the company, and receive traceability information about the product they bought, such as the area of breeding, and the date and place of slaughter. It is worth mentioned here that all buffalo meat products of the respondent are packaged under his brand name, with the exception of the fresh meat being sold in his butcher shop. There are two purposes for selling only packaged products. Firstly, packaging carry messages regarding the product. Labeling informs consumer choice. The right packaging can visually support the brand through the use of logo, slogan and product values. Secondly, it is a measure against fraud, since the sale of bad quality veal meat as buffalo meat is a common phenomenon in this market, and a threat as well. The information about the product provided on its package is a critical success factor for sales. The interviewee commented also on the importance of the information given to consumer from the person who serves him at the point of sales, and added that his customers are informed, savvy and of higher income, since buffalo meat products are being sold more expensive compared to bovine and pork meat.

Consumers are becoming more and more concerned with the origin and the fabrication process of the meat they eat. The labeling of the origin is compulsory for meat products according to the EU traceability and labeling regulations. A step further, some inter-professional groups in France, responded to this demand by creating a new voluntary label called "Viandes de France" (i.e. Meats from France). "Viandes de France"

concerns all products made from meat: raw meat, carved meat, cooked meat, meat in ready-made meals, etc. It also applies to all types of meat: beef, veal, lamb, pork, chicken, horse and rabbit. Each kind of meat has its own logo (7 in total). There are always a certain amount of requirements that a product must fulfill in order to get the label. Putting the “Viandes de France” label on a product means the meat used to make it comes from animals “born, raised, slaughtered, sliced and transformed” in France. Moreover, E.U. requirements regarding animal welfare (healthy feeding, comfortable environment, minimal suffering), environmental standards, and French social standards (minimum wage, social protection of employees) are assured throughout each step of the product’s transformation. “Viandes de France” labeling serves as a sort of quality assurance and allows producers to highlight the caliber of their products at the point of sales.

Besides packaging, other methods of promoting products are applied in order to encourage consumers to buy buffalo meat products. Students from various areas of Greece visit the respondent’s premises and are being informed about his products. Chefs prepare recipes with buffalo meat and present them on TV. Advertising on specialized magazines and participation in culinary competitions are other effective ways to raise awareness of buffalo meat products. Finally, the interviewer participates in HELEXPO and HORECA exhibitions in Greece, and in SIAL international food exhibition in France every two years.

However, success depends in more than a good product range and promotional campaigns. If distribution is poor, customers cannot buy the product. Interviewer is targeting the gourmet restaurants, Friday’s restaurants and deli retailers. He is also selling his products to hotels and to the supermarket “Alfa-Beta Vassilopoulos”, however he cannot produce more products in order to sell to more supermarkets or for exporting due to inadequate raw material (buffalos). On the other hand, the lack of raw material of Greek origin (i.e. buffalos born and reared in Greece) represents a barrier for newcomers who wish to enter this market. There is always the threat of imported buffalo meat from other countries. The respondent pointed the opportunity of creating special retail shops where consumers could find a range of products made of buffalo, such as buffalo milk, meat, cheese, pasta etc.

Personal selling is crucial since the sales persons provide information regarding the products and the manufacturing company to customers. Both interviewers do not have

a sales force, due to their limited production capacity. They sell their products directly to one or two wholesales in Athens and one wholesaler in Thessaloniki. They also distribute their products directly to the central warehouse of Alfa-Beta supermarket. The interviewer of the pork meat distributes his products also to the central warehouse of METRO supermarket. Small quantities can also be sold occasionally to smaller wholesalers throughout Greece and local restaurants.

Both businessmen do not plan to expand to foreign markets yet, due to their limited production. In case they expand to foreign markets in the future, they will primarily target the gourmet restaurants. Interviewees also commented on:

- " The above mentioned markets are not saturated. Demand exceeds production capacity.
- " Culinary tourism is an opportunity. Local producers can cooperate with local restaurants and hotels in order to boost economy at their regions.
- " Small local producers can cooperate and develop synergies among them, in order to increase their production capacity and bargain power.
- " There is an increasing demand in Europe for slow maturation products. In Greece, small producers need relative training due to inadequate know-how, and consumers need to be informed about their characteristics.
- " Although gourmet meat is being sold at higher prices, there is a stable demand for it.
- " Although still lower than the European average, the consumption of turkey meat in Greece is increasing.
- " Consumption of local (traditional) products appears to be stable or rise slightly; however consumers are very conscious about prices.
- " Since consumers are becoming more conscious about the negative effects of salt (sodium) on the human health, salt reduction in meat products is a challenge for this industry. Consumers are also keen on the quantity of preservatives in meat products.

The third interviewee of this group category owns a family & vertically integrated entity, including a farm of rabbits and roosters, a slaughterhouse and a processing company. He produces traditional Cretan sausages and apaki by using the meat of

rabbits and roosters, and other gastronomy specialties. He imitates Italian recipes for rabbit which are adapted to the local preferences and taste. However, the percentage of traditional products represents only a very small percentage of the overall turnover, whereas packing the whole animal is the core business. Overall turnover remained stable during the last five years of the economic crisis in Greece. This entrepreneur stressed the importance for traditional recipes to be certified. PDO and PGI certifications would be interesting. Specific production guidelines need to be given to the processors because there is a trend to change the recipes and violate the traditional processing methods, for example apaki with preservatives. Another trend is the “ready to eat cooked products (RTE)”. RTE is defined the meat or poultry product that is in a form that is edible without additional preparation. However, this may receive additional preparation to make the product taste better and/or look better, and can include frozen meat and poultry products. Although RTE food is convenient, some require special handling to ensure food safety. The respondent receives support regularly from the Agriculture University of Athens, and is interested in receiving support for sensory analysis and recipe development, as well as to participate in a food business incubator.

The competitive advantages of his products are their high quality and brand awareness. Prices are higher than other meat products. It is important to mention here that the interviewee uses only local raw material for his products, which cost higher than the imported ones. If he was using imported raw materials, he could be able to compete with lower prices. The imported processed meat is the main threat in this sector. Promotion techniques are expensive for him, so the respondent promotes his products through public relations. His sales cover the local market in Crete, and recently he started delivering quantities to Athens.

4.9.6 THE POSITIONING OF OTHER MEAT PRODUCTS BY SME'S

Three personal interviews have been conducted with three producers of beef, poultry or pork meat processed products. It is worth mention here that the two of them own also retail shops where their products are being sold.

The first businessman, who runs a 3rd generation family business, specializes in producing gourmet and innovative veal, poultry and pork processed meat products. His strength is his deep knowledge in the slow maturing processing method. Meat is let in the maturing cabinets or maturing chambers of specific conditions for a period of time,

i.e. air temperature, humidity and atmospheric pressure. Due to this processing method, meat products have special flavor and tenderness, as natural enzymes work on the meat. However, not only the processing method adds value to the products. Special recipes from Cappadocia, a region in Central Anatolia (Turkey), are being followed. Traditional recipes are “up-to-dated” by adding ingredients such as black truffle, cones, herbs and blueberries. Product range includes traditional meat products (sausages from Cappadocia, kavourmas from Anatolia etc.), turkey fillet with cones and chestnuts, smoked gammon with black pepper, rosemary or herbs, prosciutto, smoked meat with nuts, soutzouki, and others. The respondent emphasized the stable quality of the products, most of which are patented. He also stressed that although their high prices, the sales increase considerable per year. For him, higher product price indicates a higher level of quality. Consumers of his products are not price sensitive and are concerned with the quality and uniqueness of the products. The interviewee will invest in production and expand his product range in order to meet increased consumer demand in Greece and foreign markets.

It is worth mentioning here that the respondent follows the trends in the processed meat market in foreign countries. He substitutes imports with similar products that he produces by applying traditional recipes to them and by adding trendy ingredients. Actually, he adapts them to the preferences of Greek consumers. Therefore, he substitutes the Italian prosciutto with his prosciutto from Drama (a region in Greece), the Italian gammon with his gammon from Cappadocia, the salami with his “traditional” salami, Spanish “jamon” with his grilled “jamon” with black pepper etc. The packages of the products are small, following such trend in Europe. Promotion of his products includes advertising in magazines, brochures, participation in “HORECA” exhibition in Greece, web site and advertising in the media (TV and radio). From next year, he intends to exhibit his products in SIAL and ANUGA international food exhibitions in Paris and Germany accordingly.

The interviewee focuses in direct sales, by developing a sales force of nine people, instead of selling through commercial partners. He distributes his products from his

(two) logistics centers in Northern and central Greece. His customers are the deli shops, restaurants, bakery and pastry shops, and hotels, while the supermarkets, besides “Alfa- Beta”, are not of his interest yet, since his products are exclusive and highly priced.

Culinary tourism can be an opportunity in Greece. However, mainstream foods are being sold to the hotels, rather than crafted foods, due to their lower prices. As local, crafted foods are more expensive, they could result in an increase in the prices that the hotels charge to the customers.

Finally, Greece became popular now days due to its economic situation. Multiple articles about the Greek economy have been published in the most popular newspapers and magazines in the world, or in the internet, and it was on the TV and radio news of foreign countries. It can be an opportunity for the Greek producers to expand to foreign markets by capitalizing on this popularity.

In an attempt to explore the possibility of producing meat products serving the markets with Muslim population in Greece or abroad, an interview with a Muslim processor of crafted non-pig meat products has been conducted. This businessman employs seven people. His product range includes meat preparations such as meat rolls marinated with seasonings, beef kavourma, traditional sausages, common kebab or kebab with mushrooms, souvlaki, and other processed products such as Frankfurt sausages. He serves the local market and delivers the products by his fridge truck. He considers as an opportunity for him to substitute imported products for Muslims with his products. There is a large market of Muslims in Athens, Turkey, Arab countries, France, Germany, UK and other European countries. The interviewee has already contacted traders of halal products; however everything stops at the fact that there is no certified halal slaughterhouse in Greece.

Demand for halal meat, an important feature of life across Muslim communities, is growing rapidly as the Muslim share of the global population has increased steadily and is projected to reach about 26% by 2030. This growth means halal meat products are expected to enjoy steady increases for years to come (Euromonitor International, 2015).

Company’s sales and product range have increased during the last five years, so there is a demand for such products in Greece. Interviewee capitalizes on product quality, low prices and product innovation. The interviewee promotes his products through the

word of mouth and brochures. He is keen in receiving professional advice on marketing planning. Also, he considers that there is a potential in culinary tourism in Greece. Tourists can be aware of the local gastronomy by tasting local foods at the restaurants and festivals.

It is also worth mentioning that this businessman developed his business by himself. The main challenges that he faced when setting up his business were:

- Advice on selecting the appropriate process equipment
- Not enough investment & operating capitals
- Lack of networks (professional networks, suppliers etc.)

The third interviewee is an importer of meat, meat processor and also the owner of a special retail shop of cured meat products. He sells to the local market either fresh meat or processed meat that he produces, such as poultry kebab, souvlaki, cured meat (ham, pariza, salami), various sausages, schnitzel, burgers, local specialties (smoked sausage with paprika, smoked mortadello etc.), and smoked chicken fillets. He serves the local catering market (butchers, local mini markets, restaurants, hotels) and the final consumers. His products are innovative, of high quality and low prices. Since he is already well known in the local market, the respondent promotes his products through the word of mouth and the website of his company.

The entrepreneur faces intense competition from the supermarkets. According to him, there is an increase in the demand of poultry products. The quality of meat products nowadays decreases, as customers see the value benefit of purchasing cheaper foods. As a result, low priced private label products are expected to become more popular. The respondent explained that it is an opportunity for him to produce private label meat for the supermarkets. A variety in the sizes of the packages responds to the needs of various customers. Overall, the respondent welcomes external advising from authoritative partners since his firm is small.

4.9.7 THE POSITIONING OF SEAFOOD BY SMEs

The core element in the marketing mix is the company's products. The producers of two SMEs operating in the seafood market described their product range. This includes smoked products (octopus, trout fillets, herring, mackerel), marinated products (sardine

fillets in oil, marinated octopus with pickles, marinated spicy anchovy fillets), salted products (salted white meat tuna, salted bonito slices), dried mackerel salad, fish pastourmas, Greek traditional tarama salad, dried mackerel salad, and others. A third entrepreneur operating in the shellfish sector (oysters, shells, mussels, crabs etc.) adds his comments and experience.

The two entrepreneurs operating in the fish processing sector agree that this market is mature in Greece. Fish is extremely perishable food. Spoilage begins as soon as fish dies, and processing should start quickly in order to retain quality and increase shelf life. It may also deal with value-adding to produce a wide variety of products. Since the processing of some fish takes place only twice a year, producers have to plan their production accurately in order to avoid stock outs or overstocks. Products need to be in adequate quantities at the time when customers want to buy them. Both entrepreneurs invest in R&D and high product quality.

The first businessman processes also salads, stuffed pickles, dressing and sauces, besides seafood. All products are “gourmet” and target the delicatessen shops and the restaurants. He also sells small quantities to few supermarkets, although they are not of his interest due to their increased bargain power. The respondent considers himself as an innovator. However, he doesn’t patent his products as he wants his competitors to copy them. In such the way, the consumers are educated about the new products and the market share grows.

Only innovation does not make brands pioneers in the market nor leads to commercial success. Promotional activities are important to communicate innovations to the target segments. His promotions include a few publications on the press, leaflets, participation in exhibitions (in Greece or abroad) and the web site; however the entrepreneur cannot afford more promotions due to limited budget. Flexibility is a company’s strength. The respondent described how fast he copies competitors and satisfies new market trends. A critical aspect of product policy concerns the adaptation of products to the new needs and preferences of consumers. Nowadays, consumers are becoming more conscious about the negative effects of salt (sodium) and preservatives on human health, so salt and preservatives reduction in fish products is a challenge for this market.

Packaging creates product differentiation. The color, material and size of the package make difference in the perception of the buyers about the quality of the product. The

availability of innovative packages in Greece is limited. Jars and packages are imported from Italy only in big quantities (there is a minimum order of quantity), so wholesalers import only the most popular ones. Having the Greek flag on packaging differentiates the products at the point of purchase and influences consumers' buying behavior positively.

The respondent commented also on the numerous benefits of personal sales. In an attempt to increase control over the distribution network, he employs twenty salespeople who sell directly to customers, has developed a network of 37 commercial partners and runs five logistic centers throughout Greece (for all product ranges). Personal selling is an effective way to manage personal customer relationships. The sales persons act on behalf of the company.

The second interviewee who operates in the fish processing sector targets the mainstream market. He sells directly to leading supermarket chains such as Lidl, Veropoulos Bros, MAKRO and 5-Galaxias, either branded or private label products. He also supplies the catering market (hotels & restaurants) and smaller retail shops through wholesalers. The market share of private label products has increased rapidly over recent years in Greece. Consumer loyalty to well-known brands weakens, owing partly to the economic downturn and partly to the increased availability of private label products. The entrepreneur strives to push sales, since production operates below full capacity. He does not apply marketing or promotional techniques to attract more final consumers at the point of sales. In the horeca market, sales promotions, especially price-offs, aim to enhance sales.

The market for ready-to-eat food shows potential for growth due to changing lifestyles and eating habits adopted by consumers. These have led to a shift in the consumption patterns from conventional homecooked food to convenient ready-to-eat food. The entrepreneur believes that serving the hotels with ready to eat seafood dishes can be an opportunity. He also explained that because of the economic downturn and the saturated market of processed fish in Greece, he targets the foreign market. There is a demand of foreign companies and supermarkets for private label deep frozen seafoods, however this demand exceeds his production capacity. Finally, he stressed the importance of cooperation among the Greek producers in order to strengthen their presence in foreign markets.

The third company operates in the shellfish sector. The company supplies mussels and shellfish from certified fishermen/suppliers from Greece or abroad (Italy, Spain, Turkey), purifies them, packages them under his brand name and finally transfers the final products to customers. Through constant development in the field of live seafood, the company establishes as the primary purpose the provision of more and more species of excellent quality combined with reliable service to achieve complete customer satisfaction.

According to the businessman, shellfish is a traditional food only in some areas in Greece. Demand in Greece is growing slowly; some consumers still consider shellfish as dangerous for human health. Consumer information on the benefits of consuming shellfish can influence the per capita oyster consumption positively. On the other hand, there is a considerable interest of exporting such products to Hong Kong, US, Saudi Arabia and Italy. Inadequate raw material is the main obstacle for expanding in foreign markets. The cultivation and processing of shellfish in Greece can substitute imports from Italy, Spain and Turkey.

The respondent explained that he sells his products to the domestic catering market (restaurants, wholesalers and fish markets). He exports mainly to Italy (90%) and few quantities to Spain. Products are available in packs of 1 kg to 10 kg. Promotion takes place through the word of mouth and the company website. The respondent explained that the production of private label products can be promising. Also, he welcomes external advising on marketing, trade and shell production.

4.9.8 CONCLUSION

The food regulatory framework in Greece is characterized by a restless nature. However, the impact of food legislation does not seem to affect the operations of small producers. In contrast, small scale producers such as butchers perceive hygiene and safety legislation as one of the bigger threats to their way of doing business. It should be noted though, that traditional production is subject to national derogations from hygiene requirements.

The sector produces a wide range of products with diversity in the ways of producing and raw materials used, which results in a great variety of processed meat and fish

products. The meat sub-sector is relatively traditional, with large and medium companies to include traditional or specialty product lines in their offerings.

Large processors position their products in the Super Markets, and are exploiting the sales growth of the last years. The Super Market outlets are monopolized by 3 companies that control almost 60% of the overall market. However, a number of small specialized producers position their products in the Super Markets and enjoy a nationwide presence.

Consumers base their decisions on nutritional and health values as well as on traditional produce; processed turkey, processed meat products with olive oil and traditional sausages are one of the main products that attract consumer preferences and a heightened demand.

Traditional produce is not limited to small scale producers but it is offered from the large leading companies, too.

Many of the small scale processors produce traditional regional products, applying traditional production methods. Some small-scale producers successfully focus on specialization, such as using local raw materials or meat from Greek breeds or rare meat types or processing methods, aiming in offering unique product characteristics. Some of them do not see benefits in the protection of unique product character, whilst others use patents as source of competitive advantage. Whilst there is a recognized number of traditional meat delicacies, the sales potential for protected geographic indication and “traditional speciality guaranteed”, remains unexploited for the sector.

Wholesalers, retailers and food service companies are an important link between the processors and consumers. Some small size processors are lacking the power to cooperate with S/M chains, although they control almost 95% of the overall food sales. Butchers are the most important group among the specialized retailers. Deli shops, mini markets, restaurants, hotels and culinary tourism are the main focus areas of the small scale processors that focus on tradition and locality.

4.10 CULINARY TOURISM

Culinary tourism or food tourism is the exploration of food as the purpose of tourism. It is now considered a vital component of the tourism experience. The goal of culinary tourism is to educate and inspire food and wine enthusiasts while giving the traveler a chance to explore the local area and learn about local food trends, cooking techniques and food history. Travelers can do so by participating in a cultural immersion experience at select destinations around the globe.

Culinary tours and travel packages can include a wide range of activities related to cooking, food sampling, food trends, wine making and baking. In addition to restaurant weeks in different cities, dining events and cooking competitions, culinary tourism encompasses culinary experiences, such as winery and brewery tours, tours of restaurants and food manufacturing plants, conferences and events with culinary professionals and cookbook authors, and ethnic food tastings.

Potential

According to the International Culinary Tourism Association, culinary tourism is growing exponentially every year. With the steady increase in interest of food channels, travel shows featuring local and regional cuisine, food documentaries and online culinary travel shows, more consumers are traveling to various destinations just to enjoy a new food and wine experience.

4.10.1 TOURISM IN GREECE

Greece is one of our most attractive tourist destinations worldwide. The geographic location, the history, the culture, the environment, the sea, the beaches, the food and the music are just some of the features that attract every year millions of tourists from every corner of the globe. However, tourism is characterized by seasonality, since the majority of tourists arrive in the summer months. This is both a problem for the tourist business and an opportunity for exploitation. The country has 9.677 hotels of all categories, over 770,000 hotel beds, and a very large set of companies and organizations that are directly linked to tourism as lodgings, transport and excursion companies, restaurants, nightclubs, shops, water sports, spa, etc. Table 53 shows the development of international tourist arrivals in our country.

Table 53 International tourist arrivals 2000-2014

Year	Arrivals	Percent change
2000	12.378.282	
2001	13.019.202	5,18%
2002	12.556.494	-3,55%
2003	12.463.411	-0,70%
2004	11.735.556	-5,88%
2005	14.388.182	22,60%
2006	15.226.241	5,82%
2007	16.165.265	6,17%
2008	15.938.806	-1,40%
2009	14.914.537	-6,43%
2010	15.007.493	0,62%
2011	16.427.247	9,46%
2012	16.946.543	3,16%
2013	17.919.580	13,68%
2014	23.000.000	12,55%

Source: Greek Tourism Confederation (SETE)

As shown in the above table, tourist traffic has presented a great increase in recent years, exceeding 20 million tourists in 2014. Table 54 shows the international tourist arrivals per region of origin for the year 2013.

Table 54 International tourist arrivals per continent 2013

Country	Tourist Arrivals
Europe	15.778.397
Asia	1.213.148
America	754.488
Oceania	142.642
Africa	30.905
Total	17.919.580

Source: Greek Tourism Confederation (SETE)

The majority of tourists in our country come from Europe, and then Asia. Table 4 presents the seven countries with more international tourist arrivals to our country for the year 2013.

Table 55 Countries of Origin with most tourist arrivals in Greece 2013

Country	Tourist Arrivals
Germany	2.267.546
UK	1.846.333
Russia	1.352.901
France	1.152.217
Italy	964.314
Turkey	824.300
Serbia	770.541

Source: SETE Source: Greek Tourism Confederation (SETE)

From the table we see that Germany is the country which in 2013 generated 2.5 million tourists, followed by the United Kingdom, Russia and Italy.

According to SETE, Greece for the year 2013 captured 3.2% of the European market and 1.6% of the global market for international tourist arrivals. Table 56 presents tourist arrivals in Mediterranean competitors.

Table 56 International Tourist Arrivals in Mediterranean competitors, 2013

Country	International tourist arrivals in millions
Spain	60,7
Turkey	37,8
Croatia	11
Egypt	9,2

Source: Greek Tourism Confederation (SETE)

4.10.2 CULINARY TOURISM IN GREECE

Greek gastronomy has recorded a history of around 4,000 years, with especial characteristics based on pure and unique quality goods produced on Greek land. In fact, it was Archestratos who wrote the first cookbook in history (330 B.C.).

In Greek nutritional tradition the gustative result blends harmonically with the high nutritional value. Dozens of scientific studies have shown the positive effect of a balanced Greek diet on a person's health, beauty and longevity. In addition, the nutritional culture of the Greeks has traditionally added an extraverted social dimension to the table, combining gustative satisfaction with recreation and communication, and thus maintaining even today some overtones from ancient feasts. Greek cuisine consists of a large variety of dishes that can fully satisfy the gastronomic quests of both vegetarians and meat lovers.

Culinary tourism is still at its early steps, however there are some companies that organize and offer culinary tourism packages, as the following:

- Culinary Adventures Greece- <http://www.culinaryadventuresgreece.com>
- Aegean flavours - <http://www.aegeanflavours.com>
- TrueGreece - <http://www.truegreece.com>
- Athens Walking Tours - <http://www.athenswalkingtours.gr/culinary-tours-athens>
- Natural Greece - <http://www.natural-greece.gr>

Taking under consideration the increase in the number of tourist arrivals, there are many chances for developing culinary tourism and familiarizing tourists with traditional Greek meat and fish products and dishes.

4.10.3 THE GREEK BREAKFAST INITIATIVE

The Greek Breakfast is an initiative taken by the Hellenic Chamber of Hotels which utilizes and connects the cultural – gastronomic wealth of the country with the Greek hotel business.

It is a program designed by the Hellenic Chamber of Hotels which has been in operation since 2010 and whose aim is to enrich the breakfast offered in Greek hotels with pure and unique Greek products as well as with traditional local dishes from every region of Greece.

The aim of the “Greek Breakfast” program is to give Greek hotel guests the chance to know the gastronomic wealth of our country and taste at breakfast the innumerable Greek products and dishes which are at the heart of the Mediterranean Diet. The Mediterranean Diet is not just a modern dietary trend but is according to UNESCO the “intangible cultural heritage of mankind”.

The main products of the Mediterranean diet such as the bread, the rusks, the olive oil, the olives, the yoghurt, the honey, the cheese products, the cured meats, the fresh vegetables, the legumes, the pies, the sweets and the fresh fruit form the basis of Greek breakfast.

Each part of Greece, depending on the climatic conditions, the soil, the produced products and the cultural relations and exchanges, has formed a particular gastronomic culture and local cuisines. Although the foundation of gastronomy is common, each region has its own gastronomic treasures and so the characteristics of the Cretan cuisine for example differ from those of Macedonia, of Epirus, of the Peloponnese, of the Aegean islands etc.

Traditionally processed meat products produced according to the traditional recipes, are already included in the Greek Breakfast Initiative, from the following meat suppliers:

- " CO.ME.CO. S.A. with traditional recipes from Corfu
- " Creta Farms SA with a great variety of products that include olive oil
- " Bellis SA with traditional recipes from Florina
- " Stremenos with traditional recipes from Evriatania based on natural maturation processes

And processed fish :

G Fish with a variety of fish recipes from Lakonia.

4.11 SWOT ANALYSIS

The SWOT analysis was constructed as a matrix and was populated with a correlation analysis of each internal factor (strength or weakness) with the external factors (opportunities and threats). This was determined with the following method. When examining the correlation of a strength with an opportunity, if the strength enhanced the ability to take advantage of the opportunity, a (+) score was assigned, while if it had a negligible correlation with the opportunity a (0) score was assigned. In examining the correlation of a strength with a threat, if the strength protected against the threat, a (+) score was assigned, while if it had a negligible correlation with the threat a (0) score was assigned. Similarly, when examining the correlation of a weakness with an

opportunity, if the weakness compromised the ability to take advantage of the opportunity, a (-) score was assigned, while if it had a negligible correlation with the opportunity a (0) score was assigned. In examining the correlation of a weakness with a threat, if the weakness made the sector more susceptible to the threat, a (-) score was assigned, while if it had a negligible correlation with the threat a (0) score was assigned. After populating the cells of the matrix with the scores (0, - or +), the sum of each factor is obtained (horizontally for the internal factors and vertically for the external factors) by adding all (+)'s and subtracting all (-)'s. The total obtained horizontally gives an indication of the relative importance of each strength or weakness for a given sector. The total obtained vertically for each opportunity, gave an indication on how well the sector was poised to take advantage of available opportunities, and for each threat, how susceptible was the sector to existing threats.

The analysis of the scores was used as a tool for deciding which of the internal factors (weaknesses) were good candidates for developing actions that would minimize these weaknesses. In addition, the effect of each action on increasing the score of the opportunities and reducing the threats was determined. Similarly, significant strengths were identified for utilisation.

Following is the meat processing sector's SWOT analysis (Figure 35). The analysis has pointed out some interesting results and conclusions regarding the sector's most important strengths, weakness, opportunities and threats. These are the following:

A) Opportunities for easy victories:

1. Less meat more quality trend
2. Culinary Tourism
3. Demand for Traditional Products
4. Growing demand for poultry

Strengths to rely on, in order to take advantage of these opportunities

- Independent butchers
- Country of origin schemes
- Domestic breeds

B) Opportunities that can be taken advantage of only after redressing balance of strengths/weaknesses

1. Greek demand for gourmet meat products
2. International demand for specialty meat products

3. International niche markets
4. Import substitution potential

Weaknesses to alleviate in order to take advantage of such opportunities

- Limited access to specialised consultancy and New Product Development
- Packaging knowhow limitations
- Over-standardization of products
- Lack of knowhow of modern/ specialist processing techniques
- Limited export experience
- Funding

Overall, the most promising meat types to place emphasis on: Sheep/goats and poultry due to existing high degree of self-sufficiency.

		Total opportunities												Total threats								
		1	2	1	2	6	4	1	2	5	1	6	0	0	3	-2	2	0	1			
Strengths	Meat is a very popular food	+	+	+	+	+	+	+	+	+	+	+	+	+	+	0	+	0	+	16	Total strength	
	Demand for meat and meat products is holding in crisis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	0	+	0	+	16		
	Sector's turnover and production value is growing	+	+	+	+	+	0	+	0	+	+	+	+	+	+	+	+	0	+	15		
	Strong preference for domestic meat	+	+	+	+	+	+	+	+	0	+	+	0	+	+	+	+	0	+	14		
	High self sufficiency in sheep	+	+	+	0	+	+	+	+	0	0	+	0	0	+	0	+	0	0	10		
	Existence of domestic breeds	+	+	+	0	+	+	+	+	0	0	+	0	0	+	+	+	0	0	10		
	poultry	+	+	+	+	+	0	+	+	0	0	+	0	0	+	0	+	0	0	10		
	Recognition of traditional recipes by the Greek Codex	+	+	+	+	+	+	+	0	+	0	+	0	0	0	0	+	+	0	11		
	Independent butchers under pressuring but holding market share	0	+	+	+	+	+	+	+	+	+	+	+	0	0	0	0	+	+	14		
	Voluntary country of origin labeling (EU legislation)	+	+	+	0	+	+	0	+	+	0	+	0	+	0	0	0	+	0	0		10
	Potential for Patent application in recipes	0	0	0	0	0	+	0	0	+	0	0	0	0	0	0	0	+	0	0		3
	Weaknesses	The sector relies heavily in bovine and swine imports	0	-	-	-	-	0	-	-	0	-	0	0	0	-	-	-	0	-		-11
Lower capita consumption of meat processed products		0	-	-	-	-	0	-	0	0	0	0	0	0	-	0	-	0	-	-9		
funding		-	-	-	-	-	0	-	0	-	-	0	0	0	-	-	-	0	0	-11		
Lack of knowhow for advanced value adding processes		-	-	-	-	0	-	-	-	-	0	0	0	0	-	0	0	-	0	0	-10	
Limited export experience		-	0	-	0	0	-	0	0	0	0	0	0	0	0	-	-	-	-	-	-7	
Overstandardisation/ limited range of products		-	-	-	0	-	-	-	-	0	-	-	-	-	-	0	0	-	0	-	-13	
Underdeveloped specialty meat sectors		-	-	-	-	0	0	-	-	0	-	-	0	-	0	0	-	0	0	0	-10	
No Halal certified slaughterhouse		-	0	0	0	0	0	0	0	0	0	-	0	0	-	0	-	0	0	0	-4	
Packaging limitations		-	-	-	0	0	-	-	-	0	0	-	0	0	0	0	0	0	0	0	-7	
Limited access to specialised advisory services (NPD etc)		-	-	-	0	0	-	-	-	0	0	0	-	-	0	0	-	0	0	0	-9	
Fragmented Hygiene and safety standards		0	0	0	0	0	0	0	0	0	0	0	-	-	0	0	0	-	0	0	-3	
	Niche markets in EU and USA (Halal etc)	Opportunities												Threats								
	Greek demand for gourmet meat products (retail & food service)																					
	Growing demand for specialty meats (buffalo, small fowl etc)																					
	Growing demand for processed poultry																					
	Strong demand for traditional products																					
	Less meat & better quality international trend																					
	Ready-to-cook trend																					
	Import substitution potential																					
	Taking advantage of national and European funding programs																					
	Growth of private label																					
	Culinary tourism																					
	WHO announcement on health hazards																					
	International healthy living trend																					
	Increased raw material prices																					
	Increased taxation																					
	Cheap mass-produced EU																					
	High concentration of supermarket/discounteretail market																					
	Average consumer income in Greece is falling																					
																				55		
	Total																					

Figure 34 Meat Processing Sector SWOT Analysis

For the fish processing sector there are a number of issues that constitute important barriers for serving the *“Recharging Greek Youth to Revitalize the Agriculture and Food Sector of the Greek Economy”* project’s immediate goals. The most important ones are the following:

- There is a substantial number of incumbent firms with unutilized capacity that operate in the sector, that leave very little space for new firms to enter.
- The necessary initial investment for starting a fish processing firm is high.
- Entering the specific sector requires previous experience and know how about the raw material (fish, crustaceans, molluscs and shellfish), that is rare to find in unemployed Greek youths.
- Fish is very perishable and requires careful handling during distribution and storage. Also fish processing techniques require special expertise and knowledge.
- Entrepreneurs interviewed did not mention production growth plans that could generate new employment positions.

5 CONCLUSIONS

Markets

Meat has long formed an important part of the European diet, providing a high quality source for European consumers' protein requirements. In addition, meat is a very versatile culinary product and has become a vital element of European cuisine and culture. Seafood prominently includes fish and shellfish. It provides the world's prime source of high-quality protein and 14-16% of the animal protein consumed worldwide. "Processing" means any action that substantially alters the initial product, including heating, smoking, curing, maturing, drying, marinating, extraction, extrusion or a combination of those processes;

The global processed meat market was worth \$361.6 billion in 2012. It is predicted to expand by a compound annual growth rate of 14.3 percent over the next five years, reaching \$799 billion by 2018. The market for processed seafood was estimated to be worth around \$165 billion in 2012 and is expected to reach \$211 billion by 2018.

In Greece meat consumption has fallen from the previous year between 2013 and 2014, mainly due to the fall in the average family budget. Fish consumption on the other hand presents an increase in consumption. Bovine meat is the most popular type of meat for Greek consumers, followed by poultry and swine meat. Processed meat corresponds to 13,5% of total meat consumption.

The most popular type of fish is raw, frozen and chilled with 75% of total fish consumption. Regarding processed fish, it represents 10,5% of the average monthly total fish consumption.

Greece is almost self-sufficient in consumption of sheep meat and sufficient by 80% at the consumption of poultry.

Sectors

Number of meat processing companies in 2014 was 472, while the number of fish processing companies in 2014 was 103. Most Greek meat processing firms are categorized as micro and their number in 2013 was 400. In the sector only 7 large enterprises were operating. For the fish processing sector the values are similar. Again, most Greek fish processing firms are categorized as micro and their number in 2013 was 78.

The processed meat sector's turnover is upward moving, totaling 1,4 billion euros in 2013 from 1,1 in 2008. The processed fish sector's turnover presented a large increase

of 132% between 2009/2010, and has been slightly decreasing since then. Processing does add value both to meat and fish products.

The meat sector's production value was recorded by Eurostat at 1,1 billions € in 2013, while the fish sector's was 429 million €. Production value in the meat sector has increased substantially between 2008 and 2013 from 927 million to 1,1 billions € in 2013 (+18%). A very large increase of 193% is noticed in the fish processing sector's production value for the same period. Both sectors value added has fallen the last years. The meat processing sector provides more than 7.000 working positions in the Greek economy. The fish processing sector offers around 1800 employment positions..

Greece relies heavily in imports in order to cover domestic consumer consumption and business processing and production needs. The most popular imported species are beef, swine, lamb and poultry. Greek fish, crustaceans, molluscs, aquatic invertebrates trade balance was positive by 221 million. Export quantity in 2014 was 114 thousand tons. Salted, dried or smoked meat imports amounted at 10 million € in 2014, while exports were only 349 thousand €. It is encouraging that export value doubled between 2013 and 2014.

Greece in 2014 imported 24 million € worth of sausages and exported 5,3 million €. In 2014 Greek international trade of prepared or preserved meat had a negative balance of -48 million in 2014.

Regarding international trade of prepared or preserved fish, Greece again had a negative trade balance throughout the period 2008-2014.

Some popular traditional products, their ingredients and preparation method are described in the Food and Drink Code (no 525-28/2/2014). Examples are the following: Traditional Village Sausages, Vinegar sausage of Krete, Soutzoukia, Salami Aeros Lefkadas, Salami Aeros Thassou, Pastourmas, Pastourmas Liastos, Santirmas, Sigklino.

Hygiene and Safety

During the last years, various amendments have been made on food regulations in order to endure food safety. These regulations and the Codex Alimentarius in Greece accordingly, are subject to changes in the future, in an attempt to improve and strengthen consumer protection. Traceability legislation is very important in the sector and its goal is to trace and follow a food, feed, animal or substance that may be incorporated into a food or feed through all stages of production, processing and distribution. The European Union is improving the rules concerning the labeling of

foodstuffs so that consumers have essential, legible and comprehensive labeling at their disposal in order to make informed choices when buying products. Operators and organizations in the meat and fish markets are obliged to comply with the hygiene, traceability and labeling regulations. Finally, the recent classification of processed meat as carcinogenic to humans by WHO's IARC is a serious threat for this industry. **Certifications**

The meat and fish product industry can increase its profitability by producing added value products with unique characteristics and specifications as a result of the following actions:

- Taking advantage of high quality raw material such as buffalo meat that exhibits unique characteristics and nutrition value and local varieties such as the black swine.
- Certifying certain products as PDO and PGI thus contributing vastly to the rise of the local economy.
- Developing new low processed foods that do not contain artificial preservatives and exhibit improved nutritional value.

Culinary Tourism

Greece is one of our most attractive tourist destinations worldwide. It attracts millions of tourists every year from every corner of the globe (23 million tourist arrivals in 2014). Taking under consideration the increase in the number of tourist arrivals, there are many chances for developing culinary tourism and familiarizing tourists with traditional Greek processed meat and fish products and dishes. An example is the Greek Breakfast initiative taken by the Hellenic Chamber of Hotels which utilizes and connects the cultural - gastronomic wealth of the country with the Greek hotel business. **Entrepreneurship and job creation opportunities**

The analysis has shown that the meat processing sector offers a number of opportunities for entrepreneurship and job creation by existing firms. The most important ones are better quality trend, culinary tourism, the demand for traditional products as well as the growing demand for poultry. More longterm opportunities are the demand for gourmet products, the international demand for specialty products, the international niche markets of the EU and the US and import substitution potential.

Regarding the fish processing sector, even though this is a viable sector that offers about 1800 employment positions in the Greek economy, there are no immediate opportunities for job creation and entrepreneurship.

Based on the opportunities mentioned about the meat processing sector, a number of proposals will follow for part B of the project.

Proposals for Part B of the Project:

Relevant to A) Opportunities for easy victories:

1. Deliver sector-customized Export Training courses to young entrepreneurs / prospective export managers of the sector. (short term)
2. Train & advise new & existing farmers to establish cluster of indigenous breed of sheep/goats (short - medium term)
3. Train & advise new & existing farmers to establish cluster of Turkey farmers(short - medium term)
4. Train young butchers on modern (international) meat cuts (short term)
5. Train young chefs on preparing, cooking and presenting domestic meat products. (short term)
6. Initiate processes for EU certification of Traditional Greek meat products (medium term)
7. Enroll rare Greek breeds in the Slow Food “Ark of Taste” scheme (medium term)
8. Create a specialised section in the proposed E-commerce portal.

Relevant to B) Opportunities that can be taken advantage of only after redressing balance of strengths/weaknesses:

1. Deliver sector-customized Export Training courses to young entrepreneurs / prospective export managers of the sector. (short term)
2. Deliver demonstration & training courses on new technologies as part of a Food Incubator Processing Network (short - medium term)
3. Establish specialised NPD and Packaging consultancies as part of a Food Incubator Processing Network (medium term)
4. Provide accelerator & funding opportunity services as part of a Food Incubator Processing Network (medium term)
5. Research in detail the processed meat categories in the US and key European countries in order to define attractive market segments to position traditional meat products as a specialty alternative in the foreign markets. (medium)

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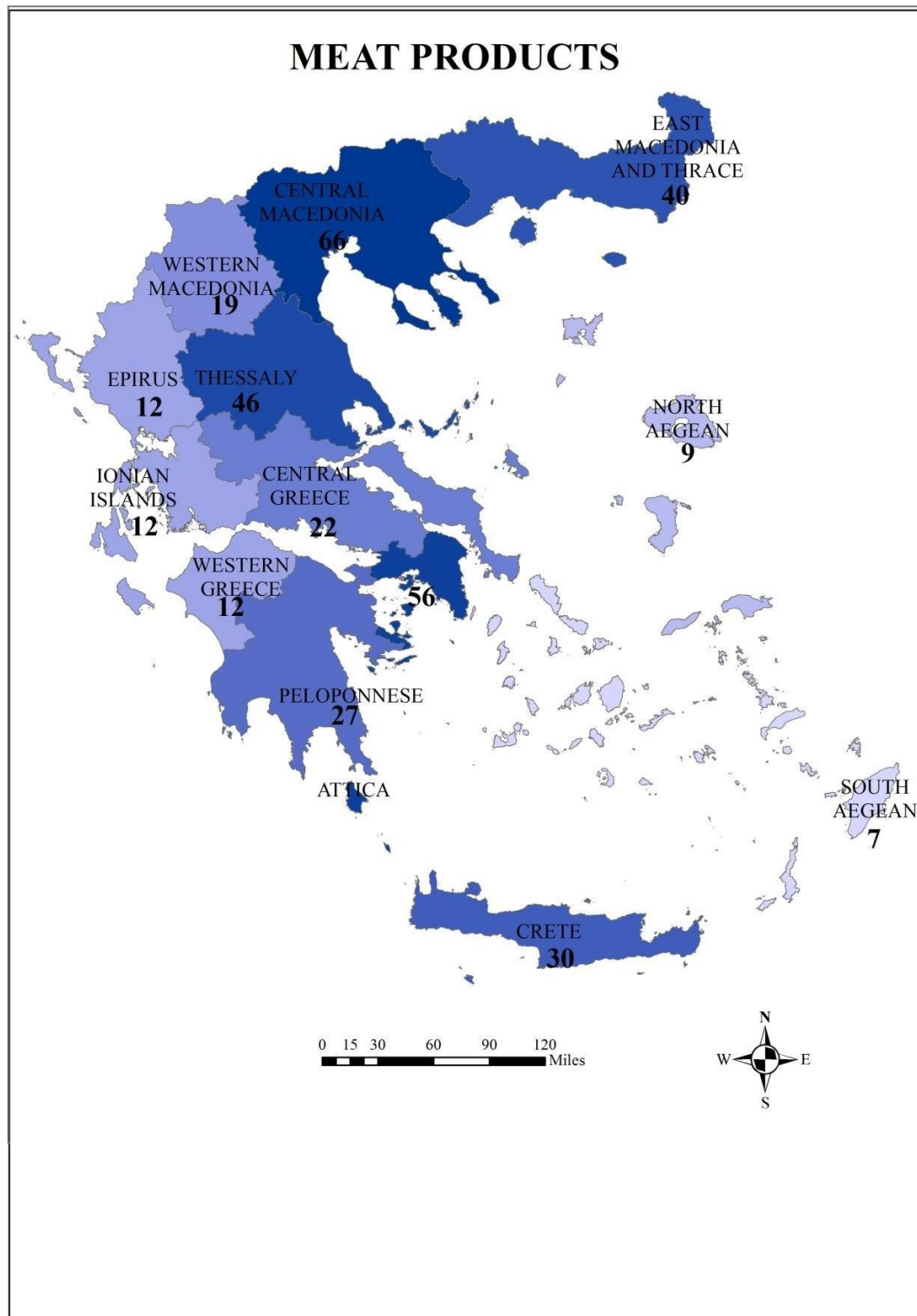
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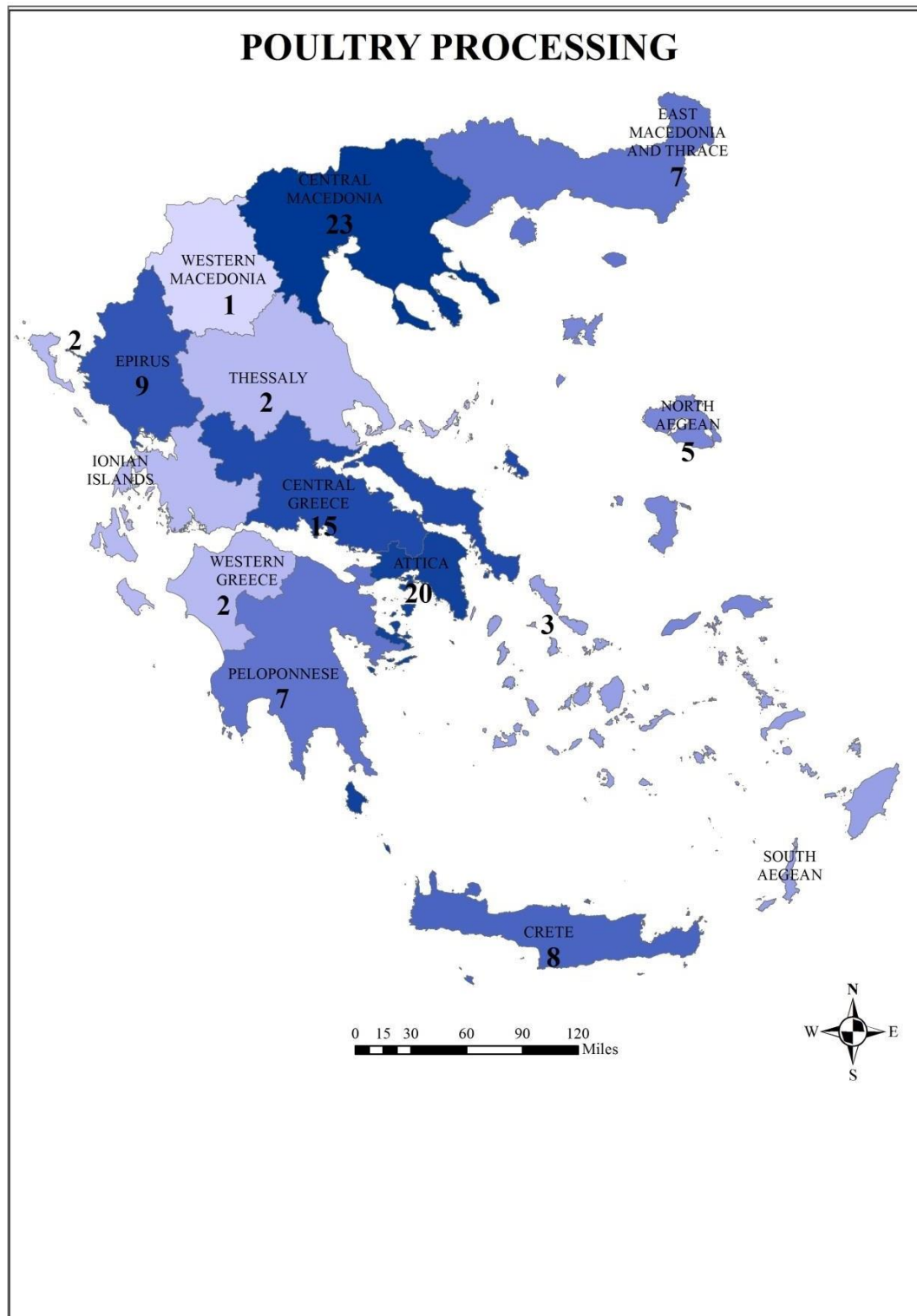
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APPENDICES

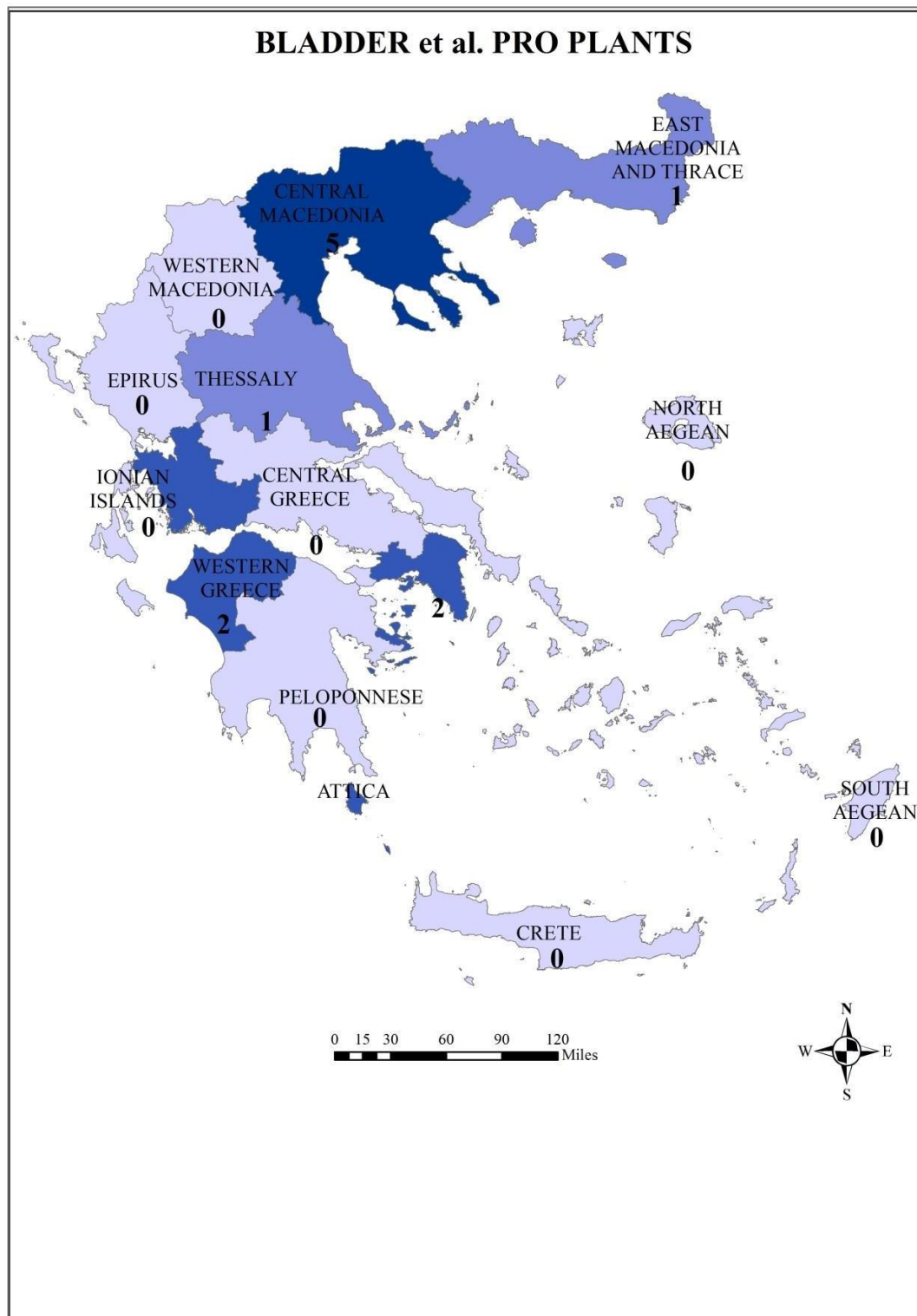
APPENDIX 1 MEAT PRODUCTS PLANTS MAPPING



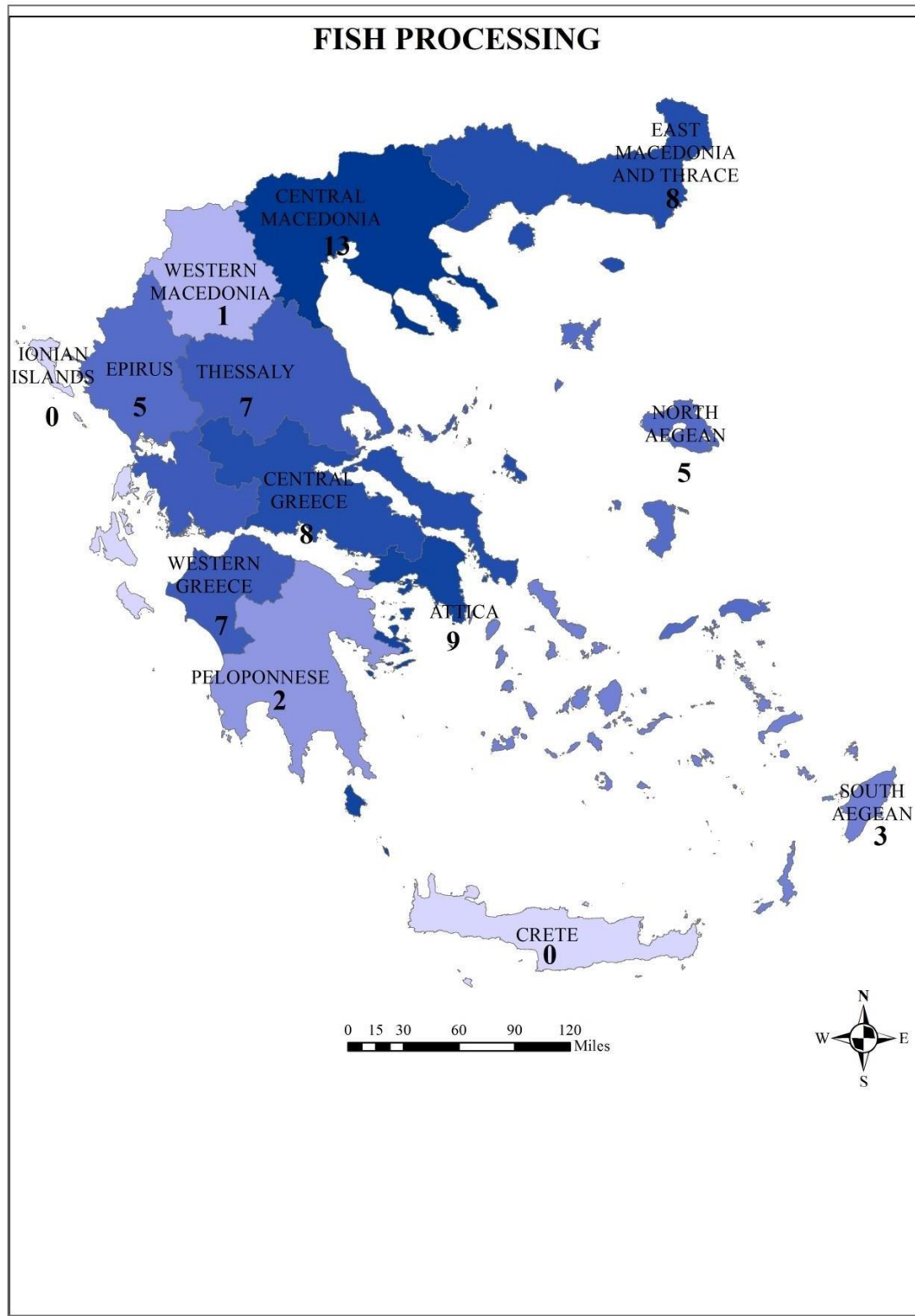
APPENDIX 2 POULTRY PROCESSING PLANTS MAPPING



APPENDIX 3 BLADDER, INTESTINE, STOMACH AND BY-PRODUCTS
PROCESSING PLANTS MAPPING



APPENDIX 4 FISH PROCESSING PLANTS MAPPING



APPENDIX 5 LIST OF MEAT PRODUCTS COMPANIES

No	Company	City	Area	Area
1	P.G. NIKAS A.V.E.	AGIOS STEFANOS	ANATOLIKI ATTIKI	ATTIKI
2	ARISTI ALLANTIKA A.V.E.E	AIGALEO	ATHINA	ATTIKI
3	THRAKI S.A.	KRIONERI	ANATOLIKI ATTIKI	ATTIKI
4	A.& CH. YFANTIS A.V.E.E.	KIFISSIA	ATHINA	ATTIKI
5	PANTERI BROS F.P.	ACHARNES	ANATOLIKI ATTIKI	ATTIKI
6	LAZAROS KARASSAVAS "LAKI"	TAVROS	ATHINA	ATTIKI
7	VIKI S.A.	NEA KERASSOUNTA	PREVEZA	EPIRUS
8	ZANAE S.A.	THESSALONIKI	THESSALONIKI	CENTRAL MACEDONIA
9	S. & G. ANTONOPOULOS O.E.	AG. I. RENTIS	PEIRAIAS	ATTIKI
10	CRETA FARM AVEE	LATZIMA	RETHYMNO	CRETE
11	EDESMA	VI.PE. SINDOS	THESSALONIKI	CENTRAL MACEDONIA
12	ZLATIS S.A.	EDESSA	PELLA	CENTRAL MACEDONIA
13	LAKONIKI TROFIMON A.E.	PERISTERI	ATHINA	ATTIKI
14	E.G. PASSIAS AVEE	NEA EFKARPIA	THESSALONIKI	CENTRAL MACEDONIA
15	HELLENIC CATERING S.A.	SINDOS	THESSALONIKI	CENTRAL MACEDONIA
16	HELLENIC QUALITY FOODS S.A.	NEA ARTAKI	EVOIA	CENTRAL GREECE
17	DIANIK S.A.	NEO FALIRO	PEIRAIAS	ATTIKI
18	NEWREST HELLAS S.A.	KERKIRA	KERKYRA	IONIAN ISLANDS
19	P.SARAMOURTSI SONS AVEE	NEOCHOROUDA	THESSALONIKI	CENTRAL MACEDONIA
20	MARCEL-X. MOUMTZIDIS & Co EE	SIDIROKASTRO	SERRES	CENTRAL MACEDONIA
21	PALIRIA - SOULIOTIS S.A.	PSACHNA-POLITICA	EVOIA	CENTRAL GREECE
22	FOOD MASTER AVEE	ARTA	ARTA	EPIRUS
23	D. TSAOUSIDIS E.P.E.	ASPROPIRGOS	DYTIKI ATTIKI	ATTIKI
24	AFI ADAMOPOULI E.E.	TAVROS	ATHINA	ATTIKI

25	AMALTHEIA S.A.	ASSIROS	THESSALONIKI	CENTRAL MACEDONIA
26	MEATLAND EPE	EXAMILIA	KORINTHIA	PELOPONNESE
27	TH. ZOITAS & Co OE	VONITSA	AITOLOAK/NIA	WESTERN GREECE
28	AFI K. DIROKALTSI	TRIKALA	TRIKALA	THESSALY
29	LOUGIAKI S.A.	CHANIA	CHANIA	CRETE
30	L. TSIKAKIS- G.GIANNOPOULOS	LEFKI SPARTIS	LAKONIA	PELOPONNESE
31	A.KONTOS & Co EPE NEGROPONTE	THEOLOGOS	EVOIA	CENTRAL GREECE
32	NEWREST HELLAS S.A	THERMI	THESSALONIKI	CENTRAL MACEDONIA
33	CH. ZOTOU BROS F.P.- SUPER 92	GRAIKOCHORIO	THESPROTIA	CENTRAL GREECE
34	SARIMPOGIAS A.E	PROSOTSANI	DRAMA	EASTERN MACEDONIA AND THRACE
35	I. & S. SKLAVENITIS AEE	PERISTERI	ATHINA	ATTIKI
36	STAVROULAKIS A.E.E. KREATON	TAVROS	ATHINA	ATTIKI
37	PARAGOGI GASTRONOMIKON PROIONTON A.E.	K17 V.T. VIPE IRAKLIOU	IRAKLEIO	CRETE
38	NEWREST HELLAS IPIRESIES TROFODOSIAS S.A.	ODOS X VIPE IRAKLIOU	IRAKLEIO	CRETE
39	LUNCHEON MEAT EVROU SA	VI.PE. ALEXANDROUPOLIS	EVROS	EASTERN MACEDONIA AND THRACE
40	N. ONASSIS S.A.ELLINIKI VIOMICHANIA KONSERVON	VI.PE. SINDOU	THESSALONIKI	CENTRAL MACEDONIA
41	K. & I. GANIOTIS AEVE	4,5 km THESSALONIKIS - ASVESTOCHORIOU	THESSALONIKI	CENTRAL MACEDONIA
42	KOSIAVAS-KOUZIOKAS AEVE	A' VI.PE. VOLOU	MAGNISIA	THESSALY
43	LAMDA E.P.E.	KATSIKA	IOANNINA	EPIRUS
44	ZELIALIDIS A.E.V.E.K.	17 km THESSALONIKI- VERIA	THESSALONIKI	CENTRAL MACEDONIA

45	SPITIKA TROFIMA A.V.E.E.	B' VI.PE. VOLOS	MAGNISSIA	THESSALY
46	V.E.K. KIOURTSIDIS A.V.E.E.	MIKRO DASSOS	KILKIS	CENTRAL MACEDONIA
47	CHIOTAKIS E.P.E.	KORAKIES AKROTIRI	CHANIA	CRETE
48	AFOI. POLYCHRONOPOULOI O/E.	FISSES	LEFKADA	IONIAN ISLANDS
49	PINDOS A.P.S.I	RODOTOPI	IOANNINA	EPIRUS
50	EL.PAPASTAMATAKIS- D.SORDAKIS & CO O.E.	5 km RODOU-SINDOU	DODEKANISOU	SOUTH AEGEAN
51	SARAVELOS S.A.	LAKOMA	CHALKIDIKI	CENTRAL MACEDONIA
52	VOULGARI AEVE	VI.PE. IRAKLION	IRAKLEIO	CRETE
53	SPECIAL EDESMATA S.A.	14 km THESSALONIKIS - NEAS MICHANIONAS	THESSALONIKI	CENTRAL MACEDONIA
54	ATHINA AILAMAKI	VI.PE. IRAKLION	IRAKLEIO	CRETE
55	SFAGIA KARYSTOU	MARMARI	EVOIA	CENTRAL GREECE
56	MASTER FOOD LTD	GEFYRIA EPISKOPIS	ARKADIA	PELOPONNESE
57	M. KOUROUNLIAN MIRAN	AG. IOAN. RENTIS	PEIRAIAS	ATTIKI
58	KOUTSOUDAKIS KYRIAKOS	PAZINO AKROTIRIO	CHANIA	CRETE
59	G. MANIATI "O STATHIS"	POTAMIA	ARKADIA	PELOPONNESE
60	EUREST HELLAS S.A.	AIRPORT ELEF. VENIZELOS	ANATOLIKI ATTIKI	ATTIKI
61	KRIS A.E.	AG. STEFANOS	RETHYMNO	CRETE
62	E.& K. STERGIU & SIA O.E.	METAMORPHOSI	ATTIKI	ATTIKI
63	PANAGIOTIS ARABANOS	ALIARTOS	VOIOTIA	CENTRAL GREECE
64	DIONISSIOS VOULGARIS "PANINI"	VERIA	IMATHIA	CENTRAL MACEDONIA
65	MILTOS S.A.	5 km THESSAL- THERMI	THESSALONIKI	CENTRAL MACEDONIA
66	OLYMPIC CATERING	ATH. AIRPORT	ANATOLIKI ATTIKI	ATTIKI
67	PARAGOGIKI PLAISIR AE	N. RAIDESTOS	THESSALONIKI	ATTIKI
68	NEWREST HELLAS S.A.	ATH. AIRPORT	ANATOLIKI ATTIKI	ATTIKI

69	ROMEZA A.E.	11 km RODOS- LINDOS	DODEKANISSOU	SOUTH AEGEAN
70	DELIMARIS A.E.	LEFKADA	LEFKADA	IONIAN ISLANDS
71	BATANIAN BROS A.V.E.E.	KOROPI	ANATOLIKI ATTIKI	ATTIKI
72	CATERING CHOUTOS ANTONIOS TOU CHRISTOU	FILYROS	THESSALONIKI	CENTRAL MACEDONIA
73	FLORIDIS A.E.V.E.K	MOSCHATO	ATHINA	ATTIKI
74	PARASKEVOPOULOS- SPYRIDOPOULOS	VI.PE. STAVROCHORI	KILKIS	CENTRAL MACEDONIA
75	N. IGNATIDIS	K. TOUMBA	THESSALONIKI	CENTRAL MACEDONIA
76	ZACHAROPLASTIKI A.E.	KALLIGONI	LEFKADA	IONIAN ISLANDS
77	PANORAMA CATERING A.E	THESSALONIKI	THESSALONIKI	CENTRAL MACEDONIA
78	P. KAMARATOU & CO E.E.	MARKOPOYLO	ATTIKI	ATTIKI
79	EUREST IPIRESSIES AEROSKAFON	PARADISSI RODOS	DODEKANISSOU	SOUTH AEGEAN
80	BELLIS	VI.PE. FLORINA	FLORINA	WESTERN MACEDONIA
81	GEYSINOUS EPE	RETHYMNO	RETHYMNO	CRETE
82	MANTSOS A. & SONS A.V.E.	N. CHALKIDONA	THESSALONIKI	CENTRAL MACEDONIA
83	MELCO A.E.V.E.	ASSIMI	IRAKLEIO	CRETE
84	NASSOPOULOS AE	ARGYROUPOLI	ATHINA	ATTIKI
85	NIKOLAOS D. SIMEONIDIS	THESSALONIKI	THESSALONIKI	CENTRAL MACEDONIA
86	POT & PAN	AVLIDA	EVOIA	CENTRAL GREECE
87	CRETA FARM AVEE	KRYONERI	ANATOLIKI ATTIKI	ATTIKI
88	FARMA MITSOPOULOS A.K.B.E.E.K.	ANC. KORINTHOS	KORINTHIA	PELOPONNESE
89	MICHALOPOULOS MARIOS	DODEKANISOU 36- VOLOS	MAGNISIA	THESSALY
90	SFAGEIA ALMOPIAS S.A	1 km. E.O. FILOTIAS - FOUSTANIS	PELLA	CENTRAL MACEDONIA
91	VAMPOULAS CHRISTOS & SIA O.E.	FIKI	TRIKALA	THESSALY
92	FARMA CHALASTRAS S.A.	CHALASTRA	THESSALONIKI	CENTRAL MACEDONIA

93	EVIA FARM A.V.E.E.	OXYLITHOS	EVOIA	CENTRAL GREECE
94	FARMA EFYRA A.V.E.E.	KOUTALAS	KORINTHIA	PELOPONNESE
95	PAPADOPOULOS APOSTOLOS & CO F.P.	LAMPRINO XANTHIS	XANTHI	EASTERN MACEDONIA AND THRACE
96	PAPPAS A.V.E.E.	10 km IOANNINON-ATHINON	IOANNINA	EPIRUS
97	TASSOS DIM. ATHANASIOS S.A.	MELISSOPETRA	IOANNINA	EPIRUS
98	BELL MEAT LTD	L. NATO 100 ASPROPYRGOS	DYTIKI ATTIKI	ATTIKI
99	SKORDILIS ALEXANDROS	AGIA ELENI	KERKYRA	IONIAN ISLANDS
100	NTIMIS IOANNIS & CO FP	8on km IOANNINON-KONITSAS	IOANNINA	EPIRUS
101	PAPASIMAKIS N. & CO F.P.	THERMO	AITOLOAK/NIA	WESTERN GREECE
102	CHARITOU ILIAS-LILIS IOANNIS F.P	22 km THES/NIKIS-SERRON	THESSALONIKI	CENTRAL MACEDONIA
103	G. & N. ANNINOS FP	SAMI	KEFALLINIAS	IONIAN ISLANDS
104	SYNTILIS G. KONSTANTINOS	L. MARATHONOS 48 PALLINI	ANATOLIKI ATTIKI	ATTIKI
105	I. N. ARONIS AVEEK	AG. APOSTOLOI	LAKONIA	PELOPONNESE
106	TH. SIMOPOULOU M.I.K.E	KERAMOTI	KAVALA	EASTERN MACEDONIA AND THRACE
107	KREKA S.A.	PERNI	KAVALA	EASTERN MACEDONIA AND THRACE
108	TH. KYRKOS-CHOIROTROFIKI VONITSAS S.A.	VONITSA	AITOLOAK/NIA	WESTERN GREECE
109	NIKOLOPOULOI BROS - FARM S.A.	80on km PATRON-PYRGOY	ILEIA	WESTERN GREECE
110	FARMA CHRISTOPOULOU S.A.	VI.PE. KALAMATAS	MESSINIA	PELOPONNESE
111	I. & S. SKLAVENITIS A.E.E.	ATHINA	ATTIKI	ATTIKI
112	PRIMA A.E	LARISSA	LARISSA	THESSALY
113	GILDA	VI.PE SINDOU	THESSALONIKI	CENTRAL MACEDONIA

114	G. TOTTIS O.E	THESSALONIKI	THESSALONIKI	CENTRAL MACEDONIA
115	FARMA KAPLANIDI A.E	CHORISTI	DRAMA	EASTERN MACEDONIA AND THRACE
116	FARMA FOTIADI	EXOCHI	PIERIA	CENTRAL MACEDONIA
117	D.MOYTEBELIS&SIA OE	ATHINA	ATTIKI	ATTIKI
118	A. EYAGELOPOYLOS	MAKRICHORI	LARISSA	THESSALY
119	D. BOYNZOLAS & SIA O.E	VERIA	IMATHIA	CENTRAL MACEDONIA
120	N. DAGRE EPE	STADIO	ARKADIA	PELOPONNESE
121	BOLIKAKIS K. BI.P.E.T A.E	SOUDA	CHANIA	CRETE
122	D. NASIOS MONOPROSOPI E.P.E.	NEA ARTAKI	EVIA	CENTRAL GREECE
123	T.& T. FOODS A.E	LAKKOMA	CHALKIDIKI	CENTRAL MACEDONIA
124	TZANETOS EMMANOUIL & SIA E.E.	ALIFANTA	LESVOS	NORTH AEGEAN
125	I. ARAPOGLOU	NIKAIA	PIRAEUS	ATTIKI
126	KREATA THETTALOS	VOLOS	MAGNISIA	THESSALY
127	KREATA CHATZIAGOROU AEBEK	KRITHIA	THESSALONIKI	CENTRAL MACEDONIA
128	GR. BOUNTAS	RODOLIVOS	SERRES	CENTRAL MACEDONIA
129	MARAVAS A.E	PIALIA	TRIKALA	THESSALY
130	A. I. TIAKAS & SIA O.E	SOUFLI	EVROS	EASTERN MACEDONIA AND THRACE
131	K. DOUROU & SIA O.E	NAFPAKTOS	AITOLOAKARNANIA	WESTERN GREECE
132	PAPOUTSIS STEFANOS	N. IONIA	MAGNISIA	THESSALY
133	M. ATMATZIDIS A.E - POLITIKO	N. KERASIA	THESSALONIKI	CENTRAL MACEDONIA
134	G. ZAFIRIADIS	TRIKALA	TRIKALA	THESSALY
135	KREATEMPORIKI G. RENTOULI & SIA E.E	ASTROS	ARKADIA	PELOPONNESE
136	ARVANITIS AE	LIMNOS	LESVOS	NORTH AEGEAN
137	CH. SAKELLARIOU	PALAMAS	KARDITSA	THESSALY

138	TRAKYA SERRES HELAL ET ANONIM SIRKETI	SERRES	SERRES	CENTRAL MACEDONIA
139	K. GIAGOULAS & SIA O.E	GIANNITSA	PELLA	CENTRAL MACEDONIA
140	PARADOSIAKA ALLANTIKA METSOVOU	METSOVO	IOANNINA	EPIRUS
141	AFI CHASIKOU AVEE	N. FOKA	RETHIMNO	CRETE
142	AFI AYFANTIS AVEE	NEAPOLI	AITOLOAKARNANIA	WESTERN GREECE
143	ALLANTIKA EPIDAYROU AVEE	EPIDAYROS	ARGOLIDA	PELOPONNESE
144	KREATOSYSKEVASTIKI LAMIAS AVEE	LAMIA	FTHIOTIDA	CENTRAL GREECE
145	E. CHALAS - TH. CHALAS & SIA O.E	N. SANTA	KILKIS	CENTRAL MACEDONIA
146	MESTA ANAPTIXIAKI EPE	TANAGRA	BIOTIA	CENTRAL GREECE
147	A. ARGYRAKIS	FARSALA	LARISA	THESSALY
148	FOKAIDIS CH. & SIA E.E	EUAGELISMOS	LARISA	THESSALY
149	LAKRE	BATONTAS	EVIA	CENTRAL GREECE
150	MEGAS ELLHNIKOS GYROS A.E.	L. NATO 100- ASPROPYRGOS	WEST ATTIKI	ATTIKI
151	AFI FAKOU	THIVA	BIOTIA	CENTRAL GREECE
152	KARA CHASAN TSEMALI	LEYKOPETRA	XANTHI	EASTERN MACEDONIA AND THRACE
153	P. VASILIOU - GOLDEN CHICKEN	LEYKI	XANTHI	EASTERN MACEDONIA AND THRACE
154	AGNO KREAS A.E	KALIVIA	ATTIKI	ATTIKI
155	DIMITRIOS KALOGRIDIS	CHANIA	CHANIA	CRETE
156	B.TSIANAVAS A.V.E.E	KARDITSA	KARDITSA	THESSALY
157	AFI TZIMA A.E	VOGATSIKO	KASTORIA	WESTERN MACEDONIA
158	IOAKEIM PANAGIOTOU & SIA O.E	MEGALI CHORA	AITOLOAKARNANIA	WESTERN GREECE
159	ARAM AVAKIAN	ACHARNES	ANATOLIKI ATTIKI	ATTIKI

160	BELL AVEE, EM. SIFAKIS & SIA	ACHARNES	ANATOLIKI ATTIKI	ATTIKI
161	AFI DIMITRIOU	SPATA	ANATOLIKI ATTIKI	ATTIKI
162	ELLINIKI VIOMICHANIA TROFIMON A.E	LAKKOMA	CHALKIDIKI	CENTRAL MACEDONIA
163	GORILAS MILTIADIS & SIA O.E	LARISA	LARISA	THESSALY
164	APOSTOLOS SKAMPARDONIS	FILIRA	TRIKALA	THESSALY
165	CHIROTROFIKI - AFI BISIRITSA A.E	SERVIA	KOZANI	WESTERN MACEDONIA
166	AGROKTIMA KARANIK A EPE	ALEXANDRIA	IMATHIA	CENTRAL MACEDONIA
167	N. PAYLIDIS - D. KOTZAFILIOU & SIA O.E	AMINTAIO	FLORINA	WESTERN MACEDONIA
168	A. FOTOPOULOS MONOPROSOPI EPE	GARGALIANI	MESSINIA	PELOPONNESE
169	AFI PROIOU O.E	NHSI	IMATHIA	CENTRAL MACEDONIA
170	MARGARITIS- STAYROS KAPAGERIDIS & SIA O.E	BISTONIDA	XANTHI	EASTERN MACEDONIA AND THRACE
171	E.S.T.A.P AVEE - AFI TRITAKI	RIVIOUSSA	LAKONIA	PELOPONNESE
172	NIKOLAOS BOYTERAKOS	AIGIES	LAKONIA	PELOPONNESE
173	CH. GIOLDASIS SONS- I. PAPADOPOYLOS & SIA O.E	FILIPIADA	PREVEZA	EPIRUS
174	. LAPPAS K. & SIA O.E	KARDITSA	KARDITSA	THESSALY
175	MARIA KANTIDOU - STRAKA	VOLOS	MAGNISIA	THESSALY
176	NIKOLAOS D. EXARCHOS A.E	AG. VISSARIOS	KARDITSA	THESSALY
177	AFI MALLIAROU O.E	KARDITSA	KARDITSA	THESSALY
178	GASNAKIS G.ANTONIOS	KAMPOCHORI - ALEXANDRIAS	IMATHIA	CENTRAL MACEDONIA
179	XETE LOUZOS A.E	VATHI	SAMOS	NORTH AEGEAN
180	AFI BAIRA O.E	TOPIROS	XANTHI	EASTERN MACEDONIA AND THRACE
181	VASILIOS SAMIOTAKIS	LAGADAS	THESSALONIKI	CENTRAL MACEDONIA

182	GEORGIOS SGARDONIS & SIA E.E	KOROPI	MAGNISIA	THESSALY
183	POLIS CONVENTION CENTRE	TAGARADES	THESSALONIKI	CENTRAL MACEDONIA
184	CHRISTINA MARKOU KATSAROU	TRIKALA	TRIKALA	THESSALY
185	KLITSIOTIS K & SON O.E	GLIKONERI	RODOPI	EASTERN MACEDONIA AND THRACE
186	AFI LAMPAKI	AG. KONSTANTINOS	RETHIMNO	CRETE
187	BENTOULIS ATHANASIOS	N. SOULI	SERRES	CENTRAL MACEDONIA
188	M.E.K PATRINOS E.P.E	AITOLIKO	AITOLOAKARNANIA	WESTERN GREECE
189	GEORGIU GEORGIOS	MEGALI CHORA	AITOLOAKARNANIA	WESTERN GREECE
190	CHATZIDAKIS GEORGIOS &SIA O.E	KASTELLI	IRAKLIO	CRETE
191	BEST CATERING A.E	ALEXANDROUPOLI	EVROS	EASTERN MACEDONIA AND THRACE
192	ARTEMIS	GIANNITSA	PELLA	CENTRAL MACEDONIA
193	AFI BANTAK O.E	SELERO	XANTHI	EASTERN MACEDONIA AND THRACE
194	DN FOOD A.E	N. REDESTOS	THESSALONIKI	CENTRAL MACEDONIA
195	I. CHATZIDIMITRIOU & SONS O.E	AG. IOANNIS	SERRES	CENTRAL MACEDONIA
196	PAPADOPOULOS GEORGIOS - PAPAKRET	KIRGIA	DRAMA	EASTERN MACEDONIA AND THRACE
197	ANDROMIDAS DIMITRIOS & SIA O.E	MONEMVASIA	LACONIA	PELOPONNESE
198	KONTES DIMITRIOS	PAPADIANIKA	LACONIA	PELOPONNESE
199	ZOEMPORIKI FILIPPIADAS A.E	FILIPPIADA	PREVEZA	EPIRUS
200	GERMAS FARM - SANATSIOS ATHANASIOS & SIA OE	GERMA	KASTORIA	WESTERN MACEDONIA
201	Z. BORAS & SIA OE	LIVADIA	SERRES	CENTRAL MACEDONIA

202	PAPADOPOULOS VASILIOS	KERKINI	SERRES	CENTRAL MACEDONIA
203	AFI ANTONAKI A.E.V.E	N. FOKA	RETHIMNO	CRETE
204	K. CHARTAKI SONS O.E	ALIARTOS	VIOTIA	CENTRAL GREECE
205	AFI BOURAZA	ACHARNES	ATTIKI	ATTIKI
206	KERKIRAIKI ETAIRIA KREATON A.E	TRIKLINO	KERKIRA	IONIAN ISLANDS
207	S. CHONDROGIANNIS & SONS A.E	TEMPLONI	KERKIRA	IONIAN ISLANDS
208	ALEXANDROS SKORDILIS	FEAKON	KERKIRA	IONIAN ISLANDS
209	SKOUNAKI A. - ATHANASIADIS K. O.E	MEGALOCHORI	TRIKALA	THESSALY
210	AFI SAPOUNTZI O.E.	MAYROCHORI	KASTORIA	WESTERN MACEDONIA
211	GEYSTIKOS KOSMOS KREATOS	ACHARNES	ATTIKI	ATTIKI
212	BOGIATZI MARIA	ARDASSA	KOZANI	WESTERN MACEDONIA
213	KIOSSES NIKOLAOS & SONS O.E	SERRES	SERRES	CENTRAL MACEDONIA
214	TOULIKAS A. IOANNIS	KATERINI	PIERIA	CENTRAL MACEDONIA
215	AFI K. & A. GIANNAKOU O.E	MOSCHATO	ATTIKI	ATTIKI
216	KASIDIS A.E	TIRNAVOS	LARISA	THESSALY
217	TAKE EPE	PERISTERI	ATTIKI	ATTIKI
218	FYZOZOF KON/NOS SIA O.E	ACHARNES	ATTIKI	ATTIKI
219	ALEXIOU P. & POLIMEROPOULOU TH. O.E	TRIKALA	TRIKALA	THESSALY
220	GUSTOZO CATERING - PREKA MARIA	PTOLEMAIDA	KOZANI	WESTERN MACEDONIA
221	E. GALENTZOU - A.. GATIDOU & SIA O.E	DRAMA	DRAMA	EASTERN MACEDONIA AND THRACE
222	AFI G. KASSAKI O.E	GALATAS PEDIADAS	IRAKLIO	CRETE
223	D. N MAKRIS AVEE	ANO LIOSIA	ATTIKI	ATTIKI
224	KARAKOULAKIS AVEE	EXOCHI - KOS	DODEKANISSOS	SOUTH AEGEAN

225	STAMPOLIDIS I. & AFI VASILEIADI EPE	ALEXANDROUPOLI	EVROS	EASTERN MACEDONIA AND THRACE
226	KOSMOS A.E	PIRGOS ORESTIADAS	EVROS	EASTERN MACEDONIA AND THRACE
227	T. ALEMDAR - CH. KOTZA O.E	MIKI	XANTHI	EASTERN MACEDONIA AND THRACE
228	KTIMA VAVOURAKI A.E	FINIKAS	RETHIMNO	CRETE
229	ZAFIRAKOGLOU ADAMANTIOS	AG. ATHANASIOS	THESSALONIKI	CENTRAL MACEDONIA
230	SAKELARIOU PANAGIOTA	PALAMAS	KARDITSA	THESSALY
231	LOUPAS ASTERIOS & SIA O.E	EYAGELISMOS	LARISA	THESSALY
232	KIRIAKIDIS N. KIRIAKOS	PERAIA	THESSALONIKI	CENTRAL MACEDONIA
233	AGROTOKTINOTROFIK ES GEN. EPICHIRISEIS PATERAKIS A.E	STERNES	CHANIA	CRETE
234	KREARKO IKE	ARCHAIA KORINTHOS	KORINTHIA	PELOPONNESE
235	SKOUTELAS N. IOANNIS	KROKOS	KOZANI	WESTERN MACEDONIA
236	AL.GER. O.E - TZIMAS EYAGGELOS & SIA	GERMA	KASTORIA	WESTERN MACEDONIA
237	BERSIANIS	VRYSIA	LARISA	THESSALY
238	JOIN CATERERS A. ANTONOPOULOU	ARGIROUPOLI	ATTIKI	ATTIKI
239	EPEK A.E	PAGANI	LESVOS	NORTH AEGEAN
240	SCHOINA CHRISTINA	ASPROCHOMA	MESSINIA	PELOPONNESE
241	POULOPOULOS SP. PANAGIOTIS	MADENA	MESSINIA	PELOPONNESE
242	NAKA EYGENIA	FALANI	LARISA	THESSALY
243	NATSOULIS I. - CHRISTODOULOU P. O.E	GALINI	LARISA	THESSALY
244	DAILY TASTE EPE	ACARNES	ATTIKI	ATTIKI
245	AFI PAPAPOPOULOI O.E	ARKADIKO	DRAMA	EASTERN MACEDONIA AND THRACE
246	CH. MICHAS A.E.V.E	YPSILANTI	VIOTIA	CENTRAL GREECE

247	LAKONIKI TROFIMON A.E.	SPARTI	LAKONIA	PELOPONNESE
248	I. IOAKEIMIDOU & SIA O.E	XANTHI	XANTHI	EASTERN MACEDONIA AND THRACE
249	NTALIANIS KONSTANTINOS MONOPROSOPI E.P.E	TRIKALA	TRIKALA	THESSALY
250	IOAKEIMIDIS AEVE	KALLITHEA	ATTIKI	ATTIKI
251	KRIVEK A.E	CHERSONISOS	IRAKLIO	CRETE
252	AFI VREKOU O.E	KARPENISI	EURITANIA	CENTRAL GREECE
253	BOURIS DIMITRIOS & ILIAS O.E	KARDITSA	KARDITSA	THESSALY
254	DAGKLIS PANAGIOTIS	N. CHARAYGI	KOZANI	WESTERN MACEDONIA
255	SKOUTELAS THOMAS & SONS O.E	KAISARIA	KOZANI	WESTERN MACEDONIA
256	CHRISTOS AP. PRITSAS	PRODROMOS	KARDITSA	THESSALY
257	ELEYTHERIADIS KIRIAKOS	ALEXANDREIA	IMATHIA	CENTRAL MACEDONIA
258	KRASANAKIS MARKOS	EPISKOPI	IRAKLIO	CRETE
259	AFI ZAVERDA O.E	PATRA	ACHAIA	WESTERN GREECE
260	ARVANITIS PANAGIOTIS	SPERCHIADA	KARDITSA	THESSALY
261	DAVOUTIS IAKOVOS & SIA A.E	N. IONIA	ATTIKI	ATTIKI
262	M. CHRISTIANOU & SIA E.E	CHORTIATI	THESSALONIKI	CENTRAL MACEDONIA
263	THOMAS & FLORA MALAKASI O.E	LEFKADA	LEFKADA	IONIAN ISLANDS
264	AGIOS GEORGIOS MFI A.E	MOSCHATO	ATTIKI	ATTIKI
265	ELVIDA TROFIMA A.E	PERISTERI	ATTIKI	ATTIKI
266	PARADOSIAKES GEYSEIS MONOPROSOPI EPE	OINOFITA	VIOTIA	CENTRAL GREECE
267	SIMPLY FOOD EPE	METAMORFOSI	ATTIKI	ATTIKI
268	HELLENIC FARMS O.E	ATSIPOPOULO	RETHIMNO	CRETE
269	THEIDOROPOULOS K. VASILIOS O.E	ANDRITSAINA	ILIA	WESTERN GREECE
270	AFI P. TZAMALA EPE	LIVADIA	VIOTIA	CENTRAL GREECE

271	KERKIRAIKI ALLANTOPOIIA A.V.E.E	FAIAKON	KERKIRA	IONIAN ISLANDS
272	OLIV E.P.E	PILAIA	THESSALONIKI	CENTRAL MACEDONIA
273	G. KOKOZIS & SONS O.E	IRAKLEIA	SERRES	CENTRAL MACEDONIA
274	M. PIGAKIS - M. KALOGERAKI O.E	ROUSOCHORIA	IRAKLIO	CRETE
275	E. STREMMENOS & SIA	PROUSOS	EURITANIA	CENTRAL GREECE
276	TARTARA ELENI &SIA O.E	KOZANI	KOZANI	WESTERN MACEDONIA
277	GIANNITSIS LOGISTICS AE	LAMIA	FTHIOTIDA	CENTRAL GREECE
278	KALOGRIDIS MICHAIL	KISSAMOS	CHANIA	CRETE
279	TEMETERON	NEA SAMPSOUNTA	PREVEZA	EPIRUS
280	DIMITRIOS MATAKAKIS	PASTIDA	RODOS	SOUTH AEGEAN
281	PIETRIS ESTIASI A.E.	MPATHARISTRA	KORINTHOS	PELOPONNESE
282	KORINTHIAN PALACE CATERING A.E	SOLOMOS	KORINTHOS	PELOPONNESE
283	GKOUSDOUNVAS DIMITRIOS	LARISA	LARISA	THESSALY
284	E. KOKTSIDI-K. KOKTSIDI O.E.	VERIA	IMATHIA	CENTRAL MACEDONIA
285	VEKIARIS AG.-GANOTIS GR. O.E.	IRAKLEIA	SERRES	CENTRAL MACEDONIA
286	ERGASTIRI GASTRONOMIAS - PAPAGIANNAKI GEORGIA	MESOPOTAMIA	KASTORIA	WESTERN MACEDONIA
287	APOSTOLOS DELITSIS A.E	DIDIMOTICHO	EVROS	EASTERN MACEDONIA AND THRACE
288	KREDEK E.P.E	KOMOTINI	RODOPI	EASTERN MACEDONIA AND THRACE
289	E. SPANOU - THANOPOULOU	TRIKALA	TRIKALA	THESSALY
290	CHOUTOS CATERING A.E	KOMOTINI	RODOPI	EASTERN MACEDONIA AND THRACE
291	FOIG SOFIA	PILAIA	THESSALONIKI	CENTRAL MACEDONIA

292	ASTRAIA CATERING	KOMOTINI	RODOPI	EASTERN MACEDONIA AND THRACE
293	PARASKEUAS ALEXANDRIS & SIA O.E	KALLONI	LESVOS	NORTH AEGEAN
294	A. LEGAKI - N. LONTOS O.E	ILION	ATTIKI	ATTIKI
295	OIKONOMAKOS O.E	KALAMATA	MESSINIA	PELOPONNESE
296	K. KARAMITSOS & L. LINARDOS O.E	ACHARNES	ATTIKI	ATTIKI
297	M. GRIGORIADOU & SIA O.E	KASTORIA	KASTORIA	WESTERN MACEDONIA
298	GEORGANTAS DIMITRIOS	LAMIA	FTHIOTIDA	CENTRAL GREECE
299	TROFOPOIOTITA O.E	SAPES	RODOPI	EASTERN MACEDONIA AND THRACE
300	AFOI ANTONIOU O.E - CATERING ANTONIOY	DRAMA	DRAMA	EASTERN MACEDONIA AND THRACE
301	CHATSIU MARIA - ALLOTINO CATERING	LEUKOVRISI	KOZANI	WESTERN MACEDONIA
302	TSALKANTIS N. IOANNIS	PELLA	PELLA	CENTRAL MACEDONIA
303	MARIA IGGLEZOU & SIA O.E	PENTALOFOS	THESSALONIKI	CENTRAL MACEDONIA
304	STERGIOU KONSTANTINA	KALAMPAKA	TRIKALA	THESSALY
305	AFOI ANTONIADI O.E	CHEIMONIO	EVROS	EASTERN MACEDONIA AND THRACE
306	AFOI BANTAK A.E	AVDIRA	XANTHI	EASTERN MACEDONIA AND THRACE
307	BELAGIA PANAGIOTA	STAYROS	KARDITSA	THESSALY
308	G. KALLIMANIS A.E.	AIGIO	ACHAIA	WESTERN GREECE
309	K. SAXIONIS - CH. SAXIONI O.E	MYTILIINI	LESVOS	NORTH AEGEAN
310	MARKOS KARAMPELAS	PAGANI	LESVOS	NORTH AEGEAN
311	AFOI MICHAIL TSAGKARI O.E	KALYMNOS	DODEKANISSA	SOUTH AEGEAN
312	DRISTELLAS GEORGIOS	LARISA	LARISA	THESSALY

313	D. CHASAPIS & SIA OEVE	XANTHI	XANTHI	EASTERN MACEDONIA AND THRACE
314	PAPAEYTHIMIOU MANOUSAKA	PARANESTI	DRAMA	EASTERN MACEDONIA AND THRACE
315	PERFECTO CATERING ANT EVENTS	ARSAKEIO	RODOPI	EASTERN MACEDONIA AND THRACE
316	SPECIAL HELLENIC CATERING	ALEXANDROUPOLI	EVROS	EASTERN MACEDONIA AND THRACE
317	B. GIANKAS & SIA O.E	KARDITSA	KARDITSA	THESSALY
318	FRESH CO O.E	XANTHI	XANTHI	EASTERN MACEDONIA AND THRACE
319	CH. TOPSIDIS - A. SIANTIDOU O.E	ORESTIADA	EVROS	EASTERN MACEDONIA AND THRACE
320	KALAMBOKI A.E.V.E	AG. DIMITRIOS	ATTIKI	ATTIKI
321	SOULOUKOS G/ & SIA E.E	NIKAIA	LARISA	THESSALY
322	AMBROSIA EPE	SINDOS	THESSALONIKI	CENTRAL MACEDONIA
323	CHOUTOS A. EPISITISTIKES EPICHIRISEIS A.E	VOLOS	VOLOS	THESSALY
324	KLAVAS M. ARISTEIDIS	MITILINI	LESVOS	NORTH AEGEAN
325	ZIMPARAS EVAGELOS & SIA E.P.E - EN ELLADI CATERING	CHALANDRI	ATTIKI	ATTIKI
326	NOUSLIDI MARIA	DRAMA	DRAMA	EASTERN MACEDONIA AND THRACE
327	MEAT FACTORY A.E EPEXERGASIA KREATOS	ASPROPIRGOS	ATTIKI	ATTIKI
328	V. ANANIADIS & SIA O.E	PERIGIALI	KAVALA	EASTERN MACEDONIA AND THRACE
329	ANDRIANOPOULOS PANAGIOTIS & SIA E.E	KALAMATA	MESSINIA	PELOPONNESE

330	KAMPOURIDIS ANTONIOS - ALONI CATERING	KOMOTINI	RODOPI	EASTERN MACEDONIA AND THRACE
331	KOUKOUREZI CHRISOULA - ALSOS CATERING	ORAIOKASTRO	THESSALONIKI	CENTRAL MACEDONIA
332	TH. KALOGEROPOULOS & SIA E.E - MESSINIAKO CATERING	MESSINI	MESSINIA	PELOPONNESE
333	TOP KRAFT A.E	AMPELONAS	LARISSA	THESSALY
334	K. PSICHOGIOS & SIA O.E	MAKRAKOMI	FTHIOTIDA	CENTRAL GREECE
335	I. SIGANOS ATEGVE - KOURITES A.E	ALIKARNASSOS	IRAKLIO	CRETE
336	KALAGASIDIS GEORGIOS	TSOTILI	KOZANI	WESTERN MACEDONIA
337	IOANNIS KRITIKOS	TINOS	KYKLADES	SOUTH AEGEAN
338	MATRONA I. KARATHANASI - NOUFARO	POTAMAKI	SAMOS	NORTH AEGEAN
339	108 EMPORIA KREATON A.E - 108 A.E	N. KIDONIA	CHANIA	CRETE
340	CATERING & MANAGEMENT SERVICES - GOURMET CATERING SLDT	N. ALIKARNASSOS	IRAKLIO	CRETE
341	KAPPA FOOD'S A.E	IRAKLIO	IRAKLIO	CRETE
342	DARMANIS PETROS - KYKLOS	KERKYRA	KERKYRA	IONIAN ISLANDS
343	PAPADOPOULOS EYAGELOS	KYPARISSIO	GREVENA	WESTERN MACEDONIA
344	AFOI RERRE O.E	MELIGALAS	MESSINIA	PELOPONNESE
345	ALPHA GLOBAL TRADING AEVE	AG. I. RENTIS	ATTIKI	ATTIKI
346	BALAMOTI ELEYTHERIA	LARISA	LARISA	THESSALY
347	TROFODIANOMI MONOPROSOPI EPE	THESSALONIKI	THESSALONIKI	CENTRAL MACEDONIA
348	AFOI TAMPAKOPOULOI - A.XANTHAS O.E.E - MONTERNO	CHANIA	CHANIA	CRETE
349	GEYSINOUS AVEE	KIFISIA	ATTIKI	ATTIKI

350	P. MOULKIOTIS & SIA O.E	MANDRA	ATTIKI	ATTIKI
351	LEONTZINI I. A.E KREATON - STOCHOS	N. PROPONTIDA	CHALKIDIKI	CENTRAL MACEDONIA
352	GAVRIILOGLOU GAVRIIL	PARANESTI	DRAMA	EASTERN MACEDONIA AND THRACE
353	KIRKILI O.E - PARADOSIAKA ALLANTIKA	MELIGALAS	MESSINIA	PELOPONNESE
354	KOTSIDOU DESPINA	ARDASSA	KOZANI	WESTERN MACEDONIA
355	AFOI KOMPATSIARI	ACHARNES	ATTIKI	ATTIKI
356	THEOCHARIS CHRISTOS	TRIKALA	TRIKALA	THESSALY
357	ALLANTIKA IOANNINON VLACHOS O.E	IOANNINA	IOANNINA	EPIRUS
358	AFOI IMPRAIM - MOLLA SINAN O.E - SMAK	KOSMIO	RODOPI	EASTERN MACEDONIA AND THRACE

Source: Hellenic Food Authority (EFET)

APPENDIX 6 LIST OF POULTRY PROCESSING COMPANIES

No	Company	City	Area	District
1	E. CHATZELIS S.A.	MEGALA ABELIA	LESVOS	NORTH AEGEAN
2	KOSTARIS STYLIANOS	LAGADAS	THESSALONIKI	CENTRAL MACEDONIA
3	VIOKOT S.A.	OINOFYTA	BIOTIAS	CENTRAL GREECE
4	LESVIKI PTINOTROFIA	POLICHNITOS	LESVOS	NORTH AEGEAN
5	PTINOTROFIKES EPICHEIRISEIS ARTAS A.V.E.E.	10 km ARTAS - SALAORAS	ARTA	EPIRUS
6	PTINOTROFIKES EPICHEIRISEIS NAFPAKTOU S.A.	EFPALIO	FOKIDA	
7	LEVENTAKIS A.E.V.E.	VASILIKI	IRAKLEIO	CRETE
8	BIOGRECO S.A.	KAMINIA SPARTI	LAKONIA	PELOPONNESE
9	ALVANOU MARIA- ALVANOS SPYROS	AGIA PARASKEVI	LESVOS	NORTH AEGEAN
10	GIANNARELLIS SOTIRIOS	GONIMO NEO PETRITSIO	SERRES	CENTRAL MACEDONIA
11	ANANIADIS GRIGORIOS	PENTE VRYSES	THESSALONIKI	CENTRAL MACEDONIA
12	SPANOU BROS FP	STAYROS LAMIAS	FTHIOTIDA	CENTRAL GREECE
13	PRISKA NIKOLETA	AMFITHEA PETA	ARTA	EPIRUS
14	PTINOTROFEIA VATHYLAKKOU A.E.V.E.	VATHYLAKKOS	THESSALONIKI	CENTRAL MACEDONIA
15	ALEXANDRAKIS PAVLOS	MONASTIRAKI	RETHYMNOU	CRETE
16	MANTZIOS VASILEIOS	PERATH	IOANNINA	EPIRUS
17	TZAKAS IOAN. - TZAKAS CHARALAMPOS	PAKIA MOLAOI	LAKONIA	PELOPONNESE
18	KAVVALOS GEORGIOS & CO FP	"MANDRES- XEROLIA"	IRAKLEIO	CRETE
19	AGROPA S.A.	VI.PE. RODOTOPI	IOANNINA	EPIRUS
20	I.KARABATZAKIS & CO OE	MESOCHORI KOMOTINIS	RODOPI	EASTERN MACEDONIA AND THRACE
21	ORNITHA AVEE	PERISTERI	ATHINA	ATTIKI
22	AFI ANTONAKI AEEV	ATSIPOPOULO	RETHIMNO	CRETE

23	SPITIKA TROFIMA A.E.V.E.	B' VI.PE. VOLOS	MAGNISIA	THESSALY
24	V.E.K. KIOURTSIDIS A.V.E.E.	MIKRO DASSOS	KILKIS	CENTRAL MACEDONIA
25	PINDOS A.P.S.I.	RODOTOPI	IOANNINA	EPIRUS
26	AGELAKIS S.A.	POURNO	EVOIA	CENTRAL GREECE
27	GALANOS KOTOPOULA MESSIMERIOU S.A.	MESSIMERIO EDESSAS	PELLA	CENTRAL MACEDONIA
28	TH. AMVROSSIADIS & CO A.E.	KERAMIDI	PIERIA	CENTRAL MACEDONIA
29	ZELIALIDIS IOANNIS	17 KM THESSAL.- VERIAS	THESSALONIKI	CENTRAL MACEDONIA
30	CARREFOUR- MARINOPOULOS	PILEA	THESSALONIKI	CENTRAL MACEDONIA
31	APOSTOLOS CHATZIEFRAMIDIS	A' VI.PE. VOLOS	MAGNISSIA	THESSALY
32	PETROPOULEA BROS LTD	NIKAIA	PIRAEUS	ATTIKI
33	LEVENTAKIS A.V.E.E.	IRAKLION	IRAKLION	CRETE
34	BELLIS	VI.PE. FLORINA	FLORINA	CENTRAL GREECE
35	NASSOPOULOS BROS	ARGYROUPOLI	ATHINA	ATTIKI
36	KOSTARIS STYLIANOS	LAGADAS	THESSALONIKI	CENTRAL MACEDONIA
37	D. KARAMANI BROS F.P.	E. VENIZELOU 68	PIRAEUS	ATTIKI
38	FLORIDIS A.E.V.E.K.	MOSCHATO	ATHINA	ATTIKI
39	LEIVADITIS BROS A.V.E.E.	TANAGRA	VIOTIA	CENTRAL GREECE
40	VIOKOT S.A.	OINOFYTA	VIOTIA	CENTRAL GREECE
41	TH. NITSIKOS A.V.E.E.	ASPROPYRGOS	W. ATTIKI	ATTIKI
42	FAKOU BROS S.A.	THIVA	VIOTIA	CENTRAL GREECE
43	KREATA CHATZIAGOROU A.E.B.E.K.	KRITHIA	THESSALONIKI	CENTRAL MACEDONIA
44	PTINOTROFIKES EPICHEIRISEIS ARTAS A.V.E.E.	10 km ARTAS - SALAORAS	ARTA	EPIRUS
45	LESVIKI PTINOTROFIA S.A.	POLICXNITOS	LESVOS	NORTH AEGEAN
46	MANOLIS CHATZELIS S.A.	MEGALA ABELIA	LESVOS	NORTH AEGEAN
47	PATERAKIS S.A.	STERNES	CHANIA	CRETE

48	PTINOTROFIKES EPICHEIRISEIS NAFPAKTOU S.A.	EFPALIO	FOKIDA	CENTRAL GREECE
49	AGROZOI A.V.E.E.	N. ARTAKI	EVOIA	CENTRAL GREECE
50	LEVENTAKIS A.E.V.E.	VASILIKI	IRAKLEIO	CRETE
51	P/ KAMARATOU & CO O.E	MARKOPOULO	ATTIKI	ATTIKI
52	APKOT A.E.B.E	CHALKIDA	EVIA	CENTRAL GREECE
53	T. & T. FOODS A.E	LAKKOMA	CHALKIDIKI	CENTRAL MACEDONIA
54	DIDASKALOU ILIAS & SIA O.E	LAKKOMA	CHALKIDIKI	CENTRAL MACEDONIA
55	KREATOTECHNIKI	THESPROTIKO	PREVEZA	EPIRUS
56	DEPMITZAKIS & SIA AE	AG. NIKOLAOS	LASITHI	CRETE
57	MAKRO KAS & KARI	N. IONIA	THESSALONIKI	CENTRAL MACEDONIA
58	KREATEMPORIKI G. RENTOULI & SIA E.E	ASTROS	ARKADIA	PELOPONNESE
59	KOTOPOULA MAKEDONIAS	VATHILAKOS	THESSALONIKI	CENTRAL MACEDONIA
60	GALAKTIDIS A.E	KAVALA	KAVALA	EASTERN MACEDONIA AND THRACE
61	LEONTZINI I. A.E KREATON - STOCHOS	N. PROPONTIDA	CHALKIDIKI	CENTRAL MACEDONIA
62	FAETHON A.V.E.E	SIDIROKASTRO	SERRES	CENTRAL MACEDONIA
63	ZARKOS A.E.V.E	KIATO	KORINTHIA	PELOPONNESE
64	LAKRE A.E	BATONTAS	EVIA	CENTRAL GREECE
65	L.- V. LAZARIDIS & SIA E.E	KORIDALLOS	ATTIKI	ATTIKI
66	P. VASILIOU - GOLDEN CHICKEN	LEUKI	XANTHI	EASTERN MACEDONIA AND THRACE
67	TRAKYA SERRES HELAL ET ANINIM SIRKETI	SERRES	SERRES	CENTRAL MACEDONIA
68	KARAKOULAKIS A.V.E.E	KOS	DODEKANISA	SOUTH AEGEAN
69	AGNO KREAS A.E	KALIVIA	ATTIKI	ATTIKI
70	KONSTANTINA. DOUROY & SIA O.E	LYGIA	AITOLOAKARNANI A	WESTERN GREECE

71	CHIROTROFIKI - AFI BISIRITSA A.E	SERVIA	KOZANI	WESTERN MACEDONIA
72	MARGARITIS - STAYROS KAPAGERIDIS & SIA O.E	VISTONIDA	XANTHI	EASTERN MACEDONIA AND THRACE
73	I. CHATZIDIMITRIOU & SONS O.E	AG. IOANNIS	SERRES	CENTRAL MACEDONIA
74	MESTA ANAPTIXIAKI EPE	SCHIMATARI	BIOTIA	CENTRAL GREECE
75	ALEXANDROS SKORDILIS	FEAKON	KERKIRA	IONIAN ISLANDS
76	KARAXASAN TSEMALI & SIA O.E	LEUKOPETRA	XANTHI	EASTERN MACEDONIA AND THRACE
77	GEYTIKOS KOSMOS KREATOS	ACHARNES	ATTIKI	ATTIKI
78	KIOSSES NIKOLAOS & SONS O.E	SERRES	SERRES	CENTRAL MACEDONIA
79	SOFIKITIS LAZAROS- SOUVLAKIS A.E	KRANIDI	ARGOLIDA	PELOPONNESE
80	FYTOZOF KON/NOS SIA O.E	ACHARNES	ATTIKI	ATTIKI
81	SITISIS MONOPROSOPI EPE	METAMORFOSI	ATTIKI	ATTIKI
82	ANDROMIDAS DIMITRIOS	MONEMVASIA	LACONIA	PELOPONNESE
83	KREOTECHNION GEORGIADIS A.E	PIKERMI	ATTIKI	ATTIKI
84	MARINOPOULOS A.E GENIKOU EMPORIOU	GERAKAS	ATTIKI	ATTIKI
85	A & CH. IFANTIS A.V.E.E	KIFISIA	ATTIKI	ATTIKI
86	AFI AIFANTIS AVEE	NEAPOLI	AITOLOAKARNANI A	WESTERN GREECE
87	DAVOUTIS IAKOVOS & SIA A.E	N. IONIA	ATTIKI	ATTIKI
88	ELVIDA TROFIMA A.E	PERISTERI	ATTIKI	ATTIKI
89	PARADOSIAKES GEYSEIS MONOPROSOPI EPE	OINOFITA	VIOTIA	CENTRAL GREECE
90	G, KOKOZIS & SONS O.E	IRAKLEIA	SERRES	CENTRAL MACEDONIA

91	N. MAYRIDOPOYLOS & SIA O.E	ALEPOU	KERKYRA	IONIAN ISLANDS
92	E. KOKTSIDI-K. KOKTSIDI O.E.	VERIA	IMATHIA	CENTRAL MACEDONIA
93	AFI VEROPOULOI A.E.V.E	VOTANIKOS	ATTIKI	ATTIKI
94	NOSTIMA- STAMPOLIDIS I.& AFI VASILEIADI E.P.E	ALEXANDROUPO LI	EVROS	EASTERN MACEDONIA AND THRACE
95	TSALKANTIS N. IOANNIS	PELLA	PELLA	CENTRAL MACEDONIA
96	AFOI MICHAIL TSAGKARI O.E	KALIMNOS	DODEKANISA	SOUTH AEGEAN
97	VASILEIOS RIZOPONTIKAS & SON E.E	PERISTERI	ATTIKI	ATTIKI
98	IOANNIS KRITIKOS	TINOS	KYKLADES	SOUTH AEGEAN
99	CH. MICHAS AEVE	YPSILANTI	VIOTIA	CENTRAL GREECE
100	KOSMOS A.E	PIRGOS ORESTIADAS	EVROS	EASTERN MACEDONIA AND THRACE
101	BOZONELOS EPE	ARGOS	ARGOLIDA	EPIRUS
102	P. MOULKIOTIS & SIA O.E	MANDRA	ATTIKI	ATTIKI
103	KIRKILI O.E - PARADOSIAKA ALLANTIKA	MELIGALAS	MESSINIA	PELOPONNESE
104	ALLANTIKA IOANNINON VLACHOS O.E	IOANNINA	IOANNINA	EPIRUS

Source: Hellenic Food Authority (EFET)

APPENDIX 7 LIST OF BLADDER, INTESTINE, STOMACH AND BY- PRODUCTS PROCESSING PLANTS

No	Company	City	Area	District
1	STELIOS FRANGOULIS & SIA E,E	AMISIANA	KABALA	EASTERN MACEDONIA AND THRACE
2	KON-NOS. TSIUBLEKIS	VI.PE. SINDOS	THESSALONIKI	CENTRAL MACEDONIA
3	V. VOULGARAKIS & SIA O.E	RIZARI	PELLA	CENTRAL MACEDONIA
4	M. ZIZOULI	LARISA	LARISA	THESSALY
5	L.N.C LIANOPOULOS M.	KAMATERO	ATHINA	ATTIKI
6	MINOKOGLU CHRISTINA	MAYROLOFO	SERRES	CENTRAL MACEDONIA
7	EVANGELOS D. RAMMOS - SOMEAT HELLAS	MOSCHATO	ATHINA	ATTIKI
8	CH. MICHAS A.E.V.E	YPSILANTI	VIOTIA	CENTRAL GREECE
9	PAPAS THEOFANIS	SOCHO	THESSALONIKI	CENTRAL MACEDONIA
10	SIVVAS A.E	DELTA	THESSALONIKI	CENTRAL MACEDONIA
11	KREATOSYSKEVASTIKI LAMIAS AVEE	LAMIA	FTHIOTIDA	CENTRAL GREECE

Source: Hellenic Food Authority (EFET)

APPENDIX 8 LIST OF APPROVED FISH PROCESSING ESTABLISHMENTS
(SALTED, SMOKED, CANNED)

No	Company	Location	Area	Disctrict
1	G. PAPAZOGLOU A.E.	KONTONI 3 & MOSCHONISION	PIRAEAS	ATTIKI
2	AFI. KARAGOUNI A.E	B'VIPE VELESTINO	MAGNISIA	THESSALY
3	BIALKO SKOYRTOPOULOS A.E.	LEOFOROS ATHINON 5	MAGNISIA	THESSALY
4	I. BASILOUDI SONS O.E.	TERMA STADIΟΥ - NEA IONIA	MAGNISIA	THESSALY
5	MARE BLUE E.P.E.	ASPROGIES DIMINIOU	MAGNISIA	THESSALY
6	PANAGIOTIS & ANNA. TRAGAKI A,E - TRAGAKIS A,E	POLIGYROS	CHALKIDIKI	CENTRAL MACEDONIA
7	CH. MITAKIDIZ	TERMA SILEOS	KAVALA	EASTERN MACEDONIA AND THRACE
8	COCCORAS - P. TRIFONIDIZ & SIA OE	P.MELA 10	KAVALA	EASTERN MACEDONIA AND THRACE
9	KIPOYROU IOANNA & SIA O.E	FANARI	RODOPI	EASTERN MACEDONIA AND THRACE
10	G. STIL. PASCHALIDIZ	7XLM.KOMOTINIS-IASMOU	RODOPI	EASTERN MACEDONIA AND THRACE
11	AFI FRANTZI & SIA A.E.	ANDRIANOUPOLEOS TERMA KOMOTINI	RODOPI	EASTERN MACEDONIA AND THRACE
12	KALLONI A.E.	KIMERIA	XANTHI	EASTERN MACEDONIA AND THRACE
13	ATH. FILARETOS	ASMINIO ISTIAEAS	EVIA	CENTRAL GREECE
14	DIMOU PETROU	ORCHOMENOS	VIOTIA	CENTRAL GREECE
15	D. DIMOU	ORCHOMENOS	VIOTIA	CENTRAL GREECE
16	G. TASSIS PEKAM A.E.	AGISTRO	SERRES	CENTRAL MACEDONIA

17	AFI SARIKLI O.E	P. PEDINO LIMNOU	LESVOS	NORTH AEGEAN
18	EL.BI.AL. A.E.	ASMINIO ISTIAEAS	EVIA	CENTRAL GREECE
19	KONSERVOPOIIA VORIOU AIGAEOU AEBE	BI.PE. KILKIS	KILKIS	CENTRAL MACEDONIA
20	VLADIMIROΣ & ANDREAS TSALIOS O.E.	BOULIASTA	IOANNINA	EPIRUS
21	ICHTHIOTROFIA SOLOMOU AURORA SALMON	LAMIA	FTHIOTIDA	CENTRAL GREECE
22	BAS. & NIK. TSAPALAS O.E.	KALOY TSA 26	CHIOS	NORTH AEGEAN
23	DELI FISH A.E.	LIMNOTOPOS POLIKASTROU	KILKIS	CENTRAL MACEDONIA
24	TOURNABITIS A.E.B.E.- TROFIMA POTA	ASPRI AMMOS	KAVALA	EASTERN MACEDONIA AND THRACE
25	NIREUS A.E	1XLM.LEOF. KOROPIOU-BARIS	ANAT. ATTIKI	ATTIKI
26	IASMI MAMAI & SIA O.E.	ASPROPIRGOS	DYT. ATTIKI	ATTIKI
27	TRIKALINOS E.E.	E. MAKARIOU 50 - DAFNI	ATHINA	ATTIKI
28	E. & K. BOUCLIS A.E	MORIA	LESVOS	NORTH AEGEAN
29	AFI MPEPTZELETOU A.E.	FLEMING 22 - RENTIS	PIRAEAS	ATTIKI
30	N. AGIANOGLOU SONS O.E.	PIRGOU 3 - MOSCHATO	ATHINA	ATTIKI
31	TR. CHONAKI -MICH. GANELLI O.E "AIGAEAS"	ENTHONOS EYERGETOULA	LESVOS	NORTH AEGEAN
32	AFI SIMONI A.E.	GALATISTA	CHALKIDIKI	CENTRAL MACEDONIA
33	OLIMPIAKI ABE CHELIOU & SOLOMOU	BIPE PREVEZAS	PREVEZA	EPIRUS
34	N. ONASIS A.E. ELLINIKI VIOMICHANIA TROFIMON	BIPE SINDOU	THESSALONIKI	CENTRAL MACEDONIA
35	KIRIAZIS ZERVAΣ AEGE	DAFNOUSES	FTHIOTIDA	CENTRAL GREECE
36	TSAKALIDIS ABEE	LAKKOMA	CHALKIDIKI	CENTRAL MACEDONIA
37	TH.&I. NIKOLERIS - FISHLAB	BIPE SINDOU	THESSALONIKI	CENTRAL MACEDONIA

38	STYLIANIS KOTSARIS	KALLONI MESSOLOGIOU	AITOLOAKARNANIA	WESTERN GREECE
39	D. N. CHARALAMPOPOULOS A.E.V.E	PATRA	ACHAIA	WESTERN GREECE
40	I. M. GERONTIDIS	KASTORI	LAKONIA	PELOPONNESE
41	ALALUNGA - G. ANAGNOSTOU - A.KALOGIANNI O.E	ALONNISOS	MAGNISIA	THESSALY
42	AGIANKA	THIVA	VIOTIA	CENTRAL GREECE
43	B. GEITONAS & SIA E.E	ARACHTHOS	ARTA	EPIRUS
44	AFI A. PITENI AVEE	KOZANI	KOZANI	WESTERN MACEDONIA
45	KONTOVEROS AEVE	ASPROPIRGOS	DYT. ATTIKI	ATTIKI
46	M. TACHLIABOURIS - A. TACHLIABOURIS O.E - KALIRO	PANTELI - LEROS	DODEKANISA	SOUTH AEGEAN
47	E. KALOGIANNI & SIA E.E	ALONNISOS	MAGNISIA	THESSALY
48	AFI STEFOU E.E	AITOLIKO	AITOLOAKARNANIA	WESTERN GREECE
49	LAKY A.E	ARTA	ARTA	EPIRUS
50	TSIMAS DELICATESSEN	RODOS	DODEKANISA	SOUTH AEGEAN
51	STRATIS - AIVATIS EYSTRATIOS	MELISSOCHORI	LARISA	THESSALY
52	MAYRIDIS NIKOLAOS - TA DIVARIA	N. IONIA	ATHINA	ATTIKI
53	K. E. KALAMARAKIS A.V.E.E - KALAS A.E	N. EFESOS	PIERIA	CENTRAL MACEDONIA
54	EYGE A.E	VEROIA	IMATHIA	CENTRAL MACEDONIA
55	ILIAS KOKOLINAKIS A.E	KALOCHORI	THESSALONIKI	CENTRAL MACEDONIA
56	T.CHATZITRIANTAFILO U & SIA O.E - SELECT SALMON HOUSE	MELISSIA	ATHINA	ATTIKI
57	ANAGENNISI	MESSOLOGI	AITOLOAKARNANIA	WESTERN GREECE
58	GEORGIOS KOUTOUKIS - OKTAPOUS - LIMNOS	MOUDROS LIMNOU	LESVOS	NORTH AEGEAN

59	OXYRRYNCHOS ELLADOS A.E	DOXATO	DRAMA	EASTERN MACEDONIA AND THRACE
60	GEORGIA KARAMANOY	KALAVRITA	ACHAIA	WESTERN GREECE
61	KOINONIKI SYNETERISTIKI EPICHIRISI KALIMNOU - PANAGIA IPAPANTI	KALYMNOS	DODEKANISA	SOUTH AEGEAN
62	ATHANASIOS CHATZISOTIRIOY A.V.E.E ALIEYMATON A.E - AOUA TRADE S.A	N. MICHANIONA	THESSALONIKI	CENTRAL MACEDONIA
63	AGGELIKI TSIMPLI & SIA E.E - STELLA MARE	MARATHOYPOLI - TRIFYLIAS	MESSINIA	PELOPONNESE
64	PYTHEAS SEAFOOD PRIVATE COMPANY	TRIADA	EVIA	CENTRAL GREECE
65	N. THANASOYLAS & SONS	AGRINIO	AITOLOAKARNANIA	WESTERN GREECE
66	ORESTIS OLNTE OLTCHOF -- THALASSONOSTIMIES	NEOCHORI	PREVEZA	EPIRUS
67	OLYMPIAS A.V.E.E.	DELTA	THESSALONIKI	CENTRAL MACEDONIA
68	SPYROS PAPAGEORGIOW & SIA E.E.	MESSOLOGY	AITOLOAKARNANIA	WESTERN GREECE

Source: Hellenic Food Authority (EFET)

APPENDIX 9 EUROPEAN HYGIENE AND SAFETY REGULATIONS

TOPIC	REGULATION	SCOPE
FOOD AND FEED SAFETY / TRACEABILITY	EC 178/2002	Ensures the quality of foodstuffs intended for human consumption and animal feed. It guarantees the free circulation of safe and secure food and feed in the internal market. Ensures the <u>traceability</u> of products at all stages of productivity, processing, distribution. Protects consumers against fraudulent or deceptive commercial practices. Establishes the European Food Safety Authority (EFSA). In common with other food businesses, all meat plant operations have an obligation to keep supplier and customer records.
IDENTIFICATION AND LABELLING OF BEEF AND VEAL	EC 1760/2000	Establishes a system for the identification and registration of bovine animals and regarding the labelling of beef and veal products. Thus, it establishes a) a cattle identification and registration system (ear tags, computerised databases, animal passport), b) a compulsory labelling system, i.e. when the product is not pre-wrapped, the operators must supply relevant information in written and visible form to the consumer at the point of sale, which should include the country(ies) of animal's birth, breeding, slaughter and cutting. The use of electronic identification (EID) could improve the speed, reliability and accuracy of the traceability system. It applies from 1 January 2012 in all Member States.
LABELLING OF BEEF AND BEEF PRODUCTS	EC 1825/2000	Lays down detailed rules for the application of Regulation EC No.1760/2000 as regards the labelling of beef and beef products.
FOOD HYGIENE	EC 852/2004	Establishes a comprehensive and integrated policy covering all food from the farm to the point of sale to the consumer. It seeks to ensure the hygiene of foodstuffs at all stages of the production up to and including sale to the final consumer (e.g. processing, transport, storage, distribution). Food business operators shall apply the principles of the system of hazard analysis and critical control points (HACCP).

		It does not cover issues relating to nutrition or to the composition or quality of foodstuffs.
HYGIENE FOR FOOD OF ANIMAL ORIGIN	EC 853/2004	It lays down specific hygiene rules for food of animal origin for food business operators. It applies to unprocessed and processed products of animal origin, covering meat, shellfish, fish and milk. In the meat sector, these rules cover for example slaughterhouses, cutting and boning, health marking, storage, transport, maturation. The rules for shellfish and fishery products cover everything from production and harvesting to equipment, facilities, processing and transport.
OFFICIAL CONTROLS ON PRODUCTS OF ANIMAL ORIGIN INTENDED FOR HUMAN CONSUMPTION	EC 854/2004	Establishes a framework for official controls on products of animal origin intended for human consumption and lays down specific rules for fresh meat, bivalve molluscs, milk and dairy products. Official controls include audits of good hygiene practices and HACCP principles, as well as specific controls whose requirements are determined by sector.
OFFICIAL CONTROLS ON FOOD AND ANIMAL FEED	EC 882/2004	Ensures proper controls on food and animal feed, so that various pieces of legislation are being fully implemented.
IDENTIFICATION AND REGISTRATION OF OVINES AND CAPRINES	EC 21/2004	Establishing a system for the identification and registration of ovine and caprine animals.
LAYS DOWN TRANSITIONAL ARRANGEMENTS FOR REGULATIONS EC 853, 854, 882/2004 AND AMENDS REGULATIONS 853, 854/2004.	EC 2076/2005	Lays down a transitional period of four years ending 31.12.2009 for the implementation of Regulations EC 853/2004, 854/2004 and 882/2004. Sets out a staged approach to implementing food chain information relating to animals sent for slaughter, and continues the requirements for veterinary certification for farmed game mammals and compositional and labelling requirements for minced meat.

MICROBIOLOGICAL CRITERIA FOR FOODSTUFFS	EC 2073/2005	Micrological criteria are set for products of animal origin including carcasses of cattle, sheep, pigs, goats and horses, broiler chickens and turkeys, and for minced meat, meat products and meat preparations.
IMPLEMENTING MEASURES UNDER REGULATIONS EC 852/2004 853/2004, 854/2004, 882/2004	EC 2074/2005	Member States may grant establishments manufacturing foods with traditional characteristics individual or general derogations from the requirements set out in Regulation 852/2004. Clarifies information for the provision of food chain information relating to animals sent for slaughter; extends the exemption from skinning to bovine feet; prohibits the sale as fresh meat of poultry treated with water retention agents; and sets the calcium content for mechanically separated meat to which certain rules in Regulation 853/2004 apply.
TRICHINELLA IN MEAT	EC 2075/2005	Lays down specific rules on official controls for trichinella in meat. Sets the sampling and testing criteria for trichinella in carcasses of domestic swine.
AMENDS REGULATION EC 853/2004	EC 1662/2006	Clarifies the requirement for an new identification mark where a previously marked product is further processed or its packaging removed. It allows the muzzle and lips of bovine animals to be left unskinned and corrects the omission of porcine tonsils from those required to be removed.
AMENDS REGULATION EC 854/2004	EC 1663/2006	Deletes references to removal of tonsils which is an operator responsibility (see Regulation 1662/2006).
AMENDS EC 2075/2005	EC 1665/2006	Clarifies the possibility of health marking carcasses tested for Trichinella before the results are known
AMENDS REGULATION EC 2073/2005	EC 1441/2007	Amends Regulation EC 2073/2005 on microbiological criteria for foodstuffs
AMENDS EC 2074/2005	EC 1244/2007	Amends the requirements concerning official controls for the inspection of meat.
MARKETING STANDARDS OF POULTRY MEAT	EC 534/2008	Lays down detailed rules for the application of Council Regulation (EC) No 1234/2007 as regards the marketing standards for poultrymeat

IDENTIFICATION AND REGISTRATION OF PIGS	COUNCIL DIRECTIVE 2008/71/EC	Establishing a system for the identification and registration of pigs
AMENDS EC 853/2004 & 2076/2005	EC 1020/2008	Among others, clarifies the provisions for identification marking and lays down specific rules for certain fishery products.
AMENDS EC 854/2004 & 2076/2005	EC 1021/2008	Amends the training requirements for staff assisting with official controls in slaughterhouses
AMENDS EC 853/2004	EU 558/2010	Makes amendments to Annex III, in particular regarding hygiene during and after cutting and boning of poultry meat and others.
TRACEABILITY	EU 931/2011	Commission Implementation Regulation on the traceability requirements set by Regulation EC 178/2002. Lays down provisions implementing traceability to food business operators in respect of (unprocessed and processed) food of animal origin. It applies from 1 July 2012 in all Member States.
PROVISION OF FOOD INFORMATION TO CONSUMERS (LABELLING)	EC 1169/2011	Establishes the general principles, requirements and responsibilities governing food information, and in particular <u>food labelling</u> . Where foodstuffs are prepacked, the required information must appear on the prepackaging or the label attached to it. This information includes the food name, list and quantity of ingredients (also ingredients causing allergies), net quantity of food, date of minimum durability, storage conditions, name and address of food operator, country of origin, instruction for use, nutrition declaration. Regulation applies from 13 December 2014, with the exception of point (l) of Article 9(1), which shall apply from 13 December 2016, and Part B of Annex VI, which shall apply from 1 January 2014.
AMENDS EC 853/2004	EU 150/2011	Amends Annex III to Regulation EC 853/2004 as regards farmed and wild game and meat game
AMENDS EC 854/2004	EU 151/2011	Amends Annex I to Regulation EC 854/2004 as regards farmed game.
LABELLING OF MEAT PRODUCTS	EC 1337/2013	Lays down detailed rules for the application of EU N.1169/2011 as regards the identification of the country or place of provenance for fresh, chilled and

		frozen meat of swine, sheep, goats and poultry. It applies from 1 April 2015.
ELECTRONIC IDENTIFICATION OF BOVINE ANIMALS & LABELLING OF BEEF	EU 653/2014	Amends Regulation EC 1760/2000 as regards electronic identification of bovine animals and labelling of beef. All animals on a holding shall be identified by at least two means of identification.

APPENDIX 10 GREEK HYGIENE AND SAFETY REGULATIONS

TOPIC	REGULATION	SCOPE
GREEK IMPLEMENTATION REGULATION ON THE TRACEABILITY AND LABELLING REQUIEREMENTS SET BY REGULATIONS EC1760/2000 AND EC1825/2000	KYA 412013/2000 (FEK B1594/29.12.2000)	Operations and organisations marketing beef shall label it according to Article 13 of Regulation EC1760/2000. Each piece of beef shall have a label containing a) the reference code from which the beef was derived, b) the approval code and the country in which the slaughterhouse was established, c) the approval code and the country which performed the cutting operation. Label requirements of minced beef, official controls and voluntary information are also specified.
ADDITIONAL GUIDELINES ON LABELLING FOR BEEF MEAT	YA 232149 *FEK B215-2002)	Lays down detailed rules for the application of KYA 412013/2000 as regards the labelling of beef and beef products.
OFFICIAL AUTHORITIES AND CONTROLS FOR THE IMPLEMENTATION OF FOOD HYGIENE AND SAFETY STANDARDS	KYA 15523 (FEK 1187/31.8.2006)	Establishes the Greek state authorities and the official controls for the implementation of Food Hygiene and Safety standards set by Regulations EC 178/2002, 852/2004, 853/2004, 854/2004, 882/2004 and for the licensing of food operators.
ΕΠΙΣΗΜΑΝΣΗ ΚΡΕΑΤΟΣ	YA 282438/2009 (FEK B631/3.4.2009)	Among others refers to the receipts issued at the point of sale.It has been party replaced by KYA 412/8932/2012
LABELLING OF THE COUNTRY OF ORIGIN AND MONTHLY BALANCE SHEETS FOR MEAT	YA 282441/2009 (FEK B631/3.4.2009)	Refers to the recording of monthly balance sheets of meat, the labelling of the country of origin, and the sanctions applied by the inspection authorities. It has partly replaced by KY A412/8932
RECORDING OF MONTHLY BALANCE SHEETS FOR MEAT	YA 312898/2009 (FEK B1577/31.7.2009)	Refers to the recording of monthly balance sheets for meat. It has been partly replaced by KYA 412/8932
FOOD AND DRINKS HYGIENE	YA Υ1γ/ΓΠ/96967 (FEK B2718/8.10.2012)	It lays down specific hygiene rules for food and drinks business operators.

TRACEABILITY AND LABELLING REQUIREMENTS OF MEAT PRODUCTS	KYA 412/8932 (FEK B149/3.2.2012)	It lays down specifications concerning the country of origin of meat and the recording of monthly meat balance sheets. Also, it indicates the competent authorities to carry out regular spot checks and the penalties to be applied.
ESTABLISHMENT OF "ELGO DIMITRA"	KYA 647/27509 (FEK B539/7.3.2013)	Establishes the Greek state authority "ELGO DIMITRA" for the inspection of slaughterhouses, meat transportation, recording of monthly meat balance sheets, as well as the application of Article 18 of Regulation EU 931/2011 concerning the traceability of foodstuffs of meat origin.
REGULATIONS FOR TRADE OF PRODUCTS AND SERVICES	YA A2-861 (ΦΕΚ 2044/22.8.2013)	Sets out all regulations concerning products and services in Greece, including meat and fishery products
LABELLING OF BEEF IMPORTED FROM THIRD COUNTRY	KYA 2260/155064 (FEK B3383/17.12.2014)	Amends articles 5 & 8 of KYA 412013/2000, i.e. for beef derived from a third country and when information is not available, the indication on the labels should be <<Origin: Non EU>> and <<Country of slaughter: ...>>. Also, it lays down guidelines concerning voluntary beef labelling information.
PENALTIES	Legislation 4235 (FEK A32/11.2.2014)	It lays out the penalties applicable in case of breaches of regulations, in order to ensure their implementation.
IMPLEMENTATION REGULATION ON HYGIENE REQUIREMENTS SET BY EC 852/2004 & 853/2004	YA 3724/162303 (FEK B3438/22.12.2014)	Lays down implementation rules on food safety and on safety of food of animal origin as set in EC 852/2004 and 853/2004.
PRODUCTION OF MEAT PREPARATIONS INSIDE RETAIL SHOPS (BUTHER SHOPS)	Legislation 4254 (FEK A85/7.4.2014)	It lays down basic rules for the production of meat preparations inside the retail shops / butcher shops

<p>PRODUCTION OF MEAT PREPARATIONS INSIDE RETAIL SHOPS (BUTHER SHOPS)</p>	<p>YA 464/92592 (FEK B2111/1.4.2014)</p>	<p>It lays down the requirements for the production of meat preparations inside the retail shops / buther shops</p>
<p>VOLUNTARY LABELLING "BREEDING IN GREECE MORE THAN 5 MONTHS" FOR BOVINE MEAT</p>	<p>YA 393/33759 (FEK B498/1.2015)</p>	<p>It lays down the procedures that the operators or organisations should follow in order to include on the labels the voluntary information for bovine meat "BREEDING IN GREECE MORE THAN 5 MONTHS". Responsible authorities carry out inspections to ensure the accuracy of such information.</p>

APPENDIX 11 START-UP AND AUTHORIZATION

In order to start a new meat or fish processing business in Greece, one must first choose the legal form of the enterprise and then go through the licensing process. In Greece there are various legal forms, the most important of which are described below.

LEGAL FORMS

Partnerships

Partnerships are more common for small enterprises and can take any of the following forms:

- General partnership (*Omorithmi Eteria*). All members have personal unlimited liability against the company's creditors. General partnerships are regulated by Articles 249 to 270, Law 4072/2012.
- Limited partnership (*Eterorithmi Eteria*). At least one member has personal unlimited liability against third parties and at least one other member has limited liability. Limited partnerships are regulated by Articles 271 to 284, Law 4072/2012.
- Undisclosed company (*Afanis Eteria*). The business activity is exercised by a certain person, while other dormant partners participate in the business results without their involvement being published. Undisclosed companies are regulated by Articles 285 to 292, Law 4072/2012.

The advantages of general partnerships, limited partnerships and undisclosed companies include:

- " No minimum capital required for the establishment.
- " Limited disclosure obligations.
- " Closer connection of the partners with the entity towards third parties.
- " Simpler start up procedures
- " Lower accounting cost
- " No publicity regulations

The disadvantages of general partnerships, limited partnerships and undisclosed companies include:

- " Personal unlimited liability.
- " Partnerships are associated with small enterprises.

Procedures

To establish either a general or a limited partnership, a written agreement of at least two parties (natural or legal persons) must be submitted to the Company's Register General Commercial Registry's (*Geniko Emporiko Mitroo*) (GEMI) "one-stop-shop" service along with the following documents:

- Application for the registration.
- Application for the approval of the company's name and registration to the competent chamber.
- Payment of duties.
- Lease agreement or the title of the ownership for the place of their seat.
- Application for the granting of a tax registration number and the registration of the shareholders and directors to the competent social security organisation; the Insurance Organisation for the self-employed (*Organismos Asfalisis Eleftheron Epaggelmaton*) (OAEE).

The one-stop-shop deals with applications on the same or following day.

Capital companies

Capital companies are more commonly used by larger enterprises and are characterised by their limited liability. Liability is limited to the value of the company's assets. Shareholders do not have personal liability.

Capital companies can take any of the following forms:

- Société Anonyme (SA) or company limited by shares (Anonymi Eteria) (AE). A minimum capital of EUR 24,000 is required. SAs are regulated by Law 2190/1920. The minimum capital is in shares with nominal value from 0.30 euro to 100 euro.
- Limited liability company (Eteria Periorismenis Efthinis-Ltd). Limited liability companies are regulated by Law 3190/1950. No minimum capital is required.
- Private company (Idiotiki Kefaleouhiki Eteria) (IKE). IKEs are regulated by Law 4072/2012. No minimum capital is required

The main advantages of capital companies is the limited liability of shareholders while the main disadvantages are greater disclosure obligations and higher accountancy cost. *Procedures*

To establish an IKE in Greece, the process is more or less similar to the Partnerships. To establish an SA or an Ltd, firstly a articles of association must be drafted in presence of notary and a lawyer. The articles of association must be submitted to the tax office

and the Company's Register General Commercial Registry's (*Geniko Emporiko Mitroo*) (*GEMI*), along with:

- *Application for the registration.*
- *Application for the approval of the company's name and registration to the competent chamber.*
- *Payment of duties.*
- *Lease agreement or the title of the ownership for the place of their seat.*
- *Application for the granting of a tax registration number and the registration of the shareholders and directors to the competent social security organisation; the Insurance Organisation for the self-employed (*Organismos Asfalisis Eleftheron Epaggelmaton*) (*OAE*).*

Other business structures

Other business structures include (*Article 50, 2219/1920*):

- Sole Traders (*Atomiki Epixeirisi*). Greek single traders have full liability for the debts of their companies and may benefit from gains produced by it. This company type addresses to smaller businesses. A sole trader owns his business directly and is fully liable for the business debts and obligations. He or she has the right to obtain profit and re-invest it in his company, and has to pay taxes.

- Branch Offices of Foreign Companies

These follow the structure of the parent company. Directors and shareholders for all the above forms of business vehicle are personally liable to the Greek State. An agency or a branch office must be through a registration and publication procedure.

The advantages of agencies and branch offices include:

- Application of double taxation avoidance treaties.
- Deduction of parent company expenses.
- The disadvantages of agencies and branch offices include:
- Personal liability of the directors and shareholders.

– Its structure and operation is limited by the structure of the parent company. The applicable formalities include:

- Authorisation for the establishment by the local competent authority.
- Submission of various documents of the parent company to the local competent authority.

Procedures

For opening a branch in Greece, some documents (officially translated into Greek) must be submitted for approval: constitutional documents of the parent company, a certificate from the Chamber of Commerce certifying that the parent company is in good form, a certificate

attesting the share capital, statement of the registered office of the subsidiary, minutes of the Board of Directors meeting which gave one of the members power of investing power attorney and point a process agent.

Cooperatives

- Social Cooperative Enterprise

Under L. 4019/2011 (Official Gazette A'216) a new legal form has been introduced, the Social Cooperative Enterprise (SCE). A Social Cooperative Enterprise (SCE) is a civil-law cooperative with a social purpose and limited liability for its members, possessing entrepreneurial capacity by law. A SCE is equally managed by its members and its purpose is to ensure collective benefits, whereas its profits come only from activities of social interest.

- Civil Cooperatives

Civil Cooperatives are governed by Law 1667/1986 and its amendments: Law 2076/1992, 2166/1993 and 2515/1997. Individuals and organizations may constitute Civil Cooperatives in the first degree. Such cooperatives may have a vast array of primary purposes. At least five Civil Cooperatives in the same prefecture may constitute a Union of Cooperatives. This is the second degree representation. Third degree association includes sectoral federations of Civil Cooperatives and supreme form of representation is the Confederation of Greek Cooperatives. Civil Cooperatives are supervised by the Ministry of Economy, Cooperatives Department. Civil Cooperatives are registered in the General Commercial Register, kept by Central Department of General Commercial Register at the Chambers Union according to Law 3419/2005.

- Agricultural Cooperatives – Agricultural Cooperative Unions

Agricultural Cooperatives are governed by Law 2169/1993 and its amendments: Law 2184/1994, Law 2538/1997 and Law 2810/2000. Primary purpose of Agricultural Cooperatives is the support of agricultural income, development of agricultural production and support of the life in the countryside. According to PD 590/1985, an

Agricultural Cooperatives Register is kept in local Country Courts. Specifically for Agricultural Cooperatives Unions, Cooperative Organizations and “PASEGES” a register is kept in local District Courts.

- European Cooperative

In Nice European Summit, European Community Regulation 1435/2003 was adopted concerning European Cooperatives or European Cooperative Enterprises. Main concern has been to lift bureaucratic hindrances in cooperative activities at the European level. European Cooperative Enterprises are legal entities of European Community law. They are companies bearing legal entity, constituted by individuals or legal entities of public or private law, residing in at least two European Community member states and fall under local state law. Each of these members has one vote. European Cooperatives in Greece are registered at the General Commercial Register under Law 3419/2005.

AUTHORIZATION PROCESS LEXICON

Starting a new industry or a craft in Greece requires the issuance of installation and operating license from the state. Below are some definitions about licensing and a description of the process for obtaining the license:

Licensing: the formal act of the competent authority, which grants the right to a person or a legal entity to exercise a specific professional activity or a group of professional activities.

Industry - Craft: the techno-economic unit which by mechanical, chemical or other means differentiates the form or properties of raw materials or products.

Professional Workshop: Professional workshop is the techno-economic unit which satisfies the following conditions:

a) has machinery with installed engine power that does not exceed 37 kW or heating power of 70 kW - in these limits is not included the power which is not directly related to the production process and power used exclusively to protect the environment.

b) It is classified in low nuisance activities in accordance with the provisions of 3137/191 /F. 15/2012 decision of the Ministry of Development.

Categories of nuisance: According to Ministerial Decision 3137/191/F.15/2012 industrial - craft activities fall into three categories of nuisance, depending on their impact on the environment. They are divided into activities:

- Low nuisance
- Middle nuisance
- High annoyance

Every industrial activity has a number code. The investor must identify the activity that interests him, which category and subcategory it belongs and this way identify the type of studies that need to be compiled, the competent service which will issue the environmental licences and other related issues.

Industrial building: Industrial building is any building for which a building permit has been issued by the relevant planning authority for purely industrial or craft use.

Warehouses: warehouses are buildings, sheltered or not, outside the factory premises, and has a permanently installed mechanical equipment for their operation, and facilities related to one of the following uses:

- a) Storage and packaging or repackaging materials using suitable mechanical equipment without producing new product.
- b) Storage of flammable, corrosive, oxidizing or toxic substances.
- c) Freezing or preservation of perishable goods.
- d) Storage of liquid and gaseous fuels and industrial or medical gases.
- e) Storage, sorting and machining for recycling waste materials in outdoor or indoor spaces.

Installation: the installation for the first time the mechanical equipment to a location for exercising this activity.

Function: is to activate the installed machinery.

Expansion: means any increase, after the initial installation and operation of the activity, of the installed capacity of the machinery or adding buildings or change or complement the activity.

Installation and Operation Licenses: Their purpose is to examine the installation conditions and operation of the activity and the setting of technical conditions which must be met, for the protection of workers, habitants, the public and the environment from any danger of health damage or nuisance or pollution that may result from the operation of that installation or its products

Licensing Authority: The Development Directorate of the relevant Regional Unity, the Development

and Coordination Authority of the Ministry of Economy, Competitiveness and Shipping, the locally competent for the manufacturing and related operations Chambers and associations, and the Technical Chamber of Greece.

Site Location Industry and Crafts: The establishment of Industries and Crafts is permissible:

- In plots that are within organized industrial areas (industrial area) or industrial parks (Industrial Park).
- In areas outside city limits, provided that these areas are not covered by land use provisions contrary to this activity.
- For low nuisance plants, estate inside and outside the city plan, if the land use is not governed by specific planning provisions and after preliminary approval from the relevant Regional Authority.
- In the Attica region, the location of industry and craft expressly prohibited within the City approved street plans. For areas outside Attica depends on the uses permitted by the approved street plan of each city.

Industries or food Manufacturers: industries or artisanal food should be provided with installation and operating licenses, like other industries or crafts. Besides these, it is mandatory to be fitted with the following permissions:

- Health attestation from the Health Directorate of Regional Authority.
- Authorization of the Veterinary Service of the Regional Authority in the event of processing or manufacturing products containing raw materials of animal origin.

There are also special technical specifications under which must be constructed such units. These specifications are detailed in the Hygiene Guidelines issued by the Hellenic Food Authority (EFET). No industry or food Manufacturing cannot be licensed and get ISO certification if these standards are not met.

Environmental Licensing: With the YA 1958 to 1912 (Government Gazette 21 / B / 2012) all projects and activities for which environmental permits required have been classified into two categories: A (which is divided into the subcategories A1 and A2) and B, and 12 groups common to all categories. Subcategory A1 rank the projects and activities that may cause very significant effects on the environment, while in A2 are likely to cause significant environmental effects. Category B includes projects and activities involving local and non-significant effects on the environment. In A class required to conduct the Environmental Impact Study (EIA) to the special conditions

and restrictions are imposed. In category B does not follow the process of drafting EIA but are subject to EIA Standard Environmental Commitments (EAP).

Standard Environmental Commitments: are special standard environmental conditions or commitments.

Environmental Impact Study: Study is prepared by scientist and describes the work being constructed, the relevant legal framework, the potential impact on the environment and how to counteract it.


LICENSING PROCESS

The licensing of a processing firm is done in cooperation with a civil and a mechanical engineer. The entrepreneur will need the legalization documents of the area that the plant will be installed (land or building purchase contract, rental contract etc.) and the documents that will be prepared by engineers eg studies, elevations and floor plans of the area, topographic charts, layout diagram of the mechanical equipment, the production process description, coverage charts, declarations etc. The process can be described in the following steps (Kotsios, 2015):

- Determine the Activity Codes (KAD) of the business (Ministerial Decision 1100330/1954 / DM /06.10.2008), the activity is classified as to the degree of nuisance (Ministerial Decision 3137/191 / F. 15 / 2012) and the required environmental permits (Ministerial Decision 1958/2012). Also determine whether there are required for the activity Standard Environmental Commitments (EAP) (Joint Ministerial Decision no. F.15 / 4187/266/2012) or required Environmental Impact Study.
- Make an application to the Urban Planning Authority for a certificate of land use and building permit when there is construction of a new building. If the application concerns a professional workshop then the building permission should refer to shop, business premises or warehouse (Article 8, paragraph 3 N3325 / 2005). If the application concerns industry - craft then the building permit should refer to industrial - craft use. The Urban Planning Authority is likely to consult other competent Services (Directorate of Development,

APPENDIX 12 INTERVIEWS' COVER PAGES

Study No & title: II Meat and Fish Products and Processing	Researcher/s: Foteini Theodorakioglou	Date: 28.9.2015
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Study No & title: II Meat and Fish Products and Processing	Researcher/s: Foteini Theodorakioglou, Panagiotis Kotsios	Date: 13.10.2015
Company title: Z. BORAS & SIA OE		Business Type: Meat processing (buffalo)
Address: Livadia Serron, Kerkini lake (Serres)		www.mporas.gr
Contact person: Zelios Boras, Dimitris Boras	Mobile: 23270 31109 e-mail:	GPS location N 41.251525 E 23.077667
Main activity sector: B2B B2		Other activities: butcher, farmer
Year of establishment: 2008	Management & ownership: Dimitris & Zelios Boras	
Annual turnover:		
<ul style="list-style-type: none"> <input type="radio"/> Up to 200.000 <input type="radio"/> 201.000 - 400.000 <input type="radio"/> 401.000 - 600.000 <input type="radio"/> 601.000 - 800.000 <input type="radio"/> 801.000 - 1.000.000 <input type="radio"/> " 1.000.001 and over (1 EKATOM) 		
No of employees (TF equivalent):		
<ul style="list-style-type: none"> <input checked="" type="radio"/> Up to 10 (7 EMPLOYEES) <input type="radio"/> 11 - 20 <input type="radio"/> 21 - 30 <input type="radio"/> 31 - 40 <input type="radio"/> 41 - 50 <input type="radio"/> 51 & over 		
Level of activity: national (98% annual turnover), exporter (2% annual turnover)		
If exporter, main markets: Exports to Cyprus and Germany		
If importer, national origin of main imports:		
In Greece, main geographical Markets: Mainly to Athens and then follows Thessaloniki.		
Short company history/ researcher notes: The company founded in 1987 (as a sole proprietorship company). In 2001, their butcher shop started selling buffalo meat. In 2008 the company changed its legal form to General partnership. Nowadays the G.P "Z.Boras & Co" company is a modern unit which processes, standardizes and packages buffalo and other kinds of meat. The company sells 50 tons of buffalo meat annually. The products are mainly available in delicatessen stores as well as in high quality restaurants. Every year, the company takes place in gastronomy festivals and in various food exhibitions.		
Insert photos		
		

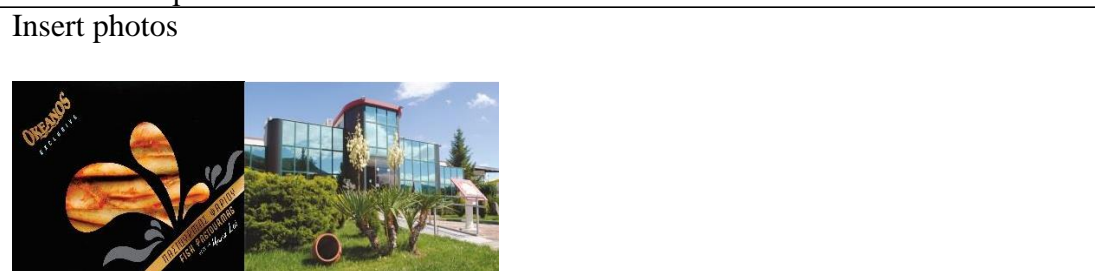
Study No & title: II Meat and Fish Products and Processing	Researcher/s: Foteini Theodorakioglou	Date: 22.10.2015
Company title: SARIBOYAS PROCESSING -TRADING OF CURED MEAT SA		Business Type: Processing of meat
Address: VIPA Prosotsanis, Drama		www.sary.gr
Contact person: Paraskevas Sariboyas	Mobile: 25220 21031 e-mail: info@sary.gr	GPS location N 41.176850 E 23.998323
Main activity sector: B2B <input type="checkbox"/> B2 <input type="checkbox"/>		Other activities: Retailer of deli shops
Year of establishment: 1938	Management & ownership: Sariboyas	
Annual turnover: <ul style="list-style-type: none"> <input type="radio"/> Up to 200.000 <input type="radio"/> 201.000 - 400.000 <input type="radio"/> 401.000 - 600.000 <input type="radio"/> 601.000 - 800.000 <input type="radio"/> 801.000 - 1.000.000 <input type="radio"/> " 1.000.001 and over (4,7 million) 		
No of employees (TF equivalent): <ul style="list-style-type: none"> <input type="radio"/> Up to 10 <input type="radio"/> 11 - 20 <input type="radio"/> 21 - 30 <input type="radio"/> 31 - 40 <input type="radio"/> 41 - 50 (50 EMPLOYEES) <input type="radio"/> " 51 & over 		
Level of activity: national (95% of turnover), exporter (5% of turnover), importer (of raw materials, machinery)		
If exporter, main markets: Germany, Great Britain, Denmark, Italy		
If importer, national origin of main imports: Imports 20% of raw material (meat and spices) from the Netherlands, Spain and Germany. Buys 80% of raw materials from Greek companies (half of which also import them).		
In Greece, main geographical markets: whole Greece		
Short company history/ researcher notes: Sariboya family came to Greece from Cappadocia (Turkey) in 1890. In 1938 the family established a company for the processing of meat products based on traditional recipes from Anatolia. Today, the 4 th generation of the family continues the tradition. The company produces a range of gourmet and traditional meat products, such as karamalnidiko soutzouki, pastourmas, traditional sausages, smoked cured meat etc. The brand name of the products is "Sary".		
Insert photos		

Short company history/ researcher notes:

EFET was established by virtue of L. 2741/GG 199/28-09-1999. EFET sets quality standards that must be met by foods provided for consumption and the raw materials or additives intended to be added to foods in order to protect public health and to prevent consumers from fraudulent practices. EFET coordinates and directs the inspections at all stages after primary production which include, inter alia, harvesting, slaughter and milking, i.e. the stages of manufacturing, processing, production, packaging, storage, transport, distribution, handling, marketing or supply to the consumer of fresh or processed food produced, handled or imported to our country or exported from it. The purpose of



(1998) and for the processing of seafood (1999). The gourmet retail shop “MR MENIOS” operates in Larissa from 2014.



Study No & title: II Meat and Fish Products and Processing	Researcher/s: Foteini Theodorakioglou	Date: 14.10.2015
Company title: College of Meat Professions		Business Type: Public college
Address: Hapsa 1, Thessaloniki, 54626		https://sites.google.com/site/scholepangelmatonkreatos/
Contact person: George Mihailidis	Mobile: 2310 521111, 2310 551617 e-mail:	GPS location N 40.636524 E 22.934815
Main activity sector: Meat cutting and butcher college		Other activities:
Year of establishment: 1992	Management & ownership: Public	
Annual turnover:		
<input type="radio"/> Up to 200.000 <input type="radio"/> 601.000 – 800.000 <input type="radio"/> 201.000 – 400.000 <input type="radio"/> 801.000 – 1.000.000 <input type="radio"/> 401.000 – 600.000 <input type="radio"/> 1.000.001 and over		
No of employees (TF equivalent):		
<input checked="" type="radio"/> Up to 10 <input type="radio"/> 31 - 40 <input type="radio"/> 11 – 20 <input type="radio"/> 41 - 50 <input type="radio"/> 21 - 30 <input type="radio"/> 51 & over		
Level of activity: national		
If exporter, main markets:		
If importer, national origin of main imports:		
In Greece, main geographical Markets:		
Short company history/ researcher notes: There are four public colleges of professions related to meat. These are located in Athens, Thessaloniki, Larissa and Drama. Soon, a fifth public college will operate in Serres. There is no private college in this area (meat) in Greece.		

The studies last two months and are for free.
After finishing the studies successfully, the butchers get a certification. Without this certification, they cannot work as butchers.

Insert photos

Study No & title: II Meat and Fish Products and Processing	Researcher/s: Foteini Theodorakioglou	Date: 23.9.2015
Company title: FARMA FOTIADI SA		Business Type: Meat processing
Address: Exohi Pierias, Katerini 60100		www.farma-fotiadi.gr
Contact person: Nikos Fotiadis	Mobile: 23510 95777 e-mail: farmafot@otenet.gr	GPS location N 40.2103.68 E 22.2538.48
Main activity sector: B2B B2C		Other activities: Farmer
Year of establishment: 1998 as personal company 2002 as S.A.	Management & ownership: Nikos Fotiadis	
Annual turnover: <input type="radio"/> Up to 200.000 <input type="radio"/> 601.000 - 800.000 <input type="radio"/> 201.000 - 400.000 " 801.000 - 1.000.000 <input type="radio"/> 401.000 - 600.000 <input type="radio"/> 1.000.001 and over		
No of employees (TF equivalent): <input type="radio"/> Up to 10 <input type="radio"/> 31 - 40 <input checked="" type="radio"/> 11 - 20 <input type="radio"/> 41 - 50 <input type="radio"/> 21 - 30 <input type="radio"/> 51 & over		
Level of activity: Sells directly to Athens and Thessaloniki and through Supermarkets to whole Greece		
If exporter, main markets: Small quantities to Belgium, Netherlands, Germany, Great Britain		
If importer, national origin of main imports: N/A		
In Greece, main geographical Markets: Athens, Thessaloniki		
Short company history/ researcher notes: 1925: Grandfather Fotiadis breeds swines 1998: Start selling to supermarkets 2005: Start meat processing 2011: Bred black swines 2014: Feed black swines with olive pulp		

Insert photos



APPENDIX 13 PDO APPLICATION 1

NATIONAL ΑΙΤΗΣΗ ΚΑΤΑΧΩΡΙΣΗΣ

Κανονισμός (ΕΚ) αριθ. 510/2006 για την προστασία των γεωγραφικών ενδείξεων και των ονομασιών προέλευσης

1. ΟΝΟΜΑΣΙΑ
[Αναγράφεται η ονομασία που προτείνεται για καταχώριση]
2. ΠΓΕ Ή ΠΟΠ
Επιλέγεται μόνο ένα, με «X»: Ο ΠΓΕ Ο ΠΟΠ
3. ΤΥΠΟΣ ΠΡΟΪΟΝΤΟΣ (σύμφωνα με την ταξινόμηση του ΠΑΡΑΡΤΗΜΑΤΟΣ VI)
4. ΣΤΟΙΧΕΙΑ ΑΡΜΟΔΙΟΥ Ο
Υπογραφών την αίτηση

Τίτλος (κύριος, κυρία, ..): Όνομα: Επώνυμο:

Όνομα ομάδας/ή οργανισμού (όπου έχει εφαρμογή):

Διεύθυνση:

Τηλ.:

Φαξ:

e-mail:

5. ΑΙΤΟΥΣΑ ΟΜΑΔΑ
- 5.1. Τύπος Ομάδας:
 - ομάδα περισσότερων του ενός ατόμων
 - ένα φυσικό ή νομικό πρόσωπο
- 5.2. Νομική μορφή ή σύνθεση της ομάδας:
- 5.3. Στους συμμετέχοντες στην ομάδα περιλαμβάνονται:
(σημειώνονται όλες οι κατηγορίες συμμετεχόντων)
 -
 - παραγωγός/-οί
 - Π
 - μεταποιητής/-
 - ές
 - Π άλλο (να προσδιοριστεί)

6. ΥΠΟΓΡΑΦΗ

Ο κάτωθι υπογεγραμμένος βεβαιώ ότι οι πληροφορίες που περιέχονται στην παρούσα αίτηση είναι ακριβείς και ειλικρινείς και δεν περιέχουν παραπλανητικά στοιχεία. Γνωρίζω ότι οι ψευδείς δηλώσεις μπορούν να οδηγήσουν σε απόρριψη της αίτησης.

Υπογράφεται από το άτομο που προσδιορίζεται στο τμήμα 4 ανωτέρω:

Όνομα υπογράφοντος (όπως ακριβώς στο τμήμα 4 ανωτέρω):

Τίτλος (κύριος, κυρία, ..):

Όνομα:

Επώνυμο:

Ημερομηνία Υπογραφής:

EU APPLICATION FOR REGISTRATION
OF A DESIGNATION OF ORIGIN OR GEOGRAPHICAL INDICATION

Language used for submission of application
Applicant
Name of legal or natural person
Full address
(street number and name, town/city and postal code, country)
Legal status, size and composition
(in the case of legal persons)
Nationality
Tel, fax, e-mail
Intermediary
· Member State(s) ^(*)

· Third-country authority (*)
<i>[(*) delete as appropriate]</i>
Name(s) of intermediary(ies)
Full address(es)
(street number and name, town/city and postal code, country)
Tel, fax, e-mail
Name to be registered
Designation of origin ^(*) Geographical indication ^(*)
<i>[(*) delete as appropriate]</i>
Proof of protection in third country
Categories of grapevine products
<i>[on separate sheet]</i>
Product specification
Number of pages
Name(s) of signatory(ies)
Signature(s)

mailto:AGRI-CONTACT-EBACCHUS@ec.europa.eu

APPENDIX 14 PDO APPLICATION 2

Κατά τη συμπλήρωση του παρόντος εντύπου, το κείμενο στις αγκύλες παραλείπεται.

ΕΝΙΑΙΟ ΕΓΓΡΑΦΟ

ΚΑΝΟΝΙΣΜΟΣ (ΕΚ) αριθ. 510/2006 για την προστασία των γεωγραφικών ενδείξεων και των ονομασιών προέλευσης

[Αναγράφεται το όνομα όπως στο σημείο 1 κατωτέρω:]

Αριθ. ΕΚ: [μόνο για χρήση ΕΚ]

[Επιλέγεται μόνο ένα, με «X»:] ΠΓΕ ΠΟΠ

1. ΟΝΟΜΑΣΙΑ [ΠΓΕ Ή ΠΟΠ]
[Αναγράφεται η ονομασία που προτείνεται για καταχώριση ή που έχει καταχωρισθεί, όταν πρόκειται για αίτηση έγκρισης τροποποιήσεων των προδιαγραφών προϊόντος ή για δημοσίευση δυνάμει του άρθρου 19 παράγραφος 2 του εφαρμοστικού κανονισμού]
2. ΚΡΑΤΟΣ ΜΕΛΟΣ Ή ΤΡΙΤΗ ΧΩΡΑ
3. ΠΕΡΙΓΡΑΦΗ ΤΟΥ ΓΕΩΡΓΙΚΟΥ ΠΡΟΪΟΝΤΟΣ Ή ΤΡΟΦΙΜΟΥ
- 3.1. Τύπος προϊόντος [σύμφωνα με την ταξινόμηση του ΠΑΡΑΡΤΗΜΑΤΟΣ VI]
- 3.2. Περιγραφή του προϊόντος που φέρει την προβλεπόμενη στο σημείο 1 ονομασία.
[Κύρια σημεία των ειδών που προβλέπονται στο στοιχείο β) του άρθρου 4 παράγραφος 2 του κανονισμού (ΕΚ) αριθ. 510/2006. Τεχνική περιγραφή του τελικού προϊόντος το οποίο φέρει την προβλεπόμενη στο σημείο 1 ονομασία, συμπεριλαμβανομένων των απαιτήσεων για χρήση ορισμένων ζωικών φυλών ή φυτικών ποικιλιών.]
- 3.3. Πρώτες ύλες (μόνο για μεταποιημένα προϊόντα) [Αναφέρονται οι απαιτήσεις ως προς την ποιότητα των πρώτων υλών ή οι περιορισμοί ως προς την προέλευσή τους. Οι περιορισμοί αυτοί αιτιολογούνται.]
- 3.4. Ζωοτροφές (μόνο για προϊόντα ζωικής προέλευσης) [Αναφέρονται οι απαιτήσεις ως προς την ποιότητα των ζωοτροφών ή οι περιορισμοί ως προς την προέλευσή τους. Οι περιορισμοί αυτοί αιτιολογούνται.]
- 3.5. Συγκεκριμένα στάδια της παραγωγής που πρέπει να εκτελούνται στην οριοθετημένη γεωγραφική περιοχή [Τυχόν περιορισμοί αιτιολογούνται.]
- 3.6. Ειδικοί κανόνες σχετικά με τον τεμαχισμό σε φέτες, το τρίψιμο, τη συσκευασία κ.λπ. [Εάν δεν υπάρχουν, παραμένει κενό. Τυχόν περιορισμοί αιτιολογούνται.]
- 3.7. Ειδικοί κανόνες σχετικά με την επισήμανση [Εάν δεν υπάρχουν, παραμένει κενό. Τυχόν περιορισμοί αιτιολογούνται.]
4. ΣΥΝΟΠΤΙΚΗ ΟΡΙΟΘΕΤΗΣΗ ΤΗΣ ΓΕΩΓΡΑΦΙΚΗΣ ΠΕΡΙΟΧΗΣ
 5. ΔΕΣΜΟΣ ΜΕ ΤΗ ΓΕΩΓΡΑΦΙΚΗ ΠΕΡΙΟΧΗ
 - 5.1. Ιδιαιτερότητα της γεωγραφικής περιοχής
[Στην περίπτωση των αιτήσεων για ΠΟΠ, περιλαμβάνεται περιγραφή τυχόν εγγενών φυσικών και ανθρώπινων παραγόντων.]
 - 5.2. Ιδιαιτερότητα του προϊόντος

5.3. Αιτιώδης σχέση που συνδέει τη γεωγραφική περιοχή με την ποιότητα ή τα χαρακτηριστικά του προϊόντος (για τις ΠΟΠ) ή με συγκεκριμένη ποιότητα, με τη φήμη ή άλλα χαρακτηριστικά του προϊόντος (για τις ΠΓΕ).

Παραπομπή στη δημοσίευση των προδιαγραφών

(Άρθρο 5 παράγραφος 7 του κανονισμού (ΕΚ) αριθ. 510/2006)

ΠΑΡΑΡΤΗΜΑ ΙΙΙ
ΑΙΤΗΣΗ ΤΡΟΠΟΠΟΙΗΣΗΣ

Κανονισμός (ΕΚ) αριθ. 510/2006 του Συμβουλίου για την προστασία των γεωγραφικών ενδείξεων και των ονομασιών προέλευσης

Αίτηση τροποποίησης σύμφωνα με το άρθρο 9 του Καν. (ΕΚ) 510/2006

[Καταχωρισθείσα ονομασία]

Αριθ. ΕΚ: [μόνο για χρήση ΕΚ]

[Επιλέγεται μόνο ένα, με «X» :] ΠΓΕ ΠΟΠ

1. ΑΤΟΜΟ Ή ΦΟΡΕΑΣ ΠΟΥ ΥΠΟΒΑΛΛΕΙ ΑΙΤΗΣΗ ΤΡΟΠΟΠΟΙΗΣΗΣ Όνομα:

Διεύθυνση:

Είδος του έννομου συμφέροντος για την υποβολή της αίτησης:

2. ΠΡΟΔΙΑΓΡΑΦΕΣ ΤΟΥ ΠΡΟΪΟΝΤΟΣ ΠΟΥ ΑΦΟΡΑ Η ΤΡΟΠΟΠΟΙΗΣΗ

- Ονομασία του προϊόντος
- Περιγραφή του προϊόντος
- Γεωγραφική περιοχή
- Απόδειξη προέλευσης
- Μέθοδος παραγωγής
- Δεσμός
- Επισήμανση
- Εθνικές απαιτήσεις
- Άλλο (να προσδιοριστεί)

3. ΤΥΠΟΣ ΤΡΟΠΟΠΟΙΗΣΗΣ/-ΕΩΝ

- Τροποποίηση του ενιαίου εγγράφου ή του συνοπτικού δελτίου
- Τροποποίηση των προδιαγραφών της καταχωρισθείσας ΠΟΠ ή ΠΓΕ, για την οποία δεν έχει δημοσιευθεί ούτε ενιαίο έγγραφο ούτε συνοπτικό δελτίο
- Τροποποίηση των προδιαγραφών που δεν απαιτεί τροποποίηση του δημοσιευμένου ενιαίου εγγράφου (άρθρο 9 παράγραφος 3 του κανονισμού (ΕΚ) αριθ. 510/2006)
- Προσωρινή τροποποίηση των προδιαγραφών λόγω της επιβολής υποχρεωτικών υγειονομικών ή φυτοϋγειονομικών μέτρων από τις δημόσιες αρχές (άρθρο 9 παράγραφος 4 του κανονισμού (ΕΚ) αριθ. 510/2006)

4. ΤΡΟΠΟΠΟΙΗΣΗ/-ΕΙΣ :

[Για κάθε τροποποίηση που επιλέχθηκε με «X» στην παράγραφο 2, απαιτείται σύντομη εξήγηση.

Υποβάλλεται επίσης δήλωση που εξηγεί το έννομο συμφέρον της ομάδας η οποία προτείνει την τροποποίηση.]

5. ΕΠΙΚΑΙΡΟΠΟΙΗΜΕΝΟ ΕΝΙΑΙΟ ΕΓΓΡΑΦΟ (ΕΦΟΣΟΝ ΕΙΝΑΙ ΑΝΑΓΚΑΙΟ)
[Χρησιμοποιείται το Παράρτημα II]

ΠΑΡΑΡΤΗΜΑ IV
ΑΙΤΗΣΗ ΑΚΥΡΩΣΗΣ

Κανονισμός (ΕΚ) αριθ. 510/2006 για την προστασία των γεωγραφικών ενδείξεων και των ονομασιών προέλευσης

Αίτημα ακύρωσης σύμφωνα με το άρθρο 12 παράγραφος 2:

[Καταχωρισθείσα ονομασία:]

Αριθ. ΕΚ: [μόνο για χρήση ΕΚ]

Επιλέγεται μόνο ένα, με «X» ΠΓΕ ΠΟΠ

1. ΚΑΤΑΧΩΡΙΣΜΕΝΗ ΟΝΟΜΑΣΙΑ ΠΟΥ ΠΡΟΤΕΙΝΕΤΑΙ ΝΑ ΑΚΥΡΩΘΕΙ
2. ΤΥΠΟΣ ΠΡΟΪΟΝΤΟΣ [σύμφωνα με την ταξινόμηση του ΠΑΡΑΡΤΗΜΑΤΟΣ VI]
3. ΑΤΟΜΟ Ή ΦΟΡΕΑΣ ΠΟΥ ΥΠΟΒΑΛΛΕΙ ΑΙΤΗΣΗ ΑΚΥΡΩΣΗΣ Όνομα:

Διεύθυνση:

Είδος του έννομου συμφέροντος για την υποβολή της αίτησης:

[Υποβάλλεται δήλωση που εξηγεί το έννομο συμφέρον του ατόμου ή της ομάδας που αιτείται την ακύρωση.]

4. ΛΟΓΟΙ ΑΚΥΡΩΣΗΣ

[Υποβάλλεται δήλωση που αιτιολογεί την ακύρωση της καταχώρισης της ονομασίας.]

ΠΑΡΑΡΤΗΜΑ V
ΔΗΛΩΣΗ ΕΝΣΤΑΣΗΣ

Κανονισμός (ΕΚ) αριθ. 510/2006 για την προστασία των γεωγραφικών ενδείξεων και των ονομασιών προέλευσης

1. ΟΝΟΜΑΣΙΑ ΠΡΟΪΟΝΤΟΣ
2. ΑΤΟΜΟ Η ΦΟΡΕΑΣ ΠΟΥ ΥΠΟΒΑΛΛΕΙ ΔΗΛΩΣΗ ΕΝΣΤΑΣΗΣ
Όνομα:
Διεύθυνση:
Είδος του έννομου συμφέροντος για την υποβολή της αίτησης:
3. ΑΙΤΙΟΛΟΓΗΣΗ ΤΗΣ ΕΝΣΤΑΣΗΣ:
 - Μη συμμόρφωση με τους όρους του άρθρου 2 του κανονισμού (ΕΚ) αριθ. 510/2006
 - Ο Η καταχώριση της ονομασίας θα αντέβαινε στο άρθρο 3 παράγραφος 2 του κανονισμού (ΕΚ) αριθ. 510/2006 (φυτική ποικιλία ή ζωική φυλή)
 - Η καταχώριση της ονομασίας θα αντέβαινε στο άρθρο 3 παράγραφος 3 του κανονισμού (ΕΚ) αριθ. 510/2006 (πλήρως ή εν μέρει ομώνυμη ονομασία)

- Η καταχώριση της ονομασίας θα αντέβαινε στο άρθρο 3 παράγραφος 4 του κανονισμού (ΕΚ) αριθ. 510/2006 (υφιστάμενο εμπορικό σήμα)
- Η καταχώριση της ονομασίας θα έθιγε την ύπαρξη ονομασιών, εμπορικών σημάτων ή προϊόντων που ορίζονται στο στοιχείο γ) του άρθρου 7 παράγραφος 3 του κανονισμού (ΕΚ) αριθ. 510/2006
- Η προτεινόμενη για καταχώριση ονομασία είναι κοινή· παρέχονται στοιχεία όπως ορίζεται στο στοιχείο δ) του άρθρου 7 παράγραφος (3) του κανονισμού (ΕΚ) αριθ. 510/2006

4. ΛΕΠΤΟΜΕΡΕΙΕΣ ΤΗΣ ΕΝΣΤΑΣΗΣ

Δήλωση στην οποία αναφέρονται οι λόγοι που υπαγόρευαν την ένσταση. Υποβάλλεται επίσης δήλωση στην οποία εξηγείται το έννομο συμφέρον του ενιστάμενου. Η δήλωση ένστασης πρέπει να φέρει ημερομηνία και υπογραφή.

ΠΑΡΑΡΤΗΜΑ VI

ΤΑΞΙΝΟΜΗΣΗ ΠΡΟΪΟΝΤΩΝ ΓΙΑ ΤΟΥΣ ΣΚΟΠΟΥΣ ΤΟΥ ΚΑΝΟΝΙΣΜΟΥ (ΕΚ) ΑΡΙΘ. 510/2006

1. ΓΕΩΡΓΙΚΑ ΠΡΟΪΟΝΤΑ ΠΡΟΟΡΙΖΟΜΕΝΑ ΓΙΑ ΑΝΘΡΩΠΙΝΗ ΚΑΤΑΝΑΛΩΣΗ ΠΟΥ ΑΠΑΡΙΘΜΟΥΝΤΑΙ ΣΤΟ ΠΑΡΑΡΤΗΜΑ I ΤΗΣ ΣΥΝΘΗΚΗΣ

- Κλάση 1.1. Κρέατα (και βρώσιμα παραπροϊόντα σφαγείων)
- Κλάση 1.2. Προϊόντα κρέατος (μαγειρευτά, παστά, καπνιστά, κ.λπ.)
- Κλάση 1.3. Τυριά
- Κλάση 1.4. Λοιπά προϊόντα ζωικής προέλευσης (αυγά, μέλι, διάφορα γαλακτοκομικά προϊόντα πλην βουτύρου, κ.λπ.)
- Κλάση 1.5. Έλαια και λίπη (βούτυρο, μαργαρίνη, λάδι, κ.λπ.)
- Κλάση 1.6. Φρούτα, λαχανικά και δημητριακά νωπά ή μεταποιημένα
- Κλάση 1.7. Νωπά ψάρια, μαλάκια και μαλακόστρακα και προϊόντα αυτών
- Κλάση 1.8. Λοιπά προϊόντα του παραρτήματος I της Συνθήκης (μπαχαρικά κ.λπ.)

2. ΤΡΟΦΙΜΑ ΠΟΥ ΑΝΑΦΕΡΟΝΤΑΙ ΣΤΟ ΠΑΡΑΡΤΗΜΑ I ΤΟΥ ΚΑΝΟΝΙΣΜΟΥ

- Κλάση 2.1. Μπίρες
- Κλάση 2.2. Φυσικά μεταλλικά νερά και νερά πηγών (έχει καταργηθεί)
- Κλάση 2.3. Ποτά με βάση εκχυλίσματα φυτών
- Κλάση 2.4. Προϊόντα αρτοποιίας, ζαχαροπλαστικής, ζαχαρώδη παρασκευάσματα ή προϊόντα μπισκοτοποιίας
- Κλάση 2.5. Φυσικά κόμμεα και ρητίνες
- Κλάση 2.6. Πολτός μουστάρδας
- Κλάση 2.7. Ζυμαρικά

1. ΓΕΩΡΓΙΚΑ ΠΡΟΪΟΝΤΑ ΠΟΥ ΑΝΑΦΕΡΟΝΤΑΙ ΣΤΟ ΠΑΡΑΡΤΗΜΑ II ΤΟΥ ΚΑΝΟΝΙΣΜΟΥ Σανός

Αιθέρια έλαια Φελλός

Κοχενίλλη (ακατέργαστο προϊόν ζωικής προέλευσης)

Καλλωπιστικά άνθη και φυτά

Μαλλί
Λυγαριά
Ξεφλουδισμένο λινάρι

APPENDIX 14 REGISTERED PDO PRODUCTS

Meat products - PDO and PGI - Reg. (EC) No 510/2006⁸²

Sales value by MS

	<i>Nb GI</i>	<i>Val. K€</i>					
	2010	2005	2006	2007	2008	2009	2010
<i>Austria</i>	2	s	s	s	s	s	s
<i>Belgium</i>	1	s	s	s	s	s	s
<i>Bulgaria</i>	0	0	0	0	0	0	0
<i>Cyprus</i>	0	0	0	0	0	0	0
<i>Czech Republic</i>	0	0	0	0	0	0	0
<i>Denmark</i>	0	0	0	0	0	0	0
<i>Estonia</i>	0	0	0	0	0	0	0
<i>Finland</i>	0	0	0	0	0	0	0
<i>France</i>	4	213 827	228 526	255 226	272 013	318 264	356 438
<i>Germany</i>	8	400 965	487 516	540 951	617 393	676 424	705 838
<i>Greece</i>	0	0	0	0	0	0	0
<i>Hungary</i>	2	0	0	0	s	s	s
<i>Ireland</i>	1	s	s	s	s	s	s
<i>Italy</i>	32	1 612 464	1 534 137	1 592 915	1 673 677	1 875 520	1 871 477
<i>Latvia</i>	0	0	0	0	0	0	0
<i>Lithuania</i>	0	0	0	0	0	0	0
<i>Luxembourg</i>	1	s	s	s	s	s	s
<i>Malta</i>	0	0	0	0	0	0	0
<i>Netherlands</i>	0	0	0	0	0	0	0
<i>Poland</i>	0	0	0	0	0	0	0
<i>Portugal</i>	36	1 412	1 560	827	2 434	2 630	2 630
<i>Romania</i>	0	0	0	0	0	0	0
<i>Slovakia</i>	0	0	0	0	0	0	0
<i>Slovenia</i>	0	0	0	0	0	0	0
<i>Spain</i>	10	134 296	166 136	153 841	150 419	177 850	165 567
<i>Sweden</i>	0	0	0	0	0	0	0
<i>United Kingdom</i>	1	0	0	0	0	0	s
<i>Total</i>	98	2 395 267	2 451 045	2 578 723	2 758 857	3 094 836	3157246

⁸² <http://ec.europa.eu/agriculture/external-studies/>
and http://ec.europa.eu/agriculture/external-studies/2012/value-gi/agricultural-products-eu27_en.pdf

Oth. prod. of ani. origin- PDO and PGI - Reg. (EC) No 510/2006⁸³

Sales value by MS

	<i>Nb GI</i>	<i>Val. K€</i>					
	2010	2005	2006	2007	2008	2009	2010
<i>Austria</i>	0	0	0	0	0	0	0
<i>Belgium</i>	0	0	0	0	0	0	0
<i>Bulgaria</i>	0	0	0	0	0	0	0
<i>Cyprus</i>	0	0	0	0	0	0	0
<i>Czech Republic</i>	0	0	0	0	0	0	0
<i>Denmark</i>	0	0	0	0	0	0	0
<i>Estonia</i>	0	0	0	0	0	0	0
<i>Finland</i>	0	0	0	0	0	0	0
<i>France</i>	7	26 688	24 596	24 979	25 525	46 537	49 118
<i>Germany</i>	0	0	0	0	0	0	0
<i>Greece</i>	1	s	s	s	s	s	s
<i>Hungary</i>	0	0	0	0	0	0	0
<i>Ireland</i>	0	0	0	0	0	0	0
<i>Italy</i>	1	s	s	s	s	s	s
<i>Latvia</i>	0	0	0	0	0	0	0
<i>Lithuania</i>	0	0	0	0	0	0	0
<i>Luxembourg</i>	1	s	s	s	s	s	s
<i>Malta</i>	0	0	0	0	0	0	0
<i>Netherlands</i>	0	0	0	0	0	0	0
<i>Poland</i>	1	0	0	0	0	s	s
<i>Portugal</i>	9	428	704	803	280	376	376
<i>Romania</i>	0	0	0	0	0	0	0
<i>Slovakia</i>	0	0	0	0	0	0	0
<i>Slovenia</i>	0	0	0	0	0	0	0
<i>Spain</i>	3	s	s	s	2 985	3 434	3 874
<i>Sweden</i>	0	0	0	0	0	0	0
<i>United Kingdom</i>	1	s	s	s	s	s	s
<i>Total</i>	24	47 905	45 028	46 604	48 921	67 925	71 436

⁸³ Ibid.

APPENDIX 15 PATENTS AND UTILITY MODELS PROCEDURE

1. How can anyone protect an invention in Greece?

An invention is granted legal protection only when protected by a Patent or a Utility Model Certificate. The Industrial Property Organisation is the legally qualified institution for the exclusive grant of such protection titles.

2. What is a patent?

A Patent is a protection title with a duration of 20 years. It is granted to the patentee for any invention which is new, involves an inventive step and is susceptible of industrial application.

3. Which is the procedure for the filing of a patent application?

1. For the grant of a patent an application shall be filed with OBI including:
 - a. Full name or name of legal entities, nationality, residence or seat, and address of the applicant;
 - b. Description of the invention and determination of one or more claims. By claim shall be held in the present law the extent and the content of the requested protection;
 - c. A request for the grant of a patent.
2. The application shall be accompanied by the drawings referred to in the claims or the description, an abstract of the invention, the explanations for the proper understanding of the description, and the documents empowering the applicant to act in case of a legal entity or in case of a natural person if he/she is not the inventor. It shall be further accompanied by the receipts evidencing payment of the application fee and of the first annual renewal fee.
3. The application may relate either to a single or to multiple inventions so linked as to form a single general concept. If the application is related to several inventions (compound application) the applicant may, up to the date of grant of the patent, divide the application into more than one divisional applications, maintaining the filing date of the initial application as filing date of each divisional application.
4. The application shall be accented for filing provided that it meets the terms laid down in paragraph 1 and that it is accompanied by the receipts of the filing fee and the first annual renewal fee. In this case the filing of the application shall be considered as orderly filed but not complete.
5. Within a period of four months from the filing date, the applicant should submit any missing drawings or other supporting documents, complete any lacking data, and correct any eventual errors in the draft of the documents and of other supporting documentation. In this case the filing of the application shall be considered complete.
6. The date of the orderly filing of the application is considered as the filing date of the application.

3. What is a Utility Model Certificate?

A Utility Model Certificate is a protection title with a duration of 7 years. It is granted to the holder of the right for a three-dimensional object with definite shape and form, capable of giving a solution to a technical problem and proposed as novel and industrially applicable.

4. Status of the protection granted by a Patent or a Utility Model Certificate

A Patent or a Utility Model Certificate confer on their owner the exclusive right to produce, use, sell and in general to exploit their invention in Hellas. In this way, they exclude any third party from any exploitation of their invention.

5. What happens if a third party copies or exploits an invention already protected by a Patent or a Utility Model Certificate?

The owner has the right to require from the Hellenic courts that the infringement of the Patent or the Utility Model Certificate ceases and that no infringement be committed in the future. On the understanding of law, the owner is entitled to demand reparation of the damage or surrender of the profits obtained from the illegal exploitation of the invention. Alternatively, an amount equal to the value of a license of such exploitation may be demanded. The court may additionally order the destruction of the products manufactured by the third party in violation of the provisions of the law. The court may also order, instead of the destruction, that the products or a part thereof be surrendered to the holder at the request of the latter.

6. What is likely to occur when an invention has not been protected by a Patent or a Utility Model Certificate?

Any third party may apply first for a Patent or a Utility Model Certificate for the same invention, in which case it is granted the exclusive right to exploit the invention, excluding therefrom any other, even you, or simply start exploiting the invention without having been granted the right deriving from the Patent or a Utility Model Certificate, thus disclosing the invention to the public. As a result, any third party, even you, is excluded from being granted the exclusive right.

7. Can an invention be protected by a Patent or a Utility Model Certificate?

Patents and Utility Model Certificates cover any invention which can be productively applied to any field of human activity. However, there are cases which are not covered by one of the above protection titles, as stated in the law, such as discoveries, scientific theories, mathematical methods, aesthetic creations etc.

8. How can you exploit a Patent or a Utility Model Certificate?

You can:

- either exploit productively your invention yourself without any competition thanks to the exclusive right granted to you.
- or transfer the protection title to a third party against an agreed compensation.
- or again grant to another person or persons a license to work the patent against an agreed compensation. In this case you still hold your exclusive right.

9. Is there a fee for obtaining a Patent or a Utility Model Certificate?

The rights deriving from the protection titles are granted and remain in force upon payment of the respective fees to OBI.

10. What is the right way to protect your invention abroad?

By filing a complete application for a Patent or a Utility Model Certificate with OBI you are entitled to claim priority over any other person for the grant of a Patent or a Utility Model Certificate for the same invention in all member - states of the Paris Convention. You have a period of 12 months since the date of the filing, to file application with the countries which may be of interest by claiming the Hellenic priority.

For filing an application abroad you have the choice of:

- filing a complete application directly with the country of your interest.
- filing a complete application for a European Patent after selecting among the [38 member - states](#) of the Munich Convention you wish to receive protection in.
- filing a complete international application ([PCT: Patent Cooperation Treaty](#)). In this way you have the choice to file a patent application with any of the [146 member - states of the PCT](#).

OBI contributes substantially to the procedure of the last two cases as it operates as a receiving office for the respective applications.

Patent Fees

(Valid from 01.04.10) €

Filing fee for a patent application (Article 24(2) of Law 1733/87)	50,00
Claims fee for 11th and each subsequent patent claim (Article 8(3) and (4) of Law 1733/1987)	30,00 per claim
Search Report Fee (including the final report) (Article 8(4) of Law 1733/1987)	300,00
Search Report with Written Opinion Fee (including the final search report with written opinion) (MD 10374/04.08.09)	800,00
Patent grant fees (Article 8(11), Article 18(1) and (6), Article 24(1) of Law 1733/1987)	150,00
Fee for registering assignments, licences, other modifications of rights or change in corporate name or legal status of patent proprietor (Article 24(1) and (2) of Law 1733/1987)	200,00
Annual patent protection fees (Article 24(2) of Law 1733/1987)	
	First year of protection 0
	Second >> 0
	Third >> 20,00
	Fourth >> 50,00
	Fifth >> 80,00
	Sixth >> 90,00

	Seventh	>>	100,00
	Eighth	>>	115,00
	Nineth	>>	140,00
	Tenth	>>	190,00
	Eleventh	>>	240,00
	Twelfth	>>	300,00
	Thirteen	>>	400,00
	Fourteen	>>	500,00
	Fifteen	>>	600,00
	Sixteen	>>	700,00
	Seventeen	>>	800,00
	Eighteen	>>	900,00
	Nineteen	>>	1000,00
	Twentieth	>>	1100,00

APPENDIX 16 BUSINESS PLAN FOR FISH PROCESSING
APPENDIX 17 BUSINESS PLAN FOR MEAT PROCESSING

APPENDIX 16 BUSINESS PLAN FOR FISH PROCESSING

1. Small scale seafood Process Company

1.1 Introduction

Small-scale producers can be perfectly poised to market locally grown, value-added products directly to these consumers. Small-scale, on-farm processing enables producers to market a value-added commodity or specialty product directly to consumers through farmers' markets, small-scale wholesale or retail buyers such as restaurants and food services, groceries. This shortened product chain can potentially result in increased profits for these producers.

Although direct retail sales can be more profitable, farmers must address several important considerations before establishing their own processing facilities.

- 1 Are there niche market opportunities in your area?
- 2 Can you service these markets fully, consistently, and in a timely way?
- 3 Do you have the labor resources to carry out these requirements?
- 4 Can the quality of your products and service compete with lower priced products?

If a small farmer can answer "yes" to these questions, on-farm processing and direct retail marketing could be a profitable option.

1.2 Description of a Seafood Process Company.

For the need of this project we will describe a typical small scale seafood process company. According to Operation Programme "Fisheries 2014-2020" a small scale seafood process company has some limitations on the employees, the noise disturbance, the location etc. and based on these limitation we will describe our company.

This company must occupies 2-5 employees which is the typical number of employees who are occupied in a small scale business. The location of the company is in Macedonia Greece at the municipality of Thessaloniki in any area of the city because our company has low disturbance equipment. The activities which take place during the process of the sea food must be, according to the law, of a low disturbance. Also the special noise license is attributed by the municipalities and, regarding all surveillance and penalties application. This business processes maximum 5 tons of fish per day and operates 5 days per week all year round as a typical small scale company.

The basic products of our company could be salmon, prawns, mackerel, and bass fish. According to the annual report of Fisheries Research Institute (F.R.I) the sales of these products didn't decline during the economic crisis. Seafood, depending on the species, received whole or in fillets, processed or not. More specific bream and squid received fresh, mackerel received cut. The supply of squid is from October to December and in smaller quantities from May to June. The season of fishing and the supply of, is directly affected by weather conditions. The salmon is received ready for process and canning, as is common worldwide. The commission made any time. Last but not least the supply of bream is fresh. When it cannot be directly produce all amount, frozen and

stored.

The products are mainly frozen and kept in refrigerators canning usually a half to two months. All lots are developed through random selection of some items in the batch, quality control. The creation of the annual production schedule is usually empirically based productions of previous years. Also, take into account the demand forecasts of the sales department and the promotions planned for the new period. The supply of raw materials always includes the factor of uncertainty. Climatic conditions play an important role in the amount that will be able to obtain, in time and cost. Great effects are mainly seafood, which received fresh.

1.3 Equipment

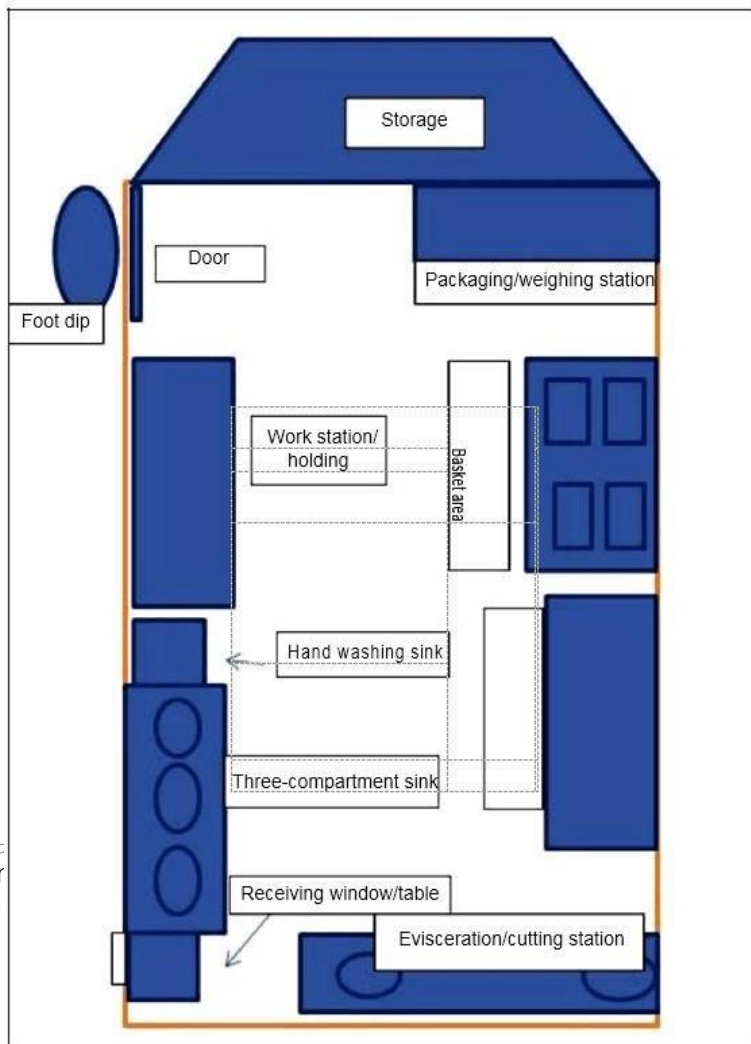
The basic equipment for a small scale process company is based on the needs and the demand of a local market. The following table shows us a prediction of the cost for the basic equipment. All the prices are based on recent economic offers

Construction Costs	
Concrete floor and walls	3,000
Window air conditioner	2,000
Doors	2,000
Suspended ceiling and covered lighting	2,000
Plumbing and electrical	5,000
Other expenses	1,000
Expenses for the surrounding area	2,000
Total	17,000
Fish Processing Costs	
Fish holding tank	1,000
Three-compartment stainless sink and hand sink	1,800
Fish processing table	1,000
Chiller tanks	1,000
400 kg/day ice machine	3,000
Cubic-foot freezer	1,500
Supplies (knives, buckets, totes, shelving, cleaning equipment, etc.)	2,000
Maintenance and Sanitation System	43,000
Fish Management system	12,000
Device detection of pathogens	1,000
Refrigerators and Freezers	30,000
Water Pumps	2,500
Packaging System	2,500
Pallet truck	2,500
Scales	3,200
Total	108,000
Vehicle with refregerator (transportation)	44,000
Small vehicle with refregerator (transportation)	31,000
Total cost of Investment	200,000

2. Processing facility requirements and design

There are several options for facility design, though there are requirements that must be met before processed products can be sold legally into retail markets. Small-scale processing facilities must follow all local, state, and federal requirements for seafood processing and safety. All seafood and fisheries products must follow an approved Hazard Analysis Critical Control Point (HACCP) plan that is specific to the processing facility (See SRAC Publication No. 4900, The HACCP Seafood Program and Aquaculture). These plans can be developed by a trained and certified HACCP person. Online HACCP training programs can provide the bulk of the information, but to complete the class most states require that the processor spend a day with FDA staff to write a practical plan. HACCP consultants are trained to identify potential hazards within the processing facility and are available to write plans. It is best to confirm all requirements with your state and local health department.

Each HACCP plan will contain a flow chart of the process for each product, any potential hazards, how each hazard is mitigated, and any corrective action needed to ensure that safe, un-adulterated products are entering the market. Each Critical Control Point (CCP) identified will have a corresponding documentation that the CCP will not be causing a hazard. All HACCP plans must be accompanied by the Standard Operating. All products must be labeled with a list of all ingredients/allergens, weight, safe handling and storage instructions, the location where the product was processed, and contact information. The interior of processing facilities must have impermeable walls, a floor draining into a septic system or sewer, covered lights, a three-compartment sink deep enough to submerge the largest utensil, and a



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and ceiling, must be able to be sanitized. All utensils must be food grade. There must be easy access for products to enter the facility and every precaution must be taken to minimize contamination. Restroom facilities must be available, but may not be required to be in the same building. A simple example of a floor plan is shown in picture 12.

The basic procedure (Figure 13) for processing in a small scale facility is as follows:

1. Test fish for off-flavor before harvest. Off-flavor fish should not be allowed to enter the market-place.
2. Once fish are deemed acceptable, withhold feed for 2 to 3 days before harvest.
3. Transfer harvested fish into a purge tank (de-chlorinated water with aeration) outside the processing room. Process as soon after harvesting as possible to minimize loss.
4. Chill-stun fish by submerging them in ice water. This tank can be outside or inside the facility.
5. Skin the fish if is need using manual pliers (an electric floor or tabletop skinner can be used). Remove the head and offal and place in a designated container. For other finfish fillets or steaks, cut with the skin on and remove skin after fillets are cut.
6. Place rinsed, processed fish into a chill tank (water and ice) to reach the required temperature set in the HACCP plan.
7. Pack fish on drained ice for fresh sale or pack-age fish in containers for fresh or frozen sales. All packages should be labeled with the required information.
8. All products must be kept at the proper temperature for fresh or frozen storage.

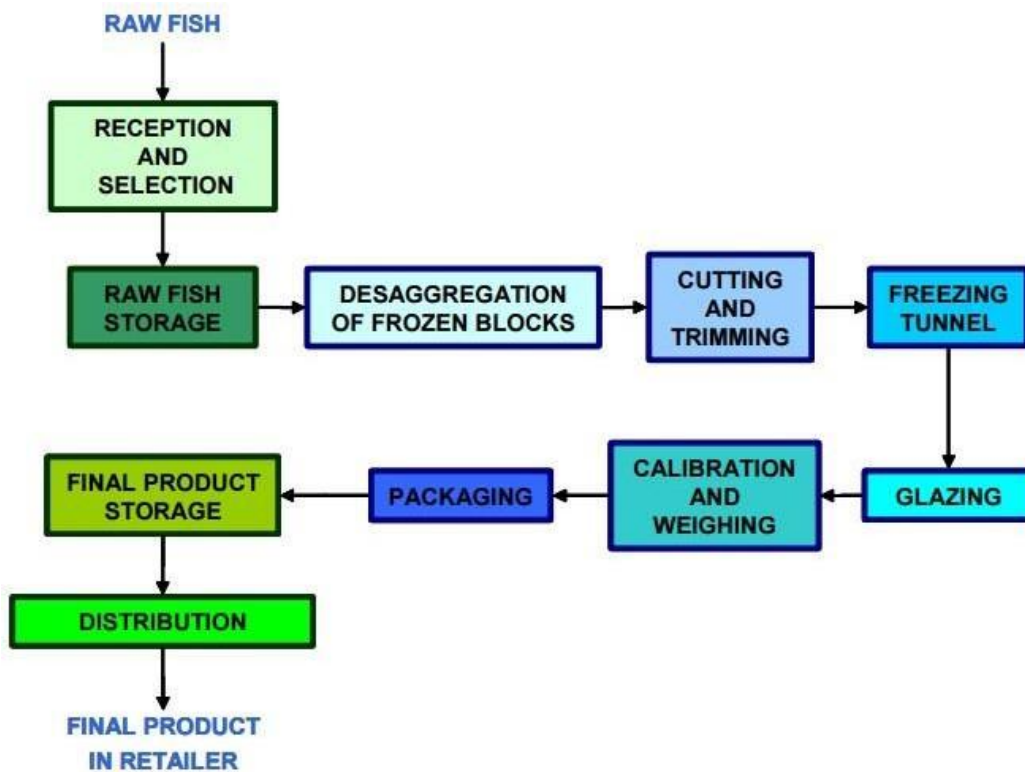


Figure 2 Basic procedure

As a secondary process operation (Figure 14) in the business can be produced salted and smoked fishes with an alternative procedure.

Procedure for salted and smoked fishes

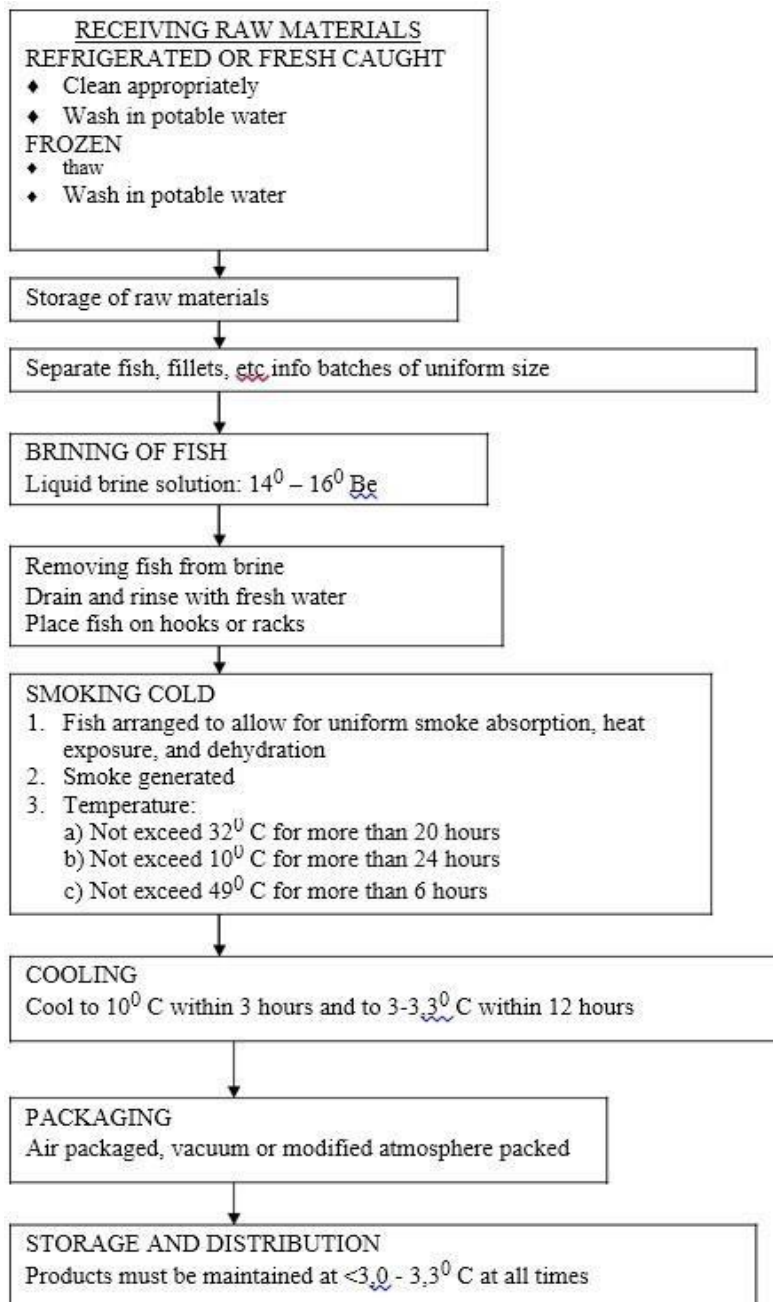


Figure 3 Alternative procedure

2.1 Process Analysis

Reception and Selection

This operation generates some solid waste as a result of some cardboard and plastic removed away when the raw fish packages are received in the factory. Also, during selection, some fish may have to be rejected, thus, producing fish waste.

Raw fish storage

All that raw fish not used immediately after arrival is obviously stored in freezing rooms. The operation of a vast set of freezing equipments entails an energy cost and also some refrigerant losses to the environment (more precisely, ammonia).

Disaggregation

This operation involves breaking the great and unwieldy blocks of fish and ice. Necessarily, this generates some amount of wastewater and some pieces of fish.

Cutting and trimming

Cutting fillets from the fish and removing any damaged areas. This is carried out with a set of specific saws. As a result, an appreciable amount of energy is spent and, above all, a large quantity of fish pieces (not only those corresponding to the damaged areas) is accumulated as waste.

Freezing tunnel

All the previous operations transfer considerable amounts of heat to the fish, so to ensure thoroughly frozen fish fillets is needed to rapidly and efficiently remove all received heat. Therefore, all fillets have to cross the freezing tunnel. This equipment requires large quantities of liquid nitrogen, which, in turn, after absorbing the heat, will evaporate and mix with the atmospheric gases (happily, this is not a problem since nitrogen is the main constituent of the atmosphere).

Glazing

This operation involves dipping the fillets in a cool water bath and, thus, wrapping each fillet in a protective layer of water. Such an operation produces substantial amounts of a wastewater heavily loaded with organic materials.

Calibration and weighing

In order to guarantee that the quantity of glazing water attached to each fillet does not surpass the maximum limits is required to monitor this parameter. Furthermore, it is important to ensure a uniform quantity of fish per package. These activities do not have important environmental impacts.

Packaging

All products must be labeled with a list of all ingredients/allergens, weight, safe handling and storage instructions, the location where the product was processed, and contact information. The glazed and calibrated fillets are packaged in plastic pouches, which, in turn, are put inside large boxes for delivery in retail shops. Associated with these operations there are always some damaged packages that contribute to the global solid waste generated in the plant.

Storage and distribution

The final product requires storage in freezing rooms and once more this causes energy consumption and some refrigerant losses inherent to the systems operation. Finally, distribution has also some energy costs.

2.2 Operation expenses

In this category are included expenses for the staff, social security, accountant, water and electricity. A small scale fish process company according to Operation Programme uses on average 4,2m³ water, 74 kWh energy and 0.05 tons fuel for converting a tone bream approximately 1.2 tons finished product agent 4,2m³ wastewater and 0.4 tons fish waste. From recent research which a sample of 30 companies of the processing industry the following percentages were calculated for each type of expenditure in the total cost of production:

- 63,9% for the raw material
- 13,0% for payroll production
- 5,5% for energy
- 16,9% for other operating expenses

The table below depicts some of the most frequent expenses on average:

No	Description	Expense per month (in €)	Total Expense (in €)
1	Permits and licenses	-	1000
2	Accountant	100	1200
3	Rent of the property	1,500	18,000
	Human Resources		
4	Salaries ¹	2,500	35,000

¹The amount corresponds to salaries for five employees. The amount of salary per employee refers to the minimum

salary required by the law.

5	Social security contribution	450	5,400
Utilities and fuels			
6	Water	500	6000
7	Electricity	1000	12,000
8	Fuel		Depends of the market value
Total Operation costs			78,600

2.3 Financial Predictions

Based in our data we will try to perform a detailed presentation of the economic forecasts for the viability of the investment and an estimation of the expected returns, starting naturally from the general assumptions upon which the following calculations are based.

- In every part of our economic analysis which follows we are using the principle of prudence in provisions, according to which all the expected income / expenses are estimated slightly pessimistic scenarios, in order to ensure in each case the results obtained concerning the viability of investment plan.
- All values are calculated in euros (€).
- All values are calculated at current prices, without regard to inflationary trends. All figures in deflated prices of 2014.

Between the first and second year we estimate (deflated) increased sales by 15%, as the firm consolidates and gains market share. In the following year, the estimation declines and we expect an increase in turnover around 10%. For each subsequent operating year the shops estimated sales growth of 5%, reflecting to prudence the expected advancement of the enterprise market (. Successive increases in turnover is reasonable to decline during the first years after the business will gradually cover a growing part of the market, exhausting gradually its development potential without the further expansion of its activities, which is not addressed in this businessplan.

Table 1 Estimated Turnover for a 5 years prediction.

	Years of operation				
	1st Year	2nd Year	3rd Year	4th Year	5th Year
Turnover	300000	345000	379500	398475	418399
Annual increment prediction of the turnover	-	15%	10%	5%	5%

The turnover in a small scale process company will derive mainly from the sales of the products which produced at the production unit of the business. But also a process company can cover some the expenses by using their wastes for alternative source of energy power. In order to predict the raw material costs of our company we made the same estimation of increment on the raw materials with the increment of the turnover. The total cost of the raw materials and the merchandises for the production is showed on the next table:

PREDICTED 5-YEAR RAW MATERIALS COSTS					
	OPERATION YEARS				
	1st YEAR	2nd YEAR	3rd YEAR	4th YEAR	5th YEAR
RAW MATERIALS COSTS	80,000	92,000	101,200	106,260	111,573

Table 4 Total cost of the raw materials and the merchandises

2.4 Financial Data Summary

Table 5 Summary Prediction

Projected Accounts					
	Years of operation				
	1st year	2nd year	3rd year	4th year	5th year
Sum of Turnover	300,000.00	345,000.00	379,500.00	398,475.00	418,398.75
Sales cost	80,000.00	92,000.00	101,200.00	106,260.00	111,573.00
Gross Operating Profit	220,000.00	253,000.00	278,300.00	292,215.00	306,825.75
Management Cost	78,000.00	81,900.00	85,995.00	90,294.75	94,809.49
Total (pre-taxes)	142,000.00	171,100.00	192,305.00	201,920.25	212,016.26

The above Table 3 contains the costs involved with sales as well as the management costs. The management costs include payroll, fixed costs and unexpected costs. For each subsequent operating year we estimate an augmentation of 5% on management costs in order to remain faithful to our conservative forecast. It should be noted that management costs can be further

reduced through financial grants provided by the government i.e. payroll subsidies, equipment purchase discounts and tax credits.

Summarizing we can estimate the total cost of the investment which required for the production unit in 350.000,00€ and the corresponding cash flows for the first 5 years of business, as shown in the table above.

2.5 Cost considerations and break-even prices

A sample of the processing results and operating budget for 460 kg Mackerel 640 kg of freshwater prawns are presented in the Figure 15 and 16. The per Kg cost of processing dressed fish and tails equals the total cost minus live fish costs divided by the total dress-out weight. Dress out weight or processing yields are very important for a fish plant. A small scale seafood process company don't sell the same weight of fish as they buy. As you remove fish heads, guts, bones and other parts, the weight of the final products you get from a fish is typically only about 50-70% of the "round weight" of the fish that you buy from fishermen—depending on the product. The break- even prices stated are estimates of all costs associated with processing fish and prawns and operating the facility. These figures will change depending on a farmer's experience and skill.

Each farmer should calculate his or her unique costs of processing and break-even price. It is calculated by dividing total cost by the number of dressed pounds. These will vary depending on fish species, size, farmer experience, and market price when processing.

Item	Mackerel value	Prawns value
Labor	24 hours	24 hours
Dress-out percentage	53%	45%
Dress-out weight	240 kg	310 kg
Water usage	2,1 m3	2,1 m3

Figure 6 Processing results of Mackerel and Prawns.

Item	Mackerel			Prawns		
	Unit (kg)	Unit Cost €	Total cost (€)	Unit (kg)	Unit Cost	Total
Labor	24	4.00	96.00	24	4.00	96.00
Electricity			5.00			5.00
Water	2,1m3		12.00	2,1m3		12.00
Misc.			25.00			25.00
Supplies			50.00			105.00
Total cost			788.00			5868.00

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Mackerel Prawns

Processing cost per pound (dressed weight)	0.71	0.72
(Total cost - live fish cost) ÷ (live fish weight × % yield)		
Break-even price per pound (dressed weight)	2.97	17.36

Figure 7 Sample daily operating budget for a small-scale

It is assumed that the estimated investment cost in construction is borrowed and all fixed costs are based on the days of operation per year with finfish and other uses with freshwater prawns. It is important for the producer to know the value of marketing cost, delivery, packaging, and time when determining the sale price of products processed in a small-scale, on-farm facility. These estimates will vary with species, size of fish, amount of fish available, cost of inputs, labor efficiency in attaining high dress-out weight, and facility costs. The local selling price of processed fish must be greater than the calculated break-even price and must include the cost of marketing, advertising, telephone, delivery, packaging, storage, maintaining accounts, permits, etc., which could add significantly to the break-even price. Every farmer must calculate the break-even price for his or her individual enterprise. As evident in Figure 15 and 16, the break-even prices for both products are considerably higher than those of large processors because of the economy of scale. Therefore, direct, local marketing is desirable for small producers willing to deliver a value-added processed product, which demands a higher price for quality and service. Fresh water prawn producers can be most profitable selling fresh, whole product without any expense of processing. Prices received (depending on the area and demographics) for whole fresh prawns have ranged from 15.00€ to 20.00€ per kg. However, because of the seasonality of the product and having to harvest the entire crop in one day, an alternative method of processing and later marketing is desirable for any product not sold on harvest day.

5.6 Summary

Small scale seafood processing company, with a relatively low investment cost, may provide an affordable marketing edge for small producers who have identified niche markets. The facility can be designed to operate at different capacities to process different fish at different times and at differing quantities and market demands. Supplying local retail markets directly can provide a higher return than selling to traditional processors. Also, rural farms with little or no access to established (and usually distant) processors could sell a larger volume of product.

It's vital to identify local and state regulations and permits that pertain to on-farm processing. The labor and time required to maintain accounts, deliver products, and adhere to regulatory issues need to be evaluated when considering on small scale processing company. Close proximity to retail markets is recommended to minimize the time and expense of delivery. Local farmers' markets, restaurants weekly delivery offer marketing options. Scheduling processing for consistent availability of products to customers is essential and a major challenge our company. With careful planning, processing is a way for small producers and groups to access higher profit retail markets.

Sources of Data

Hellenic Statistical Authority (EL.STAT), <http://www.statistics.gr>

Enterprise Greece, <http://www.enterprisegreece.gov.gr>

Foundation For Economic and Industrial Research, <http://iobe.gr>

UN Food and Agriculture Organization, www.fao.org

Operational Programme "Fisheries and Maritime 2014-2020", ec.europa.eu

Hazard Analysis Critical Control Point (HACCP), www.fda.gov

APPENDIX 17 BUSINESS PLAN FOR MEAT PROCESSING

1. THE AIMS AND OBJECTIVES OF THE UNIT UNDER FOUNDATION

The main objectives of the study business, is both posting a satisfactory share of the domestic market, on the other, the marketing of a higher quality product at the lowest possible price.

TARGETING

In order for the business to be able to assert a competitive position among existing units, it is necessary first to define the relevant market on which it intends to address. The choice of target market relates to the geographical area, within which lie the operations of this market. This facilitates the identification of specific characteristics and authorized entrant unit to focus more precisely on the needs of the given market.

THE PLACEMENT OF THE PRODUCT

The efficient and intelligent product positioning in the market is the next step in the analysis of marketing. At this stage, presented to consumers why they should buy the product of the studied company. For this they need to set out the comparative advantages of the company's products against the corresponding products of competing companies.

2. STRATEGY OF MARKETING

Each company in order to offer to the market a successful product should make, after the market analysis-research, make the marketing strategy, to adopt competitive marketing tactics. This approach will allow the design of a marketing mix, which will make the product in the market-target, superior to that offered by competitors.

In particular, this marketing mix should clearly define both the product itself and the individual features, as presented by the famous, modern framework of the Four P: Product, Price, and Promotion, Place (Product, Price, Promotion and Distribution).

PRODUCT AND POLICY

The studied company intends to produce and sell the following products standard:

➤ SAUSAGE (TRADITIONAL, BOILED)

The sausage will be available in packs of 1 kilos basically, while the boiled sausage will be available in packs of 1 kilos.

The packaging of products should be such so as to protect it from any pathogenic agent and simultaneously, should not be detrimental to the ultimate consumer one or more materials thereof. However, the decorative element of the package does not cease to be informative. The provision of some data is mandatory.

So, according to the relevant legislation on the labeling should be required to bear the following: a) the sales description as provided by Community provisions and also includes an indication of the physical condition and the product manufacturing process, b) the list of ingredients must be listed after the word 'ingredients', in order of decreasing abundance by weight and reported by their specific name, c) the quantity of ingredients or categories of ingredients expressed as a percentage, d) the net quantity e) the date by which consumption is allowed, f) special storage and use, g) the name or trade name and address of the manufacturer, h) the place of origin or provenance.

Below a photo of Traditional Sausage:



And a photo of Boiled Sausage:



PRICE AND PRICING POLICY

The value differs from the other elements of the marketing mix because it provides revenue to the company, while the remaining elements create costs. The company will implement a policy of stable prices. The aim of this policy is to ensure contracts with strategic customers (quick service restaurants, major hotels, restaurants and catering) using as argument the combination of high quality at a reasonable and stable price despite strong inflationary trends observed in recent years.

The following table shows the recommended values of sale of sausages to wholesalers, which will resell the products to restaurants, super-markets and other types of companies from the food sector:

PRODUCTS	PRICE (IN €)
TRADITIONAL SAUSAGE(KILO)	2,50
BOILED SAUSAGE(KILO)	3,00
ΣΙΜΗ :€/ΚΙΛΟ	

Table 1

PROMOTION AND PROMOTING MOVES

In order to enter the meat processing company dynamically on the market of sausages, and to achieve its short and long term strategic goals requires an organized effort to promote the company's name and products. The marketing activities regarding the marketing and strategy will focus on intermediaries with which the company will work well to final consumers.

Promotional activity will have as specific goals, the activation of the knowledge about the product and the company. Finally, promotional activity could persuade the customers to try a new product, which just enter on the market.

PLACE : DISTRIBUTION NETWORK

The task of distribution includes all those actions that should be performed in order to get the product from the producers to the wholesaler and then to the retailer, who will sell it to the customers. This process is quite complicated and requires special attention in the preparation of each project to ensure that the products will be delivered at the place and time specified.



IDENTIFICATION OF MARKETING COSTS

The cost of Marketing requires special attention, as an important part of the total cost of the unit, greatly reducing values. In particular, these costs include all those costs to be paid by the meat processing company for the marketing and the distribution of its products to consumers.

So, combining all these elements mentioned in this chapter, it is estimated that the cost of the Marketing (Promotion and Distribution) is set to rise to 10% of sales of the company for each year.

It should finally be noted that the expenditure relating to travel expenses for public relations and market development are not part of the cost of marketing, but included in the overheads of the unit.

The above estimate of the costs required to perform all actions of Marketing, is detailed in the table below.

YEAR	REVENUES FROM SALES	TOTAL MARKETING COST	(€)
2016	687.090	68709	
2017	755.799	75579,9	
2018	831.378,9	83137,89	
Marketing Cost: Revenues from sales* 0,10			

Table 2

3. PRODUCTION SCHEDULE

In this part of the marketing plan we can see a schedule about the revenues from sales of the main products, which the company produces, but also the quantities of each products category.

4. REVENUES FROM SALES

Below follows a table in which are estimated the revenues from the sales of the company.

ESTIMATE OF REVENUES FROM SALES					
YE AR	PRODUCT	SELLING PRICE(€)	QUANTITY	REVENUES FROM SALES
2016	TRADITIONA L SAUSAGE	2,5		120000	300000
	BOILED SAUSAG E	3		129030	387090
	SUM				687090
2017	TRADITIONA L SAUSAGE	2,5		132000	330000
	BOILED SAUSAG E	3		141933	425799
	SUM				755799
2018	TRADITIONA L SAUSAGE	2,5		145200	363000
	BOILED SAUSAG E	3		156126,3	468378,9
	SUM				831378,9

Table3

5. RAW MATERIALS AND OTHER SUPPLIES

THE PRODUCT

The meat processing company will produce different categories of sausages, like traditional and boiled.

CHARACTERISTICS OF RAW MATERIALS AND OTHER SUPPLIES

RAW MATERIALS

The two main raw materials for the manufacture of sausages and smoked meat are meat and fat.

1) MEAT

Depending on the type of product to be prepared, it should be used the most appropriate for the case type of meat, to ensure production will be successful. For sausage production used more meat beef, pork and mutton. Which type of meat will be used and in what amounts, depends on the cost, the characteristic properties and the product selected to prepare. Sheep meat added in limited quantities because of the special intensive flavor which has and can be carried in the final product.

2) FAT

The quality of fat used, also plays an important role in the production, and on the quality of the final product. Fat is the main carrier of flavor determinant and is important in the composition of sausages. It is considered the most suitable hard and rich in connective tissue pork fat from the cervix, and when the back of the animal is cut very well, is especially suitable for the production of air sausages. Instead, the fat that comes from the shoulder, the thigh and the cheeks, is more appropriate to produce boiled sausages. The lard (lardi) be separated from the carcass as soon as possible and immediately cooled. While cooling can be stored up to three days, if is frozen the maintenance time can reach ninety days. If exceeded this time limit will be better not to use it, because it can show that it is rancidised adversely.

AUXILIARY MATERIALS

Auxiliary materials are food products or their derivatives, which under some circumstances sometimes behave as gelling agents, in the way to improve the holding capacity of water of the meat mass and sometimes as emulsifiers. At the same time they can improve the texture and the consistency of the final product.

Some auxiliary materials could be:

- The Sodium Chloride
- The Carbohydrates
- Milk and Dairy products (Whey powder)
- The Eggs and egg products (egg powder)
- Soy Proteins
- Starch
- Antioxidant Substances
- Flavor enhancer
- Seasonings
- As well as several others that vary by product of each sausage company.

FACTORY SUPPLIES

Apart from the basic raw materials, auxiliary and additives, which are already analyzed, there are also the factory supplies, which allow the successful operation of the company. The essential supplies are explained below.

PACKAGING MATERIALS

As previously reported, to be able the products to reach the consumer, it is necessary to be in the essential package, which in turn constitutes one part of the product and therefore those costs.

WORKERS EQUIPMENT

Even nowadays, despite the high degree of automatization to the food industry, there are several points in the processing chain, in which staff has a direct contact with the food supplies. Next, then, exists a chance of contamination of products, from the employees themselves, who handle the equipment, if certain measures are not taken.

Therefore, as in all food industries, so in this meat processing industry, it is mandatory for the staff to wear certain uniforms. In particular, the staff, which

works in raw materials part or in final products part of production, should wear uniforms, head coveralls and gloves, which are disposable.

SUPPLIES PROGRAM

An important success factor of the company will be a well-structured supplies program. The supplies program in a company, should be concentrated primarily in:

- Identification of supply sources,
- The agreements and prevailing provisions,
- The quantities and qualities of inputs,
- Delivery times,
- The ways of distribution,
- The storage,
- The assessment of risk.

SELECT OF BASIC SUPPLIERS

The selection of the key suppliers with whom the company is expected to work, will be based on criteria, which should be examined. In addition, attention will be paid in factors, such as:

- The geographical area, in which is located,
- The property that owns the current supply source,
- The main activities,
- The financial condition and profitability,
- The productive ability,
- Key customers and business experience,
- The characteristics of the supplies.

COST OF RAW MATERIALS AND OTHER SUPPLIES

The cost of raw materials, and of materials, which are thought necessary for the production, could be a key element of the project, since it can reduce the revenues which are expected to be earned throughout the operation.

Below is a table with the costs of raw materials and other supplies, as this is expected to be in the first year of operation.

ESTIMATED OPERATING COSTS: RAW MATERIALS & OTHER
SUPPLIES

INFLOW	QUANTITY(YEARL Y)	COST	COST(€)
PORK MEAT	7057,9	1,68€/ΣON	11.857,341 €
PORK SHOULDER	4596	2,1€/ΣON	9.651,600 €
PORK PANCETA	4596	2,85€/ΣO N	13.098,600 €
PORK LARD	4941,85	0,4€/ΣON	1.976,740 €
SUM			36.584,280 €
ADDITIONAL MATERIALS/SEASONINGS			
SUM(AVERAGE)	2,7533	8.213,29 €	14,888 €
SERVICES OF GENERAL INTEREST			
ELECTRICITY	83333,4 KWH	0,07€/KWH	5.833,330 €
WATER	3577,7 TONS	1€/ΣON	3.577,700 €
COMBUSTIBLES	5500 LITRES	0,70€/LITR	3.850,000 €
SUM			13.261,030 €
PACKAGING MATERIALS (PCS)			
CASES FOR SAUSAGES	249030	0,2€/PCS	49.806,000 €
SUM			49.806,000 €
PARTS			
ACCESSORIES FOR MACHINERY			2.000,000 €
SUM			2.000,000 €
DETERGENTS- DISINFECTANTLY (LITRES)			
DETERGENTS	11666,7	0,2€/LITR	2.333,340 €
DISINFECTANTLY	7000	0,3€/LITR	2.100,000 €
SUM			4.433,340 €
WORK UNIFORMS			
UNIFORMS	10	10€/PCS	100,000 €
PLASTIC GLOVES	1600	0,035€/PAIR	56,000 €
HEAD COVERALLS	2500	0,05€/PCS	125,000 €
SUM			281,000 €
MEDICATION EQUIPMENT			
MEDICATION	1066,7 PCS	0,5€/PCS	533,350 €
SUM			533,350 €
TOTAL SUM			106.913,888 €

Table 4

REQUIRED QUANTITIES OF INFLOWS

Below follows a table, this presents the possible capacity for production of the company for three years:

YEAR	TOTAL PRODUCTION	TRADITIONAL SAUSAGE	BOILED SAUSAGE
2016	249030	120000	129030
2017	273933	132000	141933
2018	301326,3	145200	156126,3
QUANTITY IN KILOS			

Table 5

Below follows also a table with the quantity of raw and additive inflows that each product requires for its production. (Inflows for one kilo quantity)

REQUIRED QUANTITIES OF RAW AND ADDITIVES	
RAW AND ADDITIVE	QUANTITY IN KILOS
BOILED SAUSAGE	
PorkLard	0,0383
PORK MEAT	0,0547
ADDITIONAL MATERIALS / SEASONINGS	0,8361
TRADITIONAL SAUSAGE	
PORK PANCETTA	0,0383
PORK SHOULDER	0,0383
ADDITIONAL MATERIALS / SEASONINGS	0,9234

Table6

PRODUCTION COST ANALYSIS 2016	
DESCRIPTION	
Raw Materials	106.913,888 €
Human Recourses	94.640 €
General Expenses	41.100 €
Marketing Expenses	68.709 €
Depreciation(cost of equipment + building facilities)	47.578 €
SUM	358.940,888 €

Table7

PRODUCTION COSTS ANALYSIS 2016-2019				
Description	2016	2017	2018	2019
Raw Materials	106.913,888 €	112.260 €	117.873 €	123.766 €
Human Resources	94.640 €	94.640,00 €	106.106,00 €	114.514,40 €
General Expenses	41.100 €	41.100 €	41.100 €	41.100 €
Marketing Expenses	68.709 €	75.580 €	83.138 €	91.452 €
Depreciation(cost of equipment+building facilities)	47.578 €	47.578 €	47.578 €	47.578 €
SUM	358.940,888 €	371.157 €	395.794 €	418.410 €

Table8

Table 7 and 8 show the production cost analysis for 2016 till 2019. Production cost of a year includes the cost of raw materials, human resources, general expenses, marketing expenses and the depreciation, which made the company for 12 months .

6. MACHINERY

PRODUCTION PROGRAM AND CAPACITY OF THE COMPANY

The production program planned to implement the company is an integral part of the project and is the natural continuation of the achievement of the business goals as determined by the total business environment, the marketing plan and required inputs (raw materials and other supplies). Overall, this production program will be determined by two main dimensions, engineering and selection of appropriate technology.

MACHINERY

MAIN PRODUCTION EQUIPMENT

Below follows the main equipment for the company, and some photos of them.

➤ TABLE APOSTEOSIS SIMPLE

- Stainless steel construction.
- Dimensions: L 2000 x W 840 x H 860 mm.
- Plastic feet with adjustable height.
- With cutting board of Teflon, on one side, colored according to use.



MACHINE XELARDIASMATOS WEBER ASC 460

- Motor output 1.1
- Cutting Width 460 mm
- Cutting thickness 0-15mm
- Dimensions 11W* 1259H* 886 D in mm
- Net Weight 315kg
- Power Connection 400V/50Hz/16A



➤ STEAKCUTTER TYPE MHS PCE 70K

- Simple Operation via clear symbols
- Short training period
- High safety level
- Machine on rollers



➤ HYGIENIC FLOOR SINKS WITH FOOT VALVE

- Constructed of stainless steel
- All smooth flat surfaces for easy, fast clean up.
- Deep drawn bowl 530x485x220 mm with large rounded corners approved by the Authorized Meat Inspector Departments.
- Compact design requires minimum floor space
- Plastic liquid soap dispenser



➤ KNIVES STERILIZER SINKS WITH FOOT VALVE

- Stainless steel casing.
- Electrically heated.
- With removable knife support holder.

➤ BEEFMAKER MACHINE FOR FLOOR TALSA W114 L

- Made entirely of stainless steel.
- Removable throat.
- Lubricated, metallic gearbox.
- Sealed base.
- Thermally protected motor.
- Safety switch.
- Large feed pan/tray with CE hand guard.
- Feed stomper.
- Auger extractor wrench.
- Single cutting, enterprise system (1 plate and 1 single cutting knife).



➤ FILLING MACHINE TALSA H 26 pa

- High pressure suitable for dense and cold mixtures.
- Speed control knob situated near the operator for precise adjustment.
- Release of the knee lever causes piston decompression and instantly stops the product flow.
- Comfortable knee lever operation allows the user to keep handsfree.
- Double sealed piston (except H42/H52), easily removable.
- Separate hydraulic oil reservoir.
- Wheels and handle for easy movement.
- Easy cleaning.
- Three standard s/s nozzles/horns \varnothing 12, 20 & 30 mm.



- TABLE FOR THE FILLING MACHINE
 - Stainless steel construction.
 - Dimensions: L 2000 x W 840 x H 860 mm.
 - Plastic feet with adjustable height.
 - Top surface with heightened ends.
- TABLE FOR FIRST ROUND , WITH ONE TABLE LIBRA 162ss/s-gas
- PLATFORM FOR THE TRANSFER OF THE ROUND
 - Stainless steel execution.
 - With two swivels and two fixed wheels.
- VACUUM BARREL SELF-COOLED MAUTING UKM 2001/D
- DRYING CHAMPER MAUTING TYPE
- TROLLEYS FOR HANGING SAUSAGES



- FLOOR LIBRA DIGI-DS 162SS/S YFAS
- VACUUM PACKAGING MACHINE TYPE HENKOVAC E 303



- Chamber Dimensions 845*600*210mm
- Machine dimensions 940*875*1,160mm
- Cycle time 25-35 sec.
- Voltage 400V-3-50Hz
- Power 4,0 kW
- Vacuum pump capacity 100m3

- WORKING TABLE
- HALF-AUTOMATIC LIBRA FOR RUTTING THE LABEL DIGI SM500EP
- OVERHEAD BI-RAIL SYSTEM

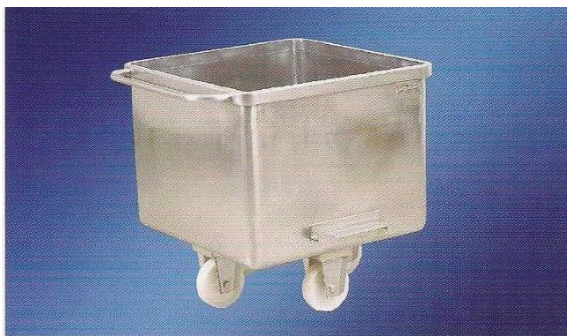
**ΣΥΣΤΗΜΑ ΕΝΑΕΡΙΩΝ ΣΙΔΗΡΟΤΡΟΧΙΩΝ τύπου Bi-RAIL
OVERHEAD Bi-RAIL SYSTEM**



• Ψυκτικός θάλαμος σφάγιων με σιδηροτροχιές τύπου Bi-RAIL και αναρτημένα σφάγια αρνιών

• Cooling room for carcasses with overhead Bi-RAIL system and hanging ship carcasses.

- HOOKS FOR STEAK WITH RAOULO
- MULTIBRANCHED HOOKS
- TRUCKS FOR 200LITRES



ΚΑΡΟΤΣΙ ΜΕΤΑΦΟΡΑΣ 200 ΛΙΤΡΩΝ

- Κατασκευασμένο από ανοξείδωτο χάλυβα
- Χωρητικότητας 200 λίτρων
- Με 4 πλαστικές σταθερές ρόδες

STANDARD MEAT TRUCK 200 lit

- Stainless steel execution
- Capacity 200 lit.
- With 4 plastic fixed wheels

- OVERHEAD RAIL SCALE DI 600
- SCULLERY DOUBLE
- TRUCKS FOR HOOKS

- To transfer the hooks within the production areas of slaughterhouses and meat cutting up departments.
- Stainless steel execution.
- With two swivel and two fixed wheels.



➤ PLASTIC TRAYS E2



ΠΛΑΣΤΙΚΟ ΤΕΛΑΡΟ E-2

- Διαστάσεις εξωτερικές:
H 600 x T 400 x Y 200 γλλ.
- Βάρος: 2.000 κιλό
- Χωρητικότητα: 40 λίτρα
- Υλικό: HDPE
- Χρώμα: κόκκινο, άσπρο

PLASTIC TRAY E-2

- Dimensions external:
L 600 x W 400 x H 200 mm
- Weight: 2.000 kg
- Capacity: 40 lt.
- Material: HDPE
- Colour: red, white

- KNIVES SET
- METAL GLOVES
- MACHINE FOR PRODUCTION OF ICE IN SCALES

AUXILIARY EQUIPMENT

The auxiliary equipment includes the equipment that is used adjuvants during processing and production. For instance:

- GENERATORS OF AUXILIARY USE
- SYSTEM OF SPECIAL VENTILATION AND AIR CONDITIONING
- VAN
- REFRIGERATED STORAGE FOR SAUSAGES AND PASTRAMI
- STORAGE SYSTEMS AND HANDLING MATERIALS
- SYSTEMS OF PRODUCTION TUBING
- LIFTING AND HANDLING SYSTEMS
- FURTHER INDUSTRIAL EQUIPMENT

SERVICE EQUIPMENT

The service equipment plays a supporting role in the company and has no direct relation with the production process. Below is the main service equipment:

- OFFICE FURNITURE
- OFFICE EQUIPMENT (PC, PRINTERS, PERIPHERALS SYSTEMS)
- TELECOMMUNICATION EQUIPMENT AND OTHER (FAX)
- ELECTRICAL EQUIPMENT

- SECURITY SYSTEM OF THE COMPANY (FIRE ALARMS, THEFT PROTECTION, ETC)
- LIGHTING EQUIPMENT FOR GENERAL USE
- FLOORS AND CARPET
- CLEANING MACHINES AND DISINFECTION

COST OF MECHANICAL EQUIPMENT

In order to complete the analysis of the required technology inputs and mechanical features, will be done a clear assessment of their cost. In the following table are given the cost details about, technology cost, accessories, service equipment that will be acquired by the meat processing company in order to make possible the normal functioning of the work. Below is a detailed table showing the cost of the production equipment and the cost of engineering and technology.

COST OF MAIN AND AUXILIARY EQUIPMENT		
	COST(EURO)	COMPANY
MAIN EQUIPMENT		
TABLE APOSTEOSIS SIMPLE	820 €	SIVVAS S.A
MACHINE XELARDIASMATOS WEBER ASC 460	18.500 €	SIVVAS S.A
STEAKCUTTER TYPE MHS PCE 70K	14.800 €	SIVVAS S.A
HYGIENIC FLOOR SINKS WITH FOOT VALVE	490 €	SIVVAS S.A
KNIVES STERILIZER SINKS WITH FOOT VALVE	190 €	SIVVAS S.A
BEEFMAKER MACHINE FOR FLOOR	4.700 €	SIVVAS S.A
FILLING MACHINE	3.770 €	SIVVAS S.A
TABLE FOR THE FILLING MACHINE	630 €	SIVVAS S.A
TABLE FOR FIRST ROUND , WITH ONE TABLE LIBRA	2.100 €	SIVVAS S.A
PLATFORM FOR THE TRANSFER OF THE ROUND	790 €	SIVVAS S.A
VACUUM BARREL SELF-COOLED	27.300 €	SIVVAS S.A
DRYING CHAMPER MAUTING TYPE	34.200 €	SIVVAS S.A
TROLLEYS FOR HANGING SAUSAGES	1.740 €	SIVVAS S.A
FLOOR LIBRA	1.180 €	SIVVAS S.A
VACUUM PACKAGING MACHINE TYPE HENKOVAC E		SIVVAS S.A

	8.650 €	
WORKING TABLE	630 €	SIVVAS S.A
HALF-AUTOMATIC LIBRA FOR RUTTING THE LABEL	1.550 €	SIVVAS S.A
OVERHEAD BI-RAIL SYSTEM	19.200 €	SIVVAS S.A
HOOKS FOR STEAK WITH RAOULO	3.200 €	SIVVAS S.A
MULTIBRANCHED HOOKS	650 €	SIVVAS S.A
TRACKS FOR 200LITRES	1.140 €	SIVVAS S.A
OVERHEAD RAIL SCALE DI 600	2.500 €	SIVVAS S.A
SCULLERY DOUBLE	600 €	SIVVAS S.A
TRUCKS FOR HOOKS	580 €	SIVVAS S.A
PLASTIC TRAYS E2	150 €	SIVVAS S.A
KNIVES SET	450 €	SIVVAS S.A
METAL GLOVES	270 €	SIVVAS S.A
MACHINE FOR PRODUCTION OF ICE IN SCALES	9.000 €	SIVVAS S.A
SUM	159.780 €	
AUXILIARY EQUIPMENT		
GENERATOR FOR AUXILIARY USE	15.000 €	
SYSTEM OF SPECIAL VENTILATION AND AIR CONDITIONING	15.000 €	
VAN	10.000 €	
STORAGE AND HANDLING MATERIAL SYSTEMS	25.000 €	
TUBING PRODUCTION SYSTEM	5.000 €	
OTHER INDUSTRIAL EQUIPMENT	13.000 €	
SUM	83.000 €	
SERVICE EQUIPMENT		
OFFICE FURNITURE	4.000 €	
OFFICE EQUIPMENT(PC, PERIPHERALS, PRINTERS)	3.500 €	
TELECOMMUNICATION EQUIPMENT(FAX)	6.000 €	
ELECTRICAL EQUIPMENT	6.500 €	

SECURITY SYSTEM OF THE COMPANY(FIRE ALLARM, THEFT PROTECTION)	13.000 €
LIGHTING EQUIPMENT FOR GENERAL USE	8.000 €
CARPET	5.000 €
HINERY FOR CLEANING AND DISINFECTION	2.000 €
SUM	48.000 €
TOTAL INVESTMENT COSTS FOR EQUIPMENT	290.780 €

Table9

QUALITY ASSURANCE SYSTEMS, HEALTH AND FOOD SAFETY

Besides the supply of mechanical equipment, crucial for achieving the goals, which set the company, is the development and implementation of a Quality management System standard ISO, and the application of the principles Hygiene and System Security HACCP. In so doing, the company will not only ensure the quality of the products, but also will be able through the above documented systems demonstrate this capability, to successfully control the factors shaping quality characteristics and guarantee duration to them.

The project is divided into sub-projects, which are described as follows:

- Review and record the present situation and proposals for adapting in the requirements of ISO
- Writing the directors of the quality manual and fix the main and support processes of the system
- Development of a HACCP
- Support in the drafting work and control instructions specifications and forms related to procedures, support to the implementation and installation of the system
- Final inspection and taking dialing procedures of the certification body
- Conducting educational program within the facility's quality system ISO

8. HUMAN RESOURCES

DETERMINATION OF HUMAN RESOURCES

The determination of the human resources required, as with the assessment of the other resources to be allocated for the investment project, is an important part of the feasibility study. Therefore, the selection of the personnel to be staffed new company requires special attention.

In order the process of staffing to respond as fully as possible, the human resources required, should be determined as categories, such as managerial and advisory staff, skilled and unskilled workers.

The needs of the established meat processing company will be:

- 1) At the production and processing department, it will be firstly an operator of automated machinery, and secondly an assistant, who will transport the finished products to the packaging department.
- 2) In the packaging department, will be needed an operator of the packaging machine.
- 3) In the part of cleaning, one cleaner and observant of hygiene rules.
- 4) In warehouse section, one employee to manage the ready quantities and stocks of the company.
- 5) At the distribution of goods, one employee, who will distribute the products to the customers.
- 6) At the marketing, sales and research department will be one person of management functions until needed and hired additional staff.
- 7) On the economic department, to be more specific accounting, one employee will be sufficient, in a permanent period.
- 8) Finally, the quality assurance department work, will be outsourced to an external partner.

COST OF HUMAN RESOURCES

Based on the foregoing for the purpose of the establishment of the meat processing company, below is a table with the cost of the human resources, for the first year of operation of the company.

COST OF HUMAN RESOURCES (YEAR 2016)		
EXPERTISE	MONTHLY SALARY	ANNUAL COST
OPERATOR OF PRODUCTION DEPARTMENT	800	14560
ASSISTANT ON PRODUCTION DEPARTMENT	700	12740
OPERATOR OF PACKAGING DEPARTMENT	800	14560
CLEANER	600	10920
DISTRIBUTOR	700	12740
MARKETING DEPARTMENT	800	14560
FINANCIAL DEPARTMENT	800	14560
NUMBER OF EMPLOYEES	7	
SUM		94640

Table 10

Below is a table which estimates the human resources cost for 2017- 2019:

ESTIMATE OF THE HUMAN RESOURCES COST FOR 2017-2019					
EXPERTISE	MONTHLY SALARY	ANNUAL COST 2016	YEAR 2017	YEAR 2018	YEAR 2019
OPERATOR OF PRODUCTION DEPARTMENT	800	14.560,00 €	14.560,00 €	16.016,00 €	17.617,60 €
ASSISTANT ON PRODUCTION DEPARTMENT	700	12.740,00 €	12.740,00 €	14.014,00 €	15.415,40 €
OPERATOR OF PACKAGING DEPARTMENT	800	14.560,00 €	14.560,00 €	16.016,00 €	17.617,60 €
CLEANER	600	10.920,00 €	10.920,00 €	12.012,00 €	13.213,20 €
DISTRIBUTOR	700	12.740,00 €	12.740,00 €	16.016,00 €	15.415,40 €
MARKETING DEPARTMENT	800	14.560,00 €	14.560,00 €	16.016,00 €	17.617,60 €
FINANCIAL DEPARTMENT	800	14.560,00 €	14.560,00 €	16.016,00 €	17.617,60 €
SUM		94.640,00 €	94.640,00 €	106.106,00 €	114.514,40 €
<i>Each Year of Operation the company makes a 10% increase in Salaries of each employee.</i>					

Table 11

9. UNIT ORGANIZATION AND GENERAL EXPENSES

IDENTIFICATION COST CENTRES

The purpose of the product costing is the fixing of the production costs. In the configuration of the cost involved several factors, the main element of the net cost of production intertwined with the type of production and the machinery in which products are produced. For the needs of this study and in order to facilitate both the scheduling and cost control, the investment should be divided to the cost centers.

More specifically, as a cost center called the smallest unit or area of responsibility for establishing an accounting concentration of costs in order to measure its effectiveness.

➤ PRODUCTION COST CENTER

The production process will include one production line. The production line will deal with the two types of sausage (Traditional and Boiled).

➤ SUPPORT AND SERVICE COST CENTER

The support-service cost center represents those areas of activity that provide complementary services for the direct operation of the company. These activities can be social services, marketing, supplies, warehouses, external transport, quality control and waste management.

➤ MANAGEMENT AND FINANCIAL INSTRUMENTS COST CENTER

This cost includes all activities associated with administrative planning, monitoring and evaluation of performance. In particular, they will include: General Administration, Human Resources (staff, training, etc.) Financial (accounting, costing, budgeting, etc.)

➤ GENERAL EXPENSES

As we know, costs arising in an industrial unit, are divided into two categories: the basic or direct costs and indirect costs. More specifically, the direct cost is a direct result of the production of the final products and includes the direct cost of materials, labor costs and other costs. With regard to the indirect costs, this cannot be classified under any direct cost category. Specifically, as general Expenses considered: those whose tenders cannot be traced directly to a specific operation or product. Those that are relatively small and although direct costs, the tracking problem in this product is not worth mentioning. Because of the general nature of these costs, their identification is not considered very simple. Below is a detailed table of what was said overheads. :

ESTIMATE OF GENERAL EXPENSES	
DESCRIPTION	COST(€)
GENERAL INDUSTRIAL EXPENSES	
CLEANING SERVICE	2100
EQUIPMENT SERVICE	10000
PRODUCT MARKING	600
TELECOMMUNICATION SERVICES	1600
LEGAL AND OTHER EXPENSES	4000
GENERAL MANAGEMENT EXPENSES	
OFFICE SUPPLIES	1000
INSURANCE SERVICES	6500
GENERAL SALES AND DISTRIBUTION EXPENSES	
COMMUNICATIONS	2300
TRAVELLING	8000
QUALITY ASSURANCE SYSTEMS / HEALTH AND FOOD SAFETY	
EN ISO 9001:2008/ HACCP	5000
SUM	41100

Table 12

10. LOCATION, FACILITIES AREA

ASSESSMENT OF NEEDS FOR FACILITIES AREA FOR THE NEW COMPANY

The primary goal of company is the construction and operation of a modern sausage production plant. For implementation, therefore, this project should be carefully assessed business needs and requirements regarding the premises deemed necessary to ensure smooth operation. In particular, the facilities of the unit under study should have adequate facilities for the production line, warehouses, offices and all other facilities are planned to be built. Furthermore, it is necessary these spaces provide the possibility of future expansion of the business.

The adequate area, which will need the company for her establishment, will be considered from the owners.

SEARCH AND SELECTION OF THE AREA

The search for a suitable location (geographical area) to install the new unit should focus on certain key requirements (criteria), the definition of which will contribute to identifying possible sites and would allow better evaluation of acceptable areas for selection the most advantageous solution. Pursuant to the requirements of the company under establishment basic siting conditions of facilities are:

- Satisfactory environmental conditions.
- Easy supply of raw materials and other supplies.
- Availability Transport facilities (road, air rail, and / or ferry).
- Availability of auxiliary materials and utilities (water, electricity and fuel).
- Availability of good telecommunication facilities.
- Affordable cost of land.
- Absence of creating problems in the ecological and cultural local environment and acceptance by the local community.

ESTIMATE OF INSTALLATION COST

The calculation of investment costs, which are referring to the activities of area selection, and the environmental or other studies, are key elements of the overall investment program.

Below is an indicative list of the cost of facilities and modulation of them.

ESTIMATE FOR THE COST OF THE FACILITIES	
DESCRIPTION	
BUILDING FACILITIES	100.000,00 €
SPACE CONFIGURATION	85.000,00 €
SUM	185.000,00 €

Table13

11. ECONOMIC AND FINANCIAL ANALYSIS

INCOME STATEMENT

The projected income statements for the company are presented below. We observe that in the first business year are presented net profit 222.085€ while in the coming years the annual net profits go growing.

PROJECTED INCOME STATEMENT (2016-2019)				
DESCRIPTION	2016	2017	2018	2019
SALES	687.090 €	755.799 €	831.379 €	914.517 €
PRODUCTION COSTS	358.940,888 €	371.157 €	395.794 €	418.410 €
GROSS MARGIN	328.149 €	384.642 €	435.584 €	496.107 €
TAX (35%)	114.852 €	134.625 €	152.455 €	173.637 €
NET PROFIT	213.297 €	250.017 €	283.130 €	322.469 €

Table14

FINANCIAL EVALUATION OF THE INVESTMENT

The payback method (yield) of the investment cost (payback period method) gives the number of years required to be reimbursed, the capital cost of the initial investment is calculated through net cash flows of the project. This method provides an indication of the risk and the liquidity of the investment, the shorter the payback period, the less "Risky", presumably, is the investment. However, this method does not take into account the size and timing of the net cash flows (RTP) during the period of recovery, which it considers as a whole and this should be used alongside other investment evaluation methods.

Firstly is estimated the annual net cash flow scheduled to show in the preliminary design business. Net Cash Flow of investing for each year is defined as follows:

NET CASH FLOW (EURO)								
YEAR	SALES	PRODUCTION COST	GROSS MARGIN	TAX(35%)	NET MARGIN	DEPRECIATION	NCF	CUMULATIVE NCF
2016	687.090 €	358.940,888 €	328.149 €	114.852 €	213.297 €	47.578 €	165.719 €	165.719 €
2017	755.799 €	371.157 €	384.642 €	134.625 €	250.017 €	47.578 €	202.439 €	202.439 €
2018	831.379 €	395.794 €	435.584 €	152.455 €	283.130 €	47.578 €	235.552 €	235.552 €
2019	914.517 €	418.410 €	496.107 €	173.637 €	322.469 €	47.578 €	274.891 €	274.891 €

Table15

ANALYSIS OF THE TOTAL COST

The total investment include all those costs (Production Equipment, Facilities, General Expenses, Human Recourses , Raw and additive materials and Marketing expenses) that need to be paid by the company in the 1st year . Below is shown table.

TOTAL INVESTMENT	
EQUIPMENT	290.780 €
FACILITIES	185.000 €
GENERAL EXPENSES	41.100 €
HUMAN RESOURCES	94.640 €
RAW AND ADDITIVE MATERIALS	106.914 €
MARKETING EXPENSES	68.709 €
SUM	787.143 €
<u>YEA R 20</u> 16	

Table16

FINANCING OF THE INVESTMENT PROJECT

The total investment will be covered by specific sources of funding. Specifically this project will be funded by the Ministry of Agriculture and by private capital.

The company in order to cover the total investment of the project it should resort the half part of financing with private financing, and the other half will be from government funding.

ΠΗΓΕ" ΧΡΗΜΑΣΟΔΟΣΗ"Η"		
OWN FUNDS	50%	393.571,44 €
GOVERNMENT GRANTS	50%	393.571,44 €
SUM	100%	787.142,89 €

Table17

12. BREAK- EVEN ANALYSIS

Break-even point (BEP) is the point at which cost or expenses and revenue are equal: there is no net loss or gain, and one has "broken even." A profit or a loss has not been made, although opportunity costs have been "paid," and capital has received the risk-adjusted, expected return. It is shown graphically as the point where the total revenue and total cost curves meet. In the linear case the break-even point is equal to the fixed costs divided by the contribution margin per unit.

Sales Revenues = Cost of Production

Sales Revenue = (Sales Volume) * (Price per Unit) and

Production Cost = (Fixed Costs) + (Variable costs per unit) *(Sales

volume) So, if: X = the volume of sales in neutral

Y= the sales

value t = price

per unit

m = variable costs (directly dependent on production power) per

unit p = fixed costs regardless of output

Will be: $Y = t * x$ " $y = c + x * m$ " $t * x = c + x * m$ " $x = p / t - m$

The allocation of variable and fixed costs of the company (production volume of 249030 and unit price of traditional sausage 2.5 € and unit price of boiled sausage 3€), during the first year of operation (2016), presented in the table below.

Allocation Variable and Fixed Costs			
Description	Fixed Costs(Euro)	Variable Costs(Euro)	Variable Costs per unit(Euro)
Total Cost Marketing	-	68.709,00 €	0,28
Cost of Raw&Other Materials	-	106.913,89 €	0,43
General Expenses	41.100,00 €	-	-
Human Resources Cost	-	94.640,00 €	0,380
Depreciation	47.578,00 €	-	-
SUM	88.678,00 €	270.262,89 €	1,09 €

Table18

Based on the above table will be:

$X = p / (t - m) = 88.678 \text{ €} / (2.75 \text{ €} - 1.09 \text{ €}) = 53.420 \text{ kg.}$

Therefore, the "Break Even" point of sales revenue will be:

$Y = t * x = 2.75 \text{ €} * 53.420 = 146.905 \text{ €}$

CONCLUSION

All investment projects are subject to changes in political, social,

Commercial, technological and business environment in which they operate. The rapid, then, development in every business macroenvironment, raise the degree of uncertainty, which is increasingly growing over next year. For this reason it is appropriate to evaluate all elements of uncertainty and then be assessed every foreseeable risk, which could have a significant impact on the feasibility of the project, so that designed alternative control strategies for this risk.

Regarding the uncertainties related to the financial evaluation, particular care is required when are examined the following three variables:

- Revenues from Sales
- Cost of products, which are already sold.
- The cost of the Investment

We assume that every step in a new company must be thoughtful. Besides, there more than one significant and important factors, that the owner should see and calculate carefully. For instance, the sausage market trend, the economic situation of the country, eating habits of consumers and how they change and finally the manner in which evolved the sector's products.

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