QUALFARM

«Support of Entrepreneurship in the Field of In-House Processing of Quality Farm Products in the Districts of Evros, Haskovo, Smolyan and Kardzhali»

Deliverable D6.1.1

Study of the Cross-Border Area Background and Perspectives for In-House Farm Products Processing

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PB2 - Evros Municipal Association S.A. (Dimosinetairistiki "Evros")

PB3 - Reconstruction and Development Union Haskovo

PB4 - Local Action Group (LAG) Kirkovo - Zlatograd

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List of Abbreviations and Acronyms	
BFSA	Bulgarian Agency for Food Safety
C.E.R.C.I	Central Electronic Register of Cottage Industry
EC	European Commission
FAO	Food and Agriculture Organization
HACCP	Hazard Analysis and Critical Control Points
H.F.A.	Hellenic Food Authority
I.A.P.R.	Independent Authority for Public Revenue
OECD	Organisation for Economic Co-operation and Development
R.F.R.E.	Register of Farmers and Rural Enterprises
RFSD	Regional Directorate for Food Safety

Executive Summary

English version

The objective of the specific deliverable (D6.1.1) is the research, study and analysis of the narrow and wide environment for the development of the in-house processing of agricultural products, in the cross-border intervention area of the QUALFARM project, as well as its prospects.

More specifically, the goal of the study, with reference to the Cross-Border Area Background and Perspectives for In-House Farm Products Processing, is to set the foundation, towards the establishment of a long-term development plan and partnership for the in-house processing of agricultural products in the Cross - Border Intervention Area.

The QUALFARM project aims, through both this deliverable and the overall work plan, to contribute to the programme's main objective “Improvement of entrepreneurship SME support systems ", by the creation of rural business support structures.

Greek version

Αντικείμενο του συγκεκριμένου παραδοτέου (D6.1.1) αποτελεί η έρευνα, η μελέτη και η ανάλυση του στενού και ευρύτερου περιβάλλοντος για την ανάπτυξη της Οικοτεχνίας, στη διασυνοριακή περιοχή παρέμβασης του έργου QUALFARM, καθώς και οι προοπτικές της.

Πιο συγκεκριμένα, ο στόχος της μελέτης, με αναφορά στο Υπόβαθρο και τις Προοπτικές της Διασυνοριακής Περιοχής για την Οικοτεχνία είναι να θεμελιώσει τις βάσεις προς την καθιέρωση ενός μακροπρόθεσμου σχεδίου ανάπτυξης και εταιρικής συνεργασίας για την εσωτερική επεξεργασία γεωργικών προϊόντων, ήτοι την Οικοτεχνία, στη Διασυνοριακή Περιοχή Παρέμβασης.

Το έργο QUALFARM, μέσω και αυτού του παραδοτέου και του συνολικού σχεδίου εργασίας, στοχεύει στο να συνεισφέρει στον κύριο στόχο του προγράμματος "Βελτίωση των συστημάτων υποστήριξης για τις ΜΜΕ στον τομέα της επιχειρηματικότητας", με τη δημιουργία δομών υποστήριξης για αγροτικές επιχειρήσεις.

Bulgarian Version

Предметът на този резултат (D6.1.1) е изследването, проучването и анализът на непосредствената и по-широката среда за развитие на селското стопанство в трансграничната област на интервенция на проекта QUALFARM, както и неговите перспективи.

По-конкретно, целта на проучването, във връзка с контекста и перспективите на трансграничната зона за развитие на индустрията на вилата, е да се положат основите към създаването на дългосрочен план за развитие и партньорство за вътрешна

преработка на селскостопански продукти, т.е. за индустрията на вилата, в трансграничната зона на интервенция.

Проектът QUALFARM, както чрез този резултат, така и чрез цялостния работен план, има за цел да допринесе за постигането на основната цел на програмата "Подобряване на системите за подкрепа на МСП в сектора на предприемачеството" чрез създаване на структури за подкрепа на селските предприятия.

1. Introduction

1.1. Project Summary

QUALFARM's overall and main objective is triggering innovative entrepreneurship in the field of quality farm products' processing, with particular emphasis on "in-house" processing, in farms or small workshops, while tackling the challenges hampering entrepreneurship in rural areas, such as difficulties in obtaining finance, limited access of entrepreneurs to business know-how, limited access to information and contacts, lack of support services, lack of access/know-how regarding cost saving technologies and inadequate skills. More specifically, QUALFARM aims at the establishment of four (4) Business Support Offices, within the premises of the four (4) Project Beneficiaries, through which mentoring, training and continuous support will be provided to project's end-users, including farmers and members of farm households, SMEs operating in the agri-food industry, towards triggering innovative entrepreneurship and supporting existing one on the field of agricultural products' processing with particular emphasis on small-scale in-house processing of local quality products that are produced by small farms and by the most dynamic segments of rural population, such as women, young graduates, etc.

Moreover, among project's specific objectives rest the enhancement of the skills of farmers and existing farm products' in-house processing firms in the fields of quality, innovation and marketing, the creation and promotion of a distinct cross-border farm products' market, the raise of awareness of the general population on issues of food quality and safety, as well as the exchange of best practices at cross-border level and the facilitation of sustainable cooperation between the project's stakeholders. Furthermore, QUALFARM's expected results can be no other than the establishment of permanent business support structures (within the PBs' organizations) dedicated to the entrepreneurship in the field of in-house production, the engagement of young adults and women, the promotion of entrepreneurship in qualitative in-house production and trading in compliance with the legislation in force, as well as raising awareness and mobilization of labor resources for small size entrepreneurship in the field of in-house production. Finally, the promotion of the importance of qualitative packaging of quality products, produced in-house, the promotion of using the existing legislation in Greece for the in-house production, the exchange of experience between the producers and stakeholders of the two sides of the border, as well as improvement of the entrepreneurship in the field of in-house production for both sides of the border could not be missing.

1.2. Document Scope

The objective of the respective deliverable (D6.1.1) is the research, study and analysis of the narrow and wide environment for the development of the in-house processing of agricultural products, in the cross-border intervention area of the QUALFARM project, as well as its prospects. More specifically, the study emphasizes to the:

1. Understanding of the specificities of the practice of domestic engineering in Greece and in Bulgaria.

2. Understanding of the possibilities of practicing cottage industry in terms of raw material, the size of holdings, and the practice of agriculture in each country.

3. Understanding of the possibilities of practicing in-house processing of products, in terms of cooperation networks and the possibility of exchanging know-how at the cross-border level.

4. Clarification of the institutional framework for the practice of in-house processing of products, in the two countries and the submission of proposals for its improvement.

5. Mapping and identification of the profile of those already practicing cottage industry, in order to understand their particular characteristics that may have influenced their decision to start this activity.

1.3. Document Structure

This document consists of the following chapters:

Chapter 1: This chapter will include the project summary, the document scope, the document structure, as well as the definition of the term small-scale in-house processing of local quality products, followed by some historical facts, such as the first appearance of the term, first country that adapted this practice, etc.

Chapter 2: This chapter will reflect the framework, which governs the engagement with small-scale in-house processing, such as the terms and conditions of processing, handling, distribution and display of home-made in-house processing of local quality products.

Chapter 3: This chapter will imprint the current situation of small-scale in-house processing of local quality products, for the identification of potential gaps that hamper the further flourishing of the small-scale in-house processing, as well as potential possibilities for adaptation. Moreover, a review of case studies of small-scale in-house processing will take place, towards the identification of best practices.

Chapter 4: This chapter will include the developed methodology, which was followed for the collection of the requested data and information, their analysis and hence the conduction of the present deliverable. Indicatively, the methodology will include literature research, sample field research with a structured questionnaire that will be planned, existing situations, SWOT and PEST analysis.

Chapter 5: This chapter will reflect the information generated from the selected data from both primary and secondary research, for the case of Greece, that will be transformed into recommendations on how to improve the existing in-house processing of local quality foods,

while also promoting and facilitating its further adaptation, through the sensibilization of potential stakeholders wanting to engage in this initiative.

Chapter 6: This chapter will reflect the information generated from the selected data from both primary and secondary research, for the case of Bulgaria, that will be transformed into recommendations on how to improve the existing in-house processing of local quality foods, while also promoting and facilitating its further adaptation, through the sensibilization of potential stakeholders wanting to engage in this initiative.

Chapter 7: This seventh chapter will consist of the recommendations proposed for the improvement of the existing in-house processing of local quality products, while also promoting, enhancing and facilitating its further adaptation to potential stakeholders, for the case of the cross-border area of the project. These recommendations will derive from the identified gaps and opportunities highlighted through the results of the analysis of the conducted primary and secondary research.

Chapter 8: The eighth chapter of the deliverable will reflect on the findings and conclusion for the improvement, promotion, enhancement, and facilitation of the existing and potential in-house processing of local quality products, for the case of the cross-border area of the project.

Chapter 9: This final chapter illustrates the recommendations for the cross-border area of the project, while presenting, at the same time, the facilitator role QUALFARM project has to offer, towards this endeavor of spreading the initiative of small-scale inhouse processing. Moreover, it highlights a series of proposed actions and best practices for the promotion of sustainable small-scale in-house processing of farm products in the Cross-Border Region, whereas it embodies the QUALFARM Toolkit Guide for Cottage Industry, a blueprint that could act as an enabler for the empowerment of the cottage industry domain.

1.4. The in-house processing in a nutshell

The in-house production and processing, or cottage industry, as conceived otherwise, constitutes one of the oldest of all industries. When referring to the term, one's mind automatically goes back to the era before the Industrial revolution. The thriving of the cottage industries, before the industrialization constitutes a fact, considering that they held a fundamental role in the economy. Nowadays, the situation has changed, with the global economy consisting of 3 contributing pillars, with them being none other than Agriculture, Industry and Services, superseding the increased percentage of cottage industries contribution to the economy.

However, before diving into the current situation of the in-house production and processing, an overview, quoting the definition of the term small-scale in-house processing of local quality products, as well as the definition of the firstly appeared term of cottage

industry, followed by some historical facts, such as the first appearance of both terms would appear necessary.

The delimitation in time and place allows for a comprehensive understanding of the historical context and evolution of both terms. It highlights the relevance of cottage industry during the Industrial Revolution and the more contemporary focus on in-house small-scale farm products processing in the context of modern agricultural practices.

Historical background

The historical context and evolution of "Cottage Industry" and "In-House Small-Scale Farm Products Processing" reveal significant transformations in socio-economic landscapes. The term "Cottage Industry" emerged during the late 18th century, in the wake of the Industrial Revolution. Coined in 1776 by Adam Smith in his seminal work, "An Inquiry into the Nature and Causes of the Wealth of Nations", it delineated a decentralized system of production characterized by small-scale manufacturing and traditional craftsmanship conducted within households or small workshops. This phenomenon played a pivotal role during the industrial upheaval, embodying local skills, resource utilization, and the preservation of cultural heritage. On the other hand, the concept of "In-House Small-Scale Farm Products Processing" materialized in the latter part of the 20th century, gaining prominence in the early 21st century. Modern sources such as the Food and Agriculture Organization of the United Nations (FAO) and the Organization for Economic Co-operation and Development (OECD)have extensively explored the multifaceted nature of this concept. It encompasses farm-based food processing, on-site packaging, and direct marketing, effectively integrating agricultural production and processing within a single farming operation. The contemporary relevance of "In-House Small-Scale Farm Products Processing" lies in its potential to enhance value addition, promote environmental sustainability, and foster transparency between producers and consumers in diverse agricultural landscapes across the globe.

The “Cottage Industry” definition

With the delimitation in time and place of both terms having been completed, the chronological sequence of both terms becomes understood, allowing the immerging in the definitions of both terms. Considering that the term “Cottage Industry” precedes in time the term “In-House Small-Scale Farm Products Processing” it seems only fair delving into its definitions deriving from the desk research that was conducted, within deliverable’s framework:

- *“Cottage industry is the small-scale processing of agricultural products, especially, self-produced from the producer and his/her family, within the premises of rural residence or agricultural enterprise (Smith, A. (1776). The Wealth of Nations)”.* This definition succinctly captures the essence of 'Cottage Industry' as a localized system

of production involving the processing of agricultural goods. It emphasizes the role of self-produced materials, often within the confines of rural homes or agricultural establishments, thereby intertwining economic activities with domestic and local spheres.

- *"Cottage industry refers to a decentralized system of production, typically involving small-scale manufacturing activities carried out within households or small workshops. It is characterized by the use of locally available resources and traditional craftsmanship techniques (Smith, A. (1776). An Inquiry into the Nature and Causes of the Wealth of Nations. London: Strahan & Cadell)."* This definition elaborates on the decentralized nature of 'Cottage Industry.' It highlights the practice of small-scale manufacturing conducted within households and workshops. The utilization of locally available resources and traditional craftsmanship techniques showcases its historical context and distinct characteristics.

- *"The term "cottage industry" refers to a form of microenterprise where individuals or families produce goods or services on a small scale, often within their homes or local community. This practice allows for flexibility and the utilization of local skills and resources (Schumacher, E. F. (1973). Small is Beautiful: Economics as if People Mattered. London: Blond & Briggs)".* This interpretation underscores the microenterprise aspect of 'Cottage Industry.' It underscores the flexibility of production on a small scale, which is often centered within homes or immediate communities. The utilization of local skills and resources serves as a hallmark of this approach.

- *"Cottage industry refers to a sector of the economy where production is conducted on a small scale and often involves the production of unique and specialized goods. It serves as a significant source of employment in rural areas and supports local economies (Marshall, A. (1890). Principles of Economics. London: Macmillan and Co)."* This definition sheds light on the economic and employment aspects of 'Cottage Industry.' It characterizes it as a sector focusing on small-scale production, often yielding distinctive and specialized products. Notably, it acknowledges its role as a vital source of employment and its contribution to local economies, especially in rural contexts.

In wrapping up our exploration of 'Cottage Industry,' we've unveiled a practical and time-tested approach to production. This term signifies a system where small-scale manufacturing occurs within homes or workshops, leveraging local resources and traditional methods. The essence of 'Cottage Industry' lies in its simplicity: individuals and families engaging in modest yet valuable economic activities.

Rooted in the past, 'Cottage Industry' continues to resonate in our modern world. It's a reminder of the potential within our communities to create goods and services sustainably, preserving local skills and supporting rural economies. As we move forward, this historical concept encourages us to consider the value of decentralized, locally-rooted enterprises as a way to balance economic progress with tradition.

The "In-House Small-Scale Farm Products Processing" definition

Building upon the historical context we explored earlier, we now shift our focus to a more contemporary practice: 'In-House Small-Scale Farm Products Processing.' While 'Cottage Industry' carries the legacy of decentralized production, this newer concept reflects a modern adaptation that seamlessly integrates agricultural production and processing within the bounds of a single farm or agricultural enterprise. This evolution reflects the dynamic nature of our economic landscape and the ongoing pursuit of efficiency and value addition.

- *"In-house small-scale farm products processing involves the transformation of agricultural produce into value-added products within the confines of a farm or agricultural establishment. This practice enables farmers to diversify their income streams, reduce post-harvest losses, and add value to their products. Examples of in-house small-scale farm products processing include the production of dairy products, preserves, baked goods, and artisanal crafts using farm-grown materials (World Bank. (2008). Agricultural Innovation Systems: An Investment Sourcebook, FAO. (2012).* Small-scale processing of fruits and vegetables: A guide for rural areas.)". This definition underscores the pragmatic benefits of 'In-House Small-Scale Farm Products Processing.' It highlights how this practice addresses key challenges such as income diversification and post-harvest losses. By processing farm produce directly on-site, farmers can create value-added products that cater to local demand while minimizing wastage. Examples like dairy products, preserves, baked goods, and crafts showcase the diverse array of possibilities within this approach.

- *"In-House Farming: Definition: In-house farming, also known as on-farm processing, refers to the practice of transforming agricultural produce into value-added products directly at the farm or agricultural establishment. This approach allows farmers to maintain control over the processing chain and enhances the quality and marketability of their products (FAO. (2017). On-Farm Practices for the Safe Use of Wastewater in Urban and Peri-urban Horticulture. Rome: Food and Agriculture Organization of the United Nations)".* This perspective on 'In-House Farming' emphasizes control and quality. By processing on-site, farmers retain oversight of the entire value chain, ensuring that the final products meet high standards. This can enhance marketability and offer consumers assurances about the origin and production methods of the goods they purchase.

- *"The term "in-house farming" describes the integration of agricultural production and processing activities within a single farming operation. It enables farmers to diversify their income sources and maximize the utilization of their resources (OECD. (2004). Integration of Agricultural Commodity Markets in the Third World. Paris: Organization for Economic Co-operation and Development)".* This definition brings forward the concept of integration in 'In-House Farming.' By amalgamating production and processing, farmers can optimize their resources, reducing waste and inefficiencies. Diversification of income sources adds to the sustainability and resilience of agricultural enterprises.

- *"In-house farming involves the adoption of vertical integration strategies by agricultural producers, where they take responsibility for multiple stages of production, processing, and distribution. This practice is commonly seen in livestock and poultry farming. (Rehber, E. (2008). Economic Impacts of Vertical Integration in Poultry Production. The Journal of Applied Poultry Research, 17(2), 189-202)".* Here, the focus shifts to vertical integration, where 'In-House Farming' takes responsibility for multiple stages of the supply chain. This approach is particularly evident in livestock and poultry sectors, where maintaining control over various production phases enhances efficiency, quality, and profitability.

In-house small-scale farm products processing emerges as a testament to the adaptive nature of agriculture in the modern age. By marrying production and processing on the farm, this concept encapsulates efficiency, control, and diversification. Just as 'Cottage Industry' represented a historical response to economic demands, 'In-House Small-Scale Farm Products Processing' mirrors our contemporary quest for sustainability, value addition, and the preservation of local resources.

Comparing Concepts: Exploring Contrasts and Commonalities

Differences

In dissecting the differences between 'Cottage Industry' and 'In-House Farming' within the agricultural context, we find nuances that shape their distinct roles. 'Cottage Industry' thrives in the realm of small-scale, artisanal craftsmanship, often within the confines of households or specialized workshops. It's tightly woven with traditional crafts and textiles, celebrating heritage through the meticulous creation of handmade goods. Conversely, 'In-House Farming' broadens its scope, extending beyond the bounds of traditional crafts to encompass various agricultural products. Here, the emphasis is on value-added processing, where agricultural produce transforms into goods directly at the farm. This extension, coupled with its on-farm processing approach, paints 'In-House Farming' as a contemporary adaptation of the concept, embracing diversity within the agricultural sector.

In further delineating the differences, we find that 'Cottage Industry' tends to operate independently, often drawing materials from multiple sources. Its scale remains modest, involving individuals, families, or small artisan groups. On the other hand, 'In-House Farming' integrates production and processing within the same agricultural establishment. This arrangement grants a heightened level of control over the entire value chain, ensuring the integrity of the products created. It also opens doors to various scales, ranging from small to medium, adjusting according to the capacity and ambition of the agricultural enterprise. The tapestry of differences contributes to the unique identity of each concept while echoing the underlying theme of resourceful innovation within the agricultural domain.

DIFFERENCIES

01 – NATURE OF PRODUCTION	02 – SCOPE OF ACTIVITIES
Cottage Industry: Involves small-scale manufacturing activities conducted within households or small workshops, focusing on handmade goods and traditional craftsmanship. **In-House Farming**: Encompasses on-farm processing, where agricultural produce is transformed into value-added products directly at the farm, extending beyond traditional handicrafts to include various agricultural products.	**Cottage Industry**: Primarily associated with artisanal crafts, textiles, and other traditional goods. **In-House Farming**: Broadly covers a range of farm-based food processing, packaging, and direct marketing of agricultural products.
03 – PRODUCTION SCALE	**04 – INTEGRATION LEVEL**
Cottage Industry: Typically operates on a small scale, involving individuals, families, or small groups of skilled artisans. **In-House Farming**: Can vary from small to medium scale, depending on the size and capacity of the agricultural establishment.	**Cottage Industry**: Often operates independently of the agricultural sector and may source materials from various suppliers. **In-House Farming**: Integrates the agricultural production and processing activities within the same farming operation, resulting in more direct control over the entire value chain.

Figure 1: Differences between 'Cottage Industry' and 'In-House Farming'

Similarities

Although 'Cottage Industry' and 'In-House Farming' harbor distinctions, they share compelling similarities that root them firmly in the agricultural landscape. Both concepts revolve around resource utilization, channeling local skills and materials to breathe life into their respective products. This not only bolsters regional economies but also safeguards cultural heritage, reflecting the essence of locally rooted production. Value addition emerges as another common thread, as both approaches embrace the transformation of raw materials into higher-value goods. Whether artisans crafting handmade items or farmers processing agricultural produce, the essence of adding value remains fundamental.

A resonance of sustainability reverberates through both concepts. 'Cottage Industry' often incorporates recycling and upcycling practices, championing eco-conscious craftsmanship. On the other side, 'In-House Farming' reduces environmental impact through localized processing, circumventing extensive transportation and packaging. In tandem, both approaches contribute to environmental stewardship. Beyond environmental benefits, both 'Cottage Industry' and 'In-House Farming' significantly impact economic landscapes. They foster employment opportunities, especially in rural areas, acting as pillars of livelihood support and local development.

Market accessibility links them further. Niche markets that appreciate locally sourced and distinct goods find a common ground in both concepts. This transparent connection between producers and consumers engenders trust and authenticity. Moreover, 'Cottage Industry' and 'In-House Farming' collectively embrace a vital role in preserving cultural traditions. By valuing and perpetuating local skills and practices, they ensure that the tapestry of heritage endures across generations.

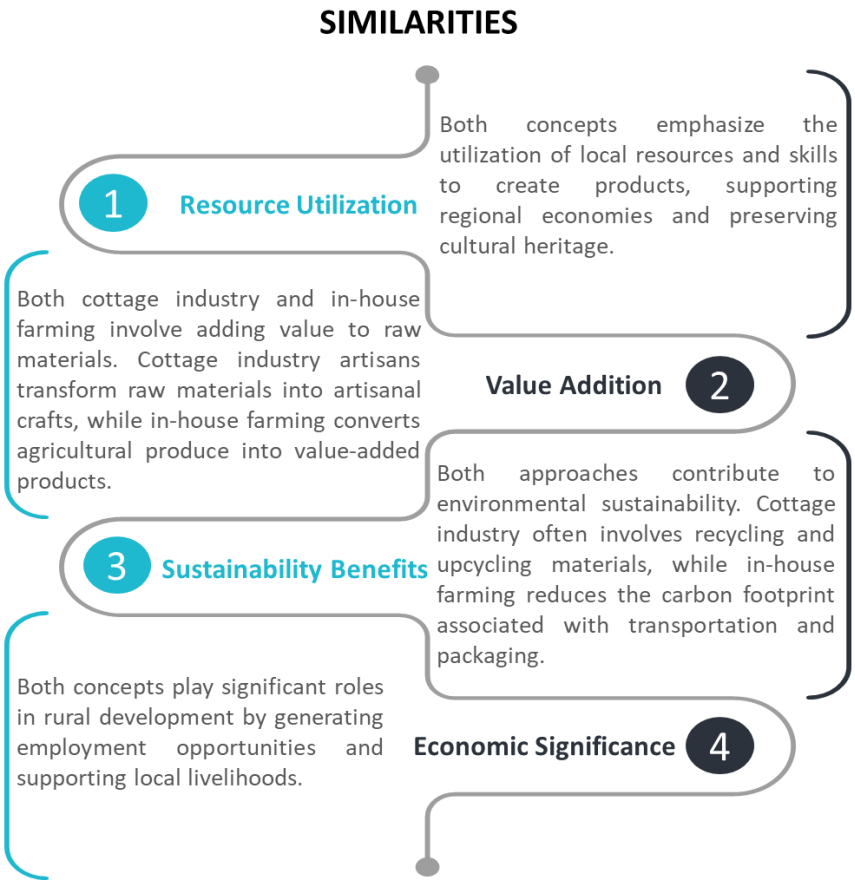

Figure 2: Similarities between 'Cottage Industry' and 'In-House Farming'

In the realm of our deliverable, 'Cottage Industry' and 'In-House Farming' converge in terminological value within the agricultural domain. Through their shared purpose, these

terms underscore the symbiotic relationship between time-honored traditions and contemporary agricultural innovation. Whether handcrafting goods or processing produce on-farm, these concepts continue to define and enrich our agricultural narrative.

2. The institutional framework of small-scale in-house processing of local quality products.

After defining the meaning of “Cottage Industry”, or as otherwise mentioned, “In house farming”, developing a framework for the concept of cottage industry holds a significant role for the development and engagement with this branch of the agricultural sector. The necessity of the definition of certain conditions and requirements is beyond profound, towards ensuring the protection of cottage industry’s identity and authenticity. Matter of interest constitutes the fact that, even though the definition of cottage industry is universal and applied globally, the institutional framework may vary both at international level, as well as within the EU. However, the parameters based on which the institutional framework is built upon, such as categories of products, license rights of engagement, etc. tend to remain universal. More specifically, the components that set the institutional framework of cottage industry in project’s countries, meaning Greece and Bulgaria, are presented, in detail, in the following subchapters.

2.1. The institutional framework in Greece

The institutional framework in Greece answers to the decisions, legislation and strategic plans of the Ministry of Rural Development and Food. In order to define certain conditions and requirements, around the concept of Cottage Industry, the Ministry establishes a Register of Farmers and Agricultural Holdings, as well as a Central Electronic Register of Household Crafts. According to the law Nr. 3874/2010, which concerns the right of engaging with cottage industry production of processed agricultural products, as well as defines the terminology of “professional farmers'', only people, that constitute professional farmers, and are registered in the Register of Farmers and Agricultural Holdings hold the right of engaging with cottage industry. More specifically, within the Decision Nr. 4912/120862 /17-11-2015 (FEK B΄/ 2468/ 2015) a series of conditions and requirements, regarding the production and distribution of products produced, as well as the procedures of registration of the SMEs engaging in cottage industry are being established and declared.

Therefore, when referring to the engagement with cottage industry in Greece, the registration to both registers, mentioned above, rests as the starting point. For the registration to the Central Electronic Register of Household Crafts the following two (2) steps have to be followed:

1. Submission of an electronic application of registration in the electronic portal of the respective Register, on the website of the Ministry of Rural Development and Food (www.minagric.gr).

2. Submission of the mandatory documentation in the competent Directorate of Agricultural Economy and Veterinary Medicine, within 10 days from the submission date of the electronic application.

Supporting documents submitted to R.A.O. include:

- A certificate from the interested party affirming their main profession is a farmer, issued by the competent Department of Rural Development (formerly K.E.P.P.Y.E.L) for the year of application submission.
- A copy of the OSDE Cultivation Declaration for the year of application submission.
- Proof of payment of the e-levy for registration in C.E.R.C.I. (10 Euros).
- Declaration of compliance with the general hygiene requirements of European and National legislation (in the form of a Ministerial Decision), provided by R.A.O.

Food products that fall under the cottage industry category include:

- Cereal products, e.g., bulgur, bobota.
- Bakery products (e.g., rusks, crackers, breadsticks, raisin bread, breadsticks, doughnuts with honey, bagels, flatbreads, puff pastry, pies, savory and sweet).
- Pasta made primarily from cereal flour (e.g., trahana, hilopites, lasagna, xynochondros, etc.).
- Sweets (e.g., halva with semolina, samali, ravani).
- Plant-based products with sweeteners, especially spoon sweets, jams, preserves, fruit jellies, sweet fruit and vegetable pastes, fruit glazes, petmez, grape must spreads, almond-based sweets, sesame products.
- Products containing extra virgin and virgin olive oil with added aromatic herbs, spices, essential oils, fruit juices, etc., packaged up to two (2) liters.
- Preserved products using salt, vinegar, and oil for plant-based foods, particularly table olives and olive-based products, pickles, sauces.
- Dried products from plant-based foods, especially fruits and vegetables, dried fruits, legumes, herbs.
- Products with honey and dried nuts, dried fruits, mastic, saffron, etc.
- Other food products, e.g., vinegar, fruit and vegetable juices in packages up to 1 liter.
- Dairy products provided that the conditions set by Decision No. 3724/162303/22.12.14 K.Y.A (Government Gazette 3438/B/2014) are met.

*It is noted that the production of alcoholic beverages is not permitted within the context of cottage industry.

The aforementioned products can be offered in pre-packaged or non-packaged form.

The quantities of the final products are calculated based on the production of the primary product, which constitutes the main primary ingredient of the product, derived from the producer's cultivations in accordance with the second paragraph of paragraph 2 of article 56 of Law 4235/2014. Specifically, the right to engage in cottage industry processing of transformed agricultural products is reserved solely for natural persons who are professional farmers, as defined and registered in the Register of Farmers and Rural Enterprises according to Law 3874/2010, as well as their family members. In their cottage industry activity, professional farmers can use agricultural products as raw materials, with an upper limit being the total of their own production, or exceptionally, and in small quantities, products that are produced within the boundaries of their rural enterprise or the premises of rural residences, but are not declared in OSDE. Those participating in rural cooperatives are entitled to use in their cottage industry activity the portion of their production not allocated to the cooperative. The Ministry of Rural Development and Food recommends the establishment of a "Central Electronic Register of Cottage Industry (C.E.R.C.I)," which records the producers and the types of products produced within the framework of cottage industry. The processed products produced are intended for direct distribution by the cottage industry producer within their premises or at periodic local events (such as fairs and municipal events), local farmers' markets, retail and mass catering businesses of the local market.

The Ministry of Rural Development has announced that, according to a circular from the Independent Authority for Public Revenue (I.A.P.R.) effective from January 1, 2017, the income generated from cottage industry activities will be accounted for and included in agricultural income. This inclusion was a longstanding request of professional farmers, as defined and registered in the Register of Farmers and Rural Enterprises (R.F.R.E.).

Furthermore, the Hellenic Food Authority (H.F.A.) has issued a "Guide to Good Practice for Cottage Industry Food Units" aimed at promoting compliance with general hygiene requirements and sensitizing producers intending to establish Cottage Industry Food Units regarding their responsibilities in relation to food legislation.

The responsibility carried by the producer extends beyond their agricultural identity; they are essentially the responsible party of a food business. They must adhere to the requirements of food legislation and primarily hold responsibility for the hygiene and safety of the foods they produce and distribute in the market. Ensuring the production of safe foods and safeguarding consumer health is the obligation of all individuals engaged in food management (from production to distribution), contributing to food safety to prevent undesirable consequences for consumers.

In conclusion, the institutional framework surrounding cottage industry in Greece forms a dynamic landscape shaped by legislation, strategic plans, and decisions put forth by the Ministry of Rural Development and Food. With a focus on preserving the authenticity of cottage industry, Greece has established crucial registers for farmers and agricultural holdings, along with a Central Electronic Register of Household Crafts. The process of

engaging in cottage industry hinges upon compliance with legal conditions, as outlined in various legislative documents. The commitment to food safety, hygiene, and consumer well-being underscores the responsibilities of cottage industry producers. Furthermore, the integration of cottage industry income into agricultural earnings signifies a significant milestone in recognizing its importance. This institutional framework acts as a conduit for nurturing local quality products, contributing to the vibrant culinary heritage of Greece.

2.2. The institutional framework in Bulgaria

In Bulgaria, a pivotal shift in fostering small family farms and streamlining the pathway for products to reach consumers directly was marked by the enactment of legislation in 2010. This framework not only granted farmers the liberty to vend certain products directly on the market without violating the law but also empowered them to process and sell both raw and processed foods from their own produce. This initiative extends particularly to livestock and poultry farmers, game and fish farms, beekeepers, and fishermen, enabling them to offer ready-to-consume raw and processed foods without the compulsion of adhering to extensive factory standards. This strategic intervention holds the potential to amplify profits for primary producers of agricultural raw materials, circumventing intermediaries and purchasers who often acquire their goods at deflated rates. Simultaneously, consumers are afforded enhanced accessibility to an array of diverse, high-quality, and artisanal products, emblematic of original Bulgarian culinary heritage, thereby vouched for by the very hands that craft them. Notably, this regulation excludes intermediary entities, ensuring a direct producer-to-consumer channel.

The products that can be sold under this regulation are divided into 4 categories:

1. **Primary Products**: Encompassing raw milk, honey, bee products, eggs from chickens and quails, as well as fresh and chilled sea and freshwater fish.

2. **Fresh Poultry and Rabbit Meat**: Pertaining to the on-farm slaughtering of poultry and rabbits.

3. **Game Meat**: Including meat from both large and small game, procured via hunting or farm-raised sources.

4. **Processed and Manufactured Animal-Origin Foods**: Encompassing processed and/or manufactured foods derived from animal sources.

For the direct sale of raw animal-origin products, a foundational requirement mandates that the sale, delivery, or processing be undertaken directly by the breeder, with the exception of game meat. Consequently, only livestock farm owners are eligible to apply for registration under this ordinance.

Owners of animals are authorized to process raw milk solely from cows, sheep, goats, and buffaloes reared on their own farm. Similarly, the direct sale of meat from domestic ungulates, birds, rabbits, and ostriches can be facilitated from the breeder's own farm.

However, producers must establish a registered slaughterhouse to adhere to stipulated standards.

Processing of raw materials is expected to transpire in registered sites designated under the Food Act, where the farmer must be the proprietor, tenant, or user. Retail outlets for sale can be established on the farm premises or in relevant areas, extending to neighboring administrative regions.

In a unique provision, sheep's, goat's, and buffalo's milk processing can occur in a mobile setting situated in a mobile dairy unit within the grazing field, where the farmer's livestock graze. The mobile dairy unit is required to be registered as a temporary trading site with the Regional Directorate for Food Safety. Subsequent maturation and storage of dairy products from the mobile dairy can transpire either within another space on the farm or within the farmer's residence.

For the direct sale of raw milk, honey, eggs, fish and poultry and rabbit meat, the mandatory procedure is entry. Once the producers are ready with the installations, equipment, premises and documentation, they must submit to the Regional Directorate for Food Safety (RFSD) an Application for entry according to the form they will find on the Bulgarian Agency for Food Safety (BFSA) website.

Registration for a retail outlet is done under the Food Act, similar to the registration of a grocery store. The sale of farm dairy and meat products is possible at the place where they are processed or from a mobile refrigerated display case, located in its own and in a neighboring administrative area.

Registration is required for dairy and meat products processed to ready-made foods on the farm. The procedure includes the submission of an application for registration, accompanied by copies of listed documents; an on-the-spot verification; an approval and registration.

While Ordinance 26 comprehensively addresses products of animal origin, the landscape for processed foods of non-animal origin—such as jams, bottled fruits, pepper purees, and syrups—lacks an equivalent ordinance. Presently, small processors of plant products can enter the market upon registration under the Food Act.

Food safety requisites in Bulgaria are meticulously delineated within the Food Act, which not only underscores safety but also encompasses criteria for business operators, packaging, labeling, presentation, transportation, trade, and official control bodies. This comprehensive legal framework is oriented toward safeguarding consumer well-being and adhering to both European Union law and national food measures. More specifically, the requirements for food safety in Bulgaria are regulated in the Food Act (as last amended on 16.02.2021). In addition to safety, the law also regulates the requirements for business operators and persons working in production and processing facilities, the requirements for packaging, labeling, presentation and advertising of food, the requirements for transportation and trade, the official control bodies for production and processing, terms and conditions for food export, etc. The law aims to ensure a high level of protection of the

health and interests of consumers with regard to food and to ensure the application of European Union law and of national food measures.

The Bulgarian regulatory framework aligns with key European regulations, such as Regulation (EC) No. 852/2004 concerning food hygiene, Regulation (EC) No. 853/2004 stipulating hygiene rules for animal-origin food, and Council Directive 2002/99/EC dictating veterinary and sanitary rules for products of animal origin. More detailed, national measures related to food requirements are based on and in accordance with Art. 1, paragraph 3 and Art. 13 (3) of Regulation (EC) № 852/2004 of the European Parliament and of the Council of 29 April 2004 on the hygiene of foodstuffs; Art. 1, paragraphs 4 and 5 and Art. 10 (3) of Regulation (EC) № 853/2004 of the European Parliament and of the Council of 29 April 2004 laying down specific hygiene rules for food of animal origin; Council Directive 2002/99 / EC of 16 December 2002 laying down the veterinary and sanitary rules governing the production, processing, distribution and placing on the market of products of animal origin for human consumption.

In the production, processing, and distribution of food, adherence to industry standards and guidelines for good production, trade, and hygiene practices, including the implementation of hazard analysis and critical control points (HACCP), is enforced, in accordance with Art. 5 of Regulation (EC) № 852/2004 and Annexes II and III of Regulation (EC) № 853/2004. The pivotal role of monitoring compliance, food hygiene, and safety is vested in the Bulgarian Food Safety Agency (BFSA), which also oversees packaging, labeling, presentation, and advertising of food products. The Agency defines the terms and conditions for production and trade in food, and indicates the rights and obligations of persons who produce or trade in food. The elaboration of documents necessary for food product launch, production, and trade is accessible on the BFSA's official website (https://www.bfsa.bg/bg/Page/61/index/61).

This institutional framework in Bulgaria provides a steadfast foundation for the small-scale in-house processing of local quality products, buttressing the nation's culinary traditions while adhering to rigorous food safety standards.

3. Mapping of the current situation and review of case studies of small-scale in-house processing of local quality products

In this pivotal chapter, we delve into a comprehensive analysis of the present landscape surrounding the small-scale in-house processing of local quality products, focusing on two distinct yet interconnected realms: Greece and Bulgaria. This exploration not only offers an intricate portrayal of the status quo in each country but also endeavors to illuminate the unique dynamics that arise at their shared borders, specifically in the vicinity of Evros in Greece and Haskovo, Smolyan, and Kardzhali in Bulgaria.

The central aim of this chapter is to unravel the intricate fabric that comprises the practices, challenges, and successes of small-scale cottage industries within these regions. As the cultivation and processing of local products assume an increasingly vital role in safeguarding culinary heritage and promoting regional economic growth, understanding the intricacies of the current landscape becomes paramount.

Furthermore, a comprehensive analysis of the regions situated along the Greece-Bulgaria border, spotlighting Evros in Greece and Haskovo, Smolyan, and Kardzhali in Bulgaria is taking place. The interplay of cultural, geographical, and economic factors in these borderland areas often leads to unique circumstances and opportunities for collaboration in the realm of local quality product processing.

In the following subchapters, "3.1. Current Situation and Review of Case Studies in Greece, with an Emphasis on the Region of Evros" and "3.2. Current Situation and Review of Case Studies in Bulgaria, with an Emphasis on the Regions of Haskovo, Smolyan, and Kardzhali," we will meticulously examine the nuances of each region's cottage industry landscape.

3.1. Current situation and review of case studies in Greece, with an emphasis on the region of Evros

In recent years, Greece's pursuit of a resilient economic trajectory has mandated a transformation in productive practices, serving as a cornerstone for recovery from recession and a catalyst for sustainable development. In the strategic endeavor towards an endogenous development paradigm, the role of the primary sector has become increasingly pronounced. Within the tapestry of this economic canvas, the Evros region emerges as a vivid exemplar, where the primary sector stands steadfast as a pillar of growth. Its contributions encompass employment generation, export augmentation, and intricate ties with the secondary sector. Notable facets within the primary sector include cereal cultivation, viticulture, maize, cotton, peas, asparagus, garlic, and melons, while livestock husbandry, focusing predominantly on sheep and goats, lends an enduring character. In parallel, the secondary sector punctuates the region with entities committed to the processing of agricultural and livestock products, asphalt mixing plants, and vibrant artisanal

crafts in coloring and woodworking. The tertiary sector, which is underpinned by tourism, commercial establishments, and service provisions, further elevates the multifaceted economic landscape.

Of particular significance is the burgeoning interest in the cottage industry within the confines of the Evros region. Evidenced by the authorization of 41 artisanal enterprises, this emerging trend radiates optimism for the region's developmental trajectory. Apostolos Xanthopoulos, Director of the Regional Development Agency of Eastern Macedonia and Thrace (DAOK), anticipates a surge in applications as farmers, equipped with products amenable to processing, tap into the potential of cottage industry. This strategic pivot empowers them to add value to their produce while bypassing intermediaries.

Among the diverse array of processed goods are aromatic herbs, pomegranate and mastic-infused pasteli (sesame and honey bars), dried fruit-laden pastries, honey, cheese, myzithra cheese, soaps, tomato sauces, candles, propolis balms, and bee-derived creams infused with aromatic herbs. Artisans, who often come from diverse professional backgrounds, have reoriented their efforts towards family estates to cultivate artisanal production. In modified private buildings, they initiate small-scale endeavors, underlining a commitment to prudent investments that ensure cost-effectiveness. This approach aligns with broader objectives, allowing for participation in improvement initiatives and research programs with equivalent zeal.

As their reputation burgeons, artisans may require expanded financial support, possibly sourced from dedicated programs, to accommodate growth. The ascendancy of these products is fostered through a strategic presence on social media platforms. Their journey to market traverses various routes, with some products finding their place in local markets while others secure partnerships with established retailers. DAOK plays an instrumental role in orchestrating their participation in exhibitions, thereby facilitating interactions with merchants and brokering agreements with prominent retail chains. This concerted effort epitomizes a nuanced blend of tradition and innovation, harmonizing local heritage with contemporary economic aspirations.

Cottage industries in the Regional Unit of Evros					
N/A	**Units Name**	**Location**	**Phone number**	**Email**	**Activity**
1	Aroma Evrou	Valtos, W. Orestiada	2552025022	aromaebrou@gmail.com	Organic Cultivation – Processing of lavender
2	KiposYgeias	Palagia, Alexandroupoli	2551097389, 6945779762	info@kiposygeias.gr	Organic Agricultural Products

3	Oikotexneiontherapeion Dimitrios Matzioura	Therapio, Orestiada	6937069971, 6972532909, 2552113001	oikotexneiontherapeion@gmail.com, matzioura.dim@gmail.com	Traditional Hebrew red trahanas, pasta, cous cous, jar sweets, jams, tomato sauces
4	Evros Nuts	Feres, Evros	6977484071	evrosnuts@gmail.com	Production – Trade of dried fruits
5	OikotexneiaGiannakidi	Feres, Evros	6948370714	loukoudreams@gmail.com	Loukoumi
6	Bourouliti Silk	Soufli, Evros	2554024168	bourouliti.silk@gmail.com	Silk goods
7	Vasiliadis Honey	Kiriaki, Soufli	2554081039	vasiliadis76@hotmail.gr	Honey products
8	Theogenis	Tichero, Evros	2554111433	info@theogenis.gr	Hemp products
9	Mirsini's Silk	Alexandroupoli	2551031205	info@silkyhouse.gr	Silk goods
10	TachiniTzavelekis	Mavroklisi, Evros		info@tzavelekis.gr	Production of tahini
11	TachiniPolyzoidi	Vrisika, Evros	2551080487	info@samythos.gr	Production of tahini
12	Gefyra Zois Lakoryf	Feres, Evros	6976105690	nikos.feres@gmail.com	Production of tahini
13	OikotexneiaPortokalidi	Feres Evros	6948946228	info@oikoportokalidis.gr	Traditional sauce
14	TachiniEllinikochori Konstantinos	Ellinochori	6932310338, 2553113127	tsirnaskostas@gmail.com, kostastsirnas@	Production of tahini, trachanas,

	Tsirnas			hotmail.com	pasta, cous cous, lentils, cheese, beans
15	Karafillidi's Honey	Alexandroupoli	6974054619	karafillidis@gmail.com	Honey products
16	TachiniKrios	Krios, Orestiada			Production of tahini
17	Gkillani Irene	Feres, Evros			Production of tahini - legumes
18	Lampridou Dafni	Trifilli, Evros			Honey products
19	Dimitrios Gkoudelidis	Sakkos, Evros	2552024789, 6947277243	Dimigou69@gmail.com	Honey products

Table 1: List of Cottage industries in the Regional Unit of Evros

N/A	Name & Surname	Location	Phone number
1	Davoudanis Nikos	Feres	6946284210
2	Kapoutsis Nikos	Feres	6944538818
3	Kalogiantsidis Giannis	Alexandroupoli	6945480977
4	Papathasiou Kirana	Feres	6936847933
5	Gkaidatzi Chrysoula	Alexandroupoli	6988630831
6	Sokolova Vasileiou Bistra	Makri	6944236871
7	Bouroutzidou Theodora	Soufli	6944612241
8	Papazoglou Stefanoula	Feres	6974517618
9	Marmara Marina	Makri	6979099693
10	Tsaousidou Sevasti	Nipsa	6974964934
11	Portokalidis Vasilis	Feres	6948946228
12	Kazantzidis Iraklis	Alexandroupoli	6936572390

13	Alexiou Eirini	Provatonas	6974415075
14	Manousi Maria	Feres	6983725091
15	Giannakidis Giannis	Feres	6944717812
16	Sevastatos Georgios	Samothraki	6978411505
17	Oulianoudis Konstantinos	Alexandroupoli	6977939282
18	Raptopoulos Nikolaos	Alexandroupoli	6973035110
19	Varvatziki Marina	Feres	6974069558
20	Lilopoulou Pelagia	Makri	6934665559
21	Batili Maria	Alexandroupoli	6984865570
22	Tsakni Pelagia	Alexandroupoli	6949751291
23	Bratsas Georgios	Soufli	6942259536
24	Babali Aggeliki	Alexandroupoli	6947307678
25	Lalidou Olga	Alexandroupoli	6936728626
26	Nikolaoudi Kiriaki	Alexandroupoli	6985631469
27	Makri Kiriaki	Alexandroupoli	6948826355
28	Boutos Tilemachos	Alexandroupoli	6995778691
29	Karagiannis Christos	Alexandroupoli	6977974629
30	Rapti Theodora	Kornofolia	6977805076
31	Arampatzis Paschalis	Panagia	6947643339
32	Koukoudis Georgios	Soufli	6980486479
33	Diamantidis Anastasios	Peplos	6987600833
34	ChadirChadir	Makri	6973863819
35	Moumin Sabile	Merama	6942874072
36	Vrizas Georgios	Alexandroupoli	6944639211
37	Botrotsou Elisavet	Kipoi	6970805396
38	KalemtzisCharalabos	Alexandroupoli	9674429322

39	Memetali Hasan	Makri	6938028052
40	Bakaloudis Evangelos	Soufli	6940795468
41	Michail Alper	Mesimvrinia	6933332863

Table 2: Supplementary list of cottage industries in the Region Unit of Evros

N/A	Organisation's name	Phone number	Activity
1	"AXIOKERASA" Samothrace Women's Agri-Ecotourism Cooperative	2551041814,82270 2551041204,8970	Traditional food (pasta, sweets), textiles
2	"HANA" Women's Production CooperativeofLoutroinTrainoupolis Evros	25510/61070, 61004,61028, 25510/61000, 61020	Restaurant, refreshment bar
3	"EKAVI" Production Cooperative of Women's of Feresin Evros	2555022226, 22564, 2555023411	Pasta, jar sweets
4	"AKRITISSES" Women's Agritourism Cooperative of Peplo	2555031901, 2555031285	Cafe-canteen, traditional food
5	"THE GERAKINA" Agritourism Cooperative of Dadiain Evros	2554032244, 32355 2554032463, 32244	Traditional food, pasta, pies, jar sweets, loukoumia
6	Women's Agritourism Cooperative of Lefkiin Evros	2554033244	Loukoumia, jar sweets
7	"NEROMYLOS" Women's Agritourism Cooperative of Lyra-Municipality of Tycherosin Evros	2554061360, 61236	Traditional food (pasta, pies, jar sweets)
8	"GAIA" Women's Agricultural Cooperative of Triangle in Evros	2556051500, 51541	Pasta, jar sweets, catering
9	Aismi Women's Rural Tourist Cooperative of Evros	2551093154	Traditional food (pasta, pies, etc.), restaurant, tavern
10	"NIKI" Samothrace Women's Agricultural Cooperative	6977616661	Traditional food

Table 3: List of agro-tourism, handicraft and in-house farming in the Region Unit of Evros

3.2. Current situation and review of case studies in Bulgaria, with an emphasis on the regions of Haskovo, Smolyan and Kardzhali.

This chapter presents a comprehensive examination of the contemporary landscape for small-scale in-house processing of local quality products in Bulgaria. Our attention is focused on the distinctive agricultural regions of Haskovo, Smolyan, and Kardzhali, where we delve into the intricate interplay between traditional practices and entrepreneurial dynamics.

The agricultural landscape of Bulgaria is characterized by its inherent complexity and remarkable diversity. Within regions such as Haskovo, Smolyan, and Kardzhali, agricultural activities play an instrumental role, encompassing a wide array of crops including cereals, cotton, maize, and notably, livestock farming with a pronounced emphasis on sheep and goats. The landscape of agricultural entrepreneurship within these regions is not without its share of challenges, particularly underscored by the evolving backdrop of the pandemic. However, the inherent advantage of small-scale operations lies in their inherent agility and adaptability. This intrinsic flexibility empowers local producers to promptly respond to market fluctuations while maintaining a close-knit relationship with their consumers. An intriguing facet of Bulgaria's agricultural framework pertains to the absence of a dedicated registry for farmers involved in self-processing. In lieu of this, the Agricultural Producers Registry serves primarily those seeking agricultural subsidies. A primary investigation into publicly available resources has unveiled a diverse spectrum of effective practices in the Haskovo, Smolyanand Kardzhali regions, embodying a range of innovative approaches. These practices underscore the innate value of innovation, astute marketing strategies, and the integration of efficient production techniques that collectively bolster the resilience of the local agricultural landscape. In the following table there is a list of thecottage industries in the regions of Haskovo, Smolyan, and Kardzhali.

N/A	Cottage industry Name & Region	Cottage industry Description
1	**“The wild farm”(Gorno pole village - Madzharovo Municipality)**	The family farm is the first one in Bulgaria to produce organic beef. The beginning has been set in 1994 with a dozen sheep and goats, and today more than 1,200 indigenous cattle are bred, which are bred freely throughout the year. One of the owners of the "Wild Farm" is a food technologist and author of the recipes for delicacies. The products are produced entirely on the farm, which also houses the first in Bulgaria bio-certified slaughterhouse and the first processing plant for organic beef.

		Products on offer are chilled organic beef, raw-dried sausages, sterilized beef in jars, sazdarma (head cheese/brawn), broth, pate, etc. In their home, farmers also offer accommodation to friends and guests. The house has double and triple rooms with private bathrooms, of a total of 15 beds and a large yard. In addition to accommodation, adventures in the area are also offered - wild bird watching, horseback riding, gold mining by ancient methods, a tour for minerals, searching for wild bees, etc.
2	**“The Forest Farm” – (Malko Gradishte Village)**	The Forest Farm takes pride in its ethical approach to animal husbandry, allowing animals to graze freely and consume natural food from pastures. The Forest is a multicultural farm for free range grazing and has existed since the beginning of 2017. The team consists of 7 people. Owners believe there is a way to raise animals in a free and humane manner, instead of investing huge sums of money in an industrial farm. Animals get sick less and eat naturally - with food that is natural to them and that they get themselves from pastures. The products on offer are chilled beef, veal, pork, sausages, chicken in its own sauce, cheese, yellow cheese, canned fruit and vegetables.By adhering to humane practices, The Forest Farm ensures healthier animals and a naturally rich product lineup.
3	**Villa Bassarea Winery (Harmanli)**	The Villa Bassarea Wineryhas been created in 2014 in the town of Harmanli and produces small batches of wine from local grapes, combining modern technology with tradition. The wines are from the Syrah, Merlot, Cabernet

		Sauvignon, Cabernet Franc, Malbec, Pamid, Mavrud, Tamianca, Muscat and Viognier variety. Some massifs are more than forty years old, which ensures the distinctive character of wines produced by classical technologies with a lot of manual labor. Wine tastings, led by a technologist, are often organized in the winery.
4	**Ecological farm "Kehayovi" (Devin, Smolyan)**	The owners of the family farm have found a successful formula to combine animal husbandry with the "closed" cycle of dairy production by combining production with agritourism. About 250 sheep, 60 goats, 12 dairy cows and 25 Karakachanska horses are bred on the farm. All the animals graze in pastures at an altitude of over 1,125 meters, on the slopes and meadows of the central Rhodope. The owners of the farm process their milk using traditional methods. They have built a dairy and equipped it with solar panels to use electricity from the sun. A small guest house has been built on the farm which attracts the interest of visitors and guests having the opportunity, in addition to recreation, to see where the animals graze, how they are milked, how the cheese is made and at the same time to purchase genuine products.
5	**"The Golden Farm" (Zlatograd, Smolyan region)**	This is a Lacon sheep breeding farm. The desire and ambition of the owners is to produce quality dairy products from sheep's milk. A new 500 liter capacity cheese factory is planned to be built, which will only process milk from their own animals and offer white brine cheese, yellow cheese and yogurt. The introduction of new technologies in production and the modernization of the production base will contribute to its increase, combined with the implementation of good production practices.

6	**"Stanchevi Bee Farm" (City of Zlatograd, Smolyan region)**	The owner of the farm is a third generation beekeeper. At the moment the family apiary reaches 400 hives. Stanchevi Farm is located in an ecologically pure mountain area, in the heart of the Rhodopes. In addition to herbs and honey, bee glue (propolis), pollen, royal jelly, sticky tincture and bee ointments are offered. The farm also has an accommodation facility (the Stancheva House), which has 6 double rooms and an apartment and is located 200 meters from the old part of Zlatograd town.

Table 4: Cottage industries in the regions of Haskovo, Smolyan, and Kardzhali

N/A	Full Name	Location	Phone number	Activity
1	Blagovesta Vasileva	Madzharovo	+359988989407,+359877 975569	Breeds cows and processes their meat
2	Georgi Shishkov	Tunkovo	+359897629215	Vine grower and winemaker
3	Ivan Vanchev	Tunkovo	+359877100477	Vine grower and winemaker
4	Temenuga Mateva	Ivaylovgrad	+359885971825	Tarhana production
5	Erbil Halil	Stambolovo	+359879635805	Beekeeper
6	Muhlis Serbest	Stambolovo	+359879635800	Melon grower
7	Fariz Serbest	Stambolovo	+359888385053	Linseed producer
8	Gyuner Serbest	Stambolovo	+359887956510	Grain producer
9	Egemen Serbest	Stambolovo	+359888136222	Grain producer

*Source: Damyan Staykov, PB3(RDU–Haskovo).

Table 5: List of cottage industries in the region of Haskovo

Haskovo, Smolyan, and Kardzhali stand as living testaments to Bulgaria's vibrant agricultural tapestry, effectively encapsulating the fusion of tradition, innovation, and entrepreneurial spirit. The case studies explored within this chapter offer a nuanced vantage point into the bedrock of local agricultural advancement, affording insights into challenges, strategies, and the spectrum of opportunities awaiting exploration. These insights serve as invaluable compasses for the "QUALFARM" project as it navigates this diverse landscape, cultivating an ecosystem conducive to small-scale in-house processing of local quality products.

In summation, the exploration of the current landscape and case studies in the realm of small-scale in-house processing of local quality products across Greece and Bulgaria has illuminated a tapestry of traditions, innovations, and entrepreneurial endeavors. This chapter has delved deep into the intricate dynamics shaping the Evros region in Greece and the regions of Haskovo, Smolyan, and Kardzhali in Bulgaria, revealing their distinctive yet interconnected trajectories.

The QUALFARM project emerges as a cornerstone for fostering growth and sustainability in these regions, offering invaluable support to farmers and enterprises engaged in internal agricultural product processing. The project aims, not only to empower local producers to harness untapped potential for entrepreneurial expansion but also fuels the development of a thriving market for processed agricultural goods.

A defining feature of this chapter has been the spotlight cast on the Greece-Bulgaria borderland areas, where cultural, geographical, and economic factors converge to create unique circumstances and opportunities for collaboration. This dynamic interplay has the potential to bridge borders and promote the awareness of food quality and safety through a cross-border agricultural market.

As the QUALFARM project continues to navigate the multifaceted landscape of small-scale in-house processing of local quality products, the insights gleaned from this chapter serve as guiding lights for the secondary research and analysis, which is unfold in the upcoming chapter, providing further information for the already established SMEs and potential nascent enterprises that may take shape in the future within the cottage industry, providing a deeper wellspring of knowledge. In essence, this chapter unveils a transformative journey where grassroots efforts, strategic initiatives, and collaborative endeavors converge to pave the way for a vibrant and sustainable future for local quality product processing, embodying the very essence of the QUALFARM project vision.

4. Methodology

The development of the respective deliverable was the result of the implementation of a two-level methodology. More specifically, a combination of primary and secondary research was adapted for the drafting of the present deliverable. Firstly, a desk research took place, for the identification of significant parameters of the deliverable's topic, such as the definition of "cottage industry", the institutional framework linked with cottage industry and the mapping and identification of the already existing case studies of SMEs, engaging in the respective domain of the agricultural sector.

Secondly, a qualitative research was performed, focusing on existing and active entrepreneurs, 20 in each country. As a qualitative research tool, an unstructured questionnaire (Appendix I) was used to collect the data. Finally, a quantitative research, was conducted with 60 potential entrepreneurs interested in engaging with the cottage industry, in each country. For the needs of the quantitative research a fully structured questionnaire (Appendix II) was developed. Most questions were formulated on a five-point Likert scale.

4.1. Validity analysis

Special emphasis has been given to validity and reliability issues of the dataset. The concept of validity is central to any research design and important in both qualitative and quantitative research. Validity represents the extent to which research findings accurately reflect what is really happening (Neuman, 2011). Validity is considered as a measure of the quality of the process of measurement and one that reflects the essential value of a study, and which is accepted, respected and expected by the researchers and users of research (Sarantakos, 2005). In this report, qualitative and quantitative research instruments were validated using five education experts to review questionnaires before they were administered to the target population. In particular, using the typical 5-point Likert scale of agreement the education experts validated each question and each statement. When the evaluation of an education expert was less than 4 this expert proposed an alternative wording and the procedure was repeated until agreement was reached, on each question and each statement, with an average rating equal to or greater than 4. Actually, after 3 rounds of validation, all experts agreed to all questions and statements.

4.2. Reliability analysis

The concept of reliability is also very important in survey analysis. According to Neuman (2011) and Sarantakos (2005), reliability is the minimization process of errors and biases of research instruments in order to produce the same results whenever repeated research conditions or respondents involved. To ensure reliability in this report, the Cronbach's alpha test was used to determine the consistency, precision, stability and objectivity of the research tools. In this report 28 variables were included and analysedin order to get an overall index of the internal consistency of the scale as a whole, to determine the extent to which these variables are related to each other and to identify questionnaires that had to be

excluded. The value of Cronbach's alpha coefficient was found to be equal to 0.84 (SPSS, 2023), indicating a reliable scale.

The analysis of the data gained through both the qualitative and the quantitative research, refers to a descriptive statistical analysis (mean values, percentages), using the statistical program SPSS-Version 28, SWOT, and PEST analysis.

5. Analysis of the results

This chapter presents the results obtained from the qualitative analysis, the descriptive statistical analysis, the SWOT and PEST analysis of the sample of who participated in the research. In the first section, the results of the qualitative analysis are presented, while in the second, the results of the descriptive statistical analysis. The presentation of the results follows the order of the questionnaire structure.

5.1. Analysis of the qualitative data

The analysis of the data from the entrepreneurs' sample led to a wide array of interesting findings. Below, we present the main results by section of the interview guide.

In total, 20 entrepreneurs' in the cottage industry participated in the survey, particularly, 20 in each country (Greece, Bulgaria). Table 6 presents a description of the sample, in each country separately as well as the total sample. The majority of the sample was male (67.50%), and the average age is 50.5 years old. The majority are married, in a cohabitation agreement, or in a long-term relationship (67.50%). Regarding the educational level, in Greece, 76.00% of the participants have completed high school, while in Bulgaria 45.00% have Master's degrees, and 40.00% have higher education (university). As far as the position of the interviewees in the cottage industry business, 72.50% of the total sample is the person in charge. In Greece, people have been engaged in the cottage industry on average for 6 years, and in Bulgaria, they are engaged for 12 years. Moreover, the average daily working hours of the total sample is 5.5 hours. Finally, regarding income, in Greece, the annual household income is estimated at 14.670€, while in Bulgaria is 22.900 €. It is worth noting that 40.00% of the total sample didn't wish to answer this question.

	Greece	Bulgaria	Total sample
Gender			
Male	65.00%	70.00%	67.50%
Female	35.00%	30.00%	32.50%
Age (average)	50 years old	51 years old	50.5 years old
Marital status			
Single	35.00%	20.00%	27.50%
Married, Cohabitation agreement, In a long-term relationship	60.00%	75.00%	67.50%
Separated, Divorced	5.00%	0.00%	2.50%
Widow	0.00%	5.00%	2.50%
Education level			
Basic education	5.00%	0.00%	2.50%

High school	75.00%	15.00%	45.00%
Higher education (University)	10.00%	40.00%	25.00%
Master's degree	10.00%	45.00%	27.50%
Position in the cottage industry business			
Person in charge	65.00%	80.00%	72.50%
Future heir – Family member	25.00%	20.00%	22.50%
Auxiliary member - Employee	10.00%	0.00%	5.00%
Other	0.00%	0.00%	0.00%
Years engaged in the cottage industry (average)	6 years	12 years	9 years
Daily working hours (average)	5 hours	6 hours	5,5 hours
Annual household income (average)	14.670 €	22.900 €	18.785 €
Do not wish to answer	55.00%	25.00%	40.00%

Table 6: Description of the sample in the quality analysis

5.1.1. Attitudes and perceptions towards cottage industry

All the entrepreneurs who participated in the study were asked what the term “cottage industry” means to them. On the one hand, the majority of the Greek responses mentioned that the "Cottage industry is a small-scale business, operating in the owner's home, and producing locally produced products, without special equipment.” On the other hand, the Bulgarian entrepreneurs referred that the "Cottage industry is a small-scale production at home that needs little investment, it is not automated, and it is based on tradition and high quality. Family members or a small number of outside helpers are involved in the production.”

Interviewees self-rated their level of knowledge in the cottage industry, on a one to ten (1-10) scale. The mean value of the Greek sample was 5.65 (st. d. 2.08), while the Bulgarian was 6.15 (st. d. 1.46). From their comments, it emerged that in Greece people have been dealing with cottage industry in recent years. Most of the interviewees feel that there many new technologies for which there is no information or education-training. On the contrary, in Bulgaria, it seems that people have more experience and knowledge, although they think there is a need to insert more technologies and automation in their production.

In addition, entrepreneurs participating in the study were asked to note the contribution of the cottage industry to agri-food systems and society. As Figure 3 presents, the cottage industry is a great opportunity for small farmers to increase their income and increase employment, especially for unskilled personnel. Moreover, organic production is increased while it contributes to biodiversity conservation. Consumers can enjoy natural, fresh products of higher quality. Also, it could attract tourists and increase tourism development.

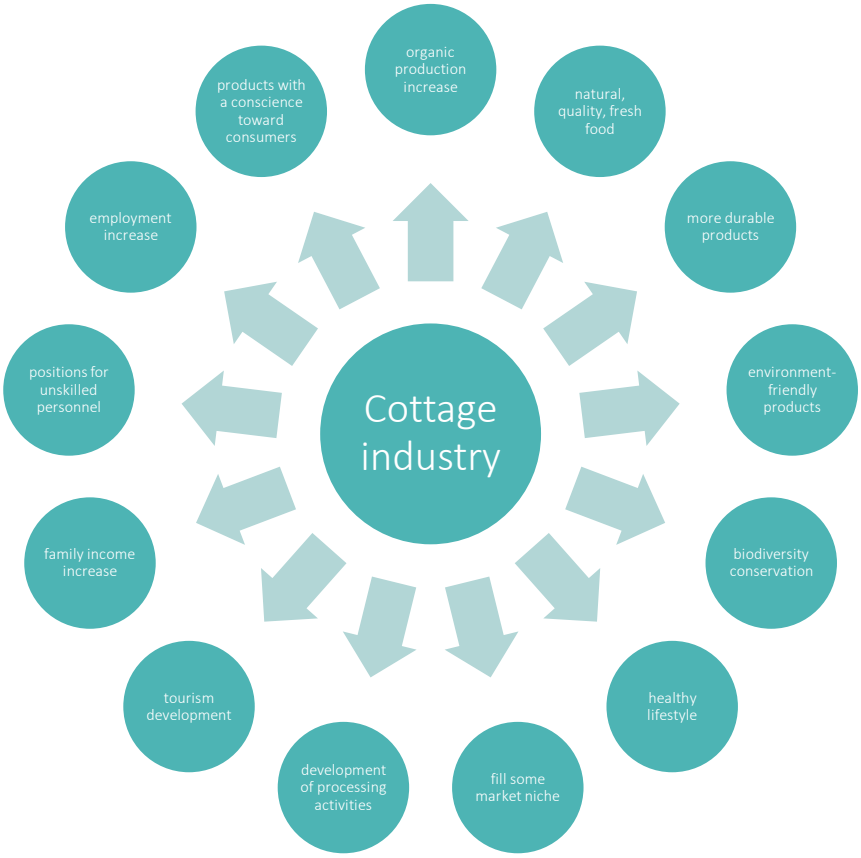

Figure 3: Contribution of the cottage industry in agri-food systems and society

5.1.2. Information about your cottage industry business

Table 7 presents the type of business and produced products in Greece and Bulgaria of the participated entrepreneurs. In general, there are a lot of similarities between the two countries.

Production-Cultivation	**Products**
Greece	
Silkworm farming	Silkworm cocoons cut for facial exfoliation
Vineyards	Wine, Tsipouro
Bees	Honey, honey with nuts, wax ointments and propolis tincture
Pasta, aromatic plants	Production of pasta, sweets, jams
Sesame seeds	Tahini production
Legumes	Lentils, beans, chickpeas
Aromatic plants	Creams, Oils, Body Scarp, Extracts and Oils, Corn Balms, Tinctures, Glycerin Soaps, Beard Care Products, Face and Body Care Products
Vegetables	Cutted vegetables, fresh vegetables

Olive trees	Olive oil
Blueberry	Blueberry jam and blueberry spread for bread
Pomegranate	Fresh pomegranates and pomegranate juice
Bulgaria	
Fruits, vegetables	Jams, compotes, fruit jelly, fresh fruits and vegetables, canned vegetables
Bees	Honey, royal jelly, bee pollen and bee pollen from which we make bee tincture
Livestock farm	Cattle, cows, sheep, dairy products
Vineyards	Wine, juices
Pasta	Bulgarian BIO macaroni, noodles, baked pie crusts, Bulgarian BIO flour, spelled flour and trahana
Pastry	Cookies, sweets, pop cakes, cupcakes

Table 7: Type of business and produced products in Greece and Bulgaria

To further analyse the businesses, participants were asked about the differentiation of their business from the large-scale ones. In Greece, they answered, that their business is a smaller unit in terms of building facilities, mechanical equipment and production size. All answers emphasize the quality and authenticity of the products. In fact, worth-mentioned was the answer "my products go from the field to the shelf and directly to the consumer's plate, pure and clean". In Bulgaria, the majority highlighted that the difference is mainly in the production volume, profits, and investments. Also, products are authentic, homemade, have higher quality, and most importantly they have transparency during the production cycle.

In both countries, they apply good practices to a large extent. More specifically, in Greece, the materials they use are environmentally friendly (such as recyclable, etc.), they do not use chemical pesticides, only biological ones, apply practices that save energy, and always ensure the health of the consumer (no preservatives). In Bulgaria, they implement practices that guarantee the health of people and animals, as well as the protection of the environment and natural resources, like organic farming, eco-friendly packaging, no preservatives, no sugar, gluten-free products.

The market demand for the participants' products, according to Greek responses, is quite high and constantly increasing due to their quality. It is worth mentioning, that 2 of the 20 participants, who are dealing with silkworm farming, report that the demand is not great for their products because it is not widely knownand requires advertisement. According to Bulgarian interviewees, the market demand is high for natural, traditional products, especially in local markets. They support that they need investments in marketing research and the development of a marketing strategy.

The degree of innovation, on a 5-point scale, in both countries is quite low. More specifically, in Greece, the mean value is 2.10 (st. d. 1.26), and in Bulgaria, the mean value is

2.25 (st. d. 1.02). Among the innovative practices in Greece are, a) tools using new technology and via Wi-Fi, to receive data on the conditions that affect the area where the breeding takes place, b) circular economy practices that produce products with less environmental footprint and water, and c) pumps that help to decant the wine and go through the whole process. Innovative practices, stated by the Bulgarian participants are, a) the fully-automated and modern machines, b) digital technology, c) technological innovations in the production of wine, and d) innovative technologies in the breeding of bee families and in the wintering of bees.

The level of technological means implementation, on a 5-point scale, in both countries, is quite low. More specifically, in Greece, the mean value is 1.80 (st. d. 0.95), and in Bulgaria, the mean value is 2.20 (st. d. 1.06). Some of the technological means are mist sprayers, leaf shredders, tractors, fermenters, electric mills, roasting ovens, dryers, crushers, etc.

The level of digital technology implementation, on a 5-point scale, in both countries, is quite low. More specifically, in Greece, the mean value is 2.20 (st. d. 1.20), and in Bulgaria, the mean value is 1.75 (st. d. 1.16). Referring to digital technology means having a computer, social media accounts, email, website, online shops, etc. Furthermore, 55.00% of the Greek entrepreneurs and 50.00% of the Bulgarian entrepreneurs, have already created a website and social media accounts to promote their businesses online.

The distribution channels, in Greece are local producers, physical stores, online stores, rural markets, telephone orders, wholesale, and social media (Facebook, Twitter, Instagram, TikTok). Similar is also the distribution channels in Bulgaria, which are retail stores, online stores, markets, wholesale and social media (Facebook, Twitter, Instagram, TikTok).

As far as, the degree of extroversion of the Greek businesses to markets outside the borders, is quite low, as the majority do not export the products. However, there are 3 entrepreneurs that sell small quantities of their products in Germany, Canada, Brussels, and Romania. Similarly, Bulgarian businesses don’t export their products. But, exceptionally, there are 2 producers of bee products, that export almost half of their production.

5.1.3.SWOT and PEST analysis

In the performed SWOT-type analysis, strengths/weaknesses and opportunities/threats were analyzed (Table 8). According to the responders’ answers and the demonstration of spider graphs (Figures 4, 5), we conclude that there is a continuum of strengths/weaknesses. This analysis shows that, if a variable is closer to 1, it reveals a weakness, and closer to 5 reveals a strength. The same applies to the continuum of opportunities/threats. A variable closer to 1 is a threat and closer to 5 is an opportunity.

Figures 4 and 5, present that the variable which affects the internal environment most is, “product quality” (mean value 3.74) and the variable which affects the external environment most is, “consumers’ trend” (mean value 3.16). At a country level, the internal environment of a cottage industry business is affected more by the variable “product quality” in both countries, with mean values of 4.73 in Greece and 3.70 in Bulgaria (Table 8).

However, there is a difference in the external environment of a cottage industry business between the two countries. In Greece, there are 3 variables affecting the external environment, “funding resources” (mean value 4.00), “current affairs and conditions like covid-19, war, natural disasters, economic crisis” (mean value 4.00), and “production cost” (mean value 4.00). Furthermore, in Bulgaria, there are 3 variables affecting the external environment, “consumers’ trend” (mean value 3.10), “legislation change” (mean value 3.10), and “production cost” (mean value 3.10).

Strengths/Weaknesses of the internal environment of a cottage industry business	**Greece**	**Bulgaria**	**Average**
Current skills, knowledge, expertise	3.55 (0.52)	3.40 (0.75)	3.42 (0.67)
Initial investment cost	3.09 (0.70)	3.10 (0.72)	3.13 (0.67)
Contribution to family income	4.27 (0.65)	2.85 (0.67)	2.89 (0.60)
Product quality	4.73 (0.47)	3.70 (0.57)	3.74 (0.54)
Family work	4.27 (0.90)	3.10 (0.97)	3.11 (0.95)
Employment opportunities	3.36 (1.03)	2.95 (0.60)	2.97 (0.57)
Technology knowledge	3.09 (0.83)	3.35 (0.67)	3.34 (0.62)
Marketing knowledge	2.91 (1.04)	3.00 (0.86)	3.03 (0.83)
Opportunities/Threats of the external environment of a cottage industry business	**Greece**	**Bulgaria**	**Average**
Consumers’ trend	3.55 (0.93)	3.10 (0.79)	3.16 (0.76)
Funding resources	4.00 (1.18)	2.85 (0.67)	2.84 (0.69)

Current affairs and conditions like covid-19, war, natural disasters, economic crisis	4.00 (1.10)	3.05 (0.76)	3.05 (0.74)
Legislation change	2.36 (0.50)	3.10 (0.79)	3.13 (0.75)
Social constraints like behaviors, habits, perceptions	3.45 (0.93)	3.00 (0.65)	3.03 (0.59)
Production cost	4.00 (0.89)	3.10 (0.45)	3.11 (0.46)
Imports like competitive products	2.82 (1.17)	3.00 (0.92)	3.00 (0.93)
Extroversion to markets beyond borders	2.73 (1.56)	2.75 (0.91)	2.76 (0.90)

*Mean Value (st. deviation)

Table 8: SWOT analysis on strengths/weaknesses and opportunities/threats of a cottage industry business (1:very low, 5:very high)

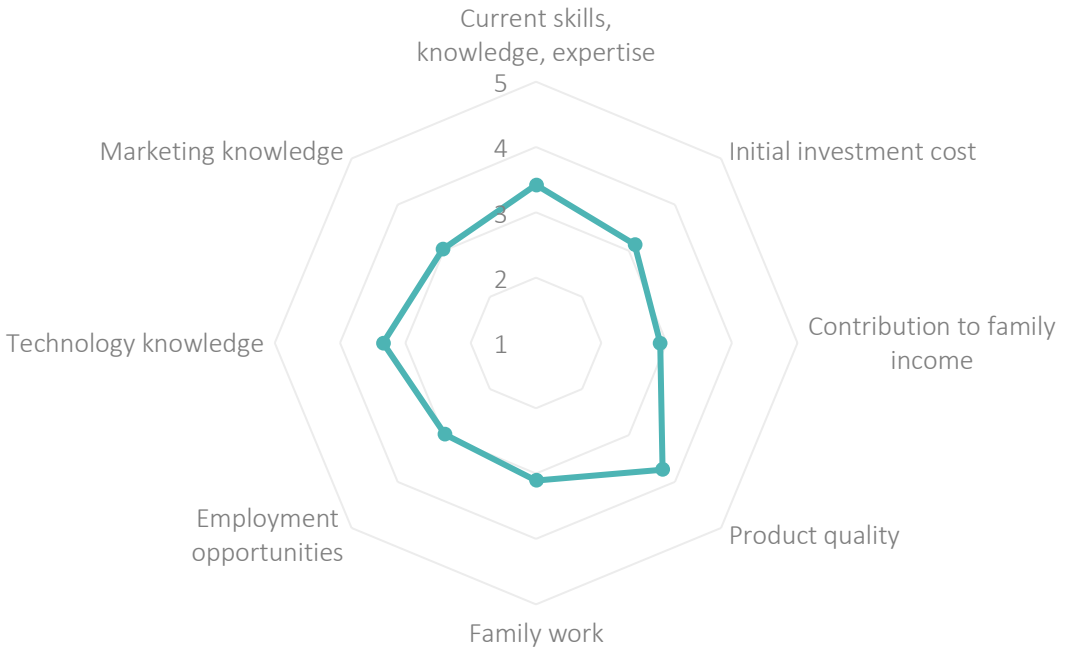

Figure 4: Internal environment of a cottage industry business (total sample mean values)

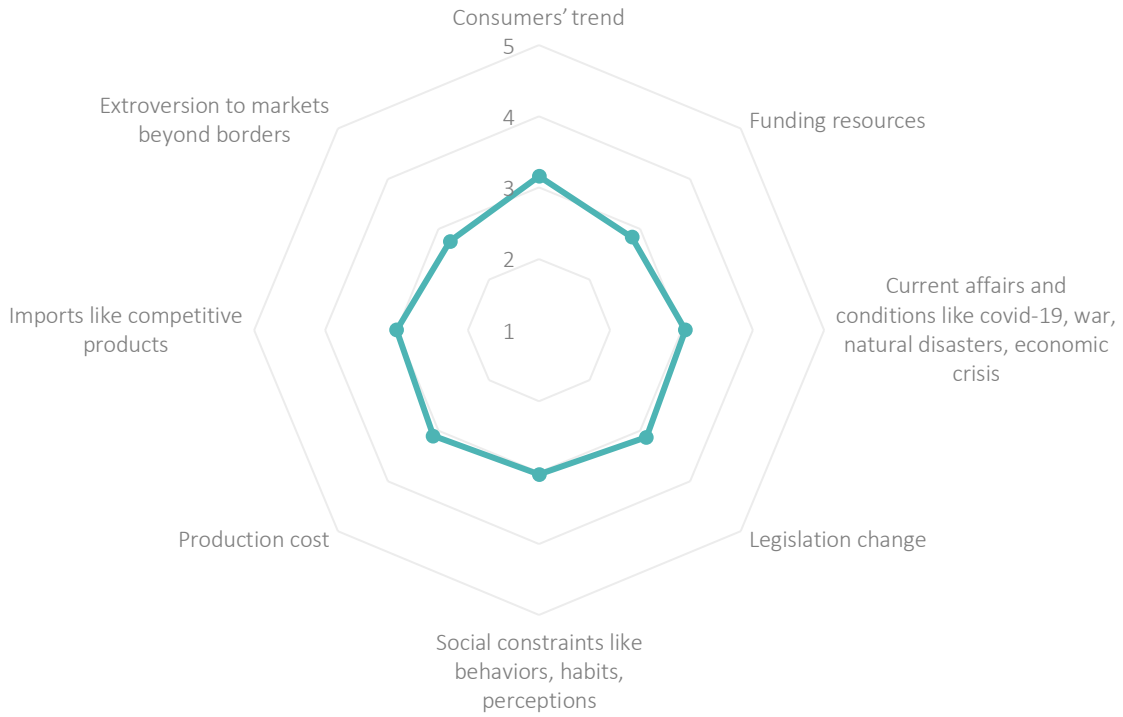

Figure 5: External environment of a cottage industry business (total sample mean values)

PEST analysis tool was used to analyze the Political, Economic, Socio-Cultural, and Technological changes in the business environment (Table 9). In Greece, "political stability" (mean value 4.00), has the greatest impact on the political environment, "production cost" on the economic environment (mean value 4.73), "product quality" on the social environment (mean value 4.73), and "knowledge transfer" on the technological environment (mean value 3.73).In Bulgaria, "legislation" (mean value 3.10), has the greatest impact on the political environment, "imports" on the economic environment (mean value 3.20), "product quality" on the social environment (mean value 3.45), and "knowledge transfer" on the technological environment (mean value 3.35).

According to all responders' points of view, spider graphs present that the greatest impact in the political environment was "legislation" (mean value 3.08) (Figure 6). In the economic environment, the greatest impact was "imports" (mean value 3.18) (Figure 7). In the social environment the greatest impact was the "product quality" (mean value 3.50) (Figure 8) and finally, in the technological environment was the "knowledge transfer" (mean value 3.34) (Figure 9).

Political environment	**Greece**	**Bulgaria**	**Average**
Political stability	4.00 (1.26)	2.95 (1.10)	2.92 (1.06)
Legislation	3.55 (0.93)	3.10 (0.79)	3.08 (0.78)
Form of governance	4.27 (0.79)	2.90 (0.79)	2.87 (0.77)
Economic environment	**Greece**	**Bulgaria**	**Average**
Growth rate	3.91 (0.83)	3.15 (0.59)	3.16 (0.56)
Exchange rates	4.45 (0.69)	2.95 (0.69)	3.00 (0.61)
Production cost	4.73 (0.65)	3.15 (0.37)	3.16 (0.34)
Imports	2.82 (0.87)	3.20 (0.52)	3.18 (0.50)
Social environment	**Greece**	**Bulgaria**	**Average**
Public perceptions about cottage industry	3.82 (1.25)	3.00 (0.86)	3.05 (0.79)
Psychographic criteria	3.27 (0.79)	2.90 (0.72)	2.92 (0.70)
Population growth rate	4.18 (0.75)	2.65 (0.67)	2.68 (0.66)
Age distribution	3.27 (0.90)	2.75 (0.64)	2.76 (0.60)
Perceptions about products' safety	4.64 (0.81)	3.25 (0.72)	3.26 (0.73)

Product quality	4.73 (0.47)	3.45 (0.69)	3.50 (0.63)
Family work	4.09 (0.94)	3.05 (0.76)	3.11 (0.70)
Technological environment	**Greece**	**Bulgaria**	**Average**
Innovations in cottage industry businesses	2.82 (0.87)	3.10 (0.97)	3.13 (0.93)
Knowledge transfer	3.73 (0.79)	3.35 (0.59)	3.34 (0.51)
Production process automatization	2.64 (0.92)	3.10 (1.02)	3.16 (0.97)
Use of technologies	3.36 (0.81)	2.95 (1.10)	3.00 (1.08)

*Mean Value (st. deviation)

Table 9: PEST analysis to political, economic, social and technological environment of a cottage industry business (1:very low, 5:very high)

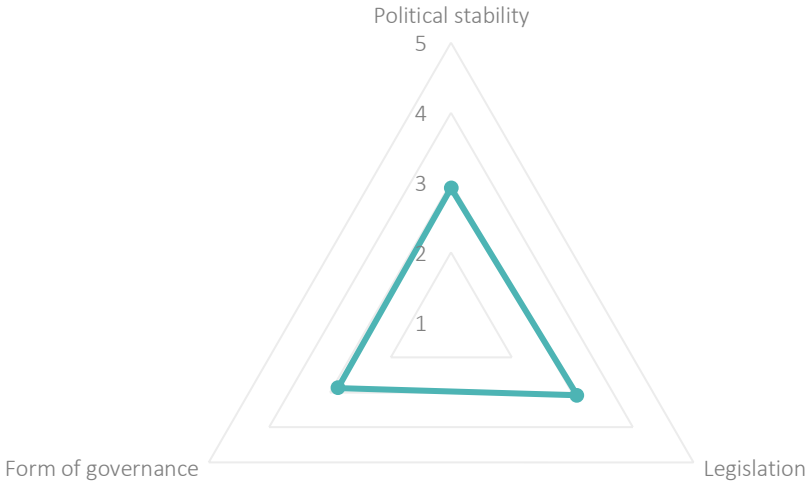

Figure 6: Political environment (total sample mean values)

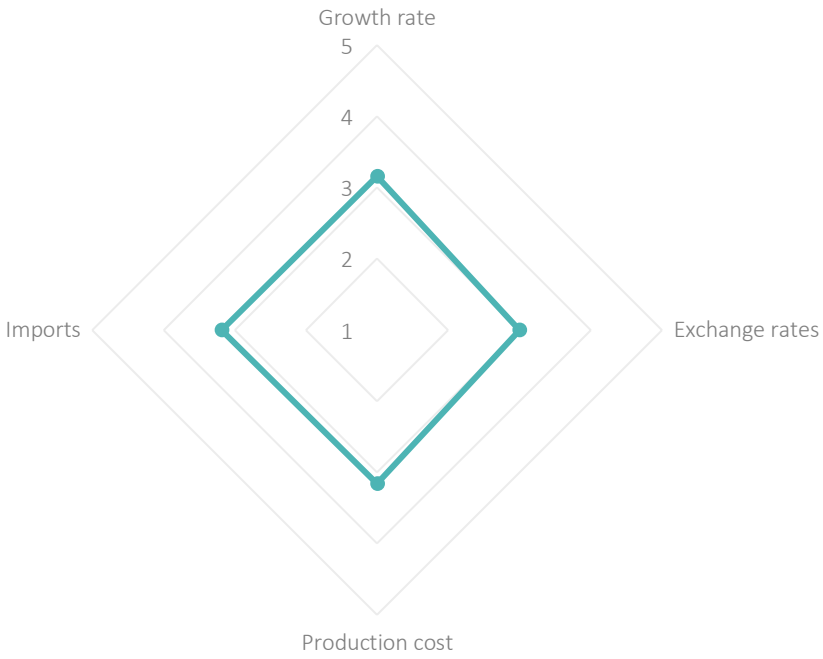

Figure 7: Economic environment (total sample mean values)

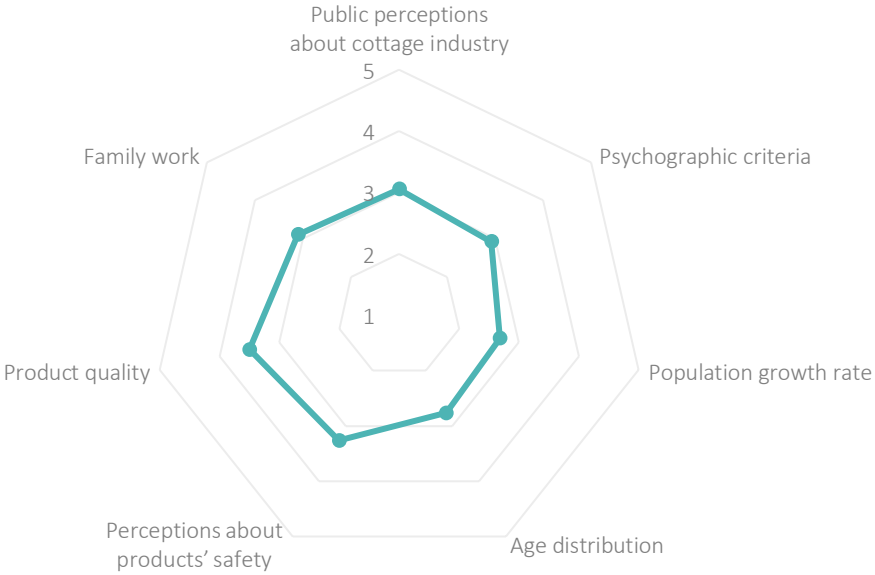

Figure 8: Social environment (total sample mean values)

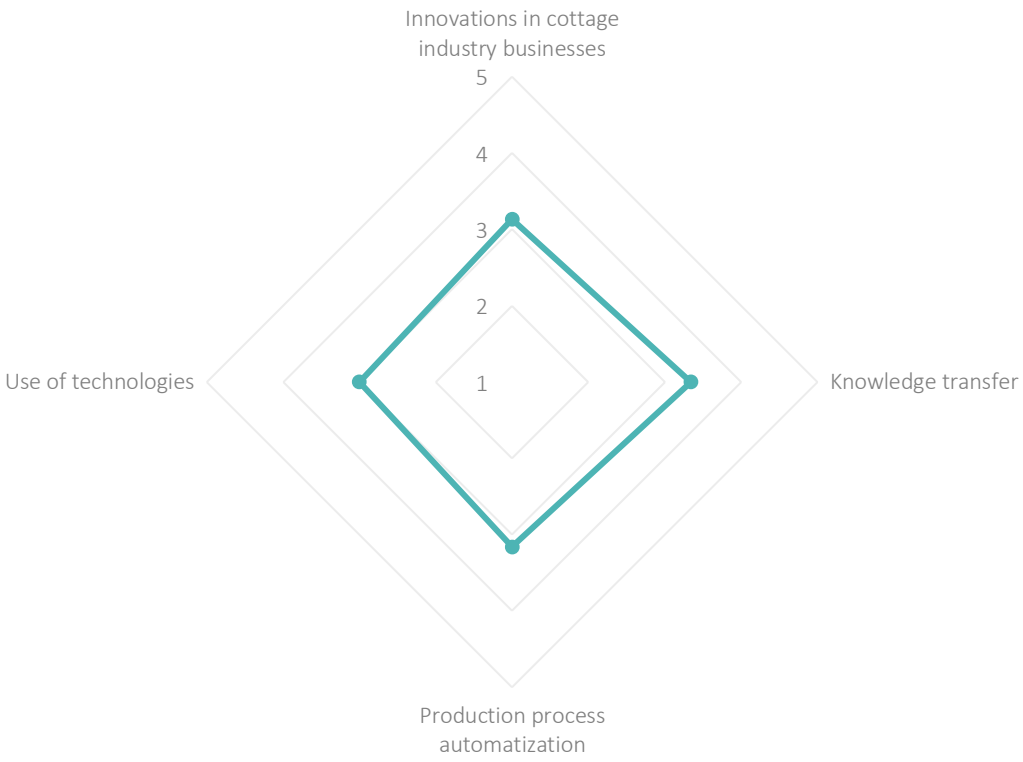

Figure 9: Technological environment (total sample mean values)

5.2. Analysis of the quantitative data

In total, 120 responders participated in the survey, particularly, 60 in each country (Greece, Bulgaria). Table 10 presents a description of the sample, in each country separately as well as the total sample. The sample was equally distributed among the genders, and the average age is 46.5 years old. The majority are married, in a cohabitation agreement or in a long-term relationship. In Greece, 43.33% of the households have 1-2 members with 0 minor members (58.33%) or 1-2 minor members (40.00%). Hence, in Bulgaria, 51.67% of the households have 3-4 members with 0 minor members (71.66%). As far as the profession of the sample, on the one hand, 30.00% of the Greeks are freelancers, self-employed, or business owners and 28.33% are farmers or livestock breeders. On the other hand, 36.67% of the Bulgarians are freelancers, self-employed, or business owners, 21.67% are public/municipal employees, while there is a large percentage of retired (18.22%). Moreover, most of the responders have a high school degree. Finally, regarding income, in both countries, the majority have an income of 10.001-18.000 €.

	Greece	Bulgaria	Total sample
Gender			
Male	50.00%	53.33%	51.67%
Female	50.00%	45.00%*	47.50%**
Age (average)	47 years old	46 years old	46.5 years old
Marital status			
Single	20.00%	16.67%	18.33%
Married, Cohabitation agreement, In a long-term relationship	76.60%	68.33%	72.50%
Separated, Divorced	0.00%	5.00%	2.50%
Widow	1.70%	8.33%	5.00%
Do not wish to answer	1.70%	1.67%	1.67%
Household members			
1-2 members	43.33%	33.33%	38.33%
3-4 members	26.67%	51.67%	52.50%
> 4 members	1.67%	15.00%	9.17%
Minormembers			
0 minor members	58.33%	71.66%	65.00%
1-2 minor members	40.00%	26.67%	33.33%
> 2 minor members	1.67%	1.67%	1.67%
Profession/Employment			
Freelancer, Self-employed, Business owner	30.00%	36.67%	33.33%
Public/municipal employee	11.67%	21.67%	16.67%
Private employee	5.00%	10.00%	7.50%
Farmer - Livestock Breeder	28.33%	6.67%	17.50%
Student	5.00%	0.00%	2.50%
Retired	8.33%	18.22%	13.33%
Domestic	5.00%	1.67%	3.33%
Unemployed	1.67%	3.33%	2.50%
Other	1.67%	1.67%	1.67%
Do not wish to answer	3.33%	0.00%	1.67%
Education level			
Completion of certain years of basic education	0.00%	1.67%	0.83%
Basic education	15.00%	6.67%	10.83%

High school	36.67%	33.33%	35.00%
Higher education (University)	28.33%	36.67%	32.50%
Master's degree, PhD	13.33%	21.67%	17.50%
Do not wish to answer	6.67%	0.00%	3.33%
Income			
0-5.000 €	6.70%	13.33%	10.00%
5.001-10.000 €	18.30%	13.33%	15.83%
10.001-18.000 €	38.30%	28.33%	33.33%
18.001-25.000 €	20.00%	16.67%	18.33%
25.001-30.000 €	1.70%	6.67%	4.17%
30.001-40.000 €	0.00%	3.33%	1.67%
>40.000 €	1.70%	3.33%	2.50%
Do not wish to answer	13.30%	15.00%	14.17%

*1.67% do not wish to answer

**0.83% do not wish to answer

Table 10: Description of the sample in the quantity analysis

According to all participants, their level of knowledge and interest regarding the concept of "cottage industry", is medium, on a 5-point Likert scale. More specifically, Bulgarians have a greater insight into the term “cottage industry” with a mean value of 3.07 (st. d. 0.86), while Greeks have a lower mean value of 2.97 (st. d. 1.33) (Figure 10). But, when referring to interest in the cottage industry Greeks appeared at a higher rate (mean value 3.33, st. d. 1.08), than the Bulgarians (mean value 3.00, st. d. 2.28). Before participants rate their level of interest, a definition of the “cottage industry” was given to them.

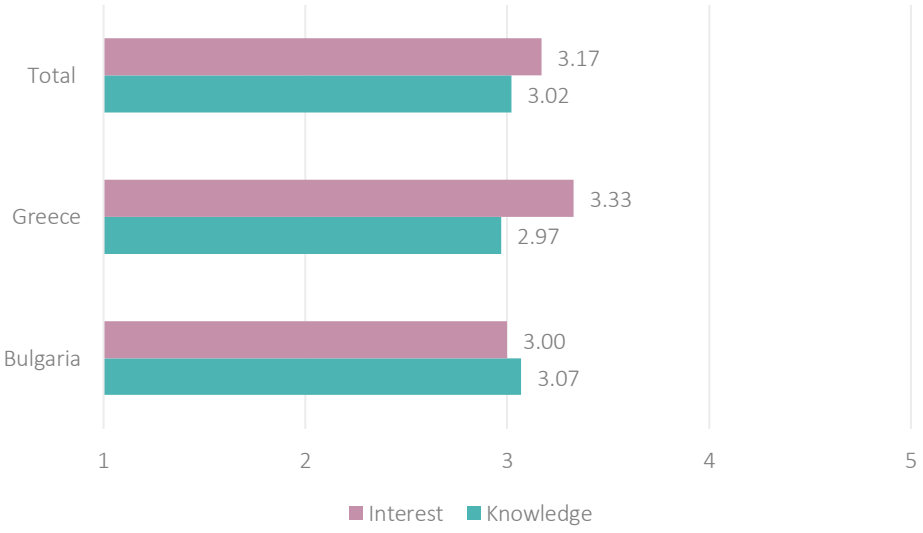

Figure 10: Knowledge and Interest regarding "cottage industry" concept

An interesting part of the questionnaire was the visualization of the term "cottage industry". Actually, participants were asked to mention the first word that comes to their mind when they hear this term. Then their answers have been grouped and have created the word cloud in Figure 11. The more repeated a word was, then the bigger it appears in the word cloud. Actually, it is clear the word “products” is the one that is repeated the most. The word “products” includes pasta, cereal, canned fruits, sweets, jams, honey, wine, dairy, pickles, olives. The next word that was referred to a lot by the responders was “in-house/family work”.

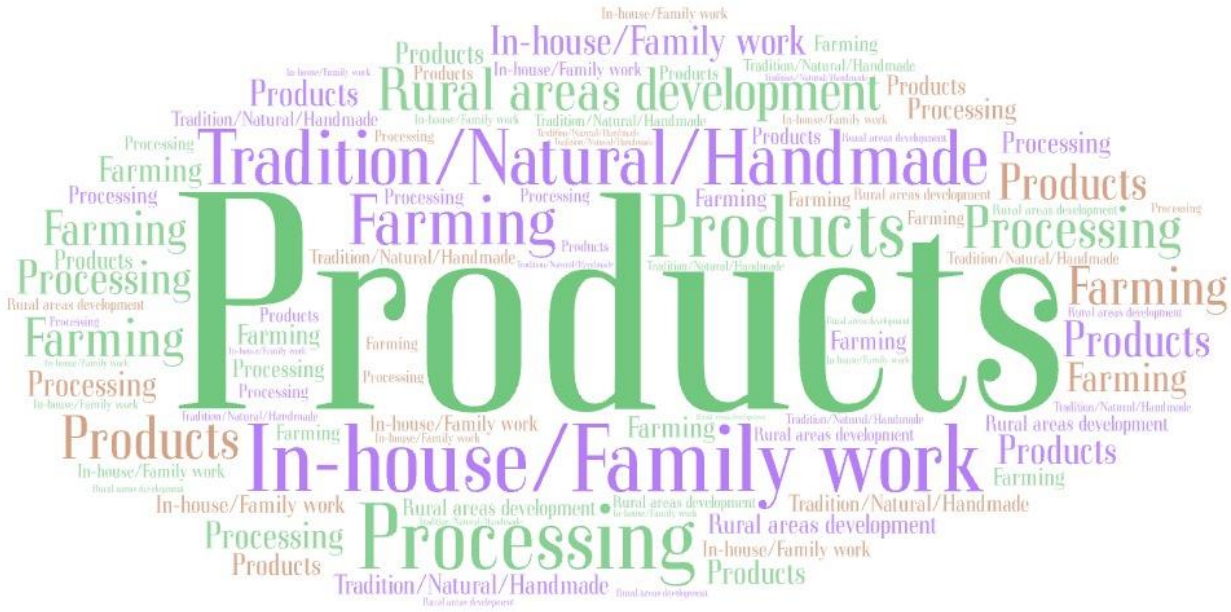

Figure 11: Word cloud of the term “cottage industry”

Among the responders 53.33% mentioned that they apply cottage industry practices, 53.12% of them are Greeks, while 46.87% are Bulgarians (Figure 12). The extent of the cottage industry practices application, in a 5-point Likert scale, is low to medium in Greece with a mean value of 2.87 (st. d. 1.79), and medium to high in Bulgaria with a mean value of 3.24 (st. d. 0.74).

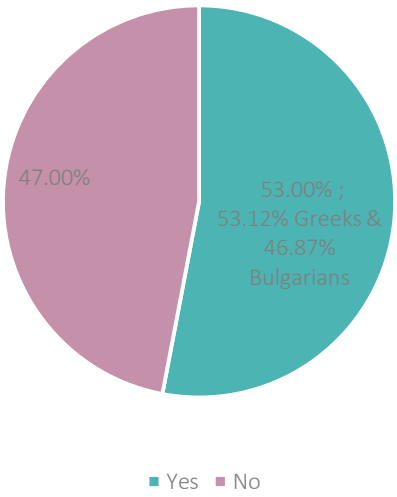

Figure 12: Implementation ofcottage industry practices

In addition, in Greece, the majority mentioned that among the products they produce is pasta (like tarhana), followed by spoon sweets and jams, dried products, honey and products with honey, traditional sweets and table olives and pickles, and finally, cereal products, pastries, dairy products and alcohol. The situation in Bulgaria is quite different, as they produce mainly compotes and canned fruits, sweets and pastries and fewer honey-bee and dairy products.

As Figure 13 presents, the total sample has a balance between current and future implementation of cottage industry practices. More specifically, in Greece, the future implementation (mean value 3.67, st. d. 1.40) is higher than the current implementation (mean value 3.43, st.d. 0.90), meaning that more people are willing to turn to this sector. On the contrary, in Bulgaria, the future implementation (mean value 3.36, st. d. 1.26) is lower than the current implementation (mean value 3.53, st.d. 0.97), meaning that people are willing to abandon this sector.

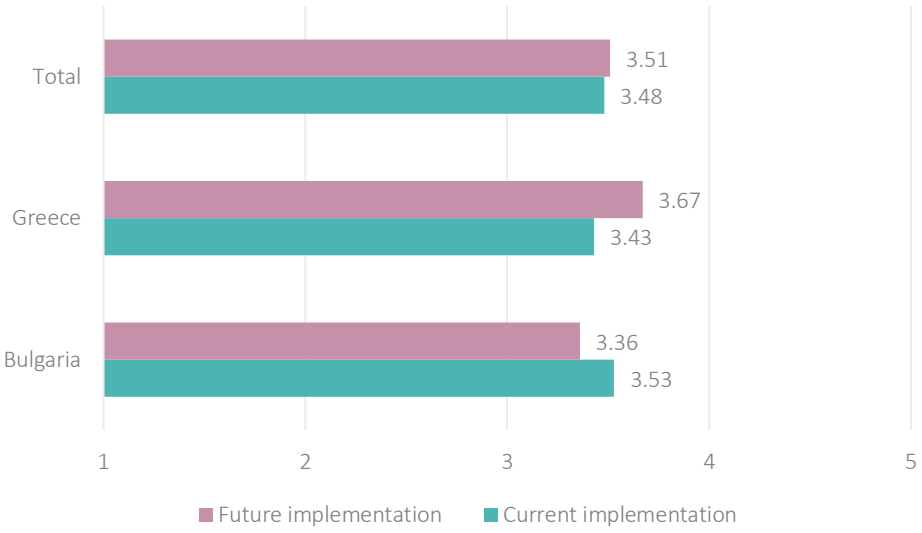

Figure 13: Future and Current implementation ofcottage industry practices

A list of different areas of cottage industry practices was given to participants, in order to rate their likeliness to apply them in the future. "Products of plant origin with or without sweeteners", appears to be the area in which participants are more interested in both countries, with percentages of 21.51% in Greece and 21.43% in Bulgaria (Table 11). Particularly, in Greece, great interest has the categories "dried products of plant origin" (13.98%) and "pasta" (11.83%). While in Bulgaria, "dairy products" (15.71%), "cereal products" (12.86%), "dried products of plant origin" (12.86%), "products with honey" (12.86%), might be possible areas for future implementation.

	Greece	Bulgaria	Total sample
Cereal products e.g. oatmeal	9.68%	12.86%	11.04%
Pastries e.g. nuts, toasts, breads, raisin bread, breadsticks, dips, doughnuts, pretzels, bagels, bipyrite bread (galette), puff pastry, pies (savory and sweet)	6.45%	7.14%	6.75%
Pasta e.g. noodles, lasagna	11.83%	2.86%	7.98%
Sweets e.g.halva or	8.60%	7.14%	7.98%

other traditional sweets			
Products of plant origin with or without sweeteners, e.g.spoon sweets, jams, compotes, fruit jellies, sweet fruit and vegetable spreads and sweet pastes, fruit glazes, marzipan, carob honey, sesame products	21.51%	21.43%	21.47%
Products with extra virgin and virgin olive oils to which aromatic plants, spices, essential oils, etc. have been added, in packaging up to 2 liters	8.60%	0.00%	4.91%
Products of plant origin preserved with salt, vinegar and oil, table olives, olive pastes, pickles, sauces	10.75%	7.14%	9.20%
Dried products of plant origin fruits and vegetables, nuts, legumes, aromatic plants	13.98%	12.86%	13.50%
Products with honey to which nuts, dried fruits, mastic, yolk, etc have been added	3.23%	12.86%	7.36%
Dairy products such as cheese, butter,	5.38%	15.71%	9.82%

yogurt			

Table 11: Areas for future implementation of cottage industry practices

Table 12 presents the mean values and standard deviation per country and per total sample, regarding the attitudes towards the cottage industry. In total, all participants agreed that cottage industry contributes to family income (M=3.95) and produces quality and safe food (M=3.93). They also recognized that the cottage industry faces a problem of lack of technology and marketing (M=3.94) and lack of capital and difficulty in obtaining loans (M=3.93). More specifically, in Greece, participants highlighted that the cottage industry contributes to the family income (M=4.18), provides business opportunities for women to work (M=4.13), and creates more employment opportunities (M=4.10). In Bulgaria, they all mentioned that the cottage industry faces a problem of lack of technology and marketing (M=3.92), contributes to the creation of local products linked to the tourism industry (M=3.88), and faces competition from medium and large-scale industries (M=3.87). Finally, participants referred that a cross-border cooperation with Bulgaria contributes to the development of the cottage industry (M=3.53) and would be a reason to implement the cottage industry (M=3.39).

	Greece	**Bulgaria**	**Total sample**
	M (st. d)*	M (st. d)*	M (st. d)*
Cottage industry contributes to the family income	**4.18** (0.79)	3.72 (0.72)	**3.95** (0.79)
Cottage industry creates more employment opportunities	**4.10** (0.86)	3.53 (0.91)	3.82 (0.86)
Cottage industry provides business opportunities for women to work	**4.13** (0.83)	3.64 (0.74)	3.89 (0.83)
Cottage industry is a source of employment for people who have relatively lower education	3.29 (0.99)	3.40 (0.83)	3.34 (0.99)
Cottage industry has easy management	3.07 (0.90)	3.30 (0.81)	3.18 (0.90)
Cottage industry needs little capital	3.23 (0.96)	2.87 (0.87)	3.05 (0.96)
Cottage industry contributes largely to exports	2.65 (1.04)	3.03 (0.66)	2.84 (1.04)
Cottage industry faces competition from medium and large-scale industries	3.48 (0.89)	**3.87** (0.54)	3.68 (0.89)

Cottage industry faces a problem of lack of capital and difficulty in obtaining loans	4.03 (0.69)	3.82 (0.70)	**3.93** (0.69)
Cottage industry faces a problem of lack of technology and marketing	3.97 (0.71)	**3.92** (0.57)	**3.94** (0.71)
Cottage industry has high production costs	3.10 (0.90)	3.68 (0.65)	3.39 (0.90)
Cottage industry gives recognition to the products produced	3.78 (0.94)	3.85 (0.55)	3.82 (0.94)
Cottage industry produces quality and safe food	4.02 (0.81)	3.85 (0.69)	**3.93** (0.81)
Cottage industry contributes to the creation of local products linked to the tourism industry	3.85 (0.80)	**3.88** (0.69)	3.87 (0.80)
A cross-border cooperation with Bulgaria contributes to the development of the cottage industry	3.35 (0.94)	3.72 (0.72)	3.53 (0.94)
Securing a cross-border cooperation with Bulgaria would be a reason to implement the cottage industry	3.15 (1.10)	3.63 (0.80)	3.39 (1.10)

*M=Mean value, st. d.= standard deviation

Table 12: Attitudes towards cottage industry

According to all participants, their willingness to participate in a cottage industry training program is medium on a 5-point Likert scale, with a mean value of 3.03 (st. d. 1.44). In particular, in Greece, participants showed higher interest with a mean value 3.12 (st. d. 1.44) in comparison to Bulgaria with a mean value 2.93 (st. d. 1.07).

Regarding the training method, participants prefer mostly short-term seminars (up to 10 hours) in a percentage of 26.67%, and business consulting in a percentage of 23.33% (Figure 14).

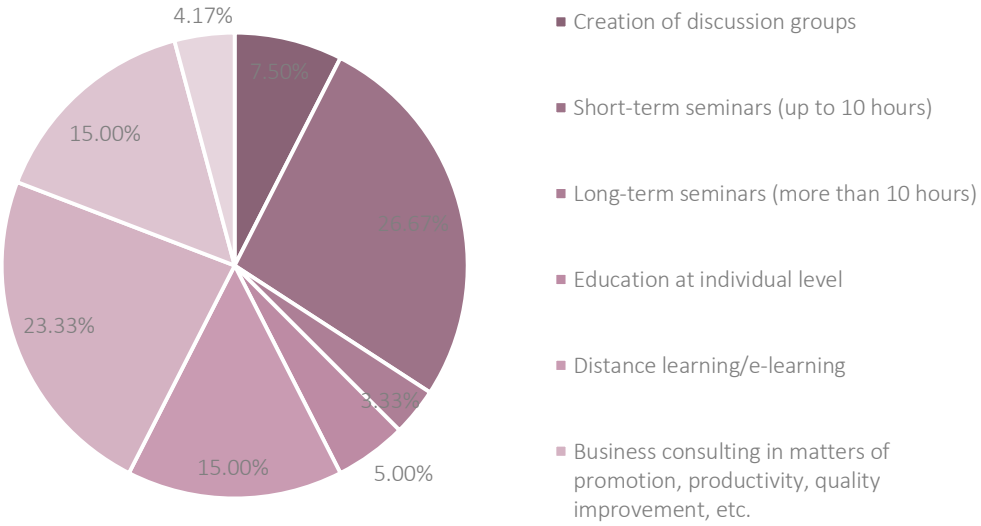

Figure 14: Training method

More than half of the total sample, 54.17%, stated that they are willing to devote up to 2 days to participate in a training program. Finally, they all agreed in a rate of 76.67%, that a guide with the basic steps to implement in the cottage industry would be helpful.

6. Findings and recommendation for the case of Greece

6.1. Qualitative findings

The Greek entrepreneurs who participated in the research have been dealing with the cottage industry in recent years, so they are not fully qualified and aware of this activity. Actually, the majority are willing to be further educated and trained. The degree of innovation, extroversion, technological means implementation, and digital technology implementation is quite low.

Results from the SWOT analysis revealed that, on the one hand, the internal environment of a cottage industry business is affected more by the variable “product quality”. While on the other hand, the external environment, is been affected by “funding resources”, “current affairs and conditions like covid-19, war, natural disasters, economic crisis”, and “production cost”.

Results from the PEST analysis identified that “political stability”, has the greatest impact on the political environment, “production cost” on the economic environment, “product quality” on the social environment, and “knowledge transfer” on the technological environment.

6.2. Quantitative findings

Greek participants have a greater interest in the cottage industry than their level of knowledge in this concept. The extent of the cottage industry practices application in Greece is low to medium. The majority mentioned that among the products they produce is pasta (like tarhana), followed by spoon sweets and jams, dried products, honey and products with honey, traditional sweets and table olives and pickles, and finally, cereal products, pastries, dairy products, and alcohol. Moreover, they are interested in producing products of plant origin with or without sweeteners, e.g., spoon sweets, jams, compotes, fruit jellies, sweet fruit and vegetable spreads and sweet pastes, fruit glazes, marzipan, carob honey, sesame products.

In Greece, the future implementation of the cottage industry is higher than the current implementation. Participants highlighted that the cottage industry contributes to family income, provides business opportunities for women to work, and creates more employment opportunities. Finally, they showed high interest to participate in a cottage industry training program.

7. Findings and recommendation for the case of Bulgaria

7.1. Qualitative findings

The Bulgarian entrepreneurs who participated in the research have been dealing with the cottage industry for more years than the Greeks, so they have a better understanding of this sector. They have more experience and knowledge, although they think there is a need to insert more technologies and automation in their production.

The degree of innovation, extroversion, technological means implementation, and digital technology implementation is quite low.

Results from the SWOT analysis revealed that, on the one hand, the internal environment of a cottage industry business is affected more by the variable “product quality”. While on the other hand, the external environment, is been affected by “consumers’ trend”, “legislation change”, and “production cost”.

Results from the PEST analysis identified that “legislation”, has the greatest impact on the political environment, “imports” on the economic environment, “product quality” on the social environment, and “knowledge transfer” on the technological environment.

7.2. Quantitative findings

Bulgarian participants have a greater insight into the cottage industry concept that interest. The extent of the cottage industry practices application in Bulgaria is medium to high. They produce mainly compotes and canned fruits, sweets and pastries and fewer honey-bee and dairy products. Moreover, like the Greek sample, they are also interested in producing products of plant origin with or without sweeteners, e.g., spoon sweets, jams, compotes, fruit jellies, sweet fruit, and vegetable spreads, and sweet pastes, fruit glazes, marzipan, carob honey, sesame products.

In Bulgaria, the future implementation of the cottage industry is lower than the current implementation, meaning that people are willing to abandon this sector. All participants mentioned that the cottage industry faces a problem of lack of technology and marketing, contributes to the creation of local products linked to the tourism industry, and faces competition from medium and large-scale industries. Finally, they showed interest in participating in a cottage industry training program.

8. Conclusions for the case of the cross-border area of the project

The cottage industry is a great opportunity for small farmers, to increase their income and increase employment, especially for unskilled personnel. Moreover, the cottage industry contributes to organic production increase and to biodiversity conservation. Consumers can enjoy natural, fresh products of higher quality. Also, it could attract tourists and increase tourism development.

The internal environment of a cottage industry business has been affected most by, “product quality”, while the external environment by, “consumers’ trend”. "Legislation" has a greater impact on the political environment of a cottage industry business, "imports" on the economic environment, "product quality" on the social environment, and "knowledge transfer" on the technological environment.

The cottage industry faces a problem of lack of technology-marketing and lack of capital and difficulty in obtaining loans. Due to that, the cottage industry needs investments in marketing research and the development of a marketing strategy. Cross-border cooperation between Bulgaria and Greece could contribute to the development of the cottage industry and would be a reason to implement the cottage industry. As a result of participants’ willingness to participate in a cottage industry training program, short-term seminars (up to 10 hours), and business consulting, could be organized. Finally, a guide with the basic steps to implement in the cottage industry will be helpful.

9. Recommendations for the cross-border area of the project

In the realm of introducing the present chapter, “Recommendations for the Cross-Border Area of the project", the preceding conclusions underscored the pressing challenges faced by the cottage industry, including technological and marketing deficits, capital constraints, and limited access to loans. To chart a prosperous course forward, the following recommendations draw upon a wealth of best practices and proposed actions, aiming at bridging the gaps the cottage industry domain faces. In a nutshell, these recommendations advocate for a concerted focus on marketing research and strategy development, necessitating robust investments. Furthermore, cross-border collaboration between Bulgaria and Greece emerges as a pivotal catalyst in fostering cottage industry growth. To facilitate the implementation of the cottage industry, a multifaceted approach is proposed, including the organization of short-term seminars, business consulting, and the creation of a comprehensive guide detailing the essential steps. These recommendations, informed by proven strategies and a commitment to bolstering the cottage industry, are poised to serve as a roadmap for sustainable and impactful development in the cross-border region.

9.1. Promoting Sustainable Small-Scale In-House Processing of Farm Products in the Cross-Border Region

In the pursuit of sustainable rural development and economic resilience, the establishment of small-scale in-house processing of farm products, often referred to as cottage industry, stands as a viable strategy in the cross-border region. Drawing inspiration from the Farm to Fork Strategy advocated by the European Commission, a series of proposed actions emerge from comprehensive research and best practices, aimed at fostering the growth of this sector while ensuring food safety and quality.

Knowledge Transfer and Capacity Building

To kickstart this initiative, it is imperative to facilitate knowledge transfer and capacity building among local farmers and potential entrepreneurs. Collaborations with agricultural universities and vocational schools should be established to offer specialized training programs. Furthermore, the formation of a dedicated cross-border knowledge-sharing platform can serve as a valuable resource hub, allowing stakeholders to access the latest information on food safety regulations, processing techniques, and market trends. By nurturing a culture of continuous learning, we empower local actors to make informed decisions in their pursuit of cottage industry ventures.

Cross-Border Infrastructure Development

Effective infrastructure is the bedrock of any cottage industry. Cross-border cooperation is pivotal in establishing shared processing facilities or food hubs. Such facilities provide small-scale processors access to essential equipment and resources at an affordable cost. Additionally, investment in improving transportation and logistics networks is vital to ensure the efficient distribution of cottage industry products across borders. This not only fosters regional economic integration but also opens up new markets, promoting growth and sustainability.

Regulatory Alignment and Simplification

Navigating the complexities of regulatory frameworks can be a significant challenge for small-scale processors. Thus, a concerted effort is required to align and simplify regulations across the cross-border region. Streamlined licensing and inspection processes should be established to ease the burden on cottage industry entrepreneurs. Moreover, clear and transparent labeling requirements, consistent with European standards, should be implemented. This not only ensures consumer safety but also enhances the marketability of cross-border cottage industry products.

Market Promotion and Regional Branding

Promoting cottage industry products across borders demands a strategic approach. Regional branding initiatives should be launched to highlight the unique qualities and traditions of products originating from the cross-border area. Collaborations with certification bodies for designations such as PDO (Protected Designation of Origin) or PGI (Protected Geographical Indication) can further enhance product credibility and access to premium markets. A concerted marketing effort, utilizing digital channels and social media, should be employed to raise awareness and drive demand for these distinctive products.

In conclusion, the establishment of small-scale in-house processing of farm products, driven by the proposed actions rooted in scientific research and best practices, holds immense potential for the cross-border region. By fostering knowledge sharing, building infrastructure, simplifying regulations, and promoting regional branding, we can create a thriving cottage industry that not only contributes to economic growth but also preserves the cultural heritage and traditions of the area. This endeavor aligns with the European Union's vision of sustainable food systems and rural development and positions the cross-border region as a hub of innovation and economic resilience.

9.2. QUALFARM Toolkit Guide for Cottage Industry

Considering the overall raison d'être of the QUALFARM project to further empower already established cottage industries in the cross-border area, as well as to motivate, support and empower business endeavors in the cottage industry domain, within the respective deliverable, the project brings the light on proposed actions and best practices. In the realm of paving the way towards the amelioration and empowerment of already existing cottage industries, as well as the establishment of new ones, not only in each project country individually, whereas in the cross-border are in the form of collaborations, the QUALFARM Toolkit Guide (Table 13) was developed.

This Toolkit Guide constitutes a series of best practices, customized, based on the desk research findings, as well as on the results of both the quantitative and qualitative research, for both establishing new and sustainably scaling established SMEs in the domain of cottage industry/small-scale in-house processing of farm products.

QUALFARM **Toolkit Guide**	
ComprehensiveBusinessPlanning	• Development of a well-defined business plan that outlines your vision, objectives, market analysis, and financial projections, ensure it includes a clear marketing and sales strategy.
CompliancewithRegulations	• Seek legal guidance and support, in order to understand and adhere to all local, national, and international regulations related to food safety, labeling, and processing standards. • Streamline regulatory procedures and create a supportive regulatory environment for small-scale processors, including simplified licensing and inspection processes. • Ensure clear and transparent labeling requirements to inform consumers about the product's origin and processing methods.
Food Safety and Quality Assurance	• Implement robust quality control and food safety measures to maintain product integrity and build trust with consumers. • Implement HACCP (Hazard Analysis and Critical Control Points) systems to ensure food safety. • Regularly test and monitor products for quality and safety compliance.
SustainablePractises	• Emphasize sustainable and ethical sourcing of raw materials. Consider partnerships with local farmers

	and eco-friendly practices. • Promote sustainable farming and processing practices, including organic farming and environmentally friendly packaging. Minimize food waste by utilizing all parts of harvested crops.
LocalSourcing	• Emphasize the use of locally sourced raw materials to support the local economy and reduce transportation costs. Highlight the origin of ingredients in productlabeling.
Research, Innovation and Development	• Fund research projects focused on improving processing techniques, product innovation, and shelf-life extension for cottage industry products. • Facilitate knowledge exchange between research institutions and cottage industry practitioners. • Continuously reflect and upgrade, in an innovative way, products to meet changing consumer preferences and explore niche markets.
Marketing, Promotion and Branding	• Conduct thorough market research to identify consumer preferences and market trends. Adapt product offerings based on market demand and consumer feedback. • Assist cottage industry producers in obtaining necessary certifications (e.g., organic, PDO, PGI) to access premium markets. Support the development of local and regional branding to promote cottage industry products and stimulate demand. • Invest in branding, packaging, and marketing strategies to differentiate your products and reach a wider audience. • Establish an online presence through e-commerce platforms to reach a broader customer base. • Utilize digital marketing and social media to promote products and engage with customers.
Access to Financing	• Secure adequate financing through a mix of personal savings, grants, loans, or investment to support business growth. Establish financial support programs or grants specifically tailored to small-scale processors to help them invest in equipment, infrastructure, and product development. • Encourage partnerships with local banks and financial institutions to provide favorable loan conditions for cottage industry entrepreneurs.
Sustainable Scalability	• Prioritize sustainable growth by reinvesting profits, optimizing operations, and ensuring supply chain resilience.

Networking and Collaboration	• Build relationships with industry peers, agricultural organizations, and potential distribution partners to enhance market access. • Encourage the formation of cooperatives and associations among small-scale processors to pool resources, share best practices, and collectively negotiate better deals with suppliers and buyers. • Foster collaboration between cottage industry businesses and local farmers to ensure a stable supply of raw materials.
Infrastructure Development	• Invest in shared processing facilities or food hubs where small-scale producers can access processing equipment and resources at an affordable cost. • Improve transportation and logistics networks to ensure efficient distribution of cottage industry products to wider markets.
ContinuousLearning and Adaptation	• Stay updated with industry trends, emerging technologies, and consumer preferences. Bereadytoadaptyourstrategiesaccordingly. • Develop and implement training programs for farmers and small-scale processors to enhance their knowledge of food safety, quality standards, and processing techniques. • Collaborate with agricultural universities and vocational schools to offer courses on small-scale food processing.
ValueAddition	• Diversify product offerings by creating value-added products such as preserves, jams, pickles, and artisanal cheeses. Focus on unique or traditional recipes to differentiate products in the market.
AgileManagement	• Adapt and implement an agile approach, which offers early release of benefits and promotion of continuous improvement.

Table 133: QUALFARM Toolkit Guide

The purpose behind the development of the QUALFARM Toolkit Guide is no other than to be utilized as a blueprint, based on which the flourishing of cottage industry type SMEs will be built upon. Both the respective deliverable, the QUALFARM project as an initiative, as well as its outcomes aspire to act as motivation drivers for the boosting of the cottage industry in both project countries of Bulgaria and Greece, as well as the collaborative cross-border area of the project.

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Appendix I: Unstructured questionnaire

PART I. Attitudes and perceptions towards cottage industry

1. What does the term "cottage industry" mean to you?

2. If I asked you to rate your level of knowledge about cottage industry from 1 to 10, how would you rate it? Why?

3. What can cottage industry contribute to agri-food systems and society?

PART II. Information about your cottage industry business

4. Describe your type of business.

5. List your business's products.

6. List the services provided by your business.

7. What is the degree of differentiation of your business compared to large scale (conventional businesses)?

8. To what extent do you apply good practices*? Mention some good practices you implement.

   **By the term good practices, we refer to practices that ensure the health of people and animals, the protection of the environment and natural resources.*

9. What is the market demand for your business's products?

10. From 1 to 5 what is the degree of innovation of your business? Mention innovative practices you implement.

    **By the term innovation we refer either to innovations in the production process or to product innovation.*

11. From 1 to 5, what is the degree of use of technological means in your business? Mention technological means you implement.

12. From 1 to 5, what is the degree of use of digital technology in your business? Mention forms of digital technology that you implement.

13. Have you created a website or social media accounts (Facebook, Twitter, Instagram, etc.) to promote your business online?

14. List the sales channels of your products.

15. What is the degree of extroversion of your business to markets outside the borders?

PART III. SWOT and PEST analysis

16. Rate the level of impact of the following variables on strengths/weaknesses and opportunities/threats in a cottage industry business:

Strengths/Weaknesses of the internal environment of a cottage industry business	**Very low [1]**	**Low [2]**	**Medium [3]**	**High [4]**	**Very high [5]**
Current skills, knowledge, expertise					
Initial investment cost					
Contribution to family income					
Product quality					
Family work					
Employment opportunities					
Technology knowledge					

Marketing knowledge					
Opportunities/Threats of the external environment of a cottage industry business	**Very low [1]**	**Low [2]**	**Medium [3]**	**High [4]**	**Very high [5]**
Consumers' trend					
Funding resources					
Current affairs and conditions like covid-19, war, natural disasters, economic crisis					
Legislation change					
Social constraints like behaviors, habits, perceptions					
Production cost					
Imports like competitive products					
Extroversion to markets beyond borders					

17. Rate the level of impact of the above variables on the political, economic, social and technological environment:

Political environment	**Very low [1]**	**Low [2]**	**Medium [3]**	**High [4]**	**Very high [5]**
Political stability					

Legislation					
Form of governance					
Economic environment	**Very low [1]**	**Low [2]**	**Medium [3]**	**High [4]**	**Very high [5]**
Growth rate					
Exchange rates					
Production cost					
Imports					
Social environment	**Very low [1]**	**Low [2]**	**Medium [3]**	**High [4]**	**Very high [5]**
Public perceptions about cottage industry					
Psychographic criteria					
Population growth rate					
Age distribution					
Perceptions about products' safety					
Product quality					
Family work					

Technological environment	Very low [1]	Low [2]	Medium [3]	High [4]	Very high [5]
Innovations in cottage industry businesses					
Knowledge transfer					
Production process automatization					
Use of technologies					

PART IV. Personal information (social and financial characteristics)

18. Gender

……

19. Year of birth

……

20. Country

……

21. Marital status

……

22. Education level

……

23. Position in the cottage industry business

Person in charge	
Future heir – A family member	
Auxiliary member – Employee	
Other (please specify)……	

24. Years engaged in cottage industry

……

25. Daily working hours

……

26. Annual household income

……

Appendix II: Structured questionnaire

PART I. Demographic characteristics

1. **Gender:**

☐Man[1]
☐Woman [2]
☐ Do not wish to answer [3]

2. **Year of birth: …….**

3. **Marital status:**

☐Single[1]
☐Married, Cohabitation agreement, In a long-term relationship[2]
☐Separated, Divorced[3]
☐Widow [4]
☐Do not wish to answer[5]

4. **Number of household members: ……**

5. **Number of minor household members: ……**

6. **Profession/Employment:**

☐Freelancer, Self-employed, Business owner [1]
☐Public/municipal employee [2]
☐Private employee [3]
☐Farmer - Livestock Breeder [4]
☐Student [5]
☐ Retired [6]
☐Domestic [7]
☐Unemployed [8]
☐Other[9]
☐Do not wish to answer [10]

7. **Education level:**

☐Completion of certain years of basic education [1]
☐Basic education (Elementary, High school) [2]
☐High school [3]
☐Higher education (University) [4]
☐Master's degree, PhD [5]
☐Do not wish to answer [6]

8. **Annual household income:**

☐0-5.000 € [1]
☐5.001-10.000 € [2]
☐10.001-18.000 € [3]
☐18.001-25.000 € [4]
☐25.001-30.000 € [5]
☐ 30.001-40.000 € [6]
☐>40.000 € [7]
☐Do not wish to answer [8]

PART II. Knowledge and Attitudes towards Cottage Industry

9. **How would you describe your level of knowledge regarding the concept of "cottage industry"?**

☐Very low [1]
☐Low [2]
☐Medium [3]
☐High [4]
☐Very high[5]

10. **What is the first word that comes to your mind when you hear the term "cottage industry"?**

11. **Given the following definition of cottage industry, rate your level of interest:**

Cottage industry or in-house processing *is a small-scale industry carried out at home and found mainly in rural areas. The workforce includes family members/a limited number of employees(Siti Badriah et al., 2022; Verma & Tiwari, 2019).*

☐Very low [1]
☐Low [2]
☐Medium [3]
☐High [4]
☐Very high[5]

12. **Do you apply cottage industry practices?**

☐Yes [1]
☐ No [2]
☐Do not wish to answer [3]

13. **If you answered "Yes" to Question 12, to what extent do you apply cottage industry practices?**

☐Very low [1]

☐Low [2]

☐Medium [3]

☐High [4]

☐Very high[5]

14. If you answered "Yes" to Question 12, what product(s) do you produce?

15. How likely you are to implement cottage industry practices in the future?

☐Extremely unlikely [1]

☐Unlikely [2]

☐Neither unlikely/nor likely [3]

☐Likely[4]

☐Extremely likely[5]

16. In which of the following areas are you most likely to apply cottage industry practices in the future?

☐**Cereal products** e.g., oatmeal [1]

☐**Pastries** e.g., nuts, toasts, breads, raisin bread, breadsticks, dips, doughnuts, pretzels, bagels, bipyrite bread (galette), puff pastry, pies (savory and sweet) [2]

☐**Pasta** e.g., noodles, lasagna[3]

☐**Sweets** e.g. halva or other traditional sweets[4]

☐**Products of plant origin with or without sweeteners,** e.g., spoon sweets, jams, compotes, fruit jellies, sweet fruit and vegetable spreads and sweet pastes, fruit glazes, marzipan, carob honey, sesame products[5]

☐**Products with extra virgin and virgin olive oils** to which aromatic plants, spices, essential oils, etc. have been added, in packaging up to 2 liters[6]

☐**Products of plant origin preserved with salt, vinegar and oil**, table olives, olive pastes, pickles, sauces[7]

☐**Dried products of plant origin** fruits and vegetables, nuts, legumes, aromatic plants [8]

☐**Products with honey** to which nuts, dried fruits, mastic, yolk, etc. have been added [9]

☐**Dairy products** such as cheese, butter, yogurt[10]

17. Rate your level of agreement/disagreement with the following statements:

	Strongly disagree [1]	Disagree [2]	Nor agree nor disagree [3]	Agree [4]	Strongly agree [5]
Cottage industry contributes to the family income					
Cottage industry creates more employment opportunities					
Cottage industry provides business opportunities for women to work					
Cottage industry is a source of employment for people who have relatively lower education					
Cottage industry has easy management					
Cottage industry needs little capital					
Cottage industry contributes largely to exports					
Cottage industry faces competition from medium and large-scale industries					
Cottage industry faces a problem of lack of capital and difficulty in obtaining loans					
Cottage industry faces a problem of lack of technology and marketing					
Cottage industry has high production costs					
Cottage industry gives recognition to the products produced					
Cottage industry produces quality and safe food					
Cottage industry contributes to the creation of local products linked to the					

tourism industry					
A cross-border cooperation with Bulgaria contributes to the development of the cottage industry					
Securing a cross-border cooperation with Bulgaria would be a reason to implement cottage industry					

PART III. Training in Cottage Industry

18. Rate your level of interest in participating in a cottage industry training program:

☐Very low [1]
☐Low [2]
☐Medium [3]
☐High [4]
☐Very high[5]

19. What kind of training program would you prefer to attend (choose only one answer)?

Creation of discussion groups □ [1]	Distance learning/e-learning □ [5]
Short-term seminars (up to 10 hours) □ [2]	Business consulting in matters of promotion, productivity, quality improvement, etc. □ [6]
Long-term seminars (more than 10 hours) □ [3]	Provision of guidance services for innovative cottage industry processes □ [7]
Education at individual level □ [4]	Other …….. □ [8]

20. Do you believe that a guide with the basic steps to implement in the cottage industry will be helpful?

☐Yes [1]

☐ No [2]

☐Do not wish to answer [3]

21. How much time will you devote to participating in a training program?

Up to 2 days	□ [1]	2-4 weeks	□ [4]
3-7 days	□ [2]	Over 1 month	□ [5]
1-2 weeks	□ [3]	> 2 months	□ [6]

Disclaimer

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