

„Dunărea de Jos” University of Galați

Doctoral School of Engineering



Ph.D. THESIS SUMMARY

QUALITY OF ROMANIAN AGRI-FOOD PRODUCTS IN A EUROPEAN CONTEXT

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Series I 7 Food engineering No.10

GALAȚI

2020

THANKS

First of all, I would like to thank the scientific coordinators, Mrs. Prof. Ph. D. Eng. Nicoleta Stanciuc and Mr. Prof. Ph. D. Eng. Petru Alexe, without whom this paper would not have been written.

I thank the coordinators and the whole team for giving me the opportunity to approach and synthesize this PhD topic in a personal way, allowing me to bring to the attention of the scientific engineering community the "story" component, that integrates technological features of the product. The proposed approach can add the much-needed value of supporting local products in an increasingly competitive market.

I would also like to thank the deputy Alexandru Stănescu, farmer and chairman of the Agriculture Commission of the Chamber of Deputies of the Romanian Parliament for understanding the importance of introducing public policies in the field of agri-food quality. His position allowed him to contribute institutionally to the elaboration and approval of the Law 133/2019 on the establishment of the Agency for Quality and Marketing of Agri-Food Products. I thank the President of Romania, Mr. Klaus Werner Iohannis, for promulgating the Law 133/2019 during a complicated political period for Romania. I would also like to mention in this chapter the collaboration with Mr. Mihai Țurcanu, Member of the European Parliament, for the institutional dialogue with the Commission's Directorate-General for Agriculture and Rural Development (DG AGRI) regarding the quality and promotion of agri-food products, as well as for the inclusion of the sent proposals in the Double Standard report of the European Parliament in 2018. I thank Mr. Emil Dumitru and Mr. Aurel Simion, Secretaries of State within the Ministry of Agriculture and Rural Development, for understanding and supporting public policies on the quality of Romanian agri-food products. I appreciate the contribution of my colleague Ph. D., Eng. Adriana Elena Radu (Balaban) when making materials for the European Parliament and the Romanian Parliament.

I thank all my colleagues from the associative environment for their support and patience in listening to my speech related to the quality and promotion of Romanian agri-food products at every meeting with the public decision-makers.

I thank the members of the steering committee Prof. Ph. D. Eng. Gabriela Râpeanu, Prof. Ph. D. Eng. Iuliana Aprodu, Prof. Ph. D. Eng. Elisabeta Botez for the interest and support given into the subject during the realization and implementation of the solutions proposed by this PhD thesis.

I believe that it is the duty of each of us to contribute to a better future for our children, and my PhD thesis is the beginning of an action plan designed to radically change the approach to the quality and promotion of Romanian agri-food products.

I dedicate the work to my 3 children, Ana, Mara and Călin, as well as to my wife Oana.

Galați, July 3, 2020

Ph.D. Decebal-Ștefăniță PĂDURE

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INTRODUCTION

Current agri-food policies and programs highlight the need for a change in approach to socially and ecologically sustainable agri-food production. In this respect, new policies are often based on market-led models, which add value to certain distinctive products or practices [1]. In this context, "quality schemes" are defined, in which certain products or characteristics of food production are given a certain superiority which allows producers to obtain premium prices.

In this context, quality food schemes have emerged as local / regional solutions for rural economies. They include both the production of specialty foods, but also "institutional innovations, direct marketing, short supply chains, local food systems and the renewal of artisanal food practices and regional cuisine" [26]. Thus, quality schemes involve areas or regions in which such a strategy is implemented: when particular products or characteristics in food production are assigned a certain or more superior characteristics, which allow producers to obtain premium prices or access markets exclusive. Quality food is also a strategy adopted by public institutions to support small-scale and sustainable agriculture.

The motivation for approaching the field represented by quality schemes and tools for promoting agri-food products was represented by the situation of the Romanian agri-food sector and the development direction it was heading since the end of 2016, characterized by the lack of coherence of measures included in development programs. and the absence of public policies aimed at market-oriented measures, in a context where European producers are focusing on opening up new markets using indirect means of action to support farmers and producers in the Member States.

The increase in the trade deficit is influenced by the growing differences between the import of value-added products and the export of raw materials from the agri-food sector. The lack of country objectives assumed at political, administrative and associative level have positioned Romania in an area of major vulnerability in terms of food security.

The aim of this paper is to create a national strategic framework for the implementation of specific measures and technological and marketing tools needed for the certification of Romanian agri-food products, as a component generating eligibility for promoting actions.

The objectives of the PhD thesis were:

- 1) positioning the quality of Romanian agri-food products in the European context, in line with European policies on the quality of agri-food products;
- 2) establishing the conceptual and procedural framework for introducing the concept of certified quality and '**quality products**' when approaching the financial support provided to agri-food products for consumer information and product promoting programmes;
- 3) creating the conceptual and procedural framework for the certification of agri-food products by developing national quality schemes and generating specific promoting tools for producers and processors;
- 4) building tools to promote and inform consumers about the benefits of consuming certified agri-food products in accordance with established national and European quality schemes;

- 5) creating and implementing a policy on the quality of agri-food products by promoting national strategic objectives to the public decision-maker, that would lead to changing Romania's status from exporter of "European subsidy" to an important seller on the international market of added-value products, as a future strategy for economic growth.

The first three chapters of the paper are a documentary research of the current context in which quality schemes operate and have been conducted at both national and European level. The developing of the research study was based on observing the legislation in the field as well as of the theoretical concepts regarding the quality of the products in general and the agri-food ones in particular.

The next two chapters represent a quantitative and qualitative analysis of the consumers' awareness level of the concepts related to quality schemes correlated to purchasing habits, as well as an analysis of national and European databases with products certified according to quality schemes. In chapter five we find the study on the dual quality of food sold on the European market, an issue known as "double standard". At the end of this analysis, it was formulated a legislative solution aimed to solve the situation at European level.

Chapter six proposes a legislative instrument to promote public policies on the quality of agri-food products. The contributions can be found in the documents that formed the basis of the Law 133/2019 for the establishment of the Agency for Quality and Marketing of Agri-Food Products, that was promulgated on July 11, 2019. The law aims to promote obtaining agri-food products certified according to a voluntary quality system, generically called "quality products". Another purpose of the law is to ensure proper marketing of these products.

Using the quality schemes proposed in the seventh chapter of this thesis, the interested parties will be able to register their certification benchmarks with the competent authority. The certification of the products according to the registered benchmarks will contribute to the development of competitive products on the market, which will enjoy a recognized and protected brand.

The product certification policy will be an advantage that will increase the competitiveness of farms and processing units by marketing high added-value and high quality products, being a starting point in the regional quality policy with emphasis on food public procurement conditions, taxation, as well as the allocation of promotion budgets.

If the "Guaranteed Quality" scheme is the solution for the development of regional quality schemes, proposing a simple, transparent and efficient European mechanism for legitimate entities to multiply European good practices in the field of national certification, the "Established Recipe" scheme, through the new mechanism proposed in this paper, is an effective means of protecting the national heritage of the food sector represented by products that have a proven presence on the market for more than 30 years, namely a generation according to the European approach.

The use of the blockchain in securing the information of quality schemes is of particular importance through increasing the security level of information on products throughout the supply chain.

By implementing and continuing the measures presented in the paper, Romania will be able to generate the framework for:

- developing and implementing public policies on the agri-food products quality;

- introducing "certified quality" of agri-food products in support of consumer information and product promotion financing programs;
- achieving a general framework for the certification of agri-food products according to a national quality scheme;
- building promotion tools for agri-food products certified according to a quality scheme;
- disseminating to producers and processors the information on the benefits of certification of agri-food products;
- informing consumers about the benefits of consuming agri-food products certified in accordance with national and European quality schemes;
- establishing national strategic objectives that would lead to the change of Romania's status from exporter of "European subsidy" to a major seller on the international market of added-value products;
- introducing the origin of the raw materials, the place of production and the history of the product in the definition of the agri-food products quality and in the characteristics related to the production methods.

This paper can be considered the beginning for the development and recognition of the values represented by Romanian agri-food products. Making Romanian agri-food products both a reason for national pride and an engine of economic growth can be achieved by continuing the research activity.

1. BRIEF CRITICAL ANALYSIS OF THE CURRENT CONTEXT

Current agri-food policies and programs highlight the need for a change in approach to socially and ecologically sustainable agri-food production. In this respect, new policies are often based on market-led models, which add value to certain distinctive products or practices [1]. In this context, "quality schemes" are defined, in which certain products or characteristics of food production are given a certain superiority which allows producers to obtain premium prices.

The rhetoric of food production built in response to the multitude of social and environmental demands, including increasing consumer demands for high quality food products, has been accompanied by the need for more intense communication of production quality by building local and regional brands [14,24 25].

In this context, quality food schemes have emerged as local / regional solutions for rural economies. They include both the production of specialty foods, but also "institutional innovations, direct marketing, short supply chains, local food systems and the renewal of artisanal food practices and regional cuisine" [26]. Thus, quality schemes involve areas or regions in which such a strategy is implemented: when certain particular products or characteristics in food production are assigned a certain or more superior characteristics, which allow producers to obtain premium prices or access markets. exclusive. Quality food is also a strategy adopted by public institutions to support small-scale and sustainable agriculture.

The motivation for approaching the field represented by quality schemes and tools for promoting agri-food products was represented by the situation of the Romanian agri-food sector and the development direction it was heading since the end of 2016, characterized by the lack of coherence of measures included in development programs. and the absence of public policies aimed at market-oriented measures, in a context where European producers are focusing on opening up new markets using indirect means of action to support farmers and producers in the Member States. The lack of action of the national public decision-maker represented an "undermining" of the economic growth potential that Romania has in the agri-food sector [26,27,28].

The increase in the trade deficit is influenced by the growing differences between the import of value-added products and the export of raw materials from the agri-food sector. The lack of country objectives assumed at political, administrative and associative level have positioned Romania in an area of major vulnerability in terms of food security. The obvious development of production capacities in the agri-food sector, development based on investments financed by European funds was lacking a coherent national strategy, which led to imbalances between agricultural production, processing capacity and the needs of domestic and international consumers. According to the National Institute of Statistics (INS), in 2019, FOB exports amounted to 69,003 million euros, and CIF imports amounted to 86,284 million euros. The trade balance deficit (FOB / CIF) in 2019 was 17,281 million euros, higher by 2,164 million euros than that recorded in 2018. According to the same data, taken in table 1, Romania's trade balance deficit with agri-food products, was about 2 billion euros, with the deficit in relation to the EU being 3.4 billion euros.

Table 1. Trade balance of agri-food products in 2019 [29]

Specify	Exports Free on Board (FOB)			Imports FOB		
	2019			2019		
	Million euro	Total Export Weight (%)	in % compared to 2018	Million euro	Total Import Weight (%)	in % compared to 2018
TOTAL	69.003	100	+1,9	86.284	100	+4,2
of which, in relation to the EU.	52.835	76,6	+1,6	64.400	74,6	+4,1
Food and live animals	4.773	6,9	+13,1	6.762	7,8	+11,4
of which, in relation to the EU.	2.515	3,6	-2	5.912	6,9	+12,2

It can be seen that the domestic market has been monopolized by the interests of transnational companies whose high marketing budgets have greatly influenced the purchasing decision of the Romanian consumer. Any attempt to introduce a public policy oriented in the interest of domestic producers has been thwarted by the associative structures of multinational companies.

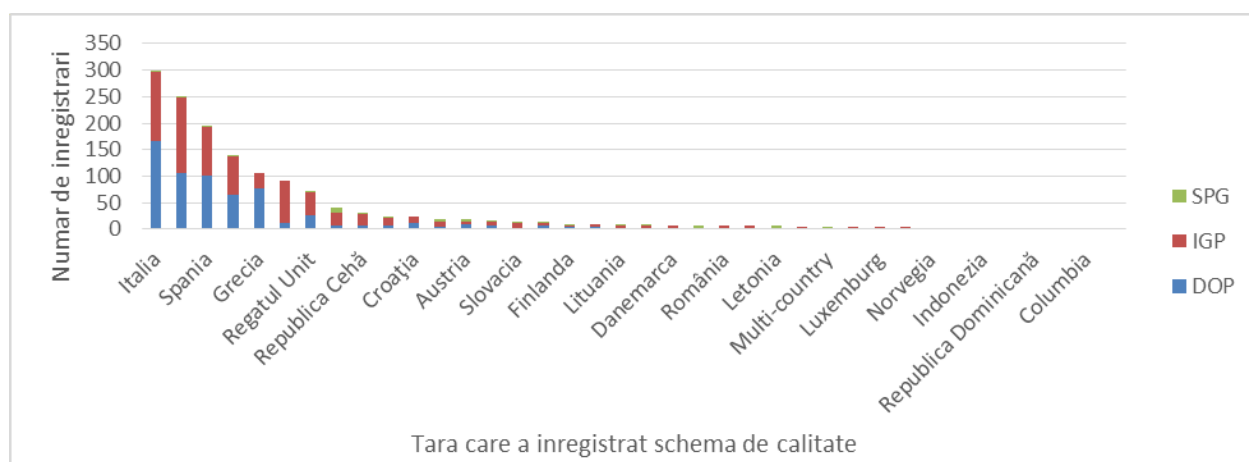


Figure 2. Evolution of the number of products registered at European level according to the DOOR database of C.E. [31]

With regard to products registered and protected under different quality schemes, the European Commission has created a database for registrations of origin (DOOR), a tool that supports the European agri-food quality strategy by providing a modern IT system for data dissemination. on PDOs (Protected Designations of Origin), PGIs (Protected Geographical Indications) and TSGs (Traditional Specialties Guaranteed) in Europe.

From Figure 2 it can be seen that among the countries with the most registered products, according to the DOOR base, are Italy, Spain and Greece.

Dossier Number	Country	Name	App Type	Date	Status:
	RO - Romania	[ALL Product Classes]
RO/PGI/0005/02473	Romania	 Telemea de Sibiu	PGI	16/10/2019	Registered
RO/PGI/0005/02174	Romania	 Cârnați de Pleșcoi	PGI	04/10/2019	Registered
RO/PGI/0005/02510	Romania	 Plăcintă dobrogeană	PGI	16/05/2019	Applied
RO/TSG/0005/02457	Romania	 Salată tradițională cu icre de crap	TSG	16/04/2019	Applied
RO/PGI/0005/02234	Romania	 Scrumbie de Dunăre afumată	PGI	03/12/2018	Registered
RO/PGI/0005/2476	Romania	 Salată cu icre de ștriuică de Tulcea	PGI	06/07/2018	Applied
RO/PGI/0005/02361	Romania	 Cașcaval de Săveni	PGI	27/04/2017	Applied
RO/PDO/0005/01183	Romania	 Novac afumat din Țara Bârsei	PGI	06/04/2017	Registered
RO/PDO/0005/01182	Romania	 Telemea de Ibănești	PDO	15/03/2016	Registered
RO/PGI/0005/01280	Romania	 Salam de Sibiu	PGI	19/02/2016	Registered
RO/PGI/0005/0763	Romania	 Magiun de prune Topoloveni	PGI	08/04/2011	Registered

Figure 3. Romanian products in the records of the EC DOOR database [31]

According to DOOR, Romania had 11 records in the records of this database on December 13, 2019. The products registered on a quality scheme were 7, of which 6 as PGI, 1 as PDO and 4 files submitted for registration (3 PGI and 1 TSG) (Figure 3).

The purpose of this paper is to create a national strategic framework for the implementation of specific measures and technological and marketing tools for the certification of Romanian agri-food products, as a component generating eligibility for promotion actions.

A concrete action in this regard is Law 133/2019 for the establishment of the Agency for Quality and Marketing of Agri-Food Products, promulgated on July 11, 2019. The law aims to promote the obtaining of agri-food products certified according to a voluntary quality system, generically called "products quality". Another purpose of the law is to ensure proper marketing of these products. The aim of the law is to promote the consumption of quality products, obtained under a voluntary quality certification system, hereinafter referred to as the quality scheme, established by European or national legislation. In addition to the economic component represented by the increase of the market demand addressed to the Romanian agri-food products, the quality schemes also contribute to a preservation of the quality of the products with established names [32].

2. OBJECTIVES OF THE DOCTORAL THESIS

The aim of this paper is to create a national strategic framework for the implementation of specific measures and technological and marketing tools for the certification of Romanian agri-food products, as a component generating eligibility for promotional actions. In the critical context analysed, the objectives of the doctoral thesis were:

- 1) positioning the quality of Romanian agri-food products in the European context, in line with European policies on the quality of agri-food products;
- 2) establishing the conceptual and procedural framework for introducing the concept of certified quality and '**quality products**' in the approach to the financial support provided to agri-food products for consumer information and product promotion programmes;
- 3) elaboration of the conceptual and procedural framework for the certification of agri-food products through the creation of national quality schemes and the generation of specific promotional tools to producers and processors;
- 4) the creation of tools to promote and inform consumers about the benefits of consuming certified agri-food products in accordance with quality schemes established at national and European level;
- 5) the creation and implementation of a policy on the quality of agri-food products, by promoting at the level of the public decision-maker national strategic objectives leading to the change of Romania's status from exporter of "European subsidy" to an important seller on the world market for value-added products, as a future strategy for economic growth.

CHAPTER 4.

RESEARCH ON THE KNOWLEDGE OF NATIONAL AND EUROPEAN QUALITY SCHEMES

4.2. Investigation methods

This qualitative study is mainly based on a semi-structured in-depth questionnaire and addressed to a sample of Romanian consumers. The investigation methods involved qualitative analyses by completing a questionnaire applied to Romanian consumers.

4.3. Data collection

The sample was based on a number of 162 respondents, consisting of men and women from rural and urban areas, aged up to 18 years, between 18 and 50 years, as well as over 50 years .. Sampling method applied being random. The data collection was performed at national level between May and June 2019. The data collection method was performed in electronic format, the completion being unassisted. The questions asked were open-ended and allowed the selection of several answers. The response rate was 100%. All data were collected with the consent of the participants. No selection criteria for respondents were applied.

4.4. Data processing

Data processing in terms of descriptive statistics, contingency tables and the χ^2 test (to highlight the associations between variables) was performed using SPSS software (SPSS Statistics 20, IBM Software Group, Chicago, IL). In the first stage, the internal consistency of the data was checked using the Cronbach's alpha coefficient. A questionnaire to be safe and consistent must consist of questions (items) that reflect a certain attribute, to manifest a common variance, to correlate with each other. Internal consistency is ensured when each question in the questionnaire is relevant to the overall outcome of the questionnaire. The value of the Cronbach's alpha coefficient and values between 0 and 1 and the minimum accepted threshold is 0.7. The value obtained in this study was 0.864, which indicates a very good internal consistency of the data.

4.5. Partial conclusions

The purpose of this study was to analyse on a statistical basis the degree of information of Romanian consumers on national and European quality schemes from the perspective of developing a conceptual framework for implementing specific measures and developing guidelines and quality schemes, with a voluntary character, oriented towards the current requirements of the Romanian consumer. The study focused on 162 respondents, as important participants in the market mechanism, as an element that defines consumption as a distinct moment of social life. The study aimed to establish a sustainable consumption model based on the degree of information and purchasing decisions of respondents.

As a first step, the information collected on the preferences related to the place and time of food purchase was investigated and statistically processed. It was found that when the supply is made at the weekend, the first three places of supply preferred by the participants are: the

supermarket (35.8%), the permanent market (29.63%) and the manufacturer's store (21.60%) . When the supply is made monthly, the first three places of supply are: the online store (37.65%), directly from the manufacturer (32.10%) and the supermarket (27.78%). Interestingly, during the week, the highest percentage of respondents (40.74%) is sourced from neighbourhood stores, followed by supermarket and grocery. It can be appreciated that respondents prefer neighbourhood stores, with a weekly shopping frequency.

The comparative statistical analysis showed that the largest share of participants do not prefer the supply from the flying market, online store or a fruit and vegetable store. Neither the manufacturer's stores nor the direct supply from the manufacturer are preferred. In addition, it is not preferable to buy food from manufacturer stores and online stores.

It is important to mention that among the characteristics that very often influence the decision to purchase products are quality, reliability, taste, smell, appearance, how healthy are the shelf life. Also, most of the respondents rarely take into account aspects such as: advertising, promotions, etiquette, control of a third party verifier, the existence of comparative studies related to the product, but also the existence of a QR code for access to information. Thus, relevant in the context of the doctoral thesis, which guides the research in future chapters, is the highlight of the very common influencing factor in the purchase of a food product, namely quality (69.75%), the health it induces (53.70%), followed by appearance (52.47%), taste (51.23%) and product confidence (50.62%). Considering the answers for very often and frequently, it was found that the main decision-maker in the purchase of food is quality 95.06%, followed by 91.36% and healthy foods by 85.8%.

Most of the respondents state that they encourage the consumption of local, regional, Romanian food products, rarely encouraging the consumption of imported food, from the social economy and from the short supply chain.

It is therefore necessary to establish a strategy on the quality and marketing of Romanian food products (Chapter 6) and to develop and implement quality schemes for agri-food products in Romania (Chapter 7).

CHAPTER 5.

QUALITATIVE AND QUANTITATIVE ANALYSIS OF THE PROBLEM OF QUALITY SCHEMES AT EUROPEAN LEVEL

5.1. Short preamble and objectives

The objectives of this chapter were to perform a qualitative and quantitative analysis of the current situation in databases containing public data on quality schemes. The perspective is to establish concrete images with examples of good land management practice or economic planning strategies aimed at direct connections between the quality of agri-food products in certain regions and consumers. Also, the chapter, in antithesis of the examples of good practice, goes through a critical analysis of the issue of double standards, their topicality and examples.

5.2. Investigation methods

The investigation methods involved quantitative and qualitative analyses of the existing information in the database for origin records according to the European DOOR and E-ambrosia databases.

The results of the research correspond to the date of December 7, 2019, when a number of 1,460 registered products, 218 files submitted and 30 files published in order to complete the registration procedure were found in the DOOR.

5.3. Results of the quantitative analysis

Analysing only the products registered as PDO, PGI or TSG (Figure 5.1.) It can be seen that the PGI scheme has the most records 756, i.e. 51.78%, followed by the PDO scheme (642, i.e. 43.97%), and the fewer records were identified for the TSG scheme where the number of certifications is 62, representing 4.25%.

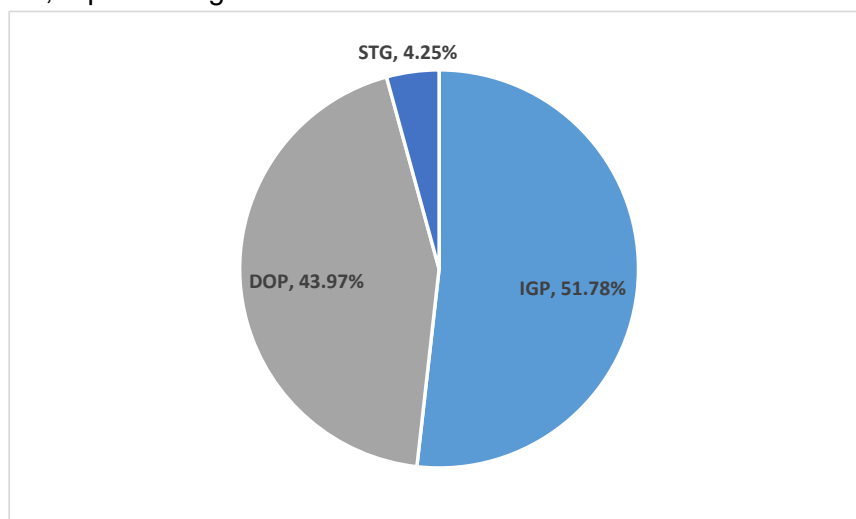


Figure 5.1. DOOR records by type of certification scheme [31]

Analysing the product classes for which the registration was made, it was found that most of the certifications were granted to fruits, vegetables and cereals, whose number is 391 (26.78%), followed by cheese with 246 registrations (16.85%) and 197 for meat products (Figure 5.2.).

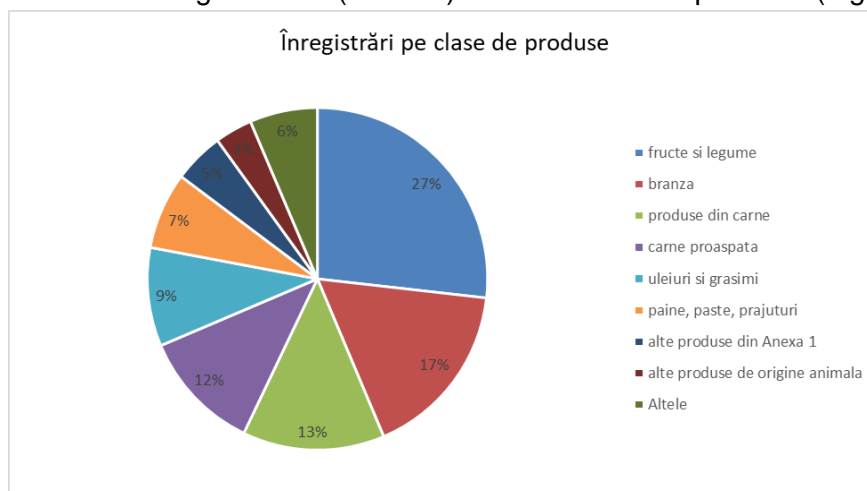


Figure 5.2. DOOR records by product class for records [31]

The most frequently certified products come from Italy (299 product names registered as PGI, PDO and TSG, i.e. 20.48% of all registered product names), followed by France (250) and Spain (196), which in total they hold over 50% of the total number of records (Figure 5.3.).

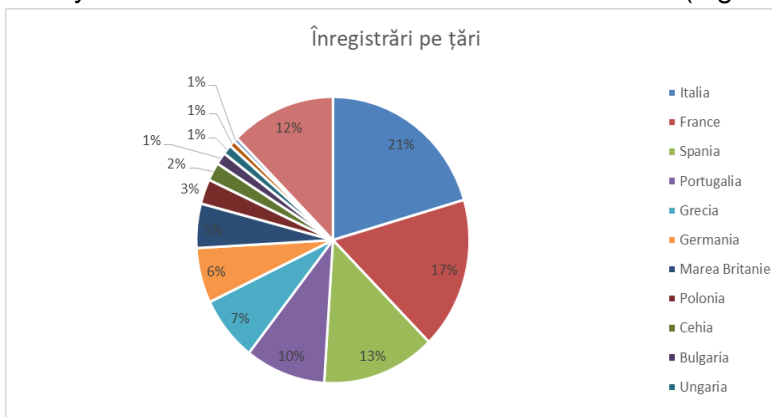


Figure 5.3. DOOR records by country of origin of registered products [31]

Regarding the number of registrations in DOOR according to the country of origin of the registered products, the largest share is held by Italy with 21%, followed by France with 17% and Spain with 13% (Figure 5.3.). According to the data presented in table 5.1. 1460 products were registered, of which 642 PDO, 756 PGI and 62 TSG. Italy and France also have the most records, totalling 299 and 250 respectively.

Regarding the types of certifications, the PGI type ones have a share of 51.78% of the total, followed by the PDO, with 43.97%, as well as the TSG with 4.25%. Most product certifications are found in Italy 20.48% and France 17.12% (Table 5.2.).

Based on the information provided, it can be stated that quality schemes are one of the tools that not only protect national and regional agri-food products, but also help through regulatory

regimes (quality control and monitoring mechanisms) to create locally obtained European products. , in accordance with EU law.

The e-ambrosia database - the register of geographical indications in the EU, is the new platform that replaces the databases e-bacchus (wine), DOOR (food) and e-spirit (for spirits), simplifying the search for products.

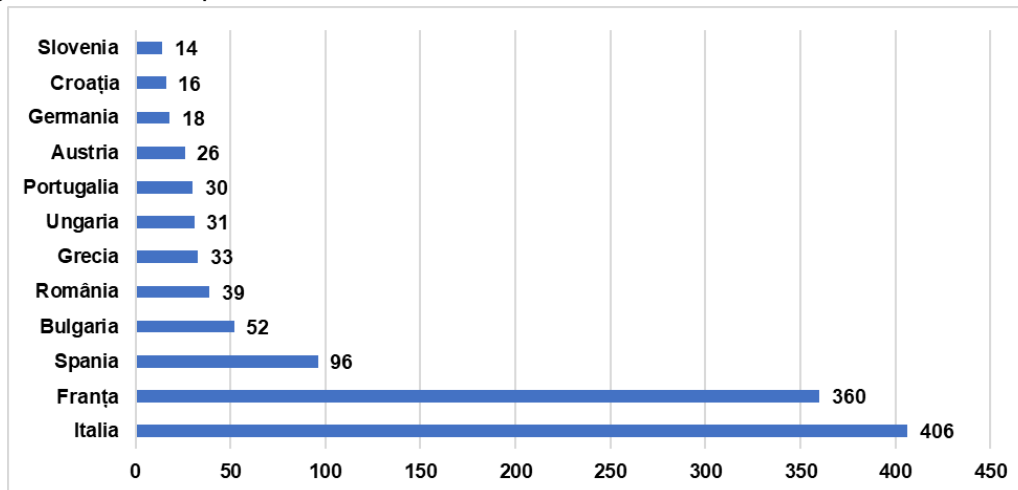


Figure 5.4. Situation of the number of registrations for wine products with a Protected Designation of Origin (PDO) [31]

According to the E-ambrosia database, Italy had registered the most products with Protected Designation of Origin, namely 406, followed by France with 360 products and Spain with 96 products registered PDO (Figure 5.4.).

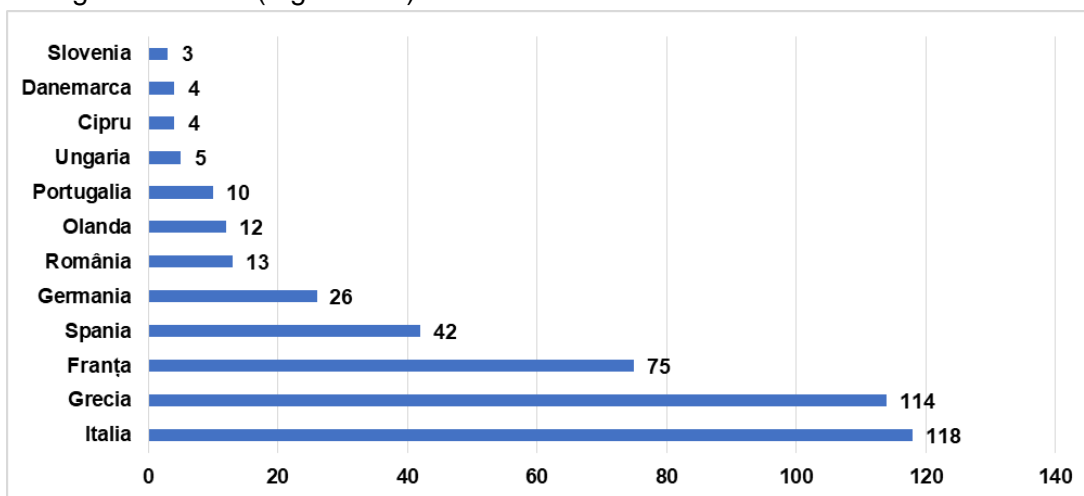


Figure 5.5. Status of registrations for wine products with a Protected Geographical Indication (PGI) [31]

5.4. The issue of the double standard

The European situation of the "double standard"

The issue came to the fore in the last months of 2017 when the Hungarian authorities notified the Commission of a draft law targeting producers who would have to place "warning labels" on inferior products.

Dirk Jacobs, Deputy Director General and Director of Consumer Information and Food at the European Association of Food Drink Europe (FDE), told stakeholders that different recipes do not necessarily mean dual quality, but the market situation contradicts it.

'Igloo' fish sticks sold in Slovakia have a lower fish content (58%) than the same branded product marketed in Austria (65%). The same product sold in the UK, the Netherlands and P fish content (58%).

Another example is the Coca-Cola drink, which has significant differences in taste in the two countries analysed. In Slovakia, the taste is slightly sweet, while in Austria it is sweet. There are also different indications on the label, with fructose-glucose syrup in Slovakia and sugar in Austria, but without the packaging or name differing.

Emmental cheese from Slovakia does not have the characteristic structure or specific appearance with which this cheese specialty is known, having a light yellow colour and a texture with smaller holes. The product sold in Austria has the appearance, colour and texture characteristic of the assortment (Figure 5.10.).



Figure 5.10. Emmental cheese from Slovakia and Austria [53]

The identified problem, the proposed solution

2019, December 9 - Formulation and tabling of an amendment by Gabriela Carmen Avram, MEP, on AGRI's opinion on the annual competition report.

“Welcomes the fact that the Omnibus Regulation lays down, in Article 6 (2), point (c), provisions to help Member States manage the issues related to the double standard, including in the case of agri-food products. Calls on the Commission to take into account applicable European regulations whereby all products marketed in the single market are included in a European Register of Products Marketed in the European Market, thus giving a unique character to the product marketed with the same name and packaging. The register should be completed by self-declaration by the economic operator who places the product on the EU market for the first time and should contain the information we find on the product label, in the case of REG food. (EU) 1169/2011. The measure should also apply to products manufactured in third countries and marketed in the single market. In this way the European consumer will have a permanent and fast access to a database where he will be able to see the characteristics of the product he wants to

buy, and his purchase decision will be one assumed in full knowledge of the product information, and the competition will not be affected by double standard commercial practices. "

5.5. Partial conclusions

The purpose of this chapter was to perform a quantitative and qualitative analysis of products obtained at European level through quality schemes established by regulations (quantitative analysis) and a critical analysis of the issue of double standards (qualitative analysis).

The quantitative analysis involved the identification and quantification of the products obtained in different quality schemes at European level, by countries, product categories, quality scheme categories. Regarding the types of certifications, the PGI type ones have a share of 51.78% of the total, followed by the PDO with 43.97%, as well as the TSG with 4.25%. Most product certifications are found in Italy 20.48% and France 17.12%. The main products obtained in certification systems are fruits and vegetables, with a percentage of 26.78%, followed by cheeses, with a percentage of 16.85% and meat products with 13.49%. Italy and France also registered the most PDO and PGI products.

The sales value of certified products was, on average, twice as high as the sales value of similar products without any certification. The sales value multiplication coefficient amounted to 2.85 for wines, 2.52 for spirits and 1.5 for agri-food products [91].

There is a clear economic advantage for producers in terms of marketing and sales growth, due to the outstanding quality and reputation of these products and the fact that, in order to obtain genuine products, consumers are willing to allocate higher spending budgets [91].

Geographical indications represent 15.5% of total EU agri-food exports. Wines remained the most important products, both in terms of total sales value (51%) and in terms of extra-EU trade (50%). The US, China and Singapore are the top destinations for GI products in the EU, accounting for half of the value of GI product exports.

The qualitative analysis highlighted the issue of the dual quality of products on the European market, especially food, which is in fact a lack of information (intentional or not) of the consumer on the qualitative differences between products with the same name and packaging sold on the single market. Europe.

For the correct information of the consumer we consider that a regulation, applicable at European level, through which all products traded on the single market to be included in a European Register of Products Marketed on the European Market - EU DTP (EU database of trade products) could give a unique character to the product. Completing the EU DTP ration by the economic operator placing the product on the EU market for the first time and should be required to contain the mandatory information on the product label according to Reg. (EU) 1169/2011.

In this way, even products with bulk or very small packaging will be able to have public information available to the consumer. The measure will also apply to products manufactured in third countries but marketed in the EU. If an economic operator markets products with different ingredients on the markets of the Member States, he will have to declare in the proposed register, each product variant, this being associated with a unique name in the database.

After registration the product will receive a unique code at European level and the manufacturer will be obliged to mention this number / code (QR, EAN etc.) on the product label so that the consumer can also access by electronic means (mobile phone, tablet, etc.) public information, mandatory for labelling, about the product (ingredients, nutritional values, etc.).

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In this way the European consumer will have a permanent and fast access to a database where he will be able to see the characteristics of the product he wants to buy, and his purchase decision will be one assumed in full knowledge of the product information.

The recommendation made has no restrictive or prohibitive effect on trade, but only increases the level of transparency of information from producer to consumer.

CHAPTER 6.

NATIONAL AGENCY FOR THE QUALITY AND MARKETING OF AGRI-FOOD PRODUCTS

6.1. Purpose and objectives

The implementation of quality schemes is a process developed on several levels that does not necessarily require win-win solutions. For example, alternative marketing (ie direct, local) requires the development of tools for information and intensive consumer education on the importance and purpose of quality schemes. Particular attention must also be paid to these tools to cover a wide range of consumers, so as to allow farmers to remain in alternative markets.

The objectives of this chapter are:

- Advocacy and lobbying actions, necessary to promote a specific action, such as the initiative underlying Law 166/2019.
- Presentation of examples of good practice regarding quality schemes, the current economic and social context, such as the proposal and the stages of the legislative process.
- Presentation of the initiative for the establishment of the National Agency for the quality and marketing of agri-food products, by presenting the context and motivation, the legislative stages of elaboration, the expected impact at macroeconomic, social, political level, etc.

6.2. Investigation methods

The investigative techniques used in this chapter were based on: qualitative and quantitative methods. The main techniques used are presented in Table 6.1.

Table 6.1. Investigation methods used

Qualitative methods used	Quantitative methods used
Interviews with experts in the field	Opinion polls
Text analysis	Analysis of primary and secondary data
Analysis of the specialized literature	
Legislation analysis	
Focus groups	
Lobbying and advocacy	

In order to propose the two general quality schemes, "Consecrated Recipe" and "Guaranteed Quality", a proposal was submitted to the Secretary of State of the Ministry of Agriculture and Rural Development regarding these two quality schemes, respecting the following requirements:

- be open to all producers;
- involve compliance with mandatory product specifications, this will be verified by public authorities or an independent inspection body;
- be transparent and ensure full traceability of products, 6.4. National Agency for Quality and Marketing of Agri-Food Products

6.5. Partial conclusions

Through lobbying and advocacy actions, it was possible to promote the specific actions that formed the basis of the initiative of Law 133/2019 on the establishment of the National Agency for Quality and Marketing of Agri-Food Products.

The organizations that formed an informal association in order to promote the draft law were represented by the Association for the Promotion of Romanian Food - APAR, BIO Romania and the Federation of Producers of Traditional Products in Romania.

In order to better understand the lobbying models and international best practices, regarding the quality schemes, the Austrian agency AMA-Marketing was analysed. This agency pursues activities such as quality management of Austrian agri-food products, information transfer but also the development and promotion of certified products. The high share of certified food in the shopping basket of Austrian citizens reflects the success of quality schemes in the agri-food sector implemented at country level.

The approach regarding the adoption of Law no. 133/2019 - Law for the establishment of the Agency for Quality and Marketing of Agri-Food Products is just one example of good practice that should be followed by representatives of non-governmental organizations, as legitimate representatives of the interests of the sector from which they come. It is very important to maintain the position of independence in the dialogue with the public decision-maker, as well as to know in detail the stages of the legislative process.

The coordinated development of public policies for the marketing of quality agri-food products represents the first coherent step for the transformation of the Romanian agri-food sector. The transition from the stage of exporter of raw materials, characteristic of developing economies, to that of established producer of high value-added products can be Romania's chance to make the agri-food product not only a reason for national pride but an engine of economic growth, thus providing farmers, producers and processors with a sustainable development environment.

A second component of quality-based public policy is to encourage the consumption of products obtained under national or European quality schemes. In this sense, the Romanian consumer will have the opportunity to choose informed the product he will purchase.

CHAPTER 7.

DEVELOPMENT AND IMPLEMENTATION OF QUALITY SCHEMES FOR AGRI-FOOD PRODUCTS IN ROMANIA

7.1. Purpose and objectives

The purpose and objectives presented in Chapter 7 are:

- presentation of the conditions for European recognition of national quality schemes, in order to know the specific measures for organizing and carrying out the exchange of information, knowledge of the standards and technical regulations in force, to promote products and remove trade barriers;
- development of methodological and procedural tools for the elaboration of national quality schemes, with exemplification for the following voluntary quality certification schemes "Guaranteed Quality Product" and "Consecrated Recipe";
- implementation of the blockchain in the supply chain of certified products,
- presentation of the National Rural Development Program - Measure 3, as a tool to finance the certification of products and their promotion.

7.2. Conditions for European recognition of national quality schemes

To recognize quality schemes, Romania must comply with the requirements of Decision 1016/2004 regarding measures for the organization and implementation of exchange information in the field of technical standards and regulations, as well as the rules on informational society services between Romania and the Member States of the European Union, and the European Commission, as subsequently amended and supplemented, transposes Directive 2015/1535 on the procedure for providing information in the field of technical regulations and rules on information society services [94,95].

7.3. Methodology for drafting a quality scheme

Voluntary quality certification schemes set up at the national level or those generated by private operators can also help consumers to be confident in the quality of the products they choose. In addition to EU systems, there are a large number of private or national quality or food quality logo systems, covering a wide range of initiatives and operating between businesses or between businesses and consumers.

Following consultation with stakeholders, the European Commission has developed guidelines indicating best practices for the operation of these systems: Commission Communication - Guidelines on best practices for voluntary certification schemes for agricultural products and foodstuffs.

7.4. Proposal for a voluntary quality assurance scheme "Guaranteed Quality"

The general quality scheme, called "Quality Guaranteed", is a mechanism by which interested parties can register their national quality schemes based on a regional reference with the competent authority.

The scheme includes the procedure and specifications for recognition, the method of conformity assessment, how the validated specifications may be modified, reference documents (specific legislation), eligible beneficiaries of the scheme, definitions, a logo, and model forms.

The submitted proposal defined aspects regarding the eligibility criteria of the applicants, the template for the application for registration of the schemes, the way of communication and transmission of documents between the applicants, the authority and the committee of experts, as well as their attributions. The schemes proposed by the applicants must be based on documents highlighting the superior characteristics of the agri-food products specified in the schemes.

The criteria for evaluating and accepting applicants who wish to register products under the proposed scheme have been established, as well as the deadline by which the parties involved must submit / respond / resolve, as appropriate.

For a better understanding, a diagram of the proposed procedure is presented below.

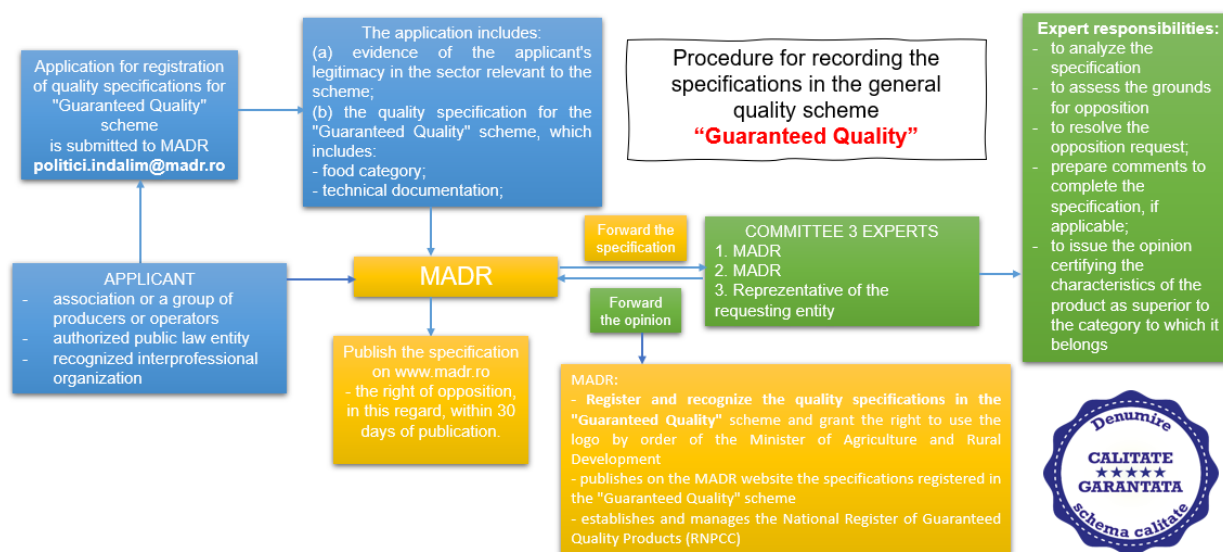


Figure 7.1 Scheme for the procedure for recording the specifications in the general quality scheme "Guaranteed Quality"

7.5. Proposal of voluntary quality certification scheme "Consecrated Recipe"

Under the first scheme, called the "Consecrated Recipe", a mechanism has been developed for the registration with the competent authority of certification references based on a proven use of food on the market for a period exceeding 30 years, as well as a mechanism whereby producers / processors can certify their products according to the references registered with the competent authority as Consecrated Recipes.

The scheme includes the procedure for registering products under it, the procedure for attesting the products registered under the scheme, the specifications for recognizing the scheme, the method of conformity assessment, the ways in which the validated specifications may be modified, reference documents (specific legislation), eligible beneficiaries of the scheme, definitions, a logo proposal, as well as form templates.

The functioning mechanism of the "Consecrated Recipe" Scheme was structured in two stages:

Step 1 refers to the procedure for registering products under the national quality scheme "Consecrated Recipe". The text of the proposal defined aspects of eligible applicants, the application for product registration, the communication and transmission of documents between applicants, the authority and the committee of experts, as well as their tasks. The criteria for evaluating and accepting applicants who wish to register products under the "Consecrated Recipe" scheme have been established, as well as the deadline by which the parties involved must submit/respond/resolve, as appropriate. A committee of experts has also been proposed to analyze, evaluate, resolve and approve applications for registration of products in the scheme. The Ministry of Agriculture and Rural Development has an essential role in this mechanism, by issuing the Ministerial Order by which the proposed scheme will be recognized at the national level.

For a better understanding, a diagram of the first stage is presented below:

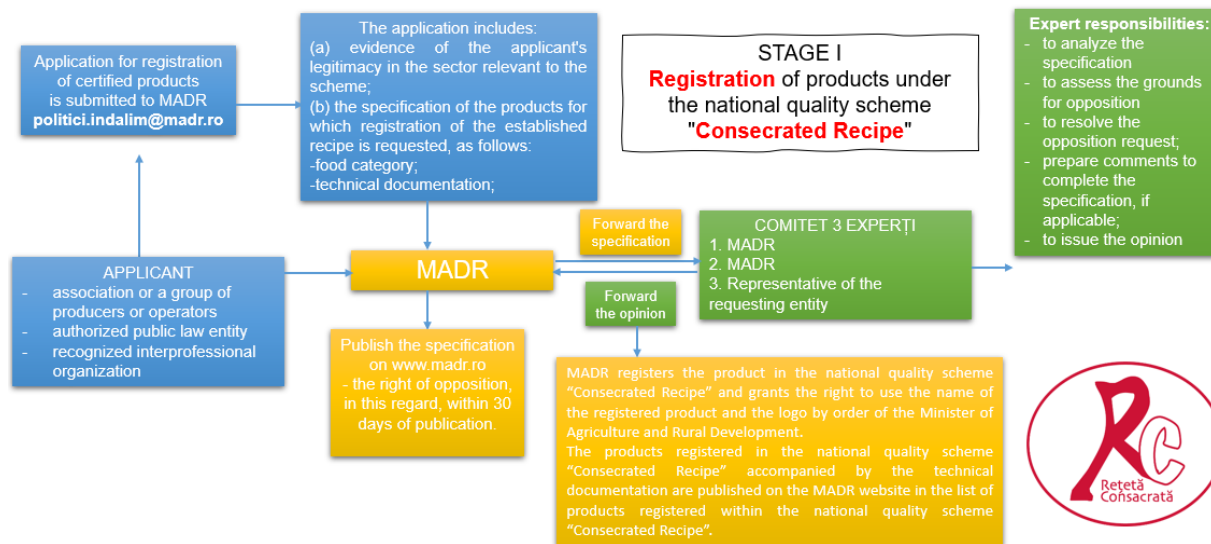


Figure 7.2 The process of registering products under the national quality scheme "Consecrated Recipe" (Stage I)

Stage II presents the certification procedure of the products registered within the national quality scheme "Consecrated Recipe". At this stage, aspects regarding the eligible applicants, the application for product certification, the evaluation and acceptance criteria of the applicants who will want to register products under the scheme were detailed. The competent authorities will verify both the documents and the veracity on the ground of those stated in the application for attestation. The modalities of communication between all parties involved, as well as the deadlines for submission/ settlement, have been developed.

For a better understanding, a diagram of the second stage is presented below:

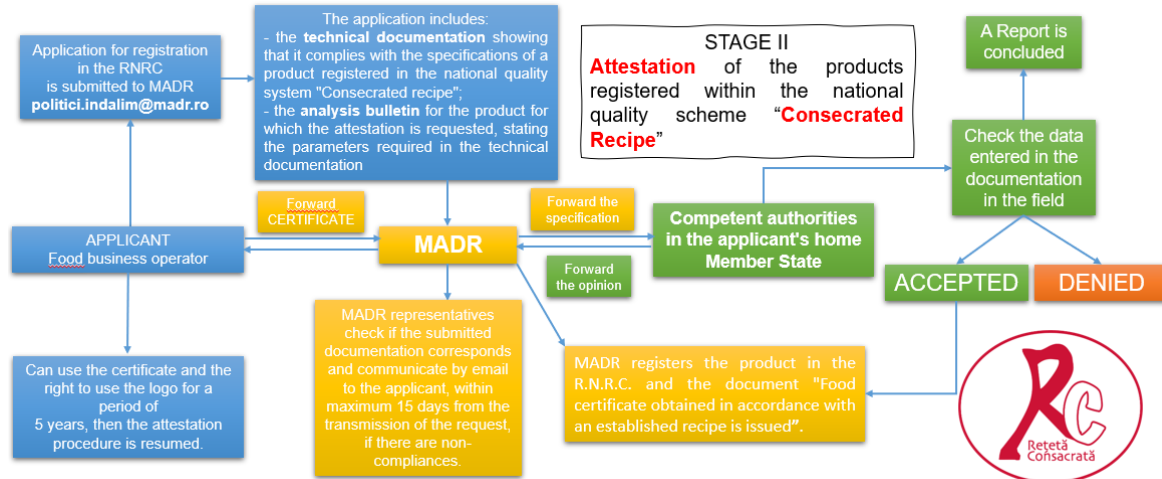


Figure 7.3 Scheme for attestation of products registered under the national quality scheme "Consecrated Recipe" (Stage II)

7.6. Using the blockchain in securing the information of quality schemes

The global food chain is based on multi-actors such as farmers, transport companies, wholesalers and traders, distributors and retailers.

Figure 7.7. (upper section, physical flow) illustrates a simplified version of the food supply system, as well as its main phases and actors. This current system is so far inefficient and insecure. The exchange of goods is based on complex settlement and paper processes, while these processes are not transparent, with high risks between buyers and sellers during the exchange of value. As transactions are vulnerable to fraud, intermediaries become involved, increasing the overall costs of transfers. The cost of operational supply chains is estimated at two-thirds of the final cost of goods. Thus, there is a lot of room for optimizing supply chains by effectively reducing operating costs. Finally, when people buy products locally, they are not aware of the origins of these goods or the ecological footprint of production.

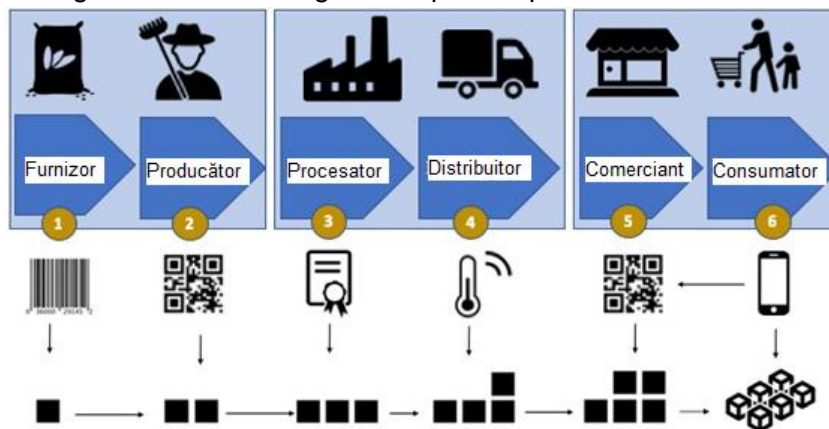


Figure 7.7. Presentation of the use of the blockchain

In **figure 7.7.** the blockchain technology is presented, in which the final consumer has all the information about the product, from the supplier to the trader.

The use of blockchain technology in this context not only provides a high degree of transparency and traceability for the final consumer, but also significantly reduces the risk of various supply chain participants deviating from the standard at which the initial product certification was made.

7.7. National Rural Development Program - Measure 3

Quality schemes set up at Union or national level, including farm certification schemes for agricultural products and foodstuffs, provide consumers with assurance as to the quality and characteristics of the products or production process used as a result of farmers' participation in these schemes. added value to the products concerned and increase their market opportunities.

In this way, Romania has the chance to break away from the rigid socialist lines in which the economy operated centrally and to reorient itself towards European practices based on the market economy. Thus, Romanian producers will have at their disposal an instrument, financed by European funds, through which they will be able to certify their products according to voluntary quality schemes and then to communicate, through marketing programs, to national and international consumers the values of certified products. The mechanism is simple, but the lack of information of both farmers and processors, but especially of the public decision-maker anchored in the realities of the past have made the family farm, the small producer and national processors lack tools in their fight with large companies. multinationals.

7.8. Partial conclusions

In this European socio-economic context, in which certified quality is an advantage of the farmer and consumer demand, Romania introduced in the national rural development strategy European measures on the Quality and Promotion of agri-food products only in 2018. Thus, the way is opened implementation of public policy in the field of supporting Romanian producers through national quality schemes.

Through the quality schemes proposed in the doctoral thesis, interested parties will be able to register their certification references with the competent authority, and the attestation of products according to registered references will contribute to the development of competitive products on the market, enjoying a recognized and protected brand.

The product certification/attestation policy will be an advantage that will increase the competitiveness of farms and processing units by marketing high value-added and high-quality products, being a starting point in the regional quality policy with emphasis on public food procurement conditions, contributions and taxes, as well as the allocation of budgets for promotion.

If the "Guaranteed Quality" scheme is the solution for the development of regional quality schemes, proposing a simple, transparent and efficient European mechanism for legitimate entities to multiply European good practices in the field of national certification, the "Consecrated Recipe" scheme, through the newly proposed mechanism This paper is an effective means of protecting the national heritage of the food sector represented by products that have a proven presence on the market for more than 30 years, ie a generation according to the European approach.

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The use of the blockchain in securing the information of quality schemes is of particular importance by increasing the security level of information on products throughout the supply chain.

CHAPTER 8. GENERAL CONCLUSIONS

After Romania's accession to the European Union, the process of restructuring and bringing agriculture closer to the other Member States is slow, with no visible consequences in terms of structural and functional compatibility of the agri-food system.

Romania is the 6th country in the U.E. as the size of the agricultural area, but without claiming agricultural power in terms of efficient use of natural resources.

The contradiction of Romanian agriculture consists in the fact that we have an extremely high potential, we occupy the leading places in the EU in the production of sunflower, in the production of corn and wheat, and in the last 5 years we have become the U.E. champions. for the export of cereals. With all these remarkable results at first sight, Romania imports more than half of its food needs.

By applying the questionnaire of the 162 respondents, it was possible to determine the degree of consumer knowledge about national and European quality schemes, thus identifying the food supply, the frequency with which they purchase certain foods, the frequency of purchase of certified products, the degree of information on quality schemes, the awareness of the composition of certain ingredients in food, the factors influencing the purchase of products, the degree of knowledge regarding food safety, the importance of food certification, but also how would be willing to pay extra for a certified product.

Among the characteristics that very often influence the decision to purchase products are quality, reliability, taste, smell, appearance, how healthy they are and the shelf life. Also, most of the respondents rarely take into account aspects such as: advertising, promotions, etiquette, control of a third party verifier, the existence of comparative studies related to the product, but also the existence of a QR code for access to information. Most of the respondents state that they encourage the consumption of local, regional, Romanian food products, rarely encouraging the consumption of imported food products, products of the social economy and from the short supply chain.

For most respondents, they consider that packaging, product certification, storage space, marketing space, how to obtain, traceability, hygiene conditions have an important role in terms of food safety.

Many countries in the European Union have noted the importance of product certification for both consumers and producers. The European databases DOOR and e-ambrosia indicate that PGI type certifications have a share of 51.78% of the total, followed by PDOs with 43.97%, and TSIs with 4.25%. Most product certifications are found in Italy 20.48%, France 17.12% and Spain 13%. The main products obtained in certification systems are fruits and vegetables, with a percentage of 26.78%, followed by cheeses, with a percentage of 16.85% and meat products with 13.49%. Italy and France also registered the most PDO and PGI products.

The sales value of certified products was, on average, twice as high as the sales value of similar products without any certification. The sales value multiplication coefficient amounted to 2.85 for wines, 2.52 for spirits and 1.5 for agri-food products. There is a clear economic advantage for producers in terms of marketing and sales growth, due to the outstanding quality and reputation of these products and the fact that, in order to obtain genuine products, consumers are willing to allocate higher spending budgets. Geographical indications represent 15.5% of total EU agri-food exports. Wines remained the most important products, both in terms of total sales value (51%)

and in terms of extra-EU trade (50%). The US, China and Singapore are the top destinations for GI products in the EU, accounting for half of the value of GI product exports.

With regard to dual quality, it is considered that a regulation applicable at European level, by which all products marketed in the single market are included in a European Register of Products Marketed in the European Market - EU DTP (EU database of trade products) could give a unique character to the product. The completion of the EU DTP should be done by self-declaration by the economic operator, who introduces the product on the EU market for the first time and should be required to contain the mandatory information on the product label according to Reg. (EU) 1169/2011.

The legislative proposal for the establishment of the Agency for the Quality and Marketing of Agri-Food Products aims to implement the model applied at European level and to achieve the following national objectives:

- increasing the number of products certified according to a quality system established at European level;
- the establishment by MADR of voluntary quality certification systems, recognized at European level;
- recognition by MADR of voluntary systems for the certification of the quality of agri-food products promoted by stakeholders (associations, LAGs, etc.) in accordance with relevant European legislation and guidelines;
- informing and promoting to the consumer the recognized voluntary quality schemes;
- elaboration and implementation of projects for the participation of quality certified products in national and European programs financed in full or in part;
- advising and guiding producers in the field of quality and marketing of quality agri-food products;
- elaboration of public policies in the field of quality agri-food products of certified quality

This paper highlights two legislative proposals for voluntary quality certification schemes such as:

- Certified quality
- Consecrated Recipe

The proposed schemes will generate a framework for product certification, which will become eligible for funding for their promotion through European funds. The proposed mechanisms aim to facilitate the completion of the notification phase at the European level. It was considered that the European legislation aimed at complying with general criteria on transparency and accessibility and it is not desired to analyse the certification reference specific to each scheme.

The "Guaranteed Quality Product" scheme proposes a simplified, transparent and efficient European mechanism for legitimate entities to multiply European good practices in the field of certification at the national level. Regarding the "Consecrated Recipe" scheme, it proposes an effective means of protecting the national heritage of the food sector represented by products that have a proven presence on the market for more than 30 years, ie a generation according to the European approach.

The form proposed for Measure 3 of the National Rural Development Program, aims through the first component Under Measure 3.1 to support farmers and groups of farmers to apply to quality schemes. The aid received after accessing this measure consists of a financial incentive

for a period of 5 years, which covers the costs of joining the quality scheme, annual fees, certification and inspections for conformity assessment. The second component of the measure, Under Measure 3.2, offers the possibility to finance certified products for marketing programs. Thus, the Romanian product of certified quality will be able to occupy higher positions in national and international retail. Consumers will understand from information programs the differences between quality products and other products in the category, thus influencing their purchasing decision.

By implementing and continuing the measures presented in the paper, Romania will be able to generate the framework for:

- creation and implementation of public policies on the quality of agri-food products;
- introduction of the concept of "certified quality" of agri-food products in support of consumer information financing programs and product promotion;
- development of a general framework for the certification of agri-food products according to a national quality scheme;
- generation of promotion tools for agri-food products certified according to a quality scheme;
- dissemination to producers and processors of information on the benefits of certification of agri-food products;
- informing consumers about the benefits of consuming agri-food products certified in accordance with quality schemes established at European and national level;
- establishing national strategic objectives that would lead to the change of Romania's status from an exporter of "European subsidy" to a major seller on the world market of value-added products;
- introduction in the definition of the quality of agri-food products and of the characteristics related to the production methods, the origin of the raw materials, the place of production and the history of the product;
- achieving the desire to make Romanian agri-food products both a reason for national pride and an engine of economic growth.

CHAPTER 9. OUTLOOK FOR CONTINUED RESEARCH

Food quality schemes have the role of promoting and protecting the names of products that have certain qualities in terms of their fabrication in certain geographical areas. These, after certification, can no longer be obtained in other areas (PDO, PGI) or with other recipes if they were manufactured by traditional methods or by using traditional ingredients (TSG).

According to the questionnaire applied in the thesis, the Romanian consumer is poorly informed when it comes to food quality schemes, which is why new solutions must be found to promote the importance of quality schemes. Knowing this, consumers will be able to distinguish a conventional product from a certified product and will understand the major difference between the two production systems.

In view of the fact that most of the respondents pay more attention to information about products and especially about their quality, it indicates the huge potential of quality agri-food products from the development perspective of the market.

Furthermore, research activities will focus on public policies to stimulate the sale of quality products. From the action plan we can mention:

- continuation of the policy for generating quality schemes (Quality meat - animal welfare, Clean label, Mociu Product, Made in Romania, etc.);
- development of a guide to quality public procurement, following the European model of green procurement, to encourage public authorities to give priority to quality products;
- Assuring the Minister of Agriculture and Rural Development, Adrian Oros, said on Monday, May 25, 2020, in a press conference that quality schemes are the way to promote Romanian products, "a smart way in which no one can charge and enter the infringement procedure".

The **most important recognition** of public contributions, offering a **real perspective to continue the efforts** on the quality of agri-food products was offered by the Minister of Agriculture and Rural Development, Adrian Oros, on **Monday, May 25, 2020**, in a press conference. He mentioned that quality schemes are **the way to promote Romanian products**, "a smart way in which no one can accuse you and enter the infringement procedure".

"In 13 years, the ministry of Romania through the ministry has not notified the European Commission of any quality scheme. At this time we have the Commission's approval for the traditional product as a national and European quality scheme. We also have **three more schemes** in the final stage of notification. quality, "said Adrian Oros.

The Minister of Agriculture specified that the quality schemes represent "the way to promote Romanian products, an **intelligent way** through which no one can accuse you and enter the infringement procedure." "This had to be done a long time ago. In addition to avoiding circumvention, you could access **money for promotion** if you promoted these national quality schemes. So we have a 'premium quality scheme', '**guaranteed quality scheme**' and '**prescription quality scheme**'. We have also started work on the 'local product quality scheme' and 'ethical product' in recent days. **We will speed up this process of validating these quality schemes**, recognizing them by the Commission so that they can we can **promote Romanian products** through these quality schemes on the one hand, on the other hand, to **access**

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European money for their promotion and not to enter into infringement proceedings ", explained the Minister of Agriculture.

CHAPTER 10. LIST OF PUBLISHED WORKS

A. Papers published in indexed journals Web of Science (Clarivate Analytics)

- Decebal-Ștefăniță Pădure, Petru Alexe, Nicoleta Stănciuc, Marius Mihai Micu (2019). The need for the voluntary quality certification schemes in food industry. A critical overview on dual-standard issue. *Scientific Papers Series "Management, Economic Engineering in Agriculture and Rural Development"*, Volume 19, Issue 3, ISSN 2284-7995;
- Decebal-Ștefăniță Pădure, Petru Alexe, Nicoleta Stănciuc, Marius Mihai Micu, Eduard Alexandru Dumitru (2019). The impact of religious traditions on consumer's behavior and food products' certification. *Scientific Papers Series "Management, Economic Engineering in Agriculture and Rural Development"*, Volume 19, Issue 3; ISSN 2284-7995.
- Decebal-Ștefăniță Pădure, Loredana Dumitrașcu, Petru Alexe, Nicoleta Stănciuc. Consumers' perception of national and European quality schemes. National measures generated for the promotion of Romanian products. Economic amphitheater. Under development.

B. Papers published in journals indexed in international databases

- Adriana Radu (Balaban), Petru Alexe, Decebal-Ștefăniță Pădure, Adriana Macri, Nastasia Belc (2018). Perception of Romanian Consumer on QR Code as an Extension of Nutrition Labelling. *Analele Universității "Dunărea de Jos" din Galați. Fascicula II, Matematică, fizică, mecanică teoretică*, Anul X(XLI), Nr.2, ISSN 2067-2071.

C. Participation in international events

- Augustin Octavin Mihalache, Gabriela Iordăchescu, Maricica Stoica, Loredana Dumitrașcu, Maria Dorina Pașca, Decebal-Ștefăniță Pădure (2017). Atitudes of Farmers – Meat Processors – Consumers Chain on Pig Surgical Castration Versus Entire Male Production or Imunocastration, *VIII International Scientific Agriculture Symposium "Agrosym 2017"*, p. 832.
- Nicoleta Stănciuc, Decebal-Ștefăniță Pădure (2017). Identical Package – Different Composition. Fraud or Lack of Morality. A Case Study, 8th International EuroAliment Symposium, oral presentation.

D. Participation in national events

- Decebal-Ștefăniță Pădure (2017). Think European, Eat Romanian! Romanian agri-food products quality certification scheme: the economic advantages of national food traditions recognition in European space, Conferința Școlilor Doctorale, SCDS UDJG, Universitatea Dunărea de Jos din Galați, p. 119.
- Decebal-Ștefăniță Pădure (2017). Dual quality of European food, ESE Seminar - "Labeling. Safety. Ethics, November 8-9, 2017, RoAliment.
- Decebal-Ștefăniță Pădure (2018). Promoting quality food, April 25-27, Meat Industry Conference.
- Decebal-Ștefăniță Pădure (2019). Measure 3 of the NRDP - Quality systems for agricultural and food products, 30-31 May, International Expo-Conference MEATMILK 2019 - Protecting the national interest in the globalization of the meat and dairy sectors.
- Decebal-Ștefăniță Pădure (2019). GLT: Quality and Marketing of Agri-Food Products, September 11-13.

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