

# **Development of organic wine production and its trends in EU countries and the Czech Republic**

**Diploma thesis**

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## **Abstract**

BERÁNKOVÁ, A. *Development of organic wine production and its trends in EU countries and the Czech Republic*. Diploma thesis. Brno: Mendel University, 2015.

The diploma thesis focuses on the assessment of the current situation in the industry of organic farming, particularly organic wine production in the Czech Republic and in the selected countries of the European Union. For the thesis, France, Italy and Spain are selected to be compared with the Czech Republic, due to the highest worldwide production of the organic wine in these countries. It compares the national and international environment of organic farming as well as of organic winemaking; compares political, economical, social, technological, legal and ecological factors. Further analyzed is competitive environment (by using of Porter's five forces model), industry life cycle, research on consumers of the industry (organic farming as well as organic winemaking) and information for customers. In the final part of results, SCOPE planning model summarizes the situation. The main goal of the thesis is to suggest changes and recommendations leading to improvements of the organic winemaker's position within the market of organic wine industry and organic industry in general. The main recommendations concentrate on enhancement of customer's awareness when it comes to the word "organic" and on bringing the organic wine closer to customers. The major event happened in 2012, when the legislation of the European Union passed new rules on labeling bottles containing wine made from organically grown grapes. From the 2012 harvest, organic growers are allowed to use the term "organic wine" on their labels. In 2012, total share of organic grape area to the conventional grape area in the Czech Republic was 6,1% and grew since 2004 by almost 20 times. French, Italian and Spanish proportion was approximately 2% higher respectively. The potential of the growth of consumption of organic wine in the Czech Republic is very high, but the foreknowledge and purchasing participation of customers on organic products in general is very low. Research on organic products has shown that only 20% of respondents were familiar with organic products. The same situation is represented by results of the research on organic wine, where 23% of conventional wine consumers have consumed organic wine at least once in their life. This is one of the reasons why it is necessary to use modern marketing tools to promote the organic wine and to increase the awareness. The popularity of organic wine is expected to grow steadily in future years.

**Keywords:** Organic farming, organic winemaking, organically cultivated land, winemaking, PESTLE analysis, competitive analysis, situational analysis, SCOPE planning model

## Abstrakt

BERÁNKOVÁ, A. *Rozvoj ekologické produkce vína a vývoj v zemích Evropské unie a v České republice*. Diplomová práce. Brno: Mendelova univerzita, 2015.

Diplomová práce se zaměřuje na hodnocení současné situace v odvětví ekologického zemědělství, zejména ekologické produkce vína v České republice a ve vybraných zemích Evropské unie. Pro porovnání s Českou republikou jsou vybrány země s největší celosvětovou produkcí ekologického vína. Těmito zeměmi jsou Francie, Itálie a Španělsko. Práce srovnává národní a mezinárodní prostředí ekologického zemědělství stejně tak jako ekologického vinařství; porovnává politické, ekonomické, sociální, technologické, právní a ekologické faktory. Dále práce analyzuje konkurenční prostředí (pomocí Porterova modelu pěti sil), životní cyklus odvětví, zákaznickou znalost odvětví (jak ekologického zemědělství, tak i ekologického vinařství) a situační analýzu. Hlavním cílem této práce je navrhnout změny a doporučení vedoucí ke zlepšení postavení ekologického vinaře v odvětví ekologického farmaření, zvláště pak v odvětví ekologického vinařství. Hlavní doporučení se zaměřují na zlepšení znalostí zákazníka ohledně ekologického farmaření a ekologického vinařství a také na přiblížení ekologického vína blíže ke spotřebiteli. Významná událost pro ekologické vinohradnictví se stala v roce 2012, kdy byla schválena legislativou Evropské unie nová pravidla pro označování lahví obsahujících víno z ekologicky pěstovaných hroznů. Od sklizně v roce 2012 mohou pěstitelé používat termín „biovíno“ na etiketách lahví. Celkový podíl ekologických vinic České republiky činil v roce 2012 6,1% z celkové plochy vinic a vzrostl od roku 2004 téměř dvacetinásobně. Ve Francii, Itálii i ve Španělsku byl podíl o přibližně 2% vyšší. Potenciál růstu konzumace ekologického vína v České republice je velmi vysoký, ale informovanost a účast zákazníků na nákupu ekologických produktů je obecně velmi nízká. Výzkum na ekologické produkty prokázal, že pouze 20% z dotazovaných byli obeznámeni s produkty ekologického zemědělství. Stejná situace je reprezentována výsledky výzkumu o ekologickém víně, kde 23% spotřebitelů konvenčního vína alespoň jednou v životě konzumovalo ekologické víno. To je jeden z důvodů, proč je nutné klást důraz na moderní marketingovou podporu ekologického vína a zvýšit povědomí. Očekává se i nadále, že popularita biovína bude v budoucích letech stabilně růst.

**Klíčová slova:** Ekologické farmaření, ekologická výroba vína, ekologicky obdělávané země, vinařství, PESTLE analýza, konkurenční analýza, situační analýza, plánovací model SCOPE



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# 1 Introduction

At these days, more and more people want their food to be different. Most of the consumers have probably heard a friend or somebody around to mention the food products, which are “organic”, which is produced with minimal human impact on the environment and through an agricultural system, which operates as naturally as possible.

Certainly for some, organic has become a way of living. Some people see these products as being tastier or healthier than those coming from conventional agriculture while others appreciate them because of the good practices towards the environment or the labor force employed on organic farms. Customers have seen new organic shops open or old ones remaining in business even through the economic crisis, which would hint at an increasing demand for these products.

The organic sector has been rapidly developing during the past years. From very modest beginnings in the first half of the last century, organic farming has grown dramatically in importance and influence worldwide. A few statistics tell part of the story: from almost negligible organic acreage until the 1980s, the amount of organically cultivated area worldwide has grown through 31,5 million hectares in 2007 to 37,5 million hectares in 2012 (Willer and Lernoud, 2014). The worldwide distribution of the organically cultivated area on the continents is following:

- Oceania – 32 % (12,2 million hectares);
- Europe – 30 % (11,2 million hectares);
- Latin America – 18 % (6,8 million hectares);
- Asia – 9% (3,2 million hectares);
- North America – 8 % (3 million hectares);
- Africa – 3 % (1,1 million hectares).

When it comes to the Czech Republic, it belongs to the top ten countries with the highest percentage of organically cultivated lands. Since 2006 until 2012, the percentage of organically cultivated lands in the Czech Republic grew from 6,62 % to 11,5 %, which is pretty impressive.

Moving on to the organic winemaking, the trend is pretty much the same. Since 2004, when data on land use and crops were collected for the first time, until 2012, the organic grape area has more than tripled. However, some of the increase must be attributed to continually improving availability of crop data. Among the countries with the highest production of organic grapes belongs:

- Spain – 81 262 hectares;
- France- 64 800 hectares;

- Italy – 57347 hectares.

When talking about organic winemaking in the EU, major event happened in 2012 (more information in subchapter 4.4.2.1 Organic Winemaking in the EU). Until 2012, there was not a clear description of the “organic wine”, only known product was “wine made from organic grapes”. This is the reason why in the statistics, data from the “organic grapes” are being used instead of the “organic wine”.

In my diploma thesis, I would like to focus on the assessment of the current situation in the industry of organic farming, particularly organic wine production in the Czech Republic and in the selected countries of the European Union. For the thesis, France, Italy and Spain is selected to be compared with the Czech Republic, due to the highest worldwide production of the organic wine in these countries. After the industry analysis, I would like to suggest changes and recommendations leading to improvements of the organic winemaker’s position within the market of organic wine industry and organic industry in general.



## 2 Objective

The main objective of this diploma thesis is to provide suggestions and recommendations for potential new entrants as well as for already existing producers in the organic wine sector, in order to increase efficiency of this sector in the Czech Republic.

The partial objectives:

- The assessment of the situation of the organic farming in the Czech Republic and in the selected EU countries.
- The assessment of the situation of the organic winemaking in the Czech Republic and in the selected EU countries.
- The identification of the key factors influencing the organic winemaking industry from the external environment in the Czech Republic and in the selected EU countries.
- The characteristics of the competitive environment within the organic winemaking in the Czech Republic.
- The assessment of the customer's awareness of organic farming and organic winemaking in the Czech Republic.

This work suggests changes and recommendations to the Czech organic winemakers and Czech organic farmers in general based on achieved results in the selected EU countries (France, Italy, Spain), where high quality of production is linked to better customer awareness in organic sector and higher popularity.

### 3 Methodology

At the beginning of the practical part, organic farming and organic winemaking is defined in the connection with the EU law and also the benefits and drawbacks of organic winemaking are described. Further text covers statistical comparison within the organic farming and organic winegrowing and its trends in the world-wide and European context.

Another part of the thesis examines the wine market situation (also the organic wine market situation) and its trends. Data of production, consumption and trade in the Czech Republic and selected EU countries (France, Italy and Spain) are collected and compared in this part of the thesis.

After the defined market situation, PESTLE analysis of the organic winemaking industry is conducted. Each subchapter of the PESTLE analysis (political & legal factors, economic factors, social factors, technological factors and ecological factors) is separated into two subchapters (the situation in the Czech Republic and the situation in France, Italy and Spain). This part of the thesis examines the situation of the organic wine industry in selected countries, compares their situation with the Czech market and points out the differences in specific fields.

After the PESTLE is concluded, competitive environment of the company is defined using Porter's five forces (threat of new entrants, rivalry among firms in an industry, bargaining power of buyers, bargaining power of suppliers, threat of substitute products).

Following two chapters are dedicated to collected data from questionnaires dealing with the research on customers in the field of organic farming and organic winemaking.

Right after these two chapters presenting results from questionnaires, chapter dealing with information for Czech consumers about organic wine is presented.

As the evaluation of the practical part, modified SCOPE planning model for the industry is gathered (this model was slightly modified and applied to the whole industry using external factors of the situational analysis; the model was principally elaborated based on PESTLE analysis and competitive analysis of the industry).

Finally, possible recommendations in the industry are presented to strengthen the position of the industry at the market (to gain the competitive advantage) and to eliminate negative effects.

For the elaboration of this thesis, secondary data were used as well as primary data. The secondary data were mainly obtained from the Internet sources (statistical web pages: Eurostat, Faostat, CSO, etc.; EU web pages: Europa; web pages dealing with organic farming in selected countries, etc.), from the yearbooks of selected countries and also from the selected organic winemakers. However, these data did not prove to be sufficient in the description of customer's perception and approach to the analyzed industry; therefore, primary data had to be collected from potential

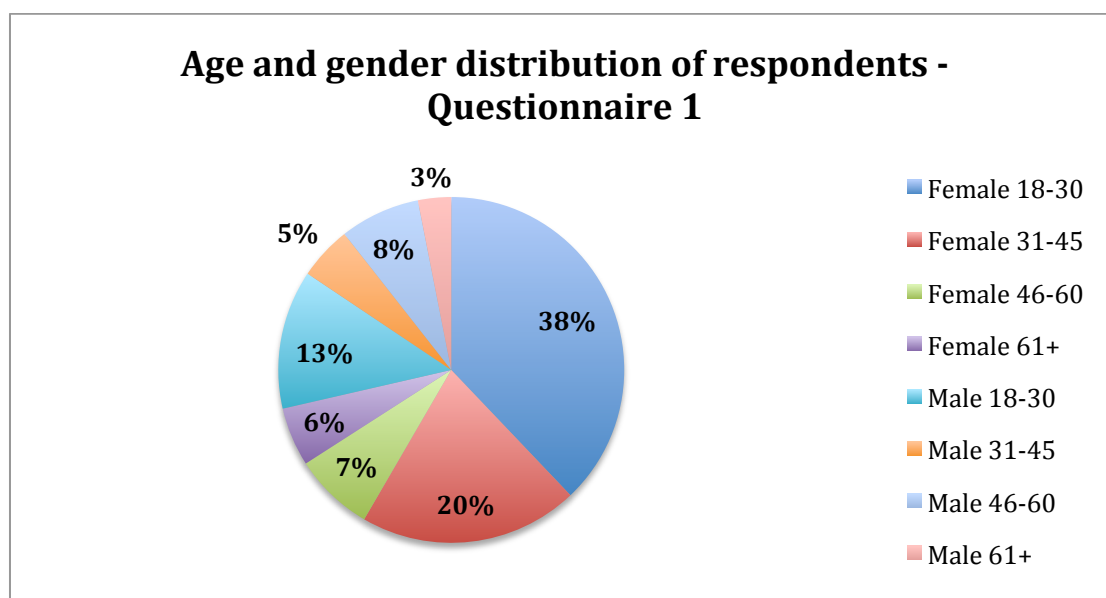
consumers as well. These data were collected through the market research in a form of questionnaires. This form was chosen to record consumer's awareness, knowledge and buying decisions in the field of organic farming and organic wine-making to be able to provide suggestions and recommendations for potential new entrants as well as for already existing producers at the Czech market.

There were two questionnaires distributed. First questionnaire (can be found in Appendix D) was dealing with organic farming in general. At the first, this questionnaire also included questions on organic wine, but the sample of respondents was not sufficient enough and the results were not satisfactory (only 27 respondents out of 161 have heard about organic wine, which is insufficient sample; that is the reason, why questions about organic wine had to be eliminated from the questionnaire). For this reason second questionnaire had to be created and distributed to the different target market.

First questionnaire took place at the beginning of November 2014. Firstly, the face-to-face method was used to conclude the data in the place of the wellness center Infit Lesná, but due to the high time consumption, also online questionnaire was applied. In the case of face-to-face method, respondents asked many questions and from the "5 minutes questionnaire" it moved to the "30 minutes discussion". The place of collection data was carefully selected to address correctly consumers, who are interested in healthy lifestyle, but it was found out that this method of collection is impossible to be done. Online questionnaire was then spread to all age groups to gain the general image of Czech buyers. In the case of online questionnaire, Google documents were used to collect data. Questionnaire's final version consists of 14 questions, where 2 questions were multiple-choice (maximum of 3 answers) and the rest were one-answer questions. First five questions in the questionnaire were identification information (describing the respondent).

At the first, the questionnaire had to be tested to find out whether people would be able to understand to all of the questions (the questionnaire was distributed in the Czech language). There was a slight problem with the word "organic", which had to be changed to "bio" to be more understandable (Czech consumers are more familiar with the word "bio" than with "organic"). After all of the adjustments, questionnaires were distributed to consumers.

Questionnaire was filled by the sample of 161 consumers, where the age and gender groups are described in the Figure 1.



**Figure 1:** Age and gender distribution of respondents – Questionnaire 1

Source: Own elaboration based on question N.1 and N.2; Appendix D - Questionnaire on organic products

According to the given data, it is clear that more than 70 % of respondents are females. According to CVVM (2003) in the common households females shop more for food than males. It means that the most important segment to attract when it comes to grocery shopping is the segment of women, because they are potential buyers. Due to this fact, it could be also expected that women know more information about products in general than man (chi-square test, which tests dependency of gender and knowledge of organic products, is concluded in the further text). This topic is discussed in the chapter 7 – Discussion.

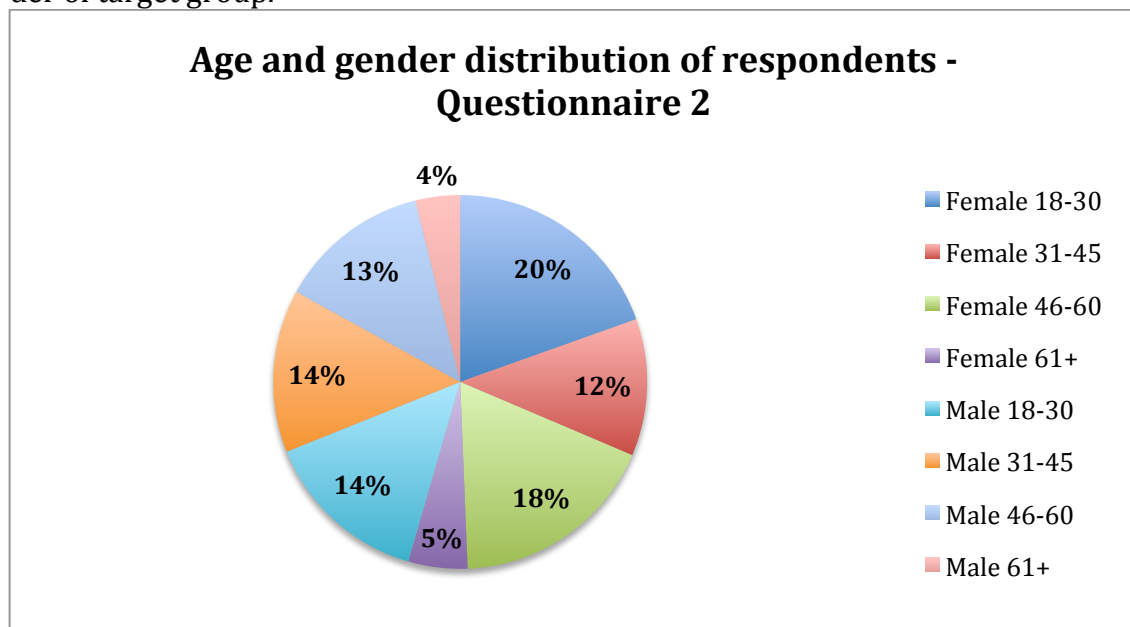
Considering the education, the vast majority of respondents (86,9%) have secondary education with leaving examination or higher. The goal of the questionnaire in the case of target group was to reach conventional consumers with some kind of education, which was reached. The average net wage of respondents was between 13 000 CZK and 18 000 CZK and almost half of the respondents live in the towns with more than 100 000 inhabitants (due to the fact that the questionnaire was gathered in Brno). The possibility to get in touch with organic products in larger cities is higher, due to the greater number of grocery stores and places selling organic products.

The second questionnaire (can be found in Appendix E) was dealing with organic wine. This questionnaire was gathered to satisfy the objectives considering organic wine and to highlight the added value of the thesis. Questionnaire number two took place during the March and April 2015. The method and the place of collection were selected very carefully, to aim wine consumers. Questionnaires in the paper form were distributed to the wine shops, wine bars and wineries in Brno.

The sample of these respondents cannot represent the behavior of consumers within the whole Czech Republic, but due to the fact that Brno is the second largest city in the Czech Republic, it can give the basic essentials and it also is a great starting point.

Wine consumers were asked to fill very brief questionnaire (8 questions), where 2 questions were identification questions. Questionnaire consists of 3 multiple-choice questions (in two cases – max. 3 answers; in one case – as many answers as possible) and 5 one-answer questions.

Questionnaire on organic wine was distributed to 312 wine consumers and was identifying their awareness of organic wine. Figure 2 defines the age and gender of target group.



**Figure 2:** Age and gender distribution of respondents – Questionnaire 2

Source: Own elaboration based on question N.7 and N.8; Appendix E - Questionnaire on organic wine

When it comes to the Czech Republic, it has to be considered that the age limit to legally drink alcohol is 18 and that is the reason why lower respondents were not even considered.

## 4 Literature survey

### 4.1 Strategic management

Before starting to explain the whole term “strategic management” altogether, it is necessary to look at both words “strategic” and “management” separately in order to be able to understand it correctly.

Horáková (2003) states that the word strategy has its origin in Greek and is created from two words *stratos* – meaning army and *ago* – which is the ancient Greek for leading, guiding or moving. It simply means art of the leader or commandant and the ability to lead the fight. When talking about business, it is very important to be a great leader as well as during the ancient wars, otherwise it would lead to the loss of the competitive advantage, which is important element in the strategic management.

Strategy is understood as a particular scheme, project or direction of a process, which shows, how to achieve determined goals in the specific conditions (Bednarčík, 2007). Hanzelková (2009) adds, these determined goals should be firm’s long-term goals and also the strategy should minimize competitive disadvantage and maximize competitive advantage. The ultimate purpose of the strategy is to find a proper coordination of all activities of the enterprise and to create a single, indivisible unit of its other perspectives (Horáková, 2003).

As it was already mentioned, the use of strategy has existed for many centuries although its use in management has a more recent history, dating back about 40 years. Strategy was born out of military conflicts and the use of superior strategy enabled one warring party to defeat another (Henry, 2008). Von Clausewitz (1982), writing in the nineteenth century, states that the decision to wage war ought to be rational, that is, based on estimates of what can be gained and the costs incurred by the war. War should also be instrumental that is waged to achieve some specific goal, never for its own sake.

Sun Tzu<sup>1</sup>, the Chinese philosopher and insightful military strategist, described strategy in *The Art of War*: “The one who figures on victory at headquarters before even doing battle is the one who has the most strategic factors on his side. The one who figures on inability to prevail at headquarters before doing battle is the one with the least strategic factors on his side... Observing the matter in this way, I can see who will win and who will lose.” It might look like it is only described the military way, but this also applies to management of the company. As Sun Tzu notes, battles are often won in the mind long before enemy forces engage. In the modern business arena organizations are increasingly aware of the benefits of corporation as well as competition.

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<sup>1</sup> In Henry, Anthony. *Understanding strategic management*. New York: Oxford Press, 2008,xxv.

According to Johnson (2008) strategy is the direction and scope of an organization over the long term, which achieves advantage in a changing environment through its configuration of resources and competences with the aim of fulfilling stakeholder expectations. He also further talks about the characteristics of strategic decisions. According to him the words “strategy” and “strategic decisions” are typically associated with issues like these:

- The *long-term direction* of an organization – strategic change requires marathon not a sprint.
- The *scope of an organization's activities* – should the company concentrate on one area of activity, or should it have many?
- *Advantage* for the organization over competition.
- *Strategic fit with the business environment* – organizations need appropriate positioning in their environment (meeting clearly identified market needs).
- *The organization's resources and competences* – exploiting the strategic capability of an organization, in terms of its resources and competences, to provide competitive advantage and/or yield new opportunities.

Henry (2008) draws out new term for us, which is closely related to the meaning of strategy. There is agreement that the role of strategy is to achieve *competitive advantage* for an organization. Competitive advantage may usefully be thought of as that which allows and organization to meet customers' needs better than its rivals. Its source may derive from a number of factors including its products or services, its culture, its technological know-how, and its processes. To be sustainable, however, the competitive advantage must be difficult for competitors to imitate. As Henderson (1989) smartly points out, “Your most dangerous competitors are those that are most like you. The difference between you and your competitors are the basis of your advantage”.

In an article named “What is strategy” by Porter (HBR's 10 must reads on strategy, 2008) he states that competitive strategy is about being different. It means deliberately choosing a different set of activities to deliver a unique mix of value”. Markides<sup>2</sup> argues that the essence of strategy is for an organization to select one strategic position that it can claim as its own. A strategic position represents a company's answers to the following questions.

- **Who** should the company target as customers?
- **What** products or services should the company offer the targeted customers?
- **How** can the company do this efficiently?

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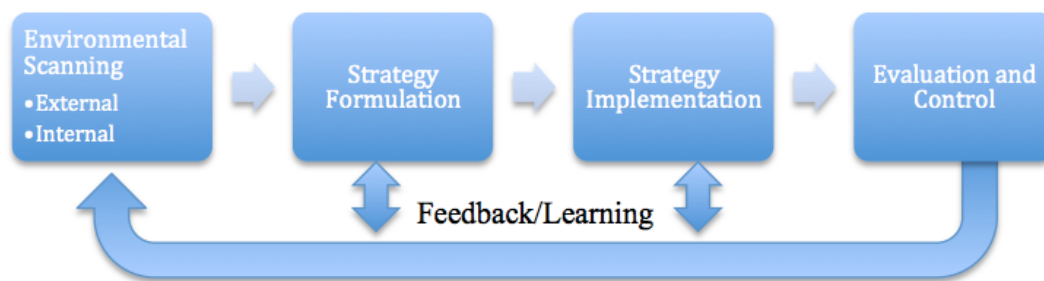
<sup>2</sup> In Henry, Anthony. Understanding strategic management. New York: Oxford Press, 2008,xxv.

In this way a company can achieve success by choosing a strategic position, which differs from the competitors in its industry. Kay<sup>3</sup> sees a strategy of an organization as “...the match between its internal capabilities and its external relationships”, i.e. the match between what an organization is particularly capable of doing and its relationships with its stakeholders: employees, customers, shareholders, and suppliers. Strategy is about the firm using analytical techniques to help it understand, and therefore influence, its position in the market.

Bělohávek (2006) describes strategic management very clearly. The role of the strategic management is to help an organization to maintain or gain a strategic competitive advantage and determine and also achieve in the specific time long-term goals. Bělohávek (2006) further describes term strategic planning. He describes strategic planning as a process, which formulates long-term strategic goals and strategies of the whole company to make full use of current resources of the company with opportunities on the market. The aim is to reduce the risk of potential errors and bring the organization into a situation that may foresee changes, reply to them, also induce changes and use them to ones advantage. During the process of strategic planning it is necessary to make decisions, which will put the company in better competitive position than the company is at the moment.

According to Fleisher (2003) strategic management is a way of conducting the organization that has as its ultimate objective the development of values, managerial capabilities, organizational responsibilities, and administrative systems that link strategic and operational decision making, at all hierarchical levels, and across all lines of authority.

Hunger (2004) explains strategic management as a set of managerial decisions and actions that determines the long-run performance of a corporation. It includes environmental scanning (both external and internal), strategy formulation (strategic or long-range planning), strategy implementation, and evaluation and control. An illustration of this concept is presented in Figure 3.



**Figure 3:** Basic Concepts of Strategic Management

Source: Hunger, Thomas L. Wheelen; J. David. *Strategic management and business policy*. 9. ed., Upper Saddle River, NJ [u.a.]: Pearson Prentice Hall, 2004

<sup>3</sup> In Henry, Anthony. *Understanding strategic management*. New York: Oxford Press, 2008, xxv.



Henry (2008) describes strategic management very similarly as Hunger. He states that if a strategy allows an organization to match its resources and capabilities to the needs of the external environment in order to achieve competitive advantage, the process of bringing about the strategy is strategic management. All organizations set goals they want to achieve. Strategic management is about analyzing the situation facing the firm, and on the basis of this analysis formulating a strategy and finally implementing that strategy (Henry, 2008). As it can be seen Henry's first step is described as analysis of the situation, which matches to environmental scanning by Hunger. Second step is named equally – strategy formulation and the third step according to Henry and Hunger is strategy implementation. Hunger smartly adds another step called evaluation and control. During the whole process feedback and learning is necessary to be done (described by Hunger). Henry (2008) continues that the end result is for the organization to achieve competitive advantage over its rivals in the industry. A point worth noting is that these elements are codependent, i.e. in formulating a strategy an organization must also consider how that strategy will be implemented. Failure to consider these issues in tandem will decrease the likelihood of success. These particular steps are explained more closely below (Henry, 2008):

1. **Strategy Analysis** – also referred to as situation analysis. Useful starting point in the strategic management process. It involves an analysis of the general environment and the competitive environment. Strategy analysis also deals with the organization's internal environment. It allows the organization evaluate how well it is positioned to exploit the opportunities in its external environment.
2. **Strategy Formulation** – Markides<sup>4</sup> argues that “effective strategic design is a process of continuously asking questions...correctly formulating the questions is often more important than finding a solution.” Ohmae<sup>5</sup> makes a similar point. He states that a vital part of strategic thinking is to formulate questions in a way that will help find a solution. A key part of strategy formulation is strategy evaluation, which recognizes that an organization is seldom faced with one strategy, but requires a criterion to judge competing strategies.
3. **Strategy Implementation** – effective implementation of strategies requires the organization to be sufficiently flexible in its organizational structure and design. Strategies need to be communicated, understood, and properly coordinated with stakeholders inside and outside the organization.

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<sup>4</sup> In Henry, Anthony. Understanding strategic management. New York: Oxford Press, 2008,xxv.

<sup>5</sup> In Henry, Anthony. Understanding strategic management. New York: Oxford Press, 2008,xxv.

Hunger (2004) adds that the typical business firm usually considers three types of strategy: corporate, business, and functional. These strategies are described below:

- **Corporate strategy** describes a company's overall direction in terms of its general attitude toward growth and the management of its various businesses and product lines.
- **Business strategy** usually occurs at the business unit or product level, and it emphasizes improvement of the competitive position of a corporation's products or services in the specific industry or market segment served by that business unit.
- **Functional strategy** is the approach taken by a functional area to achieve corporate and business unit objectives and strategies by maximizing resource productivity.

### **Benefits of strategic management**

As Hunger (2004) mentions, research has revealed that organizations that engage in strategic management generally outperform those that do not. The attainment of an appropriate match or "fit" between an organization's environment and its strategy, structure, and processes has positive effects on the organization's performance. According to survey of nearly 50 corporations in variety of countries and industries the three most highly rated benefits of strategic management are:

- Clearer sense of strategic vision for the firm;
- Sharper focus on what is strategically important;
- Improved understanding of a rapidly changing environment.

Strategic management and creating strategies is very helpful and it keeps the company on a track.

#### **4.1.1 Mission, vision, values, objectives and goals**

Hunger (2004) describes that a strategy of a corporation forms a comprehensive master plan stating how the corporation will achieve its mission and objectives. He adds that it maximizes competitive advantage and minimizes competitive disadvantage. To be able to understand this description (and many others already defined above) it is necessary to explain basic terms.

The first component of the strategic management is crafting the organizations **mission statement**, which provides the framework or context within which strategies are formulated. A mission statement has four main components: a statement of the reason for existence of a company or organization, which is normally referred to as the *mission*; a statement of some desired state, usually referred to as

the *vision*; a statement of the *key values* that the organization is committed to; and a statement of *major goals* (Hill and Jones, 2010).

Easily explained, an organization's **mission** is the purpose or reason for the organization's existence. It tells what the company is providing to society, either a service or product. The mission promotes a sense of shared expectations in employees and communicates a public image to important stakeholder groups in the company's task environment (Hunger, 2004).

**Vision** is often associated with the founder of an organization and represents a desired state, which the organization aspires to achieve in the future. A vision does not change over the time and must tap into the personal goals and values of the organization's employees if it is to be internalized by them (Henry, 2008). The difference between mission and vision statement is that a vision statement is only for the leader and the members of the company, not for customers or clients as it is mission statement (Hill and Jones, 2010).

In the quest for what makes a visionary organization, Collins and Porras<sup>6</sup> describe a **core ideology**, which is made up of **core values** and purpose. The core values are an organization's essential and enduring tenets, which will not be compromised for financial expediency and short-term gains. They do not shift as competitive conditions change but remain largely inviolate. When it comes to Tocquigny (2012), he sees core values as tenets by which a company, community, or family operates. IBM's former chief executive officer, Thomas J. Watson Jr<sup>7</sup>, put it this way:

"...Beliefs must always come before policies, practices, and goals."

**Objectives** are the end results of planned activity. They state what is to be accomplished by when and should be quantified if possible. The achievement of corporate objectives should result in the fulfillment of a corporation's mission. In effect, this is what society gives back to the corporation when the corporation does a good job of fulfilling its mission. The term "**goal**" is often used interchangeably with the term "objective". In contrast to an objective, goal can be considered as an open-ended statement of what one wants to accomplish with no qualification of what is to be achieved and no time criteria for completion (Hunger, 2004).

On the other hand, Keřkovský (2008) more likely combines goals and objectives together and takes it as one term. In this case Czech language might be the explanation (Czech language has one word for objective as well as for goal). He states that the main concept of the strategy is closely linked with the goals, which company tracks. It can be said that goals are desirable future states, which should be achieved. Strategies are the basic ideas of the way by which should be the company's goals achieved. In the English professional literature it is recommended to define goals to be SMART (each letter expresses desired features of goals):

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<sup>6</sup> In Henry, Anthony. Understanding strategic management. New York: Oxford Press, 2008,xxv.

<sup>7</sup> In Henry, Anthony. Understanding strategic management. New York: Oxford Press, 2008,xxv

- **S** – stands for “specific” - to set a specific goal six “Ws” should be answered (who, what, where, when, which, why).
- **M** – stands for “measurable” - concrete criteria towards the attainment of the progress of goal should be measurable.
- **A** – stands for the word “attainable” - attain the goal step by step.
- **R** – “realistic” – the ability to attain the goal.
- **T** – “timely” – grounded within a time frame.

## 4.2 Strategic Analysis

Strategic planning consists of finding answers to questions such as “Where is our organization now?”, “Where are we going?”, “Where do we want to be?” and “How to get there?”. Strategic analysis should give us answer at least for the first question. However, to be able to determine where to go and how to get there, we need to try to predict future development (Keřkovský, 2002).

According to Hunger (2004), before an organization can begin strategy formulation, it must scan the external environment to identify possible opportunities and threats and its internal environment for strengths and weaknesses. **Environmental scanning** (strategic analysis) is the monitoring, evaluating, and disseminating of information from the external and internal environments to key people within the corporation. A corporation uses this tool to avoid strategic surprise and to ensure its long-term health. Research has found a positive relationship between environmental scanning and profits.

### 4.2.1 General Environment (External Environment)

The external environment facing the organization consists of both a general environment and a competitive environment (the relationship between these two is explained in Figure 4). The competitive environment consists of the industry and markets in which an organization competes (competitive environment will be described further in the text – subchapter 4.2.2). The General environment (sometimes also referred to as macro-environment) is very important to an organization. This is because changes that take place in the general environment may point to trends that can substantially impact upon an organization’s competitive environment (Henry, 2008). Fleisher (2003) sees general environment as a level of an organization’s environment that is broad in scope and has long-term implications for managers, firms, and strategies. These are usually understood to be beyond the direct influence or primary control of any single organization.



**Figure 4:** The organization and its external environment

Source: Henry, Anthony. *Understanding strategic management*. New York: Oxford Press, 2008,xxv.

\* Legal and Environmental drivers are presented by Fleisher (2003)

Ginter and Duncan<sup>8</sup> argue that macro-environmental analysis can act as an early warning system by giving organizations time to anticipate opportunities and threats and develop appropriate responses. Henry (2008) sums up that the aim of macro-environmental analysis is to aid the organization in discerning trends in the general environment, which might impact upon its industry and markets. The organization is then able to formulate a strategy and use its internal resources and capabilities to position itself to exploit opportunities as they arise. At the same time the strategy will be acting to mitigate the effects of any threats.

#### 4.2.1.1 PESTLE Analysis

A useful tool when scanning the general environment is PEST analysis. This refers to political, economic, social, and technological factors. It is worth noting that some commentators include legal and environmental (ecological) factors separately, preferring to extend acronym to PESTLE. When using only PEST acronym, legal element is usually subsumed within the political factor and the use of the last E (environmental/Ecological factor) is often meant to signify the effects of our lifestyles on our environment, so it can be captured within the social factor, or indeed within all four factors. Therefore it is not important whether it is used PEST (or STEP), STEEP or PESTLE, but it is necessary to understand the basic idea (Henry, 2008).

<sup>8</sup> In Henry, Anthony. *Understanding strategic management*. New York: Oxford Press, 2008,xxv.

PEST analysis is very useful tool to help the organization detect and monitor weak signals in the hope of recognizing the discontinuities or fractures shaping the environment. It provides a link between the general and competitive environments, where weak signals in the general environment can become key forces for change in the competitive environment (Henry, 2008, p. 53). According to the fact that the PEST analysis is external analysis, it can bring out opportunities and threats of SWOT analysis (SWOT analysis will be described in subchapter 4.3.1).

The 6 PESTLE sectors are described in greater detail below (Fleisher, 2003):

- **Political/Legal** – The political component of the general environment relates to government and public attitudes towards various industries, lobbying efforts by interest groups, the regulatory climate, platforms of political parties, and predisposition of politicians. The legal component of the general environment consists of laws that members of society are expected to follow. In most nation-states, many legal constraints in the form of public policies and regulations affect and organization's discretionary ability to act.
- **Economic** – The economic component of the general environment indicates the distribution and uses of resources within an entire society. It is important because consumption patterns are largely influenced by economic trends such as balance of payment issues, employment rates, exchange rates, interest rates, inflation rates, credit availability, fiscal and monetary policies, debt, spending patterns, and levels of disposable income. Of prime importance to the analytical task are the identification, monitoring, and forecasting of those economic variables to which the company's strategic competitive efforts are most sensitive.
- **Social** – The social component of the general environment describes characteristics of the societal context in which the organization exists. Demographics, cultural attitudes, literacy rates, education levels, customs, beliefs, values, lifestyles, the age distribution, the geographic distribution, and the mobility of the population all contribute to the social component of the general environment. The pace of change in this sector can often be slow, but its effects are commonly both inexorable and profound.
- **Technological** – Digital communication, biotechnology, chemicals, energy, and medicine are only a few of the fields in which major technological changes have opened new areas to commercial competition. The technological component of the general environment is compounded by the impact of science and technology in product and process innovation as well.
- **Ecological** – The ecological environment encompasses both the physical and biological environments within which organizations interact. The so-called "greening" of the environment points to the power that this sector can now exert on organizational performance. Aspects of the ecological environment

include global climate (e.g., effects of greenhouse gases), sustainable development (e.g., forest practices and production), cradle-to-grave product life cycles, recycling, pollution, and biotechnological advances (e.g., genetic advances in agricultural products).

#### 4C Analysis

When examining the effects of environment it is necessary to take into consideration increasing importance of globalization. Even when focusing on regional market companies cannot avoid effects of globalization, nor competition with national companies. Vice versa, companies operating globally should take into account specific conditions in regions where it operates. So-called globalization = “think globally, act locally”.

To analyze globalization trends and also local conditions, method of 4C may be used:

- **Customers** in some sectors (in different markets), begin increasingly express similar consumer taste. However in others, specific customer preferences remain. Knowledge of such situations enables globally enterprising companies to choose either unified global approach or local differentiated approach.
- **Country (national specific features)** can be manifested in tariff barriers, protectionist policies, different standards, different cultural norms etc. On the other hand, it is presented as a global trade leader.
- **Costs** of production and marketing create pressure on performance and standardization, and their financial advantage is reflected in the global scope. Exchange rates or differences in the cost of labor then bring savings when operated in some countries.
- **Competitors** are increasingly more global and they also put pressure on regional society. These in turn can (with the regard to national specific features) successfully resist global strategies (Bělohlávek, 2006).

#### 4.2.2 The Competitive Environment (External Environment)

The external environment facing the organization consists of general environment (discussed in the subchapter 4.2.1) and a competitive environment. Any changes that occur in the general environment have the potential to impact upon an organization’s competitive environment. Therefore it is important that organizations scan and monitor their general environment to discern weak signals that have the ability to affect or fundamentally change the industry within which they compete (Henry, 2008).

Henry (2008) further states that it is widely accepted that the nature of competition in an industry is more directly influenced by developments taking place in

the competitive environment. He continues that this is not to suggest that the general environment is unimportant but that its impact is often less obvious than events taking place in the competitive environment.

According to Hunger (2004) an industry is a group of firms producing similar products or services. An examination of important stakeholder groups, such as suppliers and customers, in a particular corporation's task environment is a part of industry analysis.

Fleisher (2003) describes industry analysis as that it provides a structural analysis and outline of an industry – its participants and characteristics. The objective of this process is to identify the profit potential of an industry; uncover the forces that would harm profitability; driving the profit potential; protect competitive advantage by defending against the forces that would harm profitability; extend competitive advantage by favorably influencing these forces; and proactively anticipate changes in industry structure.

There are many other authors who can present different descriptions of the competitive environment, but at the end, they all come to the name of Michael Porter – the famous author of the industry analysis called *five forces model*.

#### **4.2.2.1 Porter's Five Forces**

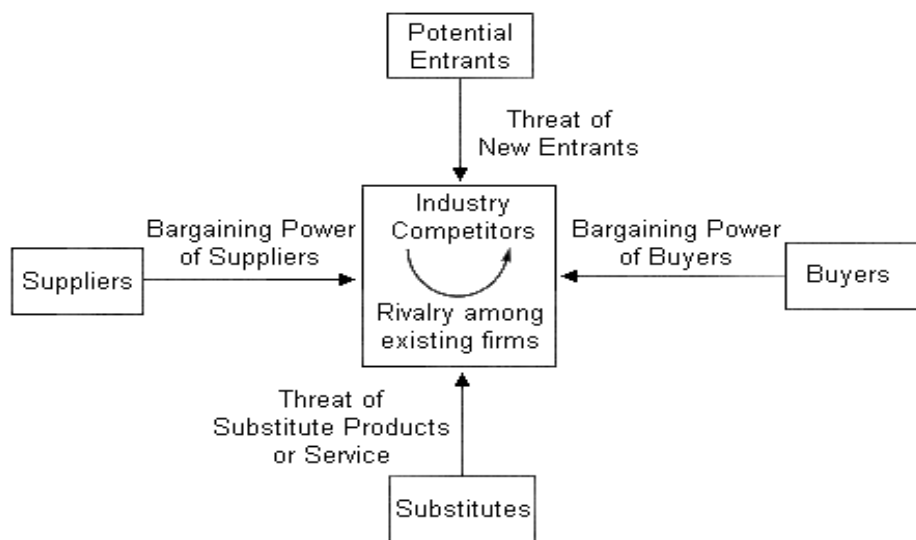
Michael Porter, an authority on competitive strategy, contends that a corporation is most concerned with the intensity of competition within its industry (Hunger, 2004).

The purpose of the *Five Forces* model is to analyze major economic and technological forces that will influence an industry's profit potential. Identifying the profit potential (i.e., attractiveness) of an industry provides the foundation for bridging the strategic gap between the firm's external environment and its resources (Fleisher, 2003).

Henry (2008) defines the five forces framework as an analytical tool for assessing the competitive environment. It enables an organization to determine the attractiveness or profit potential of a particular industry by examining the interaction of five competitive forces. It is the combined strength of these five forces, which will ultimately determine an organization's return on investment or the potential for profits within a given industry. The five forces are (1) *threat of new entrants*, (2) *intensity of rivalry among firms in an industry*, (3) *bargaining power of buyers*, (4) *bargaining power of suppliers*, and (5) *threat of substitute products or services*. By examining all five competitive forces an organization is able to assess its ability to compete effectively in an industry.

Porter's famous five forces framework is presented in Figure 5 (Hill and Jones, 2010).





**Figure 5:** Porter's Five Competitive Forces Model

Source: Hill, Charles W. and Jones, Gareth R. Strategic management theory: an integrated approach, 9th ed. Mason, OH: South-Western/Cengage Learning, 2010.

Porter<sup>9</sup> argues that the stronger each of these forces is the more limited is the ability of established companies to raise prices and earn greater profits. Within Porter's framework, a strong competitive force can be regarded as a threat because it depresses profits. A weak competitive force can be viewed as an opportunity because it allows a company to earn greater profits. The strength of five forces may change over time as industry conditions change. The task facing managers is to recognize how changes in the five forces give rise to new opportunities and threats and to formulate appropriate strategic responses. In addition, it is possible for a company, through its choice of strategy, to alter the strength of one or more of the five forces to its advantage.

### 4.2.3 Internal Environment

Each company has its weaknesses and strengths. Large businesses are usually financially stronger than small businesses, on the other hand, large businesses tend to make the necessary changes very slowly and less efficiently serve to small market segments. For small businesses it is usually the opposite. In order to analyze strengths and weaknesses, it is necessary to analyze its internal factors (Keřkovský, 2002).

<sup>9</sup> In Hill, Charles W. and Jones, Gareth R. Strategic management theory: an integrated approach, 9th ed. Mason, OH: South-Western/Cengage Learning, 2010.

### McKinsey's "7S model"

One of the goals of strategic analysis should be finding of critical factors that influence the company's success while implementing its strategy, so-called *key (critical) success factors*. Very helpful tool in the case of internal environment analysis is "**7S model**". According to this method, every company has seven basic aspects (factors), which interfere with each other and basically decide, how to fulfill the outlined corporate strategy. Especially in the state of harmony between these aspects, it is necessary to find key factors for the success of each company.

The "7S model" consists of hard S's (strategy, structure, systems) - easy to identify and soft S's (style, staff, skills, shared values), which are difficult to describe since capabilities, values and corporate culture are continuously developing.

Description of aspects (Keřkovský, 2002):

- **Strategy** – actions a company plans in response of external environment changes.
- **Structure** – the content and functional content of organizational structure in the sense of superiority, subordination, cooperation, control mechanisms and information sharing.
- **Systems** of management are in this case resources, procedures and systems that are used to control processes, such as communication, transportation, control, information etc.
- **Style** – managerial work **style** is an expression of how management approaches to managing and resolving encountered problems. It is important to realize that in most organizations, there are differences between formal and informal way of management, among what is written in the organizational directives and regulations, in comparison with what management actually does.
- **Staff** is understood as people of management as well as ordinary employees, their relationships, functions, aspiration, motivation, behavior towards the company etc. It is necessary to distinguish between quantifiable (formal system of motivation and remuneration, increasing of qualification etc.) and non-quantifiable aspects (for example moral point of view, attitudes and loyalty matters towards the company).
- **Skills** are basically professional abilities of the company's work team as a whole.
- **Shared values** reflect the basic facts, ideas and principles respected by staff and some other stakeholders of the company, who are directly interested in the success of the company.

The "7S model" is a valuable tool to give a direction to the company. A helpful application is to determine the current state of each element and to compare this

with the ideal state. Based on these results, it is possible to create action plan to achieve the intended state.

### 4.3 Strategy Formulation

Strategy formulation is often referred to as strategic planning or long-range planning and is concerned with developing a corporation's mission, objectives, strategies and policies (Hunger, 2004).

Keřkovský (2002) recommends that this phase of the strategic management should cover two follow-up activities:

1. Generating a reasonable amount of strategic options/alternatives that could lead to the elimination of strategic gap.
2. Selection of strategy, which will be after the approval of the company management realized.

Hunger (2004) further continues that strategy formulation begins with situation analysis, which is described in subchapter 4.3.1.

#### 4.3.1 Situational Analysis: SWOT Analysis

SWOT analysis is useful tool used for the recapitulation and summarization previous analysis. Its aim is to identify the extent to which the current strategy of the organization (mainly its strengths and weaknesses) supports the ability to successfully cope with the threats and opportunities in the external environment.

SWOT is the abbreviation of words *Strengths* and *Weaknesses* (internal environment of the company); *Opportunities* and *Threats* (external environment of the company). Each word is explained bellow:

- **Strengths** – positive internal conditions that enable the organization to gain an advantage over competitors. Organizational advantage is clear competence, resource or a basic knowledge, which allows the company to gain a competitive advantage. It can be access to better quality materials, good financial relations, advanced technologies, distribution channels or mature team of top managers.
- **Weaknesses** – negative internal conditions, which may lead to lower organizational performance. The weakness may be the lack of the necessary resources and capabilities, error in the development of the necessary resources. Managers with inadequate strategic capabilities, a disproportionate financial burden, obsolete machinery, etc.
- **Opportunities** - current or future conditions in an environment that are favorable to current or potential outcomes of the organization. Favorable conditions may be created by changes in laws, a growing population - customers, in-

roduction of new technologies. Opportunities should not be assessed in the light of current conditions, but mainly in terms of long-term development of the environment and its impact on the organization.

- **Threats** – current or future conditions in an environment that are unfavorable to current or future outcomes of the organization. Unfavorable conditions may be created by the entrance of a strong competitor to the market, decrease in the number of customers, legislative changes, etc.

SWOT analysis provides a mechanism for systematic thinking process. It requires at the same time understanding the external environment and the ability of the organization and then it provides managers a logical framework for the assessment of current and future position of the company. From such assessment, managers can deduce the appropriate strategic alternatives. If the SWOT analysis is conducted periodically, it can inform managers, whether internal or external areas gained or lost some significance due to the activities of their company (Bělohávek, 2006).

#### 4.3.2 Generic Strategies

Business strategy focuses on improving the competitive position of a company's or business unit's products or services within the specific industry or market segment that the company or business unit serves (Hunger, 2004).

Each company must make decisions and choices what product will be produced and in which business areas it will operate. Strategic analysis should help and facilitate this choice by identifying attractive business areas and products. A successful strategy requires making decisions how to compete in selected markets or segments. Well-known M. Porter elaborated a theory about ways of gaining competitive advantage. He states that when it comes to the choice of competitive strategies, managers have basically three options (Bělohávek, 2006). These strategies are called **generic competitive strategies** and are explained bellow (Porter, 1998):

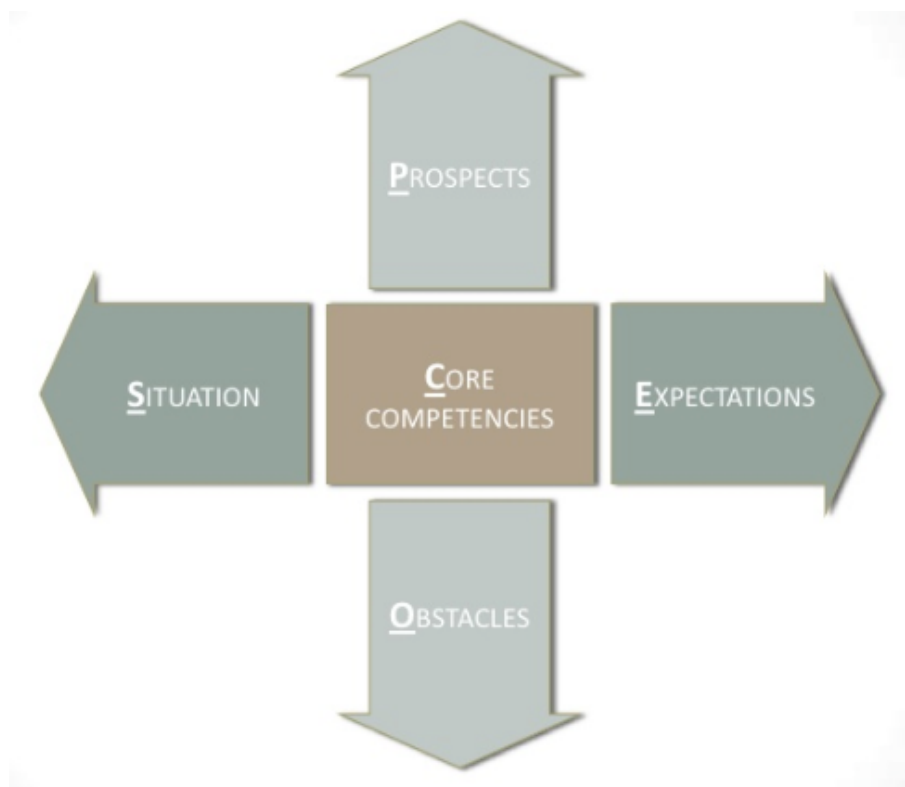
- **A cost leadership strategy** – strategy, where a business works to achieve the lowest production and distribution costs so that it can price lower than competitors and win more market share.
- **A differentiation strategy** explains that a firm seeks to be unique in its industry along some dimensions that are widely valued by buyers. It selects one or more attributes that many buyers in an industry perceive as important, and uniquely positions itself to meet those needs. It is rewarded for its uniqueness with a premium price.
- **A focus strategy** selects a segment or a group of segments in the industry and tailors its strategy to serving them to the exclusion of others. By optimizing its strategy for the target segments, the focuser seeks to achieve a competitive

advantage in its target segments even though it does not possess a competitive advantage overall.

### 4.3.3 SCOPE planning model

For generations in marketing and business SWOT model has been used to provide an initial analysis and classification of the issues facing a business as it starts to evaluate its position and devise strategy. SWOT model has served well since its inception in the 1960s with its simplicity, functionality and intuitiveness; remaining unchanged and unequivocal for over 40 years. It provides a useful tool for segmenting internal and external factors into positives and negatives, yet in doing so it can be limiting in its scope to introduce wider factors which could or should come into play when developing our plans. Most executives merely use the SWOT as a method of grouping factors into the 4 buckets, with limited conscious effort to align internal Strengths to specific external Opportunities, or to understand Weaknesses in regard to mitigating Threats. In this respect, the SWOT doesn't provide a progression in its strategic development (Webb, 2012).

That is why the **SCOPE planning model** (Figure 6) was brought into the consideration as an alternative to SWOT.



**Figure 6:** The SCOPE Planning Model

Source: WEBB, John. The SCOPE Planning Model. *Slideshare* [online]. 2012 [cit. 2014-11-06]. Available from: <[http://www.slideshare.net/johns\\_webb/the-scope-planning-model](http://www.slideshare.net/johns_webb/the-scope-planning-model)>

SCOPE retains many similarities to SWOT, yet allows extra freedom to present additional information and reflections pertinent to the planning process.

The abbreviation SCOPE (Figure 6) stands for *Situation, Core Competencies, Obstacles, Prospects and Expectations*.

- The **Situation** provides an outline and understanding of the prevailing conditions upon which the strategic plan is to be developed. It should consider both internal and external factors which have led the business to its current status, and which have a bearing on the identification of future opportunities, trends and plans.
- **Core Competencies** are specific factors that a business sees as being central to the way it operates which fulfill 3 key criteria:
  1. Are not easy for competitors to imitate, i.e. are unique;
  2. Can be leveraged across products and markets;
  3. Contribute to the end consumer's experienced benefits, i.e. add value.In these respects, Core Competencies provide the fundamental basis for the business achieving a competitive advantage in its defined market given the pertaining conditions.
- **Obstacles** may be either internal or external, and reflect specific issues which need to be addressed if the business is to realize future Prospects. In this respect, they should not necessarily be defined as either a "Weakness" or "Threat" but rather be perceived as hurdles to the plan to be overcome over the duration. "Weaknesses" imply longer-term systemic issues causing a strategic disadvantage. Obstacles are shorter-term situations that need to be resolved.
- **Prospects** are chances for the business to create additional sales and / or profits by taking advantage of its Core Competencies in the context of its Situation. Identification of Prospects provides the foundation for both goal setting and strategic development going forward.
- **Expectations** reflect anticipated developments, i.e. what does the planner see happening in the future which could have either a direct or indirect influence on the execution of the plan and achievement of the defined Prospects. What are the key predications that will have a bearing on the plan? These can be both quantifiable and subjective, providing the planner with an appreciation of and insights into the future on which to direct their strategic thinking.

SCOPE provides an alternative way of categorizing the factors upon which strategic development can take place. It enables managers to structure the analysis and thinking in order to develop strategies and plans in a naturally progressive fashion (Webb, 2013).

To conclude the information about the SCOPE Planning Model, it is multi-dimensional planning tool taking into consideration: (1) past, present and future conditions; (2) internal and external factors; (3) advantages and disadvantages.

At these days, the importance and usage of the SCOPE Planning Model is increasing and in the future it will probably exceed the usage of the SWOT model (Webb, 2012).

## 4.4 Characteristics of Organic Production

### 4.4.1 Organic Farming

At these days, more and more people want their food to be different. It has been heard or seen on a daily basis that someone mentions food products, which are "organic". But what does it mean and is it really that popular?

As Charles (2009) mentions, the roots of *organic farming* probe deep into the soil of human agricultural history. People have depended on natural resources and ecological processes for 99 % of the time since our ancestors moved from hunting and gathering to a sedentary habitation and organized production of plants and animals some 10 000 years ago. During all this time, most of our crops depended on natural rainfall and stored moisture from winter snows in the temperate regions. Their nutrients came from soil organic matter, plant residues, animal manures, and small amounts from rainfall. Most pests were controlled by other organisms, by plant diversity in the systems, and by natural genetic tolerance organized by women who were the first plant breeders, and who harvest the best individual plants and saved their seeds. Since there were no chemicals used or transgenic crops (genetically modified organisms – GMOs), except those that arose by natural crossing, these were de facto **organic farming systems**.

When talking about organic farming, Fossil (2007) describes it in his book as following: "I like to smell dirt. On a spring day, a planting day, I like to scoop both hands into the earth I tend, lift it up to my face, and inhale its fragrance. Rich, fertile soil smells of the forest floor, teeming with health and life; with beneficial microbes, bacteria, earthworms, and humus. Originally rich soil is heady, almost magical. It's the Merlin of dirt. It is why I am a grower." Those who started with organic farming, they do it, because they care.

Another definition of organic agriculture according to International Federation of Organic Agriculture Movements (IFOAM, 2014) is that an organic agriculture is a production system that sustains the health of soils, ecosystems and people. It relies on ecological processes, biodiversity and cycles adapted to local conditions, rather than the use of inputs with adverse effects. Organic agriculture combines tradition, innovation and science to benefit the shared environment and promote fair relationships and a good quality of life for all involved.

Wiswall (2009) talks about farmers, what do they bring to their farms and later what actually comes out of their farms. He says most farms bring in lots of material like fuel, fertilizer, seed, and packaging; mix them up and change them a bit; then send them back out the gate. He continues that farms should not be places where petroleum-based inputs are turned into food. Organic farmer's ultimate job is to use what is freely available in nature to generate true wealth. In this light, farming is one of the noblest endeavors: a real generator of healthy products using natural cycles.

Put simply, organic farming is an agricultural system that seeks to provide the consumer with fresh, tasty and authentic food while respecting natural life-cycle systems. To achieve this, organic farming relies on a number of objectives and principles, as well as common practices designed to minimize the human impact on the environment, while ensuring the agricultural system operates as naturally as possible. Typical organic farming practice include (Europa, 2014a):

- Wide crop rotation as a prerequisite for an efficient use of on-site resources;
- Very strict limits on chemical synthetic pesticide and synthetic fertilizer use, livestock antibiotics, food additives and processing aids and other inputs;
- Absolute prohibition of the use of genetically modified organisms (GMOs);
- Taking advantage of on-site resources, such as livestock manure for fertilizer or feed produced on the farm;
- Choosing plant and animal species that are resistant to disease and adapted to local conditions;
- Raising livestock in free-range, open-air systems and providing them with organic feed;
- Using animal husbandry practices appropriate to different livestock species.

Organic farming is part of a large supply chain, which encompasses food processing, distribution and retailing sectors and also the consumer.

For organic farmers a fertile soil and respect for the environment are of crucial importance for humans and animals. Organic farmers respect the environment through (Europa, 2014a):

- Responsible use of energy and natural resources;
- Maintenance of biodiversity;
- Maintenance of regional ecological balances;
- Enhancement of soil fertility;
- Maintenance of water quality.

Organic farmers respect animals through:

- Promoting animal health and welfare;



- Meeting the specific behavioral needs of animals.

When it comes to organic processors and marketers and food distributors, they all have the same goals as organic farmers – namely the provision of fresh and authentic processed food designed to respect nature and its systems. While organic farming seeks to keep agriculture in touch with its traditional roots and works in harmony with nature, organic processing reflects a myriad of tastes and the culinary preferences of modern consumer. So, along with the range of highly delicious and well-known fruits, vegetables and meats, modern organic products can include: baby food, wine made from organic grapes, beer, yoghurt, cakes, pastries, bread, breakfast cereals, biscuits, cold meats, fruit juices, tinned fruits and vegetables, prepared meals, coffee, tea, etc. (Europa, 2014a).

#### 4.4.1.1 Organic Farming in the EU

When it comes to organic farming in the European Union, in 2007 the European Council of Agricultural Ministers agreed on a new Council Regulation (**Council Regulation (EC) No 834/2007** of 28 June 2007 on Organic Production and Labeling of Organic Products and Repealing Regulation (EEC) No 2092/91) setting out the principles, aims and overarching rules of organic production and defining how organic products were to be labeled.

Council Regulation (EC) No 834/2007 (2007) defines organic farming as following:

*“Organic production is an overall system of farm management and food production that combines best environmental practices, a high level of biodiversity, the preservation of natural resources, the application of high animal welfare standards and a production method in line with the preference of certain consumers for products produced using natural substances and processes. The organic production method thus plays a dual societal role, where it on the one hand provides for a specific market responding to a consumer demand for organic products, and on the other hand delivers public goods contributing to the protection of the environment and animal welfare, as well as to rural development. “*

In 2008, **Commission Regulation (EC) No 889/2008** of 5 September 2008 laying down detailed rules for the implementation of Council Regulation (EC) No 834/2007 on organic production and labeling of organic products with regard to organic production, labeling and control was accepted.

#### The EU Organic Logo

The logo and the labeling rules are an important part of the organic regulations. With this regulatory framework the European Union provides conditions under

which the organic sector can progress in the line with production and market developments, thus improving and reinforcing the EU organic farming standards and import and inspection requirements. The main objective of the European logo is to make organic products easier to be identified by the consumers (Europa, 2014c). Foods may be labeled "organic" only if at least 95 % of their agricultural ingredients meet the necessary standards (Europa, 2014b).

The EU organic logo is introduced by the **Commission Regulation (EU) No 271/2010** of 24 March 2010. Its use is governed by Article 57 of **Commission Regulation (EC) 889/2008**.

The EU organic logo (Figure 7) is created by two well known symbols: The European flag – official symbol of the European Union since 1986 – and a leaf that is used in a variety of shapes to symbolize nature and sustainability. The combination of these two symbols creates a unique visual element that is self explanatory and appealing (Europa, 2010).



**Figure 7:** EU Organic Logo Creation

Source: Europa. The EU Organic Logo. Europa [online]. 2010

The common organic symbol is protected from being used on non-organic products throughout the EU. This enhances fair competition in the market, and of course, consumer protection.

The use of the logo and correct labeling is obligatory for all organic pre-packaged food produced within the European Union. Next to the new EU organic logo, consumers are informed about the place where the agricultural raw material used in this product have been farmed and a code number of the control authorities is also displayed (Europa, 2014c).

#### 4.4.2 Organic Winemaking

There is no doubt that the modern wine trade is becoming increasingly globalized and that a new trend in the heterogeneous global wine market is the emergence of organic wines (Anderson, 2004). Very little is known about this emerging market: statistical information is not comprehensive, and very little research on organic winemaking and organic wines exist. This is in spite of the fact that over the last

few years, natural – organic or bio – wines have developed a notable presence on the global wine scene. Marketing sustainability and promoting environmental issues have become a driving power on the world wine market (Carbone and Moatti, 2008).

Rombough (2002) states that is it possible to grow grapes organically, that is, without using toxic chemicals to control pests and diseases. He continues that there are several strategies for doing it, but no single approach is right for every grower. However, organic grape growing is a new field, and it is developing rapidly. New substances and methods for disease and insect control are being developed at an amazing rate.

Henderson and Rex (2011), explain the term *organic viticulture*. It is the practice of growing grapes without the use of any human-made substances. While simple in concept, it requires a great deal of skill and concentration by the vineyard manager. An organic grower must keep alert for any developing problems in the vineyard and react to them quickly because the natural alternatives are often less powerful and slower acting than synthetic pesticides. The second term explained is *organic winemaking*. If a wine is produced and bottled from organically grown grapes without the use of any synthetic additives in the cellar it can be called organic wine. There is another term that should be explained not to be mistaken. Some people mistakens the term biodynamic gardening for organic gardening. Marie (2008) explains that *biodynamic gardening* treats the whole farm like a living organism. Like organic gardening, it uses no herbicides or other chemical substances, but it also involves unique farming techniques intended to work with the rhythms of the Earth. There are also favorable and unfavorable days for farm activities, including pruning and harvesting, determined by the astrological calendar.

Why do farmers actually switch to organic winegrowing? McGourty et al. (2011) see it as also change of the philosophy about farming. Organic winegrowers are encouraged to think of the farm as a mini-ecosystem that can self-regulate for pests, diseases, and fertility, rather than as a conventional agriculture system that requires the input of numerous off-farm materials (e.g., fertilizer, water, crop protectants) in order to produce marketable outputs (crops and animal products). In practice, organic winegrowers use no synthetically manufactured pesticides or fertilizers to produce winegrapes. Instead, they improve soil fertility and quality with composts, cover crops, and mined minerals, seeking to build soil organic matter as a source of biological resilience, stored energy, chemical buffering, and plant nutrients. Organic winegrowers want to bring “life” into their farming system.

In recent years consumers have become increasingly concerned about the effects of conventional agricultural practices on both human and environmental health. On the one hand, organic wine has attracted particular interest from consumers, but it has also been the subject of many debates among European

producers, organizations, and institutions due to the legislative gap that has existed for years. It is true to say that “organic” is a magic word and very fashionable, but hides a great deal of confusion. Processing of organic wine requires the use of certain products and substances additives or aids under well-defined conditions and it is for the reason that products obtained from organic farming methods has been rapidly increasing in developed countries (Gaeta and Corsinovi, 2014).

#### **4.4.2.1 Organic Winemaking in the EU**

The first European regulation on organic production was Regulation 2092/1991, but organic wine was not included in a regulation until 203/2012. This regulation officially created organic wine or wine from organic farming, which entered the market and made its way on to stockists’ shelves in 2012 with full organic labeling, including the European organic logo. In the meantime (until 2012), “wine from organic grapes” could be sold, but “organic wine” could not be (Gaeta and Corsinovi, 2014).

**Commission Implementing Regulation (EU) No 203/2012** of 8 March 2012 amending Regulation (EC) No 889/2008 laying down detailed rules for the implementation of Council Regulation (EC) No 834/2007, as regards detailed rules on organic wine, sets new EU rules for “organic wine”. From the 2012 harvest, organic growers are allowed to use the term “organic wine” on their labels. The labels must also show the EU-organic-logo and the code number of their certifier, and must respect other wine labeling rules. These rules have the advantage of improved transparency and better consumer recognition. They do not only facilitate the internal market, but also to strengthen the position of EU organic wines at international level, since many other wine producing countries (USA, Chile, Australia, South Africa) have already established standards for organic wines. With this piece of legislation, the EU organic farming is now complete and covers all agricultural products (Europa, 2014d).

Importers of organic wines are not compelled to use the EU logo, but are permitted to do so if the wines are produced according the EU production rules or rules recognized as equivalent based on bi- or multilateral agreements (IFOAM EU, 2013).

#### **Key parts of the regulation**

Until 2012, there are no EU rules or definition of “organic wine”. Only grapes could be certified organic and only the mention “wine made from organic grapes” was allowed. The new rules on organic wine-making rules introduces a technical definition of organic wine which is consistent with the organic objective and principles as laid down in Council Regulation (EC 834/2007) Organic production (“organic wine” must of course also be produced using organic grapes). The regulation iden-

tifies oenological techniques and substances to be authorized for organic wine. These include:

- Maximum sulphite content set at 100 mg per liter for red wine (150 mg/l for conventional);
- 150mg/l for white/rosé (200 mg/l for conventional);
- With a 30mg/l differential where the residual sugar content is more than 2g per liter (Europa, 2012).

#### 4.4.3 Benefits of Organic Farming/Winemaking

More and more modern illnesses are being attributed to chemicals in our food and water. Even in wine, it is hard to believe that simply fermenting grapes magically removes the chemical residues. In fact, it is quite plausible that metabolic processes such as fermentation and digestion can alter the toxicity of chemicals, and combinations of chemicals, in ways, which are poorly understood. These are some of the key benefits of organic food and wine:

1. **More anti-oxidants:** Resveratrol, a compound found in red grapes, has been shown to be beneficial to health by lowering cholesterol and preventing cell oxidation, an important process in the prevention of cancer. Researchers have found that grapes sprayed with fungicides commonly used on conventional vineyards had 80 % less resveratrol.
2. **More vitamins and minerals:** Organic crops contain significantly more vitamin C, iron, magnesium, and phosphorus and significantly fewer nitrates than conventional crops.
3. **“Truer”, and better wines:** Jean-Marc Carité, winemaker and editor of the French “Vin Bio” magazine, sums up the situation here: “Organic wines are not more expensive to buy, but they are more expensive to produce. The problem is that consumers of organic foods are not great consumers of wine, whilst the traditional consumers of wine do not want to pay more than for a conventional wine. If organic wine production has increased, it is because the producers have realized that they could make better wine. They are also conscious of the need to protect the environment”.
4. **Lower sulfur levels:** Many people now realize that organic and preservative free wines are not one and the same thing. Whilst grown naturally, in most countries, organic wine is permitted to have about half the normal amount of sulfur added in order to protect the wine (Rosnay, 2014).
5. **Environmental friendliness:** Since no harmful chemicals are used in the production of Organic Wines (and even if they are used, they are used to a minor extent) throughout, its production does not pollute the air, water, and soil in any significant way, so it doesn't have any adverse effects on the environ-

ment. The Organic Wines are also typically packed in environmentally friendly organic containers (Organic Facts, 2014).

#### 4.4.4 Drawbacks of Organic Winemaking

1. **Preservation and stabilization:** If absolutely no chemical preservatives or sulphites are used in it, it is going to have a very short shelf life (of a few weeks only) and is not going to be stable. Wines, being costly, cannot be allowed to spoil within such a short period, so most of the producers (and even consumers) advocate the use of a few preservatives and sulphites in organic wine.
2. **Price:** Wine with an “Organic” label on it is far costlier than its “Non-Organic” counterpart. That being said, anyone who can afford a good brand of old wine can bear this difference in price.

## 5 Results

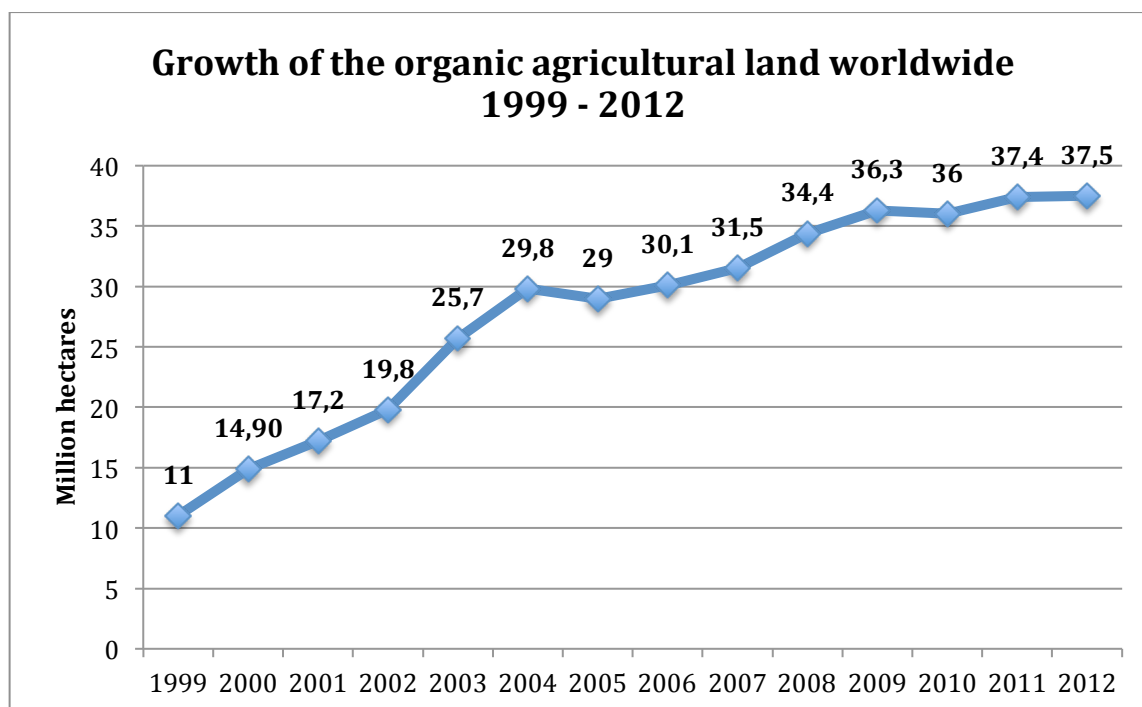
### 5.1 Organic Farming Statistics

#### 5.1.1 Organic Farming Worldwide

According to the latest survey on certified organic agriculture worldwide, as of the end of 2012, data on organic agriculture are available from 164 countries (Willer and Lernoud, 2014).

When it comes to organic farming, from very modest beginnings in the first half of the last century, organic farming has grown dramatically in importance and influence worldwide. A few statistics tell part of the story: from almost negligible levels until the 1980s, the number of organic farms worldwide has grown to an estimated 623 000 with some 31,5 million ha (data from 2007) managed organically (Lockertz, 2007). Worldwide sales of organic products reached some US\$28 billion in 2004 (IFOAM, 2006).

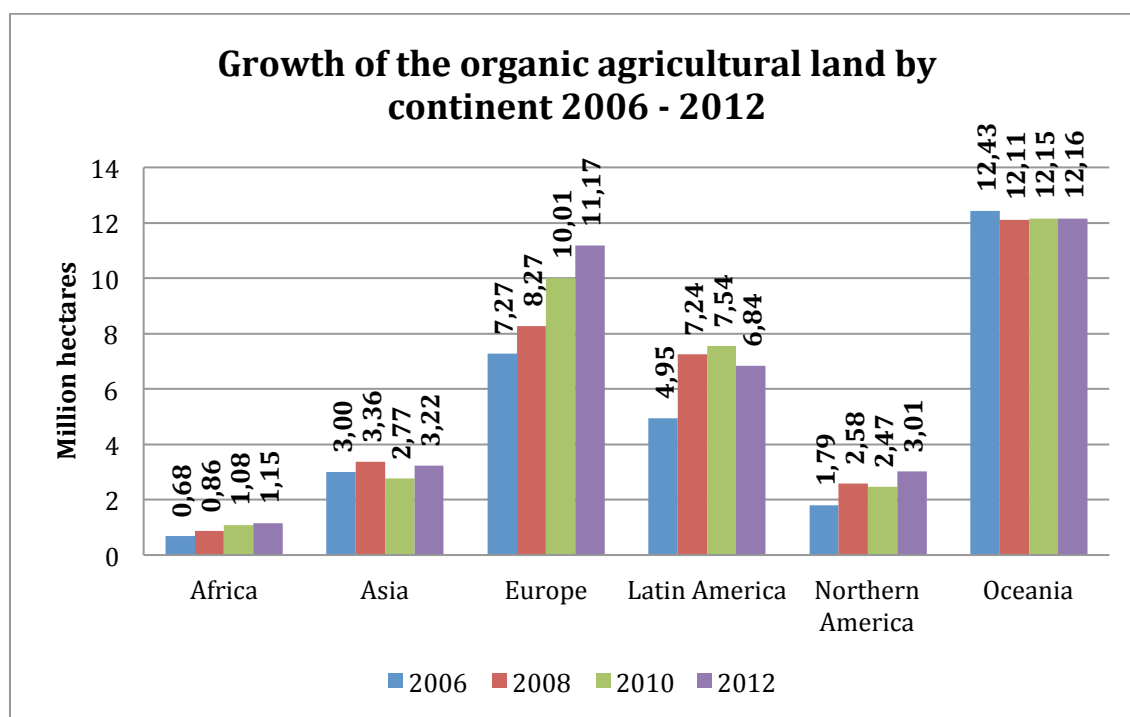
According to Willer and Lernoud (2014), there were 37,5 million hectares of organic agricultural land in 2012, including conversion areas. As it can be seen on Figure 8, the trend of organic agricultural land has growing tendency.



**Figure 8:** Growth of the organic agricultural land worldwide 1999 - 2012

Source: Own elaboration based on FiBL & IFOAM (2014): Data on organic agriculture 2005-2012

When looking at the curve (Figure 8) representing the growth of the organic agricultural land in the whole world, it is also very important to take into account different regions. Each region has its own pace of development. This trend is presented in Figure 9. While in some continents the trend is increasing year by year (Europe and Africa), the rest of the continents present the fluctuations. Some of these fluctuations are higher (for example: Latin American organic agricultural land dropped between 2010 and 2012 by 0,7 million hectares) and other fluctuations are much lower (for example: Northern American organic agricultural land dropped between 2008 and 2010 by 0,11 million hectares).

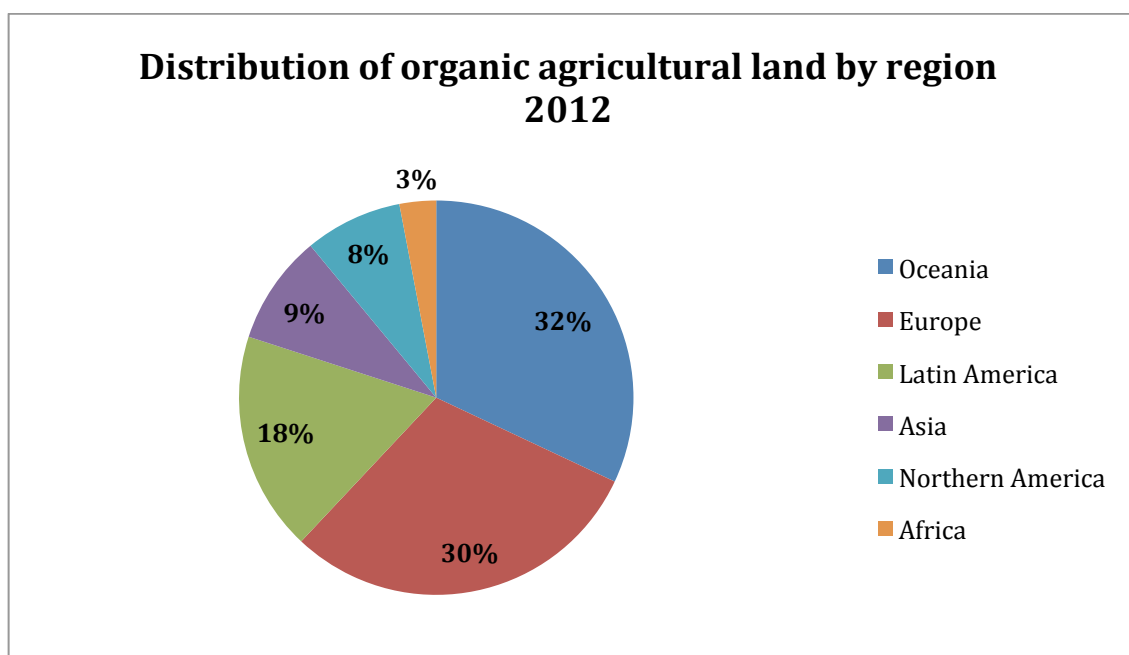


**Figure 9:** Growth of the organic agricultural land by continent 2006-2012

Source: own elaboration based on FiBL & IFOAM (2014): Data on organic agriculture 2005-2012

In the following graph (Figure 10), regions and their percentages of organic agricultural land are presented. The regions with the largest areas of organic agricultural land are Oceania (12,2 million hectares, 32 percent of the world's organic agricultural land) and Europe (11,2 million hectares, 30 percent). Latin America has 6.8 million hectares (18 percent) followed by Asia (3,2 million hectares, 9 percent), North America (3 million hectares, 8 percent) and Africa (1,1 million hectares, 3 percent). The countries with the most organic agricultural land are Australia (12 million hectares), Argentina (3,6 million hectares), and the United States (2,2 million hectares) (Willer and Lernoud, 2014).





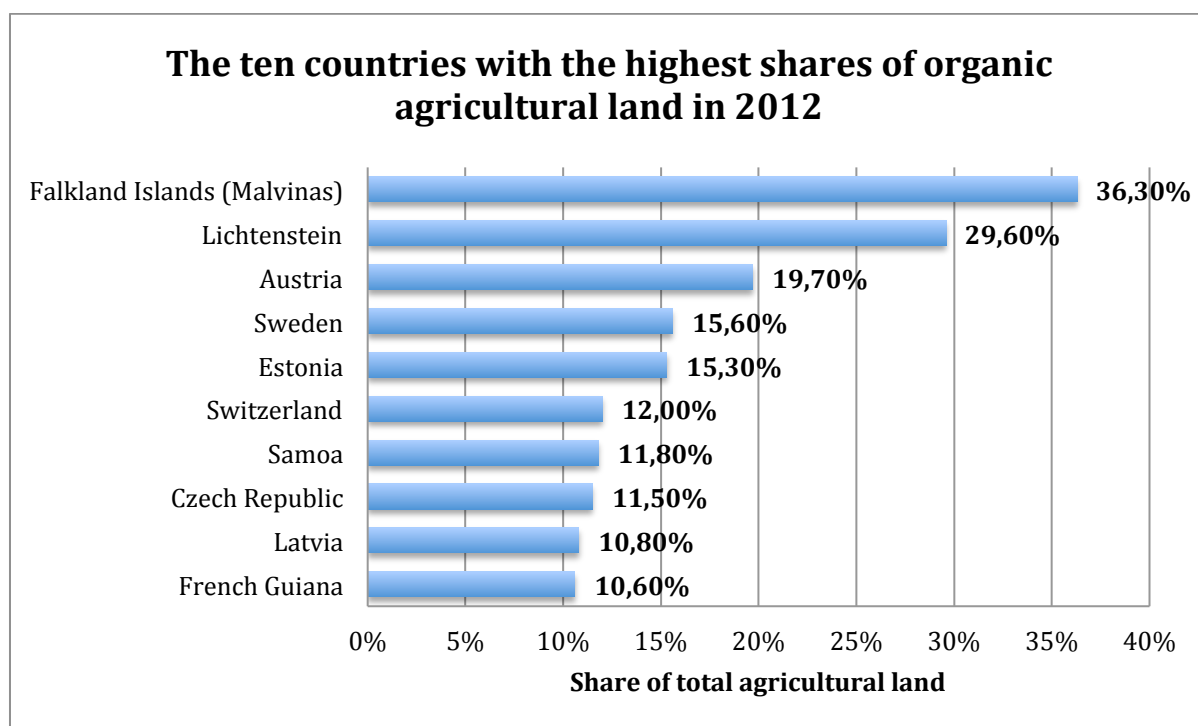
**Figure 10:** Distribution of organic agricultural land by region 2012

Source: Own elaboration based on FiBL & IFOAM (2014): Data on organic agriculture 2005-2012

It might be surprising to look at the percentage, which presents the proportion of the world's agricultural land that is organic to non-organic land. Only 0,86 percent of the world's agricultural land is organic. By the region, the proportion is highest in Oceania (2,9 percent), followed by Europe with 2,3 percent and Latin America with 1,1 percent. In the other regions the share is less than one percent.

Many individual countries, however, feature much higher proportions (Figure 11), and ten countries have even reached more than ten percent of the agricultural land as organic; most of these are in Europe. The country with the highest organic proportion of agricultural land is the Falkland Islands (Malvinas), where several large sheep farms are working organically. It is interesting to note that many island states have high proportions of organic agricultural land (Willer and Lernoud, 2014).

When looking at the countries in the Figure 11, it can be seen that these countries are the ones with smaller area. The only exception is Sweden with 449 964 km<sup>2</sup> (57<sup>th</sup> largest country in the world). The rest of these countries are much smaller, covering not even 100 000 km<sup>2</sup>. For example, area of the Falkland Islands is only 12 173 km<sup>2</sup> (162<sup>nd</sup> in the world). Easily explained, higher percentages of organically cultivated lands can be found in the countries with smaller area and otherwise.



**Figure 11:** World: The ten countries with the highest shares of organic agricultural land in 2012  
Source: Own elaboration based on FiBL & IFOAM (2014): Data on organic agriculture 2005-2012

From the figures above, it can be seen that the proportion of the organic agricultural lands is still slowly increasing, which is very positive for the world population. However, the total percentage of the organic agricultural land compared to non-organic agricultural land is still pretty low – lower than 1 % (mentioned earlier).

While discussing only the area representing organically cultivated lands around the whole world, it is also necessary to look at the number of organic producers. Table 1 presents the number of organic producers in the world between 2005 and 2012.

Year	2005	2006	2007	2008	2009	2010	2011	2012
Prod.	689619	919156	1236882	1392572	1814104	1587511	1791488	1927020

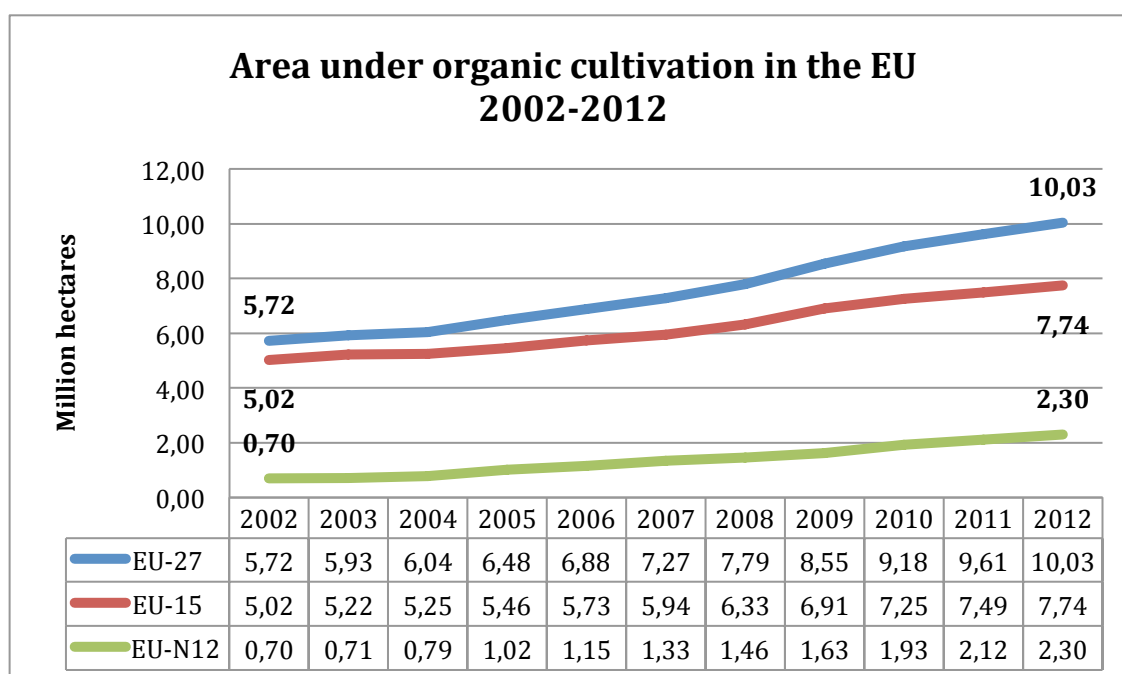
**Table 1:** The number of organic producers worldwide 2005 – 2012

Source: Own elaboration based on FiBL & IFOAM (2014): Data on organic agriculture 2005-2012

As it can be seen from 2005 to 2012, the number of organic producers increased by 179 %. Between 2007 and 2008 there was a very slow increase and moreover from 2009 and 2010 there was a great decrease in number of organic producers. This decrease might be caused by the world crisis in 2008, which affected all sectors as well as the agricultural sector all around the world.

### 5.1.2 Organic Farming in the EU

The organic sector in the EU has been rapidly developing during the past years. Figure 12 shows the evolution of the area under organic cultivation in the period 2002-2012. During these eleven years, the total organic area (fully converted as well as in-conversion) increased from 5,72 million hectares (in 2002) to 10,03 million hectares (in 2012) within the EU-27<sup>10</sup>. In last eleven years, organic area in the EU improved by about 400 000 hectares per year. This is an increase by 75 % from 2002 to 2012, which is significant number. When looking closer at the Figure 12, it can be seen that the speed of growth has been most significant in the case of the EU-N12<sup>11</sup>, where the organic area rapidly increased from 0,70 million hectares (in 2002) to 2,30 million hectares (in 2012) – increased by 229 %, whereas in the same period in the EU-15<sup>12</sup> the area increased from 5,02 million hectares to 7,74 million hectares (by 54 %). Despite the strong growth of the sector in the EU-N12, the majority of organic area in Europe currently remains in the EU-15. The EU-15 represented 77 % of all EU-27 organic area in 2012.



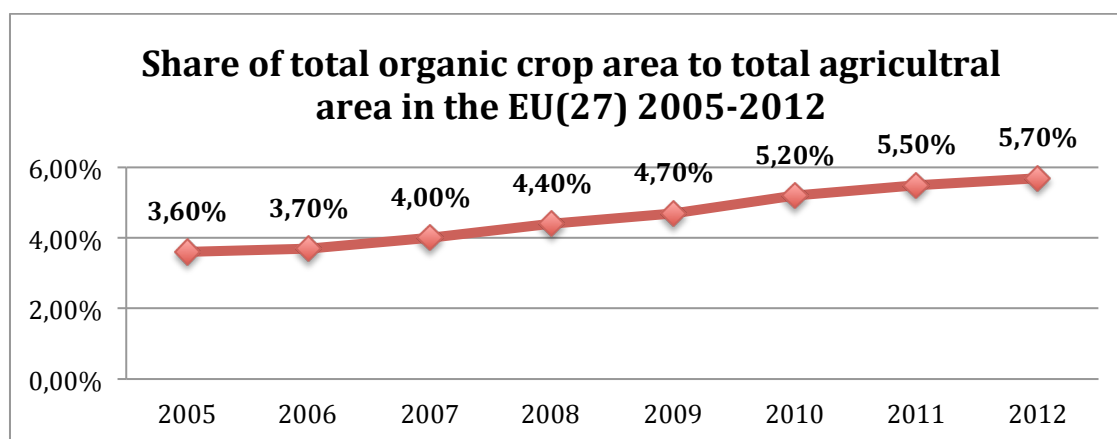
**Figure 12:** Area under organic cultivation in the EU 2002-2012

Source: Own elaboration based on Eurostat (2014a)

<sup>10</sup> Until 2012: EU-27. From 2013: EU-28 (Croatia has joined the EU 1.7.2013 – data not available yet)

<sup>11</sup> Member States that joined the EU in 2004: the Czech Republic, Estonia, Cyprus, Latvia, Lithuania, Hungary, Malta, Poland, Slovenia and Slovakia, and in 2007: Bulgaria and Romania.

<sup>12</sup> EU Member States in 2003: Belgium, Denmark, Germany, Ireland, Greece, Spain, France, Italy, Luxembourg, the Netherlands, Austria, Portugal, Finland, Sweden and the United Kingdom



**Figure 13:** Share of total organic crop area to total agricultural are in the EU 2005-2012

Source: Own elaboration based on Eurostat (2014a)

While in the previous figure (Figure 12) the huge increase was presented, the whole organic area represents only a fraction – 5,70 % (in 2012) of total utilized agricultural area in the EU. In the EU-27, share of total organic crop area to total agricultural area (Figure 13) increased from 3,60 % in 2005 to 5,70 % in 2012.

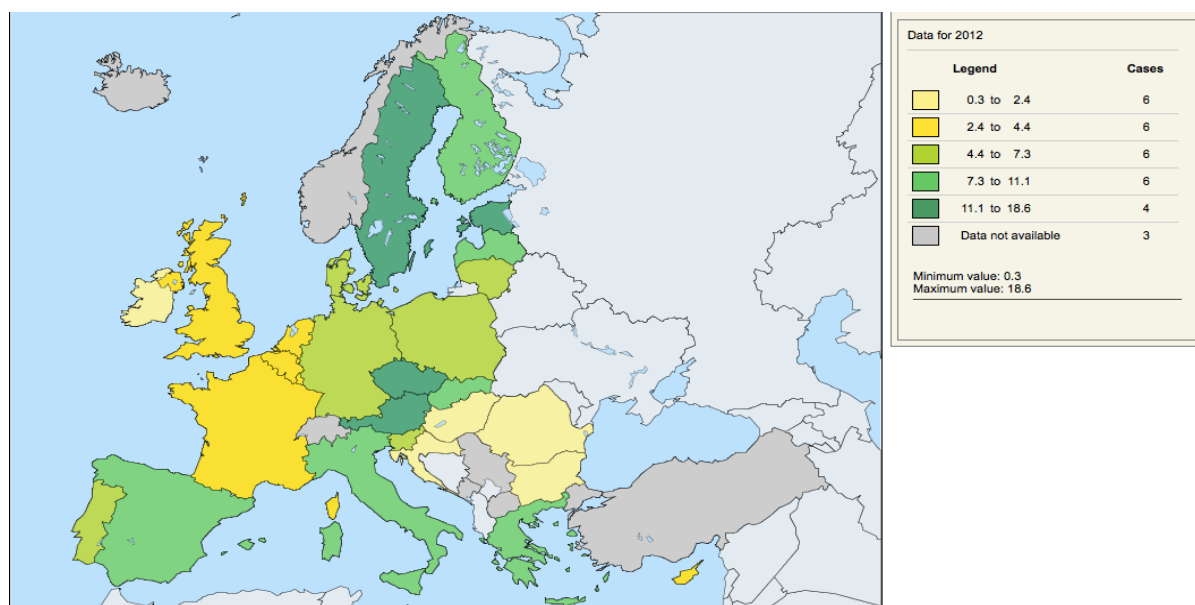
Table 4 shows the evolution of the organic area in the four Member States with the largest organic areas in 2008, 2010 and 2012 compared to the data of the Czech Republic. In absolute terms, the Member State with the largest area (in 2012) is Spain, second is Italy, third Germany and the fourth position belongs to France. When adding together these four organically cultivated areas (2012), it accounts for around 45 % of the EU-27 total organic area. However these figures tells only part of the story with the larger Member States having larger areas in the organic sector. When looking at the share of the organic area within the total utilized agricultural area (Figure 14 and 15), the relative importance of the sector in each Member State appears more clearly and the ranking is quite different. For example the Czech Republic is more than 500 thousand hectares behind the fourth position (Table 2), but it will be shown in the further figures (Figure 15 and 16) that the percentage of organically cultivated lands is much higher in the case of the Czech Republic.

	2008 (ha)	2010 (ha)	2012 (ha)
<b>Czech Republic</b>	341 632	448 202	488 658
<b>France</b>	583 799	845 442	1 032 941
<b>Germany</b>	907 786	990 702	1 034 355
<b>Italy</b>	1 002 414	1 113 742	1 167 362
<b>Spain</b>	1 129 843	1 456 672	1 593 197

**Table 2:** Organic area in the Top 4 (the largest organic area) Member States compared to the Czech Republic in 2008, 2010 and 2012.

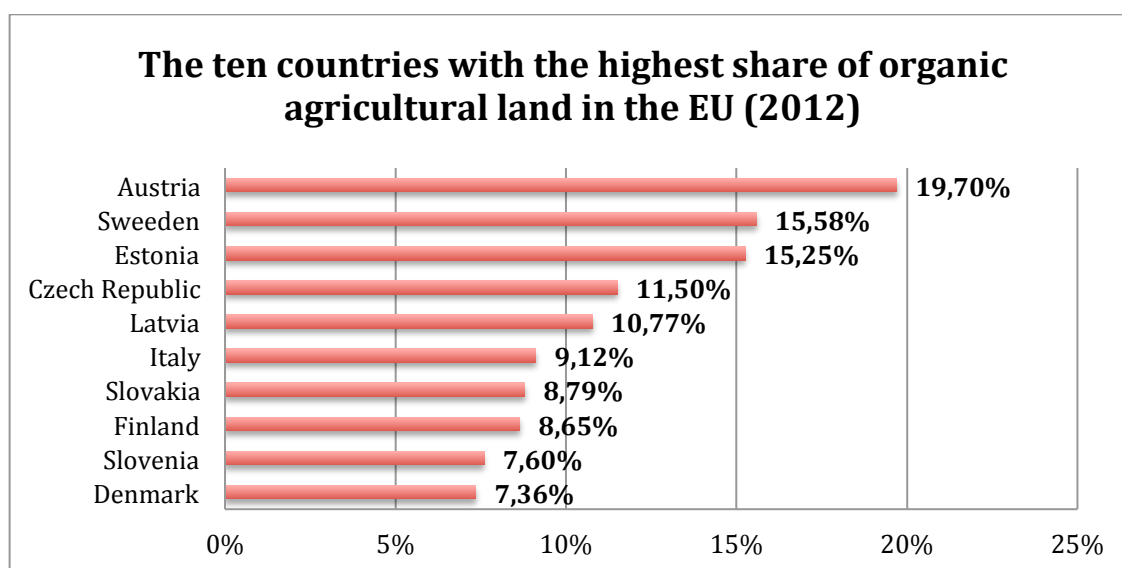
Source: Own elaboration based on FiBL & IFOAM (2014): Data on organic agriculture 2005-2012

The map below (Figure 14) provides the share of the total utilized agricultural area occupied by organic farming (existing organically-farmed areas and areas in process of conversion) in 2012. It shows that there is rather strong heterogeneity among Member States regarding the weight of the organic sector. The ten countries with the highest share of organic agricultural land in the EU are presented in the Figure 15. The lowest shares of organic farming in total utilized agricultural area (less than 1 %) are registered in Romania, Bulgaria and Ireland.



**Figure 14:** Map of the area under organic farming in the EU (2012)

Source: Eurostat (2014b)

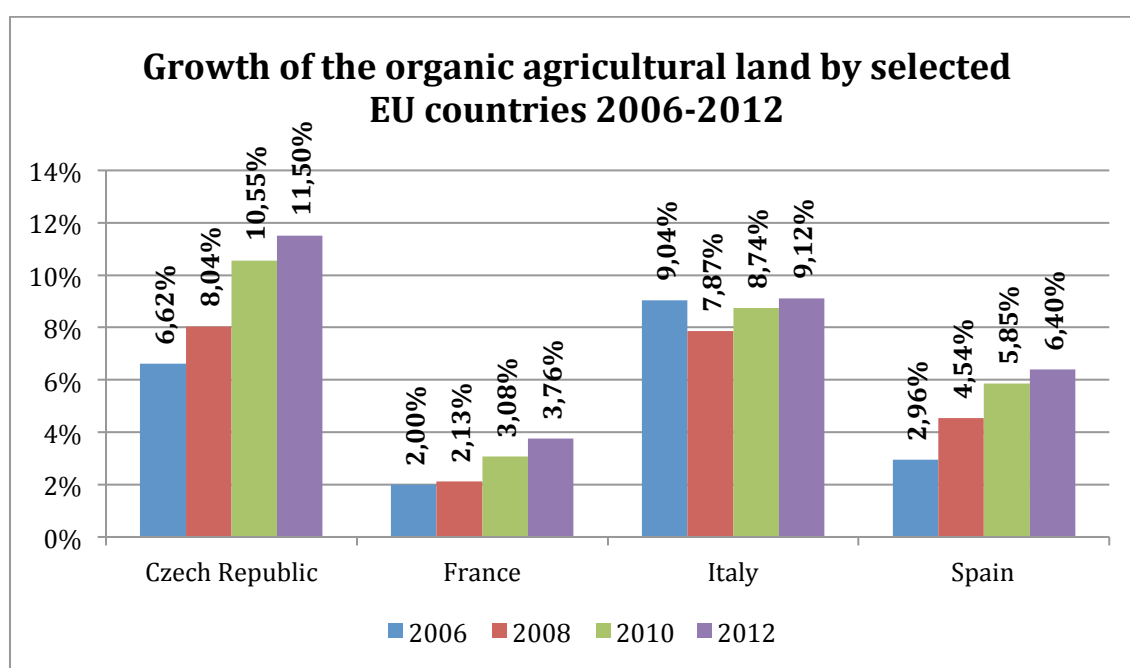


**Figure 15:** Ten countries with the highest share of organic agricultural land in the EU in 2012

Source: Own elaboration based on FiBL & IFOAM (2014): Data on organic agriculture 2005-2012

As shown in Figure 15, with a share of about 20 %, Austria is the Member State where the importance of the organic sector in the total utilized agricultural area is the highest in 2012. Sweden and Estonia follow with 15,58 % and 15,25 % respectively. The Czech Republic in which 11,5 % of its total area was dedicated to organic farming is followed by Latvia where this share amounts to 10,77 %. It is interesting to note that among the EU-N12, five Member States (the Czech Republic, Estonia, Latvia, Slovenia and Slovakia) already exceed the EU-27 average of 5.7 %. These Member States have experienced an extremely fast development of the organic sector in terms of area. On the other hand, six of the EU-15 Member States hold in 2012 shares of organic farming area in total utilized agricultural area lower than the EU-27 average: the United Kingdom and Belgium at around 4 %, France, Luxembourg and the Netherlands at about 3 % and Ireland with 1.3 % (Europa, 2013a).

Figure 16 gives an indication of the growth of organic agricultural land in selected EU countries (the Czech Republic, France, Italy and Spain) in 2006, 2008, 2010 and 2012. Each country has its own pace of development, but the trend is more likely the same – increasing. The only decrease appeared in Italy, where the share of the organic agricultural area decreased from 2006 to 2008 by 1,17 %. As already mentioned above, The Czech Republic and Italy belong to the group of ten countries with the highest share of the organic agricultural land.



**Figure 16:** Growth of the organic agricultural land by selected EU countries 2006-2012

Source: Own elaboration based on FiBL & IFOAM (2014): Data on organic agriculture 2005-2012

Table 3 deals with the number of registered organic producers in the selected EU countries (The Czech Republic, Spain, France and Italy) in 2006, 2008, 2010 and 2012. According to Willer and Lernoud (2014), the number of the registered organic producers in the EU at the end of 2012 was more than 250 000, which is the increase by 80 % since 2003. In the Czech Republic the number of the registered organic producers grew from 2006 till 2012 by about 300 %, in Spain and France this number doubled in the same period and in Italy it stayed more likely the same.

	2006	2008	2010	2012
<b>Czech Republic</b>	963	1 842	3 500	3 926
<b>Spain</b>	16 645	21 237	27 877	30 469
<b>France</b>	11 640	13 298	20 645	24 485
<b>Italy</b>	45 115	44 371	41 807	43 852

**Table 3:** Number of registered organic producers in the selected EU countries

Source: Own elaboration based on Eurostat (2014c)

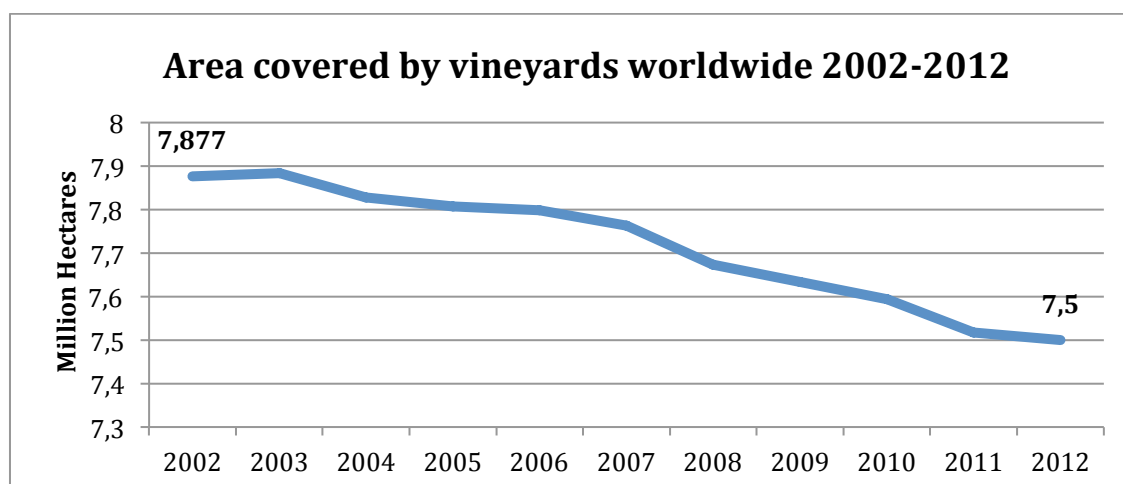
The organic sector in Europe has rapidly developed in the past years. This increase characterizes not only the area under organic farming, but also the number of registered organic producers in the EU-27. Though a good part of the number of holdings and area is still situated in the EU-15, the EU's newest Member States have shown encouraging developments in this respect since their accession.

## 5.2 Organic Winemaking Statistics

### 5.2.1 Organic Winemaking Worldwide

To describe and show the statistics of the organic grapes production (organic winemaking), it is good to start with the presentation of the total area of vineyards worldwide, just to be able to imagine better what is the share of organic grapes production to non-organic one. The total acreage under vines (the world's total vineyard surface area) is decreasing substantially. Figure 17 shows the stable decline in the area covered by vineyards. From a peak of 7,9 million hectares in 2003 the acreage has shrunk to just about 7,5 million hectares – down by 5 %.

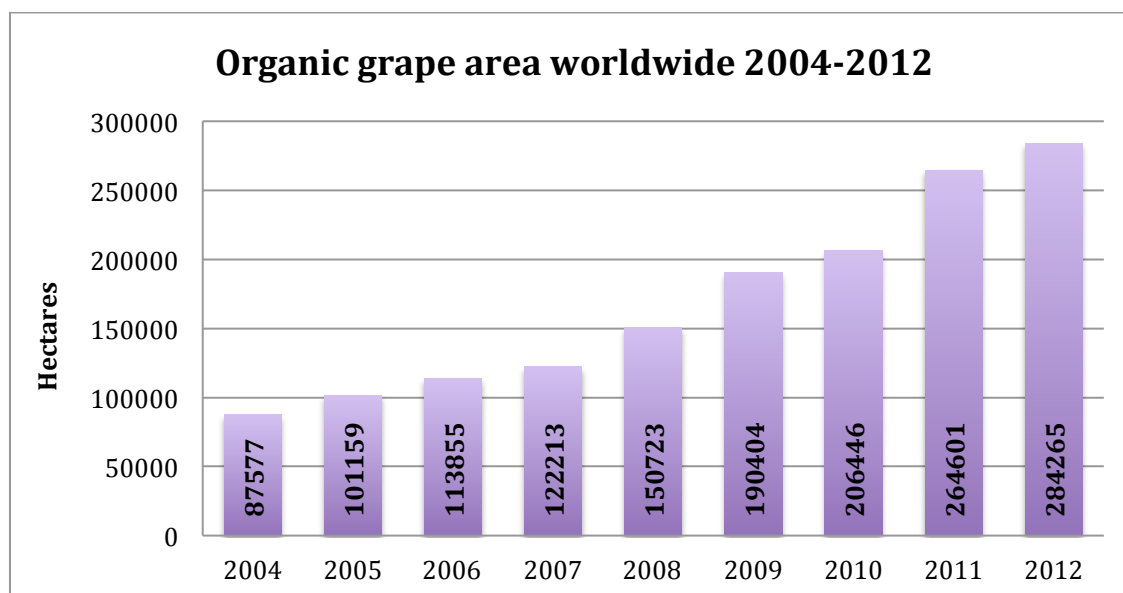
However, what is going on world is dramatically different in Europe and in the rest of the world. Europe's share of the world's vineyards has declined from 62,5 % of the total in 2000 to 56 % of the total vineyard surface in 2012. All other regions are increasing their share, as well as their acreage, most notably Asia, which now has 22,7 % of the world's vineyards - the vineyard acreage in China has ballooned with 90 %, from 300 000 hectares in 2000 to 570 000 hectares in 2012 (Karlsson, 2013a).



**Figure 17:** Area covered by vineyards worldwide 2002-2012

Source: Own elaboration based on OIV (2014)

When moving to the organic grapes, over 280 000 hectares of organic grapes are grown, which constitutes approximately 4 % of the world's grape growing area. Figure 18 shows totally opposite trend then presented in the Figure 17. While the total area of produced grapes is rapidly shrinking, area of organic vineyards is boldly increasing. It is necessary to mention that not all of the grape area is used for winemaking. The production of table grapes and raisins is important in many countries, for example Turkey. However, winemaking is still the major significance. The countries with the largest organic areas are Spain, France, and Italy (closer description in subchapter 5.2.2 Organic Winemaking in the EU).



**Figure 18:** Organic grape area worldwide: Development 2004-2012

Source: Own elaboration based on Willer and Lernoud (2014).

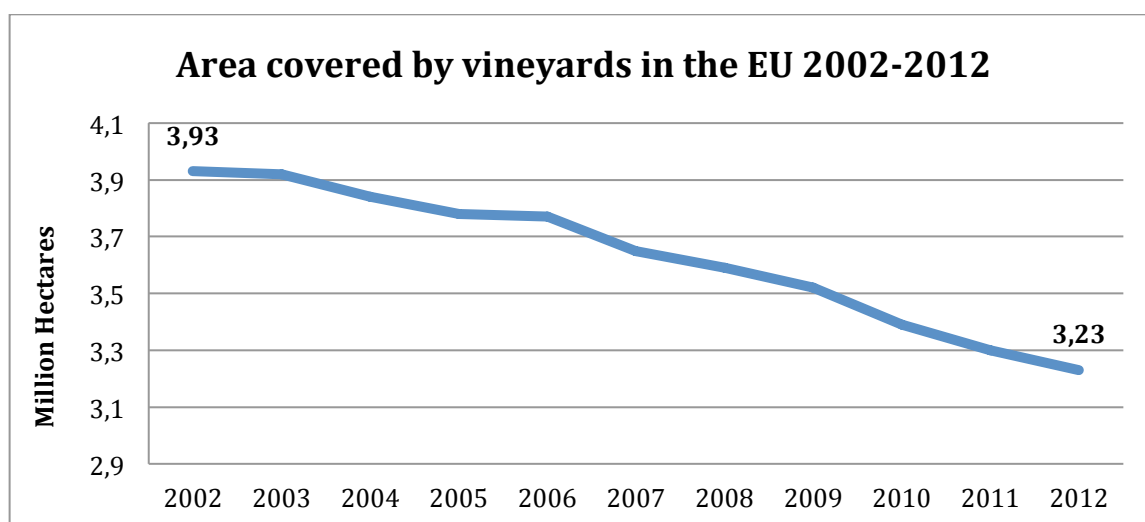


Since 2004, when data on land use and crops were collected for the first time, the organic grape area has more than tripled (increased by 225 %). However, some of the increase must be attributed to continually improving availability of crop data. The available data indicate that a large part of the total grape area (30 %) is in-conversion. If this is indicative, a considerable increase in supply of organic grapes may be expected, particularly from Spain, France and Italy (Willer and Lernoud, 2014).

### 5.2.2 Organic Winemaking in the EU

When talking about organic winemaking in the EU, it is necessary to remind that there was a major event happening in 2012 (more information in subchapter 4.4.2.1 Organic Winemaking in the EU). Until 2012, there was not a clear description of the “organic wine”; only known product was “Wine from organic grapes”. For wines produced organically before 1st august 2012, the producer can generally only use the label “Wine from organic grapes” and not the logo. This is the reason why in the statistics, data of organic grapes is used.

Figure 19, displaying area covered by vineyards in the EU between 2002 and 2012, shows the same trend as presented in Figure 17, displaying the area covered by vineyards worldwide between 2002 and 2012. The acreage is steeply decreasing from 3,93 million hectares in 2002 to 3,23 million hectares in 2012 – decreased in 10 years by 18 % (in the case of world acreage the decrease was only 5 %).



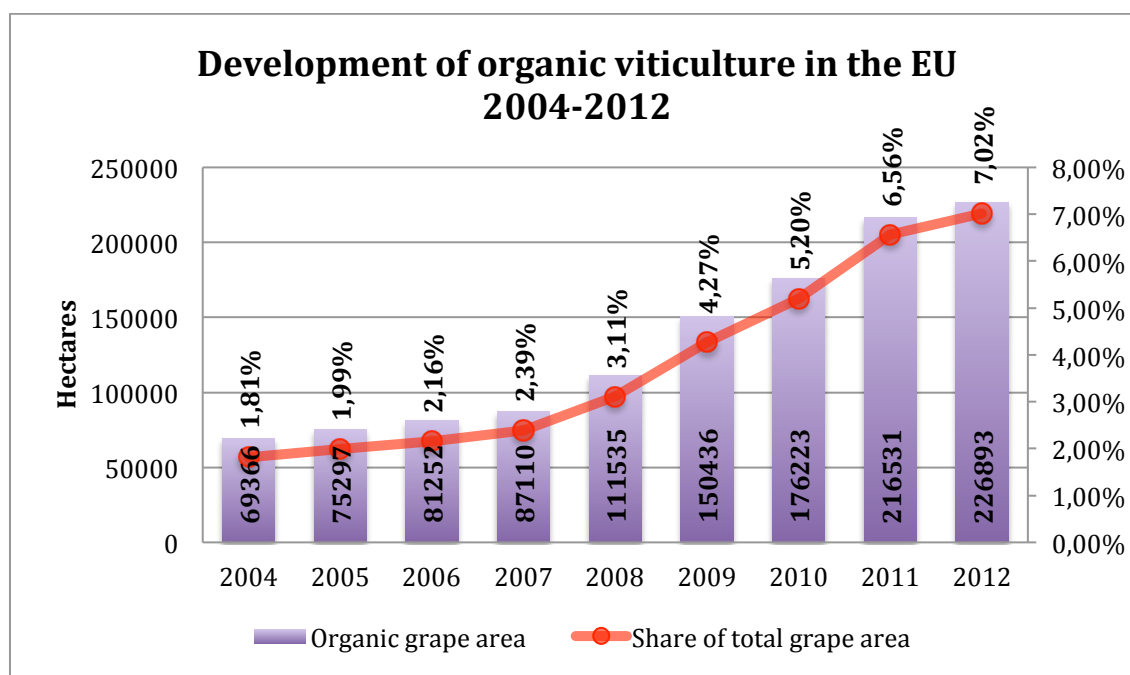
**Figure 19:** Area covered by vineyards in the EU 2002-2012

Source: Own elaboration based on FAOSTAT (2014)

According to Bettini (2014), the EU vine-growing area has been declining over the past few years due to shrinking margins and the implementation of the new Common Market Organization (CMO) grubbing-up scheme. The grubbing-up scheme

involved voluntary withdrawal from vine growing. Subsidies were decreased over three years (2009-2011) to reduce production of uncompetitive wines and cut surpluses. Producers were compensated for alternatives. According to the EU Commission, 175 000 hectares were taken out of production between 2009 and 2011, the last year of the program. The 2013 EU area under vines is therefore the second in 3 years not to be influenced by these premiums. However, this does not mean that the community vineyard is permanently stabilized in the long-term. Some countries (i.e., Spain and Italy) are still forecasting a reduction in their vineyards. Cumulative reductions in the surface areas of Member States are one of the effects of the low EU production levels observed in recent years.

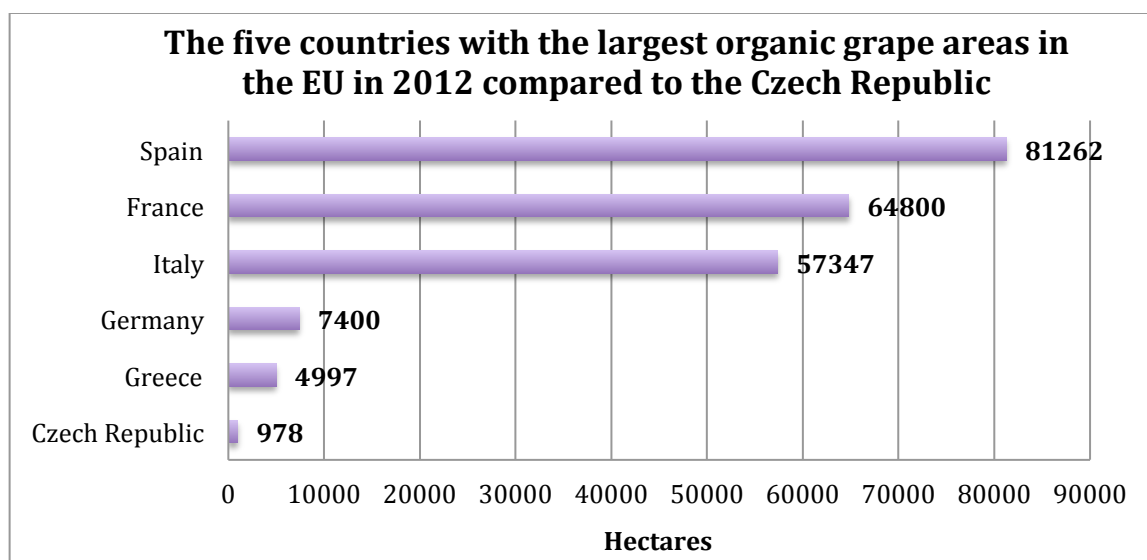
Willer and Lernoud (2014) states that there was 240 000 hectares of the harvested organic grape area in the whole Europe in 2012. When talking about the area within the EU, the number is slightly lower for the same year: 226 893 hectares which stands for 7,02 % of total grape area in the EU. In recent years, organic viticulture has gained more and more importance as Figure 20 shows. After a period of stagnation during 2004 and 2005, mainly due to a slow development in Italy and even decrease in organic vineyards there, the area under organic vines is currently growing fast. Double-digit growth rates have been achieved annually since 2008 (2008: +22 %, 2009: +26 %, 2010: +15 %, 2011: +19). Increase in the 2012 was slightly lower, only 5 %, but it might be due to the incomplete data in many countries.



**Figure 20:** Development of organic viticulture in the EU 2004-2012

Source: Own elaboration based on EUROSTAT (2014a)

According to the available data from the Eurostat, the largest areas of organic grapes are in Spain (8,4 % of total grape area), France (8,5 %) and Italy (7,9 %) - Figure 21. More than one third of EU's organic grape area is in Spain. The fourth country is Germany (7,4 %) and the fifth is Greece (4,8 %). The difference between Germany and Italy is significant – around 50 000 hectares. For the comparison, in the Czech Republic organic grape area covers 978 hectares and it is 6,1 % of total grape area. Most of the organic grapes are grown for wine, even though part of the production is used for raisins and table grapes.



**Figure 21:** Organic grape area in the EU: the five countries with the largest grape areas in 2012 compared to the Czech Republic.

Source: Own elaboration based on EUROSTAT (2014a)

While the rapid development of organic viticulture in the European union must partly be attributed to the agri-environment programs, it is also due to growing market for organic food in Europe. This is not only the case in the northern parts of Europe; in Spain, too, demand for organic wines is increasing. Whereas the technical challenges for organic grape production are not so severe in Spain, growth in other countries can also be attributed to developments particularly in the area of crop protection or the increased use of fungus-resistant varieties (IFOAM EU, 2013).

In a global context, EU is by far the largest player when it comes to organic vineyards: EU's 226 893 hectares of organic vineyards constitute 80 % of the total area under organic vines worldwide. Major producers outside the EU are the United States (15 647 hectares in 2012) and Turkey (6 571 hectares in 2012).

## 5.3 Wine Market Situation and Trends

Unfortunately, almost no market statistics are available for organic wine. This might be caused by the fact that the organic wine is new term officially brought to the EU market in the August 2012 (explained in the subchapter 4.4.2.1 Organic Winemaking in the EU). It will be shown that market shares of organic wine are not very high and the reason might partly be attributed to the circumstance that not all wine made from organic grapes is sold as organic. This is the case, for example, for wine made from grapes from areas under conversion. In some countries, direct payments play a bigger role than market prospects in incentivizing grape growers to convert.

### 5.3.1 Import and Export Rules of Organic Wines in the EU

#### Import

The regime for import of organic wines to Europe is set out in Council Regulation (EC) No 834/2007, which describes the arrangements for imports of organic products from third countries and entered into force at the start of 2009. The old system of import authorizations is being replaced step by step with this new one, which is based on a list of third countries whose organic regulations are approved as being equivalent to those of the EU, and a list of certification bodies whose rules are approved as meeting or exceeding EU organic standards. European importers may buy from any exporter that has been certified by an EU-approved certification body, which also has been approved by the country in which it operates and for the product category in question. As a temporary measure, import authorizations by EU member states must still be issued. The list of “equivalent” third countries includes, at the time of writing, Argentina, Australia, Canada, Costa Rica, India, Israel, Japan, Switzerland, Tunisia, the USA and the New Zealand; eleven countries in total, listed in Annex III of Regulation (EC) No 1235/2008.

With regard to organic wine, however, not all of these countries are recognized as equivalent, and only a small number of certification bodies (Annex IV of the regulation). This means that most third-country organic wines have to be imported through import authorizations issued by EU member states (IFOAM EU, 2013).

#### Export

- **USA.** The European Union signed an equivalency agreement with the National Organic Program (NOP) of the US Department of Agriculture (USDA) to facilitate the trade of organic products. This agreement includes alcoholic beverages, for which they state that European organic wine certified under Regulation (EC) No 834/2007 can be exported to the USA without an official certification from the NOP, but it must conform to its rules as a minimum standard. This

means that although European wines do not have to go through the official NOP certification process, they must be subjected to a check by NOP-accredited 'certifying agent' (there are 84 such agents worldwide, of which 35 are outside the US) to ensure that the winemaking conforms to NOP rules. If the winemaker passes this check, the exporter will apply for an import certificate from the US authorities, containing information about the client, product destination, type of wine, final handler and certifying body. This must be done for each individual consignment. Alternatively, European companies can export wine to the USA using the NOP certification, outside of the EU-USDA agreement in both cases, labels must be approved by the certifying agent and be in conformity with the label regulation of destination market in the US. For the USA, alcoholic beverage labels also have to be approved by the Tobacco and Trade Bureau. The non-equivalence between EU and USDA organic wine regulations mostly on the sulphite content and some additives is problematic for operators, forcing them to manage wine certified for the EU market separately and in a different way from wine for the US market. Although there is a good market for European organic wines in the USA, the rather burdensome nature of fulfilling these requirements may act to limit or prohibit the growth of trade volumes.

- **Canada.** The EU reached an agreement with Canada in 2011 on equivalence of organic products, but its scope does not extend to alcoholic beverages. European wine exported to Canada must be certified under the Canada Organic Regime. However, due to an equivalence agreement between the Canadian Food Inspection Agency (CFIA) and the USDA, European organic wines certified under the NOP can be sold as organic in Canada. For each consignment of wine to Canada, the certifying agent must issue a transaction certificate specifying the type of wine, the quantity and the client.
- **Brazil** has national-level organic regulations but no equivalency agreement with the EU; alcoholic beverages, like other beverages and food products, must be certified under the Brazilian regulations by a government-accredited agency.
- **Japan**, although it also has national organic regulations, does not yet have organic wine regulations. Thus, it is not possible to find a Japanese organic wine, as certified by Japan Agricultural Standards (JAS). European organic wine can be exported to Japan with Reg. (EC) No. 834/2007 certification but without JAS logo.

To facilitate international trade, there is a strong need to revise agreements between the EU and third countries to take account of new EU regulations for organic wine. Some countries such as Argentina are already negotiating with the EU on this topic. With respect to imports to the EU, there is also a need to add organic wines

to the scope of EU-accredited third country certification bodies - listed in Regulation (EC) No 1235/2008 (IFOAM EU, 2013).

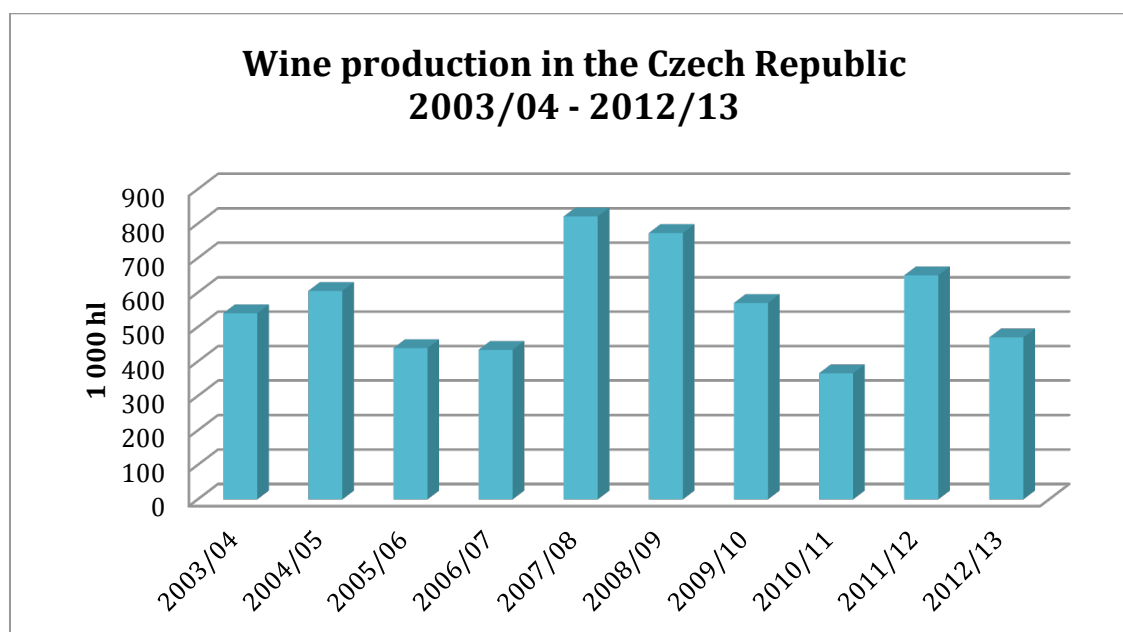
### 5.3.2 Wine Market in the Czech Republic

With the entry to the European Union in 2004, the Czech Republic had to commit that the acreage of vineyards will not be increased. According to Zajícová et al. (2013), the total usable area for grape production in the Czech Republic is around 19 633 hectares (for 31.12.2012), of which the planted area is 17 313 hectares. Compared to the data from 2006 (Bublíková et al., 2007), where the planted area was 18 395 hectares, the trend of planted area is still decreasing.

In recent years, the Czech wine market has faced new challenges mostly thanks to changes in market demand. Most consumers prefer higher quality wines (Chrastova and Mikulasova, 2010).

Wine production in the Czech Republic in the wine year 2012/2013 was lower compared to the average of the previous five years (2007/2008 to 2011/2012) – lower by more than one fourth (166 thousand hectoliters). In the 2012/2013 the production was 470 thousand hectoliters. As it can be seen in Figure 22, the fluctuation on the wine production is noticeable.

During the 2012, Czech wine producers grew less wine grapes (approximately by one third) than in 2011. The main reasons were frosts, which destroyed part of the grape roots and also very dry season, which lasted from the fall 2011. From the long-term perspective, the last season was below the average (Přibík, 2014).



**Figure 22:** Wine production in the Czech Republic 2003/04 – 2012/13

Source: Own elaboration based on Bublíková (2008, 2011), Zajícová (2012, 2013)

Whereas wine production in the Czech Republic has been slowly decreasing, wine consumption per capita and also wine consumption in total has been steadily growing. Since 2003/2004 until 2012/2013, the consumption of wine in the Czech Republic grew by almost 25 % from 1 684 thousand hectoliters to 2 090 thousand hectoliters. The consumption per capita has the very same trend. Since 2002/2003 until 2012/2013, the consumption per capita in the Czech Republic grew from 16,3 liters to 19,8 liters (further information can be found in the Appendix B – Wine Market in the Czech Republic).

When it comes to the Czech Republic and its trade of the wine, it has to be mentioned that import presents much higher figures than export. While 1,8 million hectoliters of wine was imported in 2012, only 280 thousand hectoliters of wine was exported (further information can be found in the Appendix B - Wine Market in the Czech Republic).

### **5.3.3 Organic Wine Market in the Czech Republic**

As already mentioned before, the organic production is more and more popular in the Czech Republic everyday. The area covered by organic lands is 488 658 hectares, it represents 11,5 % of the total agricultural land and this number places the Czech Republic on the 4<sup>th</sup> place within the whole EU. As it can be observed from the Figure 16, the area covered by organic lands in the Czech Republic is still rapidly increasing. Since 2006, the percentage of organic lands to non-organic lands increased by almost 5 percent till 2012. The trend is still increasing and the potential is enormous.

Each inhabitant of the Czech population spends around €7 on organic food products per year, and the share of organic food in total consumption have remained approximately 1 % over the long term (eAgri, 2014a). The reason for such a low share of organic food consumption is large price difference between organic and conventional food. The price of organic food in Czech shops is still tens to hundreds of percent higher than the price of comparable normal products (Czech News Agency, 2014). Only 4 % of Czechs buy organic food on a regular basis. About 60 % of organic food is imported, and total sales of organic food, including exports, are currently at the level of around €70 million (eAgri, 2014a).

Czech consumers buy most organic food from retail chains (67 %), followed in second place by health food and organic food shops (20 %). In 2011, another approximately 4 % of organic food was purchased in pharmacies, and sales at drug-store chains also substantially increased (3 %). The share of direct sales of organic food (consisting of farm-direct sales and direct purchases from producers and distributors) accounts for a further 4 %, the share of sales at independent small food shops is 1 %, and around 1 % of organic food is sold in restaurants (eAgri, 2014a).

Moving on to the organic wine, the area covered by organic grapes in the Czech Republic was 978 hectares in 2012 and it represented 6,1 % of total grape area.

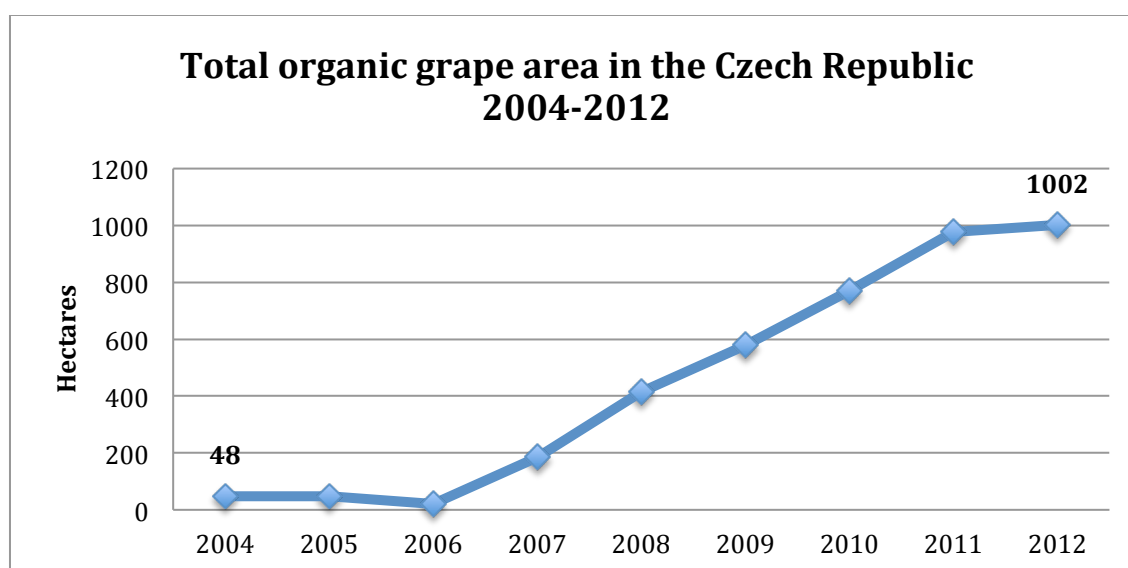
Out of this number, 442 hectares was fully converted and the rest (536 hectares) is still under conversion (Table 4).

Country	Organic area [ha]	Organic share [%]	Area fully converted [ha]	Area under conversion [ha]
Czech Republic	978	6,1	442	536

**Table 4:** Organic grape area in the Czech Republic in 2012

Source: Own elaboration based on Willer and Lernoud (2014)

When looking back at the non-organic wine cultivated in the Czech Republic, it was shown that the area covered by vineyards was decreasing from year to year (in 2006 – 18 395 hectares compared to 2012 – 17 313 hectares). The trend in the organic grape area is completely opposite. Figure 23 points out that since 2004 the total organic grape area increased by almost 20 times until 2012. This increase is significant and it presents that organic grape farming is on the good path.



**Figure 23:** Total organic grape area in the Czech Republic 2004-2012

Source: Own elaboration based on Eurostat (2014a), Kettnerová et al. (2013)

Note: Data for 2012: according to Kettnerová (2013) – 1 002 hectares; according to Eurostat (2014a) - 978 hectares

When it comes to registered organic farmers, at the end of 2012 there were 3 923 registered organic farms (or 3 907 organic business people). At the end of 2012, 448 businesses were registered as producers of organic food. Compared to 2011, there is a slight increase (6,2 %) of the number of registered processors of organic food. Out of these 448 registered processors of organic food, 75 businesses are registered wine producers (2012) and this number has risen significantly in recent years (Kettnerová et al., 2013).



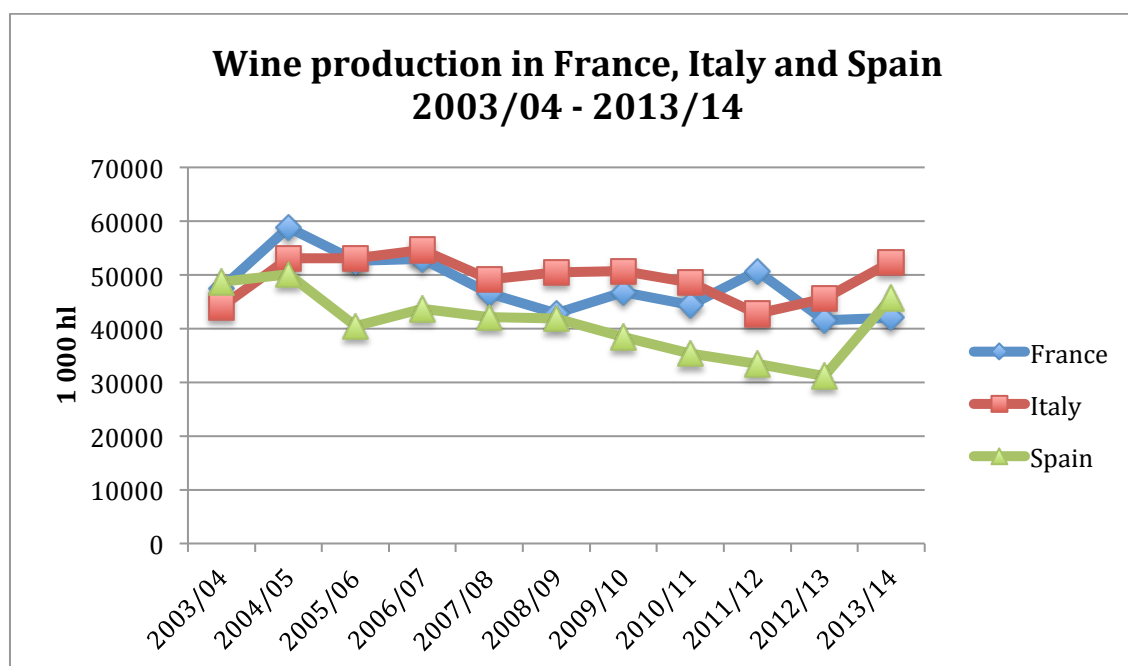
### 5.3.4 Wine Market in Selected EU Countries

The European Union (EU-28) is the world's leader in wine production, with almost half of the global vine-growing area and approximately 60 percent of production by volume. Italy, France, and Spain are the largest EU wine producing countries, representing 80 percent of total output (Bettini, 2014).

As presented in Figure 19, the area of vineyards in the EU is decreasing steadily (from 2002 decreased by 18 % till 2012). It is important to note that during 2008 to 2011 the EU has paid subsidies to wine growers to uproot vineyards. Year 2012 is the first year when subsidies have not been paid for grubbing up vines. During that period the vineyard area declined rapidly but almost leveled out in 2012. This shows how important agricultural politics are in Europe and in wine production (Karlsson, 2013a).

This phenomenon can be also seen in the Figure 24, which presents wine production in France, Italy and Spain. In 2012/2013 there was a steep decline in French and Spanish wine production, while Italian production was increasing in the same year.

According to IWC (2014), expected production figures in 2014 for France, Italy and Spain are following: **France** – 46 151 thousand hectoliters; **Italy** – 44 424 thousand hectoliters and **Spain** – 37 000 thousand hectoliters. A relatively poor harvest in much of Italy in 2014 will drop Italy to second in world wine production behind France, which will return to more normal harvest levels after two subpar years. Spain, which had a bumper crop in 2013/2014 and surprisingly outpaced France, will also return to normal and back to third position. It is necessary to mention that Italy remains, on average, the world's largest wine producer over the past decade. **Czech Republic** with production of 470 thousand hectoliters in 2012 cannot be even compared to these producing giants.



**Figure 24:** Wine production in France Italy and Spain 2003/04 – 2013/14

Source: Own elaboration based on Bublíková (2008, 2011), Zajícová (2012, 2013), OIV (2014)

Note: Data for 2012 and 2013 are estimated and are likely to change slightly in future reports

While the production of wine is pretty much the same in all three countries and the differences between production years of each country are not so wide, the same cannot be said about the wine consumption.

The trend of the consumption in the top three wine producing countries is completely reverse than in the case of the Czech Republic. Since 2003, the consumption in **France** decreased by 17 % until 2013. Other two traditional big European wine consuming, and producing, countries are showing the same trend (Appendix C - Figure 53). **Italian** consumption of wine decreased by 26 % and **Spanish** by 34 % over the ten years. When it comes to consumption per capita, the trend is declining as well. Per capita consumption in **France** has declined since the 2003 by 12 liters, stabilizing at 44,2 liters in 2012. **Italy's** per capita wine consumption is estimated to stay under 40 liters in 2013, considerably lower than the 50 liters in 2003 and 110 liters in the 70s. **Spanish** wine consumption has been decreasing for the last few years and stands currently at 21,5 liters per capita (decreased by 11 liters since 2003 until 2012), according to OIV (2014) and Karlsson (2013b). Closer information about the consumption can be found in the Appendix C – Wine Market in Selected EU Countries.

When moving on to the trade, **Italy** is by far the biggest exporter of wine in volume, exporting 21,2 million liters of wine in 2012 (for 2013 estimation - 20,3 million liters), up by 34 % from 2003. In second place comes **Spain** exporting 19,5 million liters of wine in 2012 (for 2013 estimation - 16,0 million liters), up by 23

% since 2003. Third place belongs to **France**, exporting 15,0 million liters of wine in 2012 (for 2013 estimation - 14,6 million liters), down by 4 % since 2003. In the case of imported wine, **France's** wine imports grew in the period 2003 – 2013 by 25 % and it positions France in the first place. **Italy's** wine imports recorded also the growth in the volume. Since 2003, the volume of imported wine increased by 42 %. **Spain's** wine imports surged by 150 % in 2013 – due to lower beginning stocks followed by the lower production in 2012. Since 2003, wine import in Spain increased by 450 % (for more details see Appendix C).

### 5.3.5 Organic Wine Market in the Selected EU Countries

As already mentioned in the subchapter 5.1.2. (Organic Farming in the EU) the trend of the organically cultivated area is growing in the EU. Since the 2006, **France's** organically cultivated area increased by 1,76 % (to 3,76 % in 2012), **Italy's** only by 0,08 % (to 9,12 % in 2012) and **Spain's** by 3,44 % (to 6,4 % in 2012). Compared to the Czech Republic the closest share belongs to Italy (Czech Republic's share of the organic agricultural land for 2012 was 11,5 %), this places these two countries within top 6 countries in the EU.

**France's** share of the organic food to the total food market in 2012 was approximately 2,3 % and the growth of the organic market continues in an overall stable food market. The value of the French organic sector is estimated at about €4 billion. Prices of organic products are at least twice those of conventional products and more than half of the French consumers states that it is normal for organic products to be more expensive. 9 % of the French consumers consume organic products on a daily basis. Market channels by which the organic food is sold are following: general retailers (45.6 %), specialized organic retailers (34.1 %), small shops, such as bakeries and butchers (4.4 %), direct sales (11.8 %), catering (4.0 %). In 2012, 25 % of organic products consumed in France were imported and it is 7 % less than in previous year (DGCCRF, 2013; Organic Europe, 2014).

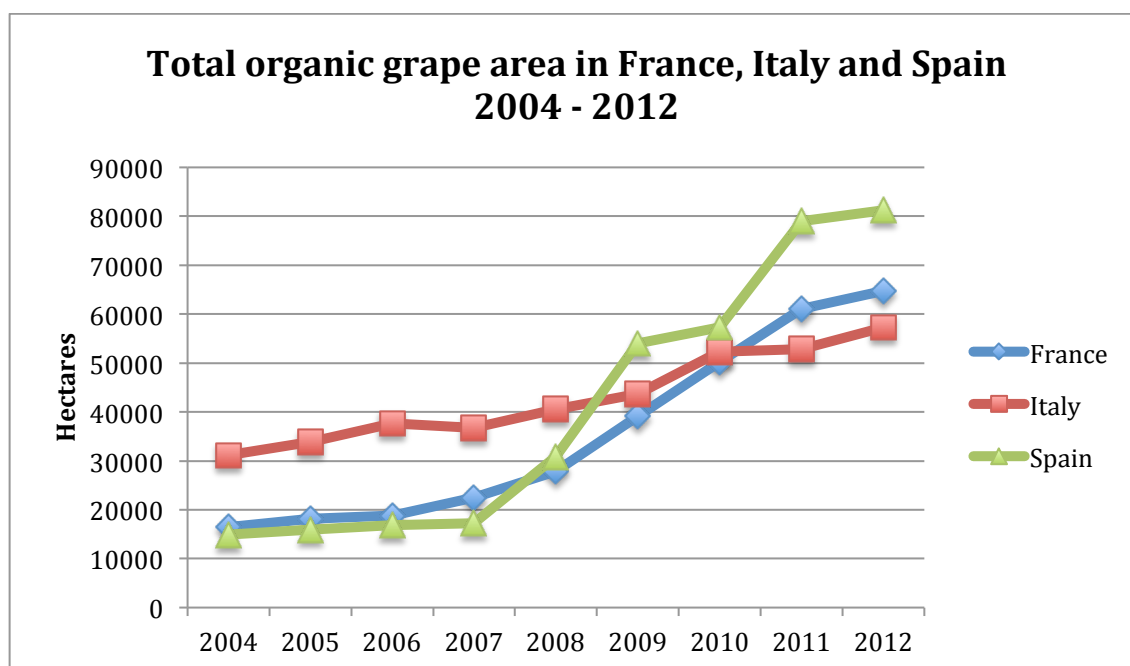
**Italy's** share of the organic food market to the total food market in 2012 was 3,3 %, taking advantage of favorable climate, agronomic conditions and also the close geographic access to major export markets. Organic farming growth in Italy is rapid and the domestic organic market is taking off. On average, Italians spend €25 each per year on organic products. The value of the Italian organic sector is estimated at about €2 billion. With increasingly informed consumers able to make educated and healthy choices, these figures are set to rise, making way for old and new producers to sell their great Italian goods on the international market. Prices of organic products are compared to conventional products higher by on average 50 %. Market channels by which the organic food is sold are following: general retailers/supermarkets (27.4 %), specialized organic shops (44.9 %), restaurants and caterers (13.6 %), other channels (14.1 %). Significant volume of produced

organic products is exported – about one third (Biasetti, 2013; Organic Europe, 2014).

The **Spain's** organic market is smaller than average for the EU, but it has grown steadily in the last five years. The market share of organic products is around 1 % and the per capita consumption for organic products is €20. The value of the Spanish organic sector is almost €1 billion. Since its beginnings, Spanish organic production has always been export-oriented, mainly due to strong consumer demand from Central European countries. It is estimated that 80 % of the production is destined for export, mainly for EU countries (89.2 %), especially Germany, France and the UK. A significant volume of processed organic products is also imported (around 20 %). In 2012, the top five grocery retailers (supermarkets and hypermarkets) controlled over 50 % of the organic products market. Small scale organic manufactures face difficulty reaching these large retailers (Green European Journal, 2013; Organic Europe, 2014).

When moving on to the organic wine, unfortunately almost no market statistics are available due to the new rules given by the EU in 2012. Before 2012, there was not a clear definition of the organic wine and the statistics can be drawn only from the organically cultivated grapes.

The growth of the organically cultivated grape area is enormous in all three selected EU countries (Figure 25). Since 2004, the organic grape area in **France** grew by almost 300 % to 64 800 hectares in 2012 and it represented 8,5 % of total grape area. Out of this figure, more than 60 % is fully converted area (Table 5). In the case of Italy, the change is not that high as in the case of France. **Italy's** organic grape area increased since 2004 by 84 % to 57 347 hectares (in 2012), this represents 7,9 % of the total grape area and more than 60 % is already fully converted area. The last, but not least is Spain. **Spain's** organic grape area has seen the greatest growth out of these countries and this positions Spain to the first place as a country with the largest organic grape area in the world. Since 2004, the organic grape area grew by almost 450 % to 81 262 hectares in 2012. It represented 8,4 % of total grape area and 60 % was already fully converted.



**Figure 25:** Total organic grape area in France, Italy and Spain 2004-2012

Source: Own elaboration based on Eurostat (2014a)

Country	Organic area [ha]	Organic share [%]	Area fully converted [ha]	Area under conversion [ha]
France	64 801	8,5 %	40 449	24 351
Italy	57 347	7,9 %	36 937	20 410
Spain	81 262	8,4 %	49 365	31 897

**Table 5:** Organic grape area in France, Italy and Spain in 2012

Source: Own elaboration based on Willer and Lernoud (2014)

According to Chaon (2013), growing grapes organically is highly labor-intensive and it is estimated that 3,5 full-time staff are needed per hectare compared to 1,8 in conventional agriculture. She explains that this is the reason why the prices for organic wine are higher than for conventional wine. She further states that organic wine used to sell at almost double the price of the conventional product and that it has to be counted on a premium of 30 to 40 percent, otherwise that would not be profitable.

As mentioned before, unfortunately almost no market statistics are available on organic wine. The only available complete data considering the organic wine market from the selected EU countries is for France, which serves as a good model. For example, the revenue from organic wines was 410 million Euros in 2013 and they constituted 4 % of all wine sold in the country. This was higher share than for total food market, but it is still pretty low number. One reason for the low share

could be that direct marketing, which is not so easy to capture in the statistics, plays a major role in the marketing of organic wine. The fact that market shares for organic wine are not higher might partly be attributed to the circumstance that not all wine made from organic grapes is sold as organic. This is the case, for example, for wine made from grapes from areas under conversion. In some countries, direct payments play a bigger role than market prospects in incentivizing grape growers to convert.

## 5.4 PEST(L)E Analysis

### 5.4.1 Political & Legal Factors

#### EU legislation

Wine is a crop, which characterizes the landscape of the whole Europe and is very important considering the continent's tradition and history. Wine is very important for European lifestyle, economy and also from the commercial point of view. With the entrance of the new organic trend to the market, writing of the EU legislation for production of organic wine has been necessary and also very lengthy process.

1. In 1991, the first European regulation on organic food production was introduced – **Council Regulation (EEC) No 2092/91** of 24 June 1991 on organic production of agricultural products and indications referring thereto on agricultural products and foodstuffs. This regulation presents only organically cultivated grapes, but not organic wine. It was permitted to sell “wine from organic grapes”, but not “organic wine”.
2. The 1991 EU organic regulation was renovated and replaced by **Council Regulation (EC) No 834/2007 of 28 June 2007** (applicable from 1st January 2009) on Organic Production and Labeling of Organic Products - setting out the principles, aims and overarching rules of organic production and defining how organic products were to be labeled. This regulation introduced organic wine in the scope, but gave no details about it in the implementing rules.
3. In 2008, **Commission Regulation (EC) No 889/2008** of 5 September 2008 laying down detailed rules for the implementation of Council Regulation (EC) No 834/2007 on organic production and labeling of organic products with regard to organic production, labeling and control was accepted. In 2010, the **Commission Regulation (EU) No 271/2010** of 24 March 2010 introduced the EU organic logo. Its use is governed by Article 57 of Commission Regulation (EC) 889/2008.
4. The biggest breakthrough considering the “organic wine” is **Commission Implementing Regulation (EU) No 203/2012** of 8 March 2012 amending

Regulation (EC) No 889/2008 laying down detailed rules for the implementation of Council Regulation (EC) No 834/2007, as regards detailed rules on organic wine. This regulation was applicable from 1<sup>st</sup> August 2012 and it sets new rules for “organic wine”. From the 2012 harvest, organic growers are allowed to use the term “organic wine” on their labels. The labels must also show the EU-organic-logo and the code number of their certifier, and must respect other wine labeling rules. Key parts of the regulation:

- Maximum sulphite content set at 100 mg per liter for red wine (150 mg/l for conventional);
- 150mg/l for white/rosé (200 mg/l for conventional);
- With a 30mg/l differential where the residual sugar content is more than 2g per liter.

### **Custom policy – EU**

Thanks to the EU Custom Union (1<sup>st</sup> July 1968), there are created rules on trade within the whole European Union. These rules are following:

- No customs duties at internal borders between the EU Member States;
- Common customs duties on imports from outside the EU;
- Common rules of origin for products from outside the EU;
- A common definition of customs value.

The regime for import of organic wines to Europe is set out in **Council Regulation (EC) No 834/2007**, which describes the arrangements for imports of organic products from third countries and entered into force at the start of 2009. New system is based on the list of third countries whose organic regulations are approved as being equivalent to those of the EU, and a list of certification bodies whose rules are approved as meeting or exceeding EU organic standards. European importers may buy from any exporter that has been certified by an EU-approved certification body, which also has been approved by the country in which it operates and for the product category in question. As a temporary measure, import authorizations by EU member states must still be issued.

The list of “equivalent” third countries includes, at the time of writing, Argentina, Australia, Canada, Costa Rica, India, Israel, Japan, Switzerland, Tunisia, the USA and the New Zealand; eleven countries in total, listed in Annex III of Regulation (EC) No 1235/2008.

With regard to organic wine, however, not all of these countries are recognized as equivalent, and only a small number of certification bodies (Annex IV of the regulation). This means that most third-country organic wines have to be imported through import authorizations issued by EU member states (IFOAM EU, 2013).

When it comes to export, there are arrangements of the EU with trade partners. It is necessary to comply with partner's import regime and to check the requirements of the country's competent authority to be able to export the goods.

### **Policy support – EU**

Support to organic farming can provide an important contribution to the objectives of this policy, since as a quality measure it helps to improve the competitiveness of agriculture and as a farm management system it contributes to improving the environment and the countryside.

The new **Common Agricultural Policy (CAP) (2014-2020)** recognizes the role of *organic farming* in responding to consumer demand for more environmentally friendly farming practices: In the first pillar organic farms will benefit from the green direct payment without fulfilling any further obligations because of their overall significant contribution to environmental objectives. From 2014 onwards, the new Common Agriculture Policy (CAP), is a *greener* CAP. All Member States, all rural areas and all farmers will take simple, proven measures to promote sustainability and combat climate change. Between 2014 and 2020, over EUR 100 billion will be invested in the European Union's rural areas to help farming meet the challenges of soil and water quality, biodiversity and climate change:

- 'Greening' of 30 % of direct payments to farmers will be linked to three environmentally-friendly farming practices: crop diversification, maintaining permanent grassland and conserving 5 %, and later 7 %, of areas of ecological interest as from 2018 or measures considered to have at least equivalent environmental benefits.
- At least 30 % of the rural development program's budget will have to be allocated to agri-environmental measures, support for organic farming or projects associated with environmentally friendly investment or innovation measures.

The new CAP (2014-2020) is a more efficient and transparent compared to the CAP (2007-2013).

The **Rural Development Policy (2014 – 2020)** is a very important and relevant tool to support the sustainable development of rural areas and agriculture including organic farming, in the EU. Rural development is implemented by Member States and regions under a common legislative framework and guidelines in the form of rural development programs. These programs are co-financed by the European Union and Member States and are implemented in seven-year cycles (EUROPA, 2014e). It is expected that applications for subsidies in this program will be accepted during the April 2015.



### 5.4.1.1 The Czech Republic

#### Legislation

While the Czech Republic, as a member of the EU since 2004, has to follow EU regulations, organic farming has its own law - **Act No. 242/2000 Coll. on organic farming**, which came into force in 2001 and remains valid. While the Czech Republic has to use the EU organic logo (subchapter 4.4.1.1 Organic Farming in the EU), it also has a national logo – the *Bio zebra* (Figure 26). **Decree No. 16/2006 Coll.** sets out the rules of usage for the national organic logo. This logo can be used only in the compliance with Act No. 242/2000 Coll. and Decree No 16/2006 Coll. However, there is a discussion on the future of the Czech logo. With the mandatory use of the organic logo of the EU, the two logos (national and EU) communicate the same information to the consumer. Therefore, it was decided that a national logo should be used only for domestic Czech organic food production. The realization of this strategy is not finished yet (eAgri, 2014b).



**Figure 26:** The organic logo of the Czech Republic  
Source: eAgri (2014b)

#### Registration and certification

According to the eAgri (2014a), to be able to organically farm in the Czech Republic it is necessary to register as an ecological entrepreneur and get the organic certification. Since 1<sup>st</sup> January 2012, potential organic entrepreneurs do not have to pay fee of 1 000 CZK to be put into the register. After being registered, it is necessary to get certified by relevant organic certification bodies. In the Czech Republic, there are four of these bodies:

- KEZ o.p.s. – Kontrola ekologického zemědělství
- ABCERT AG
- Biokont, CZ s.r.o.
- BUETEAU VERITAS CZECH REPUBLIC, s.r.o.

These bodies are approved to provide licensed inspections associated with issuing of the certification of origin of the organic food and organic product. Farm-

ers, growers and processors must register with one of these organic associations in order to produce and market a product to organic standards.

### Custom policy

The Czech Republic, as a member of the EU, has to follow common rules set by the EU Custom Union.

### Policy support

In 2012, EU subsidies created 80 % of all subsidies to the Czech organic wine farmers. The rest of 20 % was financed by Czech state. In 2012, there were a total number of 76 requests for payment of the subsidies (under organic vineyard farming culture). The rate of aid was set to 21 410,08 CZK/ha. The amount of aid paid for all 76 applicants reached 19 326 265 CZK to the total area of 893 ha (Zajícová, 2013). The supporting channels in the Czech Republic are following:

- *National action plan*: In collaboration with non-governmental organizations the Ministry of Agriculture has prepared the **Action plan of the Czech Republic for development of organic farming 2011-2015** (*Akční plán ČR pro rozvoj ekologického zemědělství v letech 2011-2015, 2010*) runs from 2011 to 2015. The Czech government adopted the new Action Plan in December 2010. The main objectives of the Action Plan are to achieve a 15 % proportion of organic farming by 2015, a 60 % share of Czech organic foods in the organic foods market, and a 3 % share of organic foods in the food market overall.
- *EU Support*
- *Other policy support*: Support from the Ministry of Agriculture for promotional and education events, such as the Organic Food Month, the Bioacademy Lednice, training for the staff of control bodies, participation in trade fairs, the printing of the Yearbook on Organic Farming and other promotional materials, and the collection of organic farming data for Eurostat. Support is also available to NGOs (Bioinstitut, PRO-BIO Association, PRO-BIO League) and the Czech Technology Platform for Organic Agriculture (Hrabalová, 2014).

#### 5.4.1.2 France, Italy and Spain

##### Legislation

When it comes to **France**, it follows the uniform regulations through the European Union, but the specifications and reading guides are in force as well. In anticipation of harmonized production rules for those products and activities at European level, France has approved several specifications and several guides. For example: a guide to reading the key points raised by the European regulations; Labeling guide

providing details and concrete examples for the operators concerned; A guide listing the pesticides used in organic farming.

Next to that, France has also national organic logo (Figure 27) – AB (Agriculture Biologique). This logo indicates that the products are 100 % organic and contain at least 95 % of organic agricultural products in the case of processed products. This logo is wholly owned by the French Ministry for Agriculture, which also defines the rules for use (Agence Bio, 2014).



**Figure 27:** The organic logo of France

Source: Agence Bio (2014)

The EU legislation on organic farming and other regulations apply in **Italy** as well, but there are also additional provisions. The competent authority is the Ministry of Agriculture, Food and Forestry (*Ministero per le Politiche Agricole, Alimentari e Forestali – MiPAAF*). Two organizations have private standards of national significance that are more restrictive than the EU Organic legislation: AIAB's Garanzia AIAB, certified by ICEA, CCPB, IMC, Bios and *QCertificazioni Codex*, and AMAB's Garanzia AMAB, certified by IMC (Romeo, 2014).

According to Gold (2014), organic wines would be much more widespread in Italy if legislation and organizing entities were more unified. The expense of certification and the length of the time needed to be certified, but the confusing number of certifying entities is perhaps the most prominent reason winemakers choose to forgo the process. Each one has different standards, and it is not always clear where those practices fit in with EU regulations. In Italy, there is no national logo and only the EU logo for organic products is used.

As well as in France and Italy, the EU legislation on organic farming and other regulations apply also in **Spain**. Interesting is, that in some regions (Aragon, Andalusia, Castilla-La Mancha), private control bodies are authorized to control organic producers and processors. In the other regions, semi-public (sector representatives and administrations) or public administrations are responsible for the im-

plementation of EU legislation. As in Italy, there is no national logo for organic products, but in all the regions with semi-public or public control bodies, a common logo is used (with the name of the region – Figure 28). In regions without public control bodies, the logos of the private control bodies are used (Gonzalvez, 2014).



**Figure 28:** The organic logo of the region Aragón in Spain

Source: MAGRAMA (2014)

### Custom policy

France, Italy and Spain, as member countries of the EU, have to follow the common rules set by the EU Custom Union.

### Grant policy

#### France

The supporting channels in France are following:

- *National action plan:* The action plan Ambition Bio 2017 has the general goals of doubling the proportion of land farmed organically by the end of 2017, and promoting consumption of organic products. There are six main areas of activity: developing production; strengthening the organic food chain; developing domestic consumption and exports; strengthening research and the dissemination of results; training actors in the organic food chain; and adapting regulations.
- *EU Support.*
- *Other policy support:* Other support is given for the promotion of organic farming, food chain development, and research and extension services (Mercier, 2014).

#### Italy

The supporting channels in Italy are following:

- *National action plan*: The national plan for organic agriculture and organic produce (Piano d'Azione Nazionale per l'agricoltura Biologica e i prodotti biologici) was developed by the Ministry of Agriculture and Forestry Policies (MiPAAF) in 2005. In 2008, a national program for the development of organic agriculture and organic produce was launched.
- *EU Support*: Direct payments and other types of support are structured in line with the CAP 2014-2020. At the national level, the National Strategy Plan (NSP) for rural development (Piano strategico nazionale per lo sviluppo rurale) applies. At the local/regional level, regional rural development programmes exist.
- *Other policy support*: Special financing for research on organic agriculture at national level (Programmi per la ricerca in agricoltura biologica) (Romeo, 2014).

### Spain

The supporting channels in Spain are following:

- *National action plans*: Several organic action plans are being implemented in different regions (Canary Islands, Catalonia, Basque country, etc.), and in other regions, new action plans are currently being formulated (Andalucia, Valencia). However, most of these plans do not have specific targets.
- *EU Support*: In most of the regions, rural development measures have been supported since 1998. There are sometimes considerable differences between the regions. Each region must decide for itself, which crops are to be supported.
- *Other policy support*: Other areas of support include activities to promote organic farming organizations (SEAE, FEPECO, INTERECO, CAAE), support for organic farming research at some state research stations, for the organic advisory service in Andalucia, and for the participation of the most relevant companies at organic trade fairs (Gonzalvez, 2014).

### **5.4.2 Economic Factors**

When it comes to economic factors in the case of organic farming, the 2011 UNEP Green Economy Report (UNEP, 2011) suggests that "an increase in investment in green agriculture is projected to lead to growth in employment of about 60 per cent compared with current levels" and that "green agriculture investments could create 47 million additional jobs compared with conventional over the next 40 years." The UNEP also argues that "by greening agriculture and food distribution, more calories per person per day, more jobs and business opportunities especially in rural areas, and market-access opportunities, especially for developing countries, will be available."

The best way to look at the whole economic situation of organic farming is, at the first, to compare organic farming vs. conventional farming from the economic point of view. After this phase also other economic indicators have to be mentioned to depict the whole situation more closely. As the Czech Statistical Office (CSO, 2014) recommends, the best way is to look and compare following indicators within the Czech Republic and selected countries in the EU (France, Italy and Spain):

- Unemployment rate;
- The average monthly wage in the sector of agriculture;
- Minimum monthly wage;
- Hourly labor cost.

In the next part, the exchange rate and tax policy of selected countries will be described.

### **Organic winemaking vs. conventional winemaking**

According to SJAR (2012) grape is a perennial crop that, compared to other crops, has relatively low nutritional needs and adapts well to marginal soils. This feature is considered very relevant to produce organically and makes conversion easier than for other crops. While other crops suffer many problems over the period of transition from conventional to organic, grape cultivation does not as long as the minimum level of nutrient needs is guaranteed to avoid productivity loss. These features make organic grape production a technically feasible, economically attractive and sustainable activity.

Selection of resistant varieties in organic viticulture plays a vital role in ensuring high immunity against pests and diseases, high adaptation to the environmental conditions (rainfall, temperature, frost, humidity and soil quality), high productivity and profitability. Other operations are considered important to guarantee an excellent growing season for organic grape. Organic vineyard requires correct training operations to facilitate pruning (a critical practice), spraying and harvesting.

When talking about the economic point of view, according to SJAR (2012), the average price received by organic farms more than doubles the average conventional price, suggesting statistically significant organic price premiums. The proportion that agricultural revenue represents within total farmers' revenue, which measures the degree of diversification in income sources, is 68% for organic farms and 77% for conventional farms. Hence, organic farmers have more diversified income sources. Subsidies (almost 70% of organic farms receive public subsidies) and price premiums compensate for the low yields and high costs in organic farming, leading to substantially higher incomes on a per hectare basis: EUR 4,004 (or-

ganic farms; revenue from organic grapes and other organic farm activities = EUR 4233) vs. EUR 2,670 (conventional farms; revenue from conventional grapes and other conventional farm activities = EUR 2792).

Following table (Table 6) describes the economic differences between the organic winemaking production and conventional winemaking production.

	Unit	Organic winemaking	Conventional winemaking
<b>Labor</b>	Hrs/ha	458,93	285,76
<b>Machinery</b>	N/ha	0,66	0,49
<b>Other variable inputs (farming overheads and young vine plant expenditures)</b>	€/ha	860,51	834,94
<b>Fertilizers and crop protection</b>	€/ha	380,92	284,12
<b>Total cost (specific grape production costs, farming overheads, labor costs)</b>	€/ha	1813,93	1,508,55

**Table 6:** Statistics on a per hectare basis (costs)

Source: SJAR (2012)

As it can be seen in the Table 6, organic winemaking is more demanding than conventional winemaking. When it comes to the labor, the difference between hours needed to work on the hectare of organic vineyard and conventional vineyard is 173,17 hours in behalf of conventional winemaking (conventional winemaking needs only 285,76 hours per hectare, whereas organic winemaking needs 458,93 hours per hectare). It means that there is more labor force needed in the case of organic winemaking than in the case of conventional winemaking (higher costs per hectare). Machinery needed per hectare shows the same trend as in the case of labor. Organic winemaking needs 0,66 agricultural machines per hectare (machines include any farm equipment: tractor, manure spreaders, pre-pruning, cultivators, shredders, etc.), while conventional one needs only 0,49 machines per hectare.

When comparing costs, other variable inputs (farming overheads and young vine plant expenditures); fertilizers and crop protection expenditures; total costs (specific grape production costs, farming overheads, labor costs) have to be summed up and compared. The sum of costs in the case of organic winemaking is 3055,36 euros per hectare, while in the case of conventional winemaking the cost is slightly lower - 2627,61 euros per hectare, which is lower only by 427,75 euros per hectare.

The difference between income and costs per hectare leads to profits per hectare of EUR 2,419 for organic farms and EUR 1,283 for conventional ones. Hence, organic profits per hectare almost double conventional profits.

As it was already mentioned before (and shown in the figures in the previous text), grape is compared to other crops considered as relatively easy to convert from conventional production to organic production. These features make organic grape production a technically feasible, economically attractive and sustainable activity. That is why farmers should not be scared to convert.

#### 5.4.2.1 The Czech Republic

##### Unemployment rate

The following table (Table 7) illustrates development of the basic macroeconomic indicator unemployment in the Czech Republic between 2009 and 2013. Both indicators are explained in the further text.

	2009	2010	2011	2012	2013
<b>Unemployment rate [%]</b>	6,7	7,3	6,7	7,0	7,0

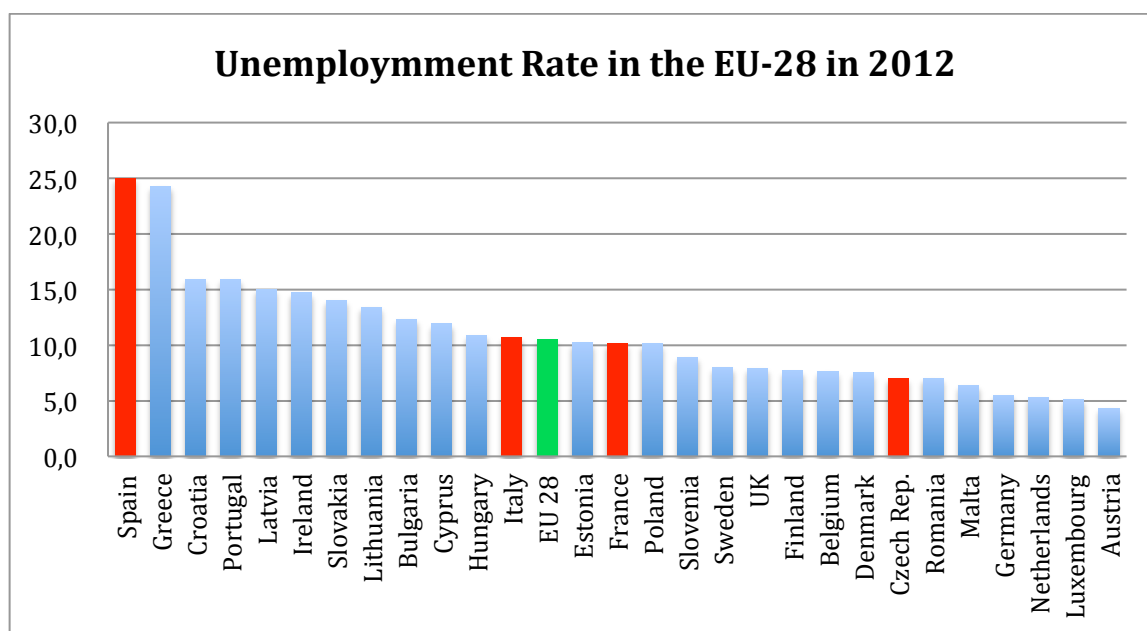
**Table 7:** Development of the unemployment in the Czech Republic

Source: Own elaboration based on CSO (2014)

The unemployment rate refers to the share of the labor force that is without work but available for and seeking employment. The source of data on the numbers of job applicants out of work, who are registered by the labor offices, is the Ministry of Labor and Social Affairs. Unemployment rate is derived as the ratio of the number of job applicants out of work to the number of employment as obtained by the LFSS – Labor Force Sample Survey (annual moving average) plus the number of job applicants registered by the labor offices and out of work (annual moving average). Women on additional child-care leave are excluded from the number of employment (CSO, 2014).

The unemployment rate in the Czech Republic remained unchanged at 7,0 % in 2014 from 7,0 % in 2013. The average unemployment rate from 1990 until 2014 is 5,58 %, reaching an all time high of 9,7 % in 2004 and a record low of 0,09 % in 1990. During the last five years (2009 – 2013), the unemployment rate was moving around the 7 % and according to the Figure 29, this number placed the Czech Republic to the position of the 7<sup>th</sup> lowest unemployment rate country in the EU-28 (for 2012). The average of the EU-28 in 2012 was 10,5 % - the Czech Republic has never had such a high percentage, which is very positive.





**Figure 29:** Unemployment rate in the EU-28 in 2012 (percentage)

Source: CSO (2014)

### The average monthly wage in the sector of agriculture

It is also necessary to compare the average monthly net wages in the sector of agriculture, forestry and fishery. The following table (Table 8) compares these figures in the Czech Republic. For further comparison, Table 10 presents figures for sector of agriculture in France, Italy and Spain.

	2002 [EUR]	2006 [EUR]	2010 [EUR]	2012 [EUR]
<b>Czech Republic</b>	301	559	639	708

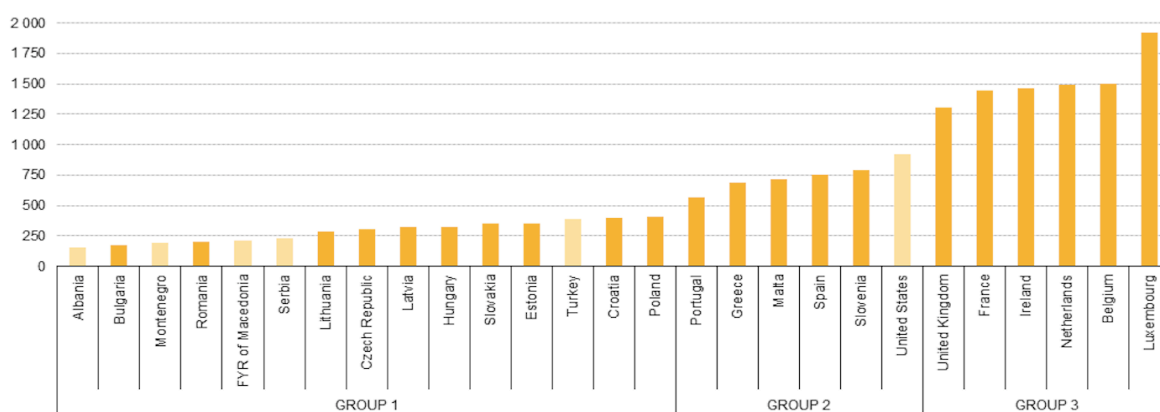
**Table 8:** Development of the average monthly wage in the sector of agriculture in the Czech Republic

Source: Own elaboration based on Eurostat (2015b), TWB (2014)

In the Czech Republic the average wage, when it comes to the agricultural sector, is constantly increasing. Since 2002 until 2012, the average wage increased by 135% from 301 euro per month to 708 euro per month per employee. The increase is due to the constant development of the economic and agricultural environment. It is expected that the wage in the sector of agriculture will still steadily increase, however compared to the average wage in the Czech Republic as a whole, it is lagging behind (average monthly wage in 2012 in the Czech Republic was 908 euro/month per person – CSO, 2014).

## Minimum monthly wage

Another interesting comparison in the sphere of labor is minimum monthly wage (Figure 30). The Czech Republic belongs, according to Europa (2014f), to the group number one, where the minimum wage is lower than EUR 500 per month. The second group is for countries with minimum wage from EUR 500 to EUR 1 000 and the third group for minimum wage higher than EUR 1 000. For countries outside of the Eurozone (the Czech Republic, etc.), levels and ranking of minimum wage expressed in euro terms are affected by exchange rates.



**Figure 30:** Minimum wage, July 2014 (EUR per month)

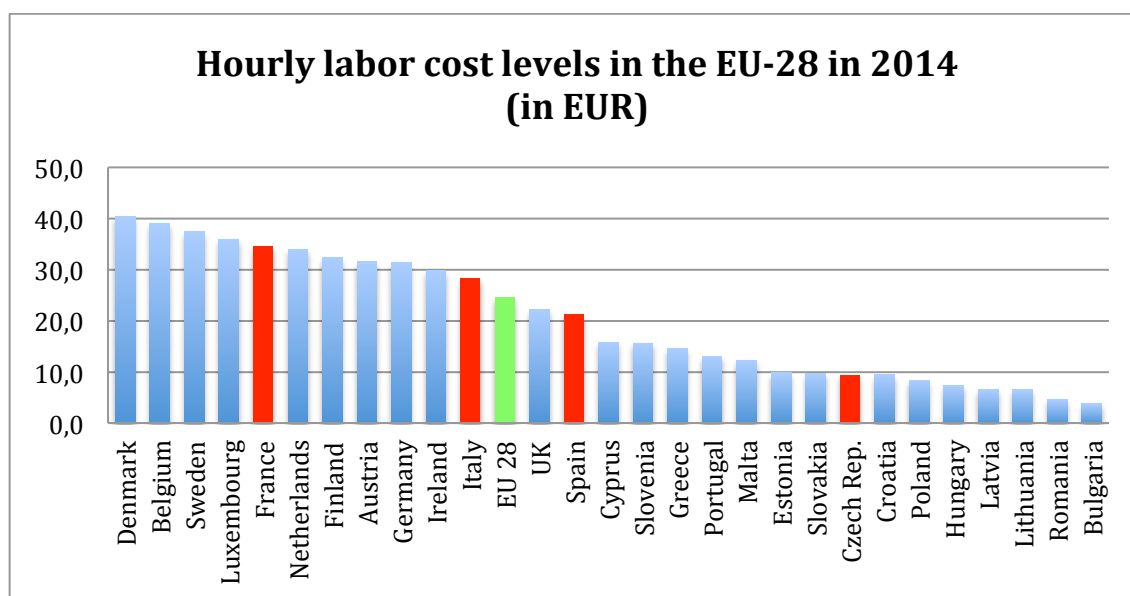
Source: Europa (2014f)

Note: Denmark, Germany, Italy, Cyprus, Austria, Finland and Sweden: no national minimum wage.

## Hourly labor cost

Labor cost or total labor cost is another very important economic indicator. It is the total expenditure borne by employers for employing staff. Total labor cost consists of: employee compensation (including wages, salaries in cash and in kind, employers' social security contributions); vocational training costs; other expenditure such as recruitment costs, spending on working clothes and employment taxed regarded as labor costs; minus any subsidies received (Eurostat, 2015).

According to the Figure 31, average hourly labor cost level within the EU 28 was estimated at EUR 24,6. However this average masks significant gaps between EU Member States, with hourly labor costs ranging between EUR 3,8 in Bulgaria and EUR 40,3 in Denmark. When comparing labor cost estimates in euro over time, it should be noted that data for those Member States outside the euro area are influenced by exchange rate movements. This is the reason why countries out of the euro area can be more likely found in the lower part of the chart. The Czech Republic belongs with EUR 9,4 among ten countries with the lowest hourly labor cost within the EU 28.



**Figure 31:** Hourly labor cost levels in the EU-28 in 2014 (average for 2014 in EUR)  
Source: Eurostat (2015a)

### The exchange rate

The Czech Republic can use the exchange rate as an additional monetary policy instrument – using foreign exchange interventions to weaken the CZK – to maintain price stability in the Czech economy in line with the CNB's inflation target (mentioned before – 2 % since 2010). The CNB is trying to significantly limit the risk of deflation.

The CNB Bank Board decided to use the exchange rate as a monetary policy instrument, and therefore to commence foreign exchange interventions, on 7 November 2013. It was decided to weaken the koruna so as to maintain the exchange rate of the koruna against the euro close to CZK 27/EUR in accordance with the Bank Board's decision. Since the November 2013, the exchange rate has been pretty stable and no deflections have been registered.

Figure 32 shows the development of CZK to EUR from 2008 until 2014. Terms of export are ideal when the CZK is low, because products are relatively cheaper for foreign traders. The ideal period for export was in 2008 (due to the economic world crisis), when the average annual rate for one Euro got as low as 24,9 CZK and in 2011, with an average of 24,6 CZK per Euro. On the other hand, since 2009 until 2014, the average annual rate of Euro is still increasing to 27,4 CZK per Euro in 2014 and it is rather unfavorable situation for the Czech export (ECB, 2014).



**Figure 32:** Development of the exchange rate CZK to EUR (2008 – 2014)

Source: ECB (2014)

## Taxation

Excise duties are indirect taxes that are levied on certain products at one stage of their production, importation from a third territory or introduction into the Czech Republic from another Member State of the European Union (EU). These taxes have been harmonized at EU level by **Council Directive 2008/118/EC**, which comprises the general regulation, and by various directives covering excises on specific products. These directives have been transposed into the Czech legislation by Act No. 353 of 26 September 2003, on excise taxes (No 353/2003 Coll.), which covers also excise duty on wine and fermented beverages.

The tax is levied on grape wines, sparkling wines and other beverages fermented from fruit, whether sparkling or not, not exceeding 22 % volume at a temperature of 20°C, except beer and intermediate products (Europa, 2013b):

- Still wine
- Sparkling wine
- Other still fermented beverages
- Other sparkling fermented beverages

The rates per hectoliter of end product are:

- Sparkling wine and other sparkling fermented beverages: CZK 2 340/hl = EUR 91,24 / hl (Europa, 2014g)
- Still wine and other still fermented beverages: CZK 0.

### 5.4.2.2 France, Italy and Spain

#### Unemployment rate

The following table (Table 9) presents the development of basic economic indicator for France, Italy and Spain for 2012 and 2013.

	France		Italy		Spain	
	2012	2013	2012	2013	2012	2013
<b>Unemployment rate [%]</b>	10,3	10,5	10,7	13,2	25,0	24,0

**Table 9:** Development of the unemployment in France, Italy and Spain (2012 and 2013)

Source: own elaboration based on TWB (2014)

The trend curve of the unemployment rate is pretty much the same when it comes to **France** and **Italy**. Since 2005, the lowest unemployment rate in France was experienced in 2008, when it reached 7,4 % and in Italy it was the year 2007 reaching 6,1 %. Since these years, the unemployment rate in both countries is constantly increasing and in 2013 yields 10,5 % in France and 13,2 % of unemployed in Italy. The escalation from 2007 and 2008 is high, but compared to the **Spain's** unemployment rate it is just a minor change. Since 2005, Spanish trend line of unemployment was copying the French one, reaching 8,4 % in 2007, but in the 2008 the unemployment rate started to grow rapidly.

In 2013, the Spanish unemployment rate yielded 24 % and it placed the Spain as a country with the highest unemployment rate within the EU-28 in 2012 (Figure 29). Italy and France's unemployment rates in 2012, copied the EU-28 average unemployment rate (10,5 %). In the same year, the Czech Republic had the 7<sup>th</sup> lowest unemployment rate in the EU-28, which is really good result (TWB, 2014).

#### The average monthly wage in the sector of agriculture

The following table (Table 10) compares the average monthly wage in the sector of agriculture in France, Italy and Spain.

	2002 [EUR]	2006 [EUR]	2010 [EUR]	2012 [EUR]
<b>France</b>	-	1538	1503	1608
<b>Spain</b>	1074	1292	1328	1372
<b>Italy</b>	-	1601	1570	1612

**Table 10:** Development of the average monthly wage in the sector of agriculture in France, Italy and Spain.

Source: Own elaboration based on Eurostat (2015b), TWB (2014)

The average monthly wage in the agricultural sector in France, Italy and Spain in 2012 was much higher than the average monthly wage in the Czech Republic (Table 8). In 2012, **France** and **Italy**'s average monthly wage was higher than the Czech wage by almost 130 %, however it is not increasing as steeply as in the case of the Czech Republic on the yearly basis. **France** as well as **Italy** registered from 2006 until 2010 decrease in the average monthly wage, but the values in 2012 are increased again. Even though, the lowest average wage belongs to **Spain**, it demonstrated steady increasing trend from 2002 until 2012. As well as in the case of France and Italy, Spain has higher average monthly rate than the Czech Republic and the difference is more than 90 %.

### Minimum monthly wage

Figure 30 shows the minimum wage in July 2014 in EU countries and selected world countries. France fits within the group number 3, where the minimum wage is higher than EUR 1 000. In July 2014, France's minimum wage was just slightly below the level of EUR 1 500. When it comes to Spain, the value of the minimum wage in 2014 was in the range from EUR 500 to EUR 1 000 – group 2 – more specifically approximately EUR 750. The interesting fact is that Italy has no national minimum wage to compare (as well as Denmark, Germany, Cyprus, Austria, Finland and Sweden).

### Hourly labor cost

Figure 31 represents the average hourly labor cost levels in the EU countries in 2014. The highest average labor cost among the three selected EU countries belongs to France and it is EUR 34,6. Italy's and Spain's averages surround the EU average from both sides - from the top with the average of EUR 28,3 Italy and from the bottom with the average of EUR 21,3 Spain.

### Taxation

As already mentioned in the case of the Czech Republic, wine is the subject of excise duty. Excise duties are indirect taxes and have been harmonized at EU level by **Council Directive 2008/118/EC** (regulations and directives covering excises on specific products) (Europa, 2014g).

#### France

The rates per hectoliter of end product:

- Sparkling wine and other sparkling fermented beverages: EUR 9,23/ hl;
- Still wine and other still fermented beverages: EUR 3,72 / hl.

### Italy

The rates per hectoliter of end product:

- Sparkling wine and other sparkling fermented beverages: EUR 0 / hl;
- Still wine and other still fermented beverages: EUR 0 / hl.

### Spain

The rates per hectoliter of end product:

- Sparkling wine and other sparkling fermented beverages: EUR 0 / hl;
- Still wine and other still fermented beverages: EUR= 0 / hl.

The worst situation (the highest excise duty on wine) is in northern countries of the EU. The highest rate is in Ireland where the rate per hectoliter of the still wine is EUR 424,85 / hl and for sparkling wine EUR 849 / hl (Europa, 2014g).

### **5.4.3 Social Factors**

Population and its development within the country create necessary component of the whole business in the country. In the recent year, the EU has been fighting with the demographic aging of the population. Consistently low birthrates and higher life expectancy has been dramatically transforming the shape of the EU-28's age pyramid. As a result, the proportion of people of working age in the EU-28 is shrinking while the relative number of those retired is expanding. The share of older persons in the total population will increase significantly in the coming decades, as a greater proportion of the post-war baby-boom generation reaches retirement. This will, in turn, lead to an increased burden on those of working age to provide for the social expenditure required by the ageing population for a range of related services (Europa, 2014f).

Another interesting factor is the density. The highest population density within the each EU Member State is generally recorded in capital regions. In the close connection with this topic is also the urbanization (more people live in urban areas than in rural areas).

Also the shift towards the healthy lifestyle plays the major role in the case organic products. The EU is required by its founding treaty to ensure that human health is protected as part of all its policies, and to work with the EU countries to improve public health, prevent human illness and eliminate sources of danger to physical and mental health. The EU health strategy "Together for Health" supports the overall Europe 2020 strategy. Europe 2020 aims to turn the EU into a smart, sustainable and inclusive economy promoting growth for all – one prerequisite of which is a population in good health. The **third EU health program (2014-2020)** is the main instrument the European Commission (with the assistance of the Con-

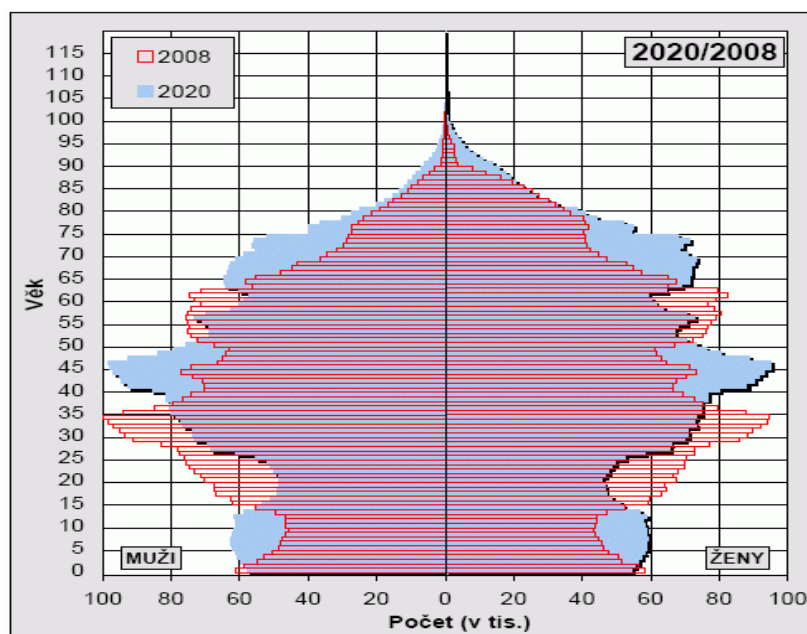
sumers, Health and Food Executive Agency - CHAFEA) uses to implement the EU health strategy (Europa, 2014h).

#### 5.4.3.1 The Czech Republic

According to CSO (2014), the consummation of the wine is preferred more likely by females than by males. However, in the last years the wine consumption by men increased in the expense of beer, due to the growing healthy lifestyle preferences.

According to collected data in the sphere of bio-products (eAgri, 2014c), these bio-products are bought most frequently by women in the age range from 35 to 49. Almost half of these women at least sometimes buy bio-products. The second group with high purchasing of the bio-products are women in the age range from 18 to 34. When it comes to men, the situation is pretty much the same as in the case of women. The worst situation is happening in the group 50+. In this group, 72 % of male consumers have never bought a single bio-product.

That might be a problem for the future organic market in the Czech Republic, because of the aging population. Figure 33 presents the prognosis of the future development of the population based on age from 2008 (red color) until 2020 (blue color). As it can be seen, in 2008 the age group with the highest population was approximately 35 years old. In 2020, the prediction says that the birthrates will drop and the life expectancy will grow. The working group in the future will get smaller and the group of people on retirement will grow.



**Figure 33:** Demographic prognosis from 2008 until 2020

Source: Zámečník (2010)

Note: Y-axis=age; X-axis=thousand of people; Left side of the figure=male; Right side of the figure=female.



Table 11 confirms the prognoses of the aging in the Czech Republic and actually in the whole EU. From 2002 until 2012, the percentage of the population in the first to age group decreased while in the age group 65+, the population increased by 2,3 %.

#### 5.4.3.2 France, Italy and Spain

In 2012, young people (0 to 14 years old) made up 15.6 % of the EU-28's population (Table 11), while persons considered to be of working age (15 to 64 years old) accounted for 66.5 % of the population. Older persons (aged 65 and older) had a 17.9 % share. In all selected countries, the aging of the population is evident and it follows the trend of the whole EU. The lowest share of young people was observed in **Italy** (14 %) and it positions Italy within the group of countries with the lowest share of young people in the EU-28. The situation on **France** is above the average with the percentage of 18,6 % of young people. **Spain** is the one out of two countries in the EU (Ireland), where the share of young people grew from 2002 until 2012 (from 14,5 % to 15,1 %). Regarding the share of persons aged 65 or older in the total population, Italy had the highest proportion 20,8 %. Since 2002 until 2012, the proportion of people aged 65 and more increased in all selected countries. The lowest increase appeared in Spain (only by 0,4 %).

	0-14 years old		15-64 years old		65+ years old	
	2002	2012	2002	2012	2002	2012
<b>EU-28</b>	16,8	15,6	67,2	66,5	16,0	17,9
<b>Czech Republic</b>	15,8	14,7	70,3	69,1	13,9	16,2
<b>France</b>	19,0	18,6	65,0	64,3	16,0	17,1
<b>Italy</b>	14,2	14,0	67,1	65,2	18,7	20,8
<b>Spain</b>	14,5	15,1	68,5	67,5	17,0	17,4

**Table 11:** Population age structure by major age groups, 2002 and 2012 (% of total population)

Source: Europa (2014f)

According to eAgri (2014a), the organic farming is more popular in the urban areas than in the rural areas. The reason for this might be better knowledge of people in the cities of bio-products and also better access to the bio-products (farmers markets, supermarkets, specialized shops, etc.).

With the growing population density in the urban areas, the potential market for bio-products is growing as well. Capital regions (usually surrounding big cities) recorded some of the highest population growth during the last years (Europa, 2014f).

#### 5.4.4 Technological Factors

Organic winemakers had to develop specific procedures of organic wine production (using special technologies), which take into account the principles of organic farming. Generally, the wine-growing mode of organic viticulture is compared with the normal production considerably more demanding in the level of knowledge and experience, and much more difficult to strategic thinking ability. Organic viticulture, when the end product is called organic wine, is much more demanding on technology processes and in organisation (Ekovín, 2014). It is also necessary to follow the transformation process, which takes on average 2-3 years, but in some cases it can last up to 5 year. Problematic is that during that period, producers cannot sell wine they produce as “organic wine”, but only as “conventional wine”.

##### 5.4.4.1 The Czech Republic

When it comes to technological factors, one of the key objectives of the EU during the last decade has been to encourage increasing levels of investment, in order to provide a stimulus to the EU’s competitiveness. The Lisbon strategy set the EU an objective of devoting 3 % of its gross domestic product (GDP) to R & D activities by 2010. The target was not reached and subsequently the 3 % target was maintained, forming one of five key targets within the Europe 2020 strategy adopted in 2010 (Europa, 2014f).

In the Czech Republic, research on organic farming is provided in fragmentary form by several research institutions, universities and non-governmental organizations. There is no research institution with a focus purely on organic farming. To improve coordination in research, the Czech Technology Platform for Organic Agriculture was established at the end of 2009. The Institute of Agricultural Economics and Information (IAEI) is the institution responsible for organic farming data collection for the Ministry of Agriculture and for Eurostat (Hrabalová, 2014).

Table 12 indicates that the gross domestic expenditures on Research and Development program (R&D) in the Czech Republic grew from 2002 until 2012 by 54 % (reaching 1,88 % in 2012), which is considerably more than the EU-28 average.

##### 5.4.4.2 France, Italy and Spain

Each EU country realizes its own research programs. In **France**, the coordination of research on organic farming is carried out by the Technical Institute of Organic Farming (ITAB) and the French Agronomic Research Institute (INRA) (Mercier, 2014).

**Italy’s** research on organic agriculture is mainly conducted by universities and national private and public research institutes. Research mainly focuses on agricul-

tural techniques for organic systems (25 %), plant protection (19 %) and soil management and fertilization (18 %). Less research is being done in areas of agroecology (5.8 %) and product processing and storage (4.5 %) (Romeo, 2014).

In **Spain**, there are several institutions that conduct research on organic agriculture for the Ministry of Agriculture, Food and Environment. The interesting thing is that in Spain, the Andalusian advisory services and the Spanish Society of Ecological Agriculture provide general and specialized advice to farmers, as well as training courses and technical information for practitioners. This practice has been very popular in Spain and since the beginning of the 1990s; high-level agro-ecology education courses have been developed at the University of Cordoba with the participation of many teachers and students from Latin America. This task is now being taken over by the International University of Andalusia and the Pablo Olavide University of Seville (Gonzalvez, 2014).

The lowest percentage of the change in gross domestic expenditures on R&D since 2002 until 2012 turned out in France (increased by 1 %), reaching 2,26 % in 2012. This number is very close to the Europe 2020 strategy's goal of 3 % and it is above the average compared to the EU-28 rate (2,06 %). Spanish and Italian gross domestic expenditures on R&D in 2012 were 1,30 % and 1,27 % respectively (compared to the other selected countries, it is considered as a low number), however increased since 2002 by 24 % in the case of Spain and 12 % in Italy.

	2002 [% of GDP]	2012 [% of GDP]	Percentage change
<b>EU-28</b>	1,87	2,06	+9 %
<b>Czech Republic</b>	1,15	1,88	+54 %
<b>France</b>	2,24	2,26	+1 %
<b>Italy</b>	1,12	1,27	+12 %
<b>Spain</b>	0.99	1,30	+24 %

**Table 12:** Gross domestic expenditure on Research and Development in 2002 and 2012.

Source: Europa (2014f)

#### 5.4.5 Ecological Factors

Organic farming relates to agricultural production systems that seek to provide the consumer with fresh, tasty and authentic food while respecting natural life-cycle systems. Typical organic practices include: strict limits on chemical pesticides and fertilizers, appropriate livestock farming practices (e.g. free range or open air systems, primarily organic feed), a strict ban on the use of Genetically-Modified Organisms, limits on processing aids and food additives (Europa, 2014a).

According to the fact that this whole thesis is in close connection with the ecological factors, in subchapters Organic Farming Statistics (5.1) and Organic Wine-making Statistics (5.2) is a closer look at the situation in the world, EU and also in specific EU countries (Czech Republic, France, Italy and Spain).

## 5.5 Competitive Environment

### Threat of new entrants

When it comes to the entry to the market, farmers can be divided into two groups. Firstly, there are those farmers, who have never done farming before. For these farmers, organic farming can be very demanding and in many cases also demotivating. Another kind of new entrants are those farmers, who are transferring from conventional winemaking to organic winemaking. These organic winemakers do not have to start from the zero; it means that their prime costs are not as high as in the case of the first scenario.

It is quite a challenge for new competitors to enter this industry. There are barriers that have to be in the case of entirely new entrants overcome:

1. The first big obstacle they meet is the *economy of scale*. New producers usually start with lower volume of production, compared to already set large producers. Their total unit costs are higher due to the fact that fixed costs have to be spread among the smaller amount of produced goods.
2. Another large obstacle would be the purchase of *new equipment and new machines* (for example filter systems, presses and crushers, barrels, funnels, etc.), which might be for new organic winemakers financially very demanding.
3. One of the biggest barriers considering new entrants to the industry is probably to find the right place for the *vineyard*. Vineyards cannot be established at any place and it takes a time as well as money to find the suitable one (weather conditions, soil conditions, access, etc.).

As it was already mentioned before, these barriers are the biggest barriers for entirely new entrants, from outside of the industry. It has to be taken into account that many of the organic wine producers transferred from the conventional wine producing. It means that they did not have to search for land and also, they did not have to invest as much into new machinery and equipment. Following barriers are specific for new entrants in the case of transfer from conventional to organic winemaking:

1. Number one barrier is the *length of the conversion period*. Generally it takes from three to five years to transfer from conventional production to organic production. After the conversion period, producer gets the certification and can sell products with the EU organic logo (demanding administration). During the transition period, costs are the same as in the case of organic production. These costs are higher than in the case of conventional production (according to the Table 6: Statistics on a per hectare basis), but the products can be sold only as conventional ones. This brings lower revenues and the profit is lower as well. This scenario can discourage many potential organic wine producers.

2. Another barrier might be the *higher number of workforce*, which is needed for organic winemaking. According to SJAR (2012) and Table 6: Statistics on a per hectare basis, difference between hours needed to work on the hectare of organic vineyard and conventional vineyard is 173,17 hours in behalf of conventional winemaking (conventional winemaking needs only 285,76 hours per hectare, whereas organic winemaking needs 458,93 hours per hectare).

There are also obstacles, which are common for both scenarios (for entirely new entrants as well as for those who are transferring from conventional production):

1. Large obstacle, when it comes to new entrants among already set market might be *know-how*. Even though many of the information can be found in the literature and on the Internet, established organic winemakers have the advantage of personal experience in the field, which in many cases reduces costs and also shortens the time needed for various steps in production.
2. As another barriers to entry can be considered *political and legal factors*. As mentioned in the subchapter Political & Legal Factors (5.4.1) and Economic Factors (5.4.2), the legal issues and high taxes can be crucial for the decision to enter the market. In the Czech Republic and France, the tax has to be paid, but compared to the rest of the Europe (for example Ireland) the situation is not bad at all. In Spain and Italy there is no tax on wine. However the bigger problem might be the new regulations and directives of the European Union (European Commission, European Council). These regulations and directives make the administration more difficult, supervise the maximum quotas of new vineyards and set the specific common rules for the selling of the organic wine. In other words, it makes the entrance to the market more difficult.
3. Another related problems are already *certified products*. For new entrants it is very challenging to compete with already settled brands, which are trusted and preferred by customers. Customers are not willing to switch to new brands and they are in this case very loyal. However, the lower price might play the crucial role. From the new entrant's point of view, to attract new customers it would be good to decrease the price to attract customers, nevertheless this is not possible in the long run due to the profitability of the enterprise.

As described before, there are two types of new entrants into the market. In the case of the first one - completely new wine producer – the threat is *not very high*, because obstacles are enormous. However, in the case of transferring from conventional winemaking to organic winemaking, the threat has to be considered as *relatively high*.

### Rivalry among firms in an industry

While in 2006, there was only four “enthusiasts” who worked on 19 hectares of vineyards, in 2008 approximately 400 hectares were registered as organically cultivated vineyards, in 2010 the number increased to 80 individuals and has not stop increasing. In 2012, the organic grape area covered around 1 000 hectares and it was approximately 6 % of total vineyards (Ekovín, 2014). Since 2012, there are new rules given by EU to become an organic winemaker (5.4.1 Political & Legal Factors). According the fact, that these rules are very strict it might be expected that some of the recent organic producers will give up on organic production. However, since 2014 until 2020, the new Common Agricultural Policy offers many funding possibilities for organic farmers, to support the organic production.

At the beginning, only so called “wine enthusiasts” started to produce organic wine, usually experts in plant breeding. One of these enthusiasts is also František Mádl from Velké Bílovice, who started with bio production in 1992. He states that organic production is approximately 20 % - 30 % more expensive than conventional one, but he further adds that it is thanks to the special varieties (not that sensitive), common varieties are more sensitive. František Mádl belongs to rather smaller producers (11 hectares), but in 2011 he won the title “Winery of the year 2011”.

At the beginning, only small family producers were interested in organic wine production, but with the increasing awareness of bio products, also larger producers have been transferring to organic production. Since 2008, the biggest producer of organic wines in the Czech Republic is Ing. Petr Marcinčák, with 120 hectares of organic vineyards. His Pinot Gris 2013 won the title of “the best organic wine for 2014”. Wine Marcinčák is a family winery managing their own vineyards in the wine region Mikulov. Marcinčák states that while using modern production technologies it is necessary to focus on quality, originality and uniqueness of wine, which is given by unique character of each vineyard. Thanks to this philosophy of winemaker Peter Marcinčák, distinctive wines for the most demanding wine lovers are created (Bio-info, 2014).

Also Ing. Miroslav Volařík is one of the leading organic wine producers in the Czech Republic with 73 hectares of organic lands in transfer. To transfer from conventional wine to organic, winemakers have to follow the three years transmission.

There is quiet a lot of smaller family producers who are selling their organic wine directly to the customers. The competition within existing industry is *relatively high* and with the new funding opportunities from the EU, it is expected that the number of producers will keep increasing in future years. As the biggest threat for the Czech producers can be considered imported organic wines from France, Italy and Spain, which are pushing prices to the lower level.

### **Bargaining power of buyers**

In the following part, the strength of the customers within the industry will be compared. There are two types of customers. First ones are wholesalers - supermarkets, specialized organic shops, specialized wine shops, etc. Another type of customer is final consumer, who can buy straight from the winemaker if that is possible. Final consumers are the most important ones, because they create demand in the whole industry and according to their needs and wants wine is produced.

In this sector, the product differentiation exists (division into wine categories) and within each category, there are many different products (for example different years of production). Whereas the organic wine is still new term (compared to the conventional wine – not that many categories exist), it is expected that the range of different categories will increase with the time. Customer does not have to pay any additional costs to switch to the competition; it only depends on his decision.

As already mentioned in subchapter Organic Wine Market in the Czech Republic (5.3.3), organic products tend to have higher price than conventional ones (approximately by 100 %). Organic food is generally cheaper in retail chains (where they make purchases in bulks) by 20 % than in specialized stores (these stores are on average smaller than large retailers and purchase smaller amount). However, the percentage of price difference between organic and conventional products varies with commodities and customers are willing to spend different amount for different products. Higher price paid for one product might be fine for customer compared to the same difference in another not really wanted product. The problem is that purchased product is not the only product at the market, it means that customer pushes to decrease the price otherwise he will switch to the competition. The biggest obstacle in the case of final customers is *knowledge*. They usually do not have much information about the organic product and they do not know what to expect from it that is the reason why they do not shop for organic products as often. According to the results from questionnaires (subchapter 5.7 - research on customers of organic products and subchapter 5.8 – research on customers of organic wine in the part of the Czech Republic), only 20,5% of respondents was familiar with organic products. The rest of respondents either knew a little bit (41,6%) or did not know anything at all (37,9%) about these products. When it comes to purchase of organic products in general, the majority of interviewees (54,7%) do not shop for organic products at all. Results from the questionnaire cannot be generalized for the whole Czech Republic due to the fact that research was realized only in the part of the country, but based on these results we can create a certain idea of the customer's knowledge.

The wholesaler is usually fully informed about the price possibilities (competitor's prices can be verified on the spot) and also about the product composition (according to the EU rules – written on etiquette and strictly monitored by the EU).

In the case of large retail chains, the situation can get very unfavorable for organic wine producer. These giant chains in many cases will alter product and the pricing as they see fit. They expect producers to bear costs of any promotion and discounts on their products. They also have the power to make the producer change their packaging to fit in the shelf (in the case of wine bottle, it is not expected that it could happen, due to the same or similar bottle sizes). When it comes to smaller wholesalers, the situation is not that deterrent. These independent businesses appreciate each supplier and customer in greater extent and they also offer more pleasant conditions (prices, packaging, payments, etc.).

It is expected that the price will keep playing the major role in shopping behavior. Due to the highly competitive environment and great bargaining power of customers, steady decline in the unit price of the organic wine might be expected.

The bargaining power of buyers is therefore *very high*.

### **Bargaining power of suppliers**

To make a great wine it is necessary to have good quality grapes and right equipment. There are two types of winemakers. First ones grow their own grapes at vineyards and then they produce wine by themselves. Second group of winemakers buy grapes from winegrowers and then they produce wine. For the second group, the largest suppliers are the grape growers who deliver their products for processing. There are dozens of websites, where these processors can find grape growers, who are willing to sell their crop. For example wine.cz (2014) has section of bazar, where anybody can write what he or she supplies or demands (these bazars can be found also for example at dotekyvina.cz, vinarskybazar.cz, trhvina.cz, etc.). In the case of organic wine, organic grapes have to be grown in accordance with the EU law (subchapter 5.4.1 Political & Legal Factors). Due to the large amount of offered grapes, these grape growers are unable to affect the price of grapes and therefore the market itself determines the price according to supply and demand. Already well-known and established vineyards will be able to set higher price due to their quality.

Another group of suppliers belongs to the equipment necessary to produce a wine. For example Vinařský ráj (2014) offers everything from technological equipment for the process of production of wine (e.g. stainless steel tanks, wooden barrels, grinders, presses, wine pumps, sorting tables and hoppers, filtration, etc.) through the equipment needed for bottling (e.g. bottling lines, etiquette lines, filling machines, etc.). Vinařský ráj (2014) also offers essential packaging materials (e.g. bottles, stoppers, wine cartons, demijohns) and storage racks. These products are supplied by number of companies. The list of suppliers can be found at the web pages wine.cz (2014) under the "Wine directory – Category: Suppliers for wine producers" and in many cases it is possible to negotiate the price, especially in the case of bulk purchase.



The interesting thing is, that many packaging materials are subject to new trends, so what is trendy at this moment does not have to be trendy in the time of five years. For example France presents rubber stoppers as very modern item, but few years later (in 2010), they were fighting really hard for corks (M&M, 2010). Another new trend, which is entering the market in France are wine cans. Black wine cans will have a yellow, red or pink edge according to whether they content white, red or rosé wine. This new design is aimed at young consumers and also the price will be lower (odhaleno.cz, 2013).

Basically, the threat of suppliers might look as a *low* due to their large number (for example these machines can be found at: Oslavan a.s., Unimarco.cz, hmhodonin.cz, vinarskyraj.cz, etc.) , but as in the case of every other product, there are established brands. If organic wine grower searches for quality established brands of machines, threat of suppliers increases and reaches the *medium to relatively high* level. These brands usually set higher prices and do not negotiate with buyers.

### Threat of substitute products

Substitutes perform the same utility to the customer as initial product. When it comes to substitutes and organic wine, the biggest threat is *conventional wine*. If the prices of organic products increase, customers try to find some alternatives. In the case the price difference is too high for them (the point they will not be able to accept the price), they will cease to insist on “organic” and switch to cheaper conventional wine or to the alternative of wine – sparkling wine). Conventional wine is for the organic wine relatively *high* threat and customers do not even see the difference.

Great threat of substitutes for the wine market in general (not only organic) is in the Czech Republic *beer*. Not only that the Czech Republic is called “beer nation”, but it is also number one country in beer consumption per capita worldwide. In 2013, it was measured that every Czech person drank 144 liters (it is also counted with babies). However, in the last years, the beer consumption per capita decreased. Since 2004 until 2013, the beer consumption per capita decreased by 9 % and it is expected that it will continue to decrease (Table 13).

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
<b>Beer</b>	158	157	158	159	154	154	143	143	146	144
<b>Wine</b>	16,3	16,5	16,8	17,2	18,5	18,5	18,7	19,4	19,4	19,8

**Table 13:** Beer and wine consumption in the Czech Republic 2004 - 2013

Source: Own elaboration based on ČSPS (2014), Bublíková (2008, 2011), Zajícová (2012, 2013)

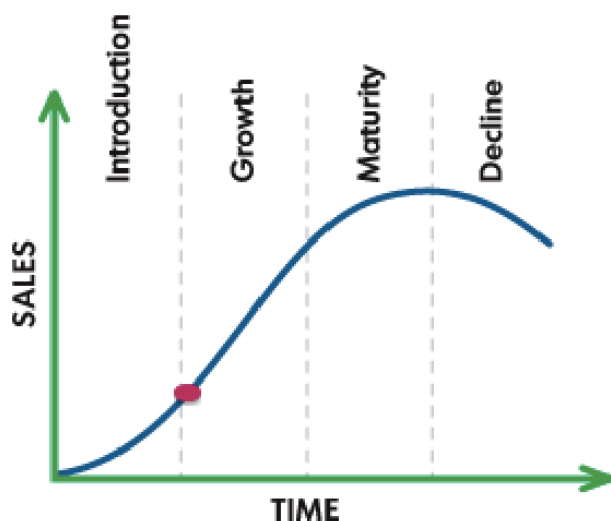
On the other hand, the wine consumption per capita increased and it can also be due to the perception of healthier lifestyle. The increase since 2004 until 2013

was by 18 % (from 16,3 liters to 19,8 liters per capita) and it is expected that in 2014 it will pass 20 liters. Beer is rather *lower* threat, because the consumption of beer is rapidly decreasing.

## 5.6 Industry Life Cycle

When it comes to organic farming and its life cycle, it could be said that it is in the second phase of life cycle - growth. According to Figure 16 (Growth of the organic agricultural land by selected EU countries in 2006-2012), the acreage of the Czech Republic's organically cultivated lands is steeply increasing. In 2006, there was a 6,62 % of organically cultivated lands, while in 2012 there was already 11,5 %. As well the number of registered organic producers in the Czech market is increasing (Table 3) and it is still expected that it will continue to grow. Since 2006, the number of registered producers increased from 963 to 3 926 in 2012.

Concerning the organic wine production in the Czech Republic, the increase in the acreage of vineyards is noticeable, however it is not that fierce as in the case of the whole organic farming. In 2012, the percentage of the area covered by organic vineyards was 6,1 %. Organic winemaking is right between the introduction stage of life cycle and growth stage (Figure 34). The barriers to entry the organic wine market are pretty high due to the EU laws, but there is still not that high number of competitors. The place for growth is still available and with more information given in the future to customers about organic wine, growth of the number of producers is needed. Higher competition within the market is necessary for customers. Generally, when the competition increases, prices decrease.



**Figure 34:** Industry life cycle – Organic Wine

Source: Own elaboration

## 5.7 Research on Customers of Organic Products

In this subchapter, customer's awareness about organic food in the form of graphs based on results from the questionnaire (Appendix D: Questionnaire on Organic Products) is gathered directly from consumers. Questionnaire was filled by 161 consumers and the majority (70 %) of the respondents were women (closer data on identification questions can be found in the Chapter 3 – Methodology).

According to the results from the questionnaire, it was found out that the knowledge of the consumers about organic products is very poor. The vast majority of respondents (88 %) could not even identify EU organic logo. Some of these respondents guessed that it has to do something with the EU (because of the stars similar to the EU flag), however only less than 12 % of respondents exactly knew what the logo stands for. This logo is still pretty new to consumers; it started to be used in August 2012. The situation with the Czech organic logo "biozebra" is very different. Approximately 44,7 % knew what the logo stands for. In the case of Czech organic logo, it has been on the Czech market for several years, therefore consumers are more familiar with it and also the sign "BIO" written on the logo says a lot to consumers. However knowledge is still surprisingly low.

When it comes to this questionnaire, answers by respondents about organic products in general are examined. Surprisingly, almost 38 % of respondents do not know anything about organic products. 41,6 % answered they know something about organic products, but it is not wide knowledge and 20,5 % were pretty familiar with organic products.

Following paragraph examines the significance of variables in the first questionnaire. More closely, it examines whether gender and knowledge of organic products are independent or not. In the Table 14, numbers of answers are depicted and by using the chi-square test, results are drawn. Hypotheses are following:

- $H_0$ : Gender and knowledge of organic products is independent.
- $H_a$ : Gender and knowledge of organic products is not independent.

Question: Do you know what are organic products?

	Female	Male	$\Sigma$
<b>Yes</b>	26 (23,57) [0,25]	7 (9,43) [0,63]	33
<b>No</b>	28 (43,57) [5,56]	33 (17,43) [13,91]	61
<b>Somewhat</b>	61 (47,86) [3,61]	6 (19,14) [9,02]	67
<b><math>\Sigma</math></b>	115	46	161

**Table 14:** Chi-square test table: Gender and knowledge dependency

Source: Own elaboration based on question N.1 and N.8; Appendix D - Questionnaire on organic products

Calculations:

$$DF = (r - 1) * (c - 1) = (4 - 1) * (2 - 1) = 2$$

DF... Degree of Freedom

r... number of rows; c... number of columns

$$E_{r,c} = (n_r * n_c) / n$$

$$E_{1,1} = (115 * 33) / 161 = 23.57$$

$$E_{1,2} = (46 * 33) / 161 = 9.43$$

$$E_{2,1} = (115 * 61) / 161 = 43.57$$

$$E_{2,2} = (46 * 61) / 161 = 17.43$$

$$E_{3,1} = (115 * 67) / 161 = 47.86$$

$$E_{3,2} = (46 * 67) / 161 = 19.14$$

$$X^2 = \Sigma [ (O_{r,c} - E_{r,c})^2 / E_{r,c} ]$$

$$X^2 = (26 - 23.57)^2/23.57 + (7 - 9.43)^2/9.43 + (28 - 43.57)^2/43.57 + (33-17.43)^2/17.43 + (61 - 47.86)^2/47.86 + (6 - 19.14)^2/19.14 = 32.98$$

$$P(X^2 > 32.98) = 0.00001 < 0.05 \quad \Rightarrow \quad P\text{-value is significant}$$

⇒ Gender and knowledge of organic products is not independent, it is dependent. It means, that the knowledge about organic products is dependent on the gender – women answer differently than men.

Due to the answer “somewhat”, it cannot be clearly stated that women have better knowledge when it comes to organic products. This answer might be misleading when it comes to the chi-square test, but at the same time, this answer is necessary for our results.

Moving on to another paragraph, it examines, whether shopping of organic products is dependent on gender or not. The chi-square test is conducted and results are drawn. Table 15 presents the number of answers and hypotheses are following:

- $H_0$ : Gender and purchase of organic products is independent.
- $H_a$ : Gender and purchase of organic products is not independent.

Question: Do you buy organic products?

	Female	Male	$\Sigma$
Yes	27 (22,14) [1,07]	4 (8,86) [2,66]	31
No	51 (62,86) [2,24]	37 (25,14) [5,59]	88
Occasionally	37 (30,00) [1,63]	5 (12,00) [4,08]	42
$\Sigma$	115	46	161

**Table 15:** Chi squared test table: Gender and buying behavior dependency

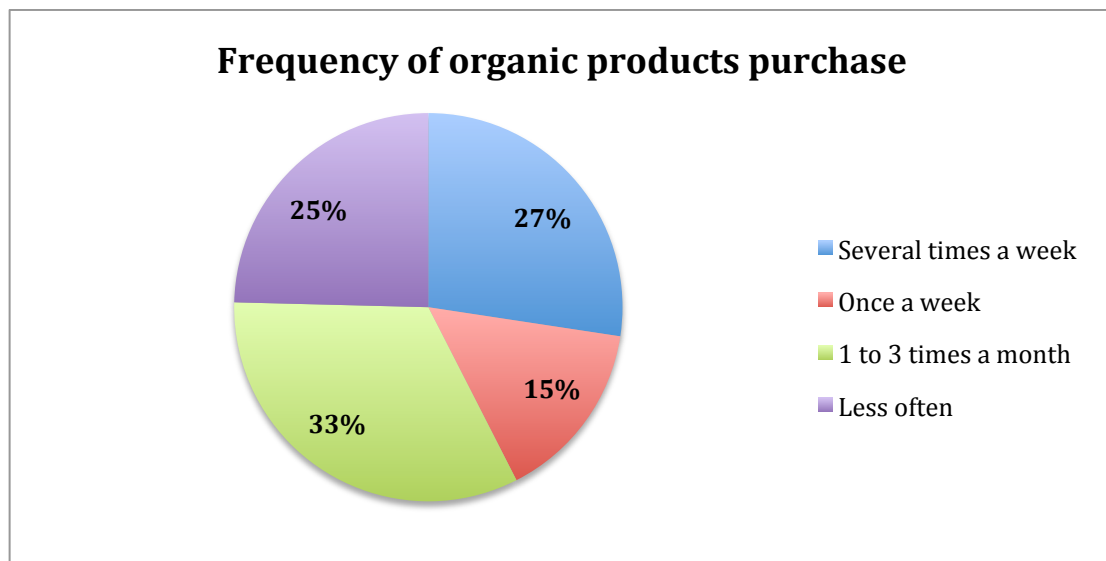
Source: Own elaboration based on question N.1 and N.9; Appendix D - Questionnaire on organic products

DF = 3

$P(X^2 > 18,27) = 0.000177 < 0.05 \Rightarrow$  P-value is significant

- $\Rightarrow$  Gender and buying behavior of organic products is not independent, it is dependent. It means, that buying behavior is dependent on the gender – women answer differently than men.  
Due to the answer “occasionally”, it cannot be clearly stated that women buy organic products more than men. This answer might be misleading when it comes to the chi-square test, but at the same time, this answer is necessary for our results.

As already mentioned before, the majority of interviewees (54,7 %) do not shop for organic products at all. The rest (45,3 %) buy organic products and their frequency is shown in Figure 35.



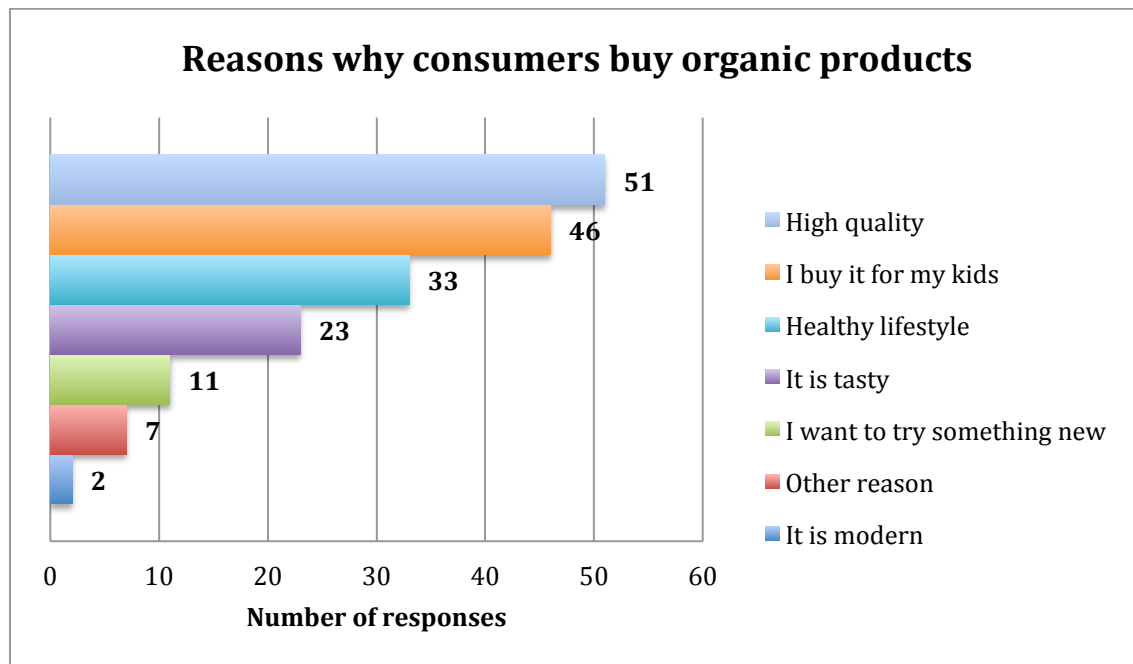
**Figure 35:** Frequency of organic products purchase (in percentage of questioned)

Source: Own elaboration based on question N.10; Questionnaire on organic products (this question was answered only by respondents who answered “yes” or “occasionally” in question N.9 – 73 respondents)

Given by Figure 35, 27 % of those who buy organic products shop for them very often (several times a week) and almost the same number can be seen on the other end – 25 % consumers shop for organic food less often than once in the month.

Reasons for buying decision in a favor of organic products are depicted in the Figure 36. The most favorite answer is high quality of organic products. It can be also seen that many parents buy organic products for their kids, because they trust it is better for them and that they need it more. Healthy lifestyle is the third most

common answer. Surprising response was that consumers buy it just because it is modern, however it was only negligible amount of responses.

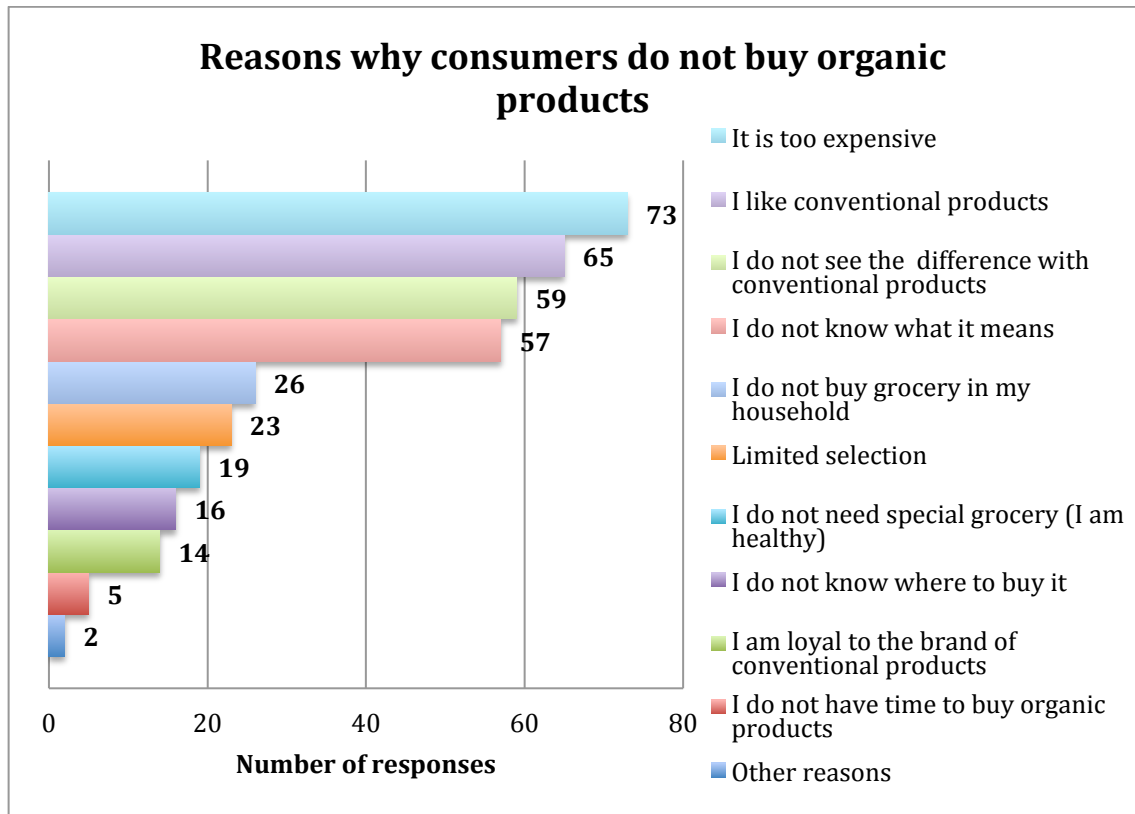


**Figure 36:** Reasons why consumers buy organic products

Source: Own elaboration based on question N.11; Questionnaire on organic products (this question was answered only by respondents who answered “yes” or “occasionally” in question N.9 – 73 respondents; max. 3 answers)

Question number 12 asked, whether consumers know where to find organic products in their favorite store. The number of respondents who did not have a clue where to search for organic food is alarming – 42 %. “Yes for sure” answered only 19,9 % of interviewees and the rest was not really sure.

Figure 37 examines reasons why consumers do not buy organic products. It is not surprising that the most common answer to not to buy an organic product is that these products are usually too expensive for consumers. Another common answer was that consumers like conventional products; therefore they do not feel the need to buy organic ones. Many of the respondents answered that they do not see the difference between organic and conventional product and that they do not even know what the word “organic” in the case of food actually means.

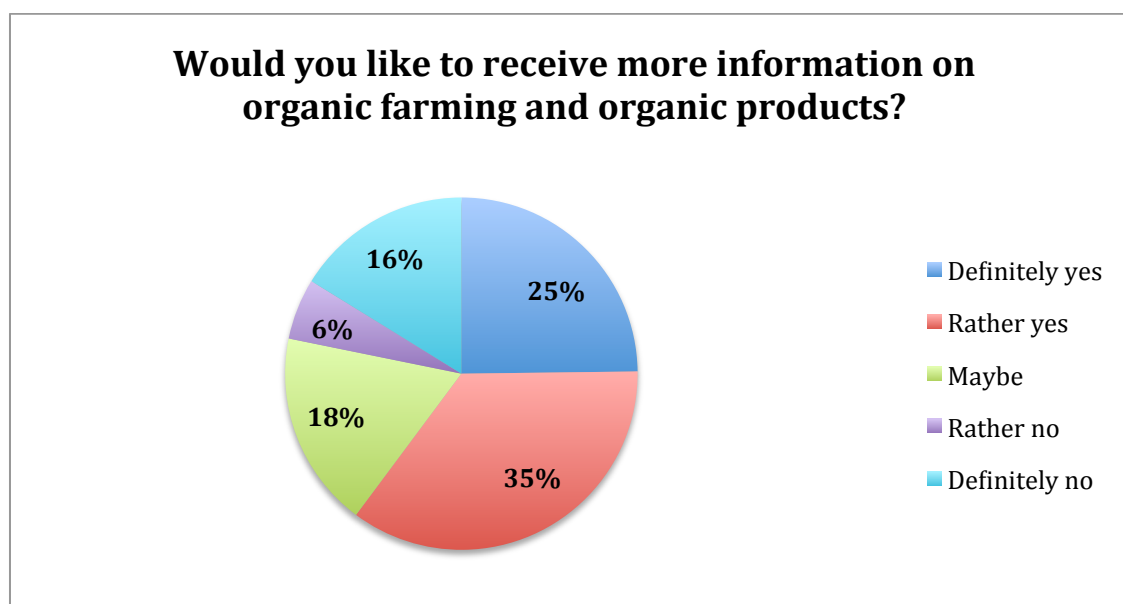


**Figure 37:** Reasons why consumers do not buy organic products

Source: Own elaboration based on question N.13; Questionnaire on organic products (answered by all respondents – 161 respondents; max. 3 answers)

Last but not least figure (Figure 38) in this subchapter is dedicated to customers and whether they would be willing to receive more information on organic farming and organic products in general. Only 22 % of respondents had the negative attitude towards this question. “Definitely yes” answered 25 %, “rather yes” 35 % and maybe 18 % of questioned.

To summarize, people do not know much information about organic products. They usually do not know what to imagine under the title “organic”. However, the positive is that they are willing to learn more about it. While conducting this questionnaire (part of it was collected in the form of face-to-face), it was observed that interviewees were asking many questions and wanted to know more about organic farming immediately. In many cases, wide discussions were opened. This is very good news for the industry of organic farming. People are willing to learn.



**Figure 38:** Would you like to receive more information about organic wine and organic farming?

Source: Own elaboration based on question N. 14; Questionnaire on organic products (answered by all respondents – 161 respondents)

## 5.8 Research on Customers of Organic Wine

In this subchapter, customer's awareness about organic wine in the form of graphs based on results from the questionnaire (Appendix E: Questionnaire on Organic Wine) is gathered directly from consumers. Questionnaire was filled by 312 consumers and the majority of the respondents were female consumers (closer data on identification questions can be found in the Chapter 3 – Methodology).

Questionnaire on organic wine was distributed to the consumers of the wine and it was found out that the knowledge of the organic wine among these consumers is not that poor as in the case of previous questionnaire (knowledge of all consumers about the organic farming). When it comes to the first question, out of 312 respondents who consume conventional wine, 23,4% have consumed organic wine at least once in their life; 19,6% have not consumed organic wine yet, but they at least know what organic wine is and that it exists. Another group is represented by 25,6% and it is group of those whose answer was that they have not consumed it yet and that they do not even know it exists. The last answer was answered by the largest share of respondents – 31,4% and it states that wine consumers sometimes do not even know how to recognize organic wine, it means they might have consumed organic wine, but they do not know it. It might be due to the fact that product called "organic wine" has been on the market only since August 2012. Before that time, there was only "wine made from organic grapes" and the rules of the production of this wine were not really clear.



Following chapter examines the significance of variables in the second questionnaire (Appendix E – Questionnaire on organic wine). Specifically, it examines whether there is a dependency between gender and consumption of organic wine or not. The chi-square test is conducted and results are drawn. Table 16 presents the number of answers. Hypotheses are following:

- $H_0$ : Gender and consumption of organic wine is independent.
- $H_a$ : Gender and consumption of organic wine is not independent.

Question: Have you ever consumed organic wine?

	Female	Male	$\Sigma$
<b>Yes</b>	49 (39,78) [2,14]	24 (33,22) [2,56]	73
<b>No, but I have heard of it</b>	33 (33,24) [0,00]	28 (27,76) [0,00]	61
<b>No, I have never heard of it</b>	28 (43,59) [5,58]	52 (36,41) [6,68]	80
<b>I do not know, I do not recognize organic wine</b>	60 (53,40) [0,82]	38 (44,60) [0,98]	98
<b><math>\Sigma</math></b>	170	142	312

**Table 16:** Chi squared test table: Gender and consumption dependency

Source: Own elaboration based on question N.1 and N.7; Appendix E - Questionnaire on organic wine

DF = 2

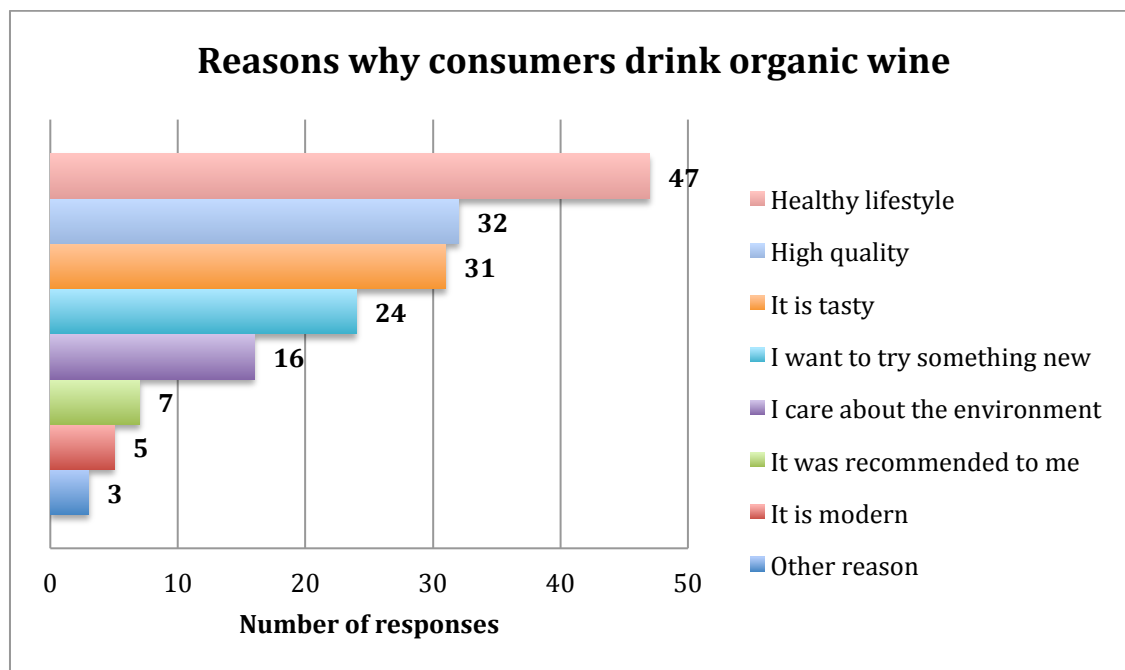
$P(X^2 > 18,76) = 0.000308 < 0.05 \Rightarrow$  P-value is significant

- $\Rightarrow$  Gender and consumption of organic wine is not independent, it is dependent. It means, that consumption of the organic wine is dependent on the gender – women answer differently than men. Due to the answers as “no, but I have heard of it”, “no, I have never heard of it” and “I do not know, I do not recognize organic wine”, it cannot be clearly stated that women consume organic products more than men. These answers might be misleading when it comes to the chi-square test, but at the same time, these answers are necessary for our results.

Figure 39 examines reasons why consumers drink organic wine. Only those, who have consumed organic wine at least once in their life, answered this question (73 respondents, each of them could choose maximum of three answers). To decide to drink organic wine, consumer has slightly different preferences than in the case of organic products in general – questionnaire on organic products (different segment of customers – it has to be taken into account that wine is alcoholic beverage and alcohol is not considered as healthy).

The healthy lifestyle is the most important feature why consumers keep drinking organic wine. In the subchapter benefits of organic farming/winemaking (4.4.3), closer information about health benefits is described. Even though organic

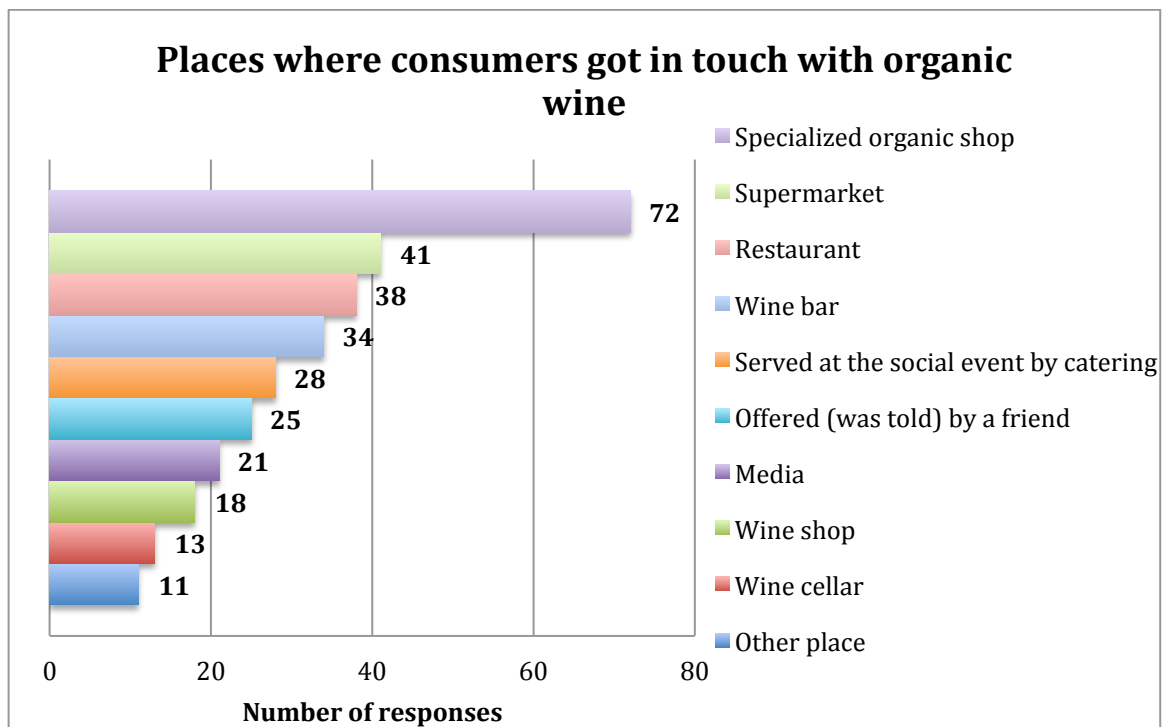
wine is alcoholic beverage, it can have good impact on person's health. Another good reason for consuming is that they perceive organic wine as a high quality product and in the close proximity is good taste of the organic wine. Desire to try something new is according to 24 respondents on the 4<sup>th</sup> place and right behind is the concern about the environment. The rest of answers can be considered as not very common, because only 15 respondents in total answered them.



**Figure 39:** Reasons why consumers drink organic wine

Source: Own elaboration based on question N. 2; Questionnaire on organic wine (question was answered only by respondents answering “yes” in question N.1 – 73 respondents; max. 3 answers)

To find the best way how to attract potential customers and to look at the organic wine market in general, it is necessary to figure out, where consumers got in touch with organic wine. According to the gathered data, Figure 40 describes this phenomenon. This gives us the basic frame for understanding what distribution or communication channel is used for the organic wine information transfer and the possible options for the improvement.



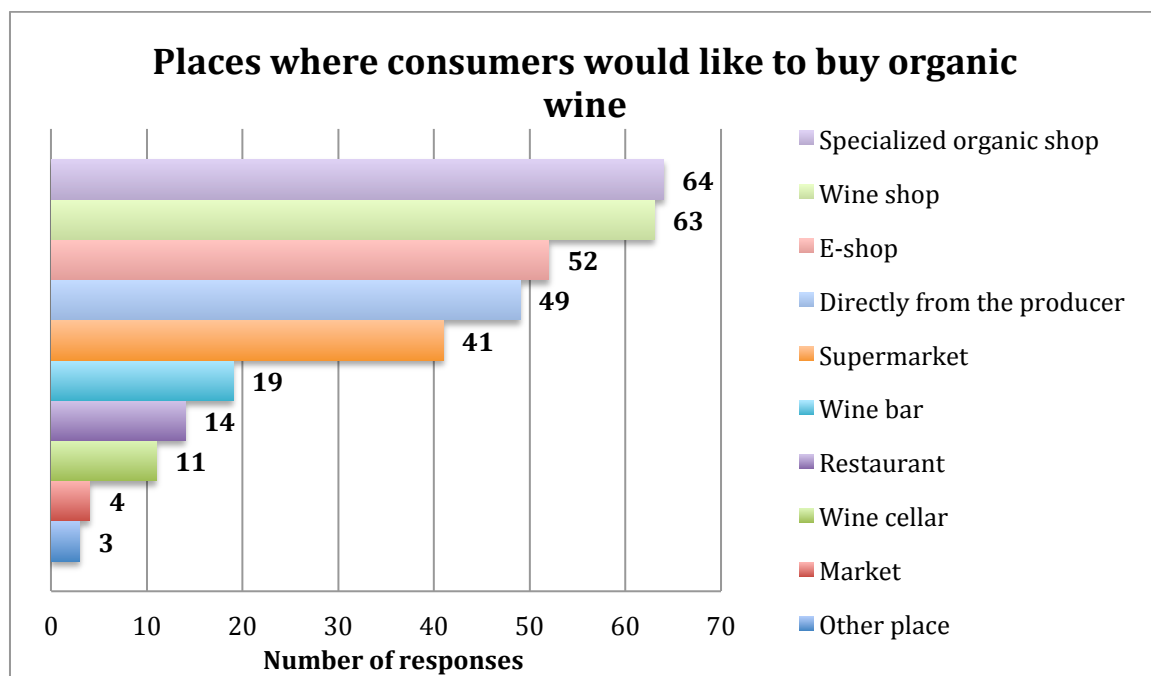
**Figure 40:** Places where consumers got in touch with organic wine

Source: Own elaboration based on question N. 2; Questionnaire on organic wine (this question was answered only by respondents who answered “yes” or “no, but I have heard of it” in question N.1 – 134 respondents; max. 3 answers)

As it can be seen in the given figure (Figure 40), the most popular place at which wine consumers get in touch with organic wine is specialized organic shop – 72 out of 134 respondents marked off this answer. The expectations of buying organic wine in this specialized organic shop are very high. This option got almost double the amount of answers compared to the second favorite one: supermarket. The third place is occupied by restaurants, fourth by wine bars and fifth by catering companies at the social events. Surprising might be that the answer “Media” is way behind the top places. It shows that the advertising campaign on organic wine is very poor and there might be huge potential to improve it.

Question number 3 of the questionnaire aimed at the dissimilarity of the organic wine compared to the conventional wine perceived by consumers. Almost one fifth of respondents (19,4%) do not see the difference between organic and conventional wine (13,4% - “rather no”; 6% - “definitely no”), while 31,3% do not really know whether it is different or not. Almost half of the interviewees (49,3%) can tell somehow the difference in the form of taste, design or others (26,9% - “rather yes”; 22,4% “definitely yes”). This result of the questionnaire might also lead us to the conclusion that the not only taste can not be sometimes distinguished, but also design of the bottle and etiquette of organic wine is not very distinct from the conventional one.

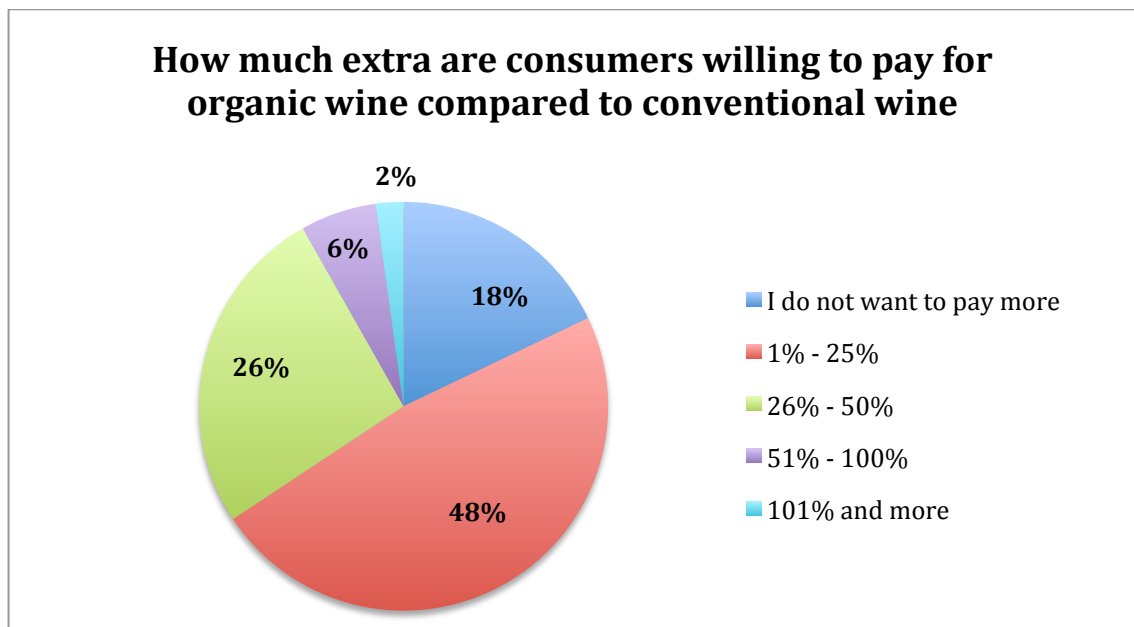
Figure 41 represents the places where consumers would like to buy organic wine. First two positions represent very close difference in consumer's preferences and are occupied by specialized organic shops and wine shops. The term "organic wine" itself describes these two most common answers. "Organic" for organic shops and "wine" for wine shops that is the reason, why it is not surprising to get these answers. The third most common answer is "e-shop". At these days with the increasing power of technologies, it is understandable that consumers will move from the conventional ways of shopping to modern ones and that they will try to save as much time as possible. After the period of introduction and testing what customers like, they will know their preferences and will be able to order online. Last two answers worth mentioning are "directly from the producer" and "supermarket". When talking about wine from producers, it is getting more popular at these days. Consumers are really interested in getting to know what they actually buy and from whom they buy it. They want to be in a contact with the producer and they want to get as much information as possible. Organic wine feels for these consumers like luxury product, therefore they want to get full service. In the case of supermarkets, consumers are many times confused where to find organic wine. Between the masses of conventional wines, it is not easy to spot the organic one.. The rest of the answers are not considered as desired. Number of respondents answering these responses is negligible.



**Figure 41:** Places where consumers would like to buy organic products

Source: Own elaboration based on question N. 5; Questionnaire on organic wine (this question was answered only by respondents who answered "yes" or "no, but I have heard of it" in question N.1 – 134 respondents; max. 3 answers)

When it comes to the last question about the organic wine, price paid for organic wine has to be discussed (Figure 42). 17,9% consumers are not willing to actually pay more than for conventional wine; 47,8 % of interviewees would be willing to pay more in the range from 1 % to 25 %. The range “26 % - 50 %” suits to 26,1% of consumers. In the range “51% - 100%” can be found just 6% of respondents and 2,2% is open to the 101% and more to be paid on organic wine. Consumers probably do not believe it is valuable that might be the reason why they are preferring lower prices.



**Figure 42:** How much extra are consumers willing to pay for organic wine (percentage)

Source: Own elaboration based on question N.6; Questionnaire on organic wine (this question was answered only by respondents who answered “yes” or “no, but I have heard of it” in question N.1 – 134 respondents)

## 5.9 Information for customers

In the case of organic products the problem appears when it comes to transmission of information to customers. According to answers from the questionnaire (subchapter 5.7 – Research on customers of organic products) on organic products, the knowledge of organic products was very poor. Only 20,5% knew what organic products are (41,6% knew something about it and the rest – almost 40% - did not know anything at all).

In the case of organic wine, second questionnaire (subchapter 5.8 – Research on customers of organic wine) brings answers from wine consumers. Out of all respondents, 25,6% have never heard of organic wine and 31,4% are not sure

when it comes to organic wine (they might have consumed it, but they do not know how to recognize it).

Further text deals with main sources of information about organic wine and about organic products in general in the Czech Republic and in EU countries.

The main source of information, when talking about organic agriculture within the EU is web page of European Commission – Europa (2015). Consumer is able to find following information at these web pages:

- Logo and promotional material
- Answers to what is organic farming
- EU policy concerning organic farming
- EU funding
- Advices to become and organic producer in the EU
- Answers why to trust organic
- Documentation regarding organic farming

Web pages are up to date and European consumers can find information in their mother language. When it comes to organic wine, there is even special section dedicated to this topic.

When it comes to **Czech** consumers who are willing to find information about organic production, the best possible way for them is to follow already mentioned Europa (2015) web pages, where they can find the most recent information for the Czech as well as for the European market. Another source of information considering organic farming is web portal EAGRI (2014a), where the link “organic agriculture” can be found. Under this link, consumer can follow various statistics, news, action plans and also many possibilities of subsidies. There is also register of organic producers including all registered producers in the Czech Republic. There are also other web pages dealing with organic farming, for example: probio.cz; bio-produkty.cz; bioinstitut.cz; etc. (more information can be found in subchapter 5.4.1 – Political & Legal factors)

In the case of organic wine, the best informing web page is EKOVÍN (2014) – “association of integrated and organic production of grapes and wine”. This web page describes basics about organic wine production; it also presents members of the association and brings the newest information on organic wine production. Ekovín also provides professional advices to organic wine producers as well as to those who are planning to transfer from conventional growing to organic in the future

In general, information about organic production is not easy to reach. These information are not brought to consumers, consumers have to search for them. To be able to increase the awareness of organic wine production and organic farming in general, it is necessary to overwhelm consumers with various details on these topics and present benefits as well as disadvantages. Percentage of customers who buy unknown product is negligible.

## 5.10 SCOPE Planning Model

As already mentioned, SCOPE planning model for the Czech organic wine market allows extra freedom to present additional information and reflections pertinent to the planning process of organic winemaking compared to the SWOT analysis. SWOT analysis is included in the first part of the SCOPE planning model called situation.

### SITUATION

In the case of situation, external factors which have led the business to its current status, and which have a bearing on the identification of future opportunities, trends and plans have to be presented. For this purpose opportunities and threats of the SWOT analysis are used.

### **Opportunities of Organic Winemaking**

- Political and legal factors:
  - Increasing subsidies – new possibilities of gaining financial support.
  - Political stability (both Czech Republic and EU).
  - EU enlargement – opening the market to new customers / new segments.
  - Advantageous location for export to other countries.
  - Organic labeling – assures the quality and origin of the product. Strict EU laws have to be followed.
- Economic factors:
  - Decreasing interest in beer (lower per capita consumption).
  - Growth of the average monthly wage.
- Social factors:
  - Long tradition of winemaking in the Czech Republic.
  - Aging of the population – more people can drink alcoholic beverages.
  - Organic wine competitions (in the Czech Republic, Europe, worldwide).
- Technological factors:
  - New technologies – easier and cheaper production.
  - New distribution channels.
  - Direct sales are getting popular.
- Ecological factors:
  - Good weather conditions.
  - Good agricultural conditions (soil, vegetation, etc.).
  - Environment friendly packaging.

### **Threats of Organic Winemaking**

- Political and legal factors:
  - Unorganized sector.
  - New stricter EU laws.
  - Trade restrictions and higher tariffs on wine.
  - Higher taxation on wine.
- Economic factors:
  - Insufficient market data (leads to bad future estimations).
  - Lower wages in the Czech Republic compared to the other EU countries.
  - The share of organic food in total consumption is approximately only 1 % over the long term in the Czech Republic.
- Social factors:
  - Price sensitivity of customers.
  - Unwillingness of customers to learn more about organic wine.
  - Low purchasing power of the population.
- Technological factors:
  - New technologies – expensive and difficult to learn.
  - Innovations – losing the advantage of know-how.
- Ecological factors:
  - Higher possibility to lose the crop (due to various diseases).
  - Unwillingness to protect the environment (“it-is-not-going-to-help” attitude).

### **CORE COMPETENCIES**

Core competencies of the organic wine sector provide the fundamental basis for achieving a competitive advantage within the market.

- Environment friendliness:
  - No harmful chemicals are used
  - Production does not pollute the air, water and soil
  - Packed in environment friendly containers
- “Truer” and better wines.
- Healthy context (compared to conventional wine):
  - More vitamins and minerals – vitamin C, iron, magnesium and less nitrates.
  - Lower sulfur levels – half the normal amount of sulfur than conventional wine.
  - More anti-oxidants – lowering cholesterol, prevention of cancer, ...



## **OBSTACLES**

Obstacles in the case of organic wine industry reflect specific issues, which need to be addressed to realize future prospects.

- Political and legal factors:
  - Unexpected controls from certification bodies.
  - Weak communication and cooperation (government, farmers, local authorities, universities, research centers).
- Economic factors:
  - Higher prices of organic wines.
  - Increasing competition and lower prices of competitors.
  - Cheaper organic wine from abroad.
  - Economic crisis – buying cheaper products.
  - Higher number of employees needed than in conventional wine production.
- Social factors:
  - No information about organic wine given to customers.
- Technological factors:
  - Transition period – long process of transforming to organic farming.
  - Poor advertising.
  - Deceptive labeling of organic products.
- Ecological factors:
  - Bad weather conditions.
  - Ecological consciousness still at low level.

## **PROSPECTS**

When it comes to prospects within the organic wine market, it can be presented as chances for the business to create additional sales and/or profits by taking advantage of its “core competencies” in the context of its “situation”. Prospects of the organic wine sector and recommendations to the organic wine producers are presented in the chapter 6 – Recommendations.

## **EXPECTATIONS**

Expectations in the case of organic wine reflect anticipated developments and future scenarios

- Political and legal factors:
  - Increasing export to foreign countries.
- Economic factors:
  - Enlargement of the vineyards as well as of the wine production.
  - Increasing per capita consumption of wine.

- 
- Creation of stable group of organic wine producers in the Czech Republic (still potential for greater capacity and number of processors).
  - Social factors:
    - Increasing interest in luxury and quality goods.
    - Growing interest in getting to know the winegrower (at least the winegrower's history).
  - Technological factors:
    - Application of experience from abroad.
    - Innovation of web pages.
    - Expansion of the web sales (save the time).
    - Advertising through Internet search engines.
    - Better cooperation with the press.
  - Ecological factors:
    - Higher consumption of natural and healthy products.
    - Increased interest in environment friendliness (animal welfare).
    - Increased interest in healthy lifestyle.

## 6 Recommendations

This chapter concentrates on recommendations to Czech organic winegrowers and Czech organic farmers based on trends and current situation in other EU countries and also based on the customer's perception of this industry.

### Utilization of subsidies

For organic entrepreneurs, it is very time demanding as well as money demanding to transfer from conventionally cultivated lands to organically cultivated lands. The period of transition is 2 to 3 years (sometimes even up to 5 years) and during that period farmers can sell their product only as conventional wine even though they are spending as much as for organic production. It is recommended to farmers to use subsidies to ease their difficult situation.

In 2012, EU subsidies created 80 % of all subsidies to the Czech organic wine farmers. The rest of 20 % was financed by Czech state. In 2012, there were a total number of 76 requests for payment of the subsidies (under organic vineyard farming culture). The rate of aid was set to 21 410,08 CZK/ha. The amount of aid paid for all 76 applicants reached 19 326 265 CZK to the total area of 893 ha (Zajícová, 2013).

In the recent years, the European Union has decided to put more money into organic farming industry. The new Common Agricultural Policy (CAP) (2014-2020) recognizes the role of organic farming in responding to consumer demand for more environmentally friendly farming practices. The European Union recognizes and wants to award farmers, who are willing to take a risk and help to "protect the mother nature" by organic farming. It is expected that applications for subsidies in this program will be accepted during the April 2015.

In the previous period, traditional support for organic farmers – subsidies for the area included in the transitional period or included in the organic farming – were under the support for rural development by the European Agricultural Fund for Rural Development (2007-2013). Support varies by the type of cultivated area (what is grown on it), the payments are provided in fixed amounts per hectares and the area of cultivated lands has to have at least 5 hectares to be even able to apply for subsidies. The level of payments is fixed in EUR and the exchange rate to CZK is set on a yearly basis. The level of payments for 2007-2013 (eAgri, 2014a):

- 155 EUR/ha – in the case of organic farming on an *arable land*, except for growing vegetables or special herbs;
- 71 EUR/ha – in the case of organic farming on grasslands with parallel conventional production;

- **849 EUR/ha** - in the case of the cultivation of vineyards and hop fields in the system of organic farming;
- 564 EUR/ha - in the case the cultivation of vegetables or special herbs on arable land in the system of organic farming;
- 89 EUR/ha - in the case of organic farming on grasslands without any parallel conventional production;
- 849 EUR/ha - - in the case of the intensive cultivation of orchards in the system of organic farming;
- 510 EUR/ha - in the case of the cultivation of orchards in the system of organic farming.

### Usage of modern technologies

At these days, when the technology is innovating from minute to minute, it is necessary for organic wine producers to keep the pace with modern approaches. According to the questionnaire distributed to the sample of customers in the second biggest city in the Czech Republic, Brno, the advertising through these modern technologies is very poor. This sample of customers did not get in touch with organic wine through modern technologies at all and this might be the reason why the knowledge of this product is on such a poor level. Figure 40 points out that there is a great potential to attract customers through modern marketing channels. According to the questionnaire, more than half of the consumers within the sample have never consumed or do not know whether they consumed organic wine. More specifically, they do not even know such product, as organic wine exists.

When it comes to modern technologies, firstly, the creation of *web pages* (if still not created) is needed. When consumers do not know anything about the product, they search the Internet and try to find as many information as they can. Nowadays, majority of the potential consumers carry their smartphones everywhere and finding the information they need usually takes only few seconds. In the case organic winemakers do not have web pages or the web pages are in the poor shape, consumers are losing trust in producer and do not want to shop for these products. On the web pages it would be good to also have the English translation (more *language possibilities*) and when it comes to content of the web pages, to present the *history of the company* and highlight the *traditional approach*, which is in the Czech Republic very common (family know-how for generations).

Nowadays, another powerful tool in the case of modern technologies is interaction with *Facebook* and other *social media*. Facebook is one of the most popular websites on the Internet. With approximately 1,28 billion monthly active users, Facebook is the 2nd-most visited website on the Internet (behind Google). Advertising on Facebook is the inexpensive form of promotion, it is flexible and it reach-

es hundreds of consumers. There are two possibilities of advertising on Facebook pages:

- Unpaid advertisement – reaches fewer consumers and brings lower amount of “likes” (potential consumers) than in the case of paid advertisement.
- Paid advertisement – amount of “likes” depends on the money invested during the day. Costs can get as low as **25 CZK per day** and number of days depends on the sponsor.

Another essential element at these days is *e-shop*. As already mentioned before, Figure 41 presents the places, where buyers would be interested to buy organic wine. The most common answers were specialized organic shop, wine shop and finally e-shop. Customers are getting more comfortable and it is easier for them to order their favorite organic wine from home. When creating web pages, it is good (if the production reaches higher level) to attach e-shop to these web pages. Not only that producer would not have to pay extra money to retailer for selling wine, but producer would also be in closer contact with customers (producer would be able to have contact information to customer and would be able to segment them). If organic winemaker decides to create (or innovate) web pages and e-shop, the last optional but highly recommended step is to pay for sponsored advertisement on the Internet (*PPC – pay per click*) through search engine. It works on the basis that in the moment of search through the web search engine (e.g. Google.com, Seznam.cz, etc.), the name of the producer and the link to web pages would appear on the front pages (top positions). After searching the Internet for organic wine (through google.com), it was surprising how many foreign producers appeared on the front page. This step would increase the competitiveness of the organic wine producer not only at the Czech market, but also at the foreign.

The approximate costs are based on Carl Digital (2014) and are concluded below. The first group describes the costs connected with creation of web pages:

- Creation of web pages with an original appearance (upgraded version) – from 5 800 CZK;
- Draft of the web design – 2 800 – 4 500 CZK;
- HTML and CSS coding – from 2 400 CZK;
- Security upgrade (recommended) – 2 400 CZK/year;
- Rent of the webhosting – 650 CZK/year;
- Rent of the domain .cz – 190 CZK/year.

Approximate cost per creation of web pages is minimally: **14 240 CZK**.

The second group of costs describes the process of e-shop creation:

- Creation of the e-shop – from 13 000 CZK;

- Draft of the e-shop design – 4 500 CZK.

Approximate cost per creation of e-shop is minimally: **17 500 CZK**.

The third group of costs describes the costs of PPC (pay per click) administration:

- Analysis of key words – from 2 400 CZK;
- Administration of one advertising account – from 1 200 CZK/month = 14 000 CZK/year - minimal recommended budget of one account (included: cost per click, cost per display) – 3 000 CZK/month = 36 000 CZK/year.

Approximate cost/year of PPC creation is minimally: **38 400 CZK**.

The minimal cost for creation of web pages and e-shop is **38 340 CZK/year**. These two ways of advertising (in addition with Facebook promotion) are considered as essential. With the connection of PPC advertising, the cost in total would be **76 740 CZK/year**. The price to be paid for all of these products at once is high, however organic wine producer can split these steps and adopt them during the longer time period, therefore these costs do not appear at once.

### Cooperation with specialized web portals

It should be essential for organic wine producers to closely cooperate with web portals, which can lately promote them and bring them customers. When it comes to ekovin.cz and pro-bio.cz, organic wine producers should consider registration for a membership. These two web portals not only promote organic products, but also serve as consultants in the organic production process.

#### PRO-BIO

Under the ordinary membership, the association PRO-BIO ensures for its members: consultancy, informational service and promotion & education. Membership fees are presented in the following table (Table 17):

	Acreage under 50 ha	Acreage above 50 ha
<b>Basic fee [CZK]</b>	500	1 000
<b>Payment for acreage [CZK/ha]</b>	40 (Min. 1 000 CZK)	40 (Max. 19 000 CZK)

**Table 17:** Membership fees in PRO-BIO

Source: PRO-BIO (2014)

#### Ekovin.cz

Under the membership in ekovin.cz, member has possibilities to visit professional seminars, to subscribe for professional materials, to draw specialized weather information, to participate at the specialized fairs and many others.

Conditions of acceptance are following:

- Organic or integrated production on the entire surface of registered vineyards of the enterprise;
- Two years transition period;
- Annual fee 1 000 CZK and 120 CZK/ha/year (Ekovín, 2014).

Organic winemakers should also closely cooperate with web portals as for example wine.cz and wineofczechrepublic.cz. These portals bring the most of the information about wine producers to customers and it would be helpful to find the link to organic production. While searching on wineofczechrepublic.cz for the preferred wine, the offer did not even take into account organic wine (it offered “ice wine” as well as “straw wine”). Organic wine makers should fight more to be seen.

### **Improve the cooperation with retailers**

In the case of organic wine producers and organic producers in general, the crucial part is the cooperation with retailers. Retailers are putting pressure on small producers and are trying to push prices down. The power of producers is usually not that high as they wish for (thanks to the fact that they are in many cases small family companies) and they cannot fight back. The only way to make this situation better is to try to improve the cooperation with them. To define new terms and possibilities of cooperation for both sides to be satisfied is necessary element.

The recommendation for producers is to take a part in the annually held festival of organic production – BioFest. There are usually many valuable topics discussed and also the problems of organic farming are highlighted. Discussion with experts is also essential part of the festival and it regularly leads to the improvement of relationships among producers and retailers. Entrance to the festival as a visitor is for free and presentation with the stand is for first 30 registered organic producers free as well (internal communication).

One of the biggest issues for organic producers is probably the fact that the majority of consumers do not even know where to find organic products in the store. Therefore, organic producers (winemakers) should try to convince retailers to make these products more visible (e.g. label the area of organic products).

### **Increasing the customer’s awareness**

One of the crucial points is customer’s awareness. According to results from market research (subchapter 5.7), consumers (sample from the research) do not know much about organic products, not to mention organic wine. They have problem with identifying what word organic in the case of food and wine actually means. It would be useful to learn from French and Italian market and increase the advertising. Italian commercials on organic food are famous worldwide. In a funny way, they explain that the organic food is healthier than conventional food. French ad-

vertisements are shown on the Figure 43. The first ad reads: "We moved to a BIO field, the best restaurant." The second reads: "In my BIO field, I have lots of new roommates." This is just a fraction from the all advertisements presented by France.



**Figure 43:** Organic food advertisement in France

Source: Agence Bio (2014)

To increase the customer's awareness of organic products, special leaflets and posters would be good means of promotion. It would bring the organic product closer to the customer and it could also answer many questions. The text on leaflets would contain basic information about organic food and benefits of consuming. It could also explain the EU organic logo and Czech organic logo "biozebra". Another recommendation is to install the stall in the shop for couple of days with the person explaining the basics on organic food.

When it comes to organic wine, the situation is even worse. There are no advertisements supporting sales of organic wine. Consumers do not know organic wine exists; therefore they cannot even buy it. As in the previous case, we can learn from the French. Figure 44 presents two possibilities to promote organic wine out of many. First picture is a poster and it reads: "Organic wine, drink it without hesitation, it is certified" and on the second picture is a shopping bag promoting organic wine. For the Czech market it would be really refreshing to see promotional material similar to French one. It would definitely increase the interest in organic wine and the consumption would increase as well.





**Figure 44:** Promotional material on organic wine in France  
Source: Agence Bio (2014)

### **Innovative packaging**

Another recommendation concerns the packaging of the organic wine. The only thing that differentiates organic wine from conventional wine at the Czech market is labeling on the bottle. Label has to contain correctly interpreted EU organic logo and in some cases producers also add Czech organic logo “biozebra” (according to the market research – subchapter 5.7 – customers are more familiar with Czech organic logo than with EU organic logo, that is the reason why producers keep using Czech organic logo even though they are not obliged).

Due to the higher price and limited selection, organic wine is more likely perceived as luxury goods, therefore it would be good for producers to differentiate bottles somehow. An excellent example is France and their packaging of organic wine. They do not only add the little organic EU logo to the labels, but they also use their national organic logo “AB” (Agriculture Biologique) and put it around the bottleneck to be seen by consumers (Figure 45). Because of these labels, French consumers are able to find organic wine more easily.



**Figure 45:** French organic wine labeled by national organic logo “AB”  
Source: Agence Bio (2014)

This would be the perfect way for Czech organic winemakers to differentiate their wine from others and make it more visible on the store shelves. As Figure 52 presents the label around the whole bottleneck, there are other possibilities that can be used when it comes to labeling. There is also possibility of little tags or little books, held by string or phloem around the bottleneck. This has the same effect – increase of visibility and attraction of customers (Figure 46).



**Figure 46:** Organic wine with the tag of the EU organic logo  
Source: Repress (2014)

According to Repress (2014), the price for tags and little books depends on the ordered amount, the size of the leaflet, amount of graphics, etc. The minimum of ordered pieces is 50 and customer can create their own graphics. With the higher amount, price decreases and it can go as low as **2 CZK/piece**<sup>13</sup>. There are also other possibilities how to label bottle. One of them is with ceramic tags, however this method can get very costly.

Another way how to attract customers by packaging is to innovate and bring completely new design. As it was presented by the design team called “The Creative Method” while working on Alternative Organic Wine, they asked an important question, whether organic wine needs to look budget. The Creative Method wanted to design something that would reflect the “premium” nature of organic products, given that people often pay a premium price for them. Where they could, they sourced natural packaging. They wanted the bottle look and feel like the vines had started to grow so much they had almost started to integrate into the type itself, so the type and the label become a little bit as one (Sim, 2014). As it can be seen on Figure 47, all of this was for sure reached and Czech organic wine producers should get inspired. These bottle designs are very attractive and in many cases consumers would just buy it, to try it.



**Figure 47:** Design on the Alternative Organic Wine by design team The Creative Method  
Source: Sim (2012)

### Distribution channels

According to results from market research (subchapter 5.8), our sample of organic wine consumers do not prefer that much buying organic wine in the supermarkets. It would be advantageous to start the cooperation with *crates entrepreneurs*. According to web page Bedýnky (2014), in the recent years the business based on

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<sup>13</sup> Based on e-mail conversation with the company Repress (13.12.2014).

selling crates full of organic products to customers has been growing rapidly. This trend is also seen in foreign countries (France is a huge fan of crates businesses). Usually the customer orders the different sizes of crates with different amount of products (also the price range changes with the size of crate). For organic wine producers, to be a part of the crates system would be great opportunity. This distribution channel would not bring any extra costs and they would be closer to customers than in the case of supermarkets.

The second recommendation concerning the distribution channel is to cooperate with *catering companies*. The first step is to offer them organic wine. This might also be the key to many new customers, because catering companies are usually serving at big events full of potential customers.

Distribution channels for organic products are still not well developed; therefore there are many possibilities for the future expansion.

### **Feedback from customers**

As for every producer also for organic wine producers it is crucial to get the feedback from customers. Producers need to hear from their consumers what they do in a wrong way to improve their situation or performance in the future and also learn from their mistakes.

Many of the organic wine consumers buy organic wine directly from the producer. In that case, producer should be prepared, ask few questions and be open to criticism. In the case of selling the organic wine through retailers or e-shops, it would be recommended to create the online questionnaire, where consumers would answer several questions and also they would have space for their ideas. To let them know about the questionnaire, it would be good to use the method of tags around the bottleneck. The first side would inform the consumer that the wine is organic (as mentioned above) and the other side would contain the link to the web page with the questionnaire and short slogan: "We appreciate your ideas". In the return it would be nice to offer 5 % discount for the next purchase of the wine from the e-shop. That would make customers feel they are part of the business, it would bring new customers to e-shop, which would be great for organic wine producers (products sold through e-shop make usually more profit than products sold through retailers), and also it would teach customers to buy organic wine again.

### **Getting involved**

Another recommendation for Czech organic wine producers is to get more involved in the social activities. Czech organic winemakers are usually small family businesses who only care about the wine production and do not pay much attention to social activities.

As already mentioned before, organic winemakers should annually visit festival of organic products BioFest to get in touch with retailers, competitors and also with customers to discuss problematic issues. It would also be recommended to visit annually held festival of organic food called BioJarmark. This festival is held on a yearly basis in Brno during the first week in October and potential producers can apply for the participation via web pages [www.veronica.cz](http://www.veronica.cz) - ecological institute, where they can find all needed information.

To increase sales of organic wine, it is required to be a part of and to promote more the Earth Day, which is celebrated on April 22<sup>nd</sup>. Another event is the month of organic products, which is celebrated every September. There are plenty of events and markets held during this month around the whole Czech Republic and it would be good for organic wine makers to present there their wine and also offer some wine tastings.

### **Attract new segment**

When it comes to organic products, the largest segment attracted by organic products is full of those who like higher quality of products and want to live healthy lifestyle. That is not surprising, but another really wide segment is a group of parents who buy organic products for their kids (according to market research in subchapter 5.7). It would be recommended to target more at the parents and their kids, because they usually want their kids to eat as healthy as possible. These kids and parents would get used to buying organic products and they would continue in their life with this trend.

When talking about organic wine, the recommendation is to attract segments with higher income. By innovating of the bottle (as described in the recommendation packaging), it could be reached the status of luxury product as in the case of sparkling wine (sparkling wines are perceived as luxury compared to non-sparkling wines). The quality of organic wine is much higher than in the case of conventional wine, therefore it actually should be seen as luxury product.

## 7 Discussion

In this thesis, analysis of the organic farming and organic winemaking industry was done and future recommendations were drawn. These recommendations are presented at the final part of the thesis and. All of the recommendations are based mainly on the results of the SCOPE planning model (this model was slightly modified and applied to the whole industry using external factors of the situational analysis; the model was principally elaborated based on PESTLE analysis and competitive analysis of the industry), on comparison with selected EU countries (where the production and also consumption reaches higher digits) and also on the research on customers of organic products and organic wine.

These valuable information were obtained from the books, web sources, discussions with winemakers and also from the questionnaires distributed to potential customers. The sample of the first questionnaire (161 respondents) might not look as sufficient, but it shows the essential knowledge when it comes to organic products. Thanks to the results from the first research (Appendix D – questionnaire on organic products; 5.7 – research on customers of organic products), the second questionnaire could be created and distributed to the customers (Appendix E; 5.8 – research on customers of organic wine). When it comes to results of questionnaires, chi-square test was used to find out the dependency between gender and knowledge in both questionnaires and also the dependency between gender and buying behavior in the first questionnaire. All of the results proved as dependent, which means that selected answers depend on the gender. In other words, women answer differently than men. In the case of higher sample of women (or vice versa) we would get more likely different proportions. However due to the not very specific answers as “somewhat”, “occasionally” and others, it cannot be clearly stated that women have better knowledge of organic products/wine or that they shop more for organic products. These answers might be misleading when it comes to the chi-square test, but at the same time, these answers are necessary for our results. Results from the questionnaire cannot be generalized for the whole Czech Republic due to the fact that research was realized only in the part of the country (Brno), but based on these results we can create a certain idea of customer’s knowledge, which is very powerful starting point. For the future continuation of this thesis it could be helpful to cover the whole Czech Republic as well as surrounding countries, but for this thesis it was not crucial.

While in the process of questioning, customers demonstrated the interest in the topic, however their knowledge of the organic products and organic wine was in many cases very poor. When it comes to the first questionnaire almost 38 % of respondents did not know anything about organic products. 41,6 % answered they know something about organic products, but it is not wide knowledge and 20,5 % were pretty familiar with organic products. From the questionnaire it can be seen

that 54,7% do not shop for organic products at all. When comparing with results from the questionnaire of Švecová (2011), the results are almost the same – 52,54% of customers do not shop organic products. When talking about the frequency of purchasing the comparison of data is totally different. While in the case of current questionnaire 27% shop several times a week, in the case of Švecová (2011) it is 6,25%. In the case of answer “once a week”: actual questionnaire -15%; Švecová (2011) – 22%. “One to three times a week”: actual questionnaire – 33%; Švecová (2011) – 57%. “Less often”: actual questionnaire – 25%; Švecová (2011) – 14%. The reason of different answers might be the different target group (in the case of Švecová – young students) and different place of collection (smaller or bigger city/town).

In the case of second questionnaire (Appendix E; subchapter 5.8), out of 312 respondents who consume conventional wine, 23,4% have consumed organic wine at least once in their life; 19,6% have not consumed organic wine yet, but they at least know what organic wine is and that it exists. Another group is represented by 25,6% and it is group of those whose answer was that they have not consumed it yet and that they do not even know it exists. The last answer was answered by the largest share of respondents – 31,4% and it states that wine consumers sometimes do not even know how to recognize organic wine, it means they might have consumed organic wine, but they do not know it.

When it comes to organic wine, it has to be taken into account that the name “organic wine” is on the market for very short period. Only since August 2012, organic winemakers are allowed to call their wine as an “organic wine” with the common EU laws. Until that time, rules for creation of organic wine were diverse, there was not a clear description and customer could only buy “wine made from organic grapes”. This is also the reason, why in statistics only data from the “organic grapes” are used instead of the “organic wine”.

Thesis also covers the comparison of organic winemaking and conventional winemaking. This comparison was not only made in the form of statistics, but also in the form of costs, which are presented in the subchapter 5.4.2 – economic factors of the PESTLE analysis. The sum of costs in the case of organic winemaking is 3055,36 euros per hectare, while in the case of conventional winemaking the cost is slightly lower - 2627,61 euros per hectare, which is lower only by 427,75 euros per hectare. It means that the organic winemaking is more expensive than conventional winemaking. According to the data from subchapter 5.4.2, the difference between income and costs per hectare leads to profits per hectare of EUR 2,419 for organic farms and EUR 1,283 for conventional ones. Hence, organic profits per hectare almost double conventional profits. Compared to the results in the work of Hanusová (2012), difference between conventional and organic production does not present such difference in the organic winemaking and conventional winemaking (organic winemaking has still higher profits than conventional winemaking), however this might be due to the fact that the situation has changed during last

three years (Hanusová's work is from 2012). In 2012, it was the first year of the production of "organic wine" it means that techniques have probably changed.

The biggest obstacle of this thesis was the collection of the data. Not only that every web page with statistical data contained different data (in some cases, these data differed by orders), however in many cases no data were available at all. It is true that since 2004 (when the data on land use and crops were collected for the first time), the organic grape area worldwide has increased rapidly, however, some of the increase is attributed to continually improving availability of crop data.

Moving on to recommendations, the most important and probably the most beneficial recommendation focuses on the increasing of the customer's knowledge of organic wine and organic products in general. As already mentioned before, customer's knowledge of organic products is very poor. The best ideas in this direction are: to use modern technologies, to increase the advertising and also to innovate the packaging. All of these three recommendations are very closely connected. When it comes to usage of modern technologies, initial costs might seem pretty high (minimally 76 740 CZK for web pages, e-shop and PPC creation), however organic winemaker can split these steps and adopt them in a longer period. It has to be also considered, that in future years, organic winemaker will pay only fraction of this sum for administration. In the close connection to modern technologies is advertising. Compared to the other EU countries, for example France, the Czech Republic is way behind with advertising of organic wine and organic products in general. It would be recommended to come closer to customers and to explain what word "organic" actually means. The third valuable recommendation is the innovation of packaging. When customers pay extra money in the case of organic wine, they want to also get something in return – "something extra". Organic wine is surely that "something extra", but why not to make it also look that way? Organic wines are not easily recognizable and in many cases customers do not even know how to find organic wine.

The rest of the recommendations represent smaller changes or advices, leading to the greater business effectiveness and to gaining the competitive advantage. These recommendations should be considered as a future help to gain more customers, to increase the number of competitive advantages and to become a leader within the organic wine industry and organic industry in general.



## 8 Conclusion

The aim of this thesis was to evaluate the current situation in the industry of organic farming, particularly organic wine production in the Czech Republic and in the selected countries of the European Union. For the thesis, France, Italy and Spain were selected to be compared with the Czech Republic, due to the highest worldwide production of the organic wine in these countries. The main goal of the thesis was to suggest changes and recommendations leading to improvements of the organic winemaker's position within the market of organic wine industry and organic industry in general.

The organic sector has been rapidly developing during the past years. From almost negligible organic acreage until the 1980s, the amount of organically cultivated area worldwide has grown through 31,5 million hectares in 2007 to 37,5 million hectares in 2012. Not only the acreage increased, but also the number of organic producers has grown rapidly. From 2005 to 2012, the number of organic producers worldwide almost tripled. The only decrease in the number of producers appeared in 2010, where the whole economy was affected by world economic crisis from 2008.

The European Union decided to get more involved in the case of organic farming and give the support to these farmers. The new Common Agricultural Policy (CAP) (2014-2020) recognizes the role of organic farming in responding to consumer demand for more environmentally friendly farming practices: In the first pillar organic farms will benefit from the green direct payment without fulfilling any further obligations because of their overall significant contribution to environmental objectives. From 2014 onwards, the new Common Agriculture Policy (CAP), is a greener CAP. All Member States, all rural areas and all farmers will take simple, proven measures to promote sustainability and combat climate change. Between 2014 and 2020, over EUR 100 billion will be invested in the European Union's rural areas to help farming meet the challenges of soil and water quality, biodiversity and climate change.

However the issue of organic farming and organic production is very distant to customers.

The biggest breakthrough considering the "organic wine" is Commission Implementing Regulation (EU) No 203/2012 of 8 March 2012 amending Regulation (EC) No 889/2008 laying down detailed rules for the implementation of Council Regulation (EC) No 834/2007, as regards detailed rules on organic wine. This regulation was applicable from 1st August 2012 and it sets new rules for "organic wine". From the 2012 harvest, organic growers are allowed to use the term "organic wine" on their labels. The labels must also show the EU-organic-logo and the code number of their certifier, and must respect other wine labeling rules. It cannot be forget that until 2012, organic wine producers were also producing organic

wine, however this wine was called as “wine made from organic grapes”. Therefore “organic wine” cannot be found in the statistics and only data from “organic grapes” could be collected. These grapes did not only serve to make a wine, but there are also included table grapes and raisins.

The development of the organic grape area in the EU follows the same trend as the development of the organic farming worldwide. The growth of the area covered by organic grapes is enormous. From 2004 to 2012, the share of organic grape area increased from 1,81 % to 7,02 %. However, the biggest obstacle when it comes to organic winemaking and also to organic farming is still very poor customer’s knowledge.

In this thesis, all of the objectives (main objectives as well as partial objectives) were successfully fulfilled and recommendations were suggested. The most important and probably the most beneficial recommendation focus on the customer’s knowledge of organic wine and organic products in general. This improvement, where organic winemakers would concentrate more on advertising of their products, improvement of the packaging and on coming closer to customers by creating web pages, e-shop and PPCs, would bring new customers and also the competitive advantage. Other recommendations are probably not that necessary, but they are still needed, beneficial and company should definitely think about their implementation. To mention few of them: increase the cooperation with specialized web portals, improve the cooperation with retailers, get more involved, etc.

At these times, customers are more demanding than ever, it means that entrepreneurs have to offer more than they were used to and have to come closer to their customers. Sometimes producers have to come out of their comfort zone to be able to attract new customers. That might be the case of these small family organic winemakers. They have to come out of their comfort zone and reach towards new customers.

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# Appendix

## A Organic Grape Area Worldwide 2012

Country	Organic area [ha]	Organic share [%]	Area fully converted [ha]	Area under conversion [ha]
Albania	14	0.2%	8	6
Algeria	205	0.3%		
Argentina	5'359	2.5%		
Australia	282	0.2%		
Austria	4'259	9.7%		
Azerbaijan	41	0.3%	1	40
Belgium	8	81.6%	1	7
Bosnia and Herzegovina	8	0.2%	8	
Bulgaria	2'058	2.6%	546	1'512
Canada	262	2.5%		
Chile	4'592	2.3%		
China	2'000	0.3%		
Croatia	634	2.0%	222	412
Cyprus	222	2.7%	195	27
Czech Republic	978	6.1%	442	536
Denmark	12	.	10	2
Estonia	2	.	0	1
Finland	1	.	1	
France	64'801	8.5%	40'449	24'351
Georgia	119	0.2%	39	80
Germany	7'400	7.4%		
Greece	4'997	4.8%	3'822	1'175
Hungary	1'206	1.6%	856	350
Indonesia	5	.		
Iran (Islamic Republic of)	5'846	2.6%	5'823	23
Israel	72	0.9%	65	7
Italy	57'347	7.9%	36'937	20'410
Jordan	358	9.1%		
Kazakhstan	20	0.2%	20	
Lebanon	83	0.8%	83	
Liechtenstein	2	.	2	
Luxembourg	22	1.8%		
Malta	5	0.3%	2	3
Mexico	4'290	15.8%	4'290	
Moldova	4'641	.		
Morocco	33	0.1%	33	
Netherlands	20	10.1%		
New Zealand	2'500	7.3%		
Poland	35	.	21	14
Portugal	2'523	1.4%		
Romania	1'649	0.9%	762	887
Slovakia	68	0.7%	53	15
Slovenia	324	2.0%	159	165
South Africa	773	0.7%	40	29
Spain	81'262	8.4%	49'365	31'897
Switzerland	372	2.5%		
Macedonia (FYROM)	127	0.6%		
Tunisia	7	0.0%	7	
Turkey	6'571	1.4%	3'634	2'938
Ukraine	90	0.1%		
United Kingdom	73	11.4%	50	23
United States of America	15'647	4.0%		
Uruguay	40	0.5%	40	
Total	284'265	4.0%	147'985	84'911

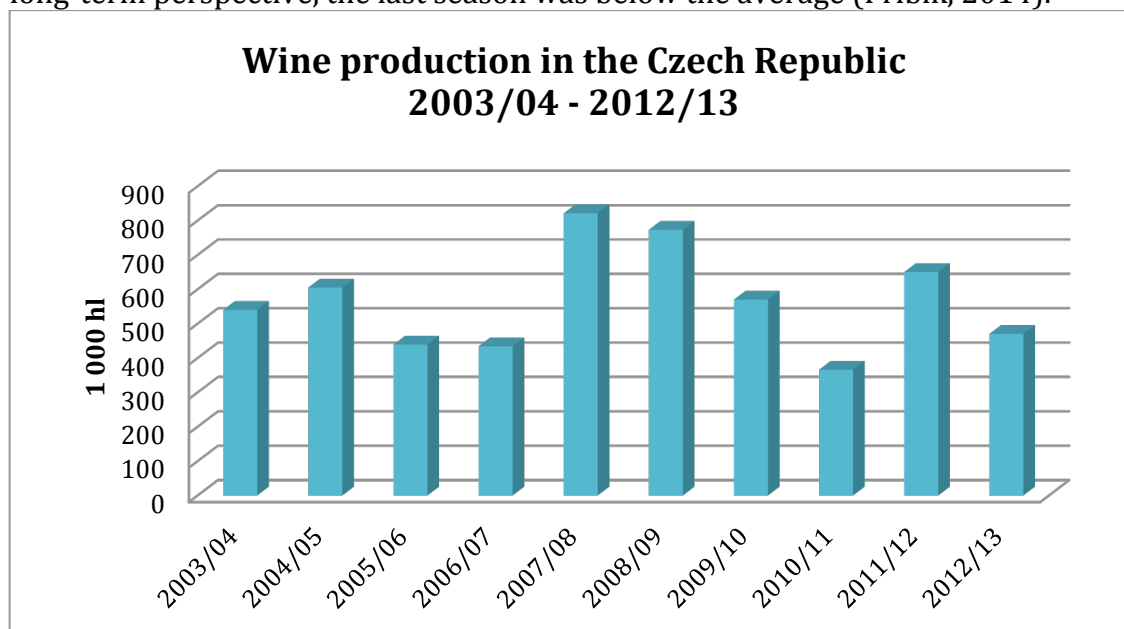
## B Wine Market in the Czech Republic

With the entry to the European Union in 2004, the Czech Republic had to commit that the acreage of vineyards will not be increased. According to Zajícová et al. (2013), the total usable area for grape production in the Czech Republic is around 19 633 hectares (for 31.12.2012), of which the planted area is 17 313 hectares. Compared to the data from 2006 (Bublíková et al., 2007), where the planted area was 18 395 hectares, the trend of planted area is still decreasing. There are two main regions where grapes are grown: Bohemia and Moravia. The crucial production area is Moravia with 96 % of all vineyards.

In recent years, the Czech wine market has faced new challenges mostly thanks to changes in market demand. Most consumers prefer higher quality wines (Chrastova and Mikulasova, 2010).

Wine production in the Czech Republic in the wine year 2012/2013 was lower compared to the average of the previous five years (2007/2008 to 2011/2012) – lower by more than one fourth (166 thousand hectoliters). In the 2012/2013 the production was 470 thousand hectoliters. As it can be seen in Figure 48, the fluctuation on the wine production is noticeable.

During the 2012, Czech wine producers grew less wine grapes (approximately by one third) than in 2011. The main reasons were frosts, which destroyed part of the grape roots and also very dry season, which lasted from the fall 2011. From the long-term perspective, the last season was below the average (Přibík, 2014).



**Figure 48:** Wine production in the Czech Republic 2003/04 – 2012/13

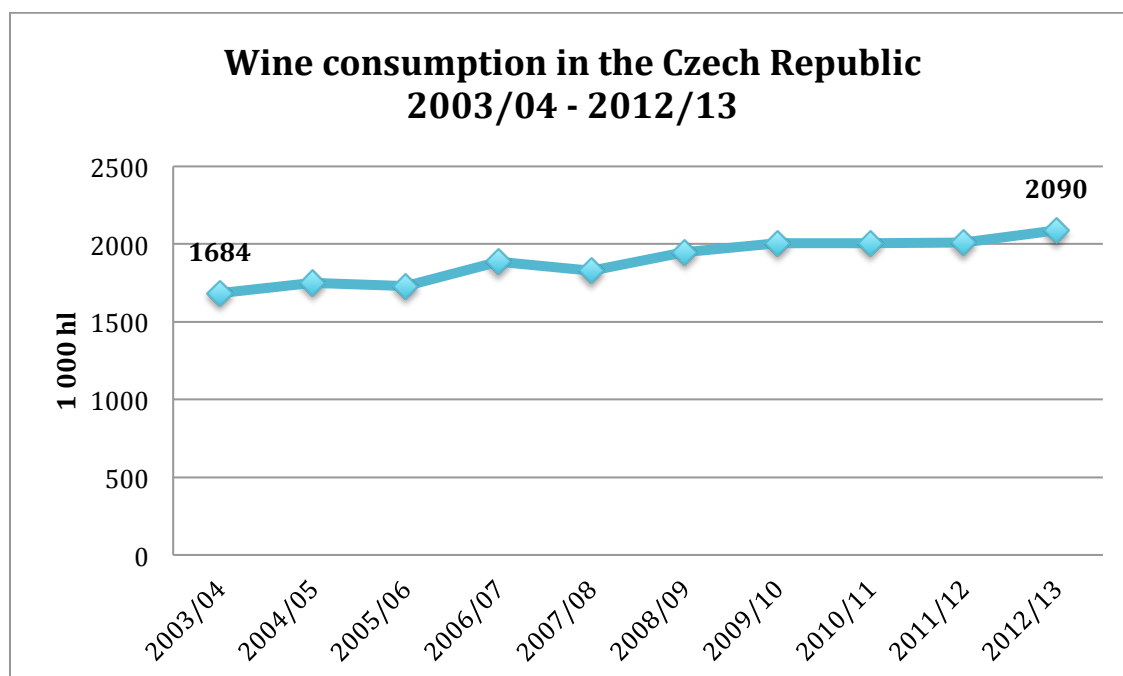
Source: Own elaboration based on Bublíková (2008, 2011), Zajícová (2012, 2013)

Czech Republic has been traditionally viewed as a country with high consumption of beer. According to estimates, beer faced only a small drop in sales. However, the new developing trend related to health and wellness is becoming more cultured and consumers believe that drinking wine is healthier compared to beer. This will be reflected in the fact that value of wine sales is expected to increase due to shift to more premium products in next years (Chrastova and Mikulasova, 2014).

Wine consumption in the Czech Republic is on an increasing trend. As Figure 49 presents, there were only two downturns in the consumption at the Czech market during the period 2003–2012. First one appeared in the wine year 2005/2006, which is due to the entrance to the European Union and new rules at the market. The second downturn appeared during the wine year 2007/2008, which was influenced by the economic crisis.

Chrastova and Mikulasova (2010) state that the Czech winemakers experienced a drop in sales, especially in middle and higher price category of wines, due to the crisis. Consumers preferred cheaper wines.

Since the economic crisis in the 2007/2008, there was not a significant recovery yet and the increase is just moderate.



**Figure 49:** Wine consumption in the Czech Republic 2003/04 – 2012/13

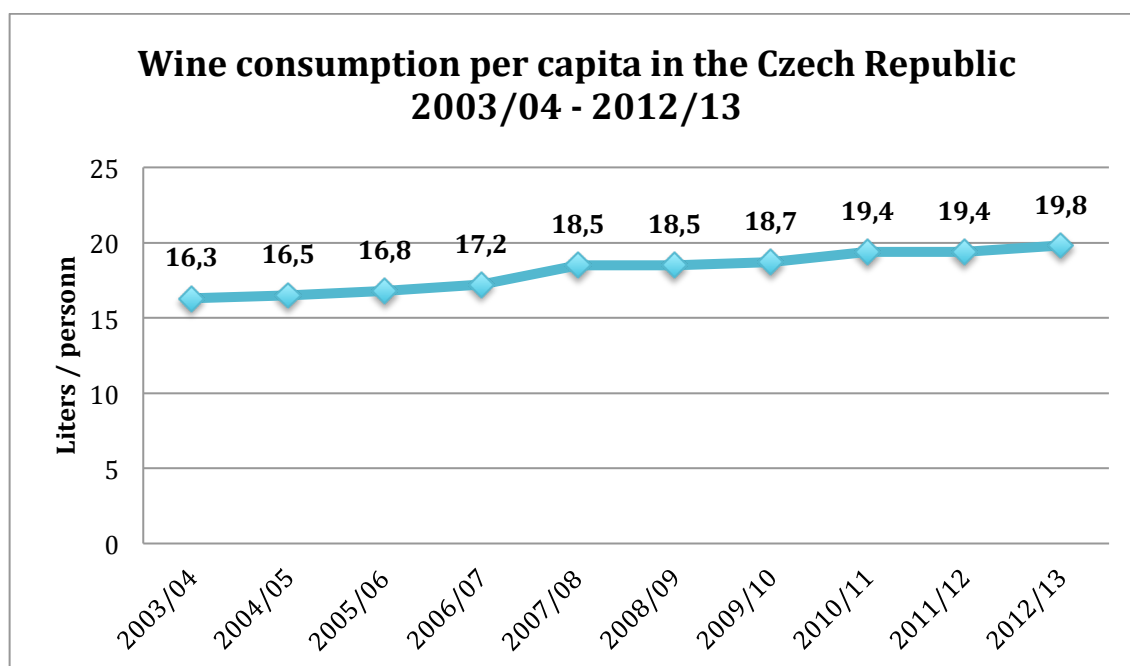
Source: Own elaboration based on Bublíková (2008, 2011), Zajícová (2012, 2013)

According to the collected data (Figure 50), consumption of the wine per capita in the Czech Republic is still increasing (despite of the economic crisis) and after the wine year 2012/2013, where the consumption was 19,8 liters per capita, it looks like that in the following year it might reach the 20 liters per capita. The truth is



that the consumption per capita in the Czech Republic has not shown decreasing trend for the last 20 years. While in 1948 Czechoslovakians drank less than 5 liters of wine per person per year, in 1993 it was over 11 liters and in 2006 approximately 17 liters of wine (Czech, 2014).

Nevertheless, these numbers from the last years are still very low compared to the level of consumption in other European countries such as France and Italy where the per capita consumption is more than 40 liters per year. One factor in traditionally low wine consumption is that the consumption of beer in the Czech Republic is the highest in the whole world, but local tastes are changing towards wine (Chrastova and Mikulasova, 2010).



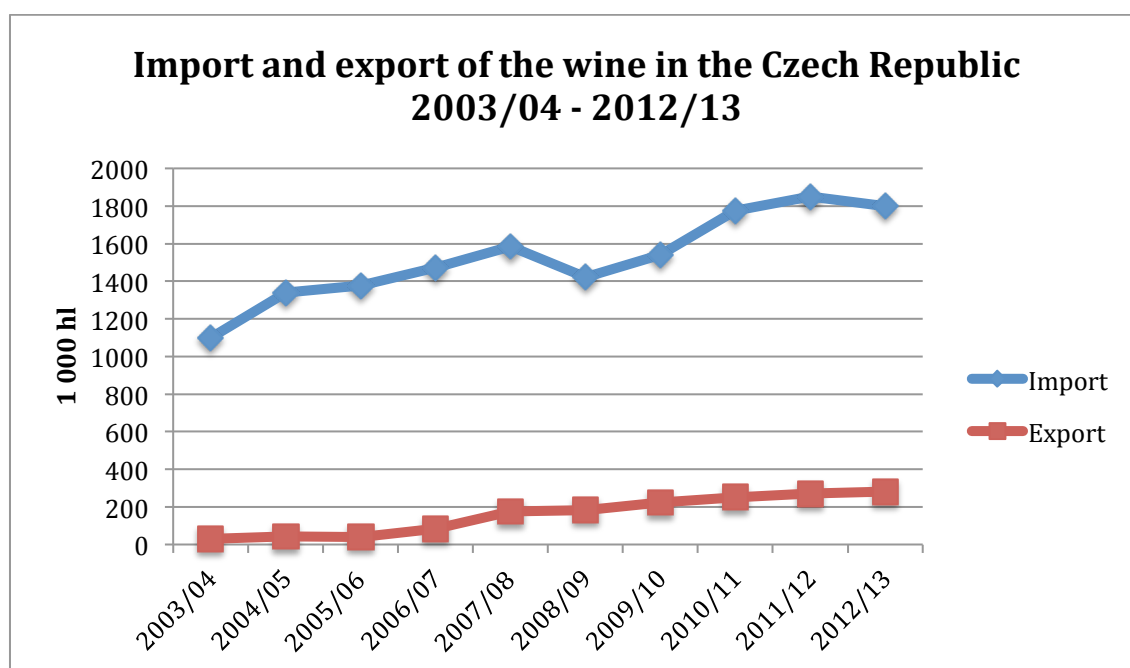
**Figure 50:** Wine consumption per capita in the Czech Republic 2003/04 – 2012/13

Source: Own elaboration based on Bublíková (2008, 2011), Zajícová (2012, 2013), CSO (2014)

In the year 2012/2013, the import of the wine to the Czech Republic decreased. It was imported 1,8 million hectoliters of wine – by 50 thousand hectoliters less than in the year 2012/2013, there was a decrease in the imported wine to the Czech Republic. While in the case of barreled wine the amount is according to the market situation, since the entrance of the Czech Republic in the EU, the trend of bottled wine is constantly growing (this year represents the highest decrease). The interesting is that the volume of the imported bottled wine was in 2003/2004 approximately 35 % and in 2011/2012 it sharply increased to 53 %. During the last two years, the import of bottled wine is higher than barreled wine, although the previous 7 years showed the opposite (Zajícová et al., 2013).

As it is presented in the Figure 51, in the 2003/2004 the import was 1,098 million hectoliters of wine. In 10 years the import increased by 39 % to 1,8 million hectoliters in 2012/2013. First change in the increasing trend appeared during the economic crisis in 2008/2009, when the import decreased by almost 11 %.

The volume of the imported wine to the Czech Republic according to the states has not changed much, but considerable growth in the first years after the entrance of the Czech Republic to the EU is noticeable in the case of Italy and Slovakia. The largest importers to the Czech Republic are Italy, Spain and Slovakia.



**Figure 51:** Import and export of the wine in the Czech Republic 2003/04 – 2012/13

Source: Own elaboration based on Bublíková (2008, 2011), Zajícová (2012, 2013)

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>Import</b>	1098	1341	1378	1471	1585	1420	1540	1774	1850	1800
<b>Export</b>	30	43	41	83	177	182	222	250	270	280

**Table 18:** Import and export in the Czech Republic 2003 – 2012 (thousand hl)

Source: Own elaboration based on Bublíková (2008, 2011), Zajícová (2012, 2013)

In the last ten years, the export of the wine in the Czech Republic grew from 30 thousand hectoliters (in 2003) to 280 thousand hectoliters (in 2012). The trend of the export is still increasing and the Czech Republic's main exporting countries are Slovakia with 235 thousand hectoliters and Poland with 8,5 thousand hectoliters (in 2011). The interesting thing is that while Czech Statistical Office presents that export to Slovakia is 235 thousand hectoliters, Slovakian Statistical Office reports two times higher figure. It refers to the black market operations on the Czech mar-

ket. It is not only case of the exported wine, but also of the imported wine (Česká televize, 2014).

The increase of the bottled and also barreled wine is dynamic. Since the entrance of the Czech Republic in the EU, the increase of the exported bottled wine doubled, afterwards decreased and right now it is slightly higher than in the previous year.

As it can be seen in Figure 51 and Table 18, Import in the Czech Republic has been and still is much higher than export. The lowest difference between export and import appeared in 2008/2009 as a result of economic crisis, which influenced import much more than export (in this period, export did not decrease).

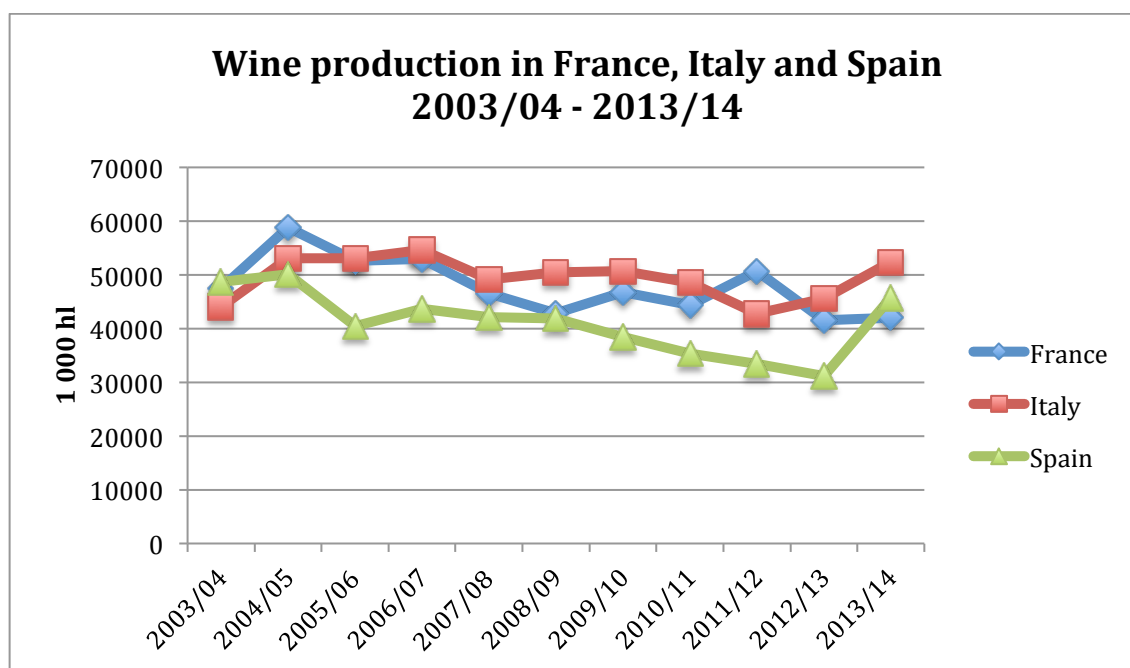
## C Wine Market in Selected EU Countries

The European Union (EU-28) is the world's leader in wine production, with almost half of the global vine-growing area and approximately 60 percent of production by volume. Italy, France, and Spain are the largest EU wine producing countries, representing 80 percent of total output (Bettini, 2014).

As presented in Figure 19, the area of vineyards in the EU is decreasing steadily (from 2002 decreased by 18 % till 2012). It is important to note that during 2008 to 2011 the EU has paid subsidies to wine growers to uproot vineyards. Year 2012 is the first year when subsidies have not been paid for grubbing up vines. During that period the vineyard area declined rapidly but almost leveled out in 2012. This shows how important agricultural politics are in Europe and in wine production (Karlsson, 2013a).

This phenomenon can be also seen in the Figure 52, which presents wine production in France, Italy and Spain. In 2012/2013 there was a steep decline in French and Spanish wine production, while Italian production was increasing in the same year.

According to IWC (2014), expected production figures in 2014 for France, Italy and Spain are following: **France** – 46 151 thousand hectoliters; **Italy** – 44 424 thousand hectoliters and **Spain** – 37 000 thousand hectoliters. A relatively poor harvest in much of Italy in 2014 will drop Italy to second in world wine production behind France, which will return to more normal harvest levels after two subpar years. Spain, which had a bumper crop in 2013/2014 and surprisingly outpaced France, will also return to normal and back to third position. It is necessary to mention that Italy remains, on average, the world's largest wine producer over the past decade. **Czech Republic** with production of 470 thousand hectoliters in 2012 cannot be even compared to these producing giants.



**Figure 52:** Wine production in France Italy and Spain 2003/04 – 2013/14

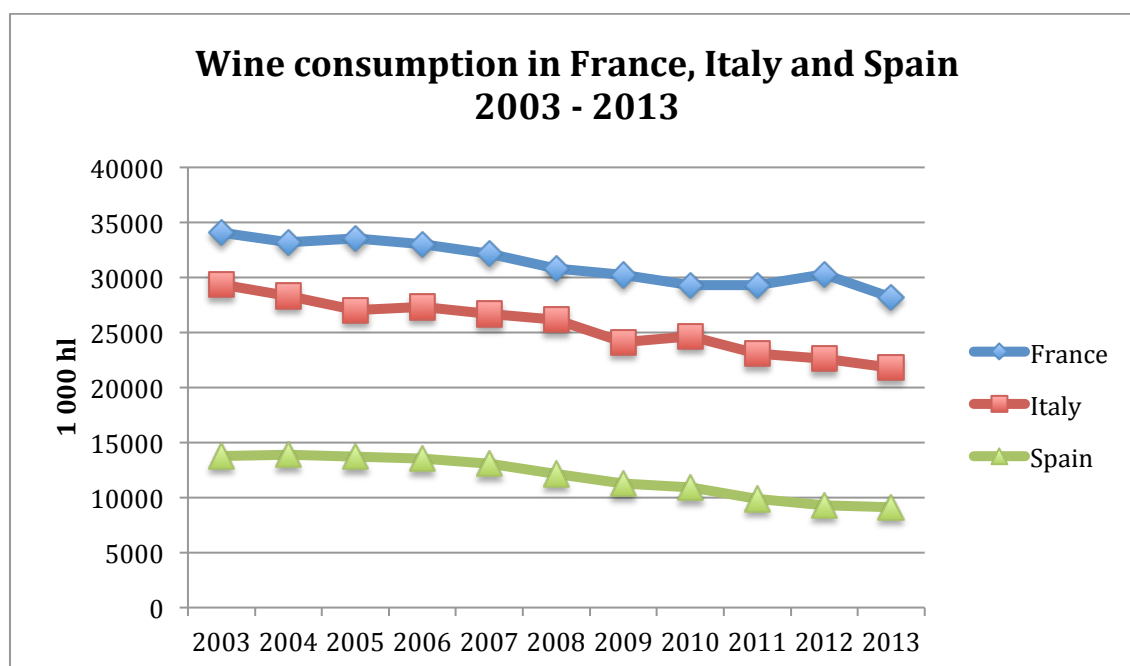
Source: Own elaboration based on Bublíková (2008, 2011), Zajícová (2012, 2013), OIV (2014)

Note: Data for 2012 and 2013 are estimated and are likely to change slightly in future reports

While the production of wine is pretty much the same in all three countries and the differences between production years of each country are not so wide, the same cannot be said about the wine consumption.

Wine consumption in the EU is mildly declining year by year. While the France is still according to some statistics (OIV, 2014) the biggest country for wine consumption in 2012, its consumption has been shrinking (Karlsson, 2013b). Since 2003, the consumption in **France** decreased by 17 % until 2013. Other two traditional big European wine consuming, and producing, countries are showing the same trend (Figure 53). **Italian** consumption of wine decreased by 26 % and **Spanish** by 34 % over the ten years. Consumption of the wine in the Spain is very low compared to the consumption in France for the same year (in 2012 the difference was almost 20 million hectoliters).

Opposite trend can be seen in small European countries (e.g. **Czech Republic**), where the consumption is increasing steadily (since 2003 to 2013 by 20 %).



**Figure 53:** Wine consumption in France, Italy and Spain 2003 – 2013

Source: Source: Own elaboration based on OIV (2014)

Note: Data for 2012 and 2013 are estimated and are likely to change slightly in future reports

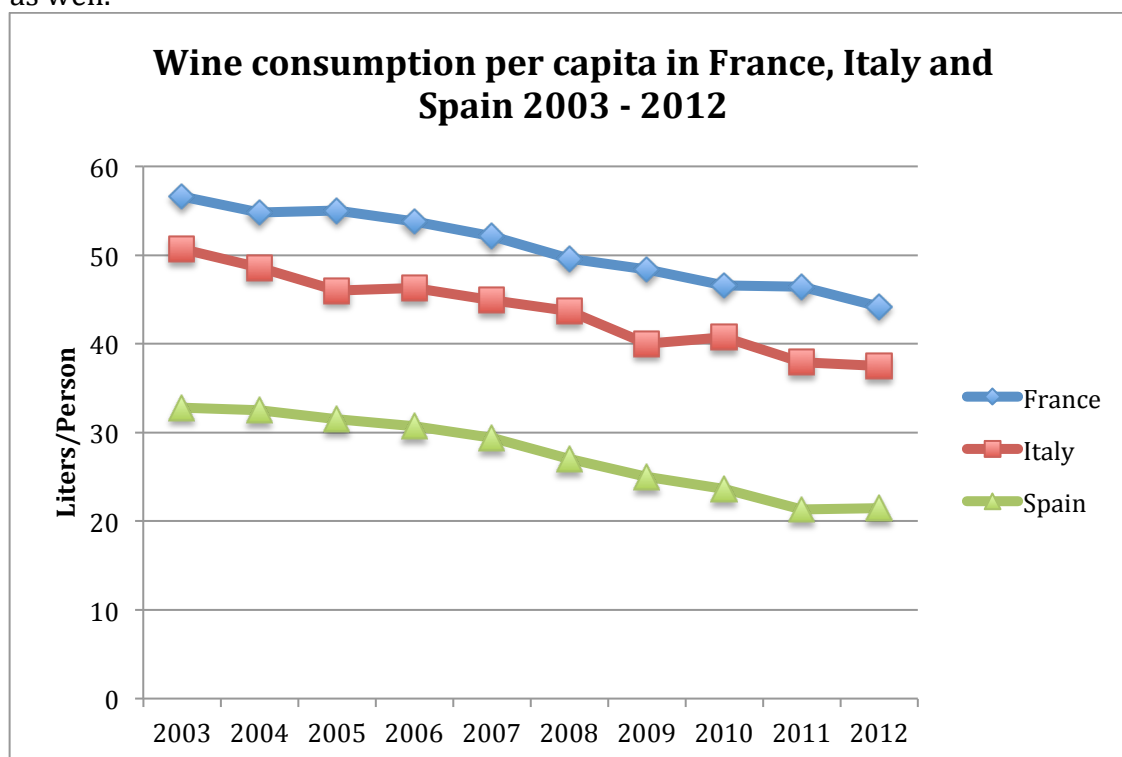
Even though the traditional wine countries have seen declining numbers in the consumption, they are still solidly in the lead. **France** remains the largest wine consumer within the EU, although per capita consumption has declined since the 2003 by 12 liters, stabilizing at 44,2 liters in 2012 (Figure 54).

Wine consumption has been declining in **Italy** for decades. Causes for the trend include changing lifestyles and tastes, as well as anti-alcohol drinking campaigns. According to the Italian Association of Enologists (Assoenologi), Italy's per capita wine consumption is estimated to stay under 40 liters in 2013, considerably lower than the 45 liters in 2007 and 110 liters in the 70s. Recent wine consumer surveys show that Italian origin and familiarity with the winery are the main elements in determining consumer choice. Despite economic austerity measures, Italian wine consumers are seeking higher quality wines but still in the modest price range. However, in general, consumer preferences are gradually shifting to other alcoholic beverages such as beer, liqueurs, and spirits. This trend is more noticeable when discussing occasional and out-of-home consumption than daily consumption, which is still centered on wine (Bettini, 2014).

**Spanish** wine consumption has been decreasing for the last few years and stands currently at 21,5 liters per capita (decreased by 11 liters since 2003 until 2012), according to OIV (2014) and Karlsson (2013b). Data released by the Spanish Ministry of Agriculture, Food, and Environment show that wine consumption in households grew by 3 percent during the year 2013 (estimated data), as consum-

ers reduced expenditure on drinking and eating out, preferring to purchase most of their wine in supermarkets because of the economic recession (Bettini, 2014).

**Czech** wine consumption per capita can be easily compared with Spanish one. For 2013 it is expected that the Czech per capita consumption will finally reach 20 liters. In contrast with French, Italian and Spanish per capita consumption, Czech per capita consumption has the increasing trend. Thus, the potential is increasing as well.



**Figure 54:** Wine consumption per capita in France, Italy and Spain 2003 – 2012

Source: Own elaboration based on OIV (2014), Karlsson (2013b)

Note: Data for 2012 are estimated and are likely to change slightly in future reports

Surprisingly, Vatican City utterly dominates every other country, with consumption per capita nearly 74 liters in 2012, which is by 30 liters more than consumption per capita in France (Kiersz, 2014).

When moving on to the trade, **France** is by far the biggest exporter of wine in value, exporting 7,8 billion euro worth of wine in 2012, up by 8,9 % from 2011. There is much talk about France's weakening position on the global wine market and there may be good reasons for it. While the export in value increased since 2000 to 2012 by 42 % (from 5,5 billion euro to 7,8 billion euro), the share of the French to world exports is still shrinking. In second place comes **Italy** exporting 4,7 billion euro worth of wine in 2012, up by 6,5 % since 2011. Third place belongs to **Spain**, exporting 2,4 billion euro worth of wine in 2012, up by 6,5 % since 2011. World's biggest wine exporters, counted in value in 2012 (Karlsson, 2013c):

- France – 7,8 billion euro;
- Italy – 4,7 billion euro;
- Spain – 2,4 billion euro.

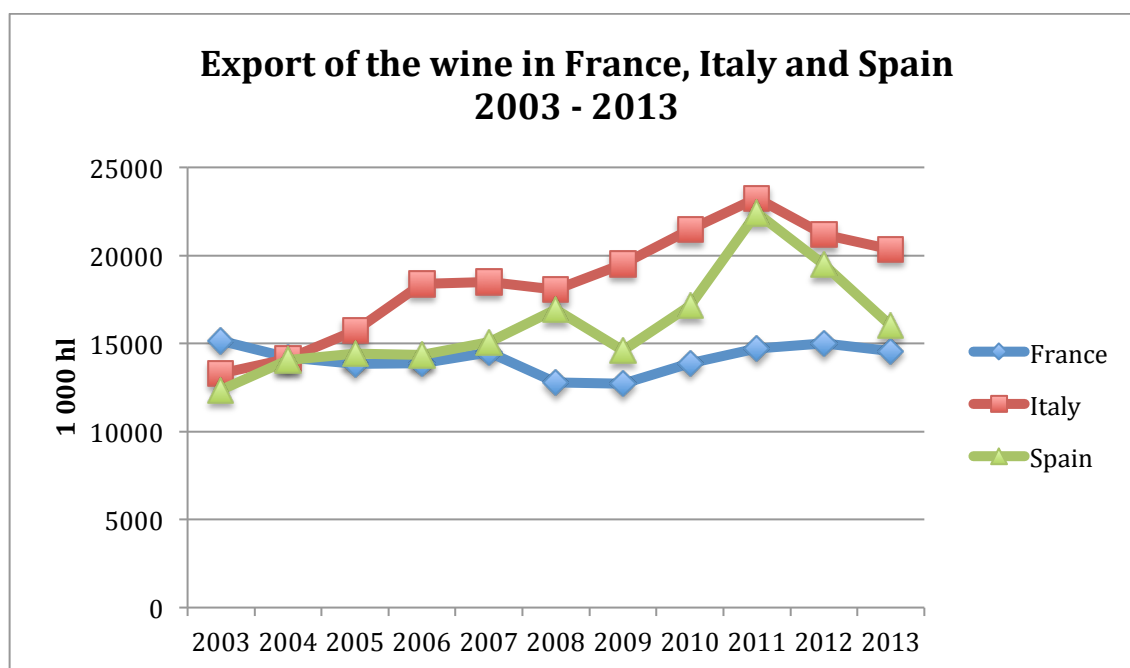
When it comes to the biggest wine exporters, which are counted in volume, the picture is very different. Data for 2012 are presented in the Figure 55 and Table 19 (OIV, 2014):

- Italy – 21, 2 million liters (for 2013 estimation - 20,3 million liters);
- Spain – 19,5 million liters (for 2013 estimation - 16,0 million liters);
- France – 15,0 million liters (for 2013 estimation - 14,6 million liters).

France's volume of export has not changed much since 2003 until 2013. As shown in the Figure 55, in these ten years French wine export decreased by 4 % and the trend line is pretty much stable. The main destinations for French wines are United Kingdom, the United States and Germany. Italy's wine export experienced great increase of exported wine in volume. After the reaching the peak in 2011, the export increased since 2003 by 34 % until 2013 and as mentioned before it positions Italy to the first place. The most important destinations for Italian wine are the United States, Germany and the United Kingdom. Spain's exports of wine have grown since 2003 as well and the difference is 23 %. However, the situation of the Spanish wine export is not as good as it looks like. After the reaching the peak in 2011, the volume of exported wine decreased by 29 % and is still expected to be declining. The main destinations for Spain's wine are Germany, the United Kingdom and France.

It is also interesting to look at the average price per liter of exported wine: France exports for 5,23 euro/liter; Italy for 2,21 euro/liter; Spain for 1,21 euro/liter and for the comparison Czech Republic for 1,41 euro/liter (Karlsson, 2013c; Zpráva o trhu vína a vinných hroznů, 2013).





**Figure 55:** Export of the wine in France, Italy and Spain 2003 – 2013

Source: Source: Own elaboration based on OIV (2014), Bettini (2013, 2014)

Note: Data for 2012 and 2013 are estimated and are likely to change slightly in future reports

Export	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
<b>France</b>	15,1	14,2	13,8	13,9	14,5	12,8	12,7	13,9	14,7	15,0	14,6
<b>Italy</b>	13,3	14,1	15,7	18,4	18,5	18,1	19,5	21,5	23,2	21,2	20,3
<b>Spain</b>	12,4	14,0	14,4	14,3	15,1	16,9	14,6	17,2	22,4	19,5	16,0

**Table 19:** Export of the wine in France, Italy and Spain 2003 – 2013 (million hectoliters)

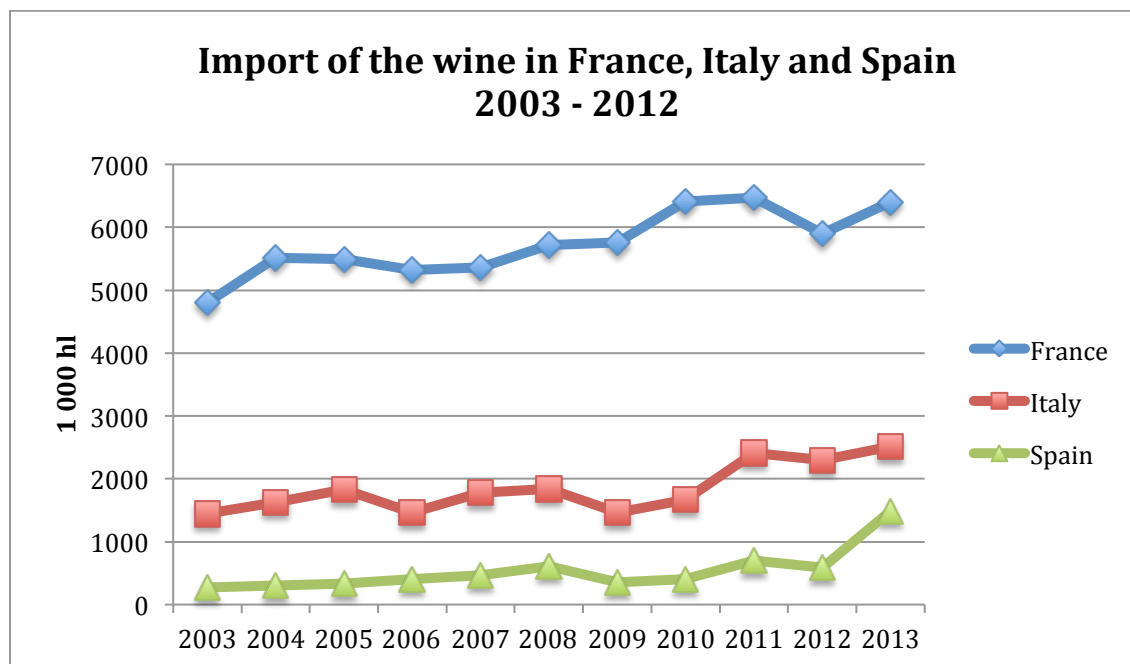
Source: Source: Own elaboration based on OIV (2014), Bettini (2013, 2014)

Note: Data for 2012 and 2013 are estimated and are likely to change slightly in future reports

Situation at the wine market of these “wine giants” (France, Italy and Spain) is very different compared to the situation in the Czech Republic. In the case of France, Italy and Spain, exports are much higher than imports due to the high wine production and imports of wine form just a fraction of the trade. Thus, the balance of the trade for wine in these countries is positive. In contrary, the balance of the wine trade in the Czech Republic is negative. It has to be mentioned that the trend of export and also import (Figure 56; Table 18) is still increasing in all these countries (France, Italy, Spain, the Czech Republic).

**France’s** wine imports grew in the period 2003 – 2013 by 25 %, mainly thanks to the supply from Spain. The next most important suppliers to the French market are Portugal and Italy. **Italy’s** wine imports recorded also the growth in the volume. Since 2003, the volume of imported wine increased by 42 % and the main partner countries are France, Spain and the United States, accounting for 85,5 % of total imports. **Spain’s** wine imports surged by 150 % in 2013 – due to lower be-

ginning stocks followed by the lower production in 2012. Since 2003, wine import in Spain increased by 450 %, thanks to increased imports from Chile, South Africa, and Argentina (Bettini, 2014).



**Figure 56:** Import of the wine in France, Italy and Spain 2003 – 2012

Source: Source: Own elaboration based on OIV (2014), Bettini (2013, 2014)

Note: Data for 2012 and 2013 are estimated and are likely to change slightly in future reports

Import	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
France	4,80	5,51	5,50	5,32	5,36	5,72	5,76	6,41	6,47	5,90	6,40
Italy	1,45	1,63	1,83	1,46	1,78	1,84	1,46	1,67	2,41	2,30	2,51
Spain	0,27	0,30	0,33	0,40	0,46	0,61	0,35	0,41	0,70	0,59	1,48

**Table 20:** Import of the wine in France, Italy and Spain 2003 – 2013 (million hectoliters)

Source: Source: Own elaboration based on OIV (2014), Bettini (2013, 2014)

Note: Data for 2012 and 2013 are estimated and are likely to change slightly in future reports

## D Questionnaire on Organic Products

1. Gender
  - a. Male
  - b. Female
2. Age
  - a. 18-30
  - b. 31-45
  - c. 46-60
  - d. 60+
3. The highest achieved education
  - a. None
  - b. Primary education
  - c. Secondary without leaving examination
  - d. Secondary with leaving examination
  - e. Vocational education
  - f. University degree
4. Average monthly wage (net)
  - a. Less than CZK 8 500
  - b. CZK 8 501 – CZK 13 000
  - c. CZK 13 001 – CZK 18 000
  - d. CZK 18 001 – CZK 25 000
  - e. CZK 25 001 +
5. Number of inhabitants in the place of residence
  - a. Up to 10 000
  - b. 10 001 – 50 000
  - c. 50 001 – 100 000
  - d. 100 001 +
6. Do you know what this logo stands for?



- a. Yes
- b. No

7. Do you know what this logo stands for?



- a. Yes
  - b. No
8. Do you know what are the organic products?
- a. Yes
  - b. No
  - c. Somewhat
9. Do you buy organic products? (If your answer is “no”, continue with question 12; otherwise continue with question 10)
- a. Yes
  - b. No
  - c. Occasionally
10. How often do you buy organic products?
- a. Several times a week
  - b. Once a week
  - c. 1-3 times a month
  - d. Less often
11. What are the reasons to buy organic products? (max. 3 answers)
- a. Healthy lifestyle
  - b. It is modern
  - c. High quality
  - d. It is tasty
  - e. I buy it for my kids
  - f. I want to try something new
  - g. I care about the environment
  - h. Other
12. Do you know where to find organic products in your preferred store?
- a. Definitely yes
  - b. Rather yes
  - c. I do not know
  - d. Rather no
  - e. Definitely no
13. What are the reasons to not to buy organic products? (max. 3 answers)
- a. I do not see the difference with conventional products
  - b. Too expensive
  - c. I do not know what it means
  - d. I do not know where to buy it

- e. Limited selection
  - f. I do not buy grocery in my household
  - g. I do not need special grocery (I am healthy)
  - h. I do not have time to buy organic products
  - i. I am loyal to the brand of conventional products
  - j. I like conventional products
  - k. Other reasons
14. Would you like to receive more information on organic products?
- a. Definitely yes
  - b. Rather yes
  - c. I do not know
  - d. Rather no
  - e. Definitely no

## E Questionnaire on Organic Wine

1. Have you ever consumed organic wine? (in the case of answer c & d, go to question number 7; in the case of answer b, go to question number 3)
  - a. Yes
  - b. No, but I have heard of it
  - c. No, I have never heard of it
  - d. I do not know, because I do not recognize organic wine
2. What are the reasons (from your point of view) to drink organic wine? (max. 3 answers)
  - a. Healthy lifestyle
  - b. It is modern
  - c. High quality
  - d. It is tasty
  - e. It was recommended to me
  - f. I want to try something new
  - g. I care about the environment
  - h. Other reason
3. Where did you get in touch with organic wine? (choose as many answers as you are willing to)
  - a. Supermarket
  - b. Restaurant
  - c. Wine cellar
  - d. Wine shop
  - e. Wine bar
  - f. Specialized organic shop
  - g. Served at social event by catering
  - h. I have heard of it (was offered it) from a friend
  - i. In media
  - j. Other place
4. Can you tell the difference among organic wine and non-organic wine (bottle design, taste,...) ?
  - a. Definitely yes
  - b. Rather yes
  - c. I do not know
  - d. Rather no
  - e. Definitely no
5. Where would you like to buy organic wine (the most convenient place for you to buy organic wine)? (max. 3 answers)
  - a. Supermarket
  - b. Restaurant
  - c. Wine cellar
  - d. Wine shop

- e. Wine bar
  - f. Specialized organic shop
  - g. Market
  - h. Directly from the producer
  - i. E-shop
  - j. Other place
6. How much extra are you willing to pay for organic wine compared to non-organic wine?
- a. I do not want to pay more
  - b. 1% - 25%
  - c. 26% - 50%
  - d. 51% - 100%
  - e. 101% and more
7. Gender
- a. Male
  - b. Female
8. Age group
- a. 18-30
  - b. 31-45
  - c. 46-60
  - d. 61+