

The Development of Organic Food Market as an Element of Sustainable Development Concept Implementation

Rozwój rynku ekologicznych produktów żywnościowych jako element realizacji koncepcji zrównoważonego rozwoju

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Abstract

The development of organic food market constitutes an element of a far more complex phenomenon of ecological consumption and reinforcement of a new paradigm called green marketing.

Sustainable development strategies in the agri-food industry vary widely, ranging from mainstream agriculture becoming more ecological through the development of local production and consumption networks, organic farming to fair trade. We observe a dynamic growth in the value of organic food market in developed economies. From 2004 to 2012, the size of the European organic food market doubled. Further development of organic food market depends, *inter alia*, on the structure of distribution channels and pricing level, long-term trends in the national income growth and the development of ecological awareness of the society.

Key words : sustainable development, green marketing, ecological consumption, agri-food industry, organic food, Europe

Streszczenie

Rozwój rynku ekologicznych produktów żywnościowych stanowi element znacznie bardziej złożonego zjawiska ekologizacji konsumpcji i umacniania się nowego paradygmatu, zwanego zielonym marketingiem.

Strategie zrównoważonego rozwoju w branży rolno-spożywczej mogą przybierać zróżnicowaną formę, począwszy od ekologizacji rolnictwa głównego nurtu poprzez rozwój sieci lokalnej produkcji i konsumpcji, rolnictwo ekologiczne, aż po uczciwy handel. Obserwujemy dynamiczny wzrost wartości rynku żywności ekologicznej w krajach wysoko rozwiniętych. W latach 2004-2012 wartość europejskiego rynku żywności ekologicznej się podwoiła. Dalszy rozwój rynku produktów ekologicznych zależy m.in. od struktury kanałów sprzedaży, wysokości cen, długofalowych trendów w zakresie wzrostu dochodów społeczeństwa i wzrostu świadomości ekologicznej.

Słowa kluczowe : zrównoważony rozwój, zielony marketing, ekologizacja konsumpcji, branża rolno-spożywcza, żywność ekologiczna, Europa

Introduction

In spite of a growing interest in sustainable development issues (Pawłowski, 2011), the implementation of this concept faces multiple obstacles, though it is stimulated by the processes of European integration and the absorption of European Union funds (Bryła, 2013a; Bryła, 2012a; Bryła, 2007). One of positive examples is the dynamic development of the organic food market (Bryła, 2013b). Food and its production

form the basis for our civilization existence. Tools used by man to sustain his existence affect the environmental conditions which, in turn, determine the production capacities and natural resource diversity. The economic development of rural areas guarantees professional stability of their inhabitants and determines environment protection investment decisions. These aims may be achieved via, *inter alia*, rural tourism and the production of healthy food.

The sustainable development concept influences the directions of marketing evolution (Zaremba-Warnke, 2014). Contemporary marketing may be oriented at the implementation of the sustainable development concept thanks to the adoption of ecological consumption paradigm both in relations to the model of managing an enterprise, but also changing values in consumer awareness and attitudes toward shaping the so-called eco-consumers. We observe a considerable rise in significance of certain types of products in food marketing. This long-term trend, albeit at a variable level of development depending on the market, applies to, *inter alia*, functional, health, origin, traditional and organic/ecological products (Domański and Bryła, 2013; Rudawska, 2014). The term *ecological* or *organic* reflects the product form, but also may be treated as a brand, because it differentiates the product on the market and fits the definition of a brand proposed by the American Marketing Association (Hall, 2008). The ecological character of the product constitutes one of competitiveness factors of a company offer, although it does not belong to the most important determinants of competitiveness of Polish food products, at least from the perspective of all producers. This factor was classified 17th on the domestic market and 12th in Polish food exports (Bryła, 2012b). Nevertheless, it is an important and systematically growing market segment in some product categories. For instance, we observe a growing importance of the segment of organic yoghurts, which constitutes an element of offer diversification (Domański and Bryła, 2012).

This paper aims to present the new *green marketing* paradigm and ecological consumption. Moreover, we will mention sustainable development indicators adjusted to the specificity of the agro-food industry. Also the dynamic of growth in organic food market worth will be shown. The last section deals with selected statistical data on the organic food market in Europe.

Green marketing and ecological consumption

The development of organic food market constitutes an element of a far more complex phenomenon of consumption ecologisation and replacement of conventional marketing with a new paradigm – the so-called green marketing – table 1 (Ottman, 2011, p. 46).

Ecological marketing (ecomarketing, green marketing, environmental marketing, sustainability marketing) constitutes a reaction of businesses to the growing ecological awareness of their customers, that is a better understanding of our dependence on nature and of the human impact on the environment (Klimczyk-Bryk, 2000).

Table 1. The new paradigm of green marketing, source: Ottman, 2011, p. 46

| Elements of the system | Conventional marketing | Green marketing |
|------------------------|---|--|
| Consumers | Consumers with their lifestyles | People with their lives |
| Products | <i>From cradle to grave</i> Products Global supply Standardisation | <i>From cradle to cradle</i> Services Local supply Regional adaptation |
| Marketing | Benefits Sales One-way communication Paid advertising | Values Education Building communities Word-of-mouth marketing |
| Company | Mysterious Reactive Independent and autonomic Competitive Structured Short-term orientation Profit maximisation | Transparent Proactive Interdependent, in Alliance with stakeholders Cooperative Holistic Long-term orientation A bundle of objectives ¹ |

Ecological consumption concerns: purchasing and consuming ecological products; a shift from ego-rationality to eco-rationality; economical, rational use of consumption goods; a reduction of or resignation from consuming products characterised by high intensity of non-renewable mineral resources; selecting products that do not generate a big amount of post-consumption waste; waste segregation and reuse; deepening one's knowledge in the field of protection of the natural environment; active participation of buyers in organizing cooperatives co-created by consumers and farmers; and engagement in activities of pro-ecological movements. This new consumer type has been named *Homo ecologicus* (Mazurek-Łopacińska and Sobocińska, 2010). Eco-consumers possess knowledge in the field of ecology, modify their lifestyle, and buy ecological products, which tend to be more expensive than conventional ones (Leśniak, 2001, p. 87). A clear differentiation of ecological products against competitive offerings with comparable utilitarian and functional parameters is crucial in green marketing. It can be achieved with eco-labelling (Czubała, 2010, p. 126). We can observe a growing role of sustainable marketing communication, which enables to shape both consumer attitudes and company image (Wilk, 2014).

¹ In English, there is a term *triple bottom line*, which refers to simultaneous meeting of economic, social, and ecological objectives (it is recommended not to perform below certain standards in each of these areas).

Table 2. The most important sustainable development indicators in the agri-food industry, source: (Fritz and Matopoulous, 2008)

| Sustainable development dimension | Goals | Measurement criteria | Indicators |
|-----------------------------------|--------------------------------------|---|---|
| Economic | Economic growth | Productivity | Value added per employee, € |
| | Investments in labour qualifications | Trainings | Number of hours of employee training |
| | Open and competitive economy | Diversification and industry structure | Share of big enterprises, % |
| | Change in consumption patterns | Reduction of transport of imported goods | Dependence on imports, % |
| Social | Urban distribution | Traffic jams, noise, accidents | Number of kilometres necessary to supply all shops |
| | | Journey time | Time on the roads % of delayed supplies |
| | Nutritional and health value | Labels | Number of products with labels |
| | Food safety | Contaminations | Number of incidents |
| | Improvement of working conditions | Equality | Employment of women, % Employment of ethnic minorities, % Employment of the disabled, % |
| | | Work safety and hygiene | Accidents |
| | | Employment size | Average number of employees |
| | | Employment quality | Average salary, € |
| | Community | Support for the community | Subsidies (e.g. to build a school) |
| | | Economic ties with the community | Local purchases and transactions, % value share Sales growth of local products, % |
| Fair trade | Fair trade programmes | Share of fair trade products in the assortment, % | |
| Ecological | Waste | Packaging | Amount of waste per basket of purchases Recyclable waste in the basket |
| | Air pollution | Emissions | Carbon dioxide emission Steam emission |
| | Water | Water consumption | Purchase of water for one's own consumption per enterprise, € |
| | Energy | Energy consumption | Purchase of energy for one's own consumption per enterprise, € Primary demand for energy, MJ/kg of the product |
| | Biodiversity | Impact on biodiversity | Share of local varieties of the product in total sales, % Share of local varieties of the product in crops, % |
| | Food transport | Transport means and tactics | Share of local purchases, % Share of products in air freight, % Share of direct supplies to retailers, % |
| | | Fill of vehicles | % of use of available capacity regarding weight and volume % of empty kilometres Share of products transported in vehicles of different size, weight and cooling capacity |
| | | Time use | Deviations from the plan Driver performance management Transport telematics |
| | | Engine parameters | Share of alternative fuels, % Fuel consumption Carbon dioxide emission |

The literature of the subject contains numerous attempts to discern the profiles of ecological product buyers (Witek, 2014). A survey among 41 923 people in 30 countries of the world allowed to assess the impact of selected socio-demographic variables on the willingness to sacrifice for the sake of natural environment conservation. Education had the highest impact, followed by professional status (employees, students, and trainees have a higher propensity compared to those who are unfit for work, the unemployed, old age pensioners and housewives), political orientation (leftist views correlate with a higher propensity), age (older subjects are ready for bigger sacrifice) and the place of residence (inhabitants of large cities and suburbs declare a higher willingness). International differentiation was noted as well. The highest propensity to undertake pro-ecological behaviour was declared by the Swiss, Koreans, and Danes, while the lowest – by Latvians, Croats and inhabitants of the Czech Republic (Rydzewski, 2013).

Sustainable development indicators in the agro-food industry

According to A. Graczyk and K. Mazurek-Lopacińska (2009), the development of ecological product market in Europe is stimulated by the adoption of the European Union sustainable development strategy, the implementation of which depends on cultural factors. Sustainable consumption indicators include: localisation, reduction of the *ecological footprint*, community building, acting in common and the creation of new socio-economic institutions (Seyfang, 2007). The determinants of sustainable consumption development should be perceived from the viewpoint of changes in attitudes, value hierarchies and lifestyles as well as cultural transformation of the society (Mazurek-Lopacińska and Sobocińska, 2014)

Fritz and Matopoulous (2008) classified the most important sustainability indicators in the agro-food industry within 3 fundamental dimensions of this concept: economic, social and environmental (table 2). It is a holistic approach to phenomena taking place in the whole market channel, starting from suppliers, through processors, distributors, to consumers.

Sustainable development strategies in the agri-food industry may take various shapes, starting from greening mainstream agriculture (lower use of pesticides, herbicides and fertilisers) through the development of local production and consumption networks, organic farming to fair trade (Tischner and Kjærnes, 2010, p. 39).

Geographical Indications contribute to the sustainable development of rural areas, because: they help producers get higher prices and guarantee safety and quality for consumers; improve the redistribution of value added in the supply chain; add value to the area

Table 3. Selected quality signs referring to sustainable development in Germany and Italy, source: Banterle et al., 2010

| Sign | Social dimension | Ecological dimension |
|---|---|---|
| MSC (Marine Stewardship Council) | Protection of ichtyological heritage | Protection of the seas Fish diversity |
| Friend of the Sea | FAO code of conduct in the field of sustainable fishery | Impact on habitats Fish diversity Carbon dioxide emission (carbon footprint) Waste management |
| Dolphin Safe | Regulation of the method of tuna fishing | Sea biodiversity |
| Best Alliance | Work conditions | Climate protection Water consumption Carbon dioxide emission |
| Rainforest Alliance | Nature conservation Fair treatment Good working conditions Community relations | Ecosystem preservation Water protection Integrated crop management Integrated waste management |
| RSPO (Roundtable on Sustainable Palm Oil) | Social and human capital Local economy | Protection of tropical forests Biodiversity Saving water Energy resources |
| RTRS (Round Table on Responsible Soy) | Legal compliance Appropriate work conditions Appropriate community relations | Pollution minimisation Reduction of greenhouse gases Good agricultural practices Waste reduction Integrated crop management |
| UTZ Certified | Harvest management Labour law Food and agricultural safety Producer income | Biodiversity Protection of water resources Carbon dioxide emission Integrated management of crop protection chemicals |
| FAIRGLOBE | Better prices Fair working conditions | More respect for the environment |
| SAI (Sustainable Agriculture Initiative) | Lifestyle of farmers Community relations Agricultural income | Biodiversity Natural resources |

of origin; lead to production growth, creation of new jobs and they prevent the exodus of population from rural areas; contribute to the protection of landscapes, traditional know-how and biodiversity (Williams, 2007, p. 10). Economic benefits stemming from the use of Geographical Indications also include the stimulation of innovations and entrepreneurship and their use in marketing. The list of social benefits may be supplemented with protection against unfair competition, assurance of market transparency for consumers and contribution to social cohesion. Within the ecological dimension, the reduction of the distance between supply and demand is crucial as well (Williams, 2007, p. 41-51). Thus the use of European quality signs appealing to the area of origin fits the concept of sustainable development.

Banterle et al. (2010) identified 10 quality signs referring to sustainable development in Germany and Italy (table 3).

Quality sign functions may be analysed from the perspective of particular stakeholder groups: producers (competitiveness growth, image effects, strategic considerations), consumers (information, ethics, loyalty, trust), authorities (care about economic interests of consumers with the reduction of information asymmetry, implementation of sustainable development policies, trade policy instrument), and non-governmental organisations (stimulating public discussion, opposition to consumerism) (Boer, 2003). The adoption of quality signs is treated as a chance to improve sales through offer differentiation, higher responsibility and extending consumer choice. However, in reality, labelling may lead to an overload of information in general and a shortage of independent, available and understandable information (Horne, 2009). In the opinion of A. Stanciani (2008), a lot of quality signs that are justified by the protection of consumer interests, aim to grant a group of producers a rent stemming from their position and institutional framework. Sometimes the signs serve to ensure loyal competition among producers.

Growth in organic food market value

The world organic food market value was estimated at 20 billion USD already in 2002 (Hughner et al., 2007). It showed a very dynamic from the level of 10 billion USD in 1997 (Łuczka-Bakuła, 2007, p. 76). In 2010, this value was estimated at 59.1 billion USD (Henryks et al., 2013, p. 20-42). The dynamics of growth was impressive. For example, in the UK, the sales of such products increased from 100 million GBP in 1994 to 605 million in 2000, the size of the American market soared from 78 million USD in 1980 to approximately 6 billion in 2000. The average annual growth of the market value in 1990s amounted to as much as 24% (Hughner et al., 2007). In 2006, organic food sales in the US reached 16.7 billion USD, which accounted for 3% of the entire

American food market (Adams and Salois, 2010). In 2003, the European organic food market constituted a half of the world market (Łuczka-Bakuła, 2007, p. 76). The area of organic crops in the European Union increased by 7.4% annually from 2000 to 2008 to reach 7.6 million ha cultivated by 197 thousand farms. Organic products accounted for 1.9% of total spending on food. In the period 2000-2009, the average annual growth in sales of organic food amounted to 8.7% in Italy, 14% in Germany and 18.1% in France (Tavella and Hjortsø, 2012). In 2003, in the European Union, the highest level of organic food spending per capita was observed in Denmark (51 EUR). Further positions were taken by: Sweden (47 EUR), Finland (41 EUR), Austria (40 EUR) and Germany (38 EUR) (Łuczka-Bakuła, 2007, p. 78), while the share of organic products in the food market ranged from 0.2% in Spain to 3% in Denmark (Motowidlak, 2007, p. 171). The organic food turnover in Germany increased from 3.9 billion EUR in 2005 to 6.6 billion in 2011 (Hasselbach and Roosen, 2013, p. 43-64). In 2010, the share of organic products in the German food market amounted to 3.9% (Gottschalk and Leistner, 2013). The share of organic products in the Danish food market grew very quickly during the second half of the first decade of the 21st century – from below 4% in 2005 to over 7% in 2009, though, naturally, is varied according to the product category e.g. 35% milk and 0.8% chicken (Smed et al., 2013). In 2006, the share of organic food in the particular product categories was as follows on the Danish market: oatmeal (27.0%), milk (24.7%), eggs (17.2%), carrots (16.2%), wheat flour (10.7%), yoghurt (7.7%), coffee (4.1%), potatoes (3.2%), rye bread (3.0%), beef (2.4%) and pork (0.7%) (Jørgensen, 2010, p. 93). The share of organic products in the American food market amounted to approximately 4% at the end of the first decade of the 21st century, while it was roughly 1% in Australia (Henryks et al., 2013, p. 20-42). In 2006, the Czech market of organic food was worth 760 million CZK, which meant a 58% increase during one year (!) (Doležalová et al., 2009).

According to American studies, the market of organic products is internally diverse. One can distinguish more and less orthodox forms (*deep organic* and *organic lite*). The matter is even more complex, as many consumers consider local products to be a more holistic and authentic substitute of organic products. Some of them claim that *food miles*, rather than organic labels, are an emanation of sustainability. Table 4 compares these 3 categories of food products. Interestingly the cited authors think that formal rules of labelling and certification concern the category of *organic lite* rather than *deep organic* (Adams and Salois, 2010). It may stem from the specificity of the American system of organic food certification, which differs from European Union regulations, as well as from the different model of agriculture in the United States (based on very

Table 4. A comparison of local and *deep* and *lite* organic products Source: (Adams and Salois, 2010)

| Attributes | Local products | <i>Deep</i> organic products | Organic <i>lite</i> products |
|--|---|--|---|
| Production methods, inputs | Any | No pesticides and GMO, very environmentally friendly, biodynamic and sustainable | No pesticides and GMO |
| Product types | Big diversity, seasonality | Big diversity, seasonality | Traditional |
| Location | Local, but defined broadly | Local | Anywhere (even in China) |
| Certification | No formal standards | None | Rigorous standards |
| Labelling | No rules at the federal level, often at the state level | None | USDA organic labels |
| Relationship with consumers | Close | Close | Distant |
| Production scale | Small | Small | Typically very large |
| Market concentration | None | None | Domination of big producers and retailers |
| Distribution channel length | Short – direct sales | Short – direct sales | Long – includes wholesalers, transport companies, warehousing etc. |
| Impact on the environment | The same as in industrial agriculture, but at a lower scale | Environmentally friendly | Less pesticide pollution, but otherwise the same as in industrial farms |
| Impact on the local community, farm workers, animal welfare etc. | Favourable | Very favourable | The same as in industrial agriculture |

large farms) compared to small and medium agricultural holdings in Europe. The development of the market of local products could be accelerated by a modification of public policies, for instance, a reduction of subsidies linked to market output size, strengthening competition policy in distribution channels, taxing mineral fuels (used in transport), elimination of food dumping and a reform of agricultural education (Halweil, 2002, p. 56).

The latest two decades brought about a tremendous growth in demand for organic food in the United Kingdom. This branch transformed from niche activity into one of the available mainstream options. The surface of organic crops has been increasing dramatically in that country – from 100 thousand ha in 1998 to 690 thousand in 2005. This production method is in greater harmony with the natural environment and local ecosystems. The second argument in favour of consuming such food is care for one's own health. Moreover, benefits for economy and employment resulting from organic agriculture development are mentioned. However, in the middle of the first decade of the 21st century, as much as 56% of organic food consumed in Great Britain originated from imports. The main distribution channel was supermarkets, where $\frac{3}{4}$ of the organic food was sold. Nevertheless, we may also observe a trend toward the development of local distribution channels. The *local* is defined in the UK as available in the radius of 30 miles or originating from the same country. Cutting *food miles* – important argument in favour of local supply chains. A reduction of the distance to move food from producers to consumers allows to curtail energy costs and transport-related pollution. Long-

distance transport may sometimes seem beneficial only because ecological and social externalities are not reflected in the price of fuel. We may observe growing sales of organic and local food products in alternative, direct distribution channels, including farmers' markets and home delivery. The Asda supermarket chain (which belongs to the greatest retailer worldwide: Wal-Mart) introduced a department for local products in 2001 and a few years later, it sold as many as 2.5 origin products from 300 local producers. Asda encourages local producers to supply their products directly to the retail outlets, because then they tend to be fresher, to have overcome a shorter distance and to have a longer *life* on the shelf. Such a policy served to promote freshness, taste, and perceived, local authenticity, for the destruction of which supermarkets were often criticised (Seyfang, 2007).

The development of the organic food market in Poland depends, *inter alia*, on the structure of distribution channels, level of prices, growth in the income of the society and its ecological awareness. Specialist shops with organic food have a large market share, but they face multiple difficulties, such as unfavourable location, low share of certified products in sales and high prices due to gross margins. The margins are high in Poland (even exceeding 100%) because of low supplies, high costs of distribution and a large share of imported goods. Sales in supermarkets also constitutes a serious challenge for the industry, as big distribution chains require a considerable amount of homogeneous products, supplied on time according to the schedule and supported by professional promotion activities.

Table 5. Organic crops and organic food producers in Europe, source: *The World...*, 2014, p. 204

| Country | Area of organic crops (ha) | Share of organic crops in utilized agricultural area (%) | Number of organic food producers |
|------------------------|----------------------------|--|----------------------------------|
| Albania | 515 | 0.0 | 46 |
| Austria | 533,230 | 19.7 | 21,843 |
| Belgium | 59,718 | 4.4 | 1,413 |
| Bosnia and Herzegovina | 343 | 0.0 | 25 |
| Bulgaria | 39,137 | 1.3 | 2,754 |
| Croatia | 31,903 | 2.4 | 1,528 |
| Cyprus | 3,923 | 2.7 | 719 |
| Czech Republic | 488,658 | 11.5 | 3,934 |
| Denmark | 194,706 | 7.4 | 2,651 |
| Estonia | 144,147 | 15.3 | 1,478 |
| Finland | 197,751 | 8.7 | 4,322 |
| France | 1,032,941 | 3.8 | 24,425 |
| Germany | 1,034,355 | 6.2 | 23,032 |
| Greece | 462,618 | 5.6 | 23,433 |
| Hungary | 130,609 | 3.1 | 1,560 |
| Iceland | 8,240 | 0.4 | 35 |
| Ireland | 54,122 | 1.3 | 1,400 |
| Italy | 1,167,362 | 9.1 | 43,852 |
| Latvia | 195,658 | 10.8 | 3,496 |
| Liechtenstein | 1,086 | 29.6 | 35 |
| Lithuania | 156,539 | 5.4 | 2,527 |
| Luxembourg | 3,924 | 3.0 | 102 |
| Macedonia | 12,731 | 1.2 | 555 |
| Malta | 26 | 0.2 | 9 |
| Moldova | 22,102 | 0.9 | 172 |
| Montenegro | 3,068 | 0.6 | 62 |
| Netherlands | 48,038 | 2.5 | 1,646 |
| Norway | 55,260 | 5.1 | 2,590 |
| Poland | 661,956 | 4.3 | 25,944 |
| Portugal | 200,151 | 6.0 | 2,603 |
| Romania | 288,261 | 2.1 | 15,315 |
| Russia | 146,251 | 0.1 | 60 |
| Serbia | 6,340 | 0.1 | 1,073 |
| Slovakia | 166,700 | 8.8 | 365 |
| Slovenia | 35,101 | 7.6 | 2,682 |
| Spain | 1,593,197 | 6.4 | 30,462 |
| Sweden | 477,685 | 15.6 | 5,601 |
| Switzerland | 125,961 | 12.0 | 6,173 |
| Turkey | 523,627 | 2.2 | 57,259 |
| Ukraine | 272,850 | 0.7 | 164 |
| United Kingdom | 590,009 | 3.4 | 4,281 |
| Europe | 11,171,413 | 2.3 | 321,630 |
| including EU | 9,992,425 | 5.6 | 253,377 |

Note: data for 2012 except for: Bosnia and Herzegovina, Ireland, Moldova, Montenegro and Portugal – 2011

Nevertheless, the future of this market seems to depend to the largest extent on big retail networks, because they are able to reduce costs and compete with lower prices for organic food (Żakowska-Biemans, 2011).

Table 6. Characteristics of the organic food market in Europe, source: *The World...*, 2014, p. 213-214

| Country | Organic food retail sales (million EUR) | Organic food retail sales per capita (EUR) | Share of organic products in the food market (%) |
|----------------|---|--|--|
| Austria | 1,065 | 127 | 6.5 |
| Belgium | 417 | 38 | 1.5 |
| Croatia | 104 | 25 | 2.2 |
| Czech Republic | 66 | 6 | 0.7 |
| Denmark | 887 | 159 | 7.6 |
| Estonia | 20 | 15 | 1.6 |
| Finland | 202 | 37 | 1.6 |
| France | 4,004 | 61 | 2.4 |
| Germany | 7,040 | 86 | 3.7 |
| Greece | 60 | 5 | 0.4 |
| Hungary | 25 | 2 | 0.3 |
| Ireland | 99 | 22 | 0.7 |
| Italy | 1,885 | 31 | 1.5 |
| Latvia | 4 | 2 | 0.2 |
| Liechtenstein | 5 | 129 | no data |
| Lithuania | 6 | 2 | 0.2 |
| Luxemburg | 75 | 143 | 3.1 |
| Netherlands | 791 | 47 | 2.3 |
| Norway | 209 | 42 | 1.2 |
| Poland | 120 | 3 | 0.2 |
| Portugal | 21 | 2 | 0.2 |
| Romania | 80 | 4 | 0.7 |
| Russia | 120 | 1 | no data |
| Serbia | 40 | 5 | no data |
| Slovakia | 4 | 1 | 0.2 |
| Slovenia | 44 | 22 | 1.5 |
| Spain | 998 | 21 | 1.0 |
| Sweden | 905 | 95 | 3.9 |
| Switzerland | 1,520 | 189 | 6.3 |
| Turkey | 4 | 0 | 0 |
| Ukraine | 5 | 0 | 0 |
| United Kingdom | 1,950 | 32 | no data |
| Europe | 22,795 | 35 | no data |
| including EU | 20,893 | 41 | no data |

Note: data for 2012 except for: Austria (2011), Czech Republic (2011), Estonia (2011), Greece (2010), Hungary (2009), Ireland (2011), Latvia (2011), Lithuania (2011), Poland (2011), Portugal (2011), Romania (2011), Serbia (2010), Slovakia (2010), and Turkey (2009)

Selected statistical data on the organic food market in Europe

In 2012, organic crops took 11.2 million ha on the European continent, which accounted for 2.2% of the utilised agricultural area – table 5 (for the sake of comparison, it was only 3.7 million ha in 1999). Spain, Italy, Germany and France had the biggest surface of organic crops. Poland had a high, fifth rank in Europe, ahead of the UK, Austria, and Turkey. The biggest share of organic crops in utilized agricultural area was observed in Liechtenstein, Austria, Sweden, and Estonia. Poland ranked the fourth in Europe regarding the number of farmers producing organic food – behind Turkey, Italy and Spain.

The worth of the European organic food market in 2012 was estimated at 22.8 billion EUR, including 20.9 billion of sales in the European Union – table 6. The value of the European organic food market doubled from 2004 to 2012. The highest absolute organic market value was observed in Germany. Further positions were taken by: France, UK, Italy and Switzerland. Switzerland had the highest consumption of organic food per capita, followed by: Denmark, Luxembourg, Liechtenstein and Austria. The highest share of organic products in the total food market was noted in Denmark, in front of Austria and Switzerland.

Conclusion

In the context of ecological consumption and the proliferation of the green marketing paradigm, we observe a dynamic growth in the market value of organic food in developed countries. The organic food market worth doubled in Europe from 2004 to 2012. This phenomenon is related to the concept of sustainable development.

In this context it is good to mention the example of Poland, so country still perceived as mostly agricultural. It ranks high, at the fifth position on the European continent in terms of the area of organic crops, and even higher (fourth) regarding the number of organic food producers. However, the national market value, the share of organic products in the food market and sales of organic food *per capita* continue to be relatively low. There are problems, *inter alia*, with distribution, high prices, but also with the level of ecological awareness of the society. So, even with good natural conditions (like in Poland), thinking about ecological farming we must not forget about economic and social issues, so discuss the full context of sustainable development.

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