

ORGANIC IN EUROPE

PROSPECTS AND
DEVELOPMENTS
2016

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02

GROWTH TRENDS IN EUROPEAN ORGANIC FOOD AND FARMING

Helga Willer,¹⁵ Diana Schaack,¹⁶ Julia Lernoud¹⁷
and Stephen Meredith¹⁸

ORGANIC MARKET AND PRODUCTION TRENDS 2014

The development of the organic sector in 2014 was characterised by two opposing trends. On the one hand, the market grew at a higher rate than in the two previous years with retail sales in the EU valued at €24 billion (€26.2 billion in Europe). This represented a growth rate of approximately 7.4% (7.6% in Europe) on 2013 figures. Whilst processors and importers numbers increased by 19% and 17% respectively in the EU (18.6% and 16% in Europe), the growth and development of organic agriculture land area in the EU slowed down – growing by 1.1% in the EU (2.3% in Europe) with a drop of 0.2% in the number of producers (a slight increase of 1.4% was recorded in Europe). This chapter serves to outline the latest production¹⁹ and market²⁰ trends for 2014 in Europe.²¹ It focuses primarily on the 28 Member States of the European Union (EU-28)²² and the EU Candidate and Potential Candidate (CPC)²³ countries, and the members of the European Free Trade Association (EFTA).²⁴ An analysis of the current market trends for organic in Europe and implications for the further development of organic food and farming can be found in chapter 1.

Table 1: Organic market and production trends in Europe by country group, 2014

Country group	Retail sales (billion EUR)	Per capita consumption (EUR)	Producers	Land area (million hectares)	Total land share
EU-28	24	47.4	257,525	10.3	5.7%
Europe	26.2	35.5	339,824	11.6	2.4%
Global	62.6	8.3	2,260,361	43.7	1.0%
EU-15	23.5	58	194,979	7.8	6.1%
EU-13	0.5	4	62,546	2.4	4.7%
CPC	0.005	0.1	73,375	0.5	1.5%
EFTA	2.1	154	8,500	0.2	4.4%
Other European countries	0.1	1	424	0.7	0.2%

Source: FiBL-AMI survey 2016 based on national data sources

Table 1 provides a European and global overview of the latest market and production trends for organic food and farming. A more detailed overview of organic production and market trends by country can be found in annexes 1-5.

Market highlights

- Retail sales in the EU were valued at €24 billion (€26.2 billion in Europe), representing the second largest single market for organic products in the world after the United States (€27.1 billion)
- The EU market recorded a growth rate of approximately 7.4% (7.6% in Europe). The highest growth was observed in Sweden (over 40%). In the past decade, the value of European and EU markets has more than doubled
- EU consumers spent about €47.4 on organic food per person (€35.5 in Europe). Per capita consumer spending on organic food has almost doubled in the last decade. The Swiss spent the most money on organic food (€221 per capita). In the United States, per capita consumer spending was €85 in 2014
- Globally European countries account for the highest shares of organic food sales as percentage of their respect markets for food. Denmark has the highest share (7.6%), with individual products and product groups holding even higher shares. Organic eggs, for instance, can constitute over 20% of all eggs sold.

Production highlights

- There were almost 260,000 organic producers in the EU (almost 340,000 in Europe), with the largest numbers in Italy (almost 49,000) and Turkey (over 71,000). The past decade has seen the number of producers grow by 57% in the EU (81% in Europe)
- In the EU, there were almost 50,000 processors (almost 51,000 in Europe) and almost 1,700 importers (approximately 1,900 in Europe). The number of processors and importers increased by 19% and 17% respectively in the EU (18.6% and 16% in Europe) and significantly across almost all countries. The country with the largest number of processors was Italy (over 12,000), while Germany had the most importers (326)
- Organic farmland in the EU constitutes 5.7% of the total agricultural land (2.4% in Europe). In the EU, the country with the highest share of organic agricultural land is Austria (19.4%). In Europe, Liechtenstein has the highest share (31%)
- Organic agricultural land grew by 1.1% in the EU (2.3% in Europe). Growth of organic agricultural land, however, has been substantial over the last decade, having increased by approximately 60% since 2005
- In recent years there has been an overall slow down in growth, especially in Greece or the UK. Stagnation was noted in countries such as Austria, Denmark, Germany and Hungary. However, in other countries such as France, Italy, Slovakia and Slovenia the area increased
- Permanent grassland constituted the largest area of the organic land in the EU with 4.6 million hectares (4.8 million hectares in Europe), followed by 4.1 million hectares of arable land (5.1 million hectares in Europe), and 1.2 million hectares of permanent crops (1.4 million hectares in Europe). After plants harvested green, cereals (e.g. leguminous plants and temporary grasses for green fodder in the rotation) were the largest crop groups, covering 1.5 million hectares in the EU (1.9 million hectares in Europe).

ORGANIC MARKET

Table 2: Organic retail market trends in Europe by country group, 2014

Country group	Retail sales (million EUR)	Per capita consumption (EUR)	Growth 2013-2014
EU-28	23,963	47.4	7.4%
Europe	26,203	35.5	7.6%
Global	62,631	8.7	
EU-15	23,491	58	7.6%
EU-13	472.4	4	
CPC	4	0.1	
EFTA	2,099.7	154	10.7%
Other European countries	134.5	0.9	

Source: FiBL-AMI Survey 2016 based on national data sources

Table 2 provides a European and global overview of the retail sales for 2014. A more detailed overview of organic retail market trends by country can be found in annex 1.

Retail sales growth and market share

The organic market in the EU increased by 7.4% to €24 billion (€26.2 billion in Europe, 7.6%) in 2014²⁵ (see figure 1). All countries for which new data was available showed positive growth. Germany, as the largest market in Europe, had a growth rate of 4.8%. Some countries with very developed markets such as Norway (25%) and France (10%) had double-digit growth rates. Sweden (45%) witnessed unprecedented growth in consumer demand.²⁶ In the United Kingdom, where retail sales had been decreasing for four consecutive years and only started to grow again in 2013, there was an overall growth rate of 4%. The total value of organic retail sales varies significantly across different European countries with Denmark (7.6%), Switzerland (7.1%), and Austria (6.5% in 2011) continuing to record the highest market shares (see figure 3).

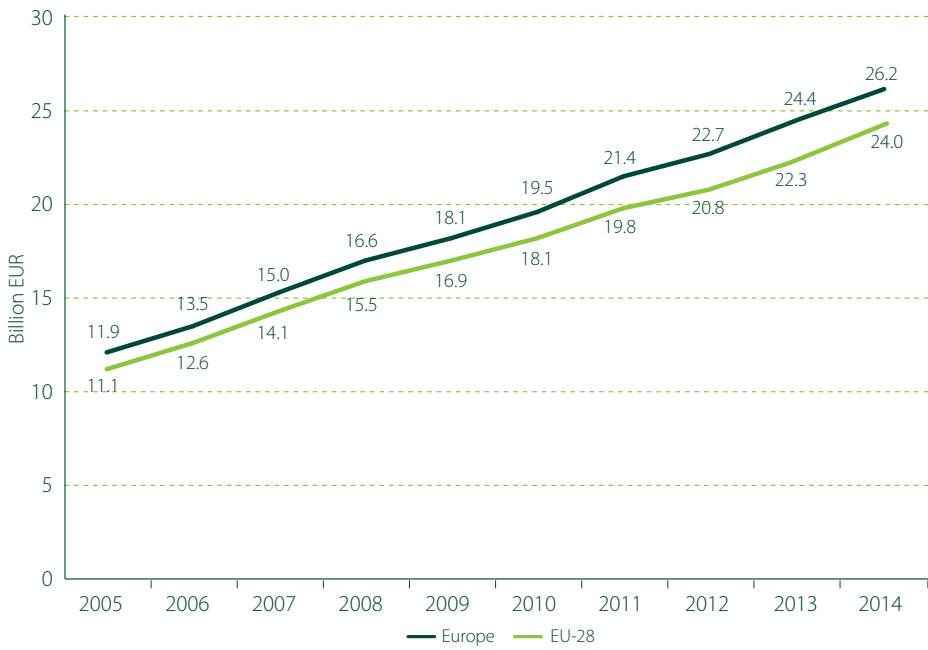


Figure 1: Growth of organic retail sales in Europe, 2005-2014

Source: FiBL-AMI surveys 2006-2016 and OrganicDataNetwork surveys 2013-2015

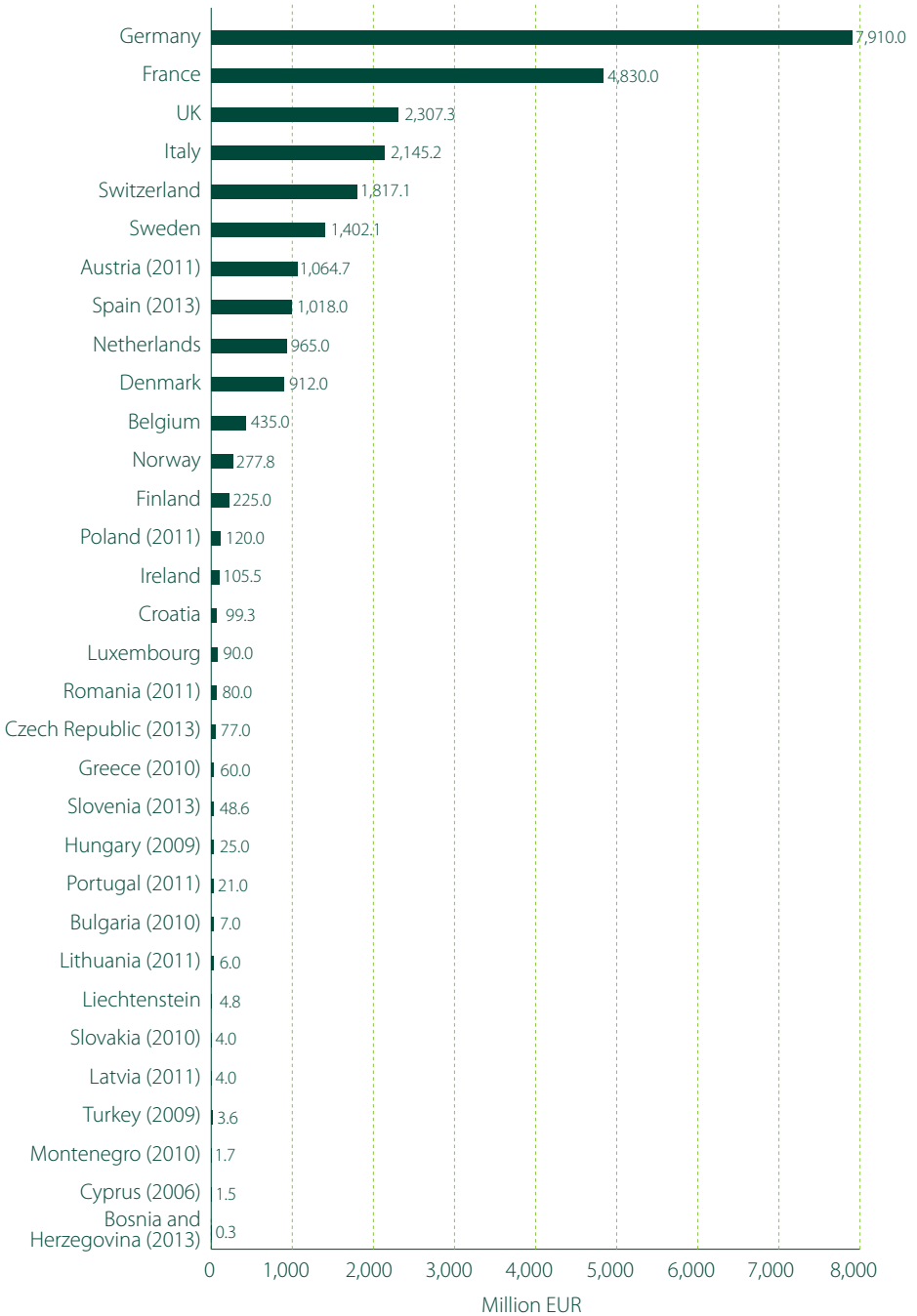


Figure 2: Organic retail sales in Europe by country, 2014

Source: FiBL-AMI survey 2016 based on national data sources

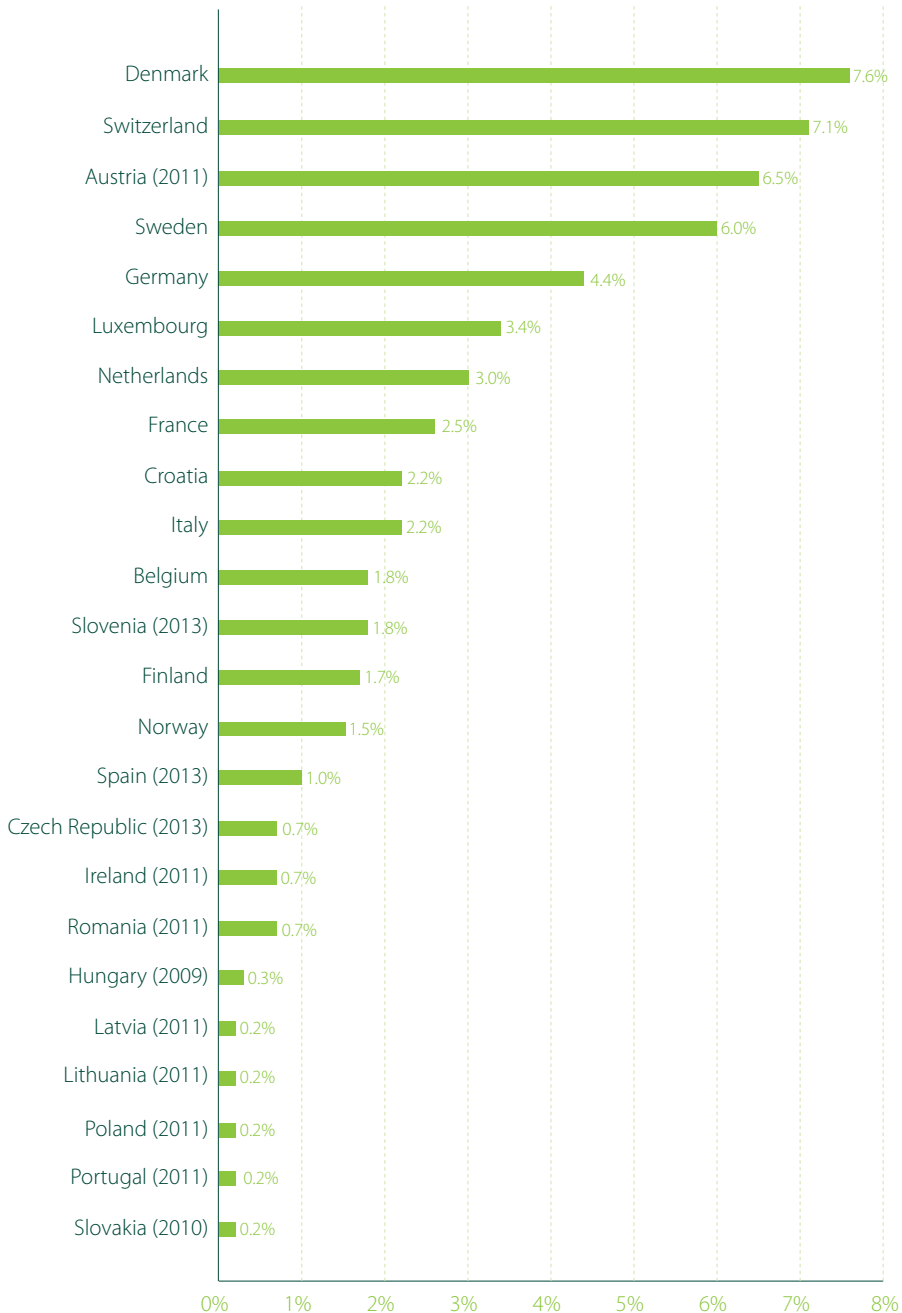


Figure 3: Share of organic retail sales in Europe by country, 2014

Source: FiBL-AMI survey 2016 based on national data sources

Retail sales distribution

In terms of distribution, Germany (€7.9 billion) remains the largest organic single market in the EU and Europe and second globally after the United States. France (€4.8 billion) held second place in a market that has shown very dynamic growth over the past couple of years.²⁷ The UK (€2.3 billion) was in third place, followed by Italy (€2.1 billion) (see figure 4a). Switzerland remains the fifth largest market in Europe after Italy (see figure 4b). Comparing organic markets worldwide, the United States was the leading single market (43% of global retail sales), followed by the EU (38%) (see figure 4c).

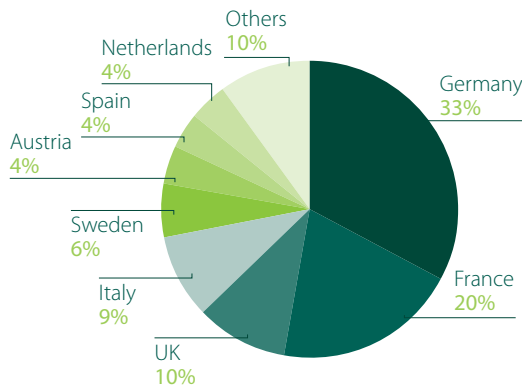


Figure 4a: Distribution of organic retail sales in EU-28, 2014

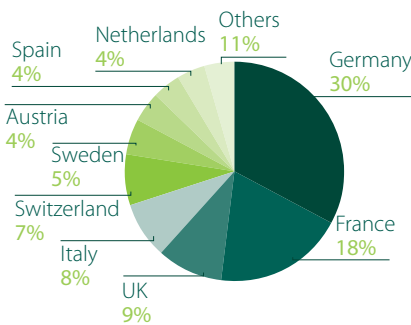


Figure 4b: European distribution of organic retail sales, 2014

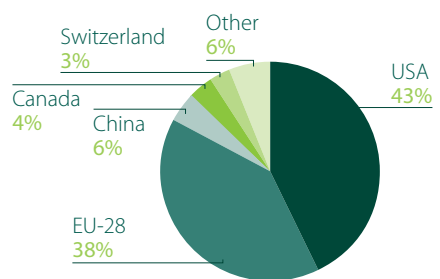


Figure 4c: Global distribution of organic retail sales by single market, 2014

Source: FiBL-AMI survey 2016 based on national data sources

Per capita consumption

Consumer per capita consumption of organic food has almost doubled in the last decade (see figure 5). EU consumers spent around €47 per capita on organic food in 2014 (€36 in Europe, with the Swiss spending the most on organic food (€221)). After Switzerland, the countries with the highest per capita consumption of organic food include Luxembourg (€164), Denmark (€162), and Sweden (€145) (see figure 6). Care must be taken in interpreting these figures as the costs of living across different countries differ quite considerably. Nevertheless, even if adjusted by purchasing power, Switzerland still holds the first place, followed by Luxembourg, Denmark and Sweden.

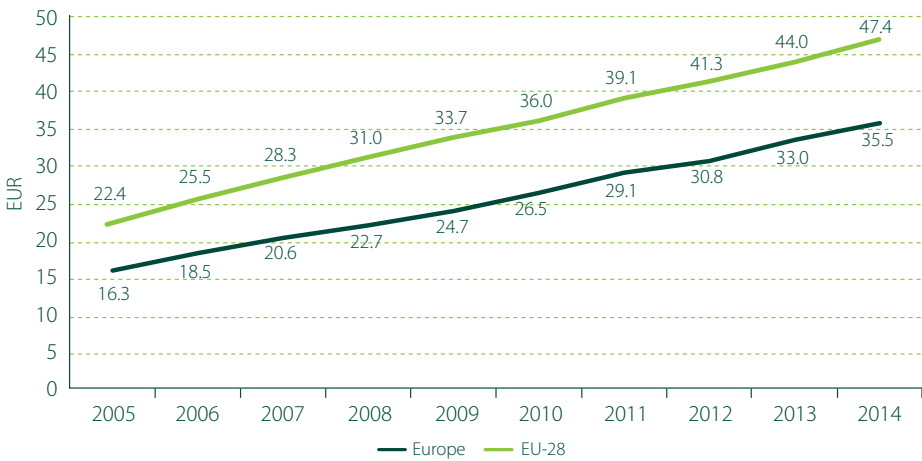


Figure 5: Growth of per capita consumption in Europe, 2005-2014

Source: FiBL-AMI surveys 2006-2016 and OrganicDataNetwork surveys 2013-2015

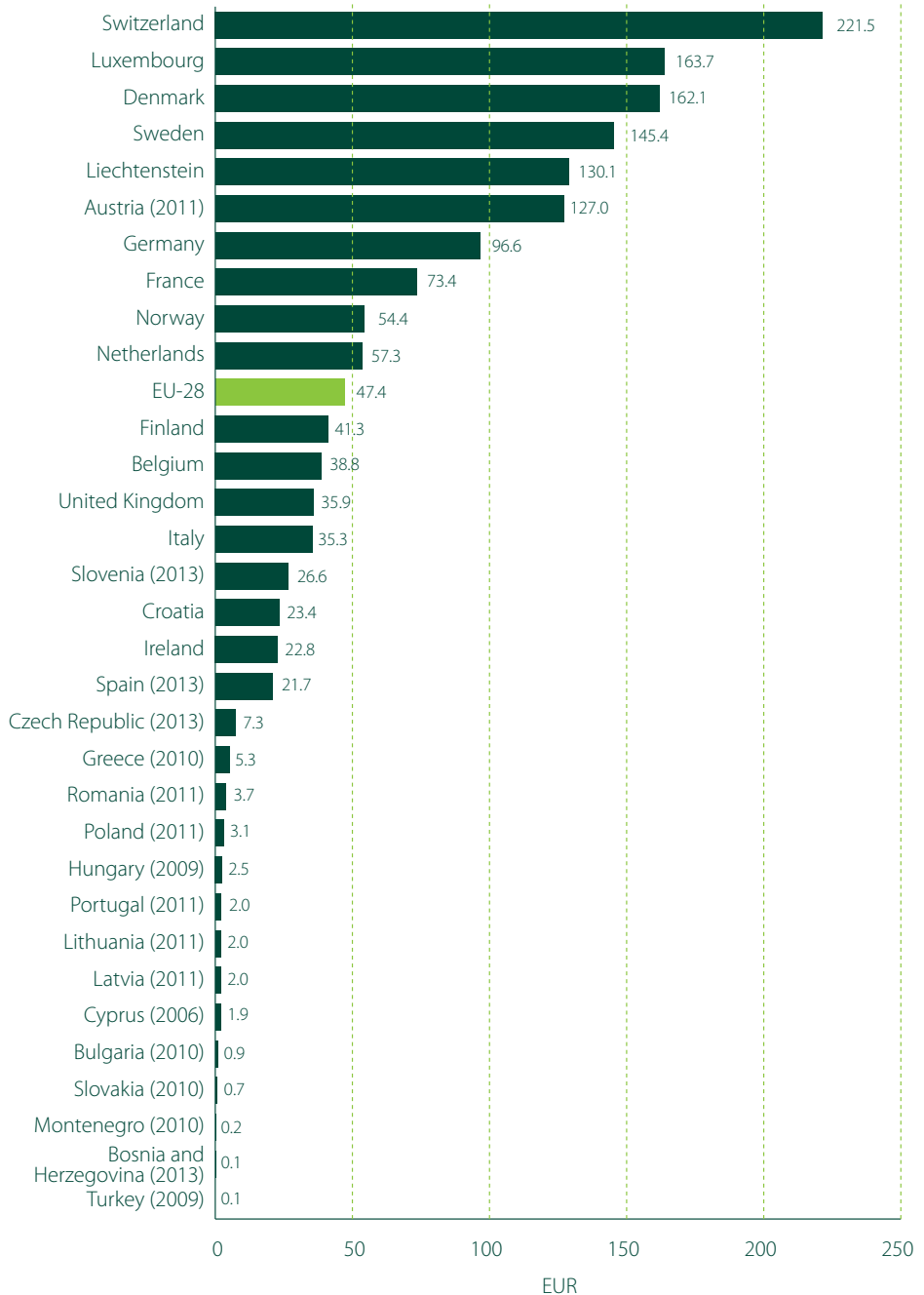


Figure 6: Organic per capita consumption in Europe by country, 2014

Source: FIBL-AMI survey 2016 based on national data sources

Marketing channels

A breakdown of different marketing channels in selected European countries shows their relative importance for the sale of organic food (see figure 7). These channels differ in importance from country to country. France, Italy and Germany are good examples of countries with strong market growth. Here, specialised retailers are playing a very important role as a result of growing levels of professionalisation and greater shop space. In the past, countries with established general retailers, largely supermarkets, have recorded steady growth in the organic market (e.g. Austria, Denmark, Sweden, Switzerland, and the United Kingdom). However, the recent economic recession showed the danger of a strong dependence on supermarkets, with the total UK market contracting during 2008-2012. At the same time in countries such as Germany specialised marketing channels grew significantly, while supermarket sales have stagnated, but have started to grow again in 2014.

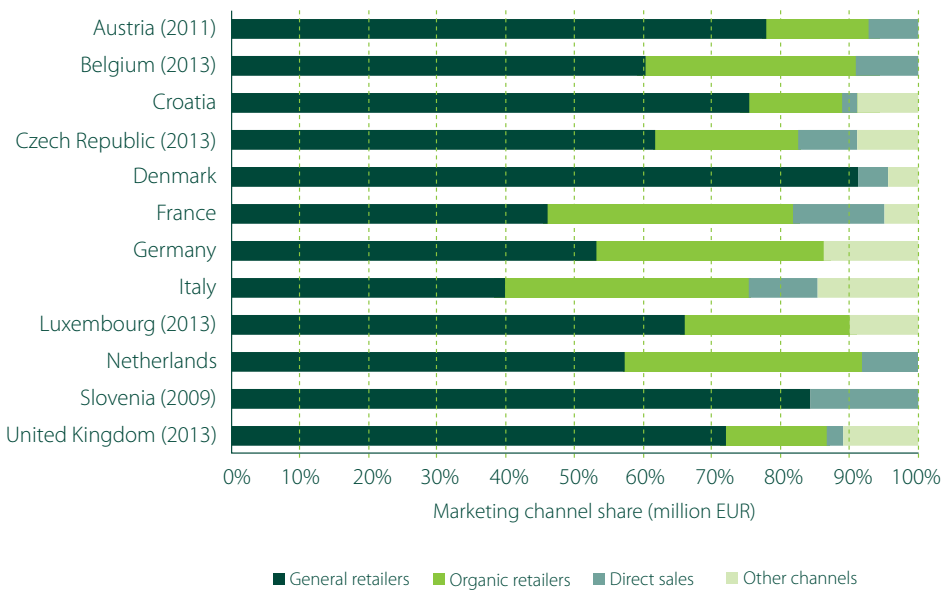


Figure 7: Organic retail sales by marketing channel in selected EU-28 countries, 2014

Source: FiBL-AMI survey 2016 based on national data sources

Product sales

In many countries, the breakdown of sales value by product is often only available from general retailers, as data is based on trade panel data and does not take other marketing channels into account. At the same time, in countries where trade panel data is used, supermarkets have a market share of 80% to 90%.²⁸

Table 3: Shares of organic product groups by total market in selected European countries, 2014

Product group	Austria	Belgium	Finland	France	Germany	Netherlands (2013)	Norway	Switzerland
Beverages		0.9% ¹	0.6%	3.0% ²	1.7%		0.1%	2.7%
Bread and bakery products		1.7%	1.2%	2.5% ³	7.1% ⁴	3.2%	1.0%	4.6%
Cheese	8.5%	1.7%	0.9%	1.2%	3.6%		0.5%	6.0%
Eggs	17.2%	11.2%	12.0%	22.1%	16.7%	12.7%	7.5%	22.7%
Fruit	10.7%	3.5%		4.3%	6.7%		1.7% ⁵	10.1%
Meat and meat products	3.5% ⁶	1.3%	0.6%	1.6%	2.1%	2.8%	0.3%	4.8% ⁷
Milk	15.7%	3.0%	3.2%	10.8%	8.1%		4.0%	18.9%
Milk and dairy products		2.1%		3.2%	8.6%	4.8%	1.8%	11.0%
Vegetables	12.6%	5.4%	3.2% ⁸	4.0%	8.6%	3.9% ⁸	3.6%	14.6%

¹ Fruit juices, wine and beer - ² Vegetable drinks, fruit and vegetable juices, wine and alcohol - ³ Flour was included in previous data; it is excluded in the new calculations, which also include fresh pastries. Hence this data is not directly comparable with those from 2013. - ⁴ Bread only - ⁵ Fruit, berries and nuts - ⁶ Meat only - ⁷ Includes fish - ⁸ Fruit and vegetables

Source: FiBL-AMI Survey 2016 based on national data sources

Table 3 provides a breakdown of organic product group in selected European countries in terms of their share of the total market.²⁹

PRODUCT SALES IN NATIONAL RETAIL MARKETS

There are a number of individual products which have gained considerable shares of their respective total markets in terms of sales value:

- In many countries organic eggs are one of the success stories within the total retail market. Table 3 shows that Switzerland and France, for example, reach market shares in value of over 20%. In most other countries, where data is available, they reach 12% and more
- Organic fruit and vegetables continue to be highly popular purchases among European organic consumers. Organic vegetables have the highest market shares after eggs, representing between 9% and 15% of the sales value of all vegetables sold in Switzerland, Austria, and Germany. Fresh carrots alone, for example, have a 30% market share in Germany
- In some countries, organic dairy products reach market shares of about 5% of all dairy. In Switzerland, they even reach 10%
- Individual products can reach much higher market shares. In Germany organic baby food and meat substitutes, representing over 40% and 60% respectively, are good examples
- On the other hand, products like organic beverages (with the exception of wine) and meat (especially poultry), generally have low market shares. Often, these products are highly processed and/or very cheap on the conventional market.

PRODUCT SALES IN NATIONAL ORGANIC RETAIL MARKETS

Within the overall organic market in Europe, certain organic products are more dominant than others. A survey carried out as part of the OrganicDataNetwork project³⁰ shows that:

- Fruit and vegetables are pioneering organic products in Europe. They now represent around one fifth of many national organic markets. All over Europe, the organic market is dominated by perishable fresh produce compared to conventional markets. Fresh produce is especially strong in Italy, Ireland, Norway, Sweden, and Germany
- In many countries, and in Northern Europe in particular, animal products, especially milk and dairy products, constitute a high proportion of all organic products sold (up to 20%). Meat and meat products are very successful and constitute around 10% of the organic market in Belgium, the Netherlands, Finland, and France
- Beverages, mainly wine, constitute an important part of the organic market – over 10% in France and Croatia
- Hot beverages (coffee, tea, and cocoa) make up 3% to 5% of the organic market in many countries
- Grain mill products³¹, which are easily sold and stored in supermarkets, reach high market shares in the Czech Republic as well as in Finland and Norway
- Bread and bakery products are very important in the organic product range, with a market share of up to 10% in Switzerland, the Netherlands, France, Sweden, Finland, and Germany

Looking more closely at distribution of organic retail sales in the Czech Republic, France, Germany and Sweden (see figure 8a-d)³² shows that – with the exception of the Czech Republic – fruit and vegetables are the most popular group amongst organic consumers. This is followed by milk and dairy products, and meat and meat products. By contrast to the other countries fish is more important than meat in Sweden.

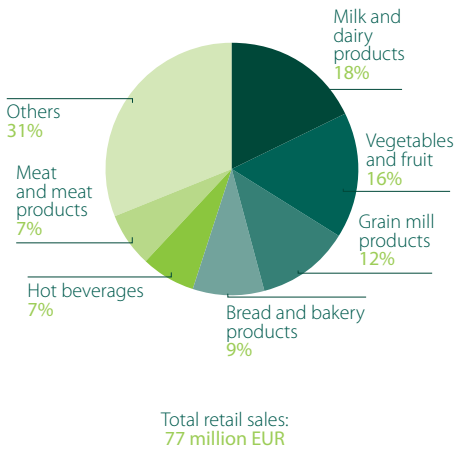


Figure 8a: Distribution of organic retail sales in Czech Republic by product group, 2013

Source: UZEI 2015

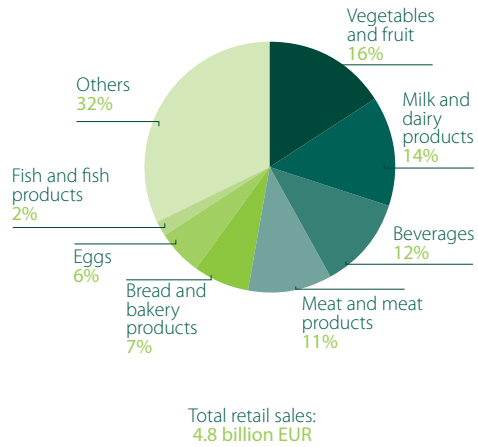


Figure 8b: Distribution of organic retail sales in France by product group, 2014

Source: Agence Bio 2015

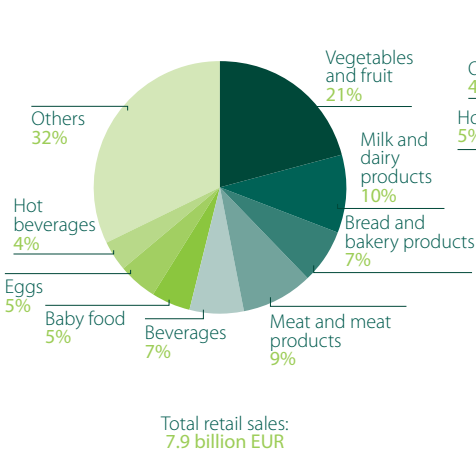


Figure 8c: Distribution of organic retail sales in Germany by product group, 2014

Source: AMI 2015

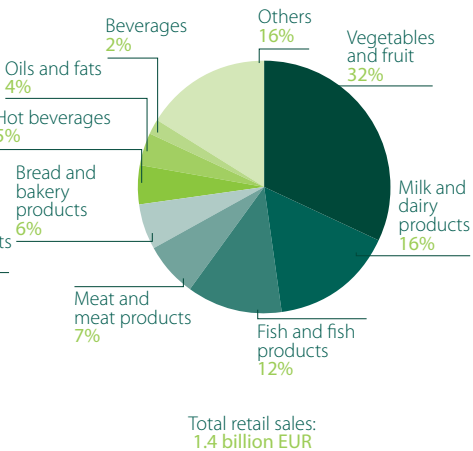


Figure 8d: Distribution of organic retail sales in Sweden by product group, 2014

Source: Statistics Sweden 2015

Exports and imports

There is almost no data available on exports and imports. Up to now, organic and conventional items are not differentiated in most countries. In Italy, for example, import volumes are available from third countries using customs data. Germany also uses a multi-method approach to cover organic import volumes of products.³³

Denmark is the only country with an additional indicator for organic and conventional products. This provides information on organic imports and exports by product group, country of origin and destination, and can be directly compared to conventional import and export flows.³⁴ Available data for Denmark show that organic imports have quadrupled from 400 million to 1.9 billion Danish crowns between 2005 and 2014. Until now there is no other country that uses this approach for its international trade statistics. This is mainly because it requires amendments in law or is deemed to be complicated for the responsible agencies.

Currently it can only be assumed that with growing domestic markets, international trade activities will increase for both intra-EU trade as well as exports and imports to and from the EU. As a result there is a need for an effective approach for collecting data on both intra- and extra-EU trade as well as re-exports for organic using the Standard International Trade Classification (SITC).³⁵

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ORGANIC OPERATORS

Table 4: Organic producers, processors, and importers in Europe by country group, 2014

Country group	Producers	Growth 2013-2014	Processors	Growth 2013-2014	Importers	Growth 2013-2014
EU-28	257,525	-0.2%	49,968	19.0%	1,650	17.3%
Europe	339,824	1.7%	50,774	18.6%	1,847	15.7%
Global	2,260,361	13.4%	61,977	20.9%	2,190	
EU-15	194,979	0.3%	47,636	19.4%	1,382	14.1%
EU-13	62,546	-1.7%	2,332	11.8%	268	36.7%
CPC	73,375	9.8%	190	-11.6%	70	-5.4%
EFTA	8,500	-3.7%	516	-1.1%	67	-9.5%
Other European countries	424	1.2%	100	-2.9%	60	46.3%

Source: FiBL-AMI surveys 2006-2016 based on Eurostat and national data sources

Table 4 provides a European and global overview of organic operators working in 2014. A more detailed overview of organic producers, processors and importers by country can be found in annex 2.

Producers, processors and importers

In 2014, there were almost 260,000 organic producers in the EU and almost 340,000 in Europe. In the EU, the country with the largest number of producers is Italy (almost 49,000), in Europe it is Turkey (over 71,000 – see figure 9). Although there was not much growth in the number of producers in 2014, over the past decade the number of producers in the EU grew by 57% and in Europe by 81% (see figure 10). Almost 15% of the world's organic farmers are in Europe.³⁶

The number of processors and importers increased in almost all European countries in 2014. In the EU, there were almost 50,000 processors (almost 51,000 in Europe) and almost 1,700 importers (almost 1,900 in Europe). The number of processors and importers increased by 19% and 17% respectively in the EU (18.6% and 16% in Europe) and significantly across almost all countries. The country with the largest number of processors is Italy (over 12,000), and the country with the most importers is Germany (326).

A large proportion of processors and importers are located in the old Member States and Switzerland. The latest data show, however, that new Member States and other European countries are currently developing their processing capacities in order to become less dependent on organic imports and to increase the value of their own export products.

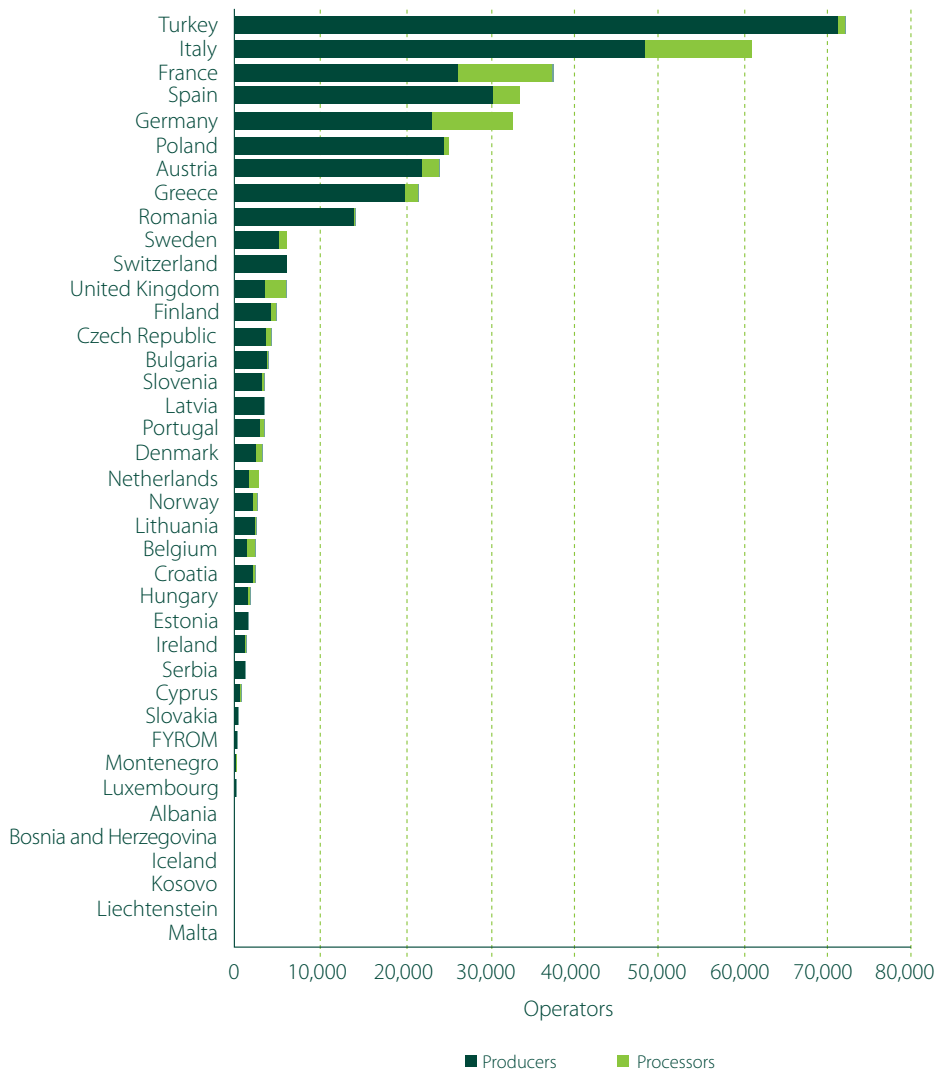


Figure 9: Organic producers, processors and importers in Europe by country, 2014

Source: FiBL-AMI survey 2016 based on Eurostat and national data sources

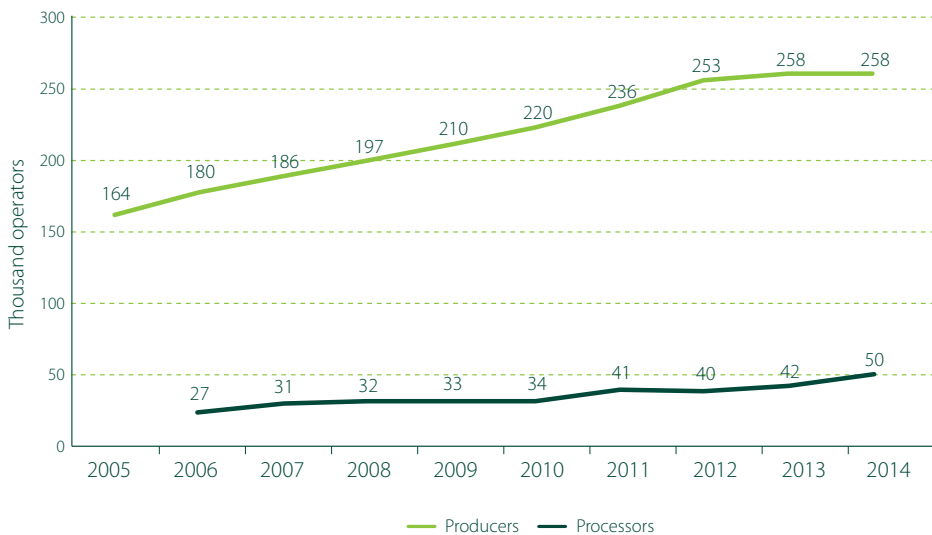


Figure 10: Development of organic producers and processors in EU-28, 2005-2014

Source: FiBL-AMI surveys 2006-2016 and OrganicDataNetwork surveys 2013-2015

Certification and control systems

Certification and control systems for organic operators in Europe have been strongly influenced by the development of organic private standards and legal requirements for organic production, as set out in EU legislation since 1991.

Under EU organic rules, each Member State in the EU must establish a competent authority to regulate the control of organic production. As part of the control system the competent authority may delegate all or part of its control task to one or more private control bodies or confer all or part of its control responsibility to one or more public control authorities. A mixed public/private control system is also possible. In European Free Trade Association (EFTA) countries, controls are delegated to one or more private control bodies. As a result, three types of organic control systems operate in Europe: private control bodies, public control authorities and mixed systems which consists of both private control bodies and public control authorities (see figure 11).³⁷

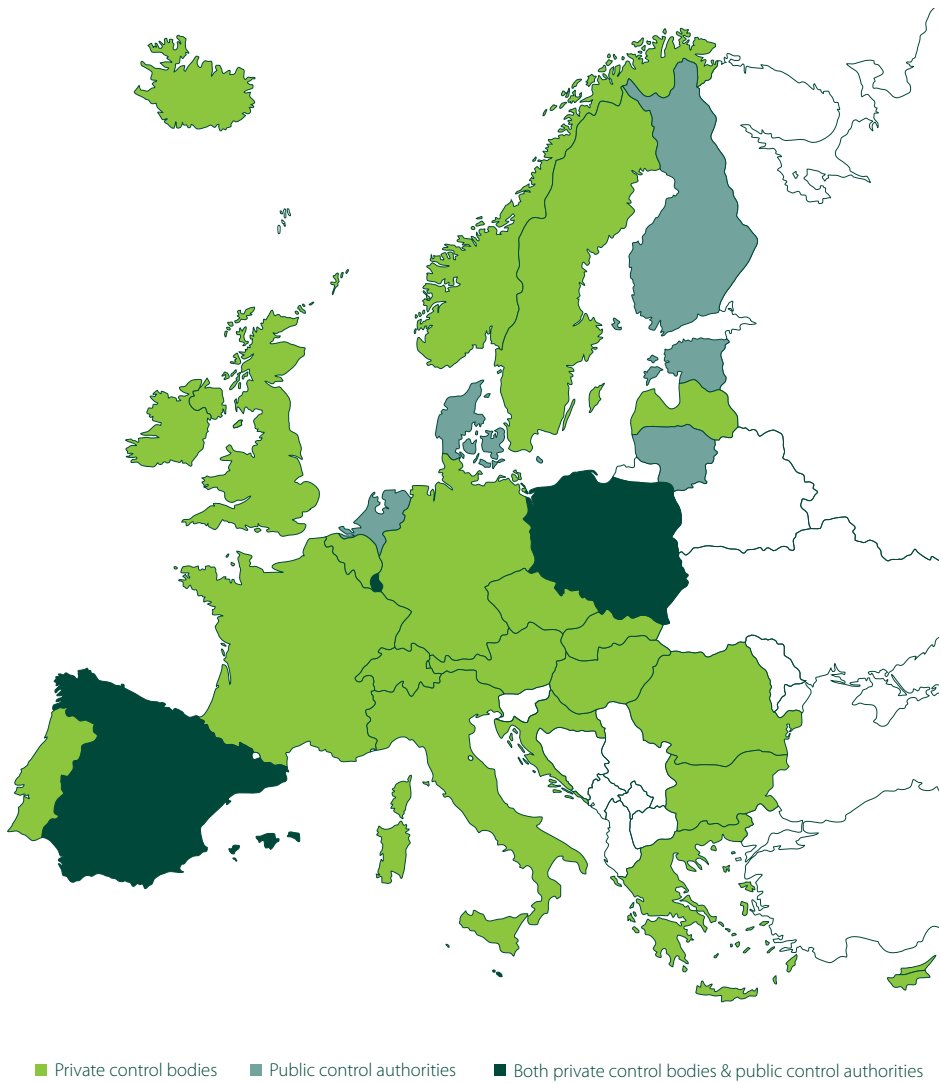


Figure 11: Organic certification in Europe, 2014

Source: DG Agriculture and Rural Development, 2014 and IFOAM EU survey 2015

ORGANIC AGRICULTURAL LAND

Table 5: Organic farmland trends in Europe by country group, 2014

Country group	Land area (hectares)	Total land share	Growth 2013-2014	Growth 2005-2014
EU-28	10,250,742	5.7%	1.1%	59.5%
Europe	11,625,001	2.4%	2.3%	67.4%
Global	43,662,446	1.0%	1.2%	49.5%
EU-15	7,832,820	6.1%	1.1%	44.0%
EU-13	2,417,922	4.7%	1.1%	144.7%
CPC	508,942	1.5%	6.8%	435.8%
EFTA	196,108	4.4%	2.9%	18.0%
Other European countries	669,209	0.2%	19.4%	159.3%

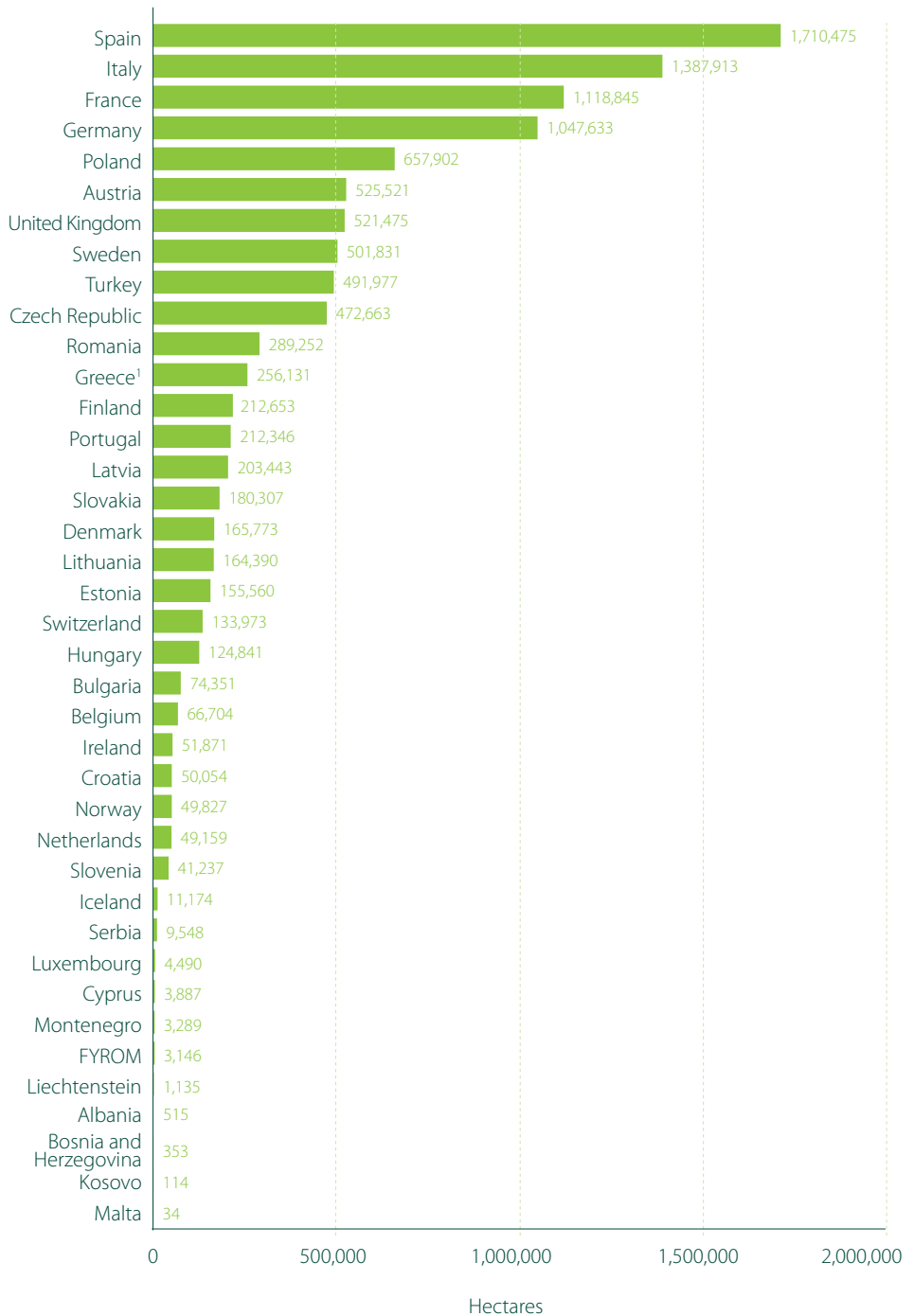
Source: FiBL-AMI Survey 2016 based on Eurostat and national data sources

Table 5 provides a European and global overview of organic agricultural land³⁸ in 2014. A more detailed overview of organic farmland trends by country for 2014 can be found in annex 3.

Land area and distribution

As of 2014, 10.3 million hectares of agricultural land in the EU and 11.6 million hectares in Europe are organic (this figure refers to agricultural land that is fully converted or in-conversion). The countries with the largest areas of organic land are Spain (1.7 million hectares, one sixth of organic farmland in Europe), Italy (1.4 million), France (1.1 million) and Germany (1.05 million) (see figure 12 and 13a-c).

Globally, 43.7 million hectares of farmland were organic in 2014 and approximately 27% of the world's organic farmland was in Europe. The four European countries mentioned above were among the ten countries with the largest organic areas globally.



¹ The figure reported in this book was provided by the Greek Ministry of Agriculture and differs from the figure reported by EUROSTAT, which is 362,826 hectares.

Figure 12: Organic farmland in Europe by country, 2014

Source: FiBL-AMI survey 2016 based on Eurostat and national data sources

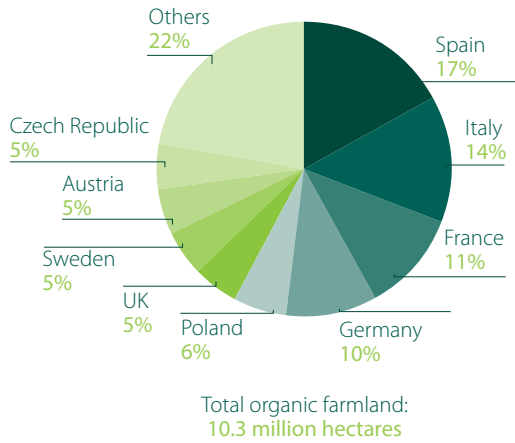


Figure 13a: Distribution of organic farmland in EU-28, 2014

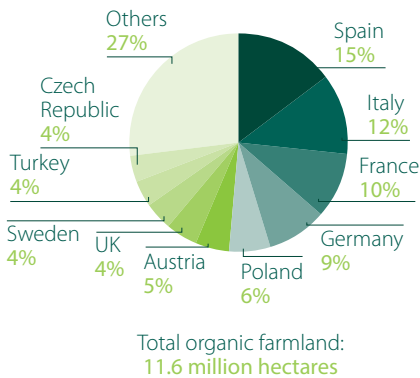


Figure 13b: European distribution of organic farmland, 2014

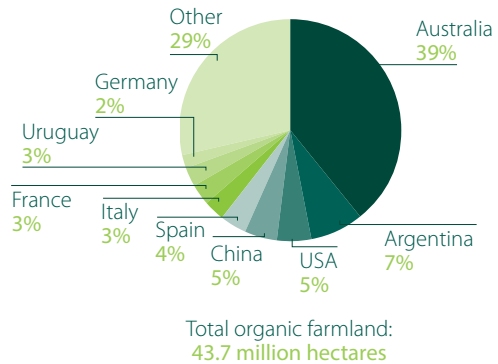


Figure 13c: Global distribution of organic farmland by country, 2014

Source: FiBL-AMI survey 2016 based on Eurostat and national data sources

Total land area share

In the EU, organic land constitutes 5.7% of the total agricultural land (2.4% in Europe). In the EU, the country with the highest share of organic agricultural land is Austria (19.4%), Liechtenstein (31%) has the highest share in Europe (see figure 14). In the EU-15, 6.1% of agricultural land was organic, representing a higher share than in the EU-13 (4.7%). Among the new Member States, over 10% of agricultural land in Estonia, the Czech Republic, and Latvia is organic. Despite high share of organic land in some of the new Member States, overall organic production remains low due to the high share of grassland in some countries and a lack of processing facilities. For candidates and potential candidates for EU membership, shares of organic land are still low, whereas shares are very high for two EFTA countries, namely Switzerland (12.7%) and Liechtenstein (31%).

Globally, almost 1% of agricultural land was organic in 2014. The country with the highest share was the Falkland Islands with 36%, followed by a number of European countries. In eleven countries, globally, over 10% of farmland was organic in 2014.

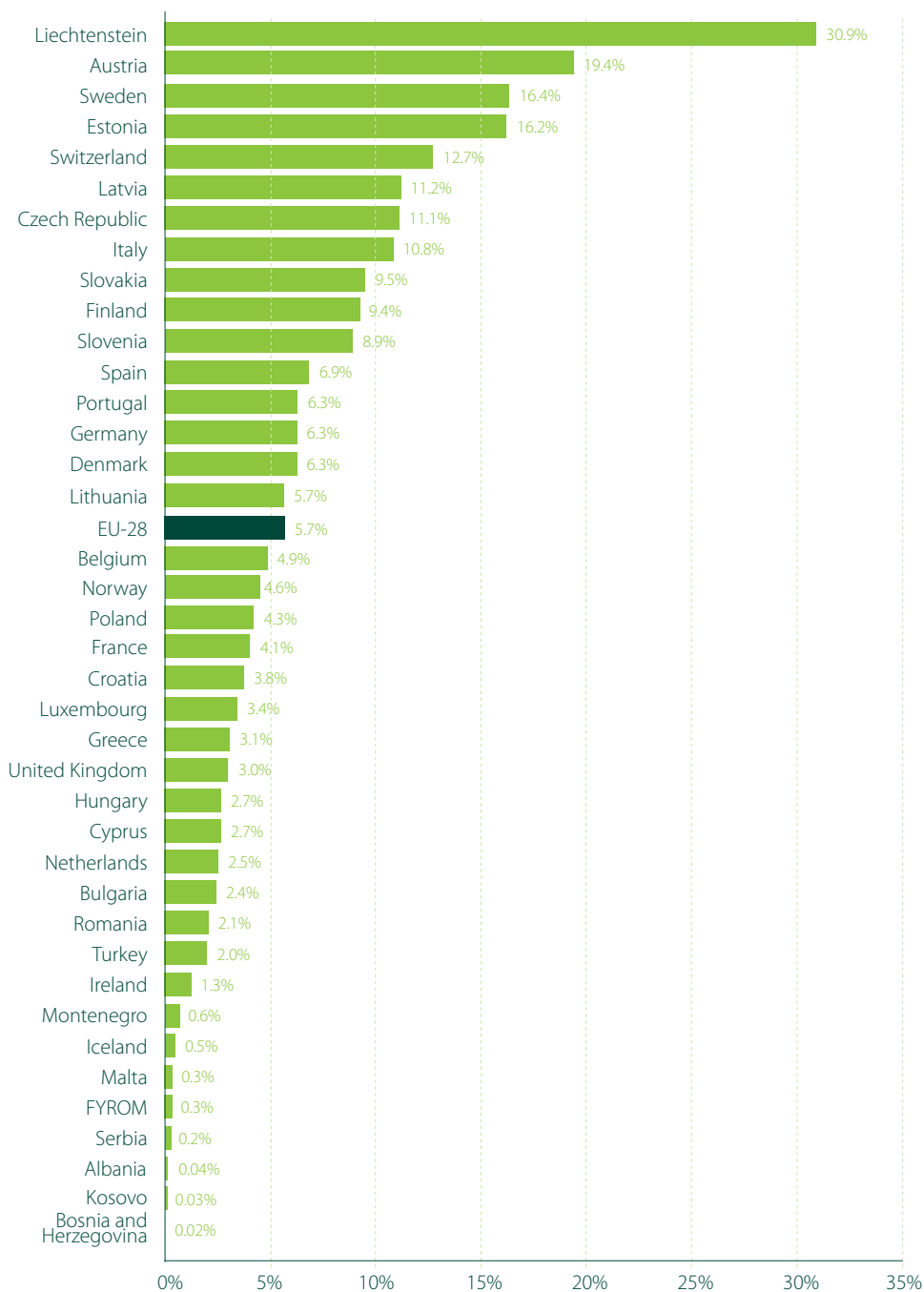


Figure 14: Share of organic farmland in Europe by country, 2014

Source: FiBL-AMI survey 2016 based on Eurostat and national data sources

Land area growth

Despite the dynamic development of organic farmland in Europe over the last number of decades, in 2014 there was little growth of agricultural land in the EU (1.1%, 110,000 hectares) and in Europe (2.3%, 260,000 hectares) (see figure 15).

The countries with the largest increase in organic land were Spain (100,000 hectares), Italy (70,000 hectares), and France (60,000 hectares). A major decrease was noted for Greece (130,000 hectares) and the United Kingdom (37,000 hectares).

Since 2005, organic agricultural land area has increased by 60% in the EU (70% in Europe). In the EU-15, growth was slower (44%), whereas in the new Member States, organic land area increased by 144%. In many EU-15 countries, the organic farmland had already grown to a comparatively high level before 2005. For candidates and potential candidates for EU membership, high growth (over 400%) was noted in that time period. Most of the growth of the past years was in Turkey, whereas, in the EFTA countries, growth was modest (18%, 2005-2014). However, with 2.9%, the EFTA countries showed stronger growth than the EU in 2014.

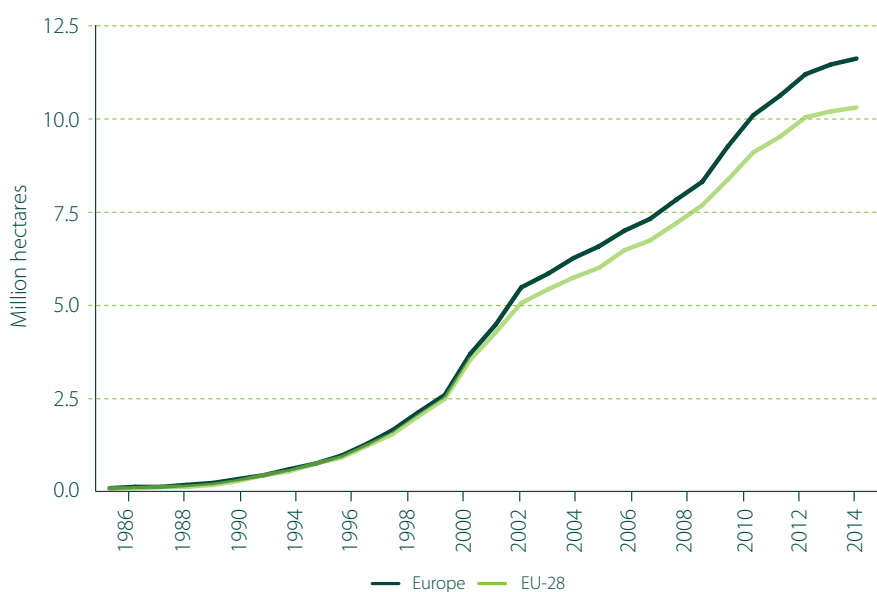


Figure 15: Growth of organic farmland in Europe, 1985-2014

Source: Lampkin, Nic, FiBL-AMI surveys 2006-2016 and OrganicDataNetwork surveys 2013-2015

Land area in conversion

In the EU, of the 10.3 million hectares of organic agricultural land, 7.3 million hectares were fully converted (7.7 million in Europe) and 1.4 million were under conversion (1.6 million in Europe). Most, but not all, countries provided data on their fully converted and under-conversion areas – no details are available for Austria, Germany, and Switzerland. In the EU, the fully converted area has increased by more than 300,000 hectares compared to 2013, which is greater than the overall increase in organic farmland.

Figure 17 shows that in Spain, Italy, France, Poland, Romania and Turkey, large areas were under conversion, and therefore a major increase in supply may be expected from these countries in the near future.

In the EU and in Europe, almost 0.5 million hectares of permanent grassland were under conversion as well as 0.52 million hectares of arable land (0.6 million in Europe) and 0.27 million hectares of permanent crops (0.36 million in Europe).

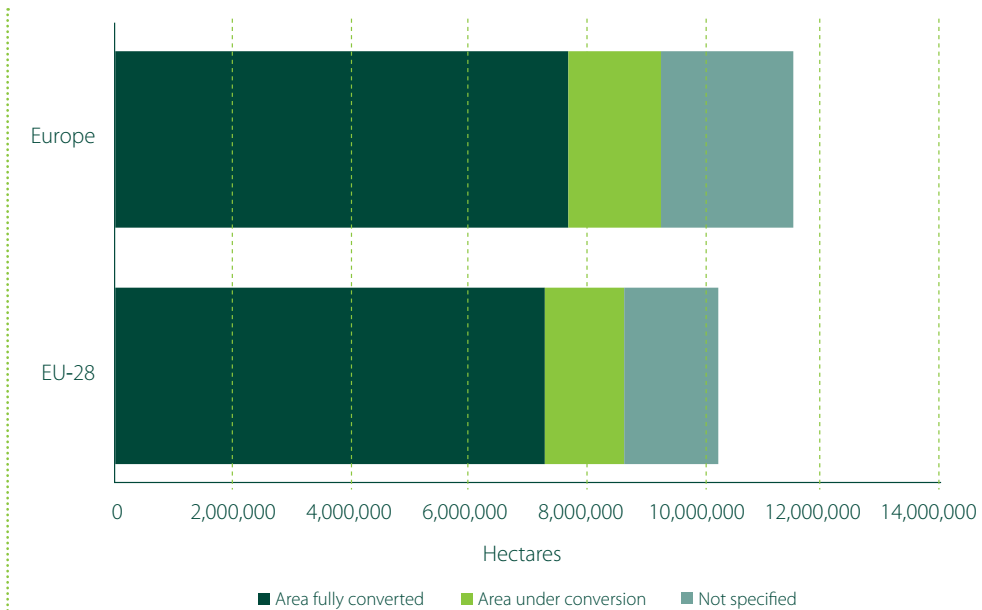


Figure 16: Conversion status of organic farmland in Europe, 2014

Source: FiBL-AMI survey 2016 based on Eurostat and national data sources

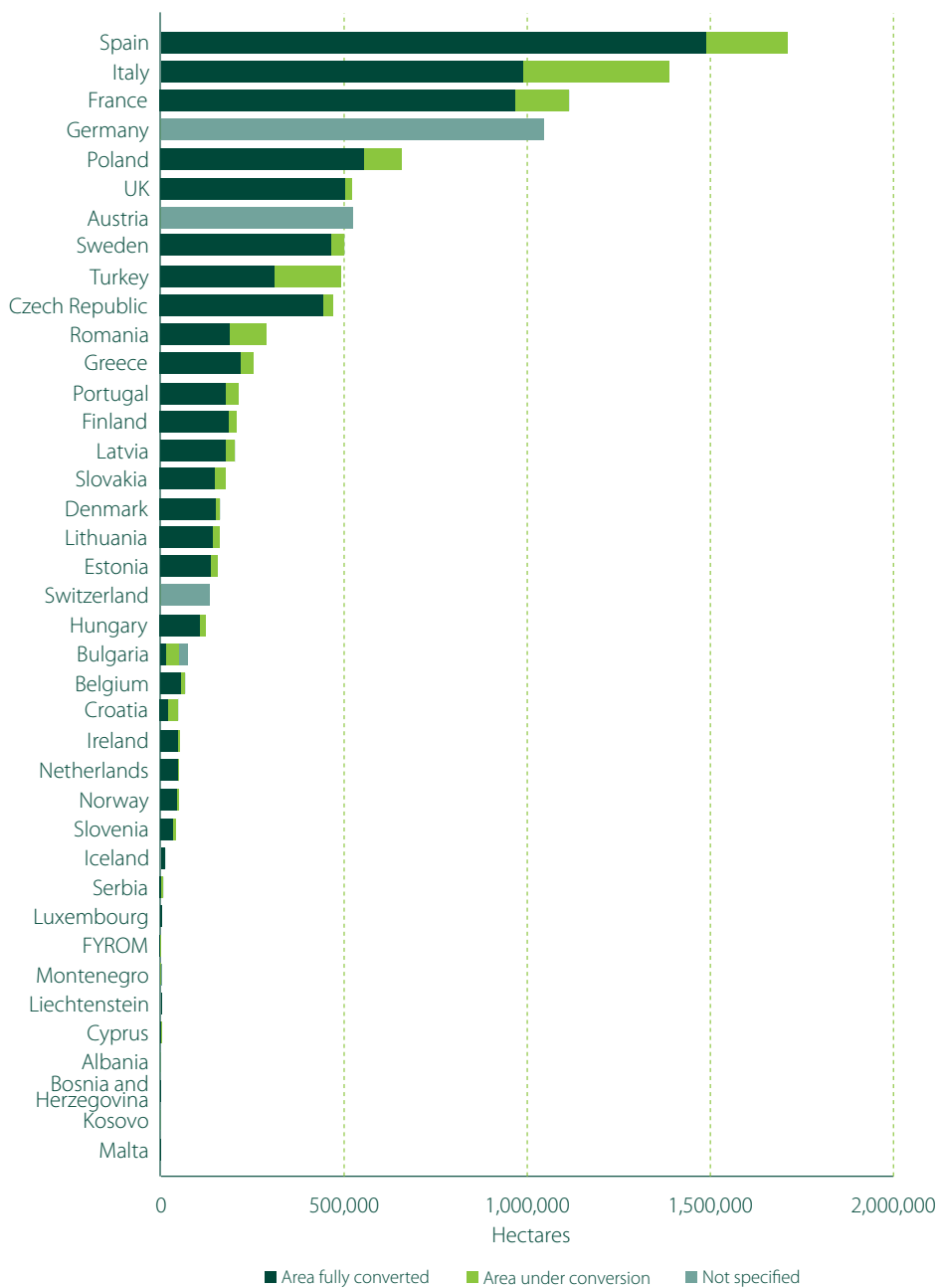


Figure 17: Conversion status of organic farmland in Europe by country, 2014

Source: FiBL-AMI survey 2016 based on Eurostat and national data sources

ORGANIC LAND USE, CROPS AND LIVESTOCK

Table 6: Organic farmland by land use type in Europe by country group, 2014

Land use type (million hectares)	Arable crops	Total land use share	Perma- nent crops	Total land use share	Perma- nent grass- land	Total land use share	Total land ¹
EU-28	4.11	3.80%	1.19	10.03%	4.6	6.96%	10.25
Europe	5.06	1.82%	1.36	8.88%	4.8	2.71%	11.63
Global	8.51	0.60%	3.42	2.08%	27.46	0.82%	43.66
EU-15	3.04	4.27%	1.08	10.35%	3.41	6.52%	7.83
EU-13	1.07	2.89%	0.11	7.67%	1.19	8.65%	2.42
CPC	0.34	1.30%	0.16	4.18%	0.02	0.11%	0.51
EFTA	0.06	3.14%	0.002	6.26%	0.12	4.10%	0.20
Other European countries	0.54	0.33%	0.01	0.39%	0.05	0.05%	0.67

¹ Includes other agricultural land

Source: FiBL-AMI survey 2016 based on Eurostat and national data sources with shares calculated based on FAO data.

Table 6 provides a European and global overview of organic agricultural land use in 2014. A more detailed overview of organic land use by country can be found in annex 4.³⁹

Land use

For all countries in Europe, land use and crop details are available. In this respect, Europe differs substantially from other parts of the world, for which such data is often not available.

In 2014, in the EU-28, 4.1 million hectares or 40% of farmland (5.1 million hectares in Europe), were used for arable crops, and 4.6 million hectares or 45% of farmland were used as grassland (4.8 million hectares in Europe). Approximately 1.2 million hectares, or 12% of farmland, were used to grow permanent crops (1.4 million hectares in Europe) (see figure 18a-c).

All categories of land use have grown steadily since 2004. The largest increase was for permanent crops, which have almost doubled since 2004 (see figure 19).

By country, the largest permanent grassland or grazing areas are in Spain, followed by Germany and the Czech Republic. The largest cropland areas (i.e. both arable and permanent crops) are in Italy (0.91 million hectares), Spain (0.78 million hectares), and France (0.69 million hectares) (see figure 20).

Apart from agricultural land, there are large areas of wild collection in the EU (12 million hectares) and Europe (16.3 million hectares). The largest area is in Finland (berries) followed by a number of countries in Southeast Europe.

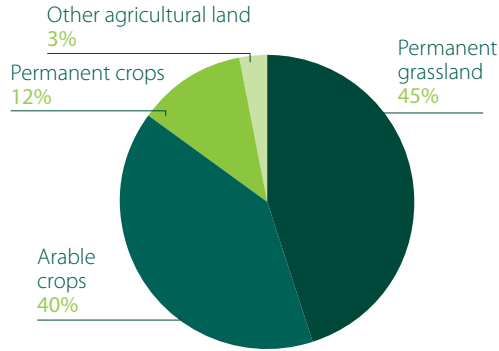


Figure 18a: Use of organic farmland in EU-28, 2014

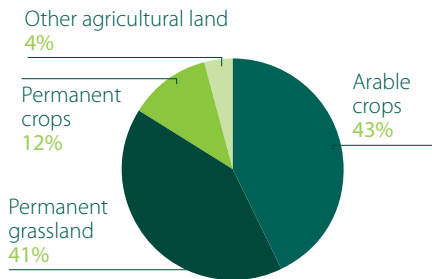


Figure 18b: European use of organic farmland, 2014

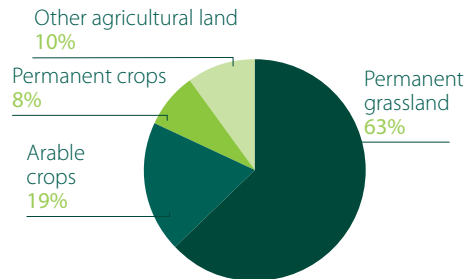


Figure 18c: Global use of organic farmland, 2014

Source: FIBL-AMI survey 2016 based on Eurostat and national data sources

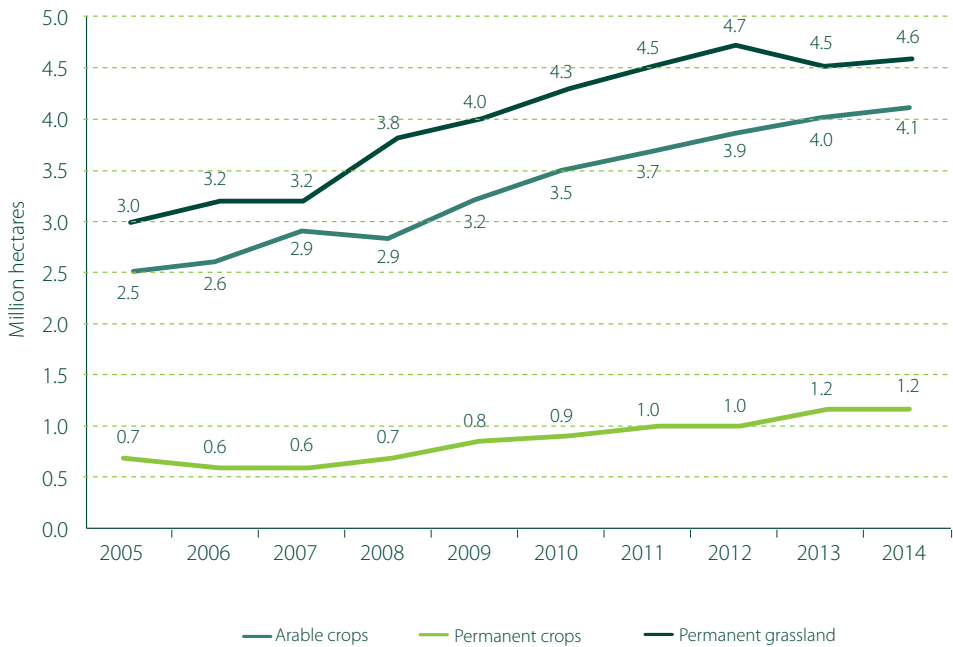


Figure 19: Growth of organic farmland by land use type in EU-28, 2005-2014

Source: FiBL-AMI surveys 2006-2016 and OrganicDataNetwork surveys 2013-2015

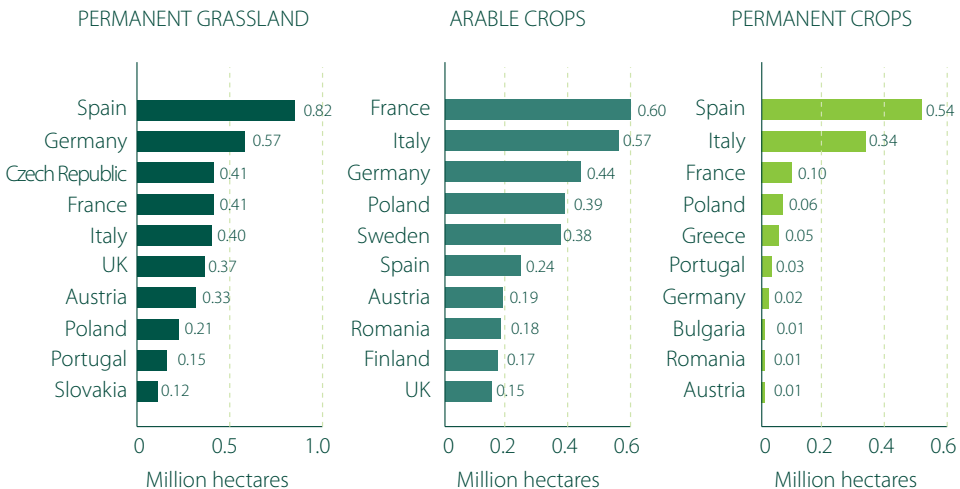


Figure 20: Top 10 countries with the largest organic farmland areas by land use type in EU-28, 2014

Source: FiBL-AMI survey 2016 based on Eurostat and national data sources

Crop production

Table 7: Top 10 organic crops in Europe by country group, 2014

Country groups	Crop	Land area (hectares)	Growth 2013-2014	Growth 2005-2014	
EU-28	Plants harvested green	1,825,988	1.5%	104.3%	
Europe		2,040,924	2.6%	117.7%	
EU-15		1,393,619	2.1%	88.0%	
EU-13		432,370	-0.3%	183.5%	
CPC		128,979	-1.0%		
EFTA		44,749	-0.7%	2.4%	
Other European countries		41,208	184.3%		
EU-28	Cereals	1,525,662	-0.3%	37.8%	
Europe		1,911,506	3.1%	70.7%	
EU-15		1,098,430	1.2%	15.6%	
EU-13		427,232	-4.1%	171.6%	
CPC		163,794	0.2%		
EFTA		14,295	-3.4%	15.8%	
Other European countries		208,281	42.6%		
EU-28	Olives	416,021	-0.1%	61.2%	
Europe		492,183	2.6%	90.8%	
EU-15		413,212	-0.1%	60.5%	
EU-13		2,809	-6.0%	355.2%	
CPC		76,162	20.1%		
EU-28		Dried pulses and protein crops	255,019	25.2%	244.0%
Europe			299,229	25.0%	302.1%
EU-15	205,153		16.4%	234.9%	
EU-13	49,865		29.3%	287.6%	
CPC	21,577		156.7%		
EFTA	726		-10.7%	145.1%	
Other European countries	21,907		42.2%		
EU-28	Grapes	251,514	2.4%	220.5%	
Europe		266,212	2.7%	204.6%	
EU-15		242,523	2.9%	213.8%	
EU-13		8,991	-8.0%	661.6%	
CPC		9,257	8.9%	99.9%	
EFTA		643	15.5%	125.4%	
Other European countries		4,799	1.1%		

Country groups	Crop	Land area (hectares)	Growth 2013-2014	Growth 2005-2014
EU-28	Nuts	154,175	-6.0%	180.9%
Europe		180,802	-4.2%	220.9%
EU-15		144,143	-2.9%	164.8%
EU-13		10,032	-35.2%	2088.4%
CPC		26,288	7.7%	
Other European countries		340	25.5%	
EU-28		Oilseeds	168,783	10.1%
Europe	245,693		25.1%	232.7%
EU-15	84,613		5.9%	108.5%
EU-13	84,170		14.8%	155.1%
CPC	5,064		30.7%	
EFTA	576		16.0%	281.6%
Other European countries	71,270		84.2%	
EU-28	Vegetables	118,606	7.3%	76.3%
Europe		131,896	9.4%	92.1%
EU-15		85,853	6.5%	41.0%
EU-13		32,753	9.5%	412.7%
CPC		2,748	9.0%	
EFTA		2,211	15.2%	68.0%
Other European countries		8,331	47.6%	
EU-28	Temperate fruit	108,059	-12.4%	122.1%
Europe		127,478	-8.5%	150.4%
EU-15		47,684	-13.3%	37.3%
EU-13		60,375	-11.7%	333.3%
CPC		16,359	22.3%	879.6%
EFTA		724	-5.1%	30.8%
Other European countries		2,337	33.0%	
EU-28	Citrus fruit	37,753	2.1%	72.8%
Europe		38,232	2.0%	75.0%
EU-15		37,691	2.2%	72.6%
EU-13		61	-7.4%	365.2%
CPC		479	-8.4%	

Source: FiBL-AMI survey 2016 based on Eurostat and national data sources

Table 7 provides a European and global overview of crop production in 2014. A more detailed overview of organic crops by country can be found in annex 5.

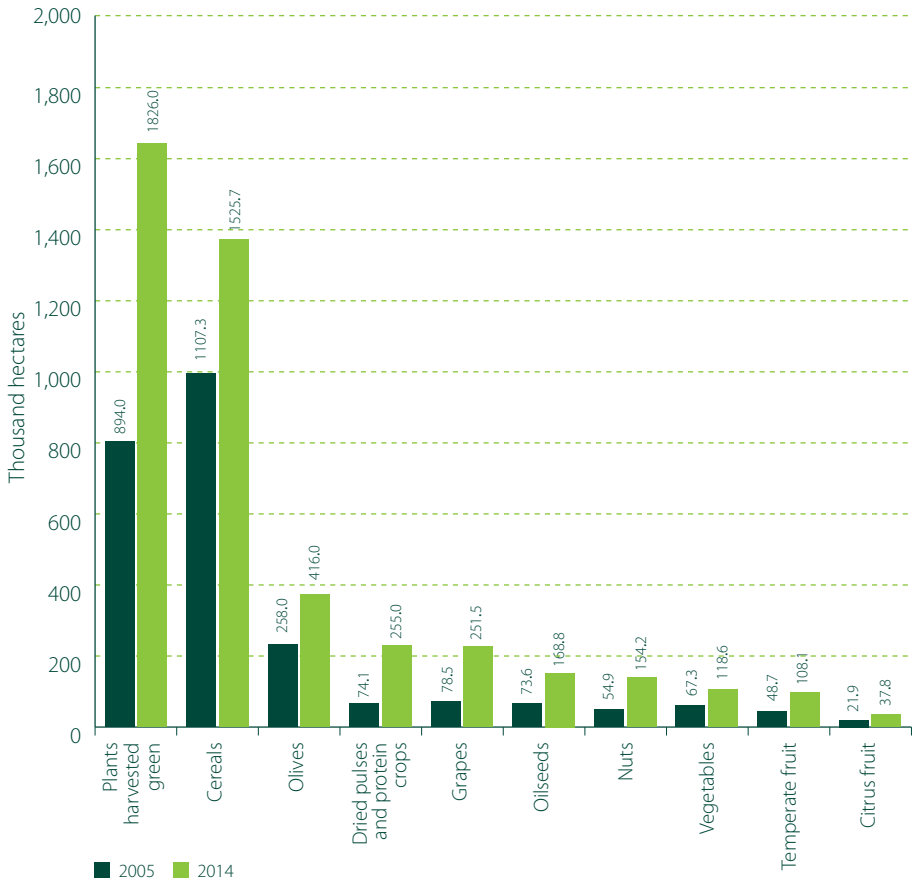


Figure 21: Development of selected organic crop groups in EU-28, 2005-2014

Source: FiBL-AMI surveys 2006-2016 and OrganicDataNetwork surveys 2013-2015

ARABLE CROPS

Plants harvested green from arable land account for 1.8 million hectares of the arable land among the EU-28 (2 million hectares in Europe), followed by 1.5 million hectares of cereals (1.9 million hectares in Europe) (see table 7). Italy, Germany, and Spain have the most land for cereal production in the EU-28 (see annex 5).

In 2014, organic vegetables were grown on 118,600 hectares of land in the EU-28 (131,000 hectares in Europe). The largest areas were in Poland, Italy, France, and the United Kingdom (note that for some countries potatoes are included in the vegetable category).

Between 2005 and 2014 the largest growth among the main arable crop groups was recorded by dried pulses and protein crops (240%) and oilseeds (130%). Cereals grew by 38% (see figure 21).

Organic dried pulses and protein crops achieved the highest share (21.5% in the EU-28, 7.3% in Europe), mainly because the conventional crop area has been decreasing for many years due to the availability of cheap soybeans for both animal feed and human consumption on the world market.

Organic vegetables represent 5.5% of the total organic farmland in the EU-28 (2.7% in Europe) and 7.2% of the area for temperate fruit (2.7% in Europe) have achieved comparatively high shares in meeting the high consumer demand for fresh vegetables and fruit.

PERMANENT CROPS

A large part of the permanent cropland is used for olives, grapes and nuts with the largest areas of permanent cropland in Spain, Italy, and France. For most permanent crops, however, the EU-15 countries have the largest land areas. The EU-13 countries have considerable areas of temperate fruit (e.g. apples in Poland and berries in the Baltic countries). Both Polish apples (in concentrate) and berries from the Baltic countries can be found in juices or yogurts all over Europe. Across Europe, high growth rates were achieved between 2005 and 2014, particularly for grapes (204%) and temperate fruit (150%). The organic share of all permanent crops were higher than those for the arable land: 11.1% for nuts, 10.7% for berries, and 8.6% for olives.

Livestock

Table 8: Organic livestock by animal type and total share in EU-28 and Europe, 2014

Animal type	EU-28		Europe	
	Animals (per head)	Total animal share	Animals (per head)	Total animal share
Cattle ¹	3,273,285	4.1%	3,487,237	2.8%
Goats	697,015	5.7%	730,647	
Sheep	4,256,342	4.3%	4,483,164	2.9%
Pigs	845,305	0.5%	877,463	0.4%
Poultry	35,116,136	2.3%	36,941,068	1.4%

¹ Includes beef and dairy cattle, buffalo

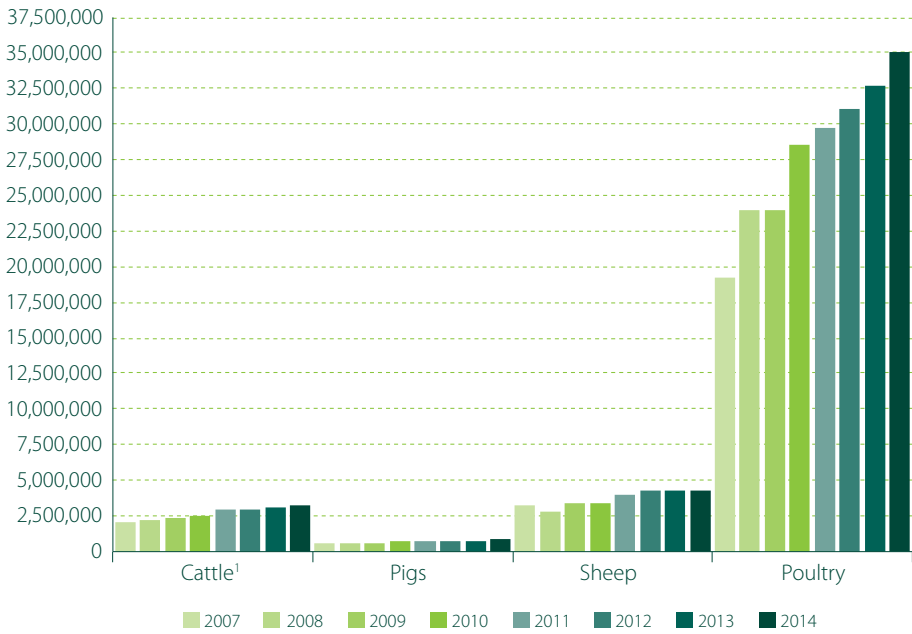
Source: FiBL-AMI Survey 2016 based on FAOSTAT, Eurostat and national data sources

Table 8 provides a European overview of organic livestock in 2014.⁴⁰ In many countries, organic animal husbandry began with beef, milk and sheep production. Livestock products continue to have the highest organic share of the overall sector. In the EU-28, 3.3 million bovine animals, 4.3 million sheep, 0.8 million pigs, and 35 million poultry were kept.

The greatest increase between 2007 and 2014 was for poultry, which must partly be attributed to the high demand for eggs (see the chapter on the organic market) (+83%). However, beef and dairy cattle also grew substantially (+57%), as did pigs (+36%) and sheep (+30%) (see figure 22). Organic animal livestock numbers remain limited in comparison with the total animal production in Europe and the EU-28 (between 0.5% and 4%, depending on the animal species). Monogastric animals (pigs and poultry) have the lowest shares, partly because of the difficulties posed by the insufficient internal supply of organic feeds, the difficulties in the provision of traceable certified feed imports and the high price premiums consumers have to pay. The highest shares are found for organic sheep and cattle. These meat types are considered to be of premium value in the conventional market and realise higher prices; therefore organic premiums are lower.

Milk production has almost doubled since 2006 in order to meet rising demand for milk and dairy products. Organic dairy cows milk production now stands at 3.8 million metric tons, constituting more than 2.6% of EU milk production from dairy cows in 2014.⁴¹ Some of this growth, however, must be attributed to improved data availability (see figure 23).

Statistics on the number of organic animals are incomplete and do not allow, for the moment, for a complete picture of the sector. However, taking into account all currently available information, the organic animal sector is developing at a fast pace in the EU-28 countries.



¹ Includes beef and dairy cattle, buffalo

Figure 22: Development of organic livestock in EU-28 by animal type, 2007-2014

Source: FiBL-AMI surveys 2006-2016 based on FAOSTAT, Eurostat and national data sources



Figure 23: Development of organic milk production from dairy cows in EU-28, 2007-2014

Source: FiBL-AMI surveys 2009-2015

ANIMAL FEED

Fresh and conserved forage from grassland is the primary source of animal feed for organic ruminants such as bovines and sheep supplemented by concentrate feedstuffs as an additional source of protein and energy. However, for organic monogastrics such as pigs and poultry, the availability and suitability of organic feedstuffs remains a challenge for developing 100% organic feeding strategies that comply with organic principles in terms of animal health and welfare and overall sustainability. Currently a complete picture of demand and supply for organic animal feed is unavailable in any EU Member States or other European countries.

Estimates based on 2011 data indicate that the total demand for dry matter organic concentrate feed in Europe was 2,350,000 metric tonnes. 2011 data for selected European countries – which accounted for the majority of organic livestock: pigs (85%), poultry (80%) and cattle (70%) – showed a total dry matter demand of 1,923,000 metric tons with over 50% fed to bovine animals, 16% to pigs and 30% to poultry. In these countries the overall demand for crude protein was 300,000 metric tons with 49% fed to bovine animals, 34% to poultry and 17% to pigs⁴² (see table 9).

Table 9: Production and demand for organic concentrate feed in selected European countries, 2011

Country	Concentrate feed production in dry matter (metric tonnes)	Total demand for concentrate feed in dry matter (metric tonnes)
Austria	143,127	161,928
Denmark	125,899	194,761
Finland	26,021	20,815
France	334,084	323,959
Germany	305,141	445,074
Netherlands	9,142	146,461
Sweden	182,610	227,476
Switzerland	8,959	60,803
United Kingdom	140,502	330,428
Total	1,275,485	1,911,705
European total (est.)		2,350,000

Source: FiBL calculation based on information from ICOPP partners (Früh et al. 2015)

2011 data for selected European countries showed a total self-sufficiency rate of 69% and 56% for concentrate feed and protein crude, respectively.

Current available data show that, across Europe, gaps in the availability for concentrate feed and, in particular, for crude protein continue to exist. Indeed, estimates of European supplies using available data on protein crop production show that there would still be a gap even if surplus protein feed producing countries were to export 80% of their total protein crops (including soya and other oilseeds) to the European countries that suffer from a feed deficit. Even in this case, an estimated 30% of the crude protein demand would still have had to have been imported from outside Europe in 2011.⁴³



Figure 24: Self-sufficiency rate for organic concentrate feed and crude protein in selected European countries, 2011

Source: FiBL calculation based on information of the ICOPP partners (Früh et al. 2015)

ACKNOWLEDGEMENTS

This chapter gives an overview of results of the market data collected by FiBL and AMI in 2015 and 2016. FiBL's activities were carried out under the framework of the global survey on organic farming supported by the Swiss State Secretariat of Economic Affairs, the International Trade Centre and NürnbergMesse and co-financed by the European Commission. It builds on the activities of the OrganicDataNetwork project, which was funded by the EU under its 7th Framework Programme between 2012-2014. Under this project, detailed organic market data for all European countries was collected and stored in one single database for the first time.⁴⁴ The authors would like to thank all of those who have provided data and information for this report, in particular, the partners of the OrganicDataNetwork project and to Raffaele Zanolli for his invaluable comments and suggestions to the text.⁴⁵

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