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# Facts and figures on organic agriculture in the European Union

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## List of acronyms and abbreviations

AWU	annual working unit
CAP	Common Agricultural Policy
EAFRD	European Agricultural Fund for Rural Development
EU	European Union
EU-15	country group which includes EU Member States in 2003: Belgium (BE), Denmark (DK), Germany (DE), Ireland (IE), Greece (EL), Spain (ES), France (FR), Italy (IT), Luxembourg (LU), the Netherlands (NL), Austria (AT), Portugal (PT), Finland (FI), Sweden (SE) and the United Kingdom (UK)
EU-N12	country group which includes the Members States that joined the EU in 2004: the Czech Republic (CZ), Estonia (EE), Cyprus (CY), Latvia (LV), Lithuania (LT), Hungary (HU), Malta (MT), Poland (PL), Slovenia (SI) and Slovakia (SK), and in 2007: Bulgaria (BG) and Romania (RO)
EU-27	country group which includes EU-15 plus EU-N12 countries, i.e. the European Union between 2007 and 2013
FADN	Farm Accountancy Data Network (see footnote 8 on page 22)
FIBL	Research Institute of Organic Agriculture
FSS	Farm Structure Survey (see footnote 1 on page 7)
Ha	hectare
LSU	livestock unit (see footnote 12 on page 35)
UAA	utilised agricultural area

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This document does not necessarily represent the official views of the European Commission

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## Executive summary

More and more people want their food to be different. You've certainly had or heard a friend mention 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 labour force employed on organic farms. We've also 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. Moving away from just assuming what the situation is, what do figures say? What is the organic production in the European Union (EU) and who are the people producing it?

The organic sector in the EU has been rapidly developing during the past years. According to Eurostat data, the EU-27 had in 2011 a total area of 9.6 million hectares cultivated as organic, up from 5.7 million in 2002. During the last decade, organic area in the EU improved by about 500 000 hectares per year. This is a big increase, but the whole organic area represents only 5.4% of total utilised agricultural area in Europe. The organic area is cultivated by more than 186 000 farms across Europe. Most of the organic land (78%) and of organic farms (83%) are situated in the EU Member States having joined the EU before 2004 (the so called EU-15), in which national and European legislation, among others, helped stimulate the development of this sector. The European countries having joined the EU since 2004 (called in the report the EU-N12) are not lagging behind and are quickly expanding the organic sector as well. They registered a 13% yearly growth rate in their organic area from 2002 to 2011 and saw their number of holdings increase almost tenfold between 2003 and 2010.

But are organic holdings showing particular trends in comparison with conventional ones or are their managers different? Organic holdings tend to be bigger than conventional farms in the European Union. Data on organic farm managers shows that these tend to be generally younger than the average conventional farmers in Europe but that as for conventional farms, these holdings would tend to be managed by males rather than females at the level of the EU. The education of farm managers shows that women working in organic farming tend to acquire more vocational training than women working in conventional farms.

More than 270 000 organic operators (producers, processors and importers) were registered in the EU-27 in 2011. A major part of these operators (about 235 000) was represented by agricultural producers, who may also process and/or import organic products, and which were mostly active in the EU-15. Though about 11 600 producers were counted in the EU-N12 in 2002 their number grew to more than 50 000 in 2011, also as a result of additional financing provided by the European Union for this type of production following their accession.

Organic farms are active both in the arable crop and orchard as well as animal sectors. Figures show that at EU level both types of production are registering a positive trend for the studied years. But what sort of crop or animal products come out of organic production?

Data shows that permanent pasture represents the biggest share of the organic area (about 45%), followed by cereals (around 15%) and permanent crops (about 13%). Sheep (46%) and cattle (30%) are the most important types of organic animal

production at European level, with the exception of poultry. However, other types of animal production should be mentioned in the EU-27, such as pigs, which registered 10%, and goats, which were at 6% of organic production in Europe in 2011.

The report gives an indication of the situation of organic agriculture in Europe, for given years, according to data availability. Since detailed data is not available for all countries and varies within the Eurostat databases, other sources and own estimations were used in this report.

## Introduction

This report aims at gathering key facts and figures about organic agriculture in the European Union and at identifying the main trends over the last years.

The report relies on different types of statistical and market data as well as data derived from the implementation of agricultural policy measures. Statistical data originate mainly from Eurostat (annual data collection on the organic sector and data from the Farm Structure Survey<sup>1</sup>), but other sources are utilised as well, such as the Farm Accounting Data Network (FADN), data from research projects as well as others<sup>2</sup>.

Eurostat data on the organic sector are only available from 1998 following the inclusion of the organic sector in EU policies which dates back to 1991 with Council Regulation (EEC) No 2092/91<sup>3</sup>. Council Regulation (EC) No 834/2007<sup>4</sup>, which replaced the latter, foresees the provision by Member States of statistical information necessary for its implementation and monitoring. The European Action Plan for Organic Food and Farming<sup>5</sup> acknowledged the necessity to improve the collection of data on the sector (Action 3). As the weight of the sector keeps increasing, the existence of appropriate data at all levels of the organic food supply chain becomes even more important. The current review and impact assessment of the organic farming policy reiterates the same need for reliable data on organic farming at all levels of the food chain.

The information consolidated at EU level on this topic remains still incomplete and of heterogeneous quality. Areas under organic production, livestock numbers, operator numbers (producers, processors and importers) are reasonably well informed even if they are not exempt from gaps, errors and inconsistencies. Additionally, various collection and treatment methodologies of Eurostat datasets may also show different data for similar categories. Other data, such as crop and livestock production volumes, are mostly missing. Data on international trade, industrial production and prices at various stages of the supply chain are missing at EU level.

Therefore, several sources have been used to complement Eurostat data in order to give a more complete picture of the EU organic sector in recent years. These sources are indicated in the text and in the references section of the report. Some of the data are estimates (missing data being replaced with data available for the most recent year) and should be treated as such. Estimates have been used to create EU aggregates, when data for some Member States was not available, and this may lead to some differences with other sources which could use other methodologies or estimates. The report clearly indicates when estimates have been used.

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<sup>1</sup> The Farm Structure Survey (FSS) is a Eurostat harmonized data collection which contains information (statistical tables) on the structure of agricultural holdings collected through agricultural structure surveys and censuses every 10 years, last census year being 2010. FSS surveys do not cover all holdings (very small farms are not covered) and are not specific for organic farming information.

<sup>2</sup> See section on statistical sources and references.

<sup>3</sup> 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 (OJ L198 of 22 July 1991, p. 1).

<sup>4</sup> Council Regulation (EC) No 834/2007 of 28 June 2007 on organic production and labelling of organic products (OJ L189 of 20 July 2007, p. 1).

<sup>5</sup> COM(2004) 415 final and SEC(2004) 739.



In the present document, unless stated otherwise, the total organic area represents the sum of the area under conversion and the certified organic area. Due to lack of data, wooded areas are not taken into consideration<sup>6</sup>.

This report contains data up to year 2011, whenever possible, and therefore refers to the EU-27, excluding EU's newest Member State, Croatia. A box on organic agriculture in Croatia is available at the end of Chapter 2.

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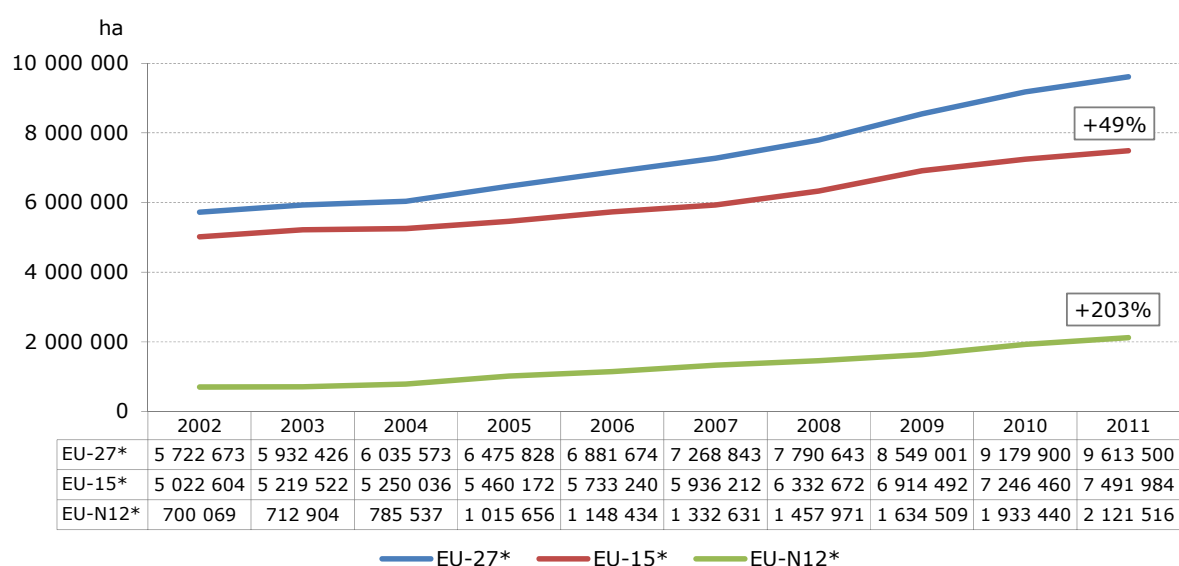
<sup>6</sup> Areas mainly utilised for the picking of wild plants (berries, herbs or mushrooms), sometimes utilised for grazing or shelter for the animals. Most Member States do not report these areas to Eurostat. These areas have not been integrated in the total permanent crops aggregate.

## 1. MAIN TRENDS IN EU ORGANIC AGRICULTURE

### 1.1. Major evolution of organic area in the EU

The area under organic agriculture has increased significantly in the last years. Graph 1 shows the evolution of the area under organic cultivation in the period 2002-2011. In ten years, the total (fully converted and in-conversion organic area) would have increased from 5.7 million ha to an estimated 9.6 million ha (+6% per year) for the EU-27. The speed of growth has been most spectacular for the EU-N12, in which organic area has jumped from 0.6 to 2.1 million ha (+13% per year), whereas in the same period the surface increased from 5 to almost 7.5 million ha in the EU-15, at an average yearly growth rate of 5% per year. 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 78% of all EU-27 organic area in 2011.

**Graph 1. Area under organic cultivation in the EU**

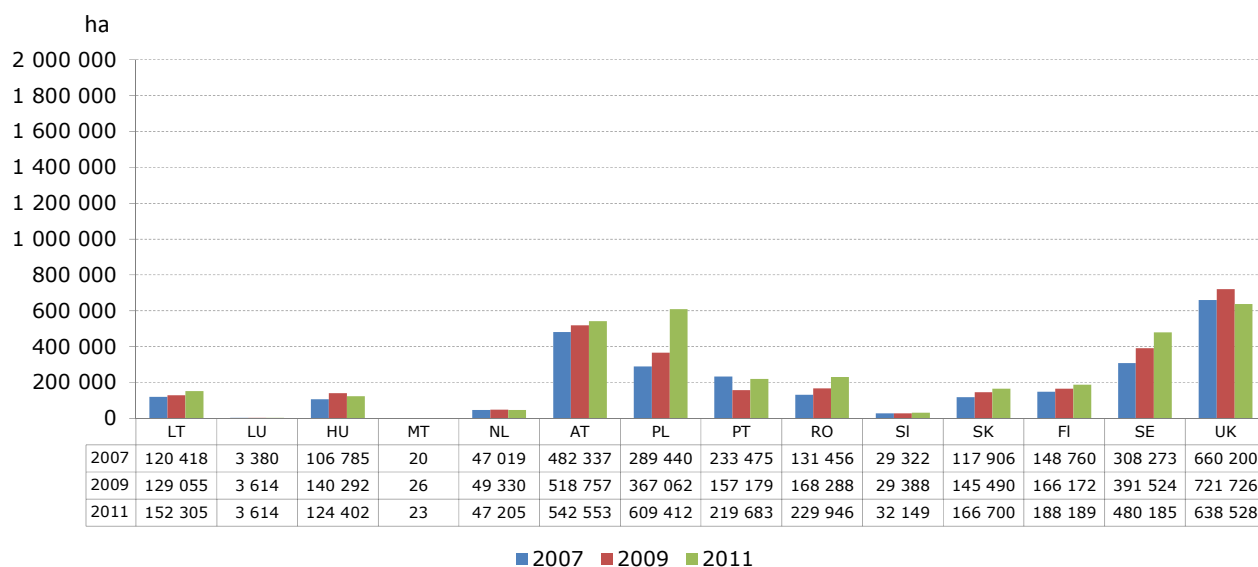
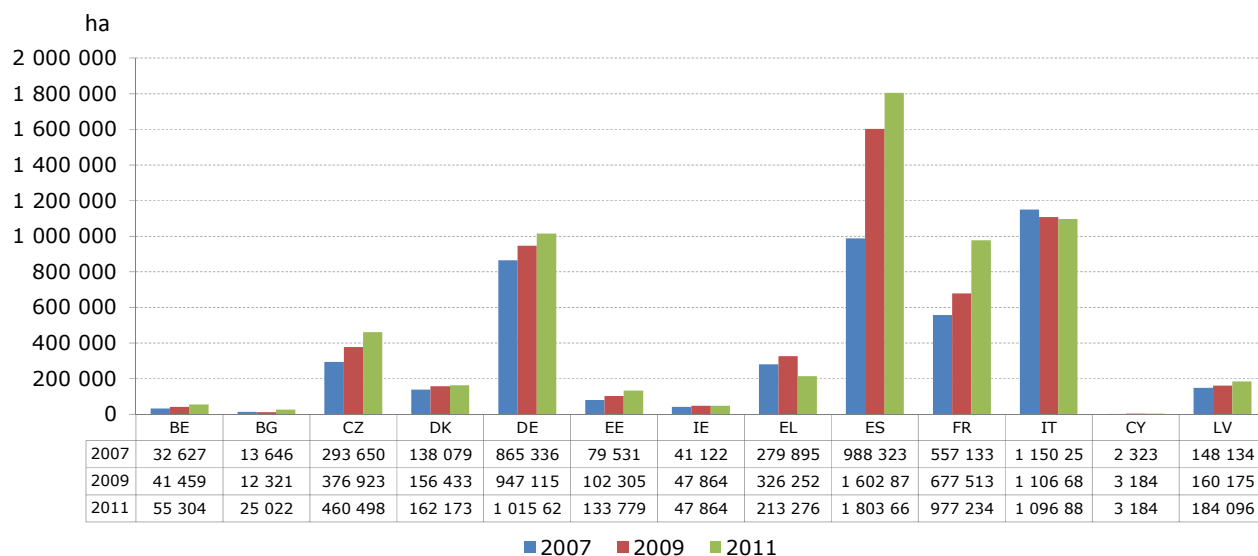


Source: Eurostat data on the basis of Council Regulation (EC) No 834/2007 on organic production (online data code: [food\\_in\\_porg1](#)). \*Estimated data for BG, CZ, DK, EE, IE, CY, LV, LT, LU, MT, PL, RO, SI and SK for different years.

Graph 2 shows the evolution of the organic area by Member State in 2007, 2009 and 2011. In absolute terms, the Member States with the largest areas in 2011 are Spain (1.8 million ha), Italy (about 1.1 million ha, with a declining trend) and Germany (1 million ha), which together account for around 40% of the EU-27 total organic area. In the EU-N12, the biggest organically farmed surfaces are in Poland (0.6 million ha) and the Czech Republic (0.4 million ha).

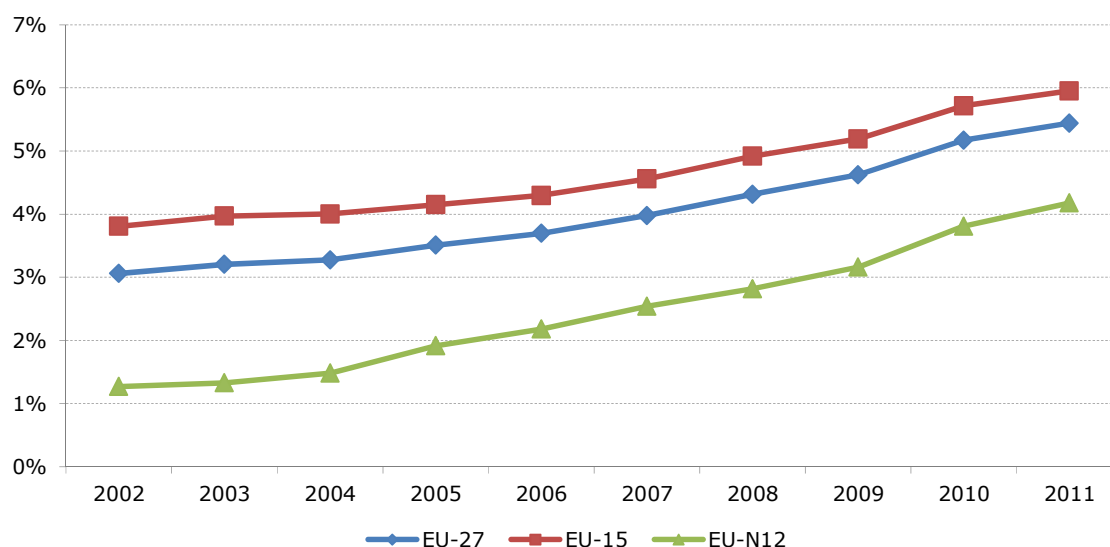
Over the 2007-2011 period, the area shows positive developments in a number of Member States of the EU-15 (for instance in Germany, Spain, France, Austria, Sweden) but also in the EU-N12 (among which Poland and the Czech Republic). The area is on a steady decline for Italy, which could reflect for this country a certain maturity of the organic sector. The generally positive trend in organic area development in the EU-N12 could be at least partly explained through the support provided to the sector already prior to accession to the EU and its subsequent increase since accession.

**Graph 2. Organic area (certified organic + in-conversion) in the Member States in 2007, 2009 and 2011**



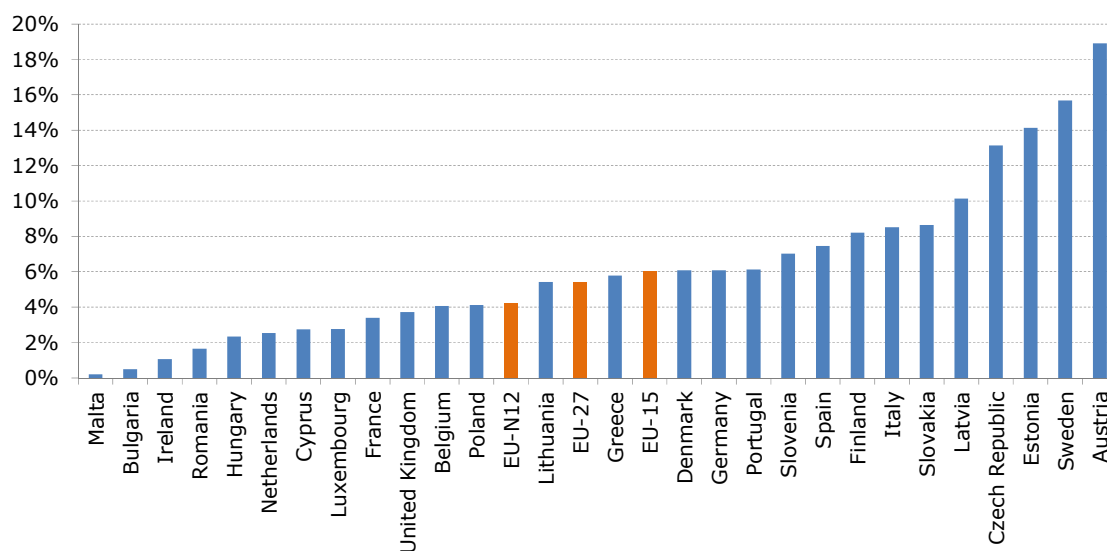
Source: Eurostat data on the basis of Council Regulation (EC) No 834/2007 on organic production (online data code: [food\\_in\\_porg1](#)). Estimated data for DK and MT (2007) and for IE, CY and LU (2011).

The above absolute figures tell only part of the story with the larger Member States having larger areas in the organic sector. Once we look at the share of the organic area within the total utilised agricultural area (UAA), the relative importance of the sector in each Member State appears more clearly and the ranking is quite different.

**Graph 3. Evolution of the share of the organic area in the UAA in the EU**


Source: Eurostat data on the basis of Council Regulation (EC) No 834/2007 on organic production (online data code: [food\\_in\\_porg1](#)) and land use statistics (online data code: [apro\\_cpp\\_luse](#)). Estimated data for land use for BE, BG, IE, ES, IT and FI. Estimated data for organic production for BG, CZ, DK, EE, IE, CY, LV, LT, LU, MT, PL, RO, SI and SK for different years.

In the EU-27, total organic area amounted to an estimated 5.4% of the UAA in 2011 (Graph 3) increasing from 3.1% in 2002. The organic area in total UAA for the EU-N12 rose to 4.2%, practically doubling as of year 2005, while the EU-15 registered a 6% organic surface in total area, up from 3.8% in 2002.

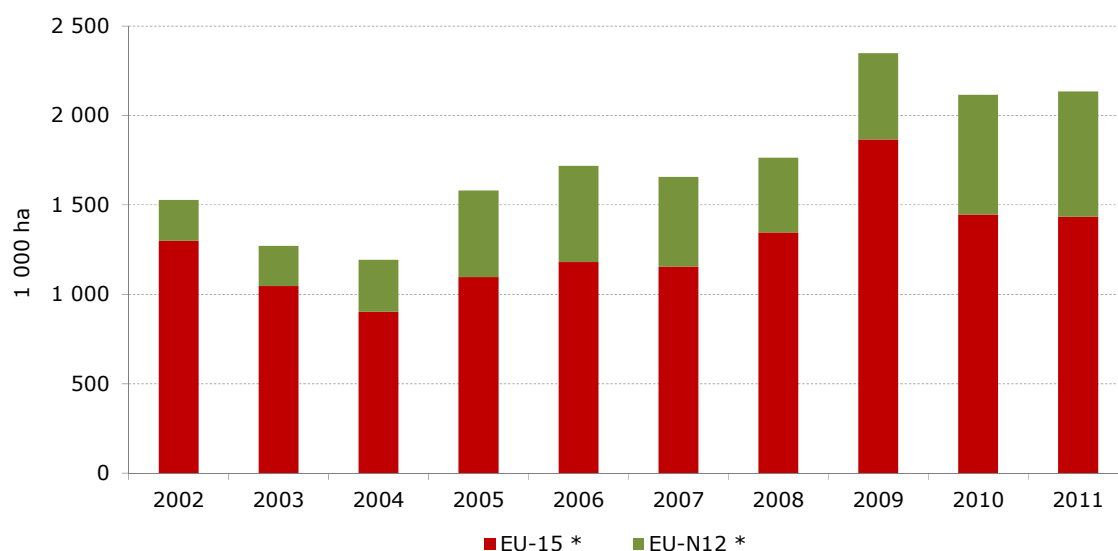
**Graph 4. Share of the organic area in the UAA in the EU Member States, 2011**


Source: Eurostat data on the basis of Council Regulation (EC) No 834/2007 on organic production (online data code: [food\\_in\\_porg1](#)) and land use statistics (online data code: [apro\\_cpp\\_luse](#)). Estimated data for organic production for IE, CY and LU. Estimated data for land use statistics for BE, EL, ES and IT.

As shown in Graph 4, with a share of about 19%, Austria is the Member State where the importance of the organic sector in the total UAA is the highest in 2011. Sweden and Estonia follow with 15.7% and 14.1% respectively. The Czech Republic in which 13.1% of its total area was dedicated to organic farming is followed by Latvia where this share amounts to 10.1%. 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 5.4%. These Member States have experienced an extremely fast development of the organic sector in terms of area. On the other hand, six EU-15 Member States hold in 2011 shares of organic farming area in total UAA lower than the EU-27 average: the United Kingdom and Belgium at around 4%, France, Luxembourg and the Netherlands at about 3% as well as Ireland (1.1%)

In order to capture the dynamics in the development of this sector, Graph 5 provides rough estimates of the area which enters annually the in-conversion process in the organic farming sector.

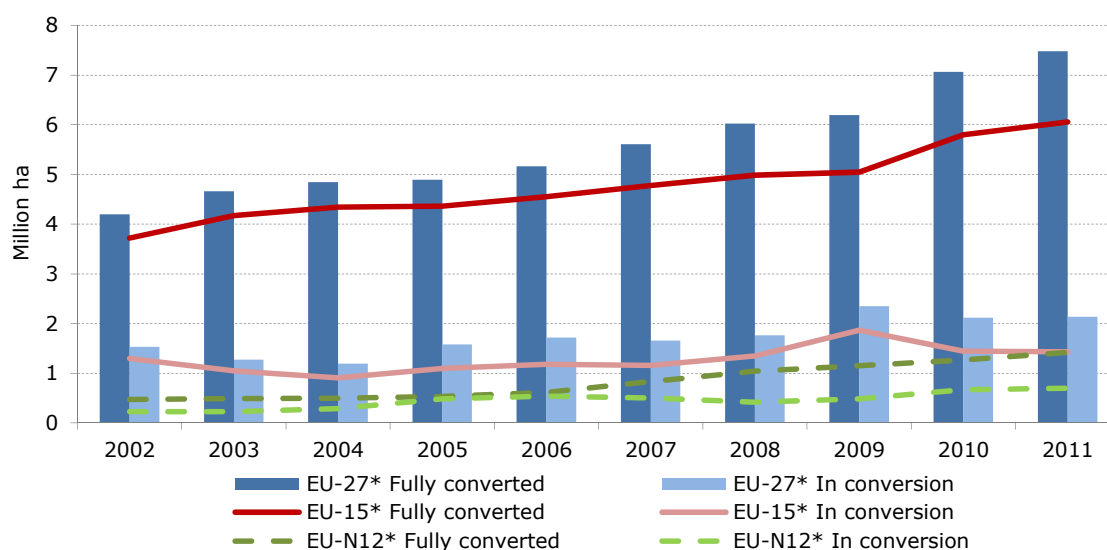
**Graph 5. Organic farming in-conversion area in the EU**



Source: Eurostat data on the basis of Council Regulation (EC) No 834/2007 on organic production (online data code: [food\\_in\\_porg1](#)). \*Estimated data for BG, DK, EE, IE, FR, CY, LV, LT, LU, MT, PT, RO, SI and SK for several years. For AT and DE no in-conversion area available. For PL no data for 2002 and 2003.

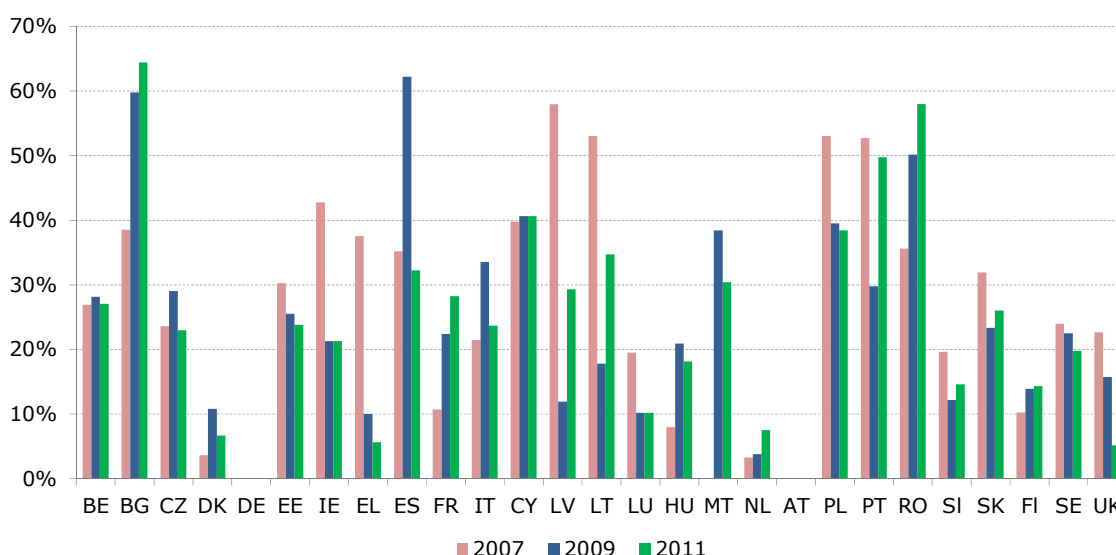
For the EU-15 there are clearly several phases which can be identified: the period 2002-2004, which displays a decrease of about -31% in the area entering the organic sector, followed by an increase of almost 59% between 2004 and 2011. Overall, the in-conversion area in the EU-15 grew on average by 1% per year for the period 2002-2011.

Regarding the EU-N12, available data shows an average yearly growth rate of about 13% for 2002-2011. In the year 2004 in comparison to 2011, organic in-conversion area increased by more than 58% for this country group, most likely due to the accession to the EU. Despite this fast growth for the EU-N12, the biggest amount of in-conversion and converted organic area remains, for the studied years, in the EU-15 (see Graph 6).

**Graph 6. Fully converted and in-conversion organic area in the EU**


Source: Eurostat data on the basis of Council Regulation (EC) No 834/2007 on organic production (online data code: [food\\_in\\_porg1](#)). Estimated data for BG, CY, CZ, DK, FR, EE, IE, LV, LT, LU, MT, PT, RO, SI and SK for several years. For AT and DE no in-conversion area available. For PL no data for 2002 and 2003.

The observation of the share of in-conversion area within the total area of the organic sector (in-conversion and certified organic areas) provides an indication of the growth potential of the sector for the next few years (Graph 7).

**Graph 7. Share of the in-conversion area in total organic area**


Source: Eurostat data on the basis of Council Regulation (EC) No 834/2007 on organic production (online data code: [food\\_in\\_porg1](#)). Estimated data for DK, IE, MT, CY, PT and LU for several years. For AT and DE no in-conversion area available.

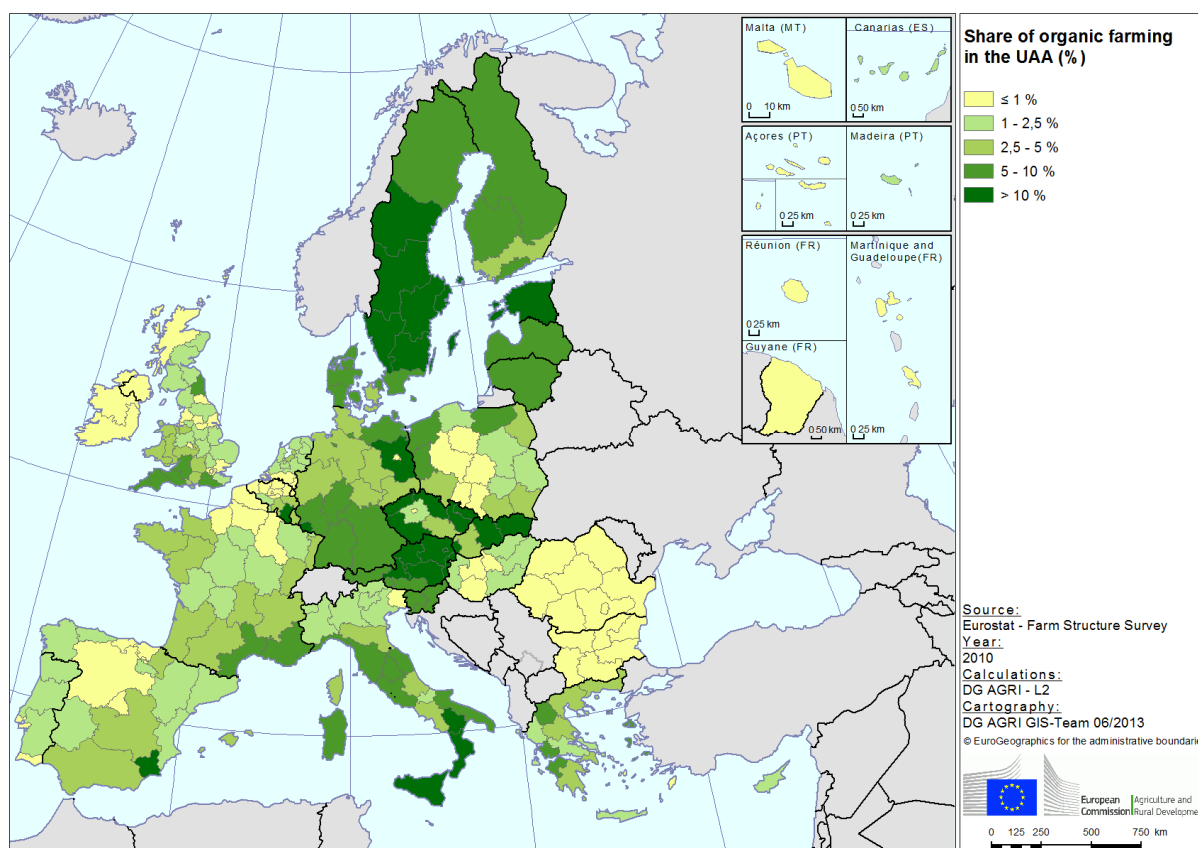
Among the EU-15, available data shows that the potential growth in the next two to three years seems to be the lower than in the EU-N12, where a number of countries have shown a fast growing in-conversion area. For the EU-15, countries such as France, Italy, Ireland, Sweden and Belgium show shares of about or more than 20% of in-conversion area in total organic area, with Spain registering more than 30% of this share

and Portugal about 50%, in particular in the most recent years. In the EU-N12 several Member States display a faster growth of in-conversion area, which amounts to more than 50% of the area (e.g. in particular for Bulgaria and Romania for the most recent years).

Map 1, based on the results of the Farm Structure Survey of 2010, provides the share of the organic area in the UAA at the regional level in the EU. It shows that there is a rather strong heterogeneity among and within most Member States regarding the weight of the organic sector. The organic area is above 10% of total UAA in southern Sweden, Estonia, Austria (with the exception of Tirol and Kärnten), centre and East Slovakia and the Czech Republic (except the Prague Region, Strední Čechy and Jihovýchod). For regions such as Brandenburg in Germany, Sicily and Calabria in Italy as well as the Spanish province of Murcia similar values are registered. Lowest shares of organic farming in total UAA (less than 1%) are registered in Romania, Bulgaria, Ireland, northern France, Castilla y León in Spain as well as some Polish regions.

The map also reflects the fact that organic farming is particularly present in regions with extensive livestock production systems based on permanent grassland. The importance of the organic sector is generally lower in the regions of plains where more intensive production systems prevail.

**Map 1. Share of the organic area in the total UAA in 2010 at regional level**



Source: Eurostat FSS data.

The development of organic area in the EU should also be seen in light of the support provided for this farming practice through rural development. Since there is no specific measure for organic farming in the current rural development programming period (2007-2013), organic farming is supported via the measure 'Agri-environment payments'

which accounts for 24% of the EAFRD endowment. For the 2014-2020 period, the Regulation on support for rural development through the EAFRD, introduces a specific measure for organic farming (more details in the Appendix).

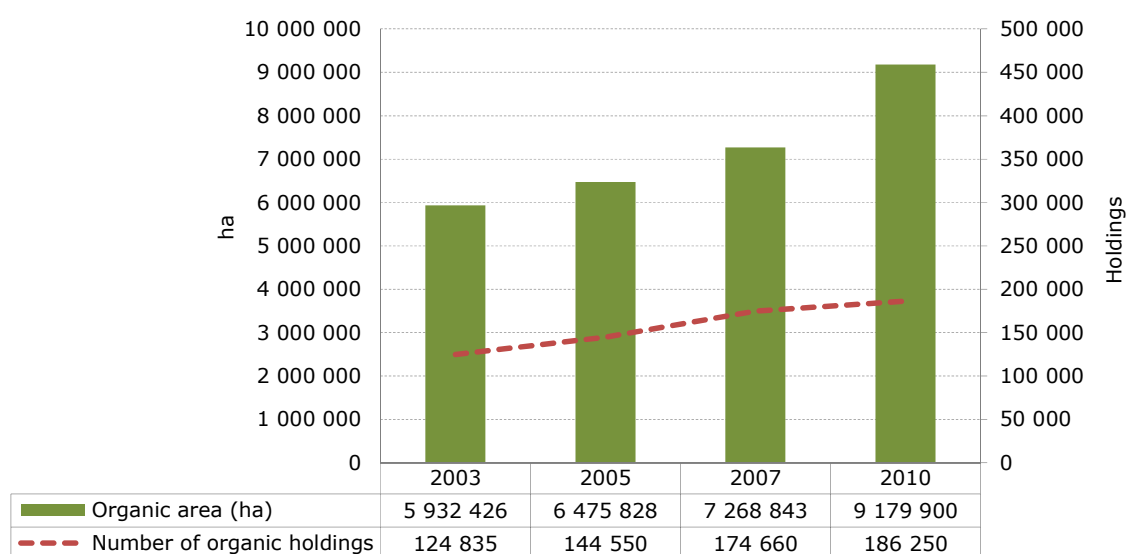


## 1.2. Holdings involved in the organic sector

### 1.2.1. Evolution of the number of organic holdings

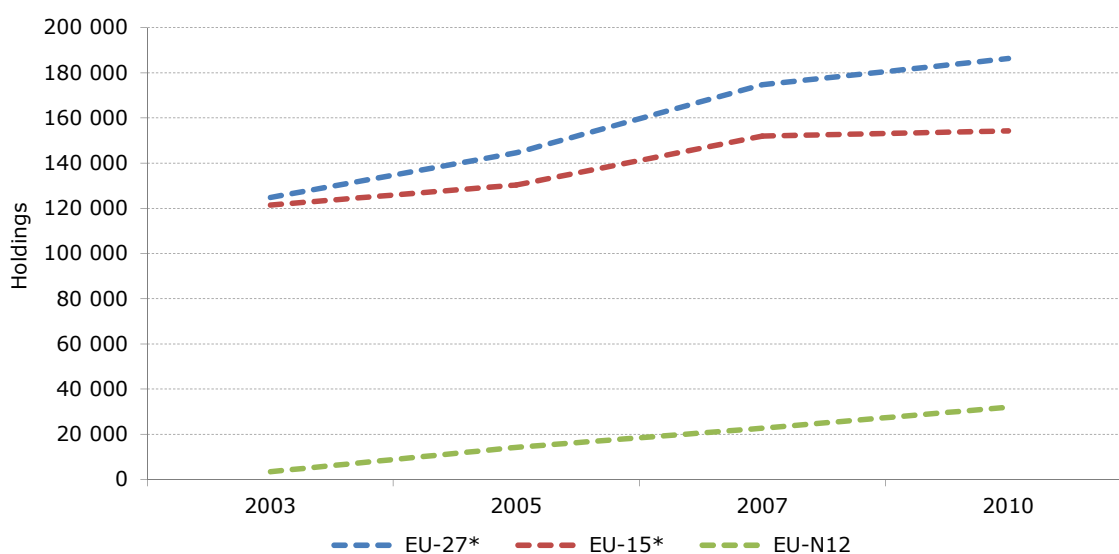
The evolution of the total organic farming area should be considered together with the evolution of the number of holdings active in this sector, which gives an idea about the interest of agricultural producers and other operators in this sector. Graph 8 and Graph 9 show that there is an upward trend in the number of organic holdings for the studied years.

**Graph 8. Evolution of the area and number of holdings involved in the organic sector in the EU-27\***



Source: Eurostat data on the basis of Council Regulation (EC) No 834/2007 on organic production (online data code: [food\\_in\\_porg1](#)) and FSS data (online data code: [ef\\_mporganic](#)). \* Estimated data for organic area for BG, EE, CY, DK, IE, LV, LT and LU. No available data for organic holdings for MT (2003-2007) and PL and SI (2003).

**Graph 9. Evolution of the number of organic holdings in the EU**



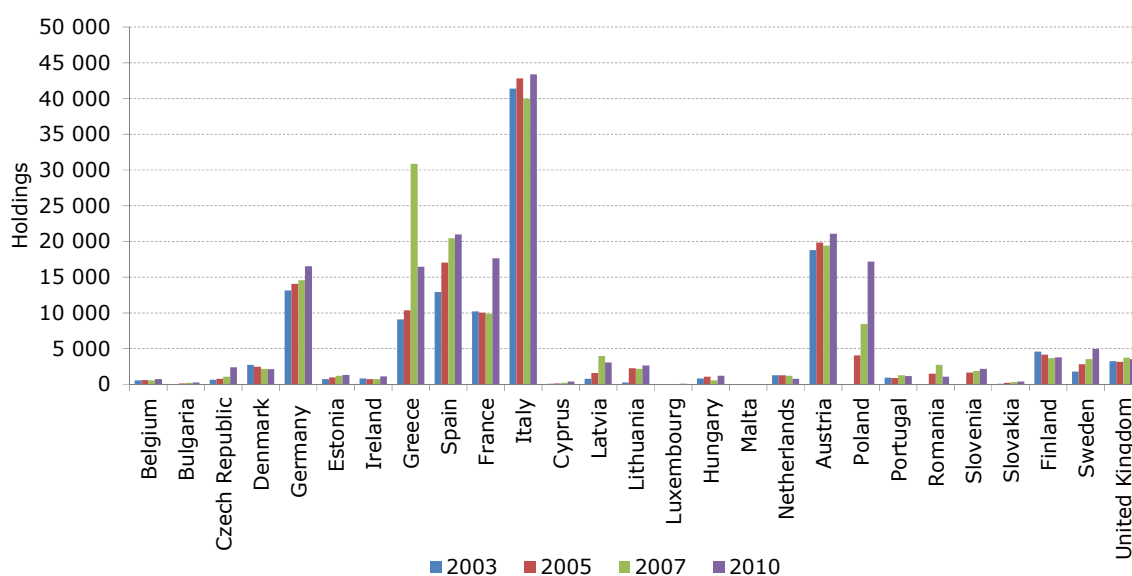
Source: Eurostat FSS data (online data code: [ef\\_mporganic](#)). \*No available data for MT (2003-2007) and PL and SI (2003).

In 2010 there were over 186 000 farms active in organic agriculture across Europe, with a majority of them (83%) being active in the EU-15. However, for the EU-15 this number represented only 3% of the total number of holdings in 2010. For the EU-27 only 1.6% of the holdings were active in organic farming during the same year.

The increase in the number of organic holdings can be observed for both the EU-15 and the EU-N12. For the EU-N12 the number of organic farms increased fourth fold from 2003 to 2005 and reached over 31 900 holdings in 2010. In the EU-15, the increasing trend in the number of holdings has been less dramatic than in the EU-N12, but is still overall about 80% higher than in the newest Member States of the EU.

Graph 10 gives indication on the countries with the biggest number of holdings involved in organic farming. From among the EU-15, Italy, Austria, Spain, Germany, Greece and France show the biggest number of organic holdings. In the EU-N12 Poland seems to take the lead with levels similar to the old EU Member States.

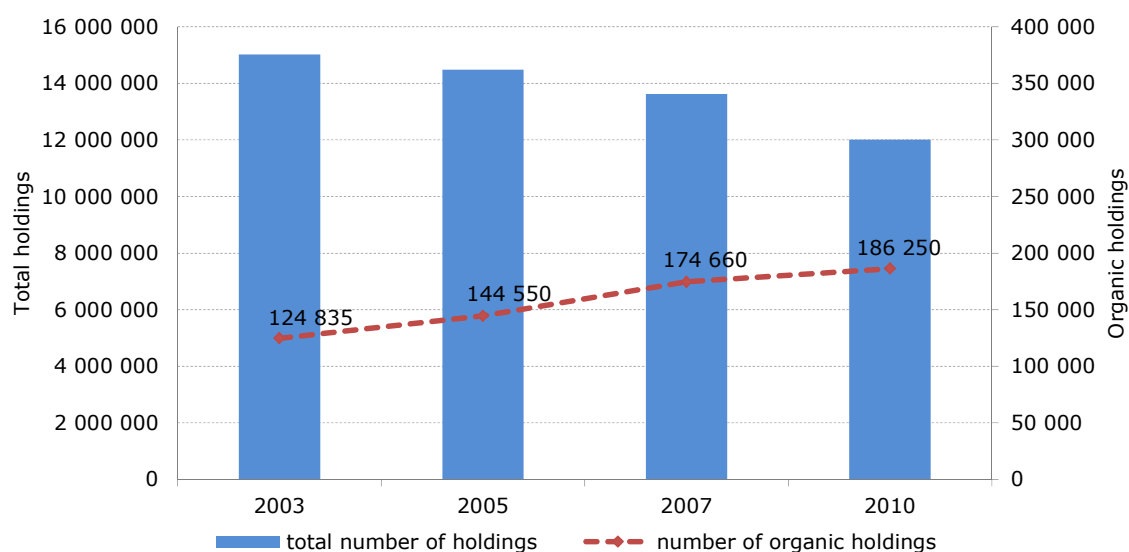
**Graph 10. Number of organic holdings in 2003, 2005, 2007 and 2010 in the EU Member States**



Source: Eurostat FSS data (online data code: [ef\\_mporganic](#)). No available data for MT (2003-2007) and for PL and SI (2003).

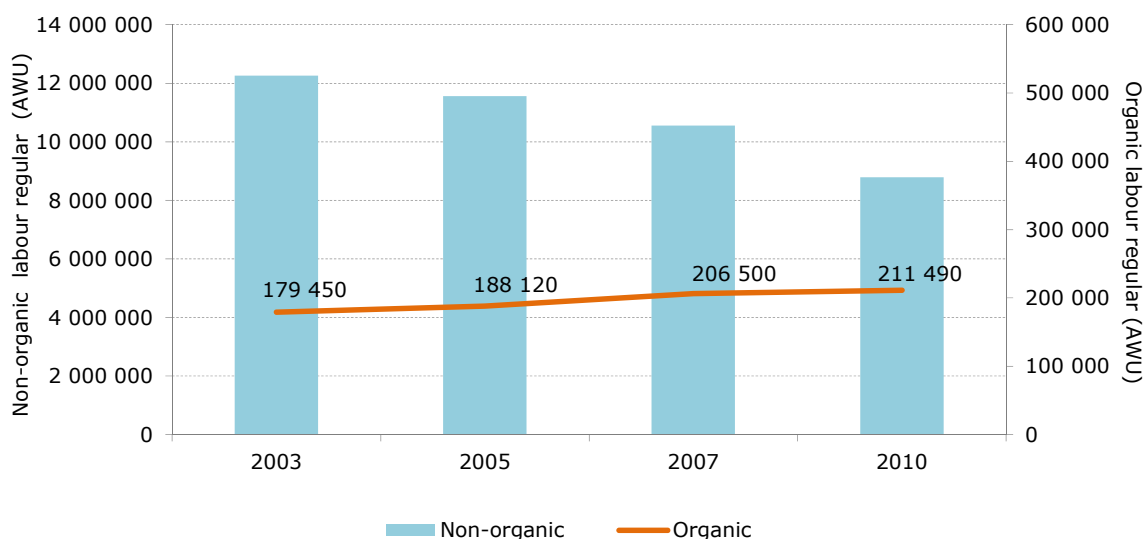
When analysing the number of organic holdings in comparison to the total number of holdings in EU agriculture, a diverging trend can be observed. Available Eurostat data shows that the number of organic farms is increasing while there is a consolidation of conventional agricultural holdings in the EU-27. The same trend can be observed for working units in organic agriculture in comparison to non-organic labour force.

**Graph 11. Comparison between total number of holdings and number of organic holdings in the EU-27\***



Source: Eurostat FSS data (online data code: [ef\\_mporganic](#)). \*No available data for organic holdings for MT (2003-2007) and for PL and SI (2003).

**Graph 12. Comparison between non organic and organic regular labour force (AWU) in the EU-27\***



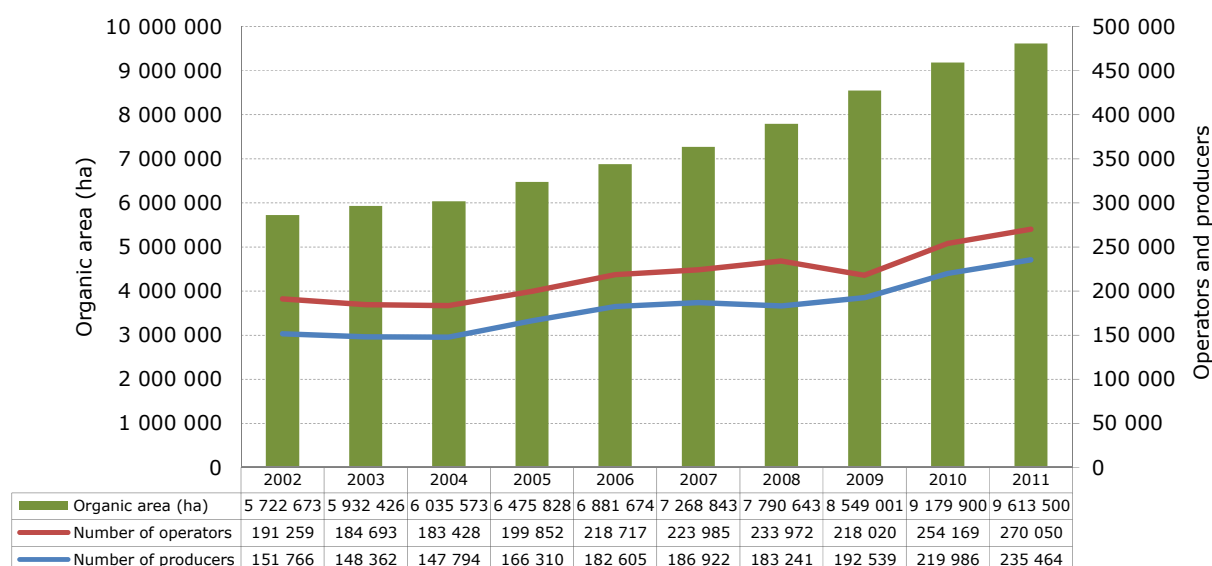
Source: Eurostat FSS data. \* Missing organic data for MT. Estimated non organic and organic data for PL, SI and RO (2003).

When looking at the total number of organic operators (producers, processors and importers) active in organic farming data also shows an increasing trend. Graph 13 gives an indication of this evolution, but due to lack of data for a number of Member States in particular for the processing industry and imports, these results should be put into context. Of the total number of operators, producers seem to take the lead.

FSS gives information on agricultural holdings and their characteristics. The annual data collection on the basis of Council Regulation (EC) No 834/2007 on organic production

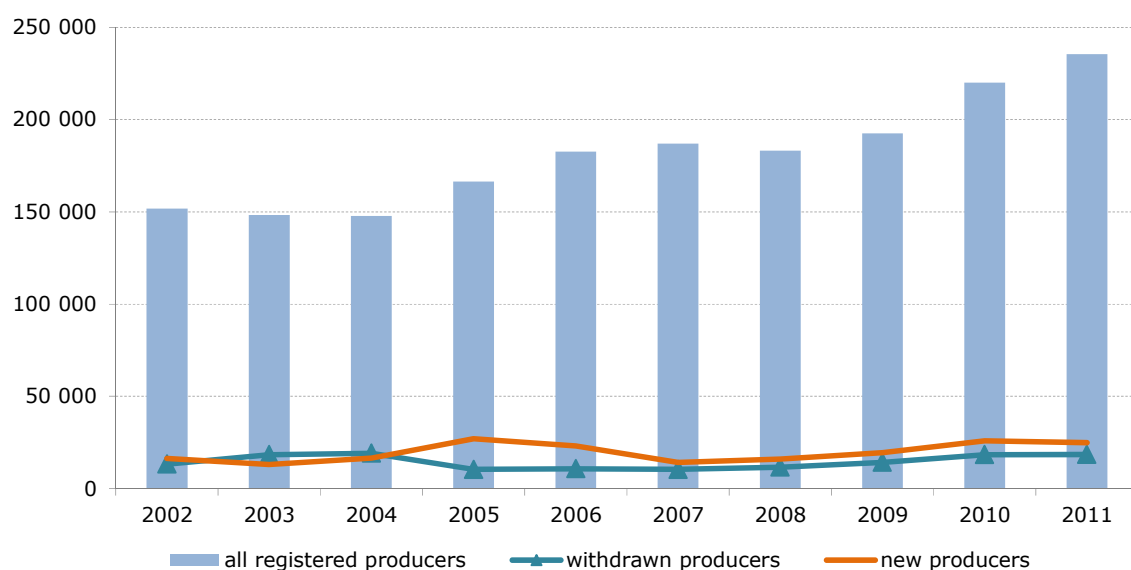
also gives indication on the number of operators among which producers, which would correspond to the definition of agricultural holdings. However, due to the fact that collection methodologies are different, the delivered results also vary. This report focuses on FSS data in terms of holdings, but also presents the information from the annual data collection on organic farming as an alternative source of data on holdings.

**Graph 13. Evolution of the area, operators and producers involved in the organic sector in the EU-27\***



Source: Eurostat data on the basis of Council Regulation (EC) No 834/2007 on organic production (online data codes: [food\\_in\\_porg1](#) and [food\\_act2](#)). \* Estimated data for BG, CZ, DK, EE, IE, CY, LV, LT, LU, MT, PL, RO, SI and SK for different years. Estimated data for number of operators for AT, BG, CZ, EE, IE, FR, CY, LV, LT, LU, HU, MT, PL, RO, SI, SK and UK.

Graph 14 gives an idea of the evolution in the number of producers in some EU Member States but, in view of the low data availability, its results should also be interpreted with caution. On the basis of available data, one interpretation would be that the number of producers in the organic sector has been overall on an increasing trend. Some exiting and entering the sector can be observed but overall, it would seem that producers have a tendency to remain in organic farming rather than heavily leaving this type of production. This would be explained by the fact that farmers make a substantial investment during the three years of conversion period foreseen by the Organic farming Regulation, during which, in spite of higher costs associated with organic farming, the production is sold as conventional and returns can be expected only once certified as organic.

**Graph 14. New, withdrawn and total number of registered organic producers in the EU Member States**

Source: Eurostat data on the basis of Council Regulation (EC) No 834/2007 on organic production (online data code: [food\\_act2](#)). Estimated data for BG, CZ, EE, IE, ES, FR, IT, LV, LI, LU, HU, MT, NL, AT, PT, SI, SK, FI, SE and the UK for several years. Missing data for CY, PL and RO.

**Table 1. Number of all registered, new and withdrawn organic producers in some EU Member States (average 2007-2011)**

Average 2007-2011	Registered	New	Withdrawn
Belgium	1 008.4	159.2	60.4
Bulgaria	527.2	218.8	64.6
Czech Republic	2 645.0	713.8	123.0
Germany	20 802.2	1 762.8	773.0
Greece	22 079.6	1 602.8	2 537.8
Latvia	3 881.0	191.4	313.8
Slovakia	349.6	61.4	40.0

Source: Eurostat data on the basis of Council Regulation (EC) No 834/2007 on organic production (online data code: [food\\_act2](#)).

Table 1 gives more detail on for certain EU Member States on the average number of producers leaving and entering organic farming. For most of these countries (except Greece and Latvia for the given years), the trend of increasing number of producers entering the sector versus a more limited exit from organic agriculture is confirmed.

The evolution of the sector can be linked to major drivers such as the support provided to the sector, market developments as well as a 'facilitating' environment (extension services, vocational training, agronomic research, etc.) The weight of these factors varies according to region, for instance in the Northern European Member States, Germany and Austria the comprehensive facilitating environment plays a more important role. In the EU-N12, the development of the sector could be attributed among others to a favourable context of deep restructuring and reform of the agricultural sector (and the whole economy) since the beginning of the 1990s with the renewal of farming structures, institutions and agricultural policy. These structural changes provided more space for organic farming to develop.

### 1.2.2. Elements on organic farm structures: holding area, labour, age and vocational training of farmers, gender issues

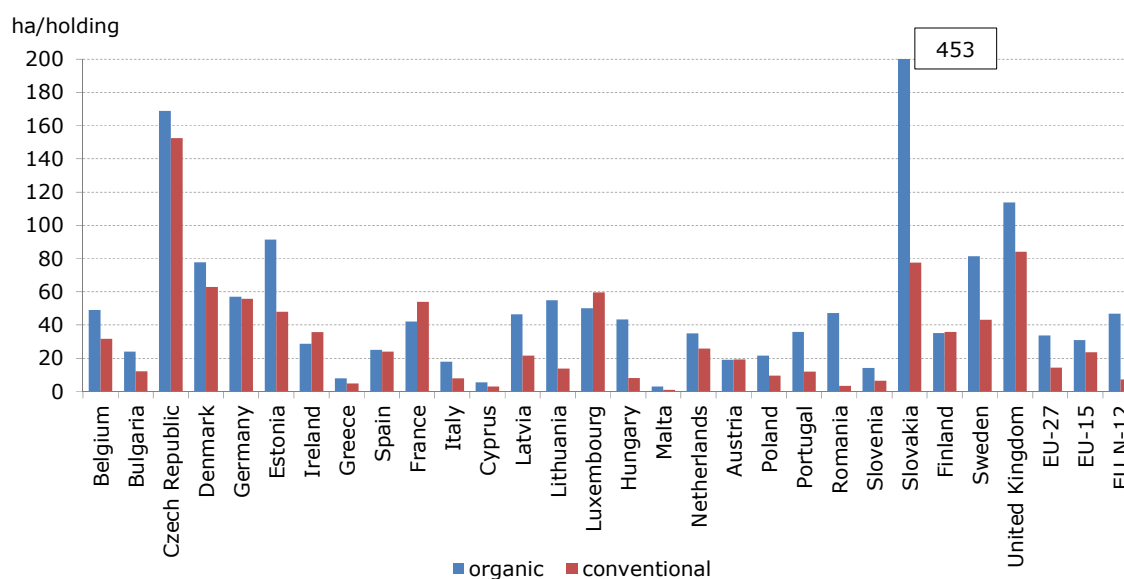
The Farm Structure Survey (FSS)<sup>7</sup> looks at the main characteristics of the holding (namely type, size and region) and provides information on several features of organic farms. However, as organic farms represent less than 2% of all holdings, the FSS surveys are not stratified according to organic / non organic criteria. In spite of these limitations, both the FSS surveys and censuses provide certain information which is absent from the annual organic statistical data collection and which allow for a better understanding of who are the organic farmers in the EU. The last available data cover 2010, with some indicators available only until 2007.

According to the latest FSS, there were 186 250 organic farms (i.e. holdings with organic area and/or organic animals) in 2010. These represented 1.6% of total farms (conventional and organic) in the EU-27.

The average area of organic holdings in the EU-27 amounted to 34 ha in 2010. This area varies significantly across Member States (see Graph 15). In 2010, the largest organic holdings were located in Slovakia (average total area of 453 ha/holding), the Czech Republic (169 ha/holding) and the United Kingdom (114 ha/holding), followed by Estonia (91 ha/holding) Sweden (81 ha/holding) and Denmark (78 ha/holding). The smallest organic farms are located in Malta (3 ha/holding), Cyprus (6 ha/holding), Greece (8 ha/holding) and Slovenia (14 ha/holding). From among the new Member States, besides Slovakia, the Czech Republic and Estonia already mentioned, figures for Lithuania and Romania show the biggest areas for organic holdings (55 ha/holding and 47 ha/holding respectively).

Graph 15 also provides a comparison of the average total surface of organic holdings with conventional holdings. The average size of organic holdings appears larger than the average size of conventional holdings across the EU-27, even if this difference is not large in some Member States.

**Graph 15. Average surface of organic and conventional holdings, 2010**

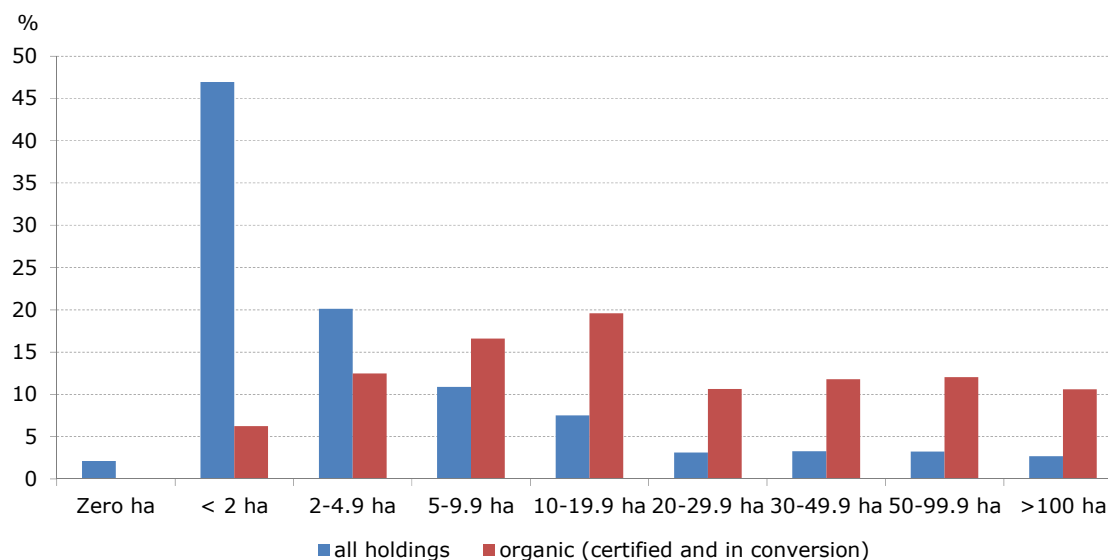


Source: Eurostat FSS data (online data code: [ef\\_mporganic](#)).

<sup>7</sup> See footnote 1.

If for the EU-27 about 48% of total holdings have a size lower than 2 ha, only 6.2% of organic farms are situated in this category. However, conventional agriculture in the 2 ha size class or below usually includes a lot of managers which farm as a side activity and are not likely to focus on organic production. Nevertheless, looking at the other size classes, organic farms tend overall to be bigger than conventional farms.

**Graph 16. Share of holdings in different size classes (organic and all), 2010**



Source: Eurostat FSS data (online data code: [ef\\_mporganic](#)).

It is often argued that organic farming employs more labour than conventional farming because it is more labour intensive (for example additional labour being made necessary to compensate for the absence of use of chemical inputs and nitrogen fertilizers) than conventional farming. FSS data shows that this is not the case at the aggregate level for most Member States, but these results have to be put into context, as labour intensity also depends on product orientation. Detailed comparisons of organic and conventional farms operating in the same sector and with similar size present in the European Farm Accountancy Data Network (FADN) seem to confirm that organic farming is more labour intensive for certain types of production<sup>8</sup>. This would be due to the fact that organic farms have limitations in using inputs and agricultural practices which make it more labour intensive. An example concerning labour force intensiveness in milk and field crop farms is available in Table 2.

**Table 2. Labour force intensity, 2008**

Countries	Avg. ha/AWU in field crops farms		Avg. dairy cows/AWU on milk farms	
	Conventional farms	Organic farms	Conventional farms	Organic farms
Germany	62.1	53.7	26.9	18.7
Spain	50.2	70.0	-	-
France	62.7	37.2	26.9	25.0
Austria	42.0	35.5	10.2	9.1
Poland	13.7	8.3	-	-

Source: Farm Economic Briefs n°4 (forthcoming) based on EU-FADN.

<sup>8</sup> The FADN is a European system of sample surveys that collect accountancy data relating to farms. The possibilities of using FADN data for analyses of organic farming, in particular for what concerns structural aspects, are very limited since applying organic farming practices is not a sampling criteria in FADN and small size farms are not covered by the surveys.

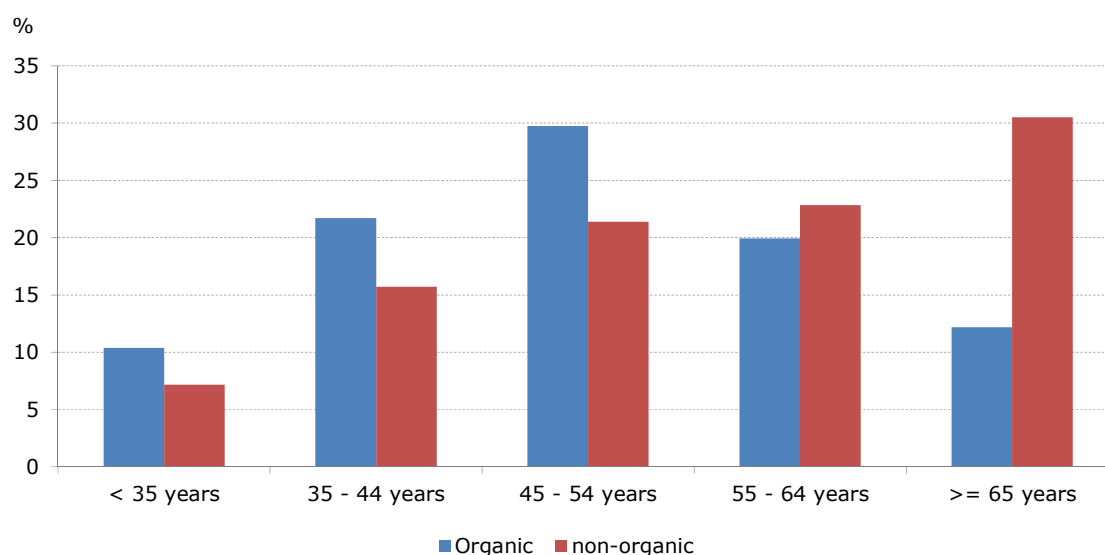
If organic farms are on average larger than non-organic farms, their holders are also younger. Age distributions of the managers of farms with organic area and farms without organic area are strikingly different: farmers younger than 55 represent 61.3% of the organic sector whereas they represent only 44.2% of the conventional sector (see Table 3 and Graph 17).

**Table 3. Age distribution of farm managers in 2010**

	Age distribution (%) - Holdings with area under organic farming					Holding is legal person or group holding	Total
	< 35 years	35 - 44 years	45 - 54 years	55 - 64 years	>= 65 years		
EU-27	10.4	21.7	29.7	19.9	12.2	6.1	100
EU-15	9.8	21.7	29.7	20.0	12.6	6.2	100
EU-N12*	13.6	22.1	30.0	19.4	9.6	5.4	100

Source: Eurostat data FSS. \*No data for Malta.

**Graph 17. Comparison of age distribution of farm managers in the organic and non-organic sector in the EU-27 in 2010**



Source: Eurostat data FSS.

Generally, the participation of women in the EU labour market still lags behind that of men. In rural areas of the EU, a similar gap between man and women exists in their degree of participation in economic activities. In 2011, agriculture provided 4% of all jobs held by women in the EU-27. The overwhelming majority of women work in the services sector. For men, agriculture is slightly more important in terms of providing employment<sup>9</sup>.

In 2010, the share of male and female farm managers in the EU-27 shows no difference between the organic and non-organic farms. The majority of farm managers are men, be they active in organic (74%) or non-organic farms (72%). The share of female managers, both in organic and non-organic farms, is higher in the EU-N12 (above 30%).

<sup>9</sup> More information in 'Women in EU agriculture and rural areas: Hard work, low profile', *EU Agricultural Economic Brief* No 7 - June 2012, [http://ec.europa.eu/agriculture/rural-area-economics/briefs/pdf/07\\_en.pdf](http://ec.europa.eu/agriculture/rural-area-economics/briefs/pdf/07_en.pdf)



At EU level however, the highest share of female organic farm managers can be found in Latvia (41%), Austria (35%) and Italy (30%), whereas the lowest is in the Netherlands (7%), the United Kingdom (10%) and Germany (11%).

**Table 4. Share of farm managers per gender in organic and non-organic farms in 2010**

	Organic		Conventional	
	male	female	male	female
EU-15	75.7%	24.3%	75.7%	24.3%
EU-N12	67.0%	33.0%	68.9%	31.1%
EU-27	74.4%	25.6%	71.8%	28.2%

Source: Eurostat data FSS.

Having looked at the farm managers' participation of vocational training in the last 12 months, the share between male and female participants out of the total for both organic and non-organic farms is quite similar. Both organic and non-organic farm managers who participated in vocational training over the past 12 months were in great majority males. However, the relative share of women is higher in the case of organic farming, which shows that women working in organic farming tended to acquire more vocational training in 2010 than women working in conventional farms (Table 5).

**Table 5. Share of farm managers' participation in vocational trainings in the last 12 months, 2010**

	Organic			Conventional		
	Total	female	male	Total	female	male
EU-27 (total)	32 080	7 070	25 010	659 320	92 560	566 760
share		22%	78%		14%	86%

Source: Eurostat data FSS.

## 2. ANALYSIS OF ORGANIC PRODUCTION – MAIN CROP AND ANIMAL SECTORS

In the previous chapter we have looked at the area under organic farming, the number of holdings and some characteristics of organic farmers. Another important aspect is the type of production (arable crop and orchard as well as animal) on the organic farms. The choice of the type of production differs among regions and Member States and depends on various factors (among which the technical aspects related to organic production and the structure of consumer demand).

### 2.1. The arable crop and orchard production

#### 2.1.1. Analysis by main categories of land use

In the European Union, organic arable crop and orchard production is important. Though data is scarce on all categories of this type of production, Table 6 gives an idea of main types of land use for organic arable crop and orchard production. A good share of the organic land is used for permanent grasslands, but also for permanent crops (such as fruit) as well as cereals. When looking at the area under organic farming in comparison to the total area for the different land uses in Europe, available data shows that organic dried pulses and organic permanent crops represent more than 15% and more than 10% respectively of total area cultivated in the EU-27 for these specific products.

**Table 6. Main categories of organic land in the EU-27, 2011<sup>10</sup>**

	Organic land (ha)	% of total organic	% of total UAA (conventional and organic) per category
Total crops	9 613 500.0	100.0%	5.4%
Cereals	1 405 152.1	14.6%	2.5%
Dried pulses	211 568.0	2.2%	16.0%
Industrial crops	183 804.0	1.9%	1.4%
Permanent grassland	4 317 285.0	44.9%	7.5%
Permanent crops	1 259 289.0	13.1%	11.0%

Source: Eurostat data land use statistics (online data code: [apro\\_cpp\\_luse](#)) and Eurostat data on the basis of Council Regulation (EC) No 834/2007 on organic production (online data code: [food\\_in\\_porg1](#)). Missing organic data for CY, MT, IE, PT for different categories. Organic data for DE, AT, IE, LU and FI from FIBL, where available. 2010 data for total UAA for BE, EL, ES, IT for several categories.

Looking at the data at the level of the EU Member States, permanent pastures and green fodder represent about 60% of all organic land. Together with permanent crops this share raises to more than 73% of all organic and in the EU. In most EU Member States cereals follow the above mentioned categories in terms of surface, followed by oilseeds, vegetables and dried pulses.

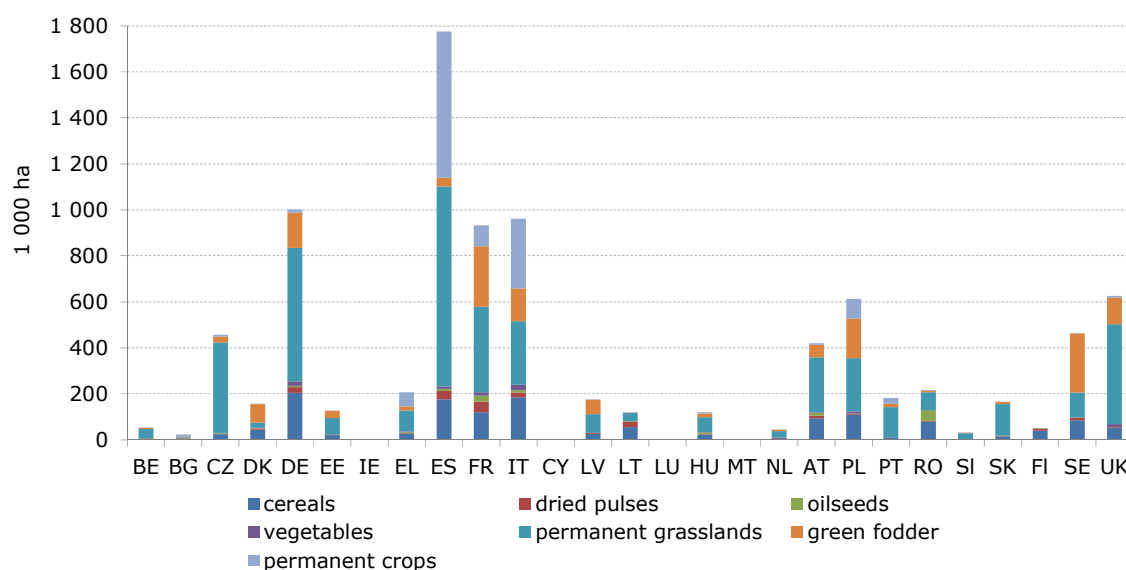
<sup>10</sup> In this document, permanent crops includes fruit trees, multiannual fruit bushes, olive trees and vines as well as 'other permanent crops', according to data availability.

**Table 7. Breakdown and share of certified organic area per type of crop type in the EU Member States, 2011**

	Total organic crops	Organic cereals		Organic dried pulses		Organic oilseeds		Organic vegetables		Organic permanent grassland		Organic green fodder		Organic permanent crops	
	ha	ha	% of total organic crops	ha	% of total organic crops	ha	% of total organic crops	ha	% of total organic crops	ha	% of total organic crops	ha	% of total organic crops	ha	% of total organic crops
BE	55 304	4 815	8.7	1 284	2.3	93	0.2	744	1.3	39 594	71.6	6 233	11.3	476	0.9
BG	25 022	6 521	26.1	106	0.4	2 587	10.3	670	2.7	4 491	17.9	273	1.1	8 969	35.8
CZ	460 498	24 382	5.3	1 845	0.4	2 319	0.5	744	0.2	394 441	85.7	25 488	5.5	6 943	1.5
DK	162 173	44 650	27.5	5 579	3.4	585	0.4	2 066	1.3	22 427	13.8	80 124	49.4	462	0.3
DE	1 015 626	204 000	20.1	25 500	2.5	5 800	0.6	18 800	1.9	580 416	57.1	154 000	15.2	12 700	1.3
EE	133 779	20 493	15.3	739	0.6	2 091	1.6	113	0.1	71 643	53.6	31 781	23.8	476	0.4
IE	47 864	-	-	-	-	-	-	274	0.6	-	-	-	-	-	-
EL	213 276	26 758	12.5	3 725	1.7	2 804	1.3	2 978	1.4	91 971	43.1	16 198	7.6	62 705	29.4
ES	1 803 661	175 880	9.8	36 090	2.0	9 198	0.5	11 483	0.6	869 427	48.2	37 985	2.1	636 019	35.3
FR	977 234	119 748	12.3	45 625	4.7	26 706	2.7	14 529	1.5	372 160	38.1	262 667	26.9	90 668	9.3
IT	1 096 889	184 111	16.8	21 445	2.0	11 198	1.0	23 405	2.1	275 591	25.1	143 068	13.0	302 468	27.6
CY	3 184	476	14.9	-	-	-	-	37	1.2	-	-	-	-	-	-
LV	184 096	26 257	14.3	3 301	1.8	1 316	0.7	366	0.2	81 132	44.1	62 211	33.8	583	0.3
LT	152 305	54 320	35.7	24 387	16.0	2 321	1.5	98	0.1	35 527	23.3	1 541	1.0	1 488	1.0
LU	3 614	633	17.5	74	2.0	4	0.1	33	0.9	-	-	-	-	-	-
HU	124 402	23 112	18.6	1 813	1.5	7 438	6.0	1 770	1.4	64 312	51.7	15 652	12.6	5 891	4.7
MT	23	0	0.0	0	0.0	0	0.0	11	47.8	-	-	0	0.0	13	56.5
NL	47 205	4 367	9.3	78	0.2	9	0.0	4 951	10.5	27 949	59.2	7 217	15.3	430	0.9
AT	542 553	93 114	17.2	12 474	2.3	11 646	2.1	2 248	0.4	238 992	44.0	55 182	10.2	6 045	1.1
PL	609 412	109 511	18.0	4 194	0.7	1 315	0.2	8 231	1.4	231 323	38.0	172 485	28.3	85 594	14.0
PT	219 683	9 377	4.3	-	-	-	-	764	0.3	131 526	59.9	15 369	7.0	25 045	11.4
RO	229 946	79 167	34.4	3 147	1.4	46 046	20.0	914	0.4	78 198	34.0	4 788	2.1	4 110	1.8
SI	32 149	1 198	3.7	0	0.0	92	0.3	151	0.5	27 531	85.6	1 829	5.7	1 285	4.0
SK	166 700	15 406	9.2	247	0.1	2 533	1.5	732	0.4	136 496	81.9	8 824	5.3	1 020	0.6
FI	188 189	39 143	20.8	8 145	4.3	2 921	1.6	230	0.1	-	-	-	-	-	-
SE	480 185	84 851	17.7	10 173	2.1	2 747	0.6	995	0.2	107 193	22.3	256 932	53.5	178	0.0
UK	638 528	52 862	8.3	1 597	0.3	279	0.0	13 618	2.1	434 945	68.1	116 381	18.2	5 721	0.9

Source: Eurostat data on the basis of Council Regulation (EC) No 834/2007 on organic production (online data code: [food\\_in\\_porg1](#)). Data for DE, AT, LU and FI from FIBL. Missing data for IE, CY, LU (certain categories) and MT. Permanent crops include fruit (including grapes and citrus), nuts, olives and other. No data for other crops.

Graph 18 shows differences of the land use in the organic sector between the EU Member States.

**Graph 18. Land use categories in organic farming in the EU Member States, 2011**

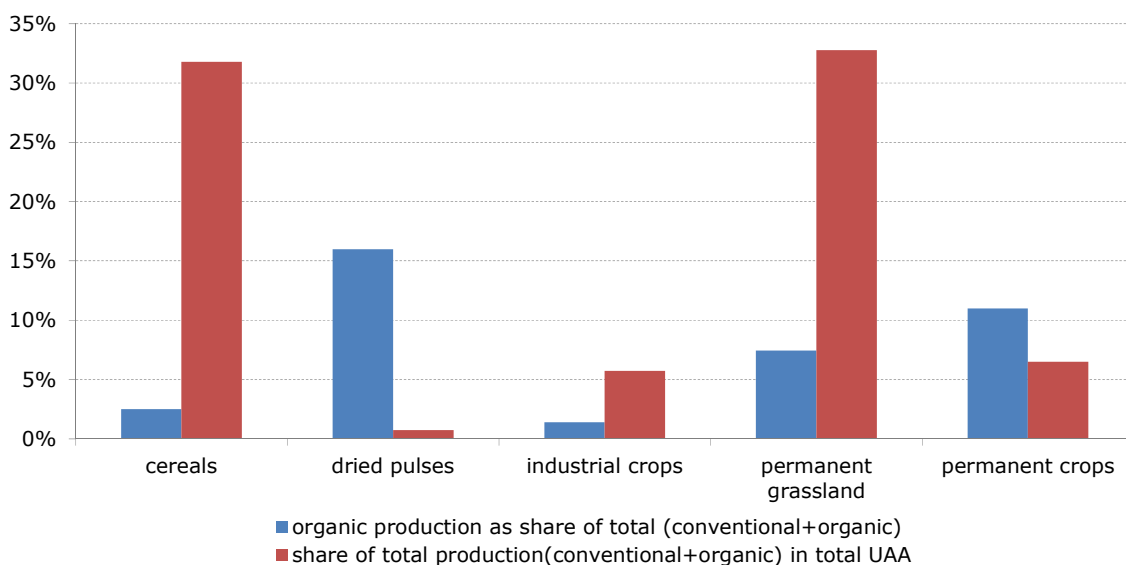
Source: Eurostat data on the basis of Council Regulation (EC) No 834/2007 on organic production (online data code: [food\\_in\\_porg1](#)). Data for DE, AT, LU and FI from FIBL. Missing data for IE (except vegetables, which sources from FIBL), CY, LU (certain categories) and MT. No data for other crops, not included.

The comparison for the main use categories of the whole EU agricultural sector with the organic sector shows interesting features. Quite understandably the share of permanent crops are higher in the organic sector (10.9%) than in the whole EU agriculture (6.4%) as the demand on the organic market is among the highest for fruit and vegetable products. What is significant is the share of permanent grassland which represents only 32.7% of the EU-27 utilised agricultural area (UAA) whereas it represents almost 45% of the whole organic area. The organic sector amounts to 5.4% of total EU UAA in 2011.

Conversely, cereals cover 31.8% of the total UAA of the EU but only 2.5% of the organic UAA. One element of explanation lies in the fact that organic production systems are more extensive than in conventional agriculture (higher reliance on grazing on permanent pastures). Permanent pastures are often eligible for agri-environmental organic payments and easier and less risky to convert to the organic sector than the other types of crops (e.g. arable crops). Depending on national features of agri-environmental payments and land use characteristics at regional level, this could lead to a bias towards the development of organic permanent pastures.

The issue of the high share of permanent pastures in the organic sector has been pinpointed in particular in the case of the EU-12 (e.g. Slabe et al., 2006) as the tendency is even more pronounced than in the EU-15. Yet, the situation in this respect is evolving. Whereas in early stages primarily pasture areas were converted to organic agriculture, lately other land use types have gained importance.

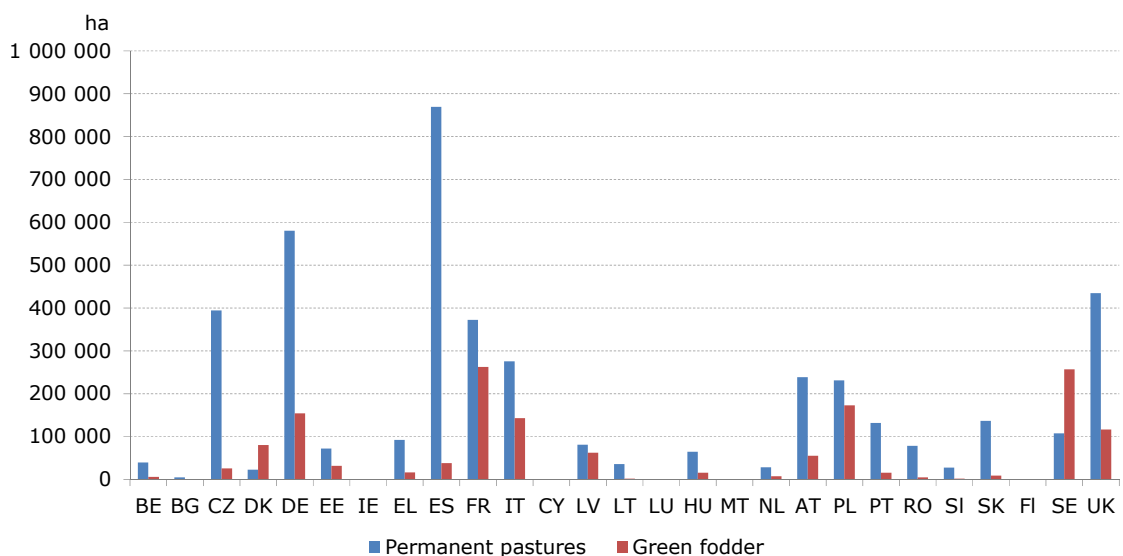
Graph 19 below provides the share of the organic area in the total EU area for major crop types. Unsurprisingly, this share is highest for dried pulses which play a major role for animal feed and for permanent crops, but remains low compared to the overall area. The organic in total area share is the lowest for industrial crops.

**Graph 19. Share of the organic area in total EU area by crop sectors, 2011**


Source: Eurostat land use statistics (online data code: [apro\\_cpp\\_luse](#)) and data on the basis of Council Regulation (EC) No 834/2007 on organic production (online data code: [food\\_in\\_porg1](#)). Missing organic data for CY, LU (certain categories) and MT. Organic data for DE, AT, LU and FI from FIBL. 2010 data for total UAA for BE, EL, ES, IT for several categories.

### 2.1.2. Permanent pastures and green fodder

At Member State level, the area under permanent pastures is the highest in absolute terms in Spain, Germany, the United Kingdom, the Czech Republic and France where it is around 0.4 million ha or more. In four Member States the organic sector amounts to more than 20% of the total (organic and non-organic) area of permanent pastures: Greece (55.3%), the Czech Republic (41.8%), Slovakia (26.3%) and Sweden (24.9%). For green fodder, France and Sweden register more than 200 000 ha while Poland, Germany, Italy and the United Kingdom register half or more than half of the above mentioned surface.

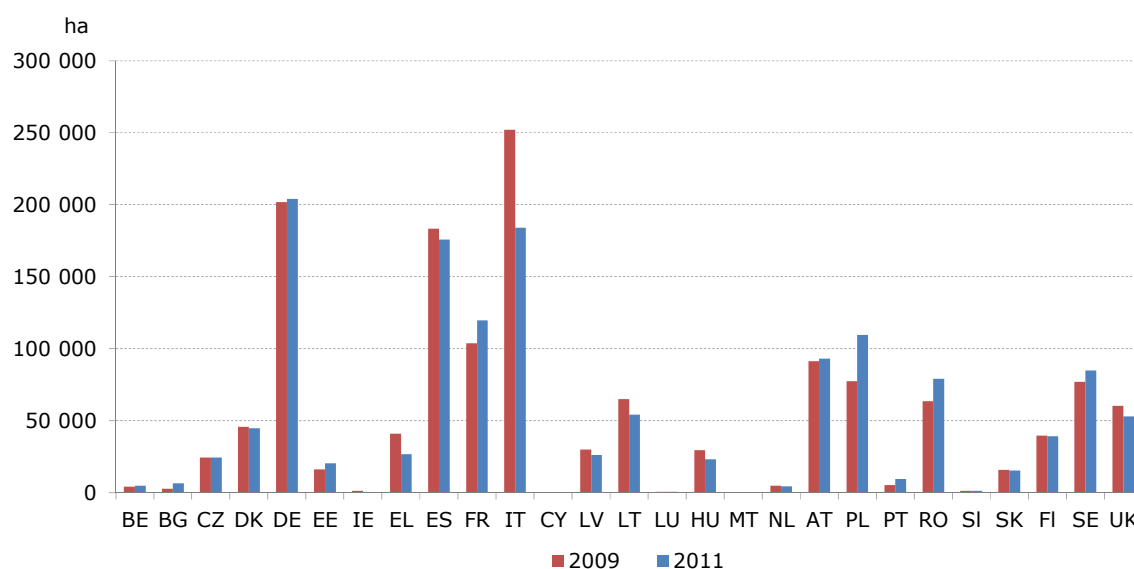
**Graph 20. Area under permanent pastures and green fodder in 2011**


Source: Eurostat data on the basis of Council Regulation (EC) No 834/2007 on organic production (online data code: [food\\_in\\_porg1](#)). No data for IE, CY, LU and FI. Data for DE and AT from the Organic Data Network.

### 2.1.3. Major arable crops: cereals, oilseeds and protein crops

Among the arable crops, cereals represent the most important category with 1.4 million ha in 2011, i.e. 14.6% of all EU organic land. This represents 2.5% of the total EU cereal area.

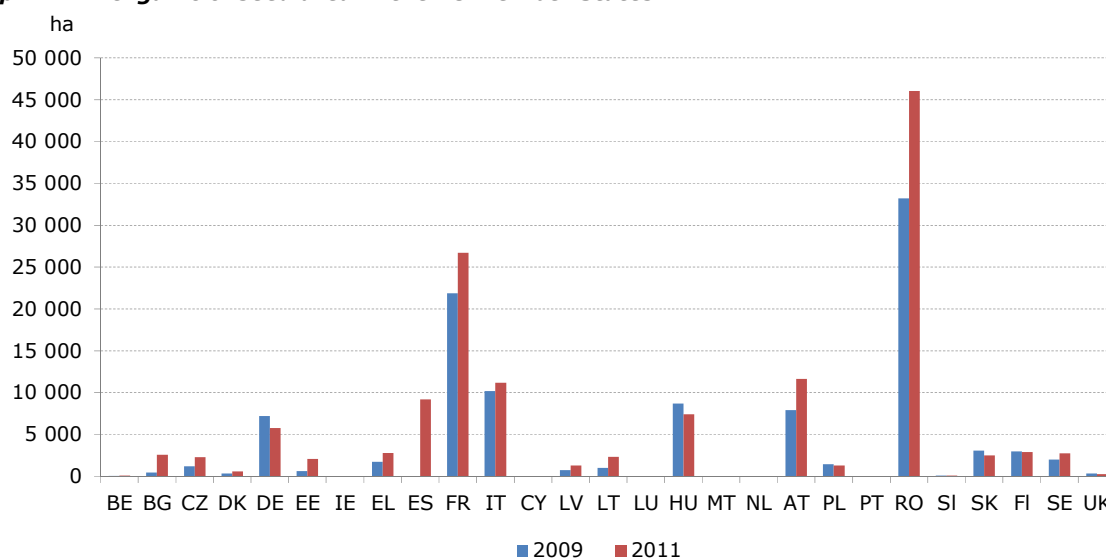
**Graph 21. Organic cereal area in the EU Member States**



Source: Eurostat data on the basis of Council Regulation (EC) No 834/2007 on organic production (online data code: [food\\_in\\_porg1](#)). No data for IE for 2011. Data for DE, AT, CY, LU and FI from FIBL.

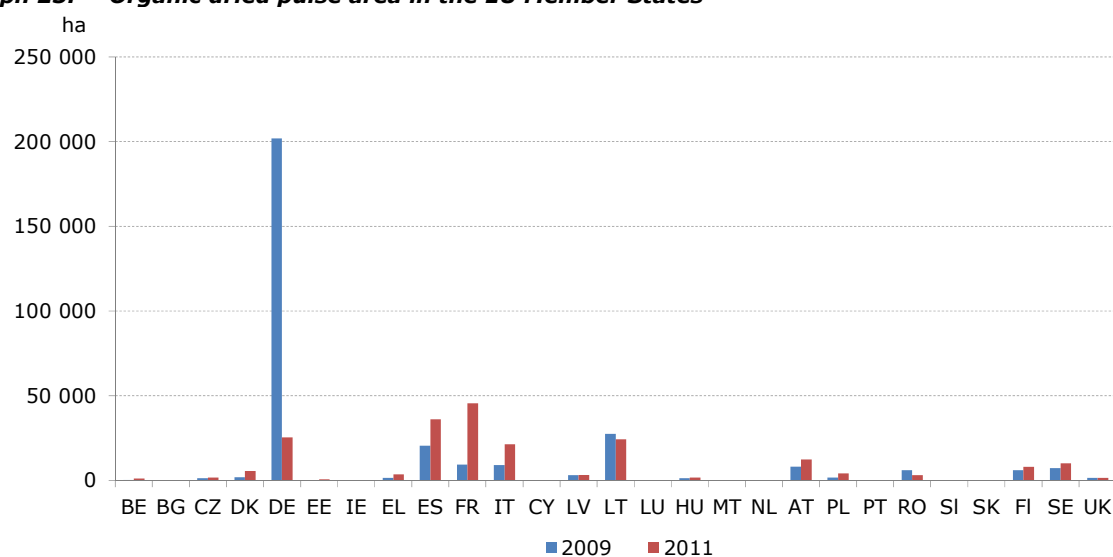
The largest cereal areas are located in Germany (around 0.20 million ha) and in Italy and Spain (almost 0.18 million ha each). In 2011, France, the largest EU producer of cereals, grew 119 000 ha of organic cereals. Poland comes fifth with 109 511 ha. Among the constraints that impede the development of arable crops in the organic sector, pest control and management has already been mentioned. Other factors play a role, in particular weed management which, in the case of wheat, is often cited as the main technical difficulty faced in the organic sector as the use of chemical herbicides is prohibited (David et al., 2009). In addition, a major impediment is probably the absence of resources for development of new cereal varieties, which would not be controlled through the use of regular pesticides and fertilisers.

The organic oilseed area is estimated at around 142 048 ha in 2011, namely 1.4% of all EU organic crop area.

**Graph 22. Organic oilseed area in the EU Member States**


Source: Eurostat data on the basis of Council Regulation (EC) No 834/2007 on organic production (online data code: [food\\_in\\_porg1](#)). No data for IE, CY and PT. Data for DE, AT, LU and FI from FIBL.

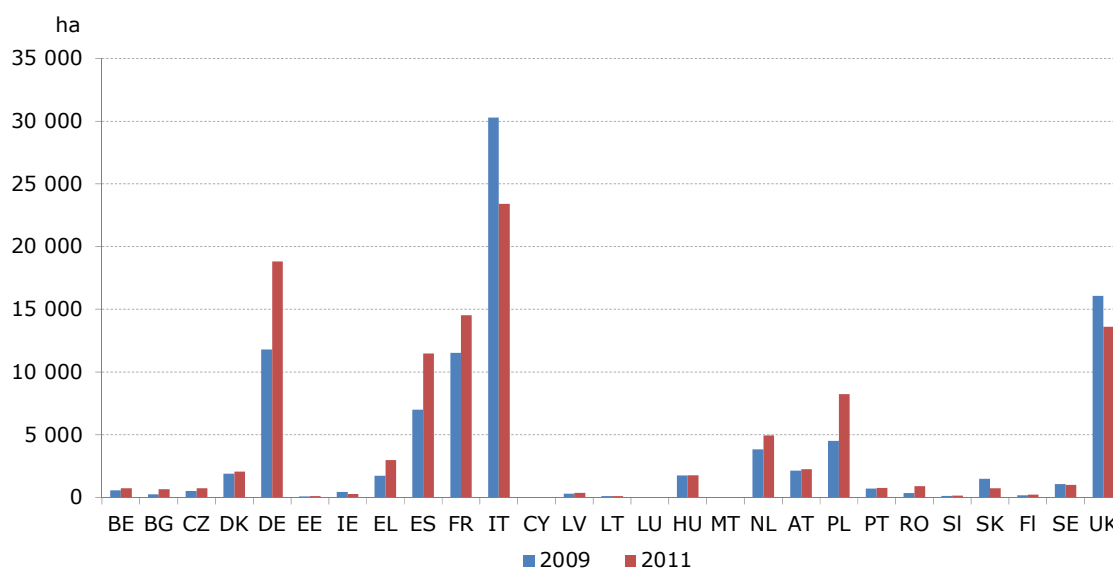
Another important category of arable crops is dried pulses, which play a specific role in the organic sector. Firstly, because dried pulses are leguminous plants which fix nitrogen they have a high rotational value in the organic production systems, contributing to the maintaining of soil fertility. Crop rotation is also a legal obligation under Council Regulation (EC) No 834/2007. Secondly, dried pulses play an important role in organic animal feed as they can substitute other protein feed ingredients (e.g. organic soybeans) which may be difficult to procure. In addition, the use of on-farm cultivated protein crops for organic animal feed in mixed crop-livestock production systems ensures the traceability of protein feed ingredients. It is estimated that 211 568 ha of organic dried pulses were cultivated in 2011 in the EU-27, of which 81% in the EU-15. Germany is the largest organic dried pulse producer with 25 500 ha in 2011. Organic dried pulses represent 15.9% of total EU dried pulse area. Their share amounts to around 4% of total organic crop area in Finland and France and to 16% in Lithuania.

**Graph 23. Organic dried pulse area in the EU Member States**


Source: Eurostat data on the basis of Council Regulation (EC) No 834/2007 on organic production (online data code: [food\\_in\\_porg1](#)). No data for IE, CY, PT and SI. Data for DE, AT, LU and FI from FIBL.

### 2.1.4. Vegetables

**Graph 24. Organic vegetable area in the EU Member States**



Source: Eurostat data on the basis of Council Regulation (EC) No 834/2007 on organic production (online data code: [food\\_in\\_porq1](#)). Data for DE, AT, CY, LU, IE and FI from FIBL.

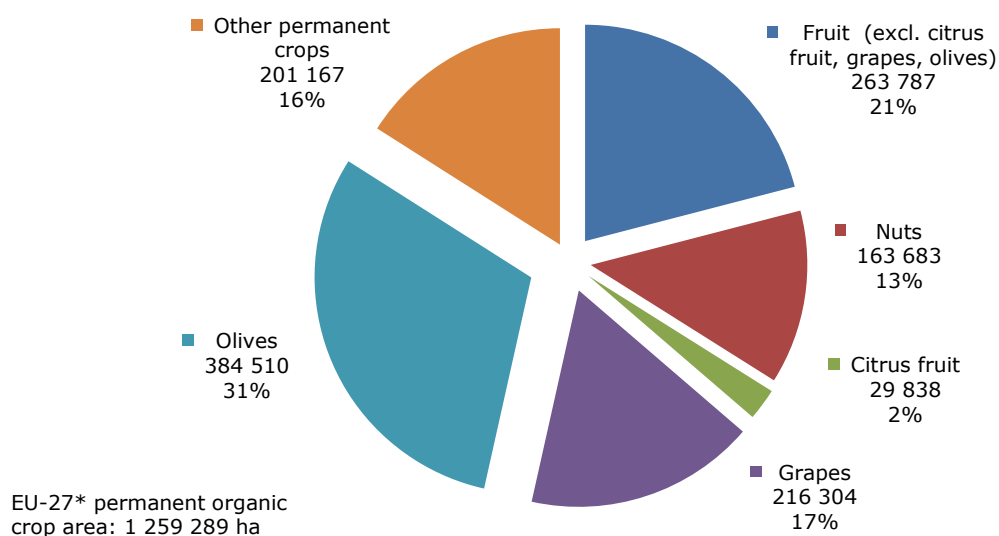
The vegetable sector represents a minor part of the organic area: 110 955 ha in 2011 out of 9.6 million ha (1.2%). Most of the area is concentrated in the EU-15 (97 118 ha, 87.5% of all EU-27 organic vegetable area). Italy is by far the Member State with the largest area of organic vegetables (23 405 ha), Germany follows with more than 18 000 ha, France being third with 14 529 ha. Spain stands at 11 483 ha whereas the United Kingdom accounts for 13 618 ha. The relative importance of the organic sector in the overall vegetable sector is the largest in Malta (47.8%) and the Netherlands (10.5%) of all organic crop area. With 13 837 ha, the vegetable sector is under development in the EU-12. In absolute terms it is in Poland and Hungary where the area devoted to vegetables is the largest (8 231 ha in Poland and 1 770 ha in Hungary).

### 2.1.5. Permanent crops

A sub-section is dedicated to permanent crops because they are an important category, fruit being a noteworthy product on the organic market. At the EU level the organic area of permanent crops amounts to 1.2 million ha, i.e. 13.1% of all organic areas. This makes 10.9% of the EU-27 total area under permanent crops in 2011. For the EU-12, permanent crops represent 5.4% of their total organic area, while in the EU-15 this share represents 15.2% of total organic area.

The Member States with the largest organic areas in 2011 are EU Mediterranean Member States, with the notable exception of Poland (85 594 ha): Spain (636 019 ha), Italy (302 000 ha), France (90 668 ha), Greece (62 705 ha), and Portugal (25 045 ha). France, Italy and Spain are the three largest producers of permanent crops in the EU, however their involvement in the organic sector differs largely: in Italy 13% of all permanent crop areas are under the organic sector, whereas in Spain (the largest EU producer) this share amounts to 14%. In other Member States, the share of organic permanent crops in total permanent crop area varies between 1% in Malta and the Netherlands to 22% in Poland. The organic sector represented in 2011 5% of the total permanent crop areas in Greece and 4% in Portugal.

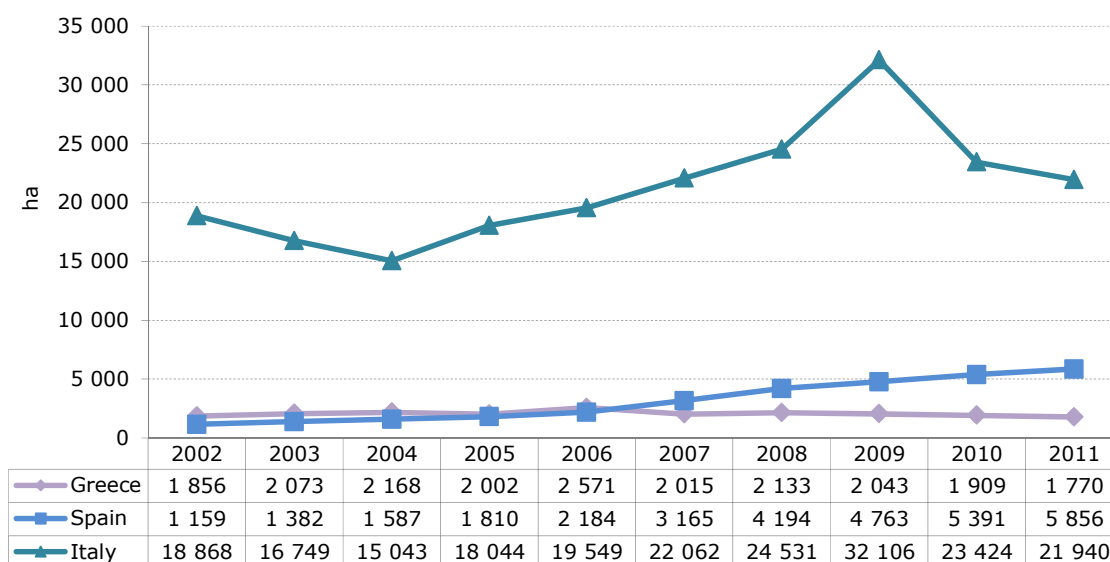


**Graph 25. Major organic permanent crops (ha and % of EU total) in 2011**


Source: Eurostat data on the basis of Council Regulation (EC) No 834/2007 on organic production (online data code: [food\\_in\\_porg1](#)). Missing or incomplete data for IE, CY, LU, PT and FI. Fruit and grapes data for DE and AT from FIBL.

A more detailed overview is given below on four major categories: citrus, grapes, olives and nuts, for which data are quite complete and time series are available.

#### 2.1.5.1. Citrus

**Graph 26. Citrus organic area in Greece, Italy and Spain**


Source: Eurostat data on the basis of Council Regulation (EC) No 834/2007 on organic production (online data code: [food\\_in\\_porg1](#)).

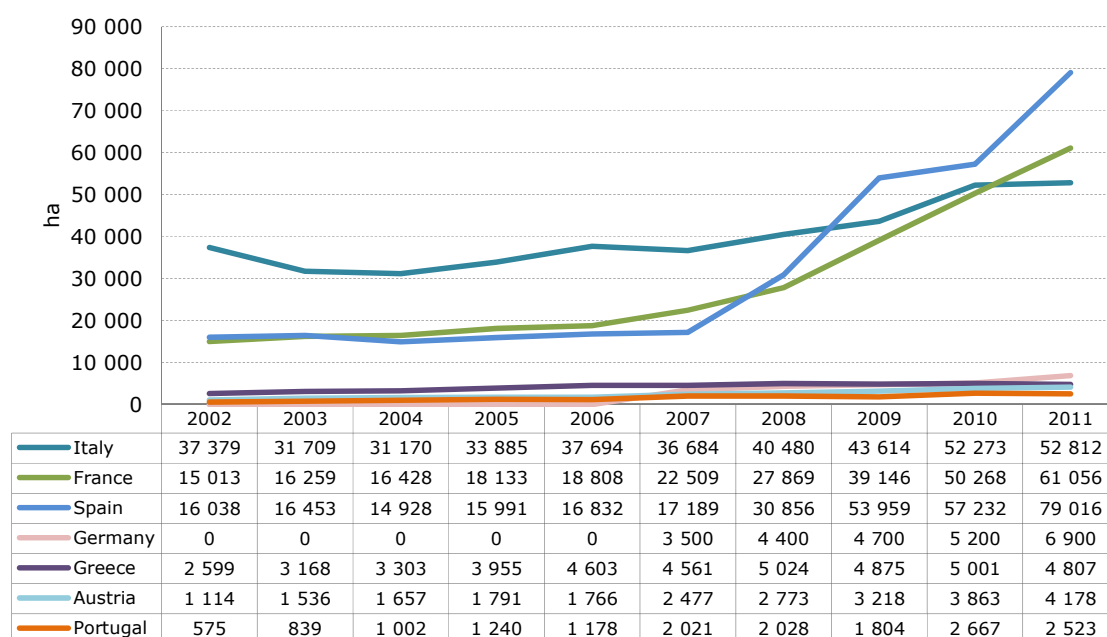
The organic citrus sector has seen a dynamic development in the last 15 years in the EU. The sector is concentrated around few Member States only: Italy, Greece, Spain and Cyprus. The biggest citrus areas are situated in Italy (more than 21 900 ha) and Spain, where the sector amounted to around 5 856 ha in 2011 and is under development. The share of organic citrus represented 5.3% of the total citrus area in 2011 for the above

mentioned countries. The organic citrus area represented in 2011 13.6% of citrus areas in Italy, but only 1.8% in Spain, though this latter country is EU's biggest citrus producer.

### 2.1.5.2. Grapes

EU organic vineyards are mostly located in the EU-15. Spain cultivated 79 016 ha of grapes in 2011, followed by France (61 056 ha), Italy (52 812 ha) and Greece (4 807 ha). Available figures show for Germany a total organic grape area of 6 900 ha and for Austria of 4 178 ha, surfaces which are on an upward trend. In the EU-N12, Bulgaria seems to take the lead with 1 455 ha of vineyards, followed by Hungary with about 1 200 ha and the Czech Republic with 978 ha. The importance of organic grapes in Spain amounted to 8.1% of the total grape area in 2011. For France this share rose to about 8% while in Greece the organic grape area represented 4.6% and in Portugal 1.4% of total grape area during the same year. The organic grape area for the mentioned countries seems to have followed a constant increasing trend, though at a slower pace for Greece and Portugal.

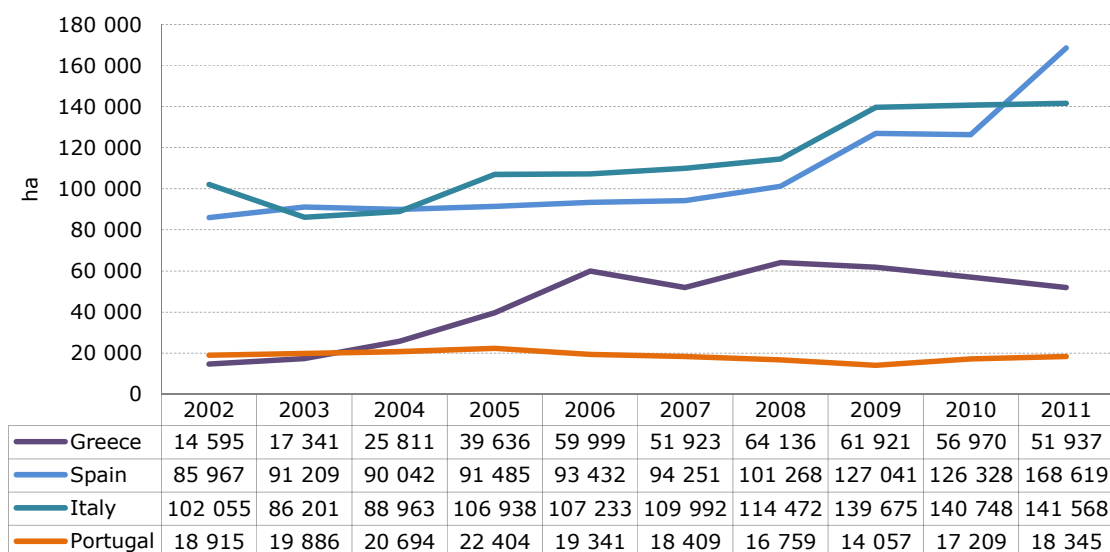
**Graph 27. Organic grapes area in selected EU Member States**



Source: Eurostat data on the basis of Council Regulation (EC) No 834/2007 on organic production (online data code: [food\\_in\\_porg1](#)). Data for DE and AT (2010 and 2011) from FIBL.

### 2.1.5.3. Olives

Olive groves represented 31% of all organic permanent crops in 2011. In 2007 there were 384 510 ha of organic olive groves, most in Italy, Spain, Greece and Portugal. The production of these countries together with France represented about 8% of all EU olive areas in 2011, about 6.7% in Spain and 5.3% in Portugal for the same year and around 12% for Italy (2009 figures) while it amounted to 7% for Greece (2008 figures). The largest part of organic olives is utilised for the production of oil.

**Graph 28. Organic olive area in Greece, Italy, Spain and Portugal**


Source: Eurostat data on the basis of Council Regulation (EC) No 834/2007 on organic production (online data code: [food in porq1](#)).

#### 2.1.5.4. Nuts

In 2011, there were 163 683 ha of organic nuts in the EU, of which only 27 081 ha in the EU-12 (with most important areas in in Poland, 22 028 ha, and in Hungary, 1 440 ha). In the EU-15, organic nuts are primarily located in Spain (96 990 ha) and Italy (27 839 ha).

At the EU level the nuts and olive sectors are highest in the permanent crop organic areas in 2011 (13% for nuts and 31% for olives) since these two types of production are faced with a high demand on the market (especially organic olive oil) together with lower difficulties in carrying out production from an agronomic point of view. This cannot be said for instance of grape production as vines are very sensitive to diseases<sup>11</sup>.

<sup>11</sup> The cultivation of organic vines for wine or table grape is more delicate in particular in humid climates.

## 2.2. The animal sector

Statistics on the number of organic animals are incomplete and do not allow, for the moment, for a complete depiction of the sector.

However, taking into account available information, the organic animal sector is developing at a fast pace in the EU. As shown in Table 8, for both the EU-15 and the EU-N12 sheep and cattle production are the most important out of the total organic animal production.

**Table 8. Evolution of animals under organic production in the EU-27 and EU country groups**

Heads (organic) for 2011	Cattle	of which dairy cows	Pigs	Sheep	Goats	Total heads (excluding poultry)	Poultry	of which laying hens
EU-27	2 611 544	719 408	855 535	3 957 496	480 139	8 624 122	26 185 341	12 746 588
EU-15	2 239 457	656 617	808 935	3 603 320	445 469	7 753 798	25 663 196	12 445 237
EU-N12	372 087	62 791	46 600	354 176	34 670	870 324	522 145	301 351

Source: Eurostat data on the basis of Council Regulation (EC) No 834/2007 on organic production (online data code: [food\\_in\\_porg3](#)). Data for DE from BLE study Strukturdaten im ökologischen Landbau in Deutschland 2011. Data for AT for 2011 from Grüner Bericht 2012. Estimates for certain Member States for missing years. Missing data for certain production for CY, MT, PT, IE, BG, AT and DE.

When converting the number of animal heads into livestock units (LSU)<sup>12</sup>, which allows for a comparison between the different types of animals, the organic animal production still remains limited in comparison with the total animal production in the EU (about 1%). Table 9 shows that bovines and sheep and goats represent about 3% each of the EU-27 animal herd.

**Table 9. Percentage of organic out of total animal heard in the EU-27, LSU converted, 2010**

EU-27	% organic out of total
bovines	2.90%
sheep and goats	2.82%
pigs	0.33%
poultry	0.95%
animal production (total)	0.96%

Source: Eurostat FSS data.

The share of organic production within total production varies according to the different animal sectors. The pork sector has the lowest weight. This stems partly from the difficulties posed by the provision of organic animal feed (compound feed). Conversely the highest shares are found in the sheep and goat sectors.

Apart from sheep and goats, the ruminant sector would tend to develop faster than other livestock sectors.

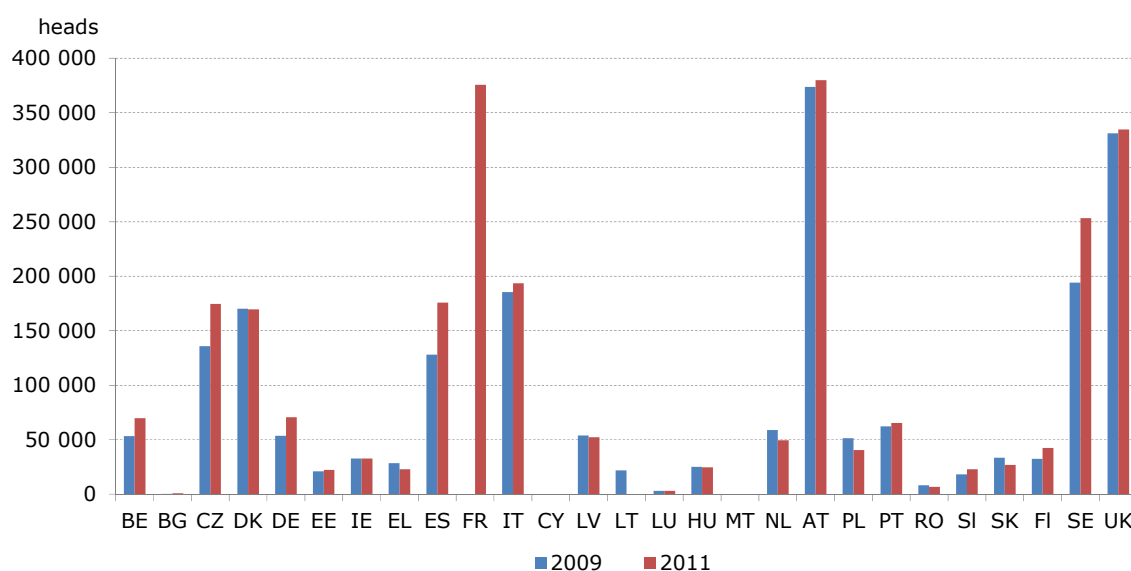
### 2.2.1. Cattle

In 2011 there were 2.6 million heads of certified organic cattle in the EU-27. The EU-27 cattle head production registered a 12% yearly growth from 2005 to 2011. The largest producers of organic cattle are, according to available data, Austria, France, the United

<sup>12</sup> The LSU (livestock unit) is a reference unit which facilitates the aggregation of livestock from various species and age as per convention, via the use of specific coefficients established initially on the basis of the nutritional or feed requirement of each type of animal.

Kingdom, Sweden, Italy and Spain. The importance of the organic sector in relation with the whole bovine sector is the highest in Austria (19%), Sweden (17%), Latvia and the Czech Republic (about 13% each) and Denmark (10%). In France, the largest EU bovine producer with a total herd of 19 million heads, the organic sector represents about 2% of the sector. The share of this organic sector represents around 3% in the EU-15 and in the EU-N12 in 2011.

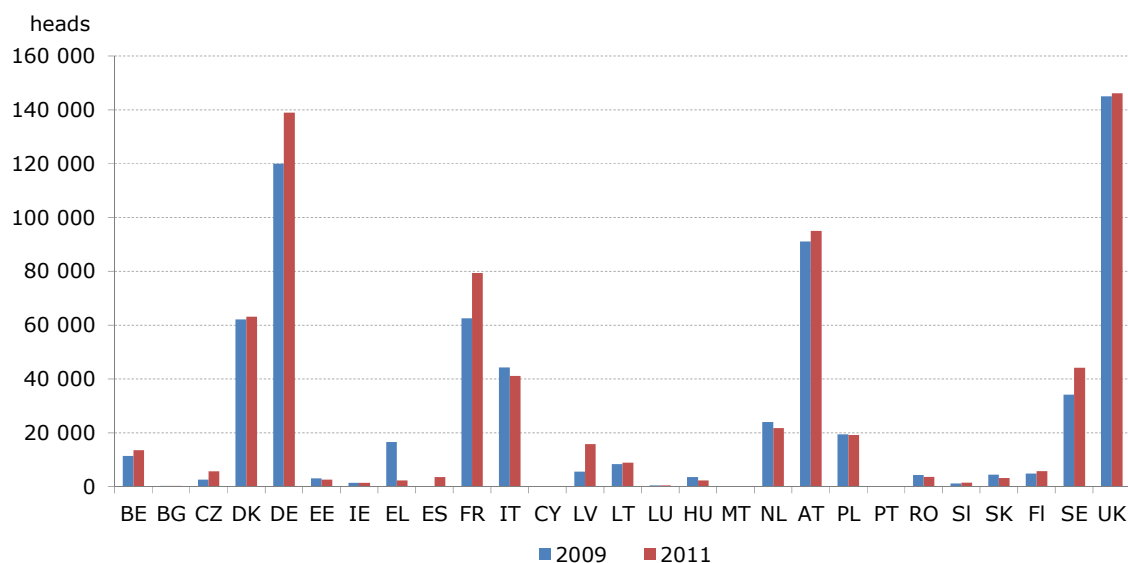
**Graph 29. Number of certified cattle in 2009 and 2011 in the EU Member States**



Source: Eurostat data on the basis of Council Regulation (EC) No 834/2007 on organic production (online data code: [food\\_in\\_porg3](#)). Data for DE from BLE study Strukturdaten im ökologischen Landbau in Deutschland 2011. Data for AT for 2011 from Grüner Bericht 2012. Estimated data for IE and LU (2011). Missing data for CY and MT.

### 2.2.2. Dairy cows

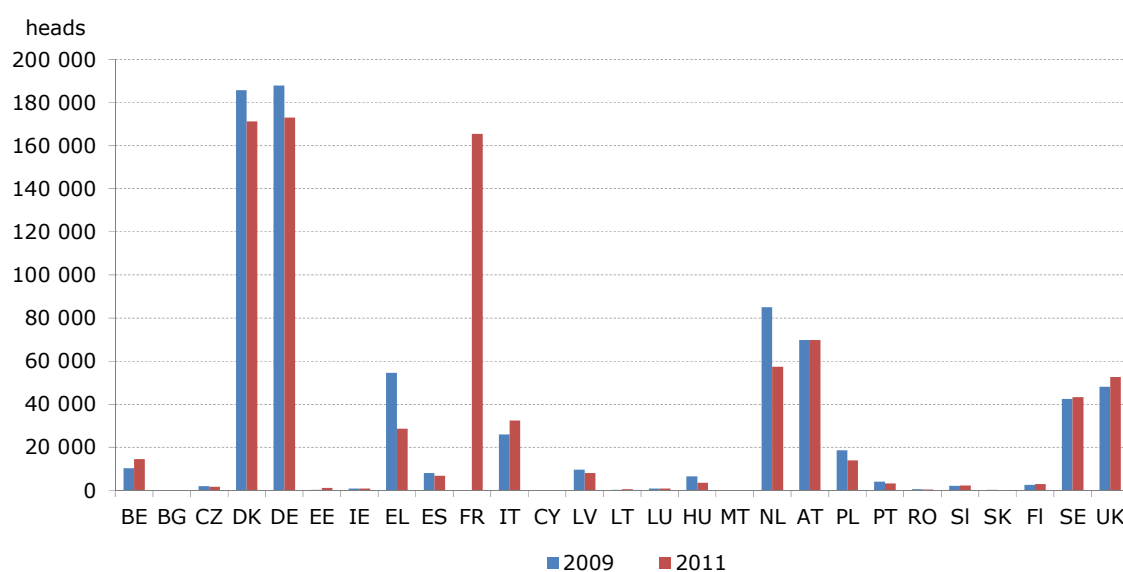
There were 0.7 million certified organic dairy cows in the EU in 2011, 3% of all EU dairy cows. In the EU-15, the organic sector represents 3.7% of all dairy cows while in the EU-N12, this figure falls to 1.1%. Among the EU-N12 Member States, in Latvia organic dairy cows represent 9.6% of total dairy cow herd, followed by Estonia with 2.7%, Slovakia with 2% and the Czech Republic with 1.5%. Member States where the organic sector holds the largest share are, according to available data, Austria (18%), Sweden (12.7%), Denmark (10.9%) and the United Kingdom (8.1%). For France, second largest EU dairy producer, number of organic dairy cows in the total dairy cow herd stands at 2.1%.

**Graph 30. Number of certified dairy cows in the EU in 2009 and 2011 in the EU Member States**


Source: Eurostat data on the basis of Council Regulation (EC) No 834/2007 on organic production (online data code: [food\\_in\\_porg3](#)). Data for DE from BLE study Strukturdaten im ökologischen Landbau in Deutschland 2011. Data for AT for 2011 from Grüner Bericht 2012. Missing data for CY, MT and PT. Estimated data for BG, IE, LT and SI (2011).

### 2.2.3. Pigs

The organic pig herd amounted to 0.9 million heads in 2011. The largest producers would be Germany (173 138 heads), Denmark (171 229 heads) and France (165 518 heads). In Greece, organic pig production started virtually from zero in the early 2000s and amounted in 2011 to 28 665 heads. The organic pig sector still holds of very minor share in the EU pig market. It is much more important in the EU-15 (0.6%) than in the EU-N12 where it represents only 0.1% of the sector.

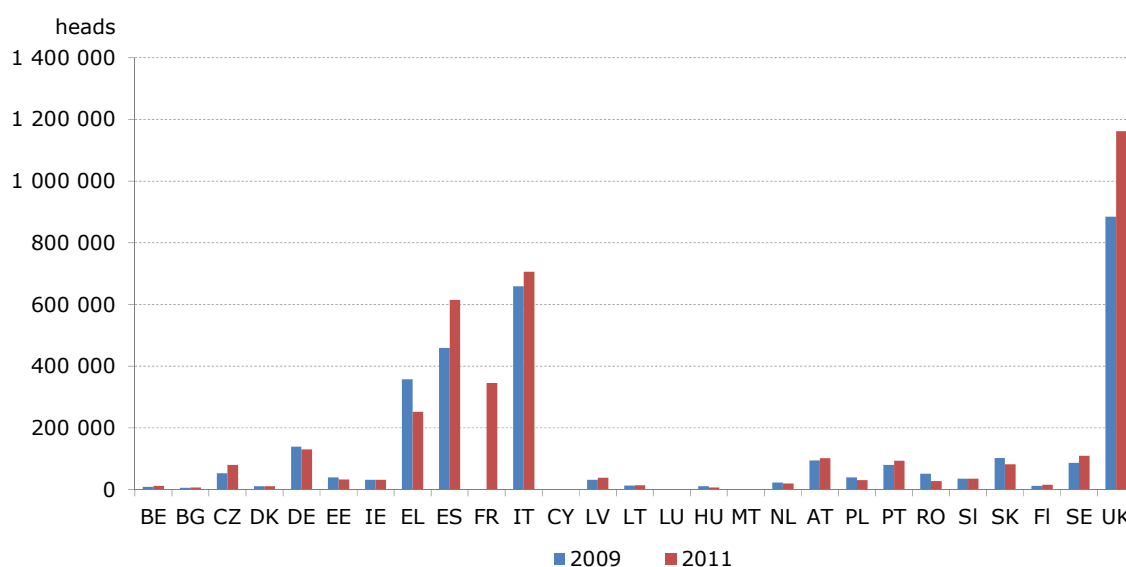
**Graph 31. Number of certified organic pigs in 2009 and 2011 in the EU Member States**


Source: Eurostat data on the basis of Council Regulation (EC) No 834/2007 on organic production (online data code: [food\\_in\\_porg3](#)). Data for DE from BLE study Strukturdaten im ökologischen Landbau in Deutschland 2011. Estimated data for AT, LU, IE and LT (2011). Missing data for FR (2009).

### 2.2.4. Sheep

The organic ovine sector is dominated by three Member States: the United Kingdom (1 161 717 heads), Italy (705 785 heads) and Spain (with 614 413 heads), representing together 62.7% of the entire EU organic herd (3.9 million heads). However, the significance of the organic sector in the overall ovine sector in the United Kingdom stood only at 5.2% whereas it represents 8.8% in Italy and 3.6% in Spain in 2011. With a distance, France comes at 0.3 million heads, followed by Greece with more than 0.2 million heads. In the case of Greece and Italy the sector is oriented towards the production of milk and processing into cheese (organic Feta in the case of Greece) whereas in the United Kingdom the sector is focused towards meat production. In several EU-N12 Member States the organic sector represents a sizeable part of the total ovine sector, even if absolute figures remain modest: it represents 56.8% in Latvia, 52.6% of total in Estonia, 40.4% in the Czech Republic, 25.6% in Slovenia and 20.8% in Slovakia. In the EU-15 the highest shares are more modest, with the exception of Austria (28%), for Sweden (17.5%), Finland (16.1%) and Denmark (11.4%). The EU-27 registered a 10% yearly increase in the organic sheep head numbers between 2009 and 2011.

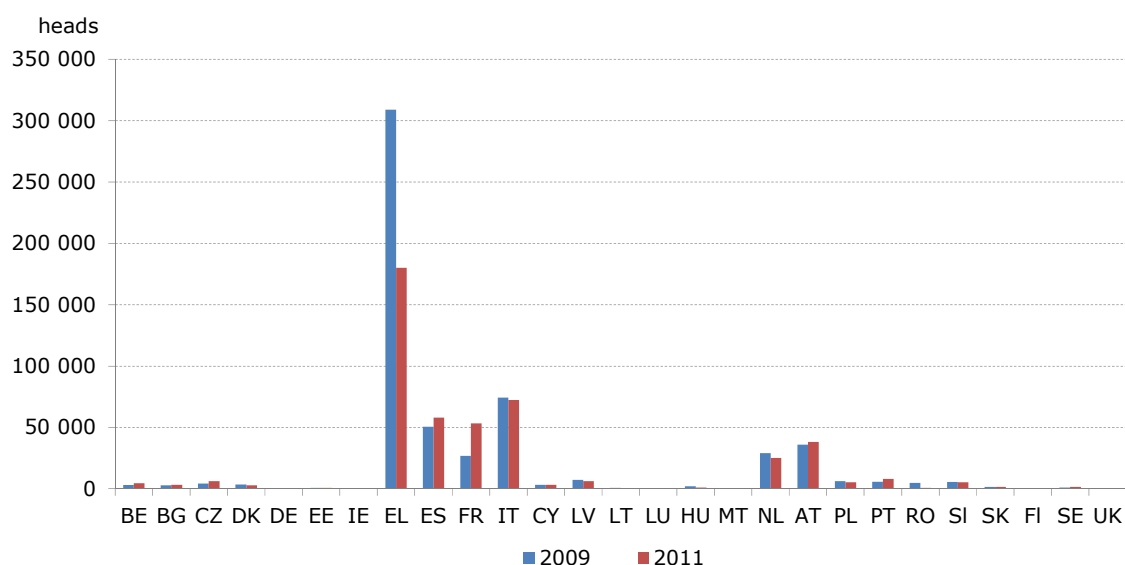
**Graph 32. Number of certified organic sheep in 2009 and 2011 in the EU Member States**



Source: Eurostat data on the basis of Council Regulation (EC) No 834/2007 on organic production (online data code: [food\\_in\\_porg3](#)). Data for DE from BLE study Strukturdaten im ökologischen Landbau in Deutschland 2011. Data for AT for 2011, from Grüner Bericht 2012. Estimated data for CY, IE, LT and LU (2011).

### 2.2.5. Goats

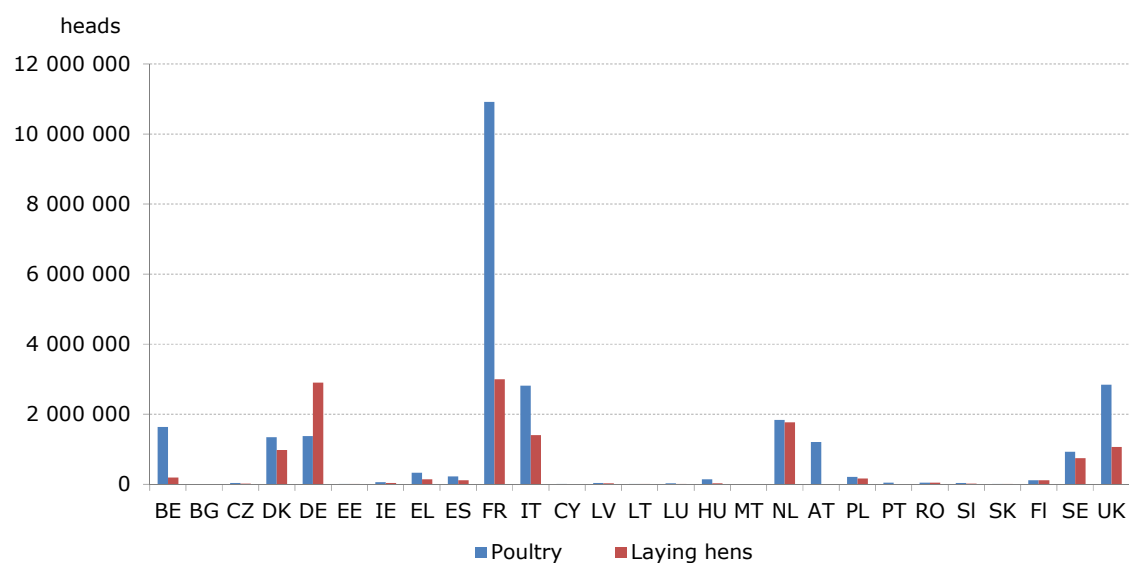
The organic goat sector would count almost 0.4 million heads. It appears rather concentrated geographically as it is represented essentially in Greece with 180 039 heads (4.1% of all goats in Greece). Italy follows with a herd less than half that size, representing 7.5% of the overall Italian sector. Again, in the case of Greece the sector is essentially focused on the production of milk for organic cheeses like Feta. In most Member States the sector is specialised on the production of organic cheese. The organic herd represents a sizeable part of the total herd in several Member States of the EU-N12 (49% in Latvia, 31.5% in Estonia, 29.1% in the Czech Republic and 17.5% in Slovenia) and of the EU-15 (52.9% in Austria, 8.7% in Ireland and 6.4% in the Netherlands).

**Graph 33. Number of certified organic goats in 2009 and 2011 in the EU Member States**


Source: Eurostat data on the basis of Council Regulation (EC) No 834/2007 on organic production (online data code: [food\\_in\\_porg3](#)). Data for AT for 2011 from Grüner Bericht 2012. Estimated data for IE, CY, LT and LU (2011). Missing data for DE.

### 2.2.6. Poultry

At the EU level, there were 26.1 million organic poultry heads in 2011, of which 49% were laying hens. The significance of the organic sector in the overall EU poultry sector is much higher for laying hens than for other poultry due to stronger demand in the egg sector. France is the leading Member State in the organic poultry sector with more than 10.9 million animals, of which about one third are laying hens.

**Graph 34. Number of certified organic poultry and laying hens in 2011**


Sources: Eurostat data on the basis of Council Regulation (EC) No 834/2007 on organic production (online data code: [food\\_in\\_porg3](#)). Data for DE from AMI Market study Strukturdaten im ökologischen Landbau in Deutschland 2011. Data for poultry for AT for 2011 from Grüner Bericht 2012. Estimated data for poultry for IE, CY, LT and LU (2011). Estimated data for laying hens for EE, IE, LV, LU, LT (2011). Missing data for poultry for BG. Missing data for laying hens for BG, CY, AT and PT.



### **Organic farming in Croatia**

Croatia, European Union's newest Member State, is also active in organic farming. Croatia registered 880 organic farms (about 0.3% of its total holdings), with 310 farms in a period of in-conversion in 2010. The country counted during the same year about 9 000 ha of certified organic land and more than 10 900 ha of hectares under conversion but the total organic area (converted and in-conversion) amounted to just 1.5% of total UAA in this country.

On 7 240 ha of organic land Croatia cultivated cereals, followed by 2 180 ha dedicated to oil crops. Croatia had in 2010 a 4 110 ha of organic pasture and meadows (excluding rough grazing), while organic fruit and berries are cultivated on a surface of 1 140 ha. In 2010, there were 230 holdings active in the production of organic olives on an area of 500 ha in this country. Organic vineyards occupied 240 ha managed by an overall of 100 holdings.

In organic animal production, Croatia owned 8 250 bovine heads, 340 pig heads, 11 440 sheep and goats and 2 660 heads of organic poultry in 2010.

### **3. CONCLUSIONS**

The organic farming sector in Europe has rapidly developed in the past years. This increase characterises not only the area under organic farming, but also the number of holdings and of overall organic operators registered 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, in particular in the context of additional financing provided by the EU for this type of production since their accession. Both animal as well as arable crop and orchard organic production are on an upward trend in the EU Member States. Organic farms are on the average larger than non-organic farms and their holders younger. Though the share of male/female managers in organic farms is overall not very different from conventional holdings, female farm managers of organic farms would overall participate more in vocational trainings in comparison to female farm managers of conventional holdings.

Nevertheless, due to insufficient data on certain aspects of organic production and of the organic food chain (in particular sales and trade) a complete picture of the sector is at this point in time unavailable. A number of initiatives are currently ongoing with a view to improve data collection on organic farming, but comprehensive official statistics remain necessary for any future review of this sector in the EU.

## 4. STATISTICAL SOURCES AND REFERENCES

### Statistical sources

Eurostat: data on the organic sector (area, crop and animal products, operators):  
[http://epp.eurostat.ec.europa.eu/portal/page/portal/statistics/search\\_database](http://epp.eurostat.ec.europa.eu/portal/page/portal/statistics/search_database)

Eurostat: Farm Structure Survey data (holdings, labour use, age and sex of farm managers, education and vocational training):  
[http://epp.eurostat.ec.europa.eu/portal/page/portal/statistics/search\\_database](http://epp.eurostat.ec.europa.eu/portal/page/portal/statistics/search_database)

Farm Accountancy Data Network (FADN):  
[http://ec.europa.eu/agriculture/rica/database/database\\_en.cfm](http://ec.europa.eu/agriculture/rica/database/database_en.cfm)

Organic Data Network:  
<http://www.organicdatanetwork.net/>

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NICHOLAS, P. et al. (2006), 'Effects of European organic farming policies at sectoral level and societal levels', *Aspects of Applied Biology* (79), pp.163-166

SLABE, A. et al. (2006), *Addressing the specific needs of organic farming in the new EU Member States by the Rural Development Programmes 2007-2013*

## APPENDIX

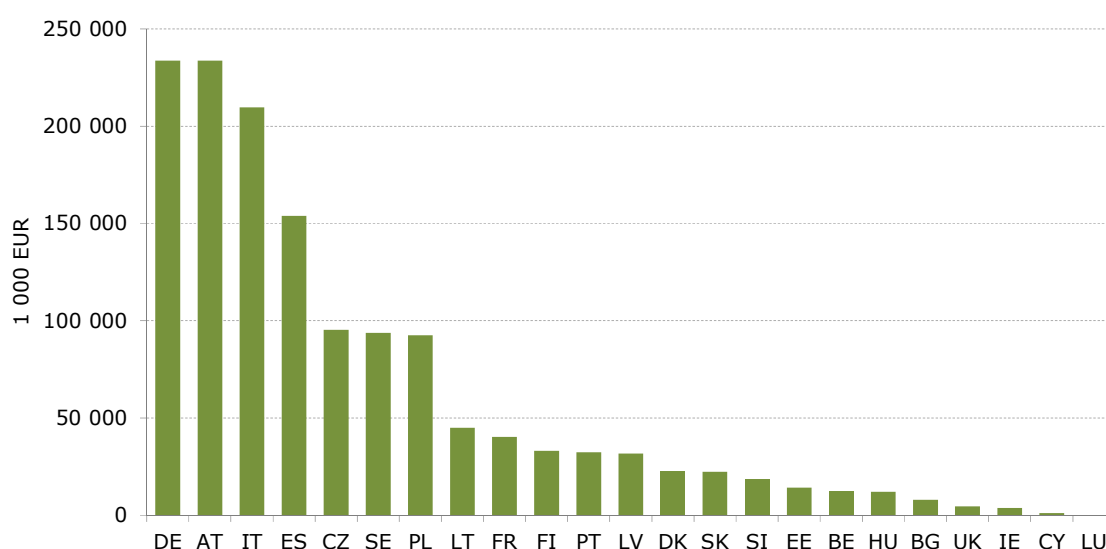
### RURAL DEVELOPMENT AND ORGANIC AGRICULTURE

Organic farming is supported through the Pillar II of the Common Agricultural Policy (CAP) which covers rural development. Under rural development Member States draw up and co-finance multiannual programmes under a common framework<sup>13</sup>. For the period 2007-2013, the total EU support for rural development in all Member States amounts to EUR 96.3 billion. This financial support is provided through the European Agricultural Fund for Rural Development (EAFRD) and corresponds to roughly 20% of the total CAP budget.

In the 2007-2013 rural development programming period there is no specific rural development measure for organic farming. However, other measures have effects on organic farming – maintaining or encouraging farmers to participate in such schemes. The most relevant measure is called 'Agri-environment payments'<sup>14</sup>, which contributes to the development of rural areas and provides environmental services. These payments encourage farmers to adopt production methods which are compatible with the sustainable use of environment, landscape and natural resources and with the preservation of genetic resources. The payments include 'horizontal' elements<sup>15</sup>, such as organic farming (organic crop production), organic grassland management and organic fruit production.

Until the end of 2011, an allocation of EUR 1 414.5 million was paid to beneficiaries based on monitoring information arrived from the Member States. The following graph shows the amounts paid per Member State.

**Graph 35. EAFRD payments to organic farming within measure 214 (from 2007-2011) per Member State**



<sup>13</sup> Council Regulation (EC) No 1698/2005

<sup>14</sup> Organic farms may also benefit from other rural development measures from different axes.

<sup>15</sup> The horizontal scheme targets the widespread adoption of environmentally friendly production methods and procedures in the areas of nutrient management and crop protection in accordance with the organic procedures regulated by the European Community and the nutrient management and crop protection requirements set in Council Regulation 2092/1991/EC.

*Source: Monitoring information, DG Agriculture and Rural Development, 2013. No data for EL, MT, NL and RO.*

For the 2014-2020 period, the Regulation on support for rural development through the EAFRD introduces a specific measure for organic farming. Therefore, payments for the conversion to or maintenance of organic farming should encourage farmers to participate in such schemes in order to answer society's increasing demand for the use of environmentally friendly farm practices and high animal welfare standards.

