An analysis of the **EU organic sector**

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And Rural Development

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List of acronyms and abbreviations

AEM	Agri-environment measures
AWU	Annual work unit
Bio	Billion
BMELV	Federal Ministry for Food, Agriculture and Consumer Protection of Germany
CAP	Common Agricultural Policy
DG AGRI	European Commission, Directorate General for Agriculture and Rural Development
EAFRD	European Agricultural Fund for Rural Development
EC	European Community
ESU	European Size Unit
EU	European Union
EU-10	Member States which joined the EU in May 2004

EU-12	EU-10, Romania and Bulgaria
EU-15	Member States which joined the EU before 2004
EU-25	EU-15 and EU-10
FADN	Farm Accounting Data Network
FSS	Farm Structure Survey
Ha	Hectare
Kg	Kilogramme
LFA	Less Favoured Area
MAFEWM	Ministry of Agriculture, Forestry, Environment and Water Management of Austria
Mio	Million
PO	Producer Organisation
SAPS	Single Area Payment Scheme
SGM	Standard Gross Margin
UAA	Utilised Agricultural Area

Member State abbreviations

AT	Austria	IT	Italy
BE	Belgium	LT	Lithuania
BG	Bulgaria	LU	Luxembourg
CY	Cyprus	LV	Latvia
CZ	Czech Republic	MT	Malta
DE	Germany	NL	Netherlands
DK	Denmark	PL	Poland
EE	Estonia	PT	Portugal
EL	Greece	SE	Sweden
ES	Spain	SK	Slovakia
FI	Finland	SI	Slovenia
FR	France	RO	Romania
HU	Hungary	UK	United Kingdom
IE	Ireland		

EXECUTIVE SUMMARY

Few highlights on the EU organic sector

- The organic sector amounts to an estimated 7.6 mio ha in 2008, i.e. 4.3% of EU-27 utilised agricultural area (UAA). In the period 2000-2008, the average annual rate of growth was 6.7% in the EU-15 and 20.0% in the EU-12;
- The area under organic agriculture is close to or higher than 9% of the total UAA in five Member States: the Czech Republic, Estonia, Latvia, Austria (15.5%) and Sweden;
- In 2008, it is estimated that there were about 197 000 holdings involved in organic agriculture in the EU-27, i.e. 1.4% of all EU-27 holdings (0.6% in the EU-12 and 2.9% in the EU-15);
- Consumer food demand grows at a fast pace in the largest EU markets, yet the organic sector does not represent more than 2% of total food expenses in the EU-15 in 2007. In the EU-12 organic food consumption stands at lower levels.

The area under organic agriculture has increased significantly in the last years. In the period 2000-2008, the total organic area has increased from 4.3 to an estimated 7.6 mio ha (+7.4% per year). The speed of the growth has been most spectacular for the EU-12 where the area has jumped from 0.34 to 1.46 mio ha (+20.0% per year) whereas, in the same period, the area increased from 4.0 to 6.2 mio ha in the EU-15, at a more reduced average rate of 5.7% per year. The EU-15 represents 80.9% of total EU organic area in 2008. In absolute terms, the Member States with the largest areas in 2008 are Spain (1.13 mio ha), Italy (1.00 mio ha), Germany (0.91 mio ha), the United Kingdom (0.72 mio ha) and France (0.58 mio ha). Altogether they represent 56.8% of the EU organic area.

In the EU-27 organic areas amounted to an estimated 4.3% of the UAA in 2008. Corresponding figures for the EU-12 and EU-15 were 2.8 and 4.9%. Whereas the growth of the share of the organic area in the EU-15 seemed to slow down in 2003 and 2004, it has resumed in the last four years (2005-2008). The EU-12 has experienced a dynamic increase, with a sharp increase in 2005 that can be attributed to the accession to the EU. With a share of 15.5%, Austria is the Member State where the importance of the organic sector in the total UAA is the highest. Sweden and Estonia follow with 10.9% each. The Czech Republic and Latvia are at a par with 9.0 and 8.9% respectively.

It is estimated that in 2008 there were about 197 000 holdings involved in the organic sector in the EU-27, i.e. 2.9% of all holdings in the EU-15 but a mere 0.6% in the EU-12. In the EU-27, the share of organic holdings is 1.4% of the total number of farms. At Member State level, it varies between the cases of Bulgaria and Romania where it is below 0.1% and Austria where it stands at 12.2%.

The average size of organic farms is larger than of the average of all farms (13 ha for the average farm in the EU-27 and 38 ha for organic farms, according to the Farm Structure Survey). In addition, organic farm managers are younger than non organic farm managers: 56% of conventional farmers are older than 55 whereas it is the case of only 36% of organic farmers.

The analysis of annual data on the numbers of organic producers shows that there is a sizeable turnover of producers entering and leaving the organic sector. These levels fluctuate among Member States depending on the dynamics of development of the sector. While the proportion of new producers can be high in times of development of the sector (e.g. as currently in the EU-12), the proportion of producers leaving the sector can also be sizeable reflecting a certain fragility of the sector.

Permanent grassland represents 47.1% of the whole organic area and arable crops (excluding green fodder) only 23.2% in 2006. This is quite different from the overall agricultural sector where the corresponding figures are 30.3 and 48.9% of the utilised agricultural area. The higher level of permanent pastures in the organic sector stems from the more extensive production systems employed. There are also marked differences of land use in the organic sector between the EU-12 and the EU-15. The significance of arable crops and of permanent pastures and green fodder is higher in the EU-12 than in the EU-15. Conversely, whereas horticulture represents 10.7% of the organic area in the EU-15 it is only 3.4% in the EU-12.

Among arable crops, cereals represent the most important category with 1.2 mio ha in 2007, i.e. 18.3% of all EU organic land. The largest producers are Italy and Germany. The vegetable sector amounts to slightly more than 90 000 ha (1.4% of the total organic area), it is mainly located in the EU-15. EU organic permanent crops amount to 0.55 mio ha (8.3% of total organic area), the largest part located in six Member States (Italy, Spain, Greece, Poland, France and Portugal).

For animal production the organic sector tends to develop faster for the species which can be fed on the basis of grassland and roughage (cattle, sheep and goats) whereas for pigs and poultry feeding is a more complicated operation since grain and protein rich feedstuffs are necessary. Hence, in 2007 2.7% of the cattle herd is organic in the EU. For sheep and goats, the corresponding shares are 3.5 and 5.0% respectively. On the other hand, only 0.5% of the EU pig herd is raised organically.

In 2007 there were 2.4 mio heads of certified bovine animals, the largest producers being Germany, Austria, the United Kingdom and Italy. Germany is the largest dairy producer with more than 0.1 mio cows. However, the Member States with the largest share of certified organic cows in the total number of cows are Austria (15.6%), Denmark (9.6%) and Italy (3.2%). The organic pig herd amounted to 0.9 mio head in 2007, the largest producer is Germany with almost 0.2 mio heads. The ovine sector is dominated by two Member States, Italy and the United Kingdom, which stand at a par with each 0.85 mio animals in 2007, representing together 52% of the entire EU organic herd (3.4 mio heads). In the poultry sector, there were 19 mio heads in 2007, of which 6 mio in France, the leading Member State.

In 2007 there were an estimation of about 33 800 certified processors of organic products in the EU, of which 1 000 in the EU-12 and 32 800 for the EU-15. Without information on the turnover of the sector it is difficult to weigh the importance of the processing

sector in the two parts of the EU. However the ratio of the number of processors over total organic producers is much higher in the EU-15 (0.21) than in the EU-12 (0.04). This confirms that the processing sector lags behind the development of organic agricultural production in the EU-12 in comparison with the EU-15.

Organic food expenses in the retail sector in the EU-15 reached in 2006/2007 €14.4 billion, of which more than 80% in four Member States only: Germany, the United Kingdom, France and Italy. The organic food market is sizeable in Austria (almost 5% of the food market) and in Germany, Denmark and Luxembourg (where it stands within 3.7-3.8%). In the EU-12 Member States the weight of the organic sector in food consumption is much lower, below 0.2% for most and reaching the maximum of 0.5% in the Czech Republic. In these Member States the main constraint to market growth is the purchasing power of the consumers. Overall, organic food consumption increases dynamically in the EU. On the four largest EU markets (Germany, the United Kingdom and France) the increases are impressive: average annual increase of 18.1% for France in the period 2005-2009, 14.0% for Germany in the period 2000-2008, 8.7% in Italy in the period 2001-2009 and 11.9% for the United Kingdom in the period 2000-2008. The economic recession in 2009 has affected organic food consumption in the United Kingdom (fall by 13.6%) whereas the market would have been stable in Germany and still growing in France and Italy.

Multiple anecdotal evidence and aggregate figures indicate that the growth of demand for organic products in the EU outpaces the growth of supply by the organic agri-food sector. In these conditions, it is no surprise that trade between Member States and imports from third countries would increase at a fast pace. Intra-EU trade and imports from third countries would represent an important part of domestically consumed organic products in most Member States.

Within rural development programmes, specific support to the organic sector is provided with the agri-environmental measures. In 2005, public support commitment for agri-environment measures amounted to €3.83 billion in the EU-25, of which €0.66 billion were devoted to organic agriculture (17.2%). A sizeable part of the area under organic production in the EU benefits from the organic-specific support provided with agri-environment measures. In the period 2004-2006 this was the case of 46% of the organic area in the EU-25. However, this varies significantly between Member States with more than 90% in Finland and less than 10% in the United Kingdom.

If one considers all subsidies received (subsidies on investment excluded), FADN data indicate that organic farms would receive on average higher subsidies in absolute terms and per hectare than conventional farms: €324 against €225 per hectare in the EU-10 and €438 against €355 in the EU-15 in 2007 (FADN data). This is due partly to higher agri-environment payments (€127 per hectare in the organic sector in the EU-15 against €24 in the conventional one in 2007). FADN data also indicate that organic farms would benefit from higher less favoured area (LFA) payments (more than twice higher than the conventional sector in the EU-10 in 2007). This is not surprising as organic farms are more likely to be located in disadvantaged rural areas where extensive production systems are more predominant, at least in some Member States.

INTRODUCTION

This report provides an update of the previous note on organic farming published by the Directorate General for Agriculture and Rural Development in 2005. It also aims at providing the main elements of the dynamics of development of the sector over the last years. However, not all features of the sector benefit from a complete information coverage. Therefore it is not always possible to point at clear and unambiguous trends.

The report relies on different types of data: statistical data; market data derived from a variety of sources and also data derived from agricultural policy measures. The report analyses certified organic and in-conversion areas, the numbers of certified organic and in-conversion holdings, some characteristics of organic holdings (area, labour and age of the farm holder structures), the breakdown of crop area, livestock, marketing channels and retail sales of organic products, as well as EU support provided to the sector. Statistical data originate mainly from Eurostat (data on the organic sector and data from the Farm Structure Survey), but other sources are utilised as well, including research projects, Farm Accounting Data Network (FADN) data and other sources.

The organic sector has joined the realm of the EU statistical system only recently, time-series of production data start from 1998 only. This late start reflects the relatively late inclusion of the organic sector in EU policies which dates back to 1991 with Council Regulation (EEC) 2092/91[1]. Council Regulation (EC) 834/2007[2], which replaced Council Regulation (EEC) 2092/91, provides for the provision by Member States of statistical information necessary for its implementation and monitoring. The European Action Plan for Organic Food and Farming[3] acknowledges 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 more necessary. Yet, the information consolidated at the EU level is 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. Other data such as crop and livestock production volumes are for most missing. Data on international trade, industrial production and prices at various stages of the supply chain are totally missing at the EU level or even do not exist (e.g. trade data).

With this background, various sources have been utilised to complement Eurostat data so as to derive a rather comprehensive picture of the situation of the sector in recent years. These sources are indicated in the text and in the reference section of the report. Some of the data are estimates and should be treated as such.

[1] Council Regulation (EEC) 2092/91 of 24 June 1991 on organic production of agricultural products and indications referring thereto on agricultural products and foodstuffs (Official Journal of the European Communities L198 of 22 July 1991, p. 1)

[2] Council Regulation (EC) 834/2007 of 28 June 2007 on organic production and labelling of organic products (Official Journal of the European Communities L189 of 20 July 2007, p. 1)

[3] 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. Wooded areas are not taken into consideration[4]. Areas under permanent pastures can be quite difficult to determine, especially in mountainous areas. With this respect, in this report the organic area data for Austria includes Alpine pastures (around 110 000 ha in 2007 and 2008). These data - communicated by the Ministry of Agriculture, Forestry, Environment and Water Management (MAFEWM) - are not currently included in Eurostat databases.

The analysis uses data until 2008. However, due to missing data, the analysis often stops in 2007 or even 2006[5] (e.g. land use). Therefore, to arrive to EU-12, EU-15 or EU-27 aggregates, estimates have to be produced or different years utilised (e.g. 2008 for some Member States and 2007 or estimates for Member States without 2008 data). This may lead to some slight differences with other sources which may use other methodologies or estimates. It is clearly indicated in the report when estimates are utilised.

Due to incomplete coverage, it has not been possible to provide an analysis of the implementation at Member State level of the agri-environmental measures for the current budgetary period (2007-2013). Hence, the analysis of the level of use of these measures relies on data from the 2000-2006 period.

The previous note prepared by DG Agriculture and Rural Development provided data on prices of organic products. However these data had been produced as part of a project which is long terminated. The present note will not elaborate on this price analysis for lack of data at the European level.

[4] These areas are mainly utilised for the picking of wild plants (berries, herbs or mushrooms), sometimes they are utilised for grazing or shelter for the animals. Most Member States do not report these areas to Eurostat. When they do, the concerned areas have been excluded when they have communicated to DG AGRI the nature of the area and the statistical item in which they report this data (most often "other permanent crops"). No corrections have been made for Member States which have not replied to our inquiry. Therefore there may still be limited wooded areas in the data utilised for the present analysis. In any case, these areas have not been integrated in the total permanent crops aggregate.

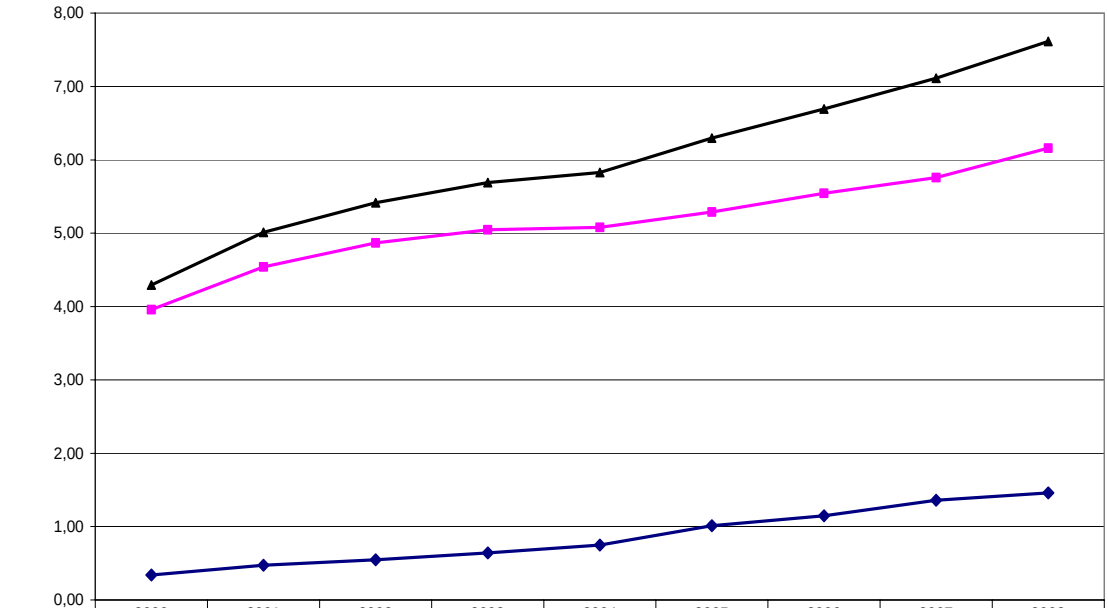
[5] In particular, data from the project EU-CEE-OFP have often been used to fill gaps with Eurostat data. However, these data go until 2006 only.

1. DYNAMICS OF THE DEVELOPMENT OF THE ORGANIC SECTOR

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 2000-2008. In nine years, the total (fully converted + in-conversion area) would have increased from 4.3 to an estimated 7.6 mio ha (+7.4% per year). The speed of the growth has been most spectacular for the EU-12, which has jumped from 0.34 to 1.46 mio ha (+20.0% per year), whereas in the same period the area increased from 3.8 to 6.2 mio ha in the EU-15, at a more reduced average rate of 5.7% per year. The EU-15 represented 92.1% of all EU-27 organic area in 2000. Despite the strong growth of the sector in the EU-12, EU-15 share was still 80.9% in 2008.

Graph 1. *Area under organic cultivation in the EU (mio ha)*



	2000	2001	2002	2003	2004	2005	2006	2007	2008
EU-12	0,34	0,47	0,55	0,64	0,75	1,01	1,15	1,36	1,46
EU-15	3,96	4,54	4,87	5,05	5,08	5,29	5,54	5,76	6,16
EU-27	4,29	5,01	5,42	5,69	5,83	6,30	6,69	7,11	7,62

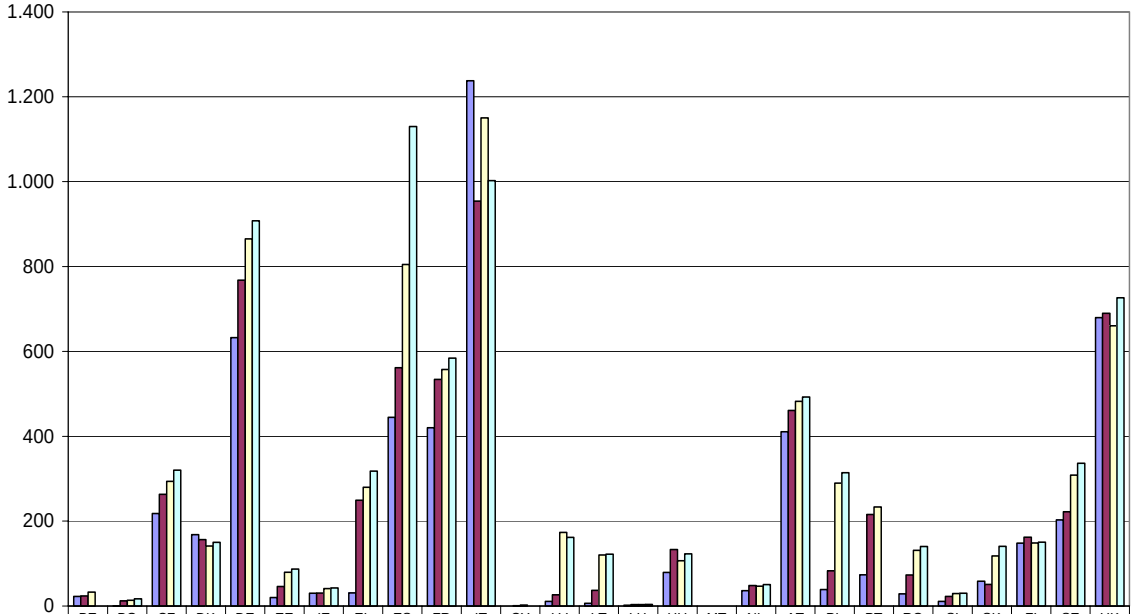
Source: Elaborated by DG AGRI mainly from Eurostat data, with complements of missing data with estimates from the EU-CEE-OFP project up to 2006, or other sources. For 2008, AGRI estimates for BE, EE, EL, CY, LU, MT, PT. Data for Austria include alpine pastures (communicated by MAFEWM).

Graph 2 shows the evolution of the organic area in the Member States in 2001, 2004 and 2007 (and the in-conversion area in 2007). There are not yet complete data for 2008 (see Table 11 in the statistical annex for currently available data). However, in absolute terms, the Member States with the largest areas in 2008 are Spain (1.13 mio ha), Italy (1.00 mio ha, with an area which is declining) and Germany (0.91 mio ha), which together account for 39.6% of total EU-27 organic area. If one adds further the United Kingdom (0.72 mio ha) and France (0.58 mio ha), then it is 56.8% of the EU area which is counted.

Over the period, the area is rather stable in a number of Member States (Belgium, Ireland, Netherlands, Finland and the United Kingdom). The area is on a steady decline

only in Denmark. This maybe reflects rather the maturity of the sector, which started to develop before the majority of the other Member States. In Italy, after three years of growth, the organic area would decline in 2008 by about 0.15 mio ha. There is a large group of Member States (Germany, the three Baltic Member States, Greece, Spain, Poland, Romania and Slovakia) where the growth of the sector could be qualified as dynamic with steady increase of the area in the sector. Several EU-12 Member States are part of this group, the sustained growth being at least partly explained by the support provided to the sector already prior to accession to the EU and its subsequent increase since accession. For Spain and Greece the dynamic increase probably reflects a somewhat later start of the sector and a catching up effect. The case of Spain is very spectacular with an increase of area of about 0.3 mio ha between 2007 and 2008! Germany is certainly not a newcomer in the sector and the increase of area reflects a constant interest and steady support. In comparison the area under organic cultivation is on a rather moderate increase in several Member States (Czech Republic, France, Austria and Sweden). This moderate increase can be explained either by the fact that these Member States have reached a certain level of maturity (e.g. Austria and Sweden where the importance of the sector is already very high) but support to the sector is still sizeable (Austria) or because the sector has still potential for growth but circumstances or interest for organic agriculture are less favourable than in the "dynamic" Member States.

Graph 2. *Organic area (certified organic + in-conversion) in the Member States in 2001, 2004, 2007 and 2008 ('000 ha)*



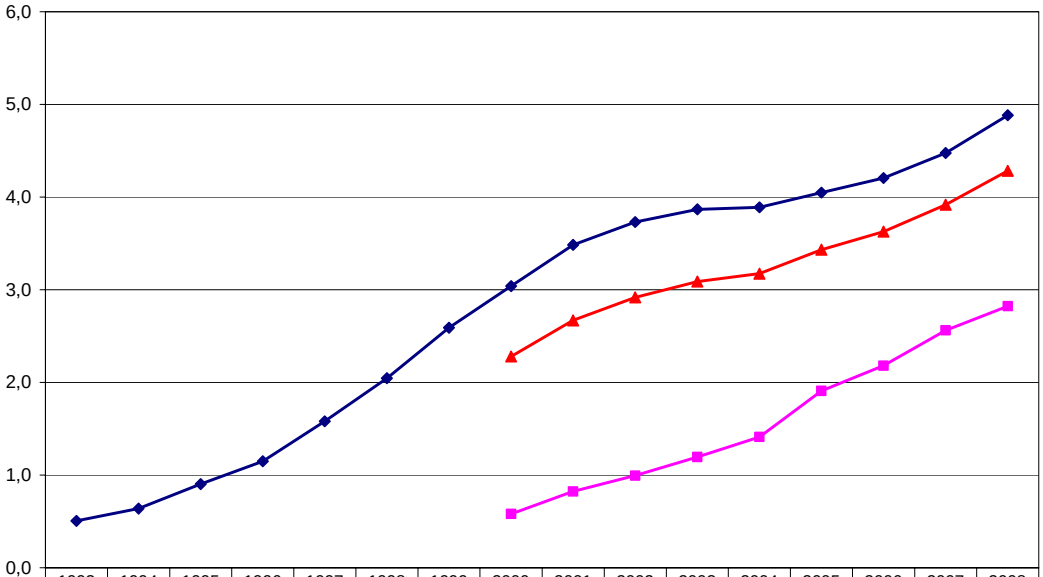
	BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE	UK
2001	22	1	218	168	632	20	30	31	445	420	1.238	0	11	6	2	79	0	36	411	39	74	29	11	59	148	203	680
2004	24	12	263	157	768	46	31	250	562	534	954	1	26	37	3	133	0	48	461	83	215	73	23	51	162	222	690
2007	33	14	294	141	865	80	41	280	805	557	1.150	2	173	120	4	107	0	47	482	289	233	131	29	118	149	308	660
2008		17	320	150	908	87	43	318	1.130	584	1.002		162	122	4	123		50	493	314		140	30	141	150	336	726

Source: Eurostat data, Organic Centre Wales for several Member States for 2001, 2006 for Luxembourg and Malta. No in-conversion data available for AT, DE, IE, LU, MT, PT and RO. AT: area data provided by MAFEWM

The above absolute figures do tell only part of the story and it is not a surprise that the larger Member States have the 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.

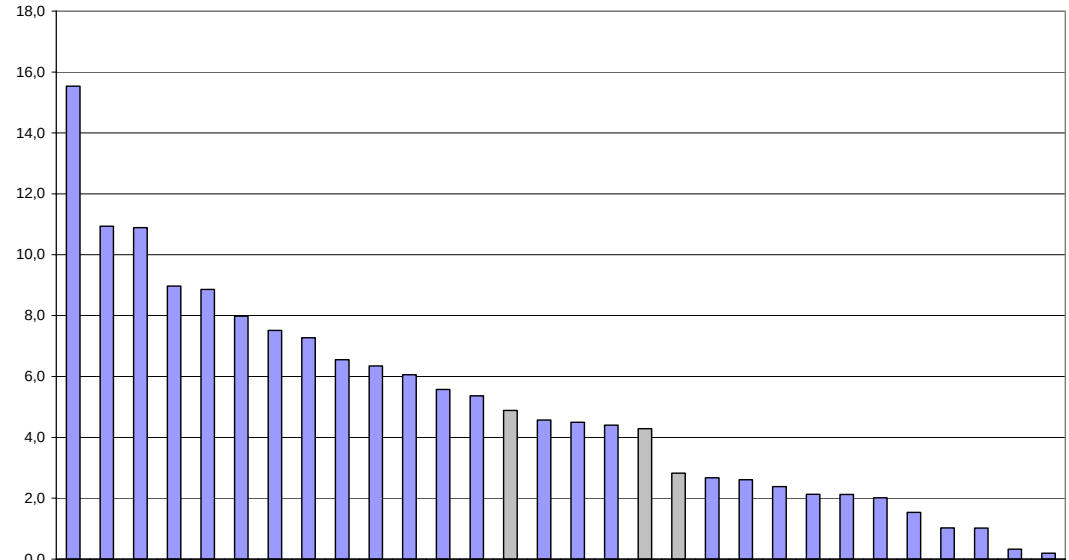
Graph 3. *Evolution of the share of the organic area in the UAA in the EU (%)*



	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
EU-15	0,5	0,6	0,9	1,1	1,6	2,0	2,6	3,0	3,5	3,7	3,9	3,9	4,0	4,2	4,5	4,9
EU-12								0,6	0,8	1,0	1,2	1,4	1,9	2,2	2,6	2,8
EU-27								2,3	2,7	2,9	3,1	3,2	3,4	3,6	3,9	4,3

Source: Eurostat and estimates from the project EU-CEE-OFP (organic area estimates for BE, EE, EL, CY, LU, MT, PT for 2008). AT: data communicated by MAFEWM

Graph 4. *Share of the organic area in the UAA in the EU-27, 2008 (%)*



	AT	SE	EE	CZ	LV	EL	IT	SK	FI	PT	SI	DK	DE	EU-15	LT	UK	ES	EU-27	EU-12	LU	NL	BE	FR	HU	PL	CY	RO	IE	BG	MT
% UAA	15,5	10,9	10,9	9,0	8,9	8,0	7,5	7,3	6,5	6,3	6,1	5,6	5,4	4,9	4,6	4,5	4,4	4,3	2,8	2,7	2,6	2,4	2,1	2,1	2,0	1,5	1,0	1,0	0,3	0,2

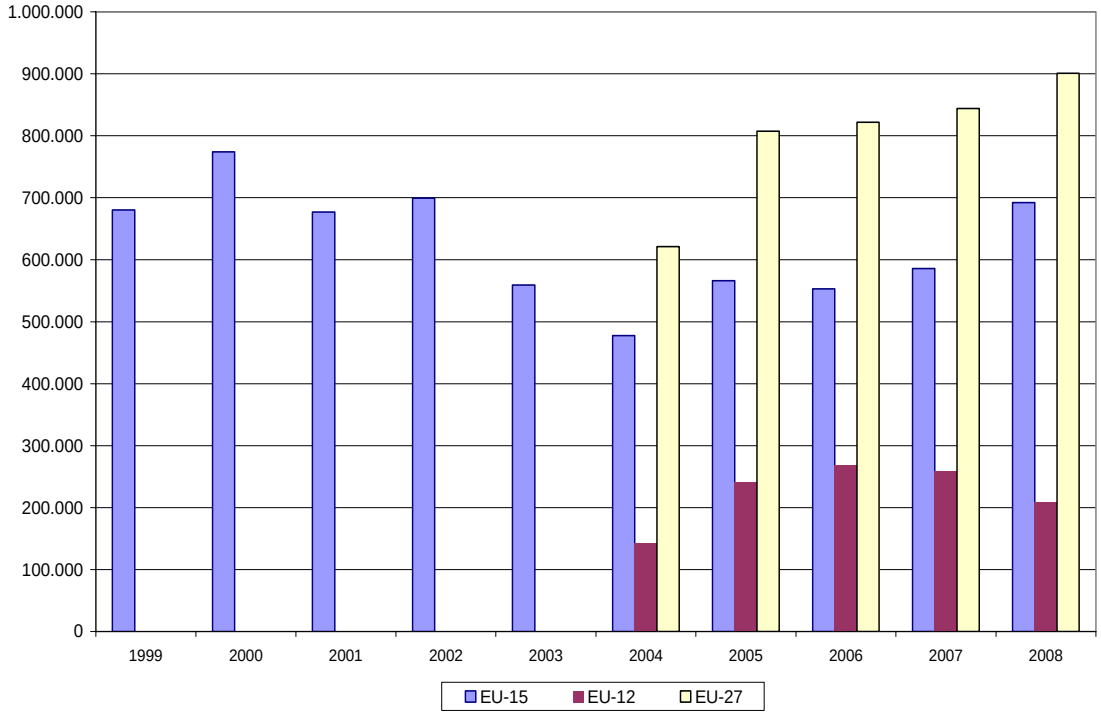
Source: Eurostat, 2007 for BE, CY, IE, LU, MT and PT. AT: alpine pastures included (data from MAFEWM)

In the EU-27 total organic area amounted to an estimated 4.3% of the UAA in 2008 (see Graph 3) increasing from 3.9% in 2007. The corresponding figures for the EU-12 and EU-15 were 2.8 and 4.9%. Whereas the growth of the share of the organic area in the

EU-15 seemed to decelerate in 2003 and 2004, it has resumed in the last four years (2005-2008). The EU-12 is experiencing a dynamic increase, with a sharp increase in 2005 that can be attributed to the accession to the EU.

As shown in Graph 4, with a share of 15.5%, Austria is the Member State where the importance of the organic sector in the total UAA is the highest. Sweden[6] and Estonia follow with 10.9 each. The Czech Republic and Latvia are at a par with 9.0 and 8.9% respectively. It is interesting to note that among the EU-12, six Member States (the Czech Republic, Estonia, Latvia, Lithuania, Slovenia and Slovakia) already exceed the EU-27 average of 4.3%. These Member States have experienced an extremely fast development of the organic sector. On the other hand, five EU-15 Member States hold shares lower than the EU average: Belgium (2.4%), Ireland (1.0%), France (2.1%), Luxembourg (2.7%) and the Netherlands (2.6%).

Graph 5. *Estimated annual area entering the in-conversion process in the EU (ha)*



Source: Eurostat, elaboration by DG AGRI

In order to capture the dynamics of development of the sector, we provide in Graph 5 rough estimates of the area which enters annually the in-conversion process in the organic farming sector[7]. For the EU-15 there are clearly two phases that can be

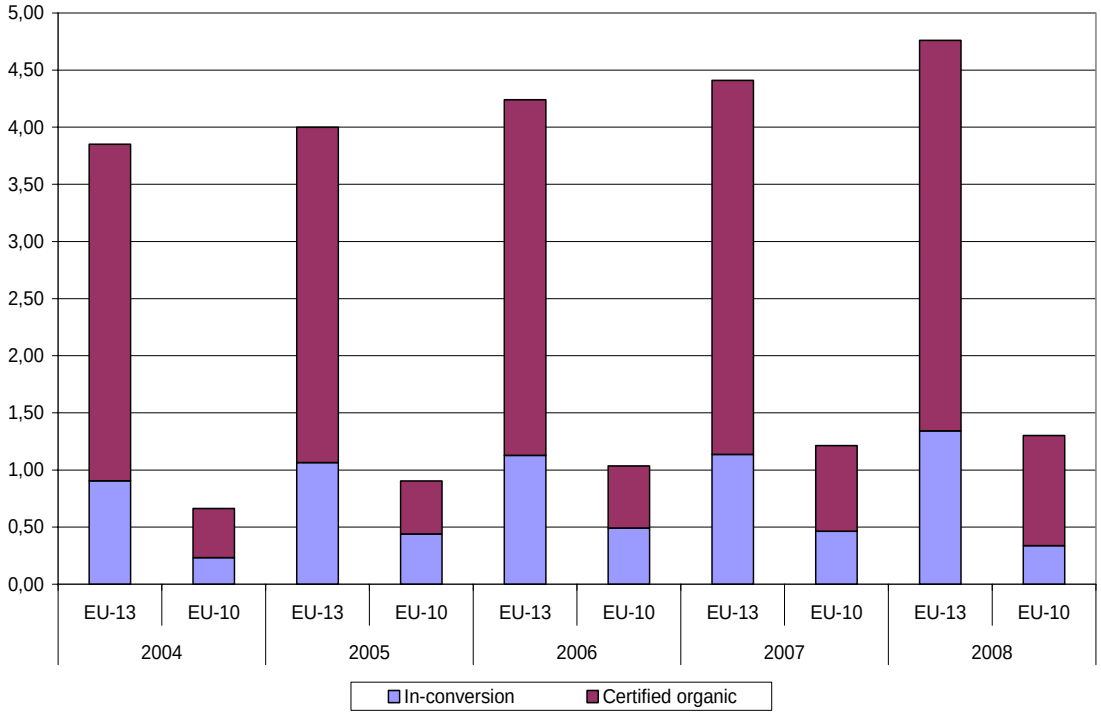
[6] In Sweden some areas have benefitted in the past from organic agri-environment payments despite they were not certified organic, these areas are not counted in the organic statistics. They are estimated at 7% of the UAA (Stolze, Lampkin, 2009).

[7] This area is estimated on the basis of the data of areas under the in-conversion process of organic cultivation. This is done by dividing annual data by the average number of years of duration of the in-conversion process. Usually the period of conversion is two years except for permanent crops for which it is three years. In the EU-12 permanent crop are still low, therefore the average duration of the conversion process is considered 2.0 years. In the EU-15, where about 10% of the organic area is made of permanent crops, the average duration is considered 2.1 years. Of course this method smoothes variations from one year to the next, yet it reflects broadly the dynamics. For Austria and Germany, for which data of in-conversion areas are not available, we retain the

identified: the period 1999-2004 which displays a regular decrease of the area entering the organic sector, from around 700 000 ha per year in 1999-2002 to less than 500 000 ha in 2004. From 2005, the decline is stopped and in the period 2005-2008 the area entering the sector is increasing, with a notable acceleration in 2008, with an average area entering the sector of able at around 0.6 mio ha (0.46% of total UAA of the EU-15).

Regarding the EU-12 data available allow analysis only on the period 2004-2008. In this period the area entering the in-conversion process annually would have amounted to an estimated 0.24 mio ha on average (0.46% of the total UAA of the EU-12). One can note that the area entering the in-conversion process seems to have reached a maximum around 2006 (estimated at 0.27 mio ha) and subsequently declined in 2007 and 2008 (0.21 mio ha) whereas it has continued to increase in the EU-15. These evolutions seem to be confirmed in Graph 6 which shows a decline of the area under conversion in 2007 and 2008 in the EU-10 whereas it continues to increase in the EU-13 (EU-15 minus Austria and Germany for which there are no data) in the same years. It is of course too early to draw conclusions but the dynamic development of the organic sector in the EU-12 observed since the accession to the EU may be slowing down in the recent years.

Graph 6. *Total area under organic sector: comparison between certified organic area and area in-conversion (mio ha)*



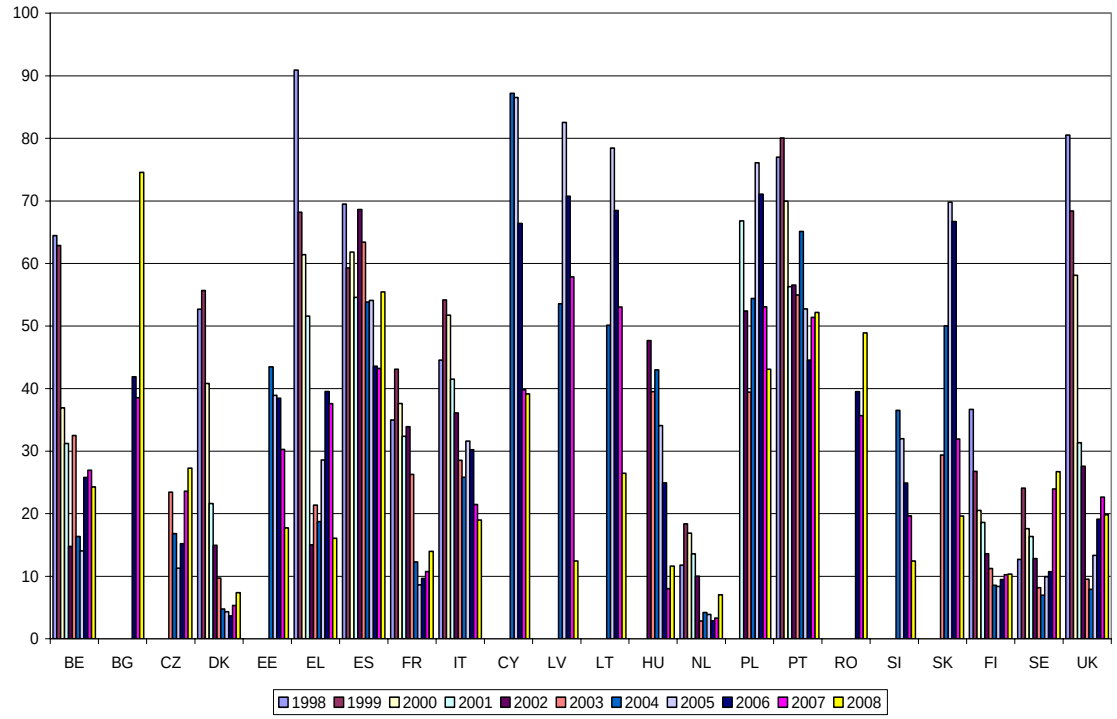
Source: Eurostat, elaboration by DG AGRI
Note: EU-13 is EU-15 without Austria and Germany (for which not data are available)

annual increase of total organic area assuming that there is no exit from the sector (given that there is most likely some exit, this tends to underestimate the amount of new area entering the in-conversion process). We do similarly for Bulgaria and Romania for the years with missing data. The legislation provides that the minimum duration of the conversion period is two years except for permanent crops for which it is three years (see Article 38 of Commission Regulation 889/2008, OJ EU L250 of 18/09/2008).

The observation of the share of the area under in-conversion 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 (see Graph 7).

Among the EU-15 the potential growth in the next two to three years seems to be the lowest (share of in-conversion area below 10%) in Denmark, France (although the share is higher than 10% since 2007 and the development of the sector seems to accelerate strongly in the last years), the Netherlands and Finland. In the other Member States the share of the in-conversion area is higher than 20%. Portugal and Spain display high growth dynamics with levels in excess of 40% (in 2008 the area under conversion in Spain has jumped to 0.6 mio ha). For the EU-12 the share of the in-conversion area is high in general, reflecting a sustained growth dynamics (see in particular in Poland, Bulgaria and Romania). For a number of these Member States the share is steadily decreasing indicating that after an initial period of dynamic growth, the development of the sector seems to slow down (see in particular Hungary, Latvia, Lithuania, Slovakia and Slovenia).

Graph 7. *Share of the in-conversion area in total organic area (%) updated ES*



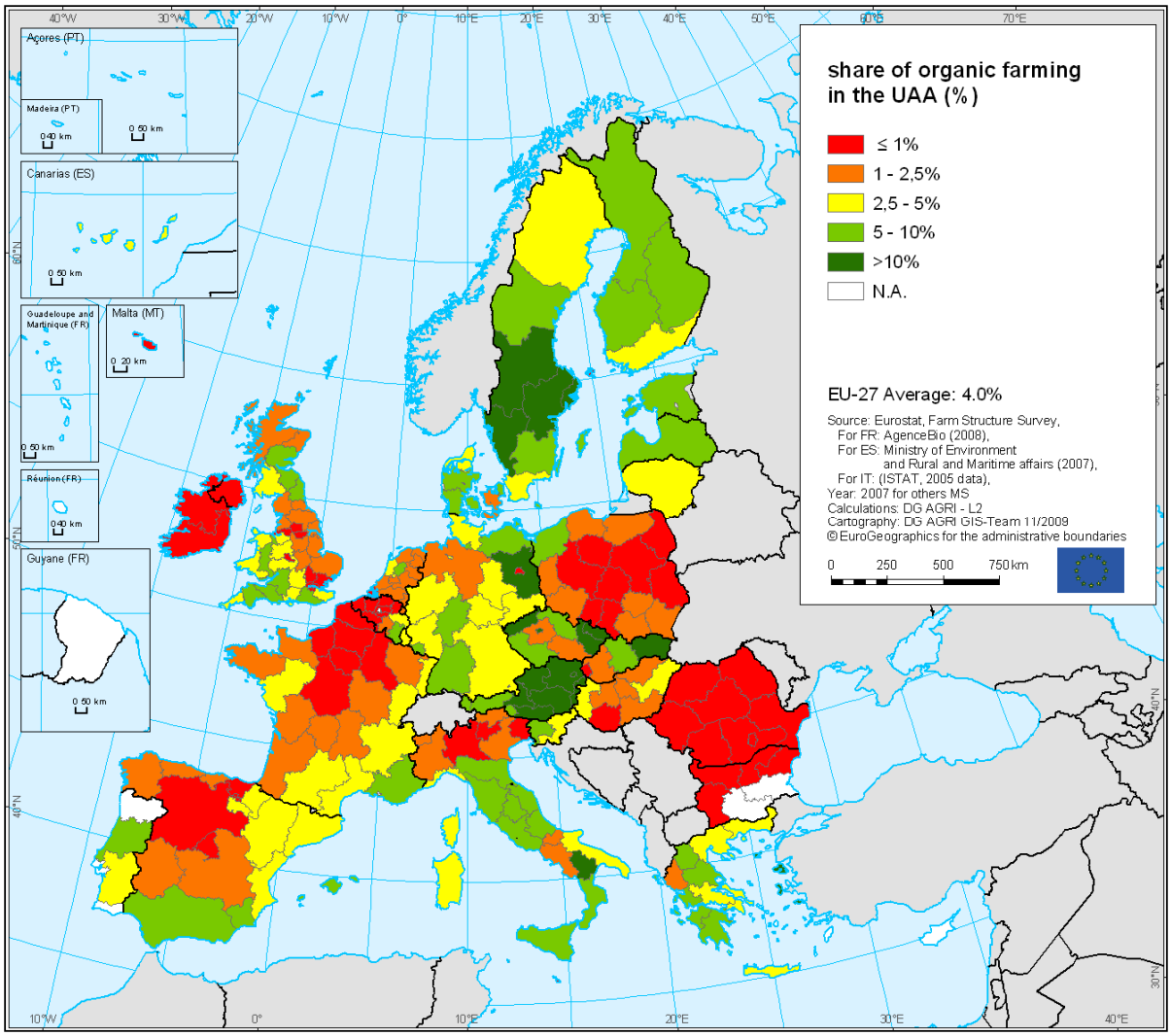
Source: Eurostat, elaboration DG AGRI (no data or no recent data for DE, IE, LU, MT)

The map (see Figure 1), based on the results of the Farm Structure Survey of 2007 and complementary sources, 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 within most Member States regarding the weight of the organic sector. It is perhaps in the Member States that have a high share of the organic sector where there is more homogeneity among regions (Austria, Finland, Germany and Sweden). In France, Italy and Spain the organic sector is more important in Southern regions. In France, Provence Alpes Côte d'Azur is the only region where the share of the organic sector in the total UAA is above 5% (6.9%). In Spain the organic sector is clearly concentrated in the South, with almost 60% of the organic area located in Andalucía. In Italy there is a clear divide between

Northern regions where, with the exception of Liguria, the organic sector does not exceed 2.0%, together with Campania and Molise in the South, and the rest of the Member State where the organic sector is close to 5% (Apulia) or exceeds it. In the United Kingdom the importance of the sector is higher in South-West and North East in England and in Wales and Scotland. The organic sector is less important in the Eastern part of England.

The map also reflects the fact that organic farming is particularly present in regions with extensive livestock production systems based on permanent grassland. This concerns mountainous and semi-mountainous regions in Alpine areas and other parts of the EU. The importance of the organic sector is generally lower in the regions of plains where more intensive conventional production systems prevail.

Figure 1. *Share of the organic area in the total UAA in 2007 at regional level (%)*

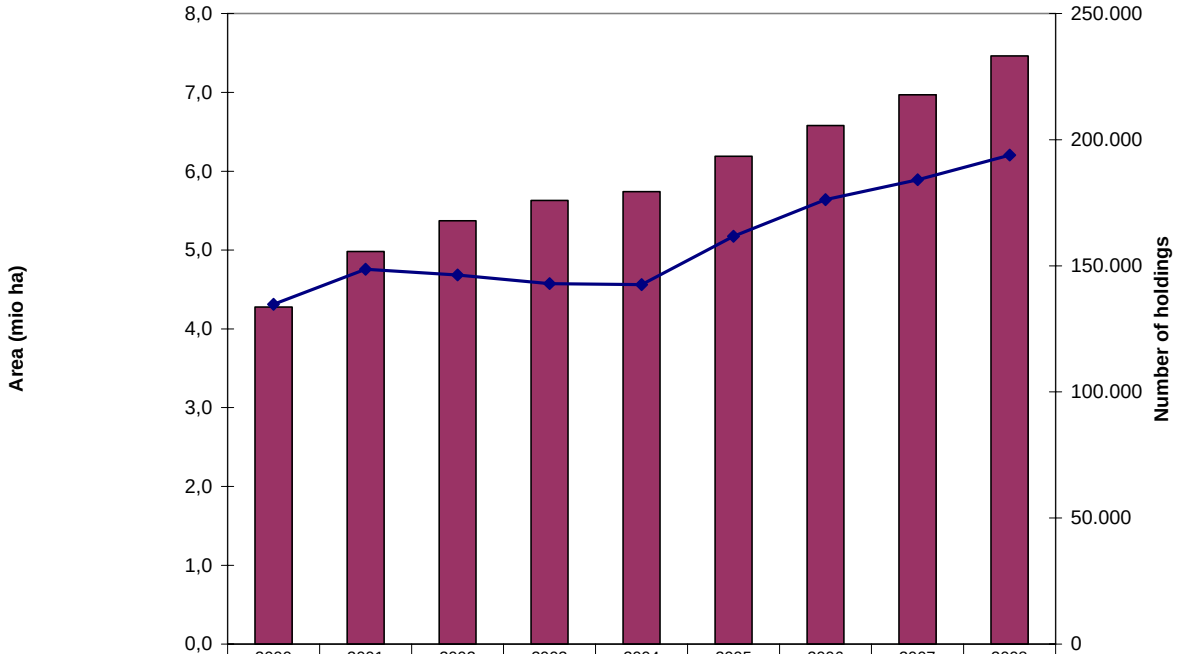


1.2. Holdings involved in the organic sector

2.2.1 Evolution of the number of organic holdings

The observation of the evolution of the total area involved in the organic sector does not tell everything on its current dynamics. As a matter of fact, as Graph 8 shows, there is a positive (if varying) increase of the area in the sector in the EU-25 from 2000 to 2008 but the number of holdings involved declines slightly in the period 2002-2004 before increasing from 2005. The analysis of the number of holdings involved allows a rather precise assessment of the interest of agricultural producers for the sector because the data include information on new producers and on producers leaving the sector. This allows highlighting a rather important feature of the organic sector which is a sizeable turnover.

Graph 8. *Evolution of the area and number of holdings involved in the organic sector in the EU-25 (mio ha, number of holdings)*

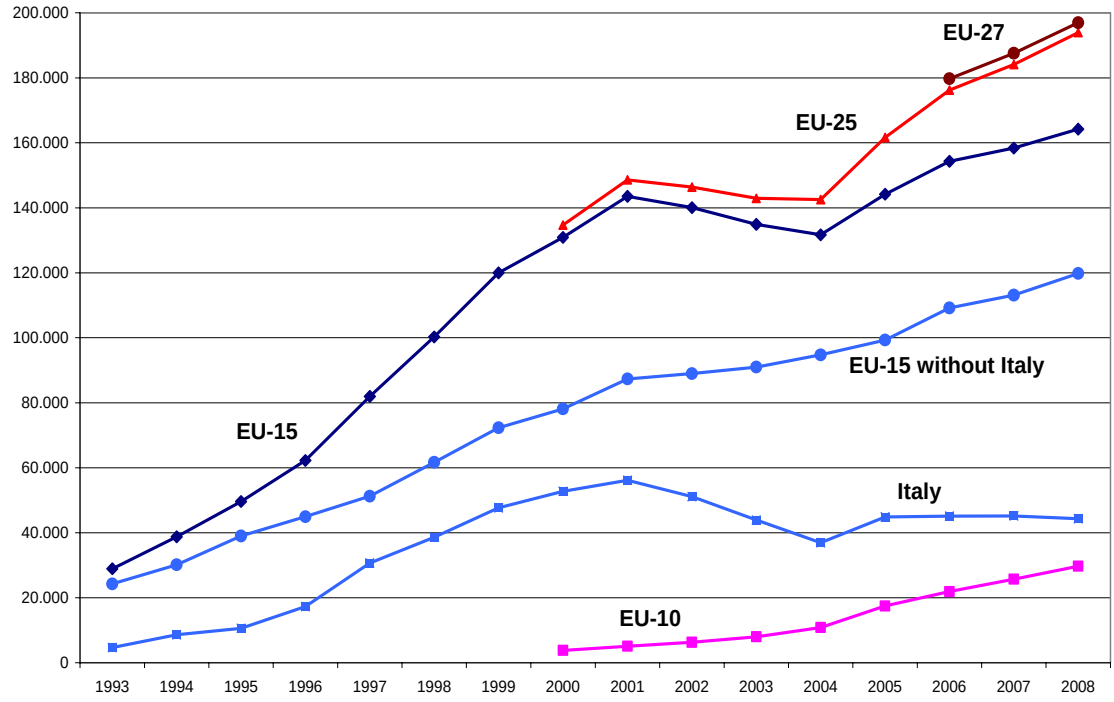


	2000	2001	2002	2003	2004	2005	2006	2007	2008
Organic area	4,3	5,0	5,4	5,6	5,7	6,2	6,6	7,0	7,5
Number of holdings	134.704	148.622	146.388	142.899	142.574	161.679	176.213	184.102	193.909

Source: elaborated by DG AGRI on the basis of Eurostat data, and other data to complement (see Tables 11 and 12 for specific sources). BG and RO are not considered.

In 2008 it is estimated that there were about 197 000 holdings involved in the organic sector in the EU-27, i.e. 2.9% of all holdings in the EU-15 (comparison with the total number of holdings in 2007 according to the Farm Structure Survey) but a mere 0.6% in the EU-12 (where the total number of farms is largely inflated by very large numbers of small farms in Poland and Romania in particular). For the EU-27 as a whole the share of organic holdings is 1.4%. At Member State level it varies between the cases of Bulgaria and Romania, where it is less than 0.1%, and Austria which stands at 12.2%.

Graph 9. *Evolution of the number of organic holdings in the EU ('000)*

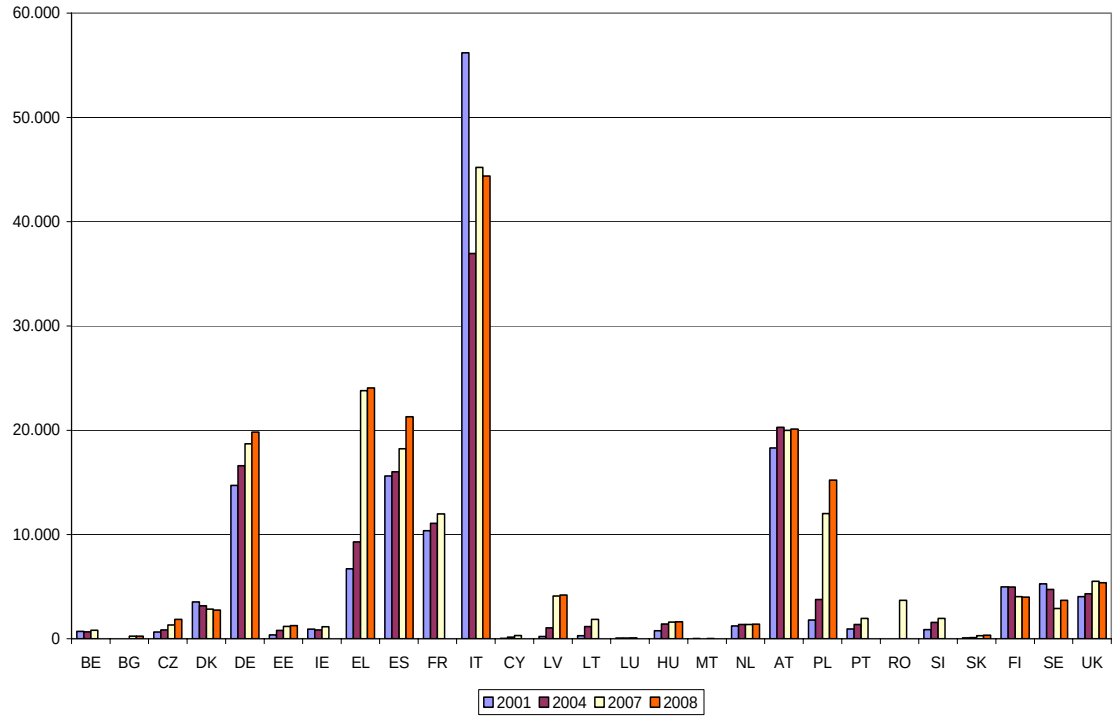


Source: Eurostat and other sources (see Table 12 in annex)

For the EU-15, the number of holdings has not increased steadily since the beginning of the 1990s. As a matter of fact it is necessary to distinguish Italy and the rest of the EU-15. For the latter, the increase in the number of holdings has been rather smooth, with two periods however: 1993-2001 when the average annual increase was 17.3% and 2001-2008 when the average annual increase dropped to 4.6%. In Italy the number of organic holdings has increased until 2001 when it reached a peak of around 56 000 holdings. Then, according to Eurostat data, the number of holdings has decreased remarkably for three years to reach 37 000 holdings, i.e. a loss of 19 000 holdings! However, from 2005 the number of holdings seems to have stabilised. This fall in number of holdings in Italy would essentially be a consequence of the decrease of agri-environment payments after 2000 together with lower prices of organic products (Nicholas et al., 2006). In the rest of the EU-15 the number of producers has increased rather smoothly, with a phase of slightly lower growth in the years 2002-2005.

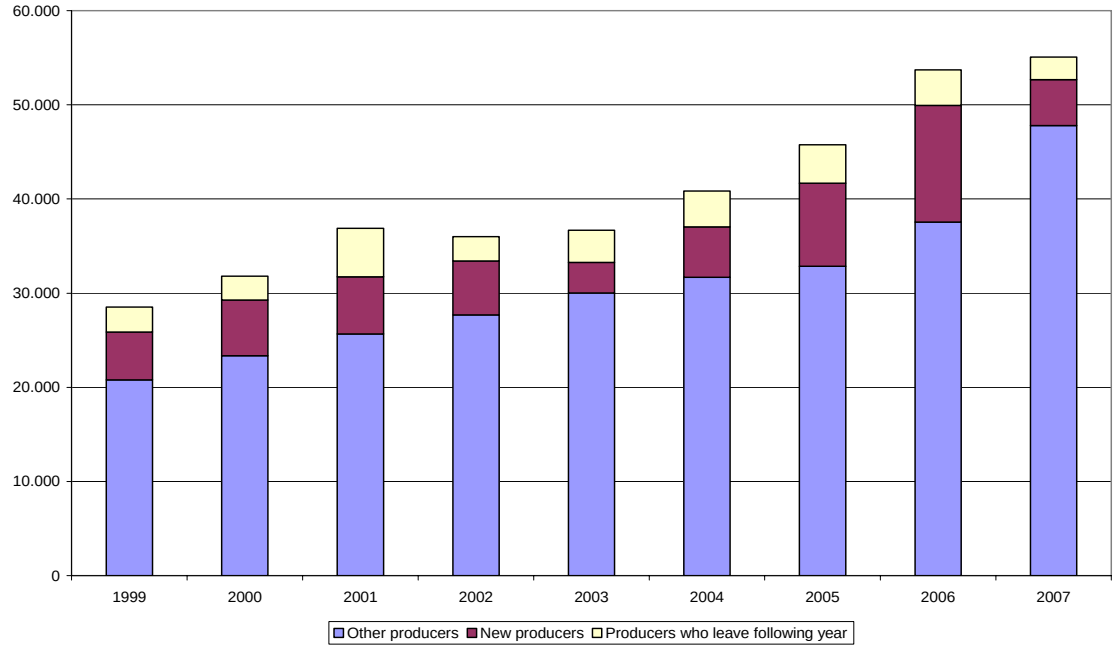
Whereas in the EU-12 the number of holdings involved in the sector is understandably increasing, given that it starts from low levels and it usually benefits from higher support since joining the EU, in the EU-15, where the sector could be said to be more "mature", the evolutions are not similar in all the Member States (see Graph 10). Apart from Greece, which has seen a huge increase in the number of organic farms, for the other EU-15 Member States the numbers of farms have increased to various extent or been stable with the exceptions of Denmark and Finland where the number of farms in the organic sector has rather declined in the last five years.

Graph 10. *Number of organic holdings in 2001, 2004, 2007 and 2008*



Source: Eurostat, except Cyprus, Lithuania, Luxemburg, Hungary, Poland and Portugal: estimates by Organic Centre Wales. 2006 instead of 2007 for CY, LT, MT, RO and SI. PL estimates for 2007 and 2008

Graph 11. *New, exiting and other organic producers in eight Member States (%)*



Source: elaborated on the basis of Eurostat data with the following Member States: BE, DK, DE, EL, LU, PT, FI and SE. AGRI estimates of new and exits for LU and PT (2006 to 2008) and SE (2007 and 2008).

Graph 11 shows for a selection of eight EU-15 Member States, for which we have data for the period 1999-2007, three categories of organic producers: newly registered, producers who quit the sector the following year (either because they give up the farming activity or they revert to the conventional sector) and the other producers. We do not

include Italy in this graph because of the large variations recorded by the Member State and inconsistencies regarding data. Altogether these eight Member States represent in 2006 54 000 producers, i.e. about 30% of all EU-27 organic producers. The graph shows that each year there is a rather stable exit of about 8-10% of producers (4% only in 2007). Regarding the category of new producers, its weight in the total number of organic producers varies between 10 and 20%, reaching the low levels of 9% in 2003 and 2007.

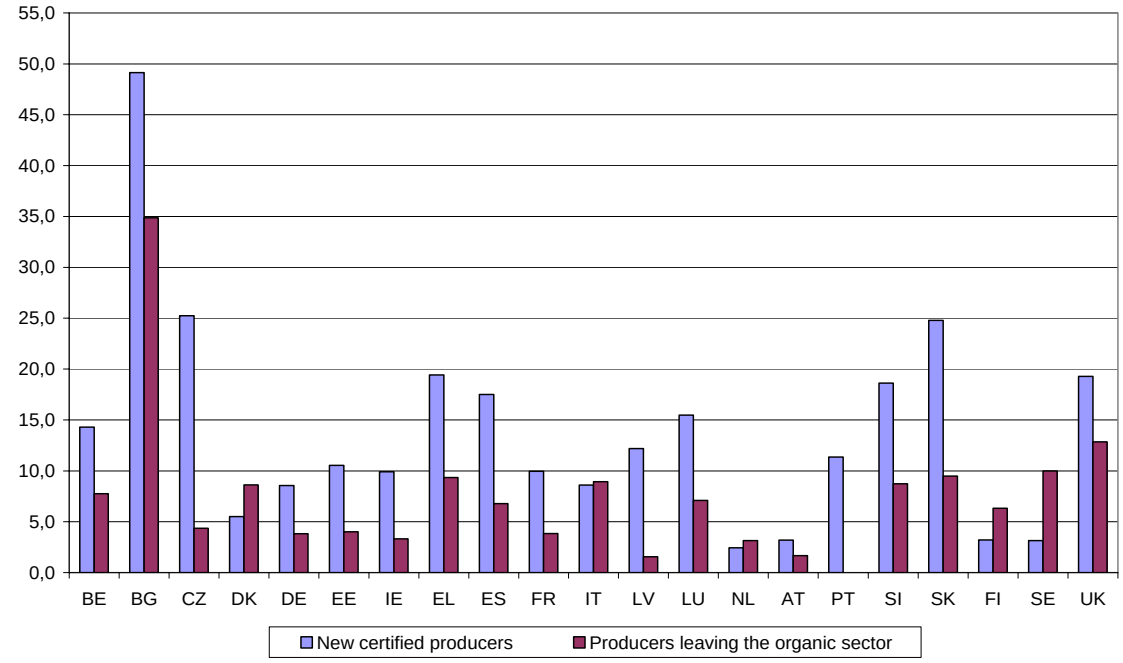
Graph 12 shows the share of new and exiting producers in the total number of organic producers on average in the period 2005-2007 (or 2004-2006) for a number of Member States. Quite understandably, the share of new producers is large in all EU-12 Member States for which we have data. It is also very high in Greece where the development of the sector is more recent than in most EU-15 Member States. It is also high – at or higher than 10% - in Belgium, France, Ireland, Italy, Luxembourg, Portugal, Spain and the United Kingdom. On the other hand, in Member States where the sector started to grow earlier, such as Austria, Denmark, Finland, the Netherlands and Sweden, the share of new producers is at or below 5%.

The evolution of the sector can be linked to three major drivers. First of all, the support provided to the sector (see section 4 for an overview of EU policies). Secondly, market developments do play an important role. Finally, the existence of a "facilitating" environment (extension services, vocational training, agronomic research, etc.) has also an important bearing. In particular, the development of the sector in Northern European Member States, Germany and Austria pertains to a large extent not only to the support provided to the sector but to the establishment of such a comprehensive facilitating environment. In the EU-12, the remarkable development of the sector owes probably also 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 systemic changes provided more space for organic farming to develop.

It is interesting to look at the significance of producers leaving the organic sector annually. Although it is difficult to compare with the overall agricultural sector (for which data on new producers are not available), globally the significance of exiting producers in the organic sector seems to be much higher than the decline of producers for the overall agricultural sector in most of the Member States. This suggests that a sizeable share of the producers leaving the sector revert to conventional agriculture. The significance of producers leaving the organic sector in the period 2005-2007 (or 2004-2006 or other, see source of Graph 12) is the highest in Bulgaria (35%) and in the United Kingdom (13%). It is also high - standing at around 9% - in Denmark, Greece, Italy, Slovenia, Slovakia and Sweden. Apart from Denmark, Italy, Sweden and the United Kingdom, these are Member States for which the development of the sector is quite recent. In Austria, the Czech Republic, Estonia, France, Germany, Ireland, Latvia and the Netherlands, less than 5% of the producers leave the sector annually. This can reflect at first sight the stability of mature sectors (e.g. in Austria) where at the same time the level of new producers is also low and the significance of exits is probably not that different from the decline of the overall number of agricultural producers. This can also reflect, when it is combined with rather high levels of new producers, a rather robust growth in such Member States as the Czech Republic, Estonia, France, Germany, Ireland or Spain. Finally in Denmark, Finland and Sweden, the level of exits exceeds well the

level of new producers on average in the period 2005-2007. These Member States would face a net decline of the number of organic producers in the concerned period.

Graph 12. *Average annual level of new producers and of producers leaving the organic sector in the period 2005-2007 (% of total number of certified holdings)*



Source: elaborated by DG AGRI on the basis of Eurostat data (Agence Bio for FR). The averages are calculated on the available data in the period 2005-2008 (2004-2007 for LU, NL, SI, 2003-2006 for SE; 2003-2005 for PT; AT data for 2004 and 2005 only; FR data for 2007 and 2008 only). No information available for CY, LT, HU, PL and RO. No data on exiting producers for PT.

The fact that the significance of producers leaving the organic sector can be sizeable (fluctuating between few percents to more than 10% depending on the Member States) highlights a certain fragility of the sector. Reasons for reverting to conventional agriculture may range from difficulties to meet technical requirements of the organic farming system; difficulties to sell organic products at sufficiently high prices whether because of lack of demand or inadequate marketing conditions[8]. In a number of situations it may be that the difficulties inherent to the sector are not properly assessed *a priori* by the farmers who convert to organic agriculture. Decisions to convert may be sometimes more geared by preoccupations to get access to support measures than the result of a thorough approach. Difficulties to market organic products may arise from temporary gluts of some specific products (e.g. oversupply of organic milk in the beginning of the years 2000 in some Member States) or temporary slow down of demand (e.g. the current economic crisis). The fact that the organic market is quite narrow entails that it can be easily disrupted. Difficulties faced by the organic producers may be larger

[8] Rigby et al. (2001) provide the following main reasons for farmers reverting to the conventional sector in the case of the United Kingdom in the 1990s: 1) marketing and market incentives; 2) cost issues (including administrative costs such as certification); 3) agronomic problems (including access to technical information). In Austria the main reasons for high reversion levels in 2000 and 2001 were reported as high prices for organic feed concentrates, the lack of adequate price premiums and the administrative burden for organic certification (Gleirscher, 2008). In Denmark, the fall in number of producers in the early 2000s was caused by over-supply of organic products on the market, see Nicholas et al. (2006).

in Member States where the development of the sector is more recent because the food supply chains are not completely in place (difficulties to sell) or the institutional framework is less conducive (e.g. lack of dedicated extension services). This stresses the necessity of a comprehensive approach on the sector of the concerned Member States, which needs to extend well beyond the mere provision of support subsidies to organic production.

2.2.2 Elements on organic farm structures: area, economic size, labour and age of farmers

The Farm Structure Survey (FSS) provides interesting information on several features of organic farms. It is important to stress that the representativeness of organic data is not guaranteed as the survey is not stratified according to the organic / non organic criteria. Yet the survey provides a host of information which is absent from annual organic statistical data. The last available data cover 2007.

According to the FSS, there were in 183 000 organic holdings (i.e. holdings with organic area and/or organic animals) in 2007, this is very close to the estimation of 187 000 holdings provided earlier in the report which is based on the annual statistical data. Out of this total, 62% were holdings with organic area and without organic animals, i.e. farms specialised in organic crops. Holdings combining organic area and organic animals represented 34% of the total. Interestingly, holdings with organic animals but without organic areas represented 4% of all EU organic farms, however this may include, in some Member States, farms with animals grazing on common land.

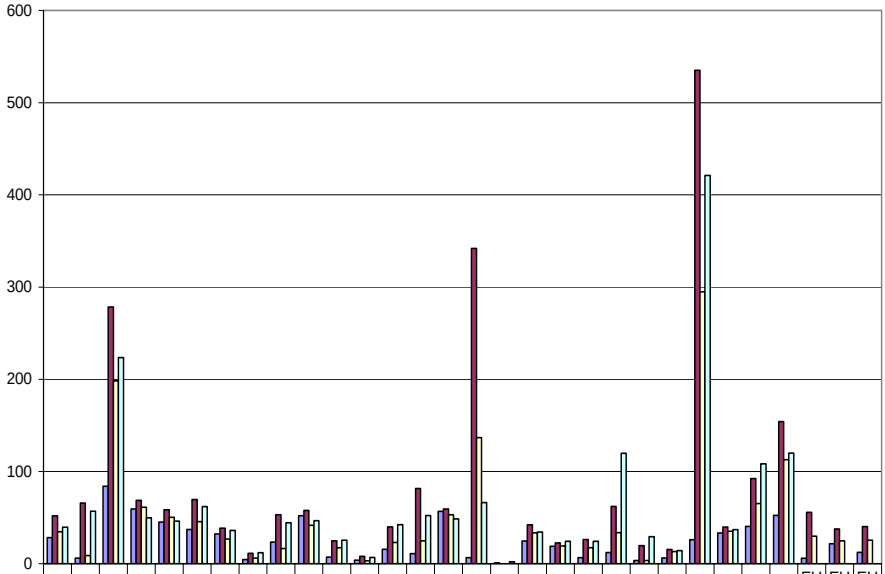
The average area of organic holdings varies significantly across Member States, see Graph 13. In 2007, the largest organic holdings were located in Slovakia (average total area of 535 ha), Hungary (342 ha), the Czech Republic (278 ha) and the United Kingdom (153 ha). In these Member States, a large part of the area of the organic sector is permanent grassland. Not all area in the organic holdings is farmed in an organic way: 68% on average in EU-15 organic holdings and 54% in EU-12 organic holdings (EU-27 average of 65%) according to the Farm Structure Survey.

Graph 13 provides also a comparison of the average total UAA of organic holdings with conventional holdings[9]. As a matter of fact, in all Member States the average size of organic holdings appears larger than the average size of conventional holdings (even if the difference is not large in some Member States). One element of explanation lies in the fact that the sectoral distribution of the organic and conventional holdings is not the same, with, for instance, higher prevalence of farm specialisations with smaller size in the conventional sector (such as pig or poultry farms) whereas there is a higher prevalence of holdings based on extensive livestock production with large grassland areas in the organic sector. However, this explanation is not sufficient as the observation at specialisation level (see Annex) provides similar indications for most specialisations. Another possible explanation may be that larger farm size may be necessary to compensate for higher production costs in parts of the organic sector. In the EU-12, the large difference between the average organic holding size and the conventional one in

[9] It is worth noting that using annual organic statistics (total UAA divided by total number of holdings) would lead to results quite different for some Member States since it would include areas in common (e.g. mountain pastures). In addition these data would provide no information on the total area of the holdings. This is why data of the Farm Structure Survey have been preferred.

some Members States might reflect the fact that part of the organic sector develops in large-scale farms (e.g. former agricultural cooperatives or State farms).

Graph 13. *Average UAA of organic and non organic holdings and average organic area in organic holdings (ha) in 2007*[10]



	BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE	UK	EU-12	EU-15	EU-27
Non organic farms (FSS)	28	6	84	59	45	37	32	4	23	52	7	4	15	11	57	6	1	25	19	6	12	3	6	26	33	40	53	6	22	12
Organic farms (FSS)	52	66	278	69	59	69	38	11	53	58	25	8	40	82	59	342	0	42	22	26	62	20	15	535	40	92	154	56	37	40
of which organic area FSS)	35	9	198	61	50	46	27	6	16	42	17	3	23	25	53	137	0	33	19	17	34	3	13	295	35	65	113	30	25	26
of which organic area (annual data)	40	57	223	50	46	62	36	12	44	47	25	7	42	52	49	66	2	34	24	24	120	29	14	421	37	108	120			

Source: Eurostat: Farm Structure Survey (2007) and annual organic data (2007, 2006 for CY, EE, LT, LU, MT and RO)

Table 1. *Average economic size and distribution of organic and conventional holdings in 2007 by economic size classes (ESU and %)*

	EU-12		EU-15		EU-27	
	Non organic	Organic	Non organic	Organic	Non organic	Organic
Average size (ESU)	2,4	14,4	23,5	35,1	11,0	32,1
Distribution (%)						
< 1 ESU	68,6	18,7	16,0	3,7	47,2	5,9
1 - < 2 ESU	15,2	17,0	13,0	5,5	14,3	7,2
2 - < 4 ESU	7,5	20,7	16,6	10,3	11,2	11,8
4 - < 8 ESU	4,2	17,8	15,6	18,1	8,8	18,1
8 - < 16 ESU	2,5	12,3	12,3	19,2	6,5	18,2
16 - < 40 ESU	1,4	8,1	12,4	23,6	5,9	21,4
40 - < 100 ESU	0,4	3,2	9,0	13,0	3,9	11,6
100 - < 250 ESU	0,1	1,4	4,1	5,2	1,7	4,6
>= 250 ESU	0,1	0,6	1,0	1,5	0,5	1,4

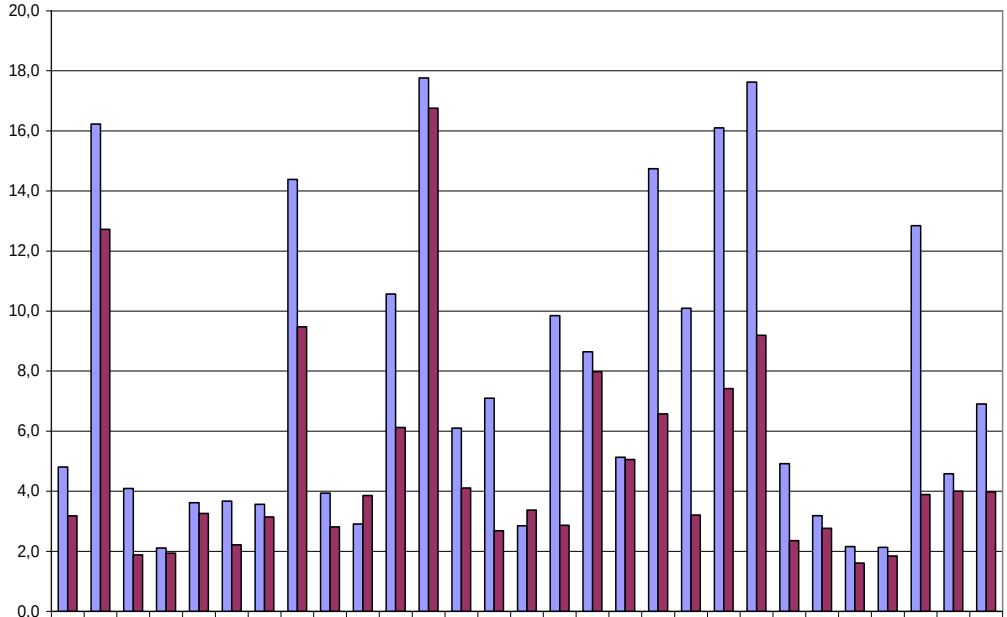
Source: Farm Structure Survey

[10] We provide in this graph the average organic area per farm as indicated by the FSS but also as indicated by the annual organic data. For the latter we divide the total organic area by the total number of certified organic producers. Differences between the two sources can be quite large for some Member States (e.g. for HU, PT, etc.). This may be due to different definitions or methodologies (e.g. common pasture land counted in the annual data but not in the FSS) or to the absence of stratification of organic agriculture leading to an inadequate representativeness of the FSS samples regarding organic agriculture.

Agricultural area is an incomplete measure of farm size, however. A more comprehensive approach is to look at the economic size, as measured in European Size Unit[11] (ESU), see Table 1. As with area, organic farms are on average larger than conventional farm. Organic and conventional holdings have clearly different distribution patterns, the organic sector being more represented in the larger size classes. This is obvious in the case of the EU-12, where the number of very small conventional holdings is very high, but this is true also for the EU-15.

It is often argued that organic farming employs more labour than conventional farming because it is more labour intensive (additional labour being made necessary to compensate for the absence of use of chemical inputs and nitrogen fertilizers) than conventional farming. However, this is not the case at the overall level for most Member States, as Graph 14 shows. Data indicate that the AWU / 100 ha is higher for conventional than for organic farming in all Member States except in France and Luxembourg. However, in the EU-15, the difference between the two types of farming is rather limited (4.6 AWU / 100 ha in the conventional sector against 4.0 in the organic sector) whereas it is larger in the EU-12. The observation at the level of the main sub-sectors indicates that even in the labour-intensive sub-sectors (e.g. horticulture, permanent crops), organic holdings would, on average, use less labour than conventional farms (see Annex).

Graph 14. *Employment of labour per area in the EU (AWU / 100 ha, 2007)*



	BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	IT	CY	LV	LT	LU	HU	NL	AT	PL	PT	RO	SI	SK	FI	SE	UK	EU-12	EU-15	EU-27
Non organic holdings	4,8	16,2	4,1	2,1	3,6	3,7	3,6	14,4	3,9	2,9	10,6	17,8	6,1	7,1	2,9	9,8	8,6	5,1	14,7	10,1	16,1	17,6	4,9	3,2	2,2	2,1	12,8	4,6	6,9
Organic holdings	3,2	12,7	1,9	1,9	3,3	2,2	3,1	9,5	2,8	3,9	6,1	16,8	4,1	2,7	3,4	2,9	8,0	5,1	6,6	3,2	7,4	9,2	2,4	2,8	1,6	1,8	3,9	4,0	4,0

Source: Farm Structure Survey (2007). AWU: Annual Work Unit

[11] The European Size Unit is calculated on the basis of standard gross margins (SGM). For each activity ("enterprise") on a farm (for instance wheat, dairy cow or vineyard), a standard gross margin is estimated, based on the area (or the number of heads) and a regional coefficient. The sum of such margins in a farm represents its economic size, expressed in European Size Units (1 ESU corresponds to a 1200-euro standard gross margin).

It does not seem that a size effect (i.e. the fact that organic farms are larger than conventional farms) would explain the difference between the two categories of holdings. If we make the comparisons for holdings of similar economic size classes, results indeed show that organic holdings use less labour than conventional ones, with the exception of the largest size classes (see Annex).

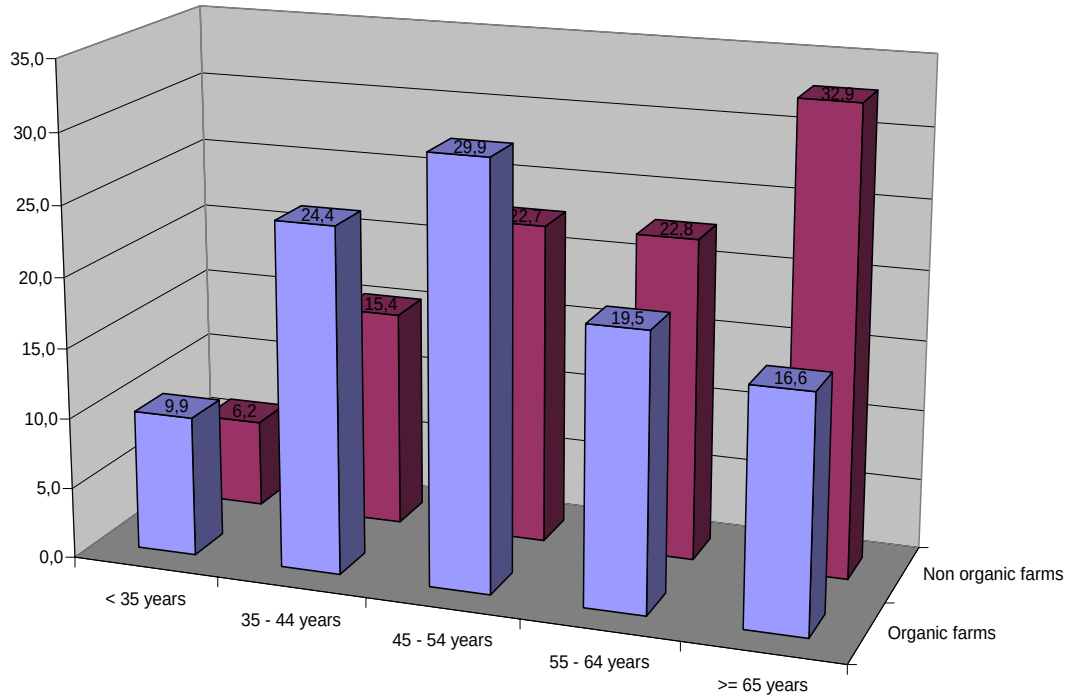
If organic farms are on average larger than non organic farms, their holders are also younger. Age distributions of the managers of farms with organic area and farms without organic area are strikingly different: farmers younger than 55 represent 64.3% of the organic sector whereas they represent only 44.3% of the conventional sector. See Table 2 and Graph 15.

Table 2. *Age distribution of farm managers in 2007 (percent)*

	EU-27		EU-12		EU-15	
	Organic farms	Non organic farms	Organic farms	Non organic farms	Organic farms	Non organic farms
< 35 years	9,9	6,2	10,7	6,9	9,8	5,2
35 - 44 years	24,4	15,4	22,7	15,1	24,7	15,8
45 - 54 years	29,9	22,7	30,4	22,2	29,9	23,6
55 - 64 years	19,5	22,8	18,6	22,1	19,6	23,8
>= 65 years	16,6	32,9	17,9	33,8	16,4	31,7

Source: Farm Structure Survey

Graph 15. *Comparison of age distribution of farm managers in the organic and non organic sector in the EU-27 in 2007 (percent)*



Source: Farm Structure Survey

2. ANALYSIS OF MAIN CROP AND ANIMAL SECTORS

In this part of the report, we aim to describe the importance of the various sub-sectors in organic agriculture, mainly on the basis of Eurostat data. When possible, comparisons with the overall agriculture are made with the objective of highlighting and explaining major differences regarding respective weights. Sub-sectors in organic crop and animal production may indeed have lower or higher importance than in the overall agriculture for several reasons. The latter range from choices in policy support to the sector to technical aspects related to organic production (e.g. difficulty to grow a certain type of crop according to organic rules) and to the structure of consumer demand (which may favour some categories of food products).

2.1. Breakdown of the organic area by crop type

1.4.1 Analysis by main categories of land use

Table 3. *Main categories of organic land in the EU-15*[12] *('000 ha and %)*

	1998	1999	2000	2001	2002	2003	2004	2005	2006	Annual growth rate %
Arable crops	628	807	955	1.248	1.271	1.239	1.272	1.350	1.267	9,2
Green fodder from arable land	477	723	833	745	801	885	827	895	965	9,2
Horticulture	227	365	415	477	463	466	469	517	593	12,8
of which vegetables	40	36	43	40	43	44	48	51	80	9,0
permanent crops	187	328	372	436	419	421	420	466	513	13,4
Permanent pastures	1.176	1.445	1.702	1.924	2.111	2.373	2.395	2.336	2.507	9,9
Other	51	79	51	145	246	98	136	187	222	20,3
Total land	2.559	3.420	3.956	4.538	4.891	5.061	5.099	5.285	5.555	10,2
In % of the total										
Arable crops	24,5	23,6	24,1	27,5	26,0	24,5	25,0	25,5	22,8	
Green fodder from arable crops	18,6	21,2	21,1	16,4	16,4	17,5	16,2	16,9	17,4	
Horticulture	8,9	10,7	10,5	10,5	9,5	9,2	9,2	9,8	10,7	
of which vegetables	1,6	1,1	1,1	0,9	0,9	0,9	0,9	1,0	1,4	
permanent crops	7,3	9,6	9,4	9,6	8,6	8,3	8,2	8,8	9,2	
Permanent pastures	46,0	42,3	43,0	42,4	43,2	46,9	47,0	44,2	45,1	
Other	2,0	2,3	1,3	3,2	5,0	1,9	2,7	3,5	4,0	

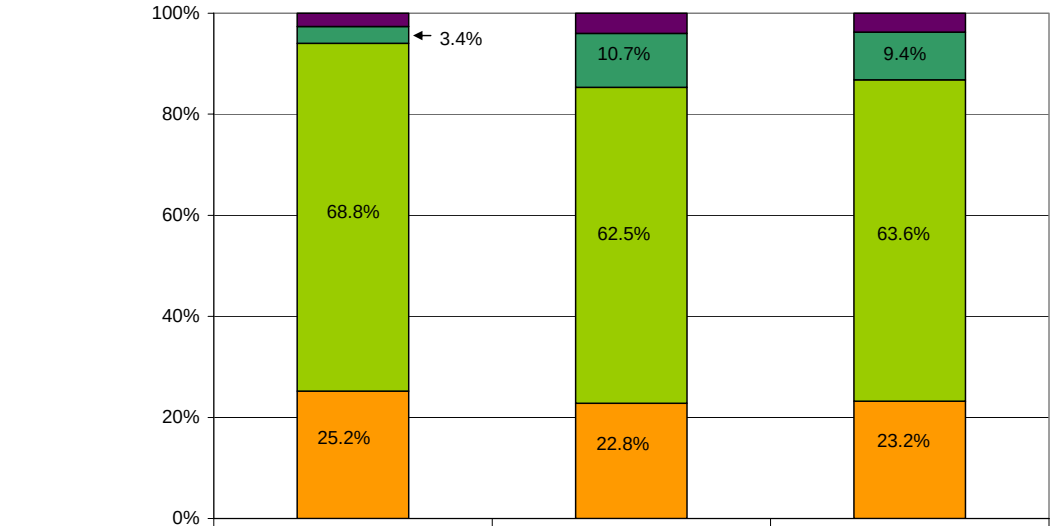
Sources: Eurostat, project EU-CEE-OFP and national data. "Other permanent crops" excluded from aggregate "permanent crops"

Due to lack of data for EU-12 Member States, we provide time series of the major uses of land under organic production only for the EU-15 (see Table 3). For a complete picture of EU-27 the analysis is done only for 2006.

In the EU-15, throughout the analysed period, permanent pastures have represented more than 40% of all organic land. The area under horticulture has almost tripled but its share has been rather stable around 10%. Whereas arable crops have increased annually at the average of 9.2%, horticulture has been more dynamic at 12.8%, especially permanent crops with 13.4%, the increase of area of vegetables has been comparatively less dynamic with 9.0% per year.

[12] In this document, arable crops include cereals, dried pulses, root crops, industrial crops and "other arable land crops". Temporary pastures are covered in the category "green fodder from arable land". Grassland includes permanent pastures and meadows. Horticulture includes vegetables (potatoes and dried pulses are under arable crops), melons and strawberries and permanent crops (fruit trees, multiannual fruit bushes, olive trees and vines). The category of "other permanent crops" has been excluded from the aggregate permanent crops. The category "other" covers fallow land, unused land, land used for seeds and the item "other permanent crops".

Graph 16. *Breakdown of utilised agricultural area in the organic sector in 2006 in the EU-12, EU-15 and EU-27 ('000 ha and %)*



	EU-12	EU-15	EU-27
Other	30	222	252
Horticulture	39	593	631
Grassland and fodder	791	3.472	4.263
Arable crops	289	1.267	1.556

Source: elaborated by AGRI from Eurostat or EU-CEE-OFP data. HU: 2004 or 2007. AT: data communicated by MAFEWM (include alpine pastures)

Table 4. *Land use categories in total agriculture / organic sectors in 2006 (%)*

	Arable land	Arable crops (1)	Permanent grassland	Permanent crops	Vegetables	Green fodder
All agriculture (share in total utilised agricultural area)						
EU-12	69,9	61,0	26,9	2,4	1,2	7,7
EU-15	56,6	44,0	31,6	8,2	1,2	11,4
EU-27	**60,4**	**48,9**	**30,3**	**6,6**	**1,2**	**10,3**
Organic agriculture (share in total organic + in-conversion area)						
EU-12	37,5	25,2	56,5	2,9	0,5	12,4
EU-15	40,2	22,8	45,1	9,2	1,4	17,4
EU-27	**39,7**	**23,2**	**47,1**	**8,1**	**1,3**	**16,5**

Source: elaborated from Eurostat (and EU-CEE-OFP for some missing data)
(1): excludes from arable land vegetables and green fodder

Graph 16 shows clear differences of the land use in the organic sector between the EU-12 and the EU-15. The significance of arable crops and of permanent pastures and green fodder is more important in the EU-12 than in the EU-15. Conversely, whereas horticulture represents 10.7% of the organic area in the EU-15 it stands only at 3.4% in the EU-12.

The comparison for the main use categories of the whole EU agricultural sector with the organic sector shows interesting features. Quite understandably the shares of vegetables and permanent crops are higher in the organic sector than in the whole EU agriculture, although the difference is not large, as the demand on the organic market is among the highest for fruit and vegetable products. What is striking is the significance of permanent grassland which represents only 30.3% of the EU-27 utilised agricultural area (UAA) whereas it represents 47.1% of the whole organic area. Hence, whereas the organic

sector amounts to 3.6% of total EU UAA in 2006, for permanent pastures the share is 5.7%. Similarly, green fodder represents only 10.3% of the whole EU UAA but 16.5% of the organic area.

Table 5. *Major uses of organic area in 2006 ('000 ha and %) per Member State*

	Arable crops		Permanent grassland		Green fodder		Horticulture		Other		total area
	Area	%	Area	%	Area	%	Area	%	Area	%	
Belgium	3,9	13,4	19	64,5	5,3	18,1	1,0	3,4	0,2	0,7	29,3
Bulgaria	1,1	22,7	0	9,9	0,0	0,6	1,9	39,9	1,3	26,8	4,7
Czech Republic	11,3	4,4	230	90,0	11,6	4,5	1,9	0,7	0,6	0,3	255,1
Denmark	49,2	35,6	19	13,9	63,4	45,9	1,4	1,0	4,8	3,5	138,1
Germany	244,8	29,7	410	49,7	122,0	14,8	17,8	2,2	31,0	3,8	825,5
Estonia	9,4	12,9	12	16,2	48,3	66,2	1,2	1,7	2,2	3,0	72,9
Ireland	0,8	2,1	34	92,3	0,0	0,0	0,3	0,9	1,8	4,8	37,2
Greece	53,6	17,7	132	43,7	29,8	9,8	72,5	24,0	14,3	4,7	302,3
Spain	190,9	25,9	379	51,4	0,0	0,0	166,7	22,6	0,5	0,1	736,9
France	116,2	21,0	220	39,8	122,5	22,2	36,8	6,6	57,6	10,4	552,8
Italy	282,6	24,6	261	22,8	297,4	25,9	249,8	21,8	57,0	5,0	1.148,2
Cyprus	0,9	47,4	0	0,0	0,0	0,0	0,9	46,3	0,1	6,3	2,0
Latvia	59,7	34,1	103	58,9	0,8	0,5	1,5	0,9	9,9	5,6	175,1
Lithuania	66,3	68,5	22	23,2	1,0	1,0	4,7	4,8	2,3	2,4	96,7
Luxembourg	0,8	23,4	2	52,9	0,6	15,7	0,1	2,3	0,2	5,7	3,5
Hungary	40,1	30,2	60	45,3	20,4	15,3	4,4	3,3	7,8	5,9	133,0
Malta	0,0	1,0	0	0,0	0,0	1,0	0,1	98,1	0,0	0,0	0,1
Netherlands	10,1	21,0	30	62,0	0,0	0,0	4,1	8,4	4,2	8,6	48,4
Austria	88,2	18,3	331	68,7	46,2	9,6	4,7	1,0	11,9	2,5	482,3
Poland	42,4	25,8	62	37,6	37,1	22,6	19,3	11,7	3,8	2,3	164,4
Portugal	31,7	11,5	200	72,5	10,0	3,6	28,4	10,3	5,6	2,0	275,4
Romania	42,1	39,1	51	47,6	2,8	2,6	1,0	0,9	10,5	9,7	107,6
Slovenia	1,1	4,2	24	91,2	0,4	1,6	0,8	2,9	0,1	0,2	26,8
Slovakia	14,7	12,2	83	69,1	19,6	16,3	0,9	0,8	2,0	1,6	120,4
Finland	55,1	38,1	1	0,5	74,0	51,2	0,9	0,6	13,9	9,6	144,7
Sweden	68,3	30,3	46	20,2	91,9	40,8	0,9	0,4	18,7	8,3	225,4
United Kingdom	71,1	11,8	423	70,0	102,3	16,9	7,4	1,2	0,5	0,1	604,6
EU-12	289,1	25,2	649	56,5	142,1	12,4	38,6	3,4	30,2	2,6	1.148,5
EU-15	1.267,4	22,8	2.507	45,1	965,4	17,4	592,8	10,7	222,1	4,0	5.554,7
EU-27	1.556,5	23,2	3.155	47,1	1.107,5	16,5	631,4	9,4	252,4	3,8	6.703,2

Sources: Eurostat. HU: 2004. AT: data from MAFEWM which include alpine pastures

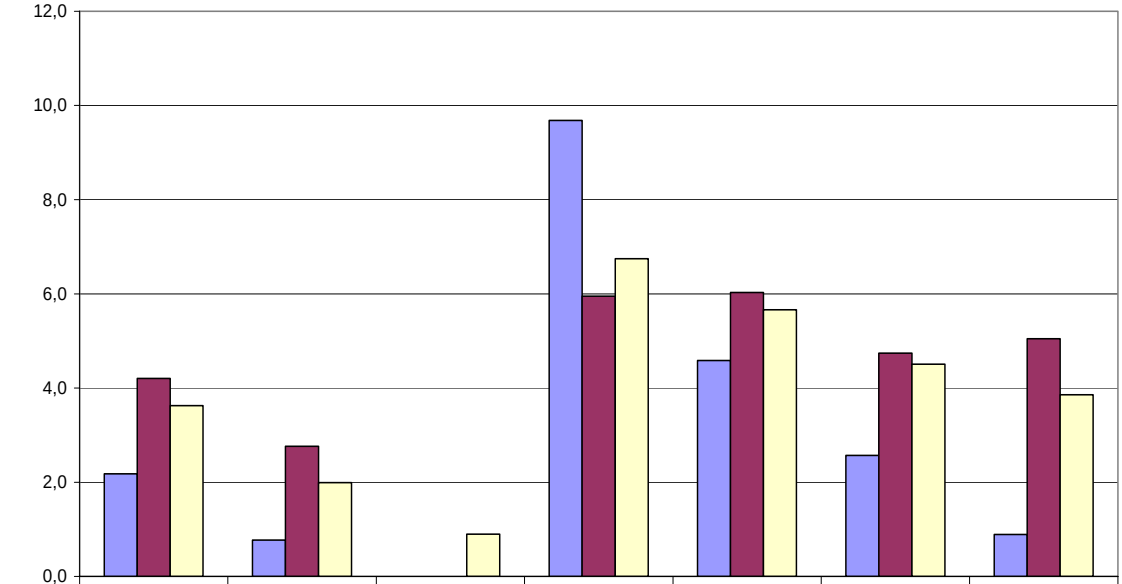
Conversely, arable crops cover 48.9% of the total UAA of the EU but only 23.2% of the organic UAA. One element of explanation lies in the fact that organic production systems are more extensive than in conventional agriculture (higher reliance on grazing on permanent pastures). Permanent pastures are often eligible to agri-environment 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-environment payments and land use characteristics at regional level, this could lead to a bias towards the development of organic permanent pastures. In addition, technical difficulties may prevent the development of arable crops in the organic sector: pest control and management is more difficult in the organic sector than in the conventional sector. The rather limited areas of rapeseed or peas would be largely due to difficulties linked to pest management (see David, 2009).

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. Hence in 2001 pastures represented

69.2% of all organic areas, in 2006 this share has declined to 56.5% and this process is continuing. As a matter of fact this is a trajectory which took place in other Member States in the early stage of development of the organic sector (e.g. in Austria, see Gleirscher, 2008).

Graph 17 below provides the share of the organic area in the total EU area for major crop types. Unsurprisingly, it is highest for permanent pastures and dried pulses which play a major role for animal feed. It is the lowest for oilseeds.

Graph 17. *Share of the organic area in total EU area by crop sectors (2006, %)*



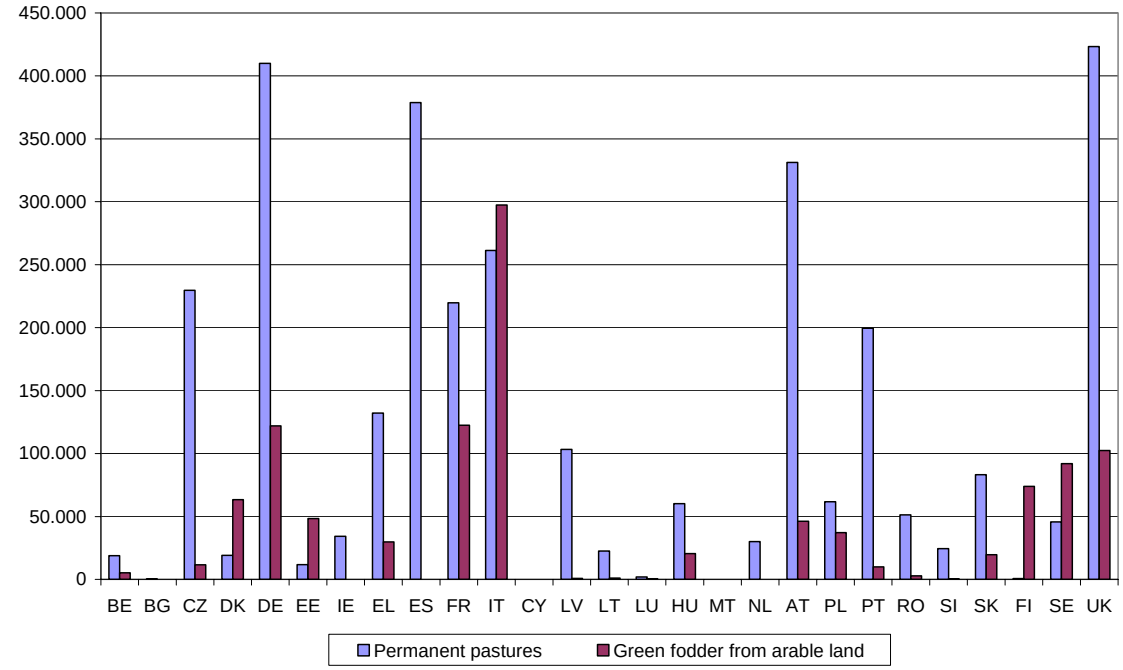
	UAA	Cereals	Oilseeds	Dried pulses	Permanent pastures	Permanent crops	Vegetables
EU-12	2,2	0,8		9,7	4,6	2,6	0,9
EU-15	4,2	2,8		5,9	6,0	4,7	5,0
EU-27	3,6	2,0	0,9	6,7	5,7	4,5	3,9

Source: Eurostat, elaboration DG AGRI. 2008 for oilseeds

1.4.2 Permanent pastures and green fodder

At Member State level, the area under permanent pastures is the highest in absolute terms in Germany, Spain and the United Kingdom where it is around 0.4 mio ha. In six Member States the organic sector amounts to more than 10% of the total (organic and non organic) area of permanent pastures: 25.8% in the Czech Republic (where the organic cattle has developed fast), 16.0% in Greece, 16.2% in Latvia, 15.5% in Slovakia, 12.0% in Austria and 11.5% in Portugal. Due to incomplete data it is not possible to provide an exact figure of the area under temporary grassland. Out of the area of 1.1 mio ha of green fodder in the EU in 2006, it is estimated that around half consisted in temporary grassland.

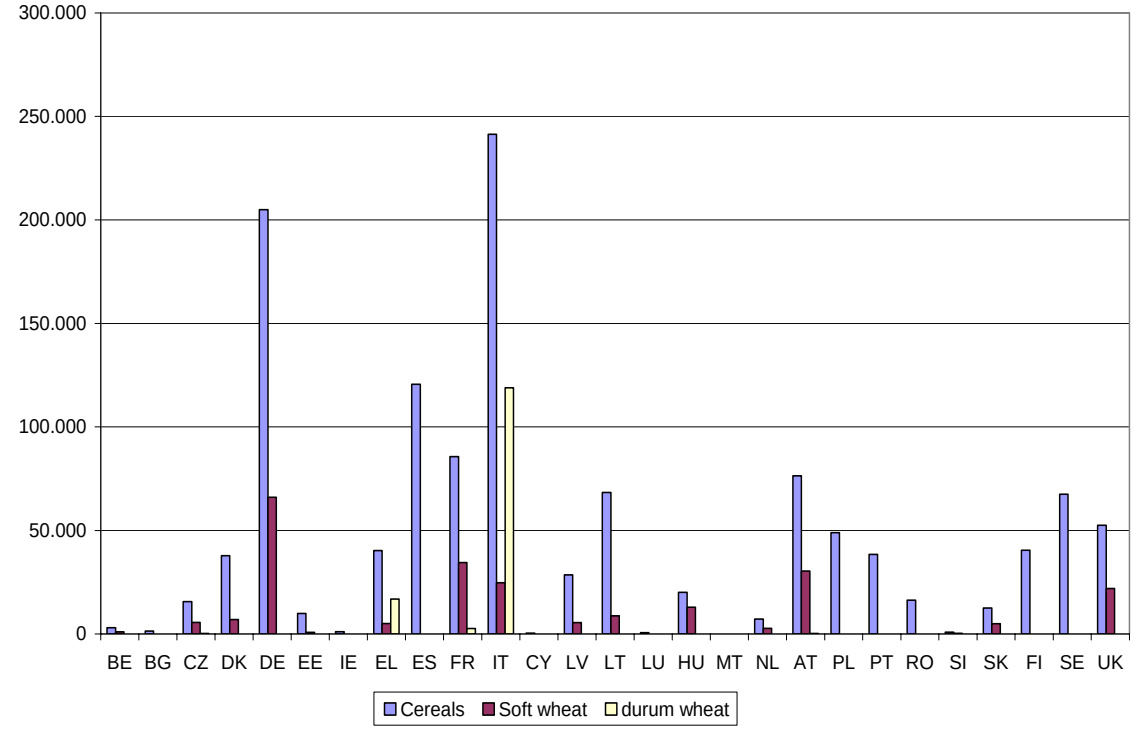
Graph 18. *Area under permanent pastures and green fodder in 2006 (ha)*



Source: Eurostat data, EU-CEE-OFP for DE and FI, HU 2004 (data on green fodder are 0 for ES and IE)

1.4.3 Major arable crops: cereals, oilseeds and protein crops

Graph 19. *Organic cereal area in 2007 (ha)*



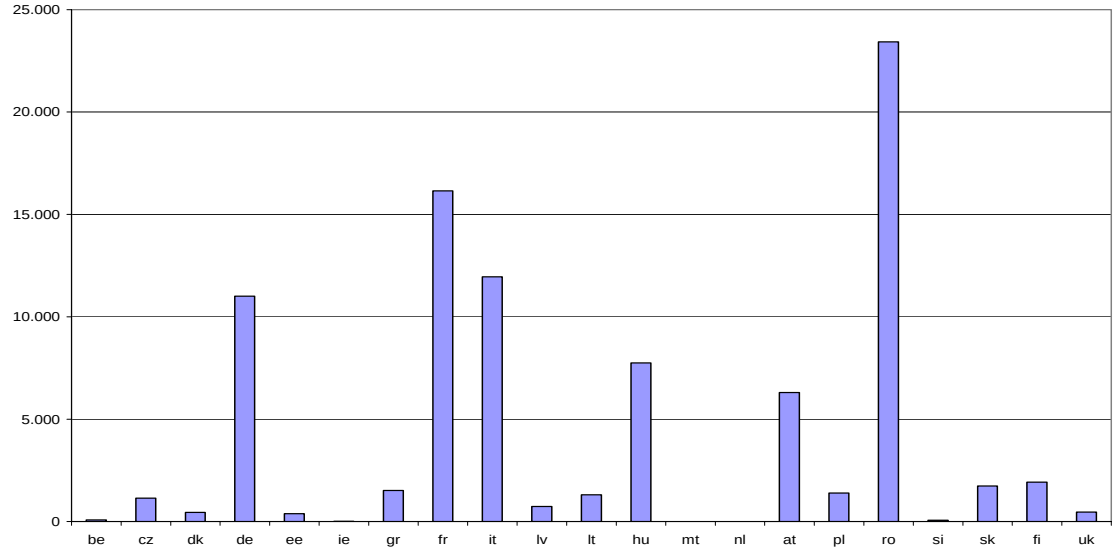
Source: Eurostat (EU-CEE-OFP for FI), Federal Ministry for Food, Agriculture and Consumer Protection (BMELV) for DE, 2004 for LU. Soft wheat no data for soft wheat for BG, CY, ES, IE, MT, PL, PT, RO and SE (incomplete data for durum wheat as well).

Among the arable crops, cereals represent the most important category with 1.2 mio ha in 2007, i.e. 18.3% of all EU organic land and about 80% of the total organic arable crop

area. This represents 2.1% of the total EU cereal area. The largest areas are located in Italy (almost 0.25 mio ha) and in Germany (around 0.2 mio ha). In 2007, Spain grows 121 000 ha. France, the largest EU producer of cereals, comes fourth with 86 000 ha. Wheat represents roughly 0.4 mio ha (of which more than 0.1 mio ha of durum wheat in Italy). 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).

The area under oilseeds is estimated at around 90 000 ha in 2008 (data are missing for several Member States), i.e. 0.9% of total EU oilseed area.

Graph 20. *EU oilseed organic area in 2008 (ha)*



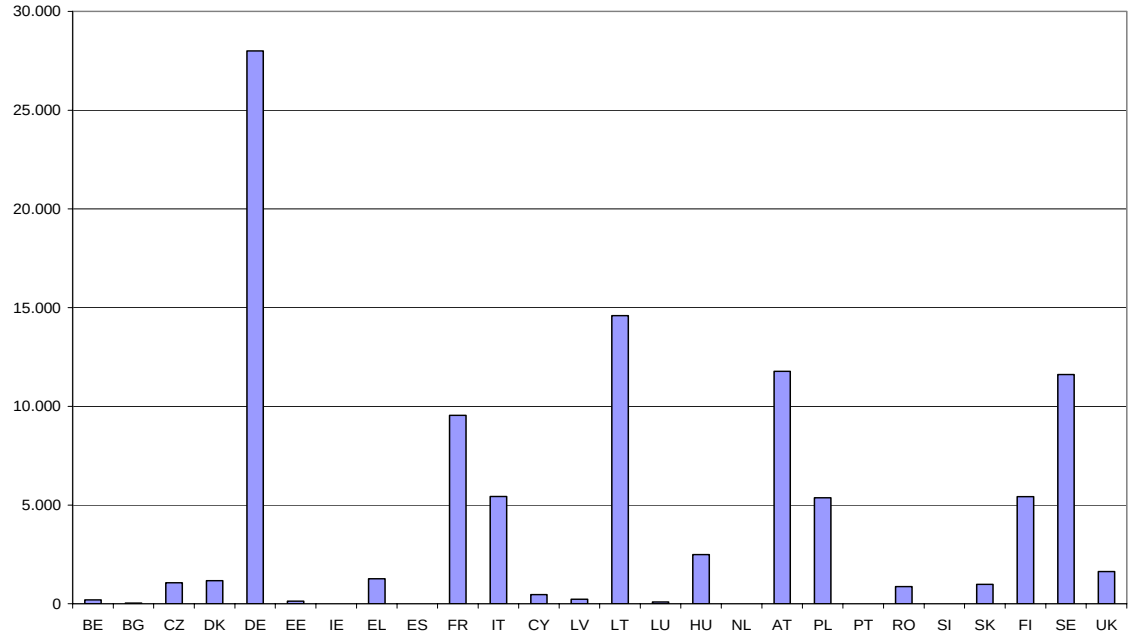
Source: Eurostat. DE: 2007 data communicated by BMELV; BE and AT 2007

Sunflower and rapeseed are the two most important oilseeds, however rapeseed amounts to about 25 000 ha whereas sunflower stands at about 35 000 ha (AGRI estimates). With an estimated area of 15 000 ha, soybean is rather well represented in the organic sector (out of 10.7 mio ha of oilseeds in total in the EU in 2008, soya amounted to only 0.3 mio ha).

Another category of arable crops deserves to be covered in this report: dried pulses. Dried pulses, also commonly referred to as protein crops, indeed play a specific role in the organic sector. Firstly, because as leguminous plants which fix nitrogen they have a high rotational value in the organic production systems (contributing to maintain the fertility of soils). Secondly, because they 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 104 000 ha of organic dried pulses were cultivated in 2007 in the EU, of which 75% in the EU-15 and 25% in the EU-12. Organic dried pulses represent 7.0% of total EU dried pulse area. However, their share is higher than 20% in several Member States: Denmark (20.2%), Germany (20.9%), Lithuania

(35.9%), Austria (32.8%), Sweden (60.5%) and in Finland where virtually all areas would be organic (5 240 ha in 2007).

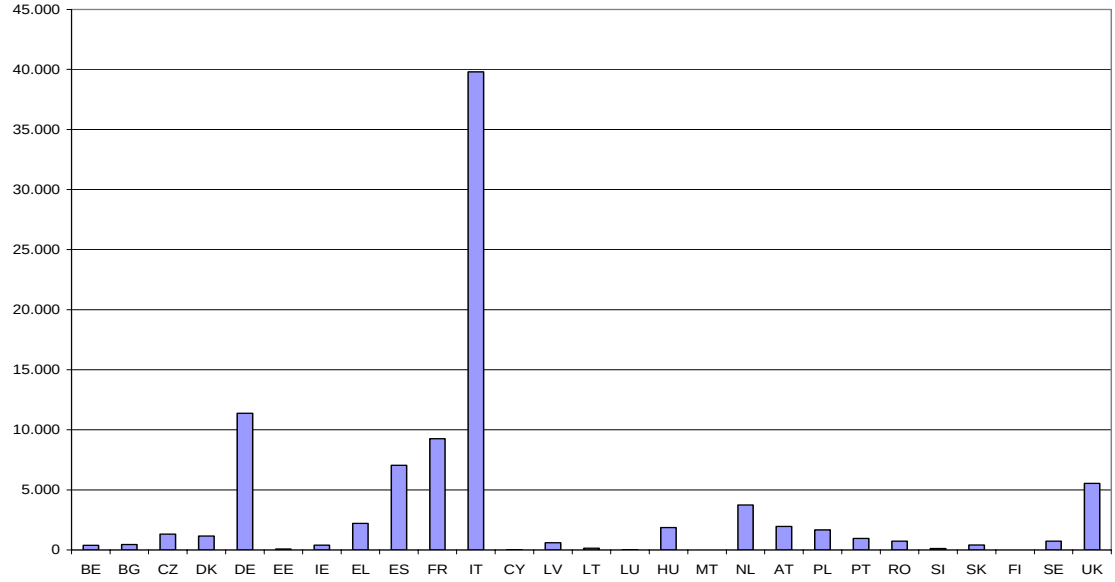
Graph 21. *Organic dried pulse area in 2007 (ha)*



Source: Eurostat data, 2008 for FI and RO, 2004 for LU. DE: data communicated by BMELV

1.4.4 Vegetables

Graph 22. *Organic vegetable area in the EU in 2007 (ha)*[13]



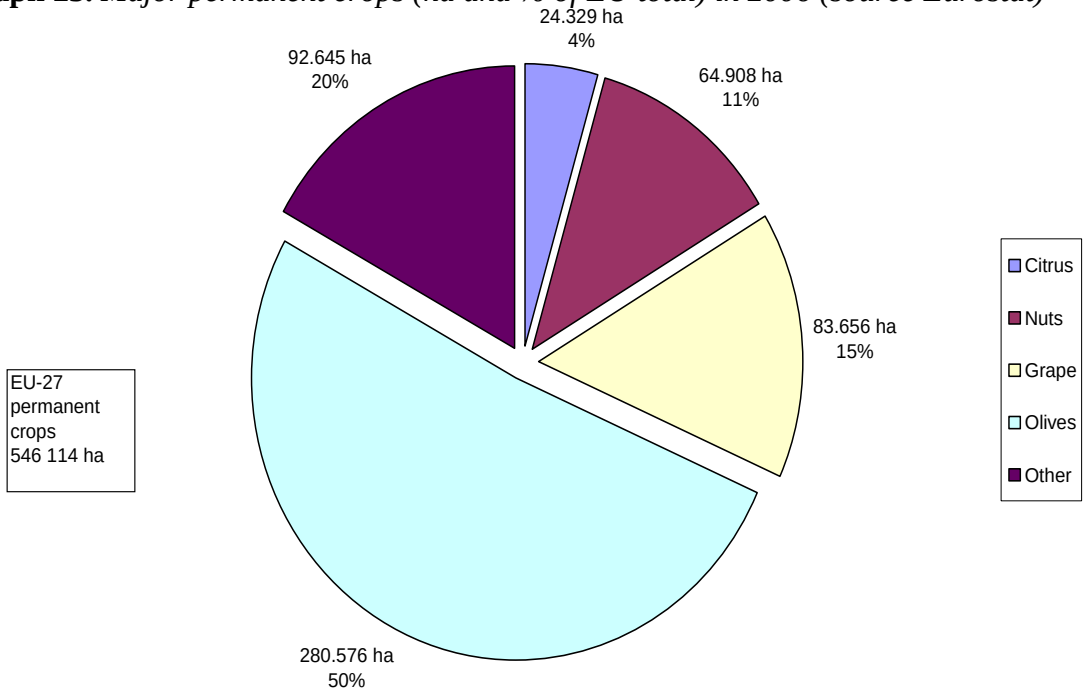
Source: Eurostat, EU-CEE-OFP for FI and UK, 2004 for LU and MT

[13] The vegetable aggregate of Eurostat excludes potatoes and dried pulses. For the United Kingdom we retain the estimates of project EU-CEE-OFP which provide an area under organic vegetables around 5 000 ha whereas the official data exceed 10 000 ha. It seems that they include dried pulses (which are not part of the vegetable aggregate).

The vegetable sector represents a minor part of the organic area: 91 900 ha in 2007 out of 6.6 mio ha (1.4%). Most of the area is concentrated in the EU-15 (84 600 ha, 93.5% of all EU-27 area). Italy is by far the Member State with the largest area of organic vegetables (almost 40 000 ha), Germany follows with 11 300 ha, France being third with 9 200 ha. Spain stands at 7 000 ha whereas the United Kingdom accounts for 5 000 ha. We should not forget the Netherlands which with 3 700 ha is also an important player (vegetables represent 7.5% of all national organic area in comparison with 1.3% on average in the EU-27 – 1.4% in the EU-15 -), all the more so that an important part of this area is under cover. The relative importance of the organic sector in the overall vegetable sector is the largest in Denmark (13.9% of all vegetable area) and Austria (11.3%). Among the largest EU vegetable producers it is obviously in Italy that the organic sector has the highest share with 9.3%. In comparison, Spain's interest in the sector is rather modest with only 1.5%, although it is the second largest EU producer of vegetables after Italy. France comes in between with 3.9%. Finally, in the Netherlands the organic sector represents 4.8% of the total vegetable area. With 7 400 ha, the vegetable sector is under-developed in the EU-12. In absolute terms it is in Hungary and Poland where the area devoted to vegetables is the largest (almost 1 900 ha in Hungary and 1 700 ha in Poland). For the EU-12 organic vegetable areas represents 0.9% of all vegetable areas in 2006. The corresponding figures for the EU-15 and EU-27 are respectively 5.0 and 3.9%.

1.4.3 Permanent crops

Graph 23. *Major permanent crops (ha and % of EU total) in 2006 (source Eurostat)*



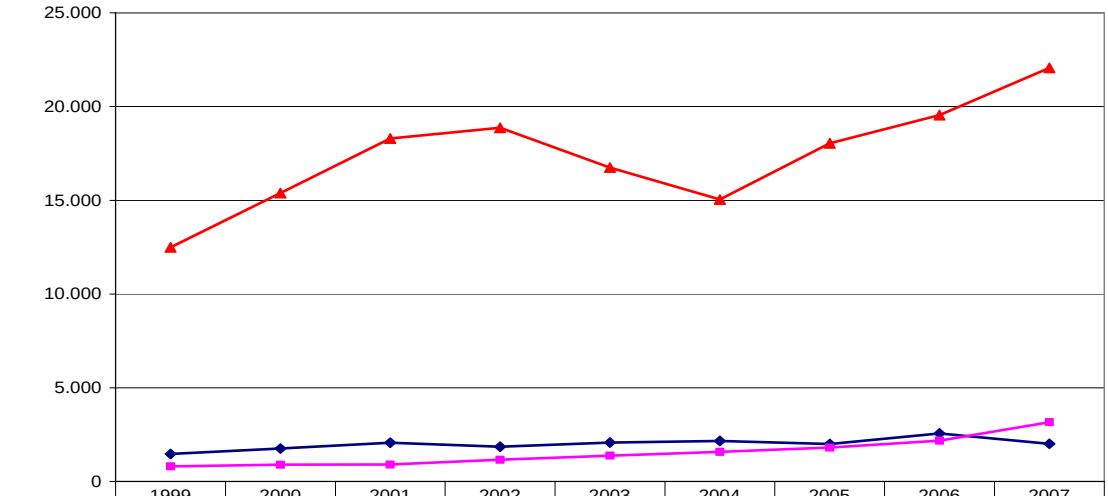
We devote a special sub-section to permanent crops because they are an important category, fruit being an important product on the organic market, and because this part of the organic sector is rather well documented in terms of statistical data. At the EU level the organic area of permanent crops amounts to 0.54 mio ha, i.e. 8.1% of all organic

areas. This makes 4.5% of the EU-27 total area under permanent crops in 2006 (2.6% in the EU-12 and 4.7% in the EU-15). The EU-12 represents a minor share of total EU organic permanent crop area, although it is increasing: its share has increased from 0.6% of the EU-27 permanent crop area in 1999 to 5.9% in 2006.

It comes with no surprise that the Member States with the largest organic areas are EU Mediterranean Member States, with the notable exception of Poland: Italy (209 000 ha in 2007), Spain (164 600 ha), Greece (61 100 ha), Poland (50 000 ha), France (32 100 ha) and Portugal (27 700 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 8.2% of all permanent crop areas are under the organic sector, whereas in Spain (the largest EU producer) it is 3.3% and in France 2.5%. Greece provides significant support to the sector through the agri-environment payments which has prompted a dynamic development in the last years. Hence, the organic sector represents in 2007 6.2% of the total permanent crop areas in this Member State. In Portugal the organic sector represents a more modest 3.6%. In Poland the organic sector represents a rather high 5.4% of all areas under permanent crops.

Data are very scarce regarding organic stone and pip fruit. Hence, although apples are the main fruit produced in the EU, data on organic areas are very incomplete. We will provide data herebelow on four major categories: citrus, grapes, olives and nuts, for which data are quite complete, at least for the EU-15, and time-series are available.

Graph 24. *Citrus organic area in Greece, Italy and Spain (ha)*



	1999	2000	2001	2002	2003	2004	2005	2006	2007
Greece	1.469	1.758	2.069	1.856	2.073	2.168	2.002	2.571	2.015
Spain	810	901	909	1.159	1.382	1.587	1.810	2.184	3.165
Italy	12.488	15.384	18.296	18.868	16.749	15.043	18.044	19.549	22.062

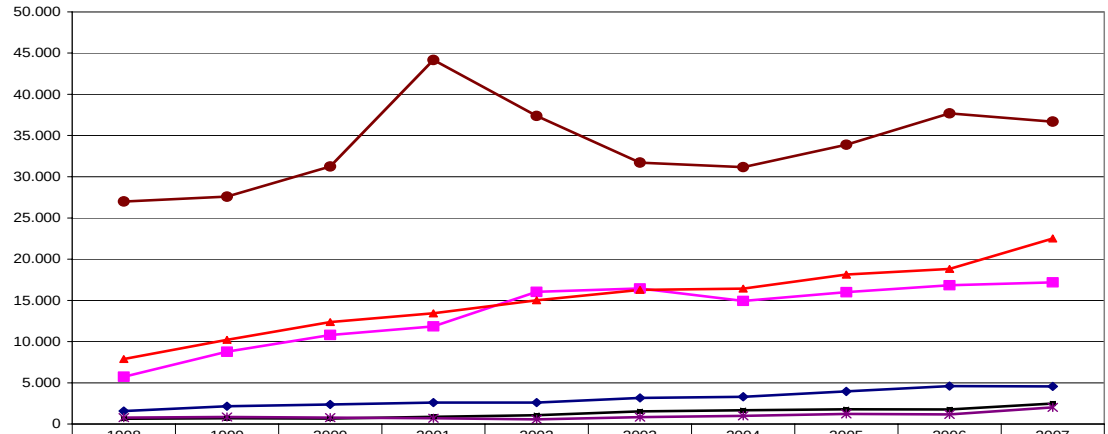
Source: Eurostat data and EU-CEE-OFP data for 2001 in Greece and 2002 in Spain

The organic citrus sector has seen a dynamic development in the last 15 years in the EU. The sector is concentrated around three Member States only: Italy, Greece and Spain. Besides, Cyprus is developing a sector which is still tiny (52 ha in 2007). However, the lion share is borne by Italy where the area exceeds 20 000 ha in 2007. By contrast, in Spain the sector amounts to around 3 000 ha in 2007, but it is developing. Compared with the total area under citrus, a rather impressive 12.8% of citrus areas is organic in Italy, 3.7% in Greece and 1.0% in Spain, which is by far the largest EU producer of citrus fruit but has displayed so far the lowest interest for the organic sector. The lower

significance of the organic sector in permanent crops in Spain in comparison with other Southern EU Member States is probably at least partly due to lower support (at least in comparison with Greece and Italy).

EU organic vineyards are for the vast majority located in the EU-15. Out of a total of 87 800 ha in the EU-27, 86 200 ha were located in the EU-15 and 1 600 ha in the EU-12. Within the EU-12, Hungary presents the largest area, close to 600 ha. It is considered that wine production from grapes is the overwhelming use of organic grapes, besides processing into grape juice and dried grapes. Table grape is still very limited, e.g. less than 1% of the organic grape area in France. The importance of organic grape in the total grape area in 2007 is the largest in Austria (5.6%), Italy (4.7%) and Greece (4.2%). In France and Germany the share is at 2.7% whereas in Spain, Portugal and Hungary it is only 1.5, 0.9 and 0.7% respectively. One can note that the organic vineyard area was very high in Italy in 2001 and 2002 which is due to a sudden increase of areas under conversion which do not seem to have completed this process. A similar pattern seems to apply to the olive sector in 2001 for the same Member State.

Graph 25. *Organic vineyard area in the EU-15 (ha)*



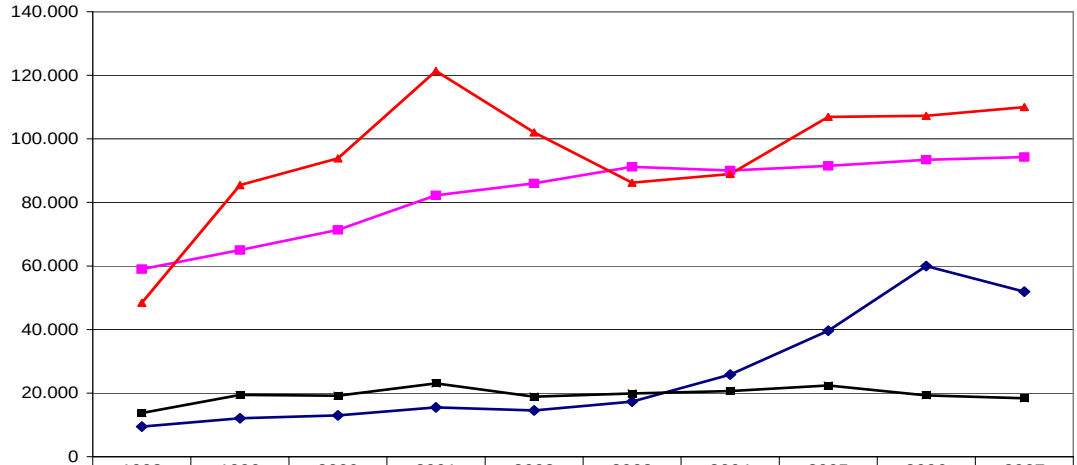
	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
EL	1.566	2.147	2.369	2.596	2.599	3.168	3.303	3.955	4.603	4.561
ES	5.729	8.768	10.804	11.841	16.038	16.453	14.928	15.991	16.832	17.189
FR	7.896	10.212	12.364	13.426	15.013	16.259	16.428	18.133	18.808	22.509
AT	650	701	668	890	1.084	1.535	1.657	1.791	1.766	2.477
PT	782	855	791	705	575	839	1.002	1.240	1.178	2.021
IT	27.005	27.587	31.249	44.175	37.379	31.709	31.170	33.885	37.694	36.684

Source: Eurostat, for AT, EL and ES, some gaps filled with EU-CEE-OFP project

Olive groves represent 50% of all organic permanent crops. In 2007 there were 275 000 ha of organic olive groves, most in Italy, Spain and Greece[14]. That represented 7.0% of all EU olive areas and 9.4% for Italy, 6.4% for Greece and a rather high (in comparison with other permanent crops) 3.8% for Spain. The largest part of organic olives is utilised for the production of oil. The production of table olives is more problematic due to the fact that the appearance of the fruit is essential.

[14] Note that data presented in Graph 23 are not exactly the same as they apply to 2006 (data for 2007 were not complete).

Graph 26. *Organic olive area in Greece, Italy and Spain (ha)*



	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Greece	9.475	12.085	13.045	15.500	14.595	17.341	25.811	39.636	59.999	51.923
Spain	59.011	65.018	71.351	82.246	85.967	91.209	90.042	91.485	93.432	94.251
Italy	48.435	85.483	93.863	121.363	102.055	86.201	88.963	106.938	107.233	109.992
Portugal	13.743	19.451	19.233	23.089	18.915	19.886	20.694	22.404	19.341	18.409

Source: Eurostat (and EU-CEE-OFP data for 2001 in PT and 2002 in ES)

In 2007, there were 65 300 ha of organic nuts in the EU, of which only 1 200 ha in the EU-12 (of which 700 in Slovakia and 360 in Hungary). In the EU-15, organic nuts are primarily located in Spain (49 000 ha) and Italy (5 600 ha). For these two Member States this represents respectively 8.4 and 3.7% of their total nuts area. It is interesting to note that, among permanent crops, it is in the case of nuts that the interest in the organic sector has been the highest in Spain.

At the EU level it is not surprising that in the nuts and olive sectors the share of organic areas in the total is the highest in 2006 (7.0% for nuts and 5.8% for olives) since these two types of production face a high demand on the market (especially organic olive oil) together with lower difficulties in conducing production from an agronomic point of view. This cannot be said for instance of grape production as vines are very sensitive to diseases[15], hence only 2.3% of vineyard areas are under organic production. This does not seem to apply to organic citrus area which stands only at 4.3% of the whole citrus sector (but is quite high in Italy). Here it is probably the rather late interest of producers in Spain – by far the largest EU citrus producer – which explains this low figure.

2.2. Animal sector

Statistics on the number of organic animals are incomplete and do not allow drawing a comprehensive picture of the sector, in addition a number of data do not seem to reflect the reality, and this problem seems to be more pronounced in the animal sector than for areas in the crop sector. It is hoped that in the next few years the situation will improve.

[15] Cultivation of organic vines for wine or table grape is in particular more delicate in humid climates. The use of copper (which is an important product to fight a range of diseases – fungi and bacteria – in the vegetable, fruit and grape sectors) is limited to 6 kg/ha/year under EU organic legislation.

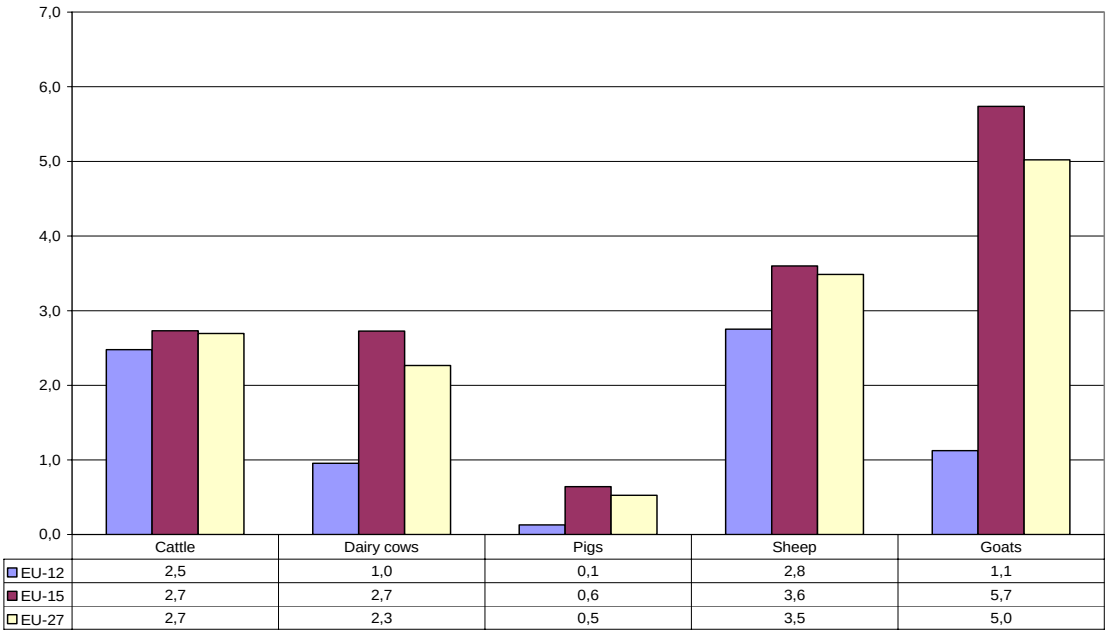
Similarly to the crop sector, the organic animal sector is developing at a fast pace in the EU. This is obvious in the EU-15, see Table 6, and for the EU-12 as well, although only short time series are available for the latter.

Table 6. *Evolution of animals under organic production in the EU-15 (mio heads)*

	2002	2003	2004	2005	2006	2007	Average annual increase %
Cattle	1,54	1,77	1,82	1,88	1,98	2,07	6,1
Pigs	0,39	0,46	0,48	0,57	0,59	0,81	15,5
Poultry	14,15	15,42	16,47	16,69	18,91	19,08	6,2
Sheep	2,05	2,03	2,05	2,39	2,67	2,99	7,8
Goats	0,24	0,41	0,40	0,51	0,54	0,64	22,2

Sources: Eurostat, EU-CEE-OFP, Member State communications and AGRI estimates

Graph 27. *Share of the organic sector in animal sub-sectors (% of total herd, 2007)*



Source: elaborated by DG AGRI (see sources of Graphs 28 to 32)

The share of organic production within total production varies according to the different animal sectors. Not surprisingly it is for the pork sector that the sector has the lowest weight. This stems partly from the difficulties posed by the provision of organic animal feed (compound feed). Conversely it is not surprising that the highest shares are found in the sheep and goat sectors (well identified products, feed based mainly on roughage).

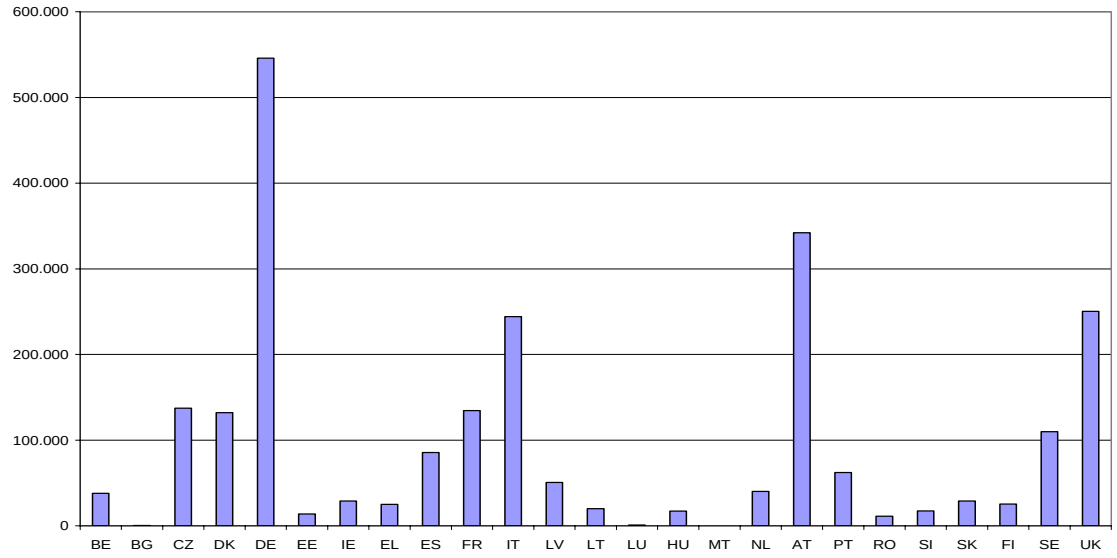
Apart from sheep and goats, due to lower difficulties to convert to organic production, the ruminant sector tends to develop faster than other livestock sectors. Feed supply is indeed easier to implement in this sector (permanent pastures can be easily converted towards organic production) than for poultry or pig sectors where there is more reliance on the availability of grains and organic compound feed[16]. This explains why market

[16] Yet, the necessity to provide a substantial part of feed to the animals on the farm (50% at least in the EU legislation) may constrain the development of the organic sector in areas which are short of land (e.g. in the case of Denmark).

difficulties in the organic livestock sector in the last ten years affected more the organic dairy sector (in particular in Denmark and in the United Kingdom in the early 2000s) when supply increased at a faster pace than demand. However, with the establishment of an adequate supply chain, these problems seem to be relegated to the past. However, the situation could be different in EU-12 Member States where the organic supply chains are in a phase of development.

In 2007 there were 2.4 mio heads of certified cattle animals in the EU-27. The largest producers of organic cattle are Germany, Austria, the United Kingdom and Italy. For Germany, the organic sector represents 4.3% of the whole bovine sector. The importance of the organic sector in relation with the whole bovine sector is the highest in Austria (17.1%), Latvia (12.7%), the Czech Republic (10.1%) and Denmark (8.6%). In France, the largest EU bovine producer with 19.1 mio heads, the organic sector represents 0.7% of the sector. Interestingly, the share of the organic sector is higher in the EU-12 with 3.7% than in the EU-15 (2.7%). This is explained by the fast development of the sector in particular in the Czech Republic, Slovakia and in the Baltic Member States where organic areas under permanent pastures have developed fast as well.

Graph 28. *Number of certified cattle in 2007 (heads)*

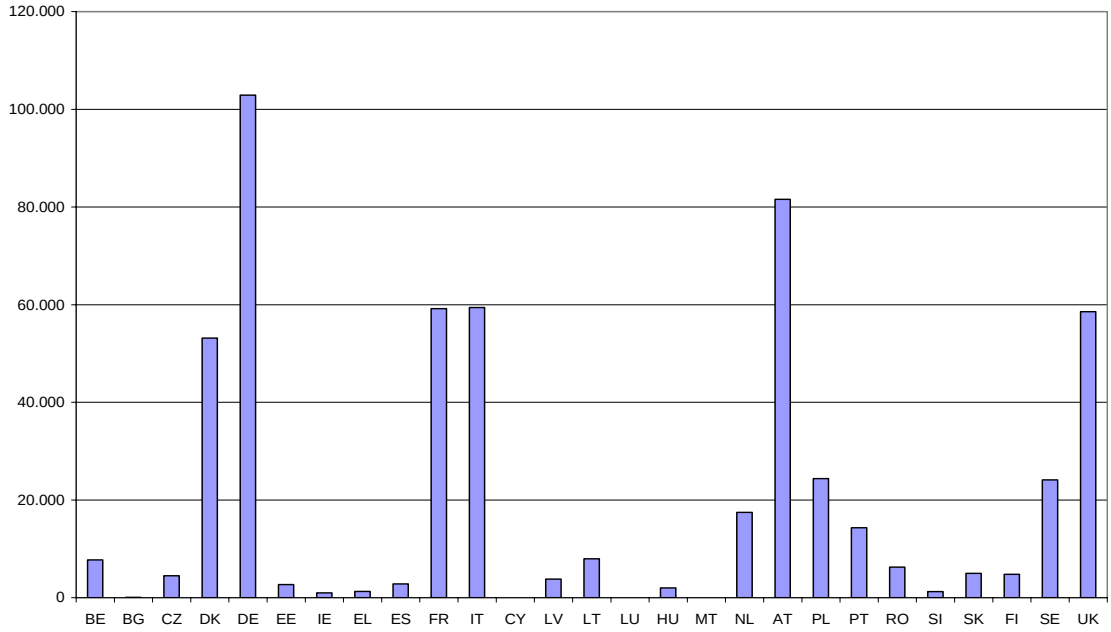


Source: Eurostat, data communicated by BMELV for DE, EU-CEE-OFP for FR, 2002 for LU, 2005 for PT, 2006 for RO, no data for CY

In the EU-15 the total number of organic cattle has increased from 1.5 mio heads in 2002 to almost 2.1 in 2007, an average annual increase of 6.1%.

Organic milk is considered the most successful organic animal product. There were 0.55 mio certified organic dairy cows in the EU in 2007, 2.3% of all EU dairy cows. In the EU-15, the organic sector represents 2.7% of all dairy cows, in the EU-12, this figure falls to 0.9%. Among the EU-12 Member States, the three Baltic have already rather high shares (respectively 2.6, 2.1 and 2.1% for Estonia, Latvia and Lithuania). Member States where the organic sector holds the largest share are Austria with 15.6% of all dairy cows, Denmark (9.6%) and Italy (3.2%). In Germany, the largest EU dairy producer, the significance of the organic sector stands at 2.5% of all dairy cows. For France, second largest EU dairy producer, it stands at 1.6%.

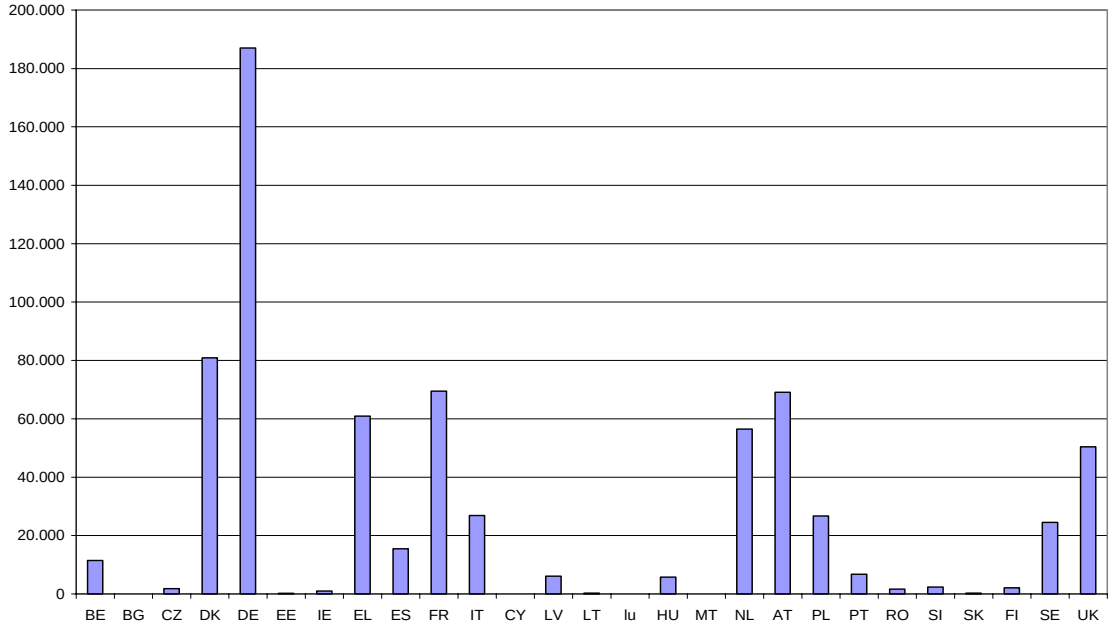
Graph 29. *Number of certified dairy cows in the EU in 2007 (heads)*



Sources: Eurostat; 2006 BG, DK, RO, SE; 2005 UK. Data communicated by the Ministry of Agriculture and Rural Development for PL (bovine mixed types and dairy), data communicated by BMELV for DE, PT AGRI estimate

The organic pig herd amounts to 0.85 mio heads in 2007. The largest producers would be Germany with 0.19 mio heads (Greece declared 0.20 mio heads in 2007 but this figure sharply declined in 2008 to 61 000). In Greece, organic pig production started virtually from zero in the early 2000s. The organic pig sector still holds of very minor share in the EU pig market. It is much more important in the EU-15 (0.65%) than in the EU-12 where it represents only 0.1% of the sector.

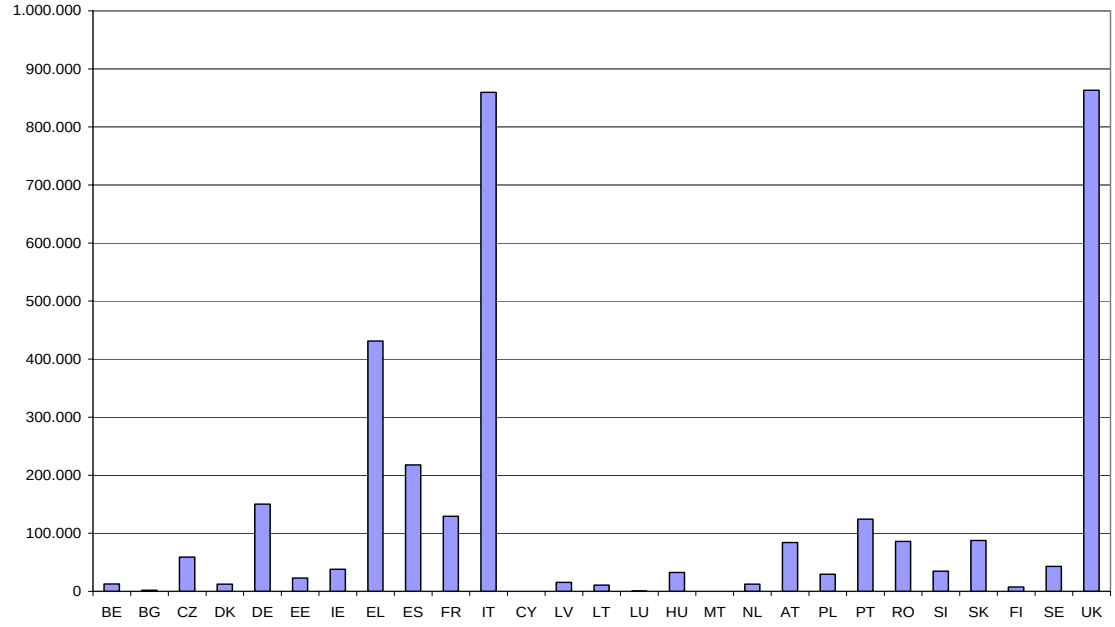
Graph 30. *Number of certified organic pigs in 2007 (heads)*



Source: Eurostat, estimates for FR, data communicated by BMELV for DE, 2006 for DK and RO, 2005 for PT, no data for LU. 2008 for Greece

The ovine sector is dominated by two Member States, Italy and the United Kingdom, which stand at a par with each 0.85 mio animals in 2007, representing together 52% of the entire EU organic herd (3.4 mio heads). However, the significance of the organic sector in the overall ovine sector in the UK stands only at 3.7% whereas it exceeds slightly 10% in Italy. With a distance, Greece comes third with more than 0.4 mio heads. In the case of Greece and Italy the sector is clearly 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. Interestingly, in several EU-12 Member States the organic sector represents a sizeable part of the total ovine sector, even if absolute figures remain modest: it represents 25-32% of the overall sector in the Czech Republic, Estonia, Latvia, Lithuania, Slovenia and Slovakia. In the EU-15 the highest shares are more modest: 23.9% in Austria and 12.7% in Denmark.

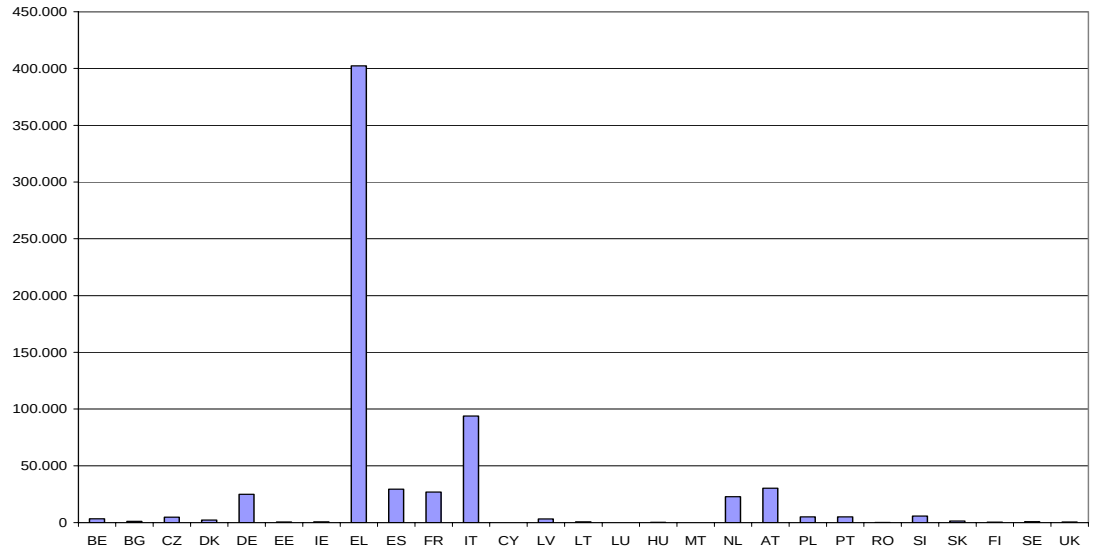
Graph 31. *Number of certified organic sheep in 2007 (heads)*



Source: Eurostat data, Agence Bio for FR, DE estimates of EU-CEE-OFP for 2006, LU 2002, HU 2003 (Hrábalova et al. 2005), PT 2005, 2006 for DK and RO

The organic goat sector would count almost 0.7 mio heads. It appears rather concentrated geographically as it is represented essentially in Greece with 0.4 mio heads (8.1% of all goats in Greece). Italy follows with a herd of one-fourth that size (and 10.2% of the overall Italian sector). Again, in the case of Greece the sector is essentially focused on the production of organic 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-12 (28.8% in the Czech Republic, 14.3% in Estonia, 25.7% in Latvia and 20.6% in Slovenia) and of the EU-15 (13.9% in Germany, 14.5% in Sweden and an impressive 50.0% in Austria).

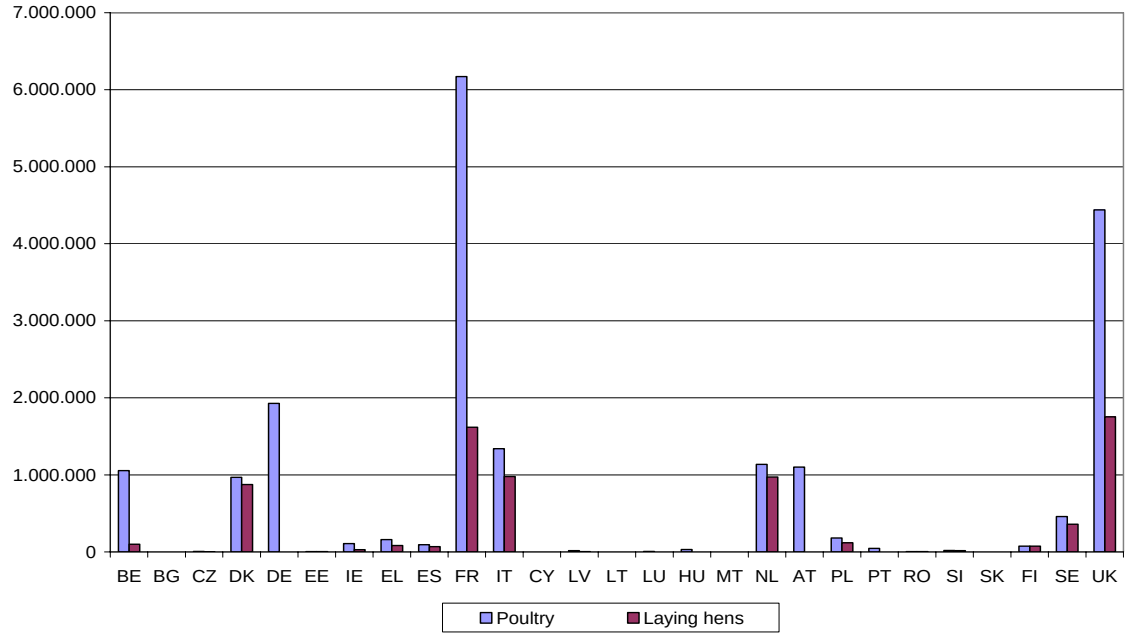
Graph 32. *Number of certified organic goats in 2007 (heads)*



Sources: Eurostat, EU-CEE-OFP estimate 2006 for DE, LU 2002, HU 2004, PT 2005, 2006 for DK and RO

At the EU level, there were 19 mio poultry heads in 2007, of which about a third 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. This can be explained by two factors: on the one hand, strict regulations for organic husbandry and high costs of organic cereals and oilcakes constrain the development of organic poultry meat. On the other hand, consumer demand for organic eggs and the willingness of consumers to pay price premiums is much higher than for poultry meat (Hamm, Gronefled, 2003). France is the leading Member State in the organic poultry sector with more than 6 mio animals, of which one-fourth are laying hens.

Graph 33. *Number of certified organic poultry and laying hens in 2007 (heads)*

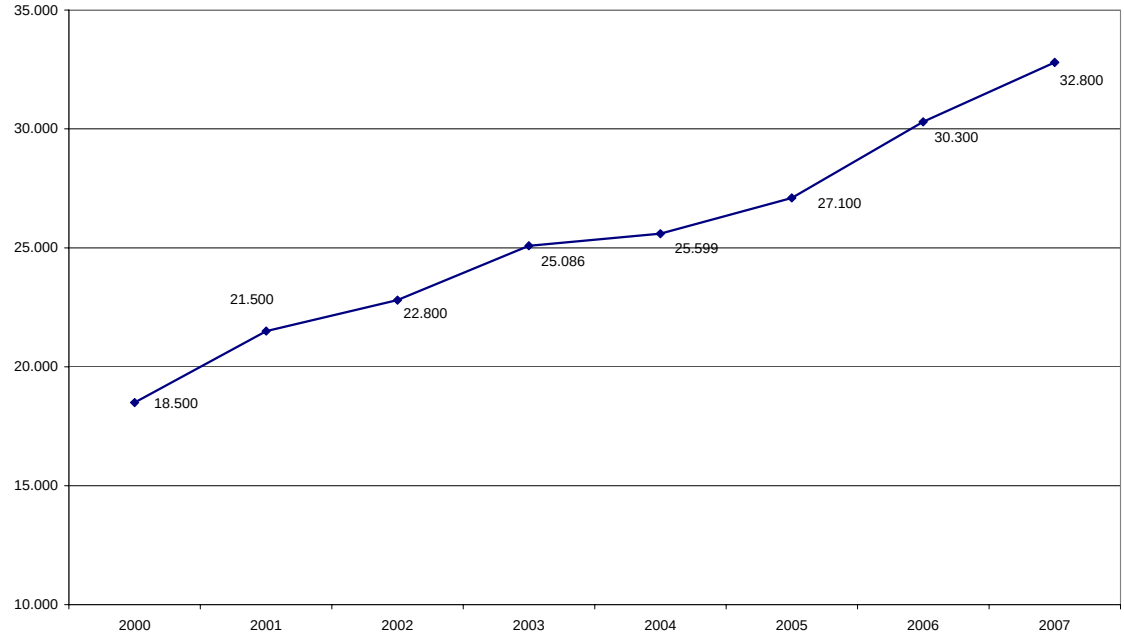


Sources: Eurostat, EU-CEE-OFP estimate 2006 for DE, LU 2002, HU 2004, PT 2005, 2006 for DK and RO. No data on laying hens for AT, DE and PT

3. PROCESSING AND MARKETING OF ORGANIC PRODUCTS

3.1. Processors of organic products

Graph 34. *Number of certified processors of organic products in the EU-15*



Source: Eurostat, elaborated DG AGRI (some missing data at MS level estimated by AGRI)

In 2007 there were around 33 800 certified processors[17] of organic products in the EU, of which an estimation of around 1 000 in the EU-12 (data are not available for all Member States) and of 32 800 for the EU-15. In the EU-15 almost one-fourth of producers of organic products are also processors whereas it is the case of only 14% of processors in the EU-12. This reflects in a way the history of development of the sector in the two parts of the EU: in the EU-15 the sector has been in existence for a longer period with also a rather strong tradition of on-farm processing (e.g. cheese, etc.) whereas in the EU-12, the development of the sector is more recent and without such a tradition. Without information on the turnover of the sector it is difficult to weigh the importance of the processing sector in the two parts of the EU. However the ratio of the number of processors over total organic producers is much higher in the EU-15 (0.21) than in the EU-12 (0.04) whereas the average sizes of farms in the two are not dramatically different (see Graph 13). This confirms that the processing sector lags behind the development of organic agricultural production in the EU-12 in comparison with the EU-15 as it has been pointed out in different publications (e.g. Slabe, 2005; Hrabalová and Wollmuthová, 2008). Yet, the number of processors is increasing dynamically in some Member States such as in the Czech Republic (from 109 in 2003 to 424 in 2008) and in Hungary (from 217 to 433 in the same period). For products that need to be processed (e.g. organic milk) the risk is higher for producers that their output has to be sold in the

[17] We refer here to all operators certified as processors of organic products, this includes organic farms which, besides organic agricultural production, are certified for processing as well. Hence, the data may differ from reports in some Member States where the definitions may be more restrictive (e.g. in France, AgenceBio does not include organic producers unless they procure more than 50% of the organic raw material outside their holdings).

conventional market owing to the absence of a fully working organic supply chain. In order to compensate for a lagging domestic processing capacity, higher quantities of raw material would be exported to other EU Member States (Statistical Office of Slovak Republic, 2007 for Slovakia or Szente, 2008 for Hungary). For the EU-12, imported processed products would represent an important share of the domestic organic consumption (see also Graph 36 which would confirm this for Hungary but not for the Czech Republic).

Table 7. *Number of certified processors of organic products in 2007*

	Total	Processors only	%	Producers / processors	%	Importers / processors	%
EU-12	1.000	800	80,0	140	14,0	60	7,5
EU-15	32.800	23.650	72,1	7.780	23,7	1.370	5,8
EU-27	33.800	24.450	72,3	7.920	23,4	1.430	5,8

Source: elaboration by DG AGRI from Eurostat data (including AGRI estimates for missing data)
No data for Lithuania, Poland, Portugal, Romania and Slovenia

In the EU-15, the number of certified processors has increased from around 17 800 in 2000 to 32 800 in 2007, at an average rate of growth of 8.5%. The largest numbers of processors are in Germany (9 400), Italy (7 000) and France (6 400). It is estimated that the number of certified processors would stand at around 34 800 in 2008, an increase by about 2 000 from 2007.

3.2. Retail sales of organic products

Table 8 provides indications on the size of the organic market in most EU Member States. Missing data do not allow to provide the total for the EU-27. However, for the EU-15 the organic sector corresponds to 1.9% of household food expenses (household catering and restaurant consumption excluded). Organic food expenses in the EU-15 reached €14.4 billion in 2006/2007, of which more than 80% in four Member States only: Germany, the United Kingdom, France and Italy. The organic food market is sizeable in Austria (almost 5% of the food market) and in Germany, Denmark and Luxembourg (where it stands within 3.7-3.8%). In the EU-12 Member States for which data are available, the significance of the organic sector in food consumption is much lower, below 0.2% for most and reaching the maximum of 0.5% in the Czech Republic. It is estimated (IFOAM, 2008) that the EU-12 would represent 2% of total organic food sales at the EU level. Although the paucity of data at the consumer end of the organic supply chain prevents a comparison of the dynamics of organic production and consumption in the EU-12, the development of consumption seems to benefit from lower levels of growth than the one of production. This may imply some difficulties for producers to sell their products and may endanger the sustainability of the overall sector. The awareness of consumers regarding organic products counts among critical factors for the development of the market. Yet the overarching constraint to market growth is the purchasing power of the consumers.

We need to recall that the above data do not cover catering and restaurant consumption, which is reported to be a segment with rapid growth. The catering sector is becoming more important in many Member States such as Italy (estimated at €290 mio in 2009 by AssoBio), Austria, Denmark, France (purchases by collective catering have increased from €44 mio to €92 mio from 2008 to 2009 in France according to Agence Bio),

Germany, the Netherlands and Sweden. This is partly due to pro-active public institutions policies in favour of organic food in public catering.

Table 8. *Significance of the organic sector in food consumption (household food purchases in the EU[18], 2006 or 2007)*

		Organic food expenses mio €	Share in total food expenses %	Organic food expense per capita €
Belgium	2007	283	1,3	26,6
Bulgaria	2006	1	0,0	0,1
Czech Republic	2007	52	0,5	5,0
Denmark	2006	434	3,8	79,8
Germany	2007	5.300	3,7	64,4
Greece	2006	60	0,2	5,4
Spain	2007	200	0,2	4,5
France	2007	2.069	1,4	32,4
Italy	2007	1.387	1,0	21,4
Cyprus	2006	2	0,1	1,9
Luxembourg	2006	41	3,7	86,4
Hungary	2006	20	0,2	2,0
Netherlands	2007	519	1,8	31,7
Austria	2007	739	4,8	89,0
Poland	2006	50	0,1	1,3
Portugal	2006	70	0,4	6,6
Romania	2006	2	0,0	0,1
Slovenia	2006	4	0,2	2,0
Finland	2006	65	0,6	12,3
Sweden	2006	379	2,2	41,7
United Kingdom	2007	2.835	2,7	41,9
EU-15		14.381	1,9	35,9

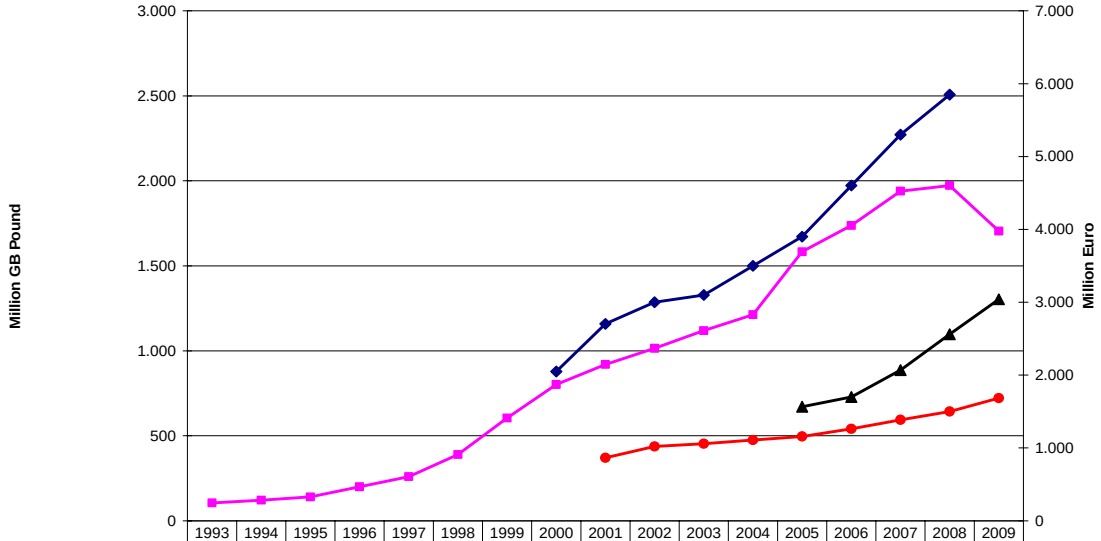
Sources: Eurostat for household food expenditures and population
IFOAM (2008) or ORA (2008) for organic food market
Italy: ACNielsen, Assobio and FederBio

Various sources indicate a dynamic increase of organic food consumption in EU Member States. However, it is difficult to build time series given the lack of suitable data at Member States and, hence at EU level. We however provide in Graph 35 the evolution of the organic food retail sales in France, Germany, Italy and the United Kingdom which are the four largest markets in the EU. On these markets, the increases are quite impressive: average annual increase of 18.1% for France in the period 2005-2009, 14.0% for Germany in the period 2000-2008, this strong growth has been spurred by the entry of all major retailers – including hard discounters – in the market, and 11.9% for the United Kingdom in the period 2000-2008. The average growth for Italy is the lowest of the four, yet it still stands at 8.7%. Other national markets in the EU are also growing. For 2008, the economic crisis seems to have affected only the UK with a little growth of the market whereas in France, Germany and Italy growth went on unabated. 2009 shows different evolutions between the United Kingdom and the other three Member States:

[18] Eurostat household data cover food and non-alcoholic beverages, alcoholic drinks are not included. These data do not include either food consumption outside the household (restaurants and catering at workplace). Data on the organic food market concern household purchases in the retail sector and therefore do not include the catering sector either. Some adjustments have been made (non food organic products excluded in the case of the United Kingdom).

according to the Soil Association, the organic food market would have retreated by 13.6%. In Germany however, food organic sales would have remained stable (preliminary data), and the growth of the market would have continued in France and Italy. For both Germany and Italy, the stability/growth of the organic food sales would contrast with declines of overall food sales.

Graph 35. *Evolution of the retail organic food sales in France, Germany, Italy and the United Kingdom (€ for FR, DE and IT and GBP for the UK)*



	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
United Kingdom	105	121	140	200	260	390	605	802	920	1.015	1.119	1.213	1.583	1.737	1.940	1.973	1.704
Germany								2.050	2.703	3.000	3.100	3.500	3.900	4.602	5.300	5.850	
France													1.564	1.700	2.069	2.561	3.041
Italy									865	1.021	1.058	1.107	1.158	1.261	1.387	1.500	1.684

Sources: Agence Bio for France, DEFRA and Soil Association for the UK (data include catering, which amounted to GBP16.5 mio in 2009), IFOAM yearbooks (various issues) and Hamm (2009) for Germany (and organic-world.net for 2008 in Germany). Data communicated by AssoBio for IT (on the basis of ACNielsen, AssoBio and FederBio data). Data for Italy include non food items sold in organic shops (body care and cosmetics).

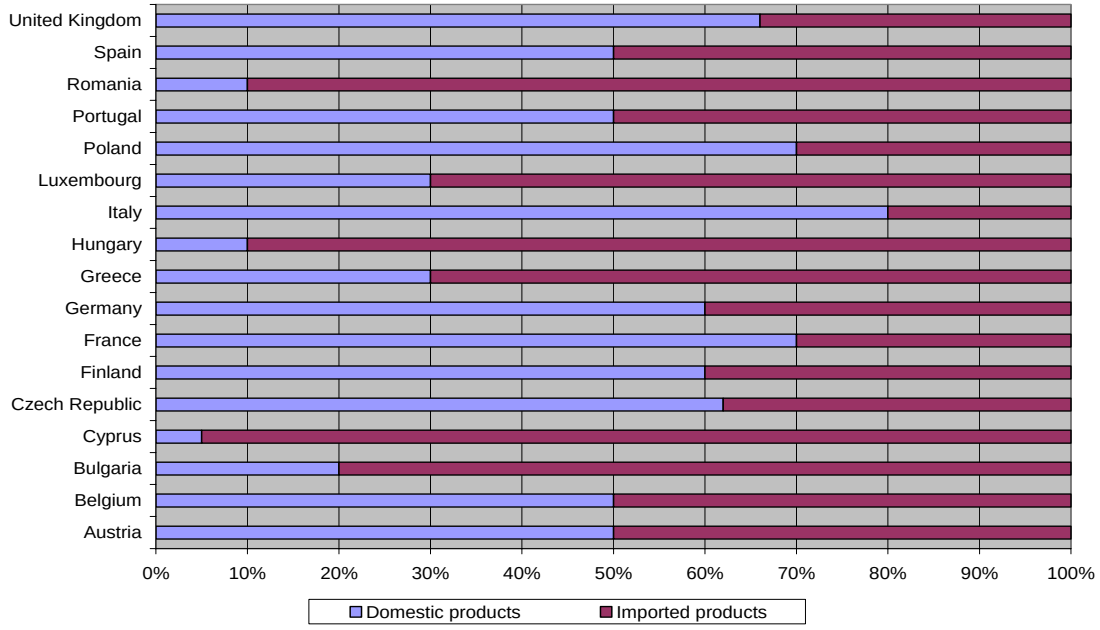
Multiple anecdotal evidences and aggregate figures indicate that the growth of consumer demand for organic product outpaces the supply by the organic agricultural sector. In the period 2001-2007 the area under organic agriculture has increased annually by 6.5% on average in the EU-27, rates are higher for the animal sector yet probably insufficient (in the period 2002-2007: 6.1% for cattle, 6.2% for poultry, 7.8% for sheep, only the pig sector fares better – but it starts from lower levels since its development is more recent – with 15.5%). Several factors explain the delays of the organic agricultural sector to respond to market demand: in several sub-sectors the supply chains are in the process of being set up; specific features of the agricultural sector like long production cycles and crop rotations prevent immediate responses; planning of volumes is more difficult in the organic sector due to higher technical risks (pest management, climatic conditions) than in the conventional agriculture.

In these conditions, it is no surprise that trade between Member States and imports from third countries would increase at a fast pace, although there is no consolidated statistical evidence supporting this[19]. Germany is reported to be in deficit since 2006 for poultry,

[19] EU trade databases (COMEXT) do not distinguish organic and conventional agricultural and food products. Only few attempts have been made to assess the amount of organic trade. In the case of Denmark, it is estimated

fruit and vegetables, potatoes and compound feed and since 2007 for dairy products (butter) and cereals (Hamm, 2009). In Italy, volumes of imports from third countries would have been multiplied by three between 2006 and 2008 (Sinab, 2009). In France, according to Agence Bio (2009), in 2008 30% of consumed organic food products (in value) were imported: one-third were tropical products; one-third were products for which France has no clear advantage (aquaculture, soya, Mediterranean products, etc.) and one-third products for which France is competitive but lacks temporarily (cereals, milk, meat, fruit and vegetables).

Graph 36. *Estimates of the share of domestic production and imports in organic food consumption (%)*



Source: ORA, ECOZEPT, BioVista (2008), FR: Agence Bio (2009). In this graph, imports account for intra-EU trade and extra-EU trade. These are estimates based on expert views and provide orders of magnitude only.

As a matter of fact, intra-EU trade and imports from third countries would represent an important part of domestically consumed organic products in most Member States (see Graph 36). Dependence on imports (whether from EU Member States or third countries) seems to be particularly high in the EU-12 Member States (for which estimates are available), with the exception of Poland and the Czech Republic, and concerns primarily processed products. The lack of processing facilities entails that organic processed food products consumed in the EU-12 are quite often imported from EU-15 Member States.

One illustration of the increasing importance of the organic market is the large increase of EU operators certified as importers from third countries which was registered in the last years, information which is recorded by Eurostat. In the EU-15, this number would have increased from 1 300 in 2002 to 2 340 in 2007, at the fast pace of 12.4% per year on average.

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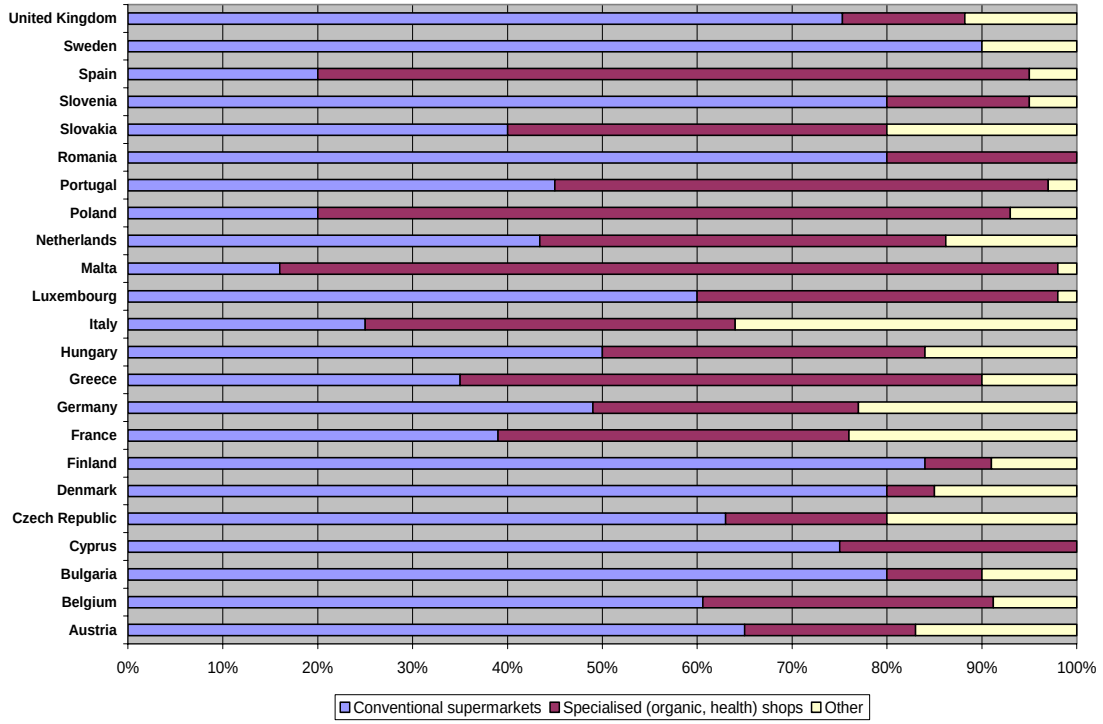
that in 2003 organic agricultural and food products imports and exports amounted to €37.4 and €31.1 mio respectively, representing a mere 0.7 and 0.3% of total agricultural and food trade (Henning Larsen, 2005).

Unfortunately, the absence of specific trade data does not allow any thorough analysis of the evolution of EU international trade in organic products: major supplier countries, main products, dynamics of development of imports, etc. In particular, it would be useful to monitor international trade for the most important products and third countries.

Graph 37. *Estimates of the significance of major retail channels of the organic food market (%)*



Source: ORA, Ecozept, BioVista (2008). IT: data communicated by AssoBio. No estimates for specialised shops in Sweden.

Various reports indicate that the development of the organic market in the last ten years has been spurred by a larger availability of organic products in unspecialised retail chains. Even price discounters have opened their shelves to organic products in Germany. Unspecialised supermarket chains hold an important role in the already developed organic markets of Northern EU (Sweden, Denmark, Finland and the United Kingdom) and Germany to a lower extent. In other Member States like in France and the Netherlands, although the unspecialised supermarkets have developed strongly they are still below 50% of the organic food market and specialised organic shops play an important role. In Spain and Italy, specialised shops hold the highest share and unspecialised supermarket chains still stand below 30%. In the EU-12, where the development of organic food market is more recent, it is interesting to note that the unspecialised supermarkets would hold a very high share already with the notable exceptions of Poland and Malta. In most EU-12 Member States, large retail chains have quickly sized a prominent share of the retail food sector in the course of the 1990s. They have benefitted from the absence of an established specialised organic retail sector in these Member States and in these conditions are taking the lead in retailing organic products. Yet, being often multinational companies they may focus less on local sourcing of their products. In any case, as seen in Table 8, household expenses in the organic food are still very low in the EU-12. Overall, even if the share of the large unspecialised retail

chains is increasing, in absolute terms the specialised organic sector is still projected to increase (Vaclavik, 2009).

Fruit and vegetables are the most important category of food products that are purchased by the consumers, with shares in total organic sales between 15-36% in the four largest EU markets (Table 9). Dairy products are the second most important category with 16-24%. Meat products represent roughly 10% of the consumer expenses. Whereas poultry meat products have a rather limited weight (3% of the organic market in France and the United Kingdom), eggs are a leading product with shares in the range of 4-8% in the four largest EU markets.

Table 9. *Major organic products on the market (% share of total organic sales)*

	Germany	France	United Kingdom	Italy
	2005	2008	2008	2006
Dairy products	17	16	24	21
Eggs	5	7	4	8
Red meat	11 (1)	6	6	
Poultry		3	3	
Fruit and vegetables	36	17	25	15
Beverages		14	5	11
Bread (2)	13	13	4	3
Frozen products		1	2	2
Pasta (3)	2			5
Baby food	9			4

Sources: FR: Agence bio (2009); Germany: Bien, Michels (2007);
United Kingdom: Soil Association (2009), Italy: ISMEA (2007)
(1): includes sausages
(2): includes flour in FR, substitutes in IT and bakery in UK
(3): includes rice for IT

The dynamic development of the organic food market in the last years has implications on the organic sector itself:

- Overall demand is clearly outpacing supply response. This should contribute to maintain organic price premiums, which account for the profitability of the sector given lower yields. This is favourable to the development of the organic sector;

- In a context of high demand and delayed growth of EU supply, imports from third countries are likely to play an increasing role, going well beyond the provision of tropical products. However, the absence of specific trade statistics does not allow to measure this;

- An important part of the growth of demand originates from the large unspecialised retail sector (including hard discounters) which has invested the sector in the last years. However, the sourcing practices of these chains may differ from the more traditional forms of retail channels on several aspects which could pressure down price premiums paid to organic producers and affect the profitability of the sector. The large retail chains enjoy, indeed, higher leverage power due to their economic size and often display a higher reliance on global sourcing.

4. EU POLICIES AND ORGANIC AGRICULTURE

In this section we review the most important kinds of support which are provided at the EU level to the organic sector, whether it is specific support to the sector as such with the agri-environment payments for instance or other supports as part of the Common Agricultural Policy (CAP), e.g. direct payments. We do not however extend on the regulatory framework of the sector regarding principles, standards and controls.

4.1. Measures targeted at the organic sector

4.1.1 Agri-environment payments to farmers practicing organic agriculture

4.1.1.1 Evolution of the agri-environment measures since their creation

With Council Regulation (EEC) 797/85[20], the European Community authorized Member States to provide national support in environmentally sensitive areas (Article 19), this created the so-called agri-environment payments. Several Member States initiated support within the so-called Extensification Programme of the Community[21]. However, the first recognition of the organic sector at the European Community level came with Council Regulation (EEC) 2092/91 which set the legal framework for the sector. Environmental protection became an integral part of the Common Agricultural Policy with the Mac Sharry reform of 1992. A specific regulation - Council Regulation (EEC) 2078/92[22] - was published which dealt specifically with EU co-financed agri-environment measures also known as "accompanying measures". The Agri-environment Regulation, as it was often referred to, provided a framework to the Member States to support organic farming. The majority of schemes were implemented from 1994, with Austria, Finland and Sweden starting from 1995. However some regions in Italy, Germany and the United Kingdom did not start until 1995 or later. The schemes in Greece and Spain did not start before 1996. Luxembourg joined last in 1998. In 1999, the provisions of the Agri-Environment Regulation were incorporated in the Rural Development Regulation - Council Regulation (EC) 1257/1999[23] (Articles 22 and 23) - as part of the Agenda 2000 CAP reform. The aim of this incorporation was to achieve coherence within Rural Development Plans. With this new regulation, ceilings of agri-environment payments were substantially increased.

Support for agricultural production methods "designed to protect the environment and to maintain the countryside" was given in the period 2000-2006 if the commitments

[20] Council Regulation (EEC) 797/85 of 12 March 1985 on improving the efficiency of agricultural structures (Official Journal of the European Communities L93 of 30 March 1985, p. 1)

[21] Commission Regulation (EEC) 4115/88 of 21 December 1988 laying down detailed rules for applying the aid scheme to promote the extensification of production (Official Journal of the European Community L361 of 29 December 1988, p.13)

[22] Council Regulation (EEC) 2078/92 of 30 June 1992 on agricultural production methods compatible with the requirements of the protection of the environment and the maintenance of the countryside (Official Journal of the European Community L215 of 30 July 1992, p. 85).

[23] Council Regulation (EC) 1257/1999 of 17 May 1999 on support for rural development from the European Agricultural Guidance and Guarantee Fund (EAGGF) (Official Journal of the European Communities L160 of 26 June 1999, p. 80)

involved more than the application of good farming practice for at least five years. The amount paid was calculated per year and hectare.

For the period 2007-2013, Council Regulation (EC) 1698/2005[24] provides the basis for agri-environment measures (Article 39). Payment ceilings are similar to those of the period 2000-2006. Agri-environment measures are part of the thematic Axis 2 "improving the environment and the countryside through support for land management" of the regulation. Agri-environment payments are conditional upon commitment by the farmers for five to seven years. Payments for organic commitments are annual and per ha and are meant to cover the additional costs incurred and the income forgone (e.g. due to lower yields) as a result of organic production methods. Additionally, where necessary transaction costs (costs associated with the administration of the measures) can be covered. Ceilings for agri-environment payments (total public support, i.e. EU part and national co-financing) are €600 / ha for annual crops, €900 / ha for permanent crops, €450 / ha for other uses of land[25]. These ceilings can be exceeded in exceptional circumstances justified in the rural development programmes, particularly if the payments are related to the new challenges (e.g. climate change, biodiversity, etc.) as identified in the Health Check.

4.1.1.2 Analysis for the budgetary period 2000-2006

In 2005, EU-25 budgetary commitments (not actual payments) of public expenditures (EU plus national funds) for agri-environment measures in organic agriculture amounted to €0.66 billion, i.e. 17.2% of the total devoted to agri-environment measures (€3.83 billion).

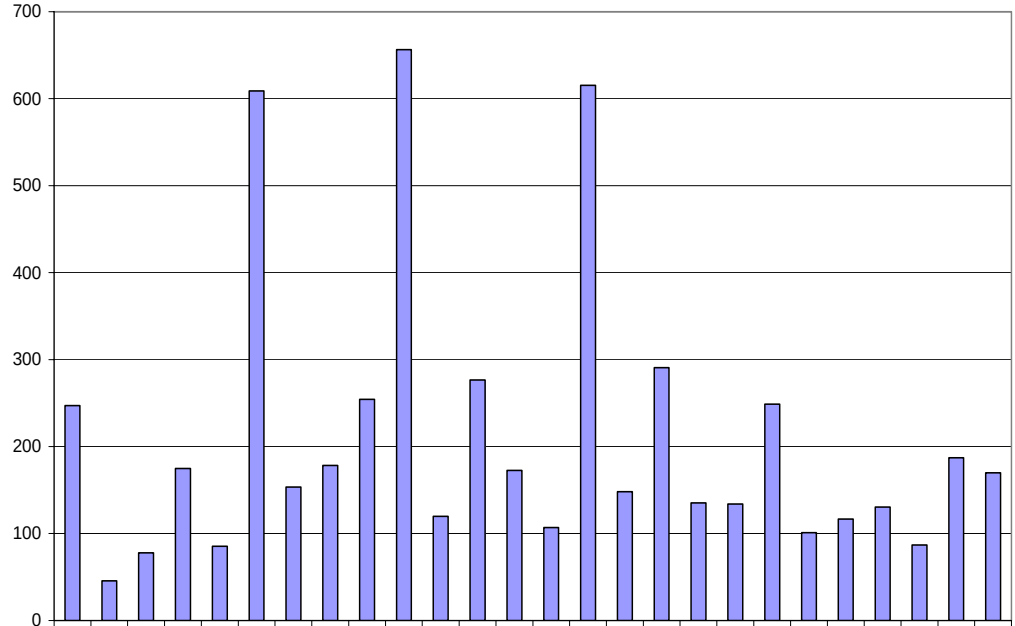
Graph 38 provides the average agri-environment support (calculated from budget commitments, not actual payments) per hectare at Member State level for the "organic agriculture" commitment (organic farms may benefit from other agri-environment payments) in the period 2002-2006 (2004-2006 for EU-10 Member States[26]). There were significant variations between Member States. The highest levels were in Cyprus, Greece and Malta and corresponded mainly to support to permanent crops. Conversely, the level of support per hectare was relatively low in the Czech Republic because most of the organic area is made of permanent pastures which received the lowest support (permanent pastures represented 89% of the total area under organic agriculture in the Czech Republic in 2006). For an overview of the different rates which were applied by Member States in 2004/2005 see Stolze and Lampkin (2009).

[24] Council Regulation (EC) 1698/2005 on support for rural development by the European Agricultural Fund for Rural Development (EAFRD) (Official Journal of the European Communities L227 of 21 October 2005, p. 1)

[25] These ceilings apply to all agri-environment payments, not only to organic farming. There are also payments for endangered local animal breeds (€200 per livestock unit).

[26] For several EU-10 Member States the averages are calculated only on two years, for other (CY, PL) data for only one year is available. Hence possible reporting errors may impact significantly the average levels shown in the report.

Graph 38. *Average agri-environment support "organic commitment" 2002-2006 (€/ha)*



	BE	CZ	DK	DE	EE	EL	ES	FR	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	SI	SK	FI	SE	UK	EU-15	EU-25
Average premium	247	46	78	175	85	609	153	178	254	656	120	277	173	107	615	148	291	135	134	249	101	117	130	87	187	170

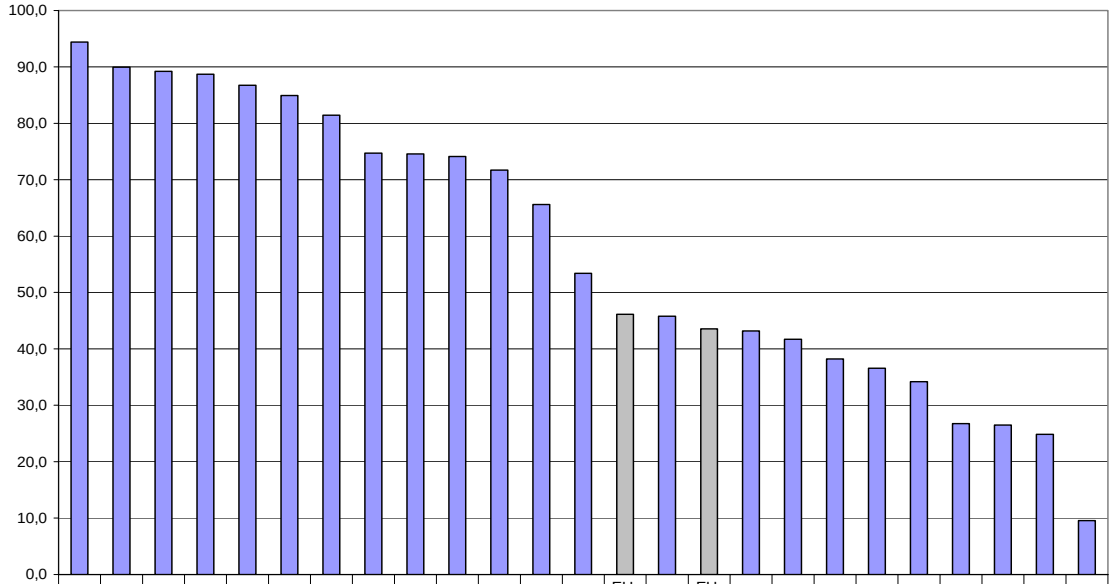
Source: DG AGRI, average 2002-2006 for EU-15 Member States (except 2002-2005 for FR and EU-15 aggregate). 2004-2006 for EU-12 Member States, except: 2004-2005 (EE, LT), 2005 (CY, PL), 2005-2006 (SK, HU, MT). 2004-2005 for EU-25. No data for IE ("organic commitment" not singled out in the overall agri-environment measures). Data show budget commitments, not actual payments.

A sizeable part of the area under organic production in the EU benefitted from the organic-specific support provided with the EU-funded agri-environment measures. In the period 2004-2006, 46% of the EU-25[27] organic area would have benefited from such support. Graph 39 indicates that, at that time, there were two distinct groups of Member States: in the first group which includes mainly Northern EU Member States (Austria[28], Belgium, Denmark, Finland Germany and Luxembourg) and several EU-10 Member States (the Czech Republic, Estonia, Hungary, Latvia, Slovakia and Slovenia) more than 60% of all organic areas would have benefitted from the organic agri-environment support. In the case of the concerned EU-10 Member States, this is quite remarkable since they had joined the EU only in 2004, indicating a fast implementation of the measures. For the other Member States, the area coverage would have been lower than 50%. It was lower than 30% for Portugal, Poland, Greece, Cyprus and the United Kingdom. For some of the new Member States, the low levels may be attributed partly to the fact that, since accession, they had have little time to establish and implement the measures.

[27] Sweden is not taken into consideration since some areas, which are not certified as organic, could be eligible to support.

[28] In the case of Austria, if the area under Alpine pastures was not counted the share of area supported would be 88.6%.

Graph 39. *Share of organic area benefitting from agri-environment "organic commitment" support (% average 2002-2006 for EU-15 MS and 2004-2006 for EU-10 MS)*



	FI	SK	LV	DK	CZ	SI	EE	DE	LU	BE	HU	AT	LT	EU-25	FR	EU-15	PL	IT	MT	ES	NL	CY	PT	EL	UK
%	94,4	89,9	89,2	88,7	86,7	84,9	81,5	74,7	74,5	74,1	71,7	65,6	53,4	46,1	45,8	43,5	43,2	41,7	38,2	36,5	34,2	26,7	26,5	24,9	9,6

Source: DG AGRI for agri-environment support, Eurostat for area data. Data show commitments, not actual payments. Sweden not taken into account as support can also be provided to non certified organic producers, No data for IE (see previous graph). For ES the area under woodland is not taken in consideration. Averages EU-15 and EU-25 are without IE and SE. For each MS and aggregates the periods taken into consideration are as in previous graph (except UK for which 2002 has been excluded as the area covered by the measure was very low (less than 100 ha).

4.1.1.3 Analysis for current Financial Period (2007-2013)

Due to lack of data, it is not possible to provide a comprehensive analysis of the levels of support and the coverage for organic farming in terms of areas for the agri-environment measures for the current Financial Period. However, the European Commission will launch in late 2010 a study on public supports to organic agriculture which should provide an in-depth analysis of the implementation of the agri-environment measures. The results of the study should be available in the course of 2011.

At the EU level, and for the totality of the period 2007-2013, Member States have earmarked for the agri-environment measures approximately €22 billion out of 96 billion of the entire EU funds (approx. 23% of the funds made available from the European Agricultural Fund for Rural Development, EAFRD). With that amount, Member States expect to provide support for more than 50 million hectares which will be subject to agri-environmental contracts.

Since the beginning of the current Financial Period until October 2009, EAFRD expenditures actually made for the agri-environment measure in the EU-27 amounted to a total of €6.06 billion[29] – the measure with the highest expenditure declared out of all rural development measures. This represented a financial implementation status of 30% of the earmarked budget which shows a high speed of implementation by Member

[29] All agri-environment payments, agri-environment payments for organic farming cannot be singled out.

States. A look at the aggregated outputs realised by all Member States in the years 2007 and 2008 also reveals high rates of implementation as regards the number of contracts signed, the number of holdings supported and the area under agri-environment schemes with 21%, 26% and 44% of targets reached respectively for 2007-2013. This covers all agri-environment payments, not just payments specific to organic farming.

Similarly to the period 2000-2006, for the period 2007-2013 support to the organic sector through the implementation of the agri-environment payments varies according to the Member States and even according to regions in the Member States where rural development programmes are implemented at this level. Depending on Member States / regions, Rural Development Programmes provide payment only to areas under conversion or to areas under conversion and to converted areas (applying or not differentiated rates, most often payments being lower for converted areas). Support can vary quite substantially within one Member State: for instance in the case of France all regions provide support to conversion but only nine out of 21 provide support to converted areas[30]. Agri-environment payments are often reduced for areas exceeding a certain threshold. The heterogeneity of support to the organic sector among Member States provides one element of explanation to the various dynamics of the sector.

4.1.1.4 Some elements on the impact of the agri-environment payments on the dynamics of development of the organic sector

Various analyses suggest that the dynamics of development of the organic sector is correlated with the support which is provided to it. We have already pointed to the impact of changes in support in Italy on the number of organic producers (see Nicholas et al. 2006). In Austria the initial development of the sector was boosted by the support provided, however since 2000 support measures alone are no longer sufficient to effectively increase the number of organic farms (Gleirscher, 2008). The dynamic development of the sector in some of the EU-12 is attributed to support policies (e.g. Hrabalová and Wollmuthová, 2008). Some empirical studies (e.g. Daugbjerg et al. 2008 in the case of Denmark and the United Kingdom or Läpple and Donnellan 2009 in the case of the drystock sector in Ireland) tend to confirm this.

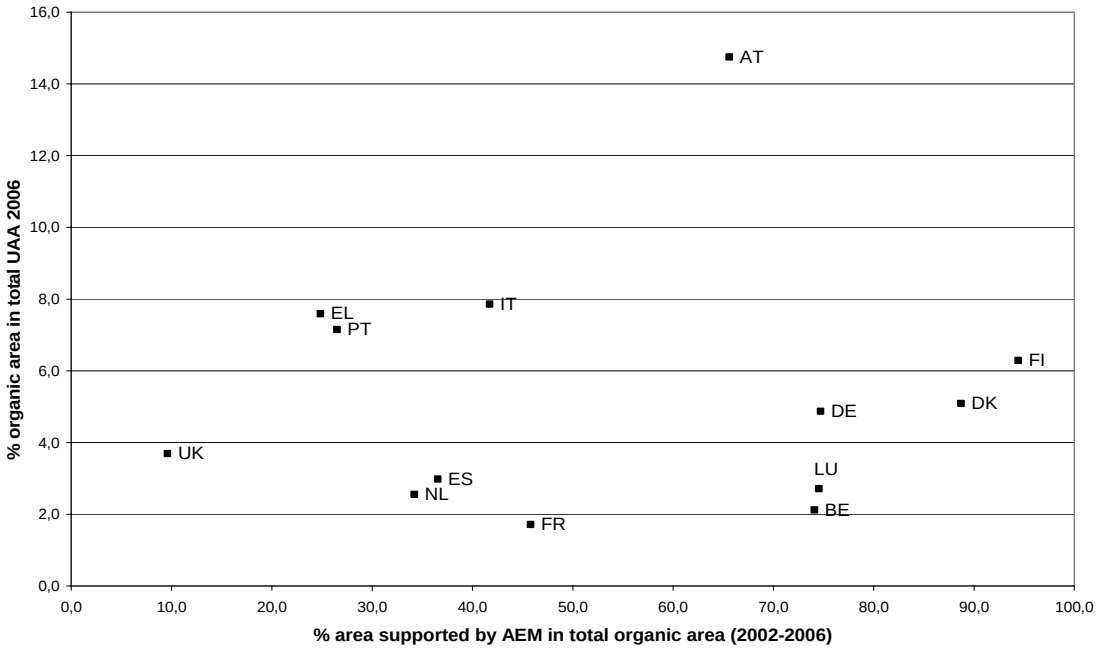
However, as various papers pointed out (see e.g. Padel et al. (1999), Nicholas et al. (2006)) support policies and their variations alone do not explain totally the different rates of conversion to organic farming in the EU. A more comprehensive analysis over a long period with adequate information on support measures and their changes in the period in the Member States would be necessary for a good grasp of the contribution of the support policies to the development of the sector. In Graph 40 we plot the share of the organic area supported by agri-environment measures on average in 2002-2006 (*x* axis, percent) with the share of the organic area in total UAA in 2006 in the EU-15 Member States (*y* axis, percent). It is difficult to draw unequivocal conclusions from the graph[31]. For instance the share of area supported by agri-environment measures is the lowest in the United Kingdom, yet the organic sector represents almost 4% of the total UAA, larger than in several Member States with higher area coverage of support. In

[30] For a recent overview of the implementation of agri-environment measures at Member State / regional level for the period 2007-2013 see for instance Pohl (2009).

[31] Using the average level of premiums in the period 2002-2006 instead of the share of the organic area which receives support does not lead to better conclusions.

Greece and Portugal the share of total organic area supported is rather modest (around 25%), yet the organic sector is above 6% for the two Member States.

Graph 40. *Coverage of agri-environment support (% of total organic area, average 2002-2006) and share of the organic area in total UAA (2006, %)*



Source: elaborated by DG AGRI with Eurostat AGRI data

Among other factors that impact the development of the sector are market demand (marketing outlets, price premium), the economic environment in which conversion takes place and institutional support for organic farming (see Padel et al. 1999).

According to the *ex post* evaluation of the rural development programmes for the period 2000-2006, most Member States and regions considered support to organic farming as an important sub-measure that should be kept and strengthened in the future, especially in order not to lose the positive long-term effects on the environment of already started initiatives. Only very few Member States reported serious constraints to the implementation of this measure.

4.1.2 Other measures targeting the organic sector

While the support granted to organic farms on the basis of the agri-environmental measures is likely to be the most important support tool, organic farms may also benefit from other rural development measures like any other farms. For instance, several measures under Axis 1 of the EU rural development policy are of interest to organic farmers although they are usually not targeted specifically: measure 121 on farm modernization, training and advisory services (measures 111, 114 and 115), investments in processing and marketing (measures 123 and 124), food quality schemes, producer groups (measures 132, 133 and 142). Some Member States / regions assign higher priority to support the organic sector through these measures and provide for higher levels of support than for conventional farming. However, there are also measures under Axis 3 which could support the long-term competitiveness of organic farms (e.g. support to the diversification into non-agricultural activities or tourism projects).

Beyond the Rural Development Policy of the EU it is worth mentioning that, in the sector of fruit and vegetables, EU co-funding of the operational programmes implemented by the Producer Organisations (POs) is higher in a number of cases, of which organic fruit and vegetables is one (from 50% in the normal cases to 60%). This is one of the outcomes of the reform of the sector that entered into force in January 2008[32]. Preliminary data indicate that, in 2008, 101 POs (8% of all POs) would have implemented an action related to organic production in their Operational Programme, for a total amount of €8.5 mio (i.e. 0.7% of the overall amount of operational programmes). Given that this was the first year of implementation of this measure, this seems rather promising.

With the CAP reform of the Health Check, Member States have been granted the possibility to use up to 10% of their national ceilings for direct payments to finance specific support measures targeting various objectives such as support to specific types of farming which are important for the protection or enhancement of the environment or improving the quality of agricultural products (Article 68 of Council Regulation (EC) 73/2009[33]). Within this framework, Member States have the possibility to develop measures which target specifically the organic sector. This is the case of France, Romania and Spain: France will provide support to the conversion and the maintenance of organic farming; Romania will provide support to the improvement of quality in the organic sector; Spain will provide support to the production of organic pulses.

Regarding promotion, organic products may benefit from EU co-financing for certain information and provisions measures, subject to the conditions laid down by Council Regulation 3/2008 and Commission Regulation 501/2008[34]. An annual indicative budget of €3 mio is currently earmarked for the sector and the measures may be implemented either in third countries or on the internal market. It is also worth mentioning the EU-wide promotional campaign targeting specifically the organic sector that the Commission launched in the year 2006. This successful campaign was due to end by March 2010. Finally, a new EU organic logo was unveiled in February 2010 which will be obligatory on pre-packaged organic products from July 2010.

[32] This concerns operational programmes which have been adapted to the new Common Market Organisation or new operational programmes set up in 2008. Old operational programmes which have not been changed according to the new regulation are not taken into consideration.

[33] Council Regulation (EC) 73/2009 of 19 January 2009 establishing common rules for direct support schemes for farmers under the common agricultural policy and establishing certain support schemes for farmers, amending Regulations (EC) 1290/2005, (EC) 247/2006, (EC) 378/2007 and repealing Regulation (EC) 1782/2003 (Official Journal of the EU, L30 of 31 January 2009, p. 30).

[34] Council Regulation (EC) 3/2008 of 17 December 2007 on information provision and promotion measures for agricultural products on the internal market and third countries (Official Journal of the EU, L 3 of 5 January 2008, p. 1) and Commission Regulation (EC) 501/2008 of 5 June 2008 laying down detailed rules for the application of Council Regulation (EC) 3/2008 (Official Journal of the EU L147 of 6 June 2008, p. 3).

4.2. Other forms of support

Besides specifically targeted support, the organic farms have access to all the measures of first and second Pillars[35] of the CAP provided that they meet the eligibility conditions (direct payments, less favoured area support, rural development measures, etc.).

It has often been said that historically the CAP put organic farms at a disadvantage since it was more oriented towards intensive agricultural production systems, whereas organic agriculture is based on more extensive production. CAP reforms implemented since 1992 have gradually diminished this disadvantage. The CAP reform of 2003 went further that road with the introduction of the decoupled single farm payment. This was generalised to almost all agricultural sectors with the Health Check in 2008. These reforms should bring positive impacts to the organic sector. In particular, by severing the link between eligibility to payment and production decision, the reforms provide more freedom of choice to organic farmers in their multi-annual rotation programmes which are an essential feature of their production method. Moreover, payments being independent from the level of production or number of animals on the farm, new entrants to organic farming no longer have to forego EU support because of readjustments in their cropping pattern implemented to meet organic production standards. Finally, the implementation of the single farm payments provides room for manoeuvre to the Member States to reallocate first Pillar support more evenly among farmers (with the so-called regional implementation of the reform of 2003[36]) by allowing Member States to depart from the reference of historical levels received by the farmers (see for instance Schmidt, Sinabell, 2006 or Offermann et al. 2009). With the Health Check, these possibilities have been increased further. Yet it is up to the Member States to decide whether to improve the distribution of support among their farmers. As regards the EU-12, the existence of flat-rate payments - the so-called single area payment scheme (SAPS) - has established a level playing field with conventional farming immediately from accession, which has probably contributed to boost the sector.

From a larger perspective, the EU policies provide a comprehensive tool box[37] which can be mobilised by the Member States to provide support to their organic sector, even though the agri-environment payments are obviously the most important tool. However, success and balanced development of the organic sector depend on the implementation of a comprehensive strategy which cannot be limited to agri-environment payments only. The institutional environment surrounding organic farming (research, extension services, etc.) and the development of supply chain and the market (demand-pull instruments such as marketing, communication, etc.) are crucial and deserve proper attention. This is why the support to the sector needs to take place within a comprehensive strategy[38] which

[35] The so-called first Pillar of the CAP relates to direct payments and market measures and the second Pillar relates to rural development measures (which include agri-environment payments).

[36] Offermann et al. (2009) indicate that dairy farms in Denmark and Germany and arable farms in Denmark in the organic sector would have benefitted from this redistribution.

[37] This support extends to the financing of research. For the 6th Framework programme this concerned 65 projects. In the period 1990-2006 the EU would have financed a total of €64.2 mio for research in organic agriculture (Stolze, Lampkin, 2009).

[38] See Action 6 of the European Action Plan for Organic Food and Farming whereby the Commission promotes the adoption of national or regional action plans making full use of the possibilities available in the EU rural development policy for the development of the sector (COM(2004)415 final and SEC(2004) 739).

does not rely only on agri-environment payments. However not all Member States implement such a strategy (see for instance Pohl, 2009, or Slabe et al., 2006). In particular in some of the EU-12 Member States where the sector is more in its infancy, a (quasi) exclusive focus on agri-environment payments could lead to market imbalances and the inability of producers to sell their organic products in adequate conditions. On the other hand, in the Czech Republic a comprehensive strategy for the development of the sector has been put in place taking advantage, in a structured framework, of the possibilities of support through EU funding (from agri-environment measures, or support to investment to the processing industry, to promotional programmes) and this seems to bear fruit: high growth of area / number of producers, low level of producers leaving the sector, dynamic development of the processing capacity and around 60% of the domestic food market share for the Czech organic sector (see Pohl, 2009 or Ministry of Agriculture of the Czech Republic, 2008).

4.3. Analysis of payment received by organic holdings on the basis of FADN data

The analysis presented below is based on data from the Farm Accountancy Data Network (FADN). We explain in the statistical annex the main features of FADN data. What needs to be clearly spelled out is that in the FADN the representativeness of the organic data is not guaranteed, therefore the results should be interpreted with caution.

If one considers all subsidies received (subsidies on investment excluded)[39], organic farms would receive on average higher subsidies in absolute terms and per hectare than conventional farms. This would be due mainly to higher agri-environment payments. In 2007 these would have reached an average of €127 per ha in farms with organic production against €24 for non organic farms[40] in the EU-15 (the corresponding figures would be €90 and €18 for the EU-10). In the EU-15 in 2007 agri-environment payments would represent 29% of all subsidies received by farms with organic production, this share would fall to 7% for non organic farms (in the EU-10 the corresponding figures would be respectively 28 and 8%). In 2007 Pillar 1 average payments per hectare in the organic sector represent 85% of the average payments for conventional farms in the EU-15 and 92% in the EU-10. Among other factors that account for the difference one can list:

- The total level of subsidies received is influenced by the size of the holdings. We have stressed in section 2.2.2 that organic farms have a larger size than non organic area;

- Given that organic farms are more likely to be located in disadvantaged rural areas where extensive production systems are more predominant, at least in some Member States (see Häring et al. 2004 for instance), it is not surprising that they benefit on average from higher less favoured area (LFA) payments (more than twice higher than the conventional sector in the EU-10);

- We have seen in the second part of the report that the weight of the different agricultural sub-sectors is not the same in the organic sector than in the conventional

[39] All payments under the CAP but also national payments.

[40] These are total agri-environment payments, not just payments for the organic commitment.

sector, be it because of different demand on the consumer side or because of technical constraints. These differences may also have an influence on the average support received by both types of farms.

Table 10. *Average subsidies received by conventional and organic farms in the EU-15 and the EU-10 (2000-2007) (€)*

	EU-15								EU-10			
	2000	2001	2002	2003	2004	2005	2006	2007	2004	2005	2006	2007
AVERAGE PAYMENTS PER FARM												
Conventional farms												
(1) Total (excluding investments)	8.991	10.078	11.602	11.753	12.012	12.451	13.447	12.957	3.581	4.071	5.715	6.253
(2) Of which "Pillar 1"	7.364	8.182	9.482	9.522	9.869	10.150	11.129	10.768	2.876	2.408	2.971	2.899
(3) Of which "Pilllar 2"	1.480	1.769	1.922	2.003	1.930	2.127	2.164	2.020	443	1.425	2.446	3.033
(4) Agri-environment	676	731	835	855	880	942	935	890	90	224	355	500
(5) Less-favoured areas	427	600	694	713	710	765	775	765	200	447	615	556
Farms with organic production												
(1) Total (excluding investments)	16.133	15.192	17.568	18.432	16.164	17.330	18.123	19.330	9.583	11.642	11.667	11.087
(2) Of which "Pillar 1"	8.796	7.705	9.311	9.814	9.066	9.812	10.664	11.082	4.537	4.947	3.585	3.276
(3) Of which "Pilllar 2"	7.014	7.218	7.930	8.237	6.785	7.250	7.226	7.986	4.625	6.385	7.754	7.543
(4) Agri-environment	5.021	5.112	5.343	5.731	4.945	5.133	5.130	5.585	1.337	2.334	3.395	3.087
(5) Less-favoured areas	1.334	1.453	1.644	1.755	1.288	1.421	1.410	1.582	2.641	2.811	2.174	1.941
AVERAGE PAYMENTS PER HECTARE												
Conventional farms												
(1) Total (excluding investments)	297	314	329	328	340	346	371	355	144	161	210	225
(2) Of which "Pillar 1"	243	255	269	266	280	282	307	295	116	95	109	104
(3) Of which "Pilllar 2"	49	55	54	56	55	59	60	55	18	56	90	109
(4) Agri-environment	22	23	24	24	25	26	26	24	4	9	13	18
(5) Less-favoured areas	14	19	20	20	20	21	21	21	8	18	23	20
Farms with organic production												
(1) Total (excluding investments)	392	384	405	395	393	419	431	438	152	211	331	324
(2) Of which "Pillar 1"	214	195	215	210	220	237	253	251	72	90	102	96
(3) Of which "Pilllar 2"	171	182	183	177	165	175	172	181	73	116	220	220
(4) Agri-environment	122	129	123	123	120	124	122	127	21	42	96	90
(5) Less-favoured areas	32	37	38	38	31	34	34	36	42	51	62	57

Source: FADN

Farms with organic production: farms exclusively organic or farms under conversion or not exclusively organic

(1): FADN code SE605; (2): SE610+SE615+SE630; (3): SE620; (4): J800; (5): SE622

The sum of "Pillar 1" and "Pillar 2" does not correspond to "total" as two minor subsidies are not counted (SE625 and SE626). Moreover, "Pillar 1" covers not only EU CAP direct payments but also possible national coupled aids. "Pillar 2" concerns not only Rural Development payment but also disaster payments, national subsidies to forestry or of exceptional character.

5. CONCLUDING COMMENTS

The organic sector is developing at a fast pace in the EU. At farm level the rates of growth are rather impressive: areas have increased by 6.5% per year on average in the EU-27 in the period 2000-2008, animal numbers have increased by the range of 6.1-22.2% annually in the EU-15 depending on species groups. The organic sector represents a total area of 7.7 mio ha with almost 190 000 holdings in 2008. What is remarkable is that most of the growth of the sector has taken place in the last 15 years, with the area multiplied by eight in the period 1993-2008 and the number of holdings by a factor of 6. Yet absolute levels stay modest since the organic sector still represents only 4.3% of the total UAA of the EU and between 0.5 and 5.0% of total numbers of animal according to the species. Organic holdings would represent a mere 1.4% of all EU holdings (2.8% in the EU-15). Italy has been for a long period the Member State with the largest organic area, exceeding one million ha since the beginning of the 2000s. However it is out performed by Spain in 2008 which reached an impressive 1.1 mio ha.

The weight of the sector is rather heterogeneous among Member States. In several (the Czech Republic, Estonia, Latvia, Austria and Sweden) about 10% or more of the total UAA was farmed in 2008 according to organic principles (or being converted). Conversely the organic area was below 3% in 11 Member States (Belgium, Bulgaria, Cyprus, France, Hungary, Ireland, Luxembourg, Malta, the Netherlands, Poland and Romania). Several of these Member States display moderate levels of potential growth in the short term. The organic sector is developing at a remarkable pace in several of the EU-12 Member States, with five among them with a share above 6% of total UAA. In the EU-15, trajectories vary among Member States. Some of the "pioneers" in the sector such as Denmark, Finland, Sweden or Italy seem to have reached a plateau or display only slow growth. Other pioneers like Austria and Germany seem to continue to grow at still sustained rates. Among Southern EU, Italy is being caught up by Greece, Spain and Portugal which have grown fast in the last years (reaching respectively 8.0, 4.4 and 6.3% of their UAA).

To sum up, the European organic map has extended Eastwards with the development of the sector in the Member States of central and Eastern Europe. It has also extended Southwards with several Member States following the path opened by Italy. More and more, the organic sector has to be reckoned as a common feature of the agricultural sectors of all Member States. Most certainly, it no longer can be characterised as only a niche segment of the agricultural sector.

In the EU-12, the organic sector was, until recently, strongly oriented towards extensive grazing livestock production systems, with permanent pasture areas representing a prominent share of the total organic area. However, even if permanent pastures represent a large part of the organic area in the EU-12 (56.5% in 2006), other types of land use are gaining importance in recent years (e.g. arable crops, permanent crops, etc.). This signals a welcome diversification of the organic sector which could mitigate potential imbalances on the market side.

Data from the Farm Structure Survey highlight interesting features of the sector: globally and at specialisation levels, organic farms are larger in area than conventional farms. In the livestock sector this not surprising given lower stocking levels and higher use of extensive grazing. In such specialisation as permanent crops and vegetable production,

this is more surprising. In addition, contrary to what is often considered, organic holdings would be less labour intensive than conventional holdings globally and in most specialisations, even in the permanent crop and vegetable sub-sectors which are both labour-intensive. Larger size and better organisation may explain these differences. Finally, it is worth stressing that the age distributions of organic and conventional farmers are very different: farmers older than 55 represent 56% of the conventional sector but only 36% in the organic sector.

The analysis indicates that in the most recent years an estimated area of between 0.8-0.9 mio ha enters the in-conversion process annually in the EU-27. However for the EU-15 this new area seems to be increasing, approaching an estimated 0.7 mio ha in 2008, whereas in the EU-12 the dynamics seems to be different with increasing areas entering the in-conversion process until 2006 (more than 0.25 mio ha) and thereafter a decline (with 0.2 mio ha in 2008). In several EU-12 Member States, the development of the organic sector appears to have been boosted with the accession but seems to be slowing down, although it is too early to draw any conclusion.

One part of the dynamics of development of the sector can be attributed to the pulling effect of a robust demand for food organic products. Another part appears to be linked to the support which is provided to it through the Common Agricultural Policy of the EU and especially through dedicated Rural Development measures (agri-environment payments). Regarding the first Pillar of the CAP, it is necessary to stress that CAP reforms have gradually put the two types of farming on equal footing since the early 1990s. In the EU-12, where organic food consumption is still very low and less of a driver of the organic sector as in the EU-15, the remarkable development of the sector owes primarily to the support provided to the sector and probably also to a favourable context of deep restructuring and reform of the agricultural sector since the beginning of the 1990s (new farming structures, new public/private institutions, new agricultural policy support with level playing field between organic and conventional agriculture).

Yet, the fact that sizeable numbers of producers revert to the conventional sector every year in the EU reveals a certain fragility of the sector.

In this context, several questions arise regarding the way support is provided to the sector:

- Whether it is stable and predictable, hence allows the establishment over several years of the necessary building blocks of the supply chains (facilitating not only agricultural production but allowing for processing and marketing channels to develop, etc.);

- Whether it consists only in stand-alone measures or is part of a comprehensive framework which pays sufficient interest at research, extension services and demand-pull instruments;

- Whether it takes proper account of the demand for organic products in the food market. The time when supply of organic products (e.g. organic milk) could outpace in some Member State the development of consumer demand, leading to great difficulties for the producers, seems to be gone. Organic food demand is increasing at sustained rates in the large EU-15 markets and seems to be quite resilient in the current difficult economic context. Demand is also developing in the EU-12, yet it

stands at very low levels and faces the constraint of household income. However, an overall increasing demand does not preclude that, in some specific sub-sectors or Member States, organic products may not immediately find appropriate marketing conditions due to a lacking or sluggish demand (or absence of supply chain). In the EU-12, difficulties of this sort may arise owing to current constraints to domestic demand or the absence of functioning marketing channels to transfer the products where the demand exists. Hence, as applies for any support measures which endeavour to enhance the development of any sector, proper attention to market demand is of primary importance.

All these elements stress the utmost importance of the adoption by concerned stakeholders and public authorities of multifaceted strategies which combine supply development policies with the establishment of a comprehensive institutional framework (including extension services, research) and demand-pull strategies (such as communication on organic products). This is necessary to achieve a balanced development of the sector. This necessity was stressed at the EU level with the European Action Plan for Organic Food and Farming released in 2004.

The demand for organic food products, which has been robust in recent years, has a pulling effect on the organic farming sector, whose response is delayed for several reasons. This growth should provide proper conditions for the development of the EU organic sector in the medium term and ensure the maintenance of price premiums which contribute to the profitability of the sector. On the other hand, the fact that an important part of demand growth originates in unspecialised large retail chains whose procurement practices may differ from the more traditional forms of organic retailing (higher leverage power due to economic size and more global sourcing), may as well impact the organic price premiums. The economic recession of 2009 may have affected strongly the growth of demand for organic products, although data are available only for few Member States. Whereas organic food consumption has been affected strongly in the United Kingdom (decline by 13.6%), it would have shown better resilience in Germany, France and Italy where it remained stable (Germany) or continued growing (France and Italy). Overall, organic food consumption appears robust and is likely to resume (or accelerate) growth when the economic crisis will be terminated.

The principles and rules which frame the organic sector demand high technical skills and an interest for innovative solutions by the concerned farmers. The organic sector is now extending beyond a mere "niche agriculture" and reaching a certain critical mass. This is also reflected by an increasing body of dedicated research, which will probably increase further in the medium term. Hence, it is likely that more solutions will be provided to the farmers to better cope with the framework set for organic agriculture, be it with better suited varieties, improved agronomic practices or pest management practices. One should not forget that, in a context where sustainability and environment protection are important aspects which apply to the whole EU agricultural sector, the benefits of organic research (agro-ecological innovations) have a good chance to extend beyond the remits of the organic sector itself.

The present paper has endeavoured to shed light on the main aspects of the organic sector in the EU, making use of the existing statistical data. Several elements of the development of the sector have been depicted. It will be possible to build a more precise picture of the sector if and when additional data will be available: more complete production statistics, price information and international trade data.

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STATISTICAL ANNEX

Table 11. *Agricultural area in the organic sector in the EU (in-conversion + certified organic; ha)*

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Austria	135.982	192.337	335.865	309.089	345.375	390.335	404.086	429.167	410.525	425.248	447.978	460.848	479.817	477.802	482.337	492.632
Belgium	2.179	2.683	3.385	4.261	6.819	11.744	18.515	20.667	22.452	29.118	23.966	23.728	22.994	29.308	32.627	36.153
Bulgaria							12	286	539	566	2.038	12.284	14.320	4.691	13.646	16.663
Cyprus									100	166	500	867	1.698	1.978	2.323	
Czech Republic	15.667	15.818	14.127	16.932	20.241	71.620	110.756	165.699	218.114	235.136	254.995	263.299	254.982	255.090	293.650	320.311
Denmark	19.761	20.687	38.334	44.989	59.964	93.201	137.294	157.676	168.372	174.328	165.097	156.699	145.636	138.079	141.463	150.104
Estonia	1.600	1.600	3.000	3.000	3.000	3.080	4.000	9.875	20.141	30.623	42.573	46.016	59.741	72.886	79.531	87.346
Finland	20.340	25.822	44.695	84.556	102.342	116.206	136.662	147.268	147.943	156.692	159.987	162.024	147.587	144.667	148.760	150.374
France	87.829	94.806	118.393	137.084	165.406	218.775	315.771	369.933	419.750	517.965	550.990	534.037	550.488	552.824	557.133	583.799
Germany	246.458	272.139	309.487	354.171	398.693	414.293	452.327	546.023	632.165	696.978	734.027	767.891	807.406	825.539	865.336	907.786
Greece	591	1.188	2.401	5.269	9.949	15.402	21.451	26.707	31.118	77.120	244.457	249.508	288.737	302.264	279.895	317.824
Hungary	2.540	2.250	8.232	11.397	19.265	21.565	32.609	47.221	79.177	103.700	116.535	133.009	128.576	122.765	106.785	122.817
Ireland	3.459	3.390	8.634	16.496	18.687	24.411	29.360	27.231	30.017	29.754	28.514	30.670	34.912	37.246	41.122	42.816
Italy	88.437	154.120	204.494	334.175	641.149	785.738	911.068	1.040.377	1.237.640	1.168.212	1.052.002	954.362	1.069.462	1.148.162	1.150.253	1.002.414
Latvia	1.250	1.250	1.147	1.200	1.500	1.426	1.628	4.400	10.549	16.935	24.480	43.900	104.235	175.109	173.464	161.624
Lithuania					1.568	4.006	3.995	4.709	6.469	8.780	23.289	36.864	64.544	96.717	120.418	122.200
Luxembourg	497	538	571	594	618	744	888	1.074	2.003	2.852	3.004	3.158	3.243	3.500	3.380	3.535
Malta											3	1	14	20		
Netherlands	11.150	11.340	12.909	14.456	16.960	22.320	26.355	32.331	35.877	42.610	41.866	48.152	48.765	48.425	47.019	50.434
Poland								25.000	38.732	43.828	49.928	82.730	161.511	164.356	289.440	313.944
Portugal	3.060	7.267	10.719	9.191	12.193	29.533	46.918	48.066	73.504	81.356	120.926	215.408	233.458	269.374	233.475	
Romania								17.388	28.700	43.550	56.800	73.300	92.770	107.582	131.401	140.132
Slovenia	100	150	200	200	200	214	2.697	5.440	10.828	13.828	20.081	22.606	23.499	26.831	29.322	29.836
Slovakia	14.724	14.762	18.813	27.661	27.809	50.695	46.386	58.466	58.706	49.999	49.992	51.186	90.206	120.409	117.906	140.755
Spain	11.674	17.208	24.079	103.735	141.905	242.505	337.416	355.954	444.902	510.761	553.888	561.530	622.762	736.938	804.885	1.129.844
Sweden	36.674	48.039	83.490	113.995	118.705	127.329	155.463	174.227	202.827	214.120	225.785	222.100	222.738	225.431	308.273	336.439
United Kingdom	30.992	32.476	48.448	49.535	106.000	274.474	425.945	578.803	679.631	741.174	695.620	690.047	608.952	604.571	660.200	726.381
EU-12								338.484	472.055	547.111	641.214	766.062	996.096	1.148.434	1.357.906	*1.458.000*
EU-15	699.083	884.040	1.245.904	1.581.596	2.144.765	2.767.010	3.419.519	3.955.504	4.538.726	4.868.288	5.048.107	5.080.162	5.286.957	5.544.130	5.759.658	*6.161.000*
EU-27								4.293.988	5.010.781	5.415.399	5.689.321	5.846.224	6.283.053	6.692.564	7.117.564	*7.619.000*

Sources: Eurostat (white cells)

Other sources have been utilised to complete time series (or replace Eurostat data) when data were considered consistent (grey cells), **some of them are estimates.**

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Estonia: 1999-2004 data from statistical office (TAPAS report 2008)

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Latvia: 2004 and 2005 data communicated by the Ministry of Agriculture

Romania: 2000-2005 and 2007 data from the Ministry of Agriculture (without area for wild/forest picking)

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Table 12. *Number of organic producers in the EU*

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Austria	9.713	13.321	18.542	19.433	19.996	20.316	18.768	18.386	18.292	18.576	19.674	20.277	20.321	20.162	19.997	20.102
Belgium	160	168	193	228	317	480	577	624	697	713	671	659	720	774	825	869
Bulgaria					1	1	2	7	11	16	54			158	240	254
Cyprus								15	30	45	45	159	305	300		
Czech Republic	141	187	176	168	203	306	473	563	654	721	832	842	835	963	1.314	1.842
Denmark	640	676	1.050	1.166	1.617	2.228	3.099	3.466	3.525	3.714	3.510	3.166	3.036	2.794	2.841	2.753
Estonia	50	60	119	100	70	76	89	230	369	583	764	810	1.016	1.176	1.220	1.259
Finland	1.599	1.818	2.793	4.452	4.458	4.984	5.197	5.225	4.983	5.171	5.074	4.960	4.631	4.029	4.041	3.991
France	3.231	3.556	3.538	3.854	4.935	6.233	8.668	8.985	10.364	11.288	11.359	11.059	11.402	11.640	11.978	13.298
Germany	5.091	5.866	6.642	7.353	8.184	9.194	10.425	12.740	14.703	15.627	16.476	16.603	17.020	17.557	18.703	19.813
Greece	165	469	568	1.065	2.523	4.183	4.923	5.343	6.710	5.964	6.186	9.282	15.669	23.880	23.781	24.057
Hungary	67	73	108	127	161	330	451	571	764	995	1.289	1.420	1.553	1.600	1.612	1.614
Ireland	238	198	378	696	808	762	972	852	918	919	786	840	957	1.068	1.140	1.185
Italy	4.656	8.597	10.630	17.279	30.701	38.616	47.705	52.796	56.199	51.118	43.928	36.955	44.860	45.115	45.221	44.371
Latvia						39	63	80	219	352	550	1.043	2.873	4.095	4.108	4.203
Lithuania					106	144	171	210	293	393	700	1.178	1.802	2.338	2.823	2.797
Luxembourg	12	12	19	20	23	26	28	31	49	53	59	66	74	72		
Malta								3	20	6	6	1	6	10		
Netherlands	455	512	561	656	746	835	1.004	1.129	1.219	1.560	1.448	1.383	1.377	1.362	1.374	1.402
Poland	180	246	263	238	324	417	555	1.419	1.787	1.977	2.286	3.760	7.183	9.187	12.000	15.206
Portugal	73	234	349	240	278	542	740	745	938	1.093	1.145	1.379	1.577	1.696	1.949	
Romania								72	109	143	207			3.367	3.193	2.775
Slovenia	20	25	30	35	40	41	343	620	883	1.150	1.421	1.555	1.724	1.953	2.063	2.142
Slovakia	40	41	34	45	46	81	69	88	82	80	88	117	195	265	280	350
Spain	753	909	1.042	2.161	3.526	7.392	11.812	13.394	15.607	16.521	17.028	16.013	15.261	16.645	18.096	21.255
Sweden	1.507	1.695	2.473	2.741	2.833	3.027	3.540	3.626	5.268	3.665	3.562	4.726	3.019	2.893	2.848	3.686
United Kingdom	655	715	828	865	1.026	1.462	2.538	3.563	4.049	4.104	4.012	4.321	4.263	4.639	5.506	5.383
EU-12								3.878	5.221	6.461	8.242			25.412	*29.100*	*32.700*
EU-15	28.948	38.746	49.606	62.209	81.971	100.280	119.996	130.905	143.521	140.086	134.918	131.689	144.187	154.326	*158.400*	*164.200*
EU-27								134.783	148.742	146.547	143.160			179.738	*187.500*	*196.900*

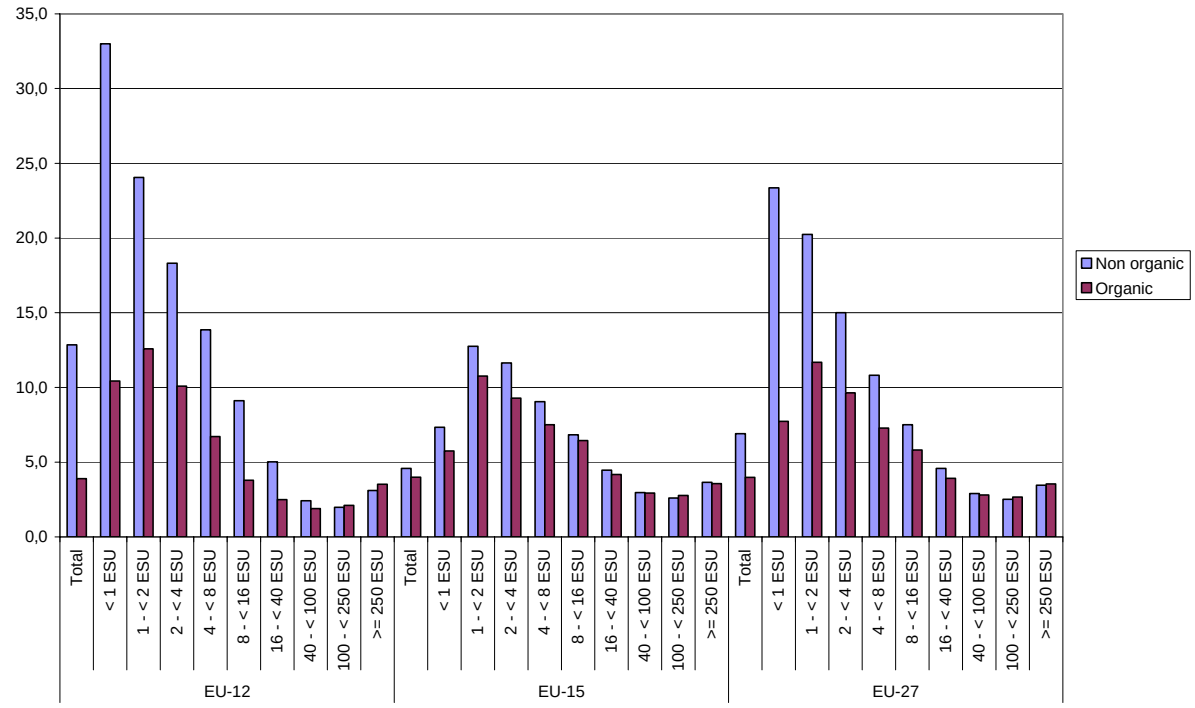
Sources:
Eurostats data (white cells, 2008 provisional)
"Registered producers only" for Lithuania (2003-2008), Romania (2006-2008)
EU-12, EU-15 and EU-27: for 2007 CY, LU and MT = 2006; for 2008 CY, LU, MT = 2006 and PT = 2007
Other sources have been utilised to complete time series (or replace Eurostat data) when data were considered consistent (grey cells), **some of them are estimates.**
"Organic land area, farms, livestock and crop production", 2000, FAI3-CT96-1794 for 1993-1996 (all MS except DK, HU, PL) and 1997 (IE, EL, NL, UK) and 1997 and 1998 for CZ
1997: EU-CEE-OFP project except for CZ, DK, IT, HU, NL, FI and UK
Ekoconnect (www.ekoconnect.org): EE (1993-1998); SK and SI (1993-1999)
Hrábalova et al. (2005): BG (2000-2003); HU (1999, 2000); LT (1997-2000); LV (1998, 1999); RO (2000-2003)
Czech Republic: 1999-2002 Yearbook of organic farming
Denmark: 1993-1996 data from the Ministry of Agriculture
Estonia: 1999-2004 Statistics Estonia (FAPAS report 2008 to Eurostat)
Hungary 1993-2002 data from www.organic-europe.net (inspected holdings)
Poland: Szeremeta (2005) 1993-2002; GIJHARS for 2003, 2005 and 2006; AGRI estimate for 2007 and FAPA for 2008
Romania: Burja Camelia ("Implementing the European Community agricultural policy on sustainable farming in Romania") for 2006
Slovenia: 2007 and 2008 data communicated by the Ministry of Agriculture, Forestry and Food
Organic centre wales (http://www.organic.aber.ac.uk/statistics) for CY, LT (2000-2006); LV, SI (2000-2002; LU (2006); HU (2004-2006); SK (2000, 2001)

Comparison of areas and labour between organic and conventional farms by specialisation types

All graphs in this section have been prepared on the basis of FSS data for 2007.

It has been highlighted in the text of the report that on average organic holdings tend to use less labour per area than conventional holdings. Given that the size of organic holdings is on average higher than in the conventional sector, in order to minimise the "size" effect, the comparison has been carried out, at the overall sectoral level, for the same classes of economic size. See Graph 41 below. This graph confirms that for holdings of similar economic size, organic holdings tend to use less labour per ha than conventional holdings. However, this is mainly true for categories of farms below 40 ESU. For larger size categories the two types of holdings are at similar levels.

Graph 41. *Comparison of labour per area between organic and conventional holdings by economic size classes in 2007 (AWU / 100 ha)*



Source: Farm Structure Survey, elaboration AGRI

It needs to be stated that, as mentioned in the text of the report, the FSS is not stratified according to the criteria organic / non organic, therefore the representativeness of organic data is not guaranteed (e.g. average area could be skewed upwards by the presence in the sample of a very large untypical organic farm, etc.). However, this caveat may distort some particular results but should not affect the broad features underlined in the paper, i.e. that organic farms tend to be larger and to use less labour than conventional farms. There is no reason to consider that the non stratification would alter results always in the same way (by skewing average areas upwards and labour use downwards).

It is also necessary to indicate that an organic holding may be classified in one of the specialisation categories[41] which does not correspond to the main orientation of its organic production. For instance, a holding with organic permanent crops and conventional horticultural crops may be classified under the specialisation type "specialist horticulture" if the horticulture part of the activity of the farm is more important than the permanent crop one. Hence, there may be biases in the comparison between organic and conventional sectors by specialisation type. In order to limit this problem the following has been done:

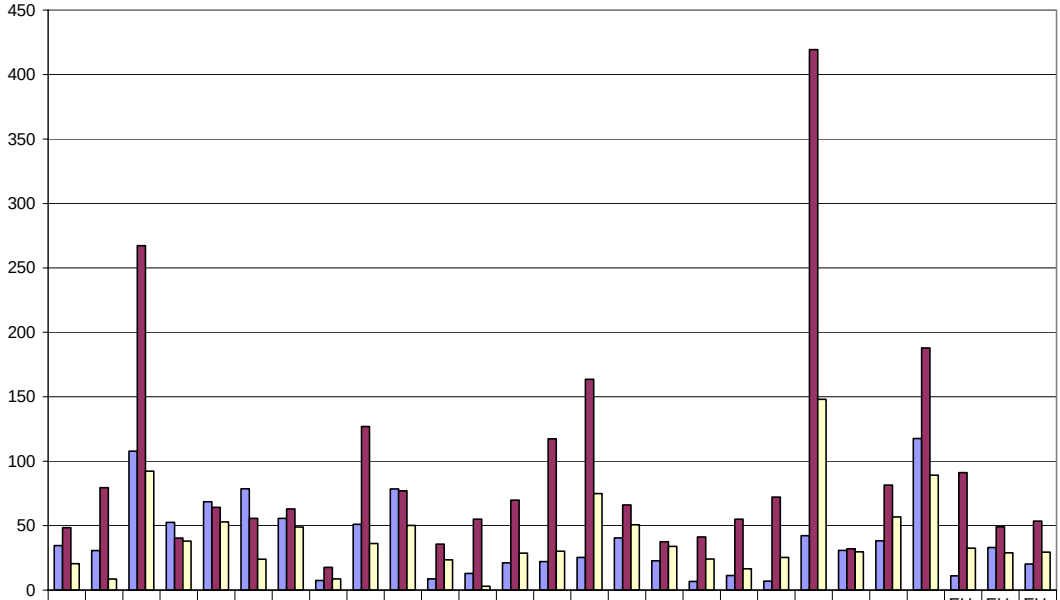
- For crop specialisations (field crop specialists, permanent crop specialists, horticulture specialists and mixed croppings), holdings with organic animals have been excluded;

- Similarly, for specialisations involving animals (grazing livestock specialists, granivore specialists, mixed livestock and mixed crop-livestock), organic holding without organic animals have been excluded (and for the mixed crops and livestock, holdings with organic animals but no organic area have been excluded).

Although this may not solve all misallocations, this problem should not affect dramatically the overall results as one can reasonably assume that an organic holding with a certain type of specialisation produces primarily organic products in this specialisation.

1 Specialists field crops

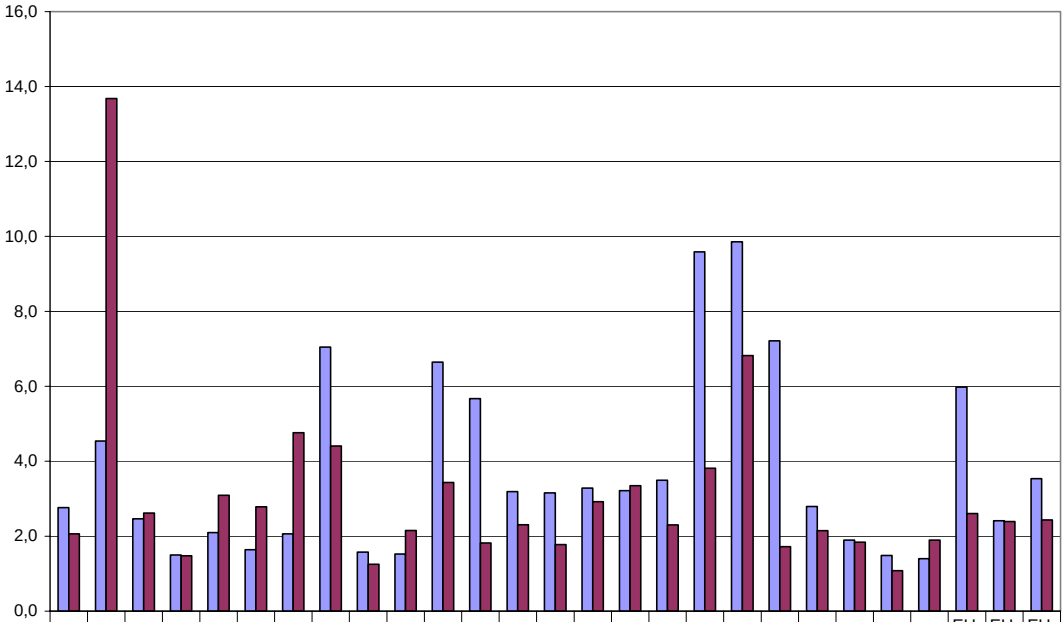
Graph 42. *Average UAA of organic and conventional holdings and average organic area in organic holdings (ha) in 2007*



	BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	IT	CY	LV	LT	HU	NL	AT	PL	PT	RO	SK	FI	SE	UK	EU-12	EU-15	EU-27
Non organic farms	35	31	108	52	69	79	56	8	51	79	9	13	21	22	25	41	23	7	11	7	42	31	38	118	11	33	20
Organic farms	49	80	267	40	64	56	63	18	127	77	36	55	70	117	164	66	38	41	55	72	419	32	82	188	91	49	54
of which organic area	21	9	92	38	53	24	49	9	36	50	24	3	29	30	75	51	34	24	17	25	148	30	57	89	33	29	29

[41] The classification used for the FSS is spelled out in details in Commission Regulation (EC) 1242/2008 of 8 December 2008 establishing a Community typology for agricultural holdings (Official Journal of the EU, L335 of 13 December 2008, p. 3).

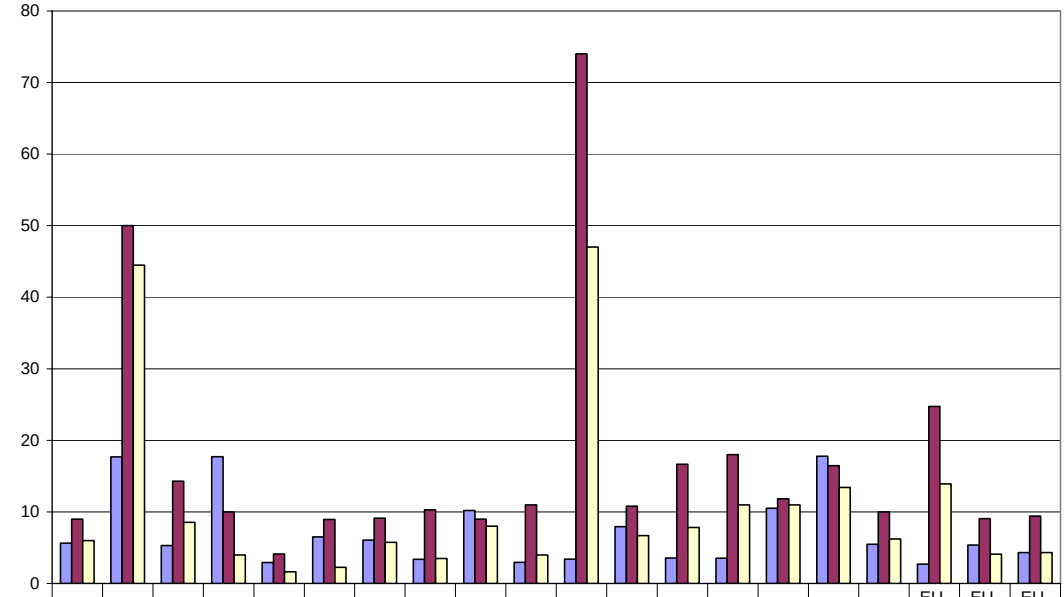
Graph 43. *Employment of labour per area (AWU / 100 ha, 2007)*



	BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	IT	CY	LV	LT	HU	NL	AT	PL	PT	RO	SK	FI	SE	UK	EU-12	EU-15	EU-27
Non organic holdings	2,8	4,5	2,5	1,5	2,1	1,6	2,1	7,0	1,6	1,5	6,6	5,7	3,2	3,2	3,3	3,2	3,5	9,6	9,9	7,2	2,8	1,9	1,5	1,4	6,0	2,4	3,5
Organic holdings	2,1	13,7	2,6	1,5	3,1	2,8	4,8	4,4	1,2	2,2	3,4	1,8	2,3	1,8	2,9	3,3	2,3	3,8	6,8	1,7	2,1	1,8	1,1	1,9	2,6	2,4	2,4

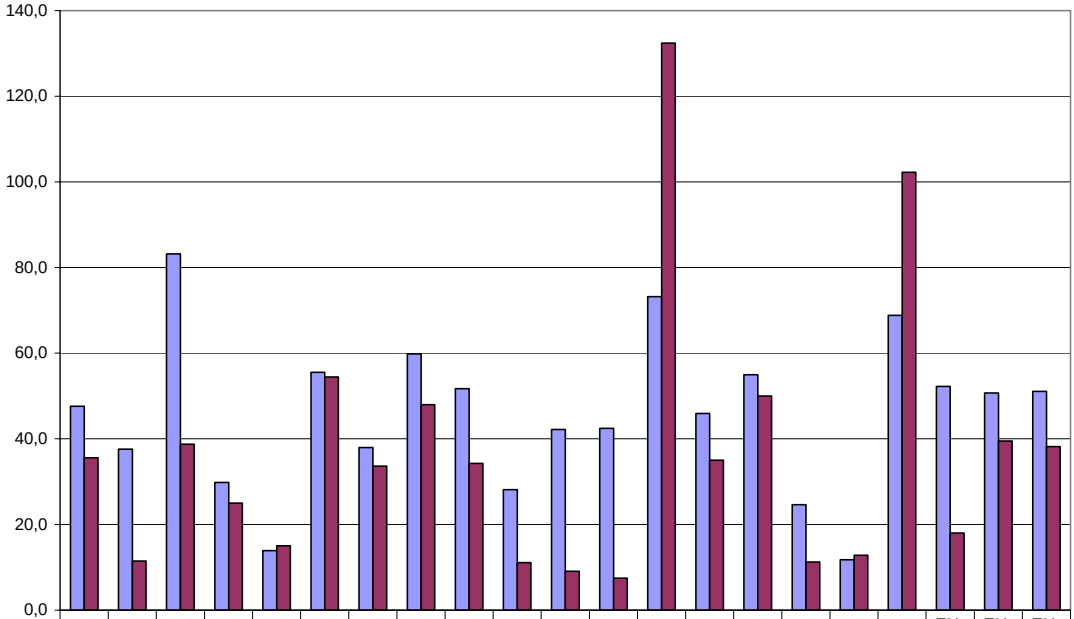
2 Specialists horticulture

Graph 44. *Average UAA of organic and conventional holdings and average organic area in organic holdings (ha) in 2007*



	BE	DK	DE	IE	EL	ES	FR	IT	LV	LT	HU	NL	PL	PT	FI	SE	UK	EU-12	EU-15	EU-27
Non organic farms	6	18	5	18	3	7	6	3	10	3	3	8	4	4	11	18	5	3	5	4
Organic farms	9	50	14	10	4	9	9	10	9	11	74	11	17	18	12	16	10	25	9	9
of which organic area	6	45	9	4	2	2	6	4	8	4	47	7	8	11	11	13	6	14	4	4

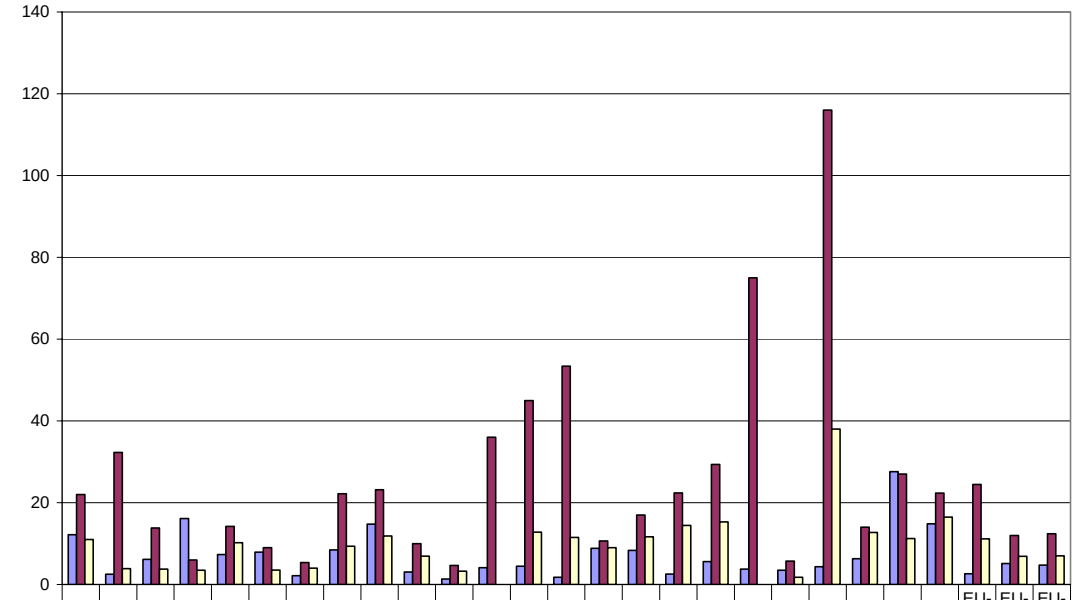
Graph 45. *Employment of labour per area (AWU / 100 ha, 2007)*



	BE	DK	DE	EE	IE	EL	ES	FR	IT	LV	LT	HU	NL	PL	PT	FI	SE	UK	EU-12	EU-15	EU-27
Non organic holdings	47,6	37,6	83,2	29,8	13,9	55,5	38,0	59,8	51,7	28,2	42,2	42,5	73,2	45,9	54,9	24,6	11,7	68,8	52,2	50,7	51,1
Organic holdings	35,6	11,5	38,8	25,0	15,0	54,5	33,6	48,0	34,2	11,1	9,1	7,4	132,4	35,0	50,0	11,3	12,8	102,2	18,0	39,5	38,2

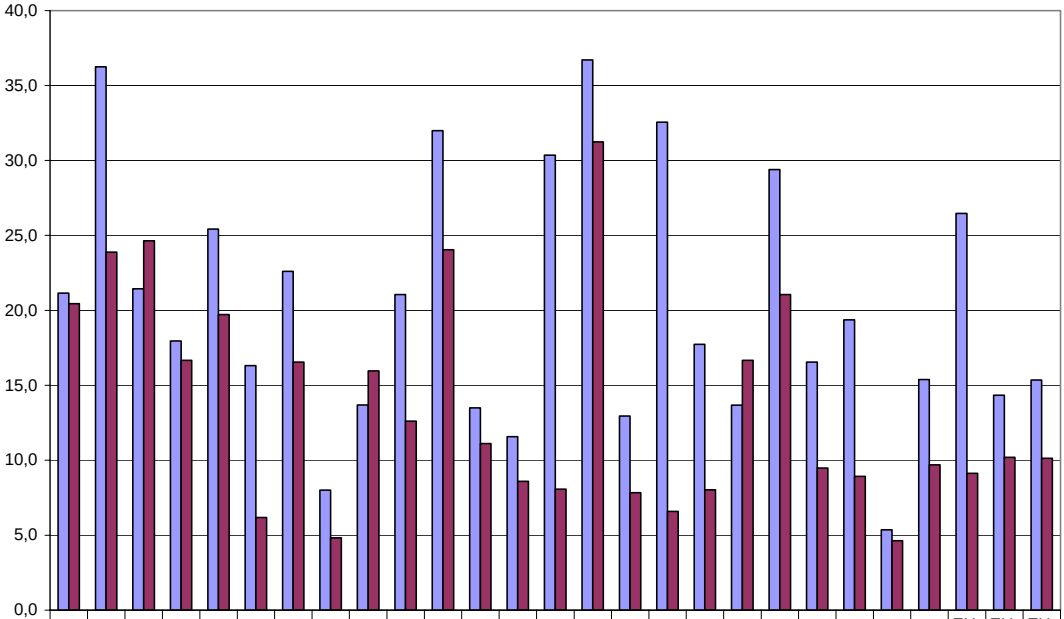
3 Specialists permanent crops

Graph 46. *Average UAA of organic and conventional holdings and average organic area in organic holdings (ha) in 2007*



	BE	BG	CZ	DK	DE	EE	EL	ES	FR	IT	CY	LV	LT	HU	NL	AT	PL	PT	RO	SI	SK	FI	SE	UK	EU-12	EU-15	EU-27
Non organic farms	12	3	6	16	7	8	2	8	15	3	1	4	4	2	9	8	3	6	4	3	4	6	28	15	3	5	5
Organic farms	22	32	14	6	14	9	5	22	23	10	5	36	45	53	11	17	22	29	75	6	116	14	27	22	24	12	12
of which organic area	11	4	4	4	10	4	4	9	12	7	3	0	13	12	9	12	14	15	0	2	38	13	11	17	11	7	7

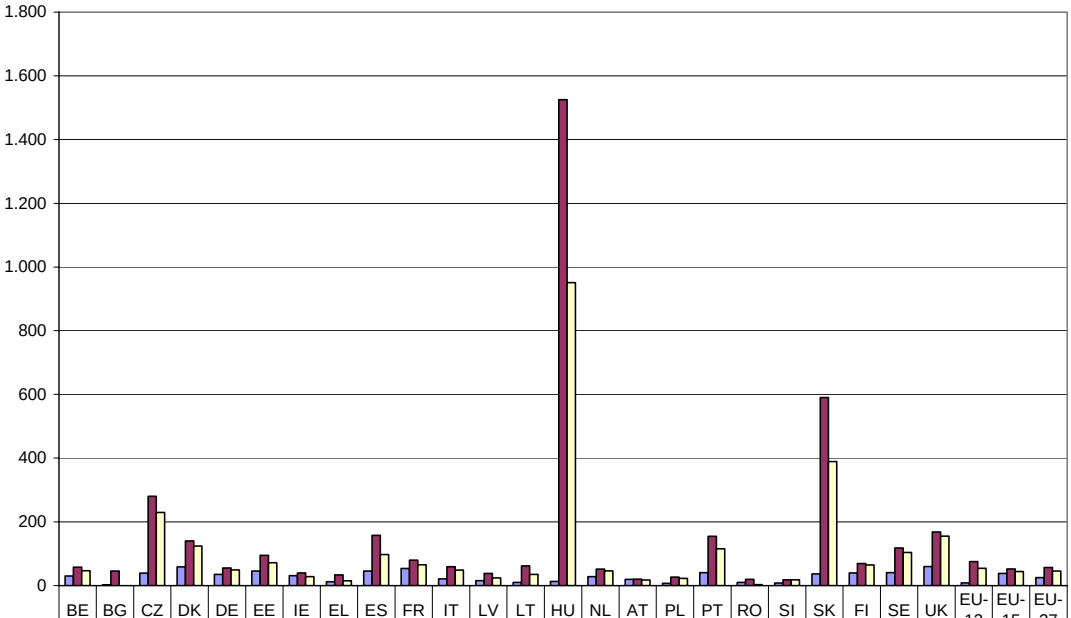
Graph 47. *Employment of labour per area (AWU / 100 ha, 2007)*



	BE	BG	CZ	DK	DE	EE	EL	ES	FR	IT	CY	LV	LT	HU	NL	AT	PL	PT	RO	SI	SK	FI	SE	UK	EU-12	EU-15	EU-27
Non organic holdings	21,2	36,2	21,4	18,0	25,4	16,3	22,6	8,0	13,7	21,1	32,0	13,5	11,6	30,4	36,7	12,9	32,6	17,7	13,7	29,4	16,5	19,4	5,4	15,4	26,5	14,3	15,4
Organic holdings	20,5	23,9	24,6	16,7	19,7	6,2	16,5	4,8	16,0	12,6	24,1	11,1	8,6	8,1	31,3	7,8	6,6	8,0	16,7	21,1	9,5	8,9	4,6	9,7	9,1	10,2	10,1

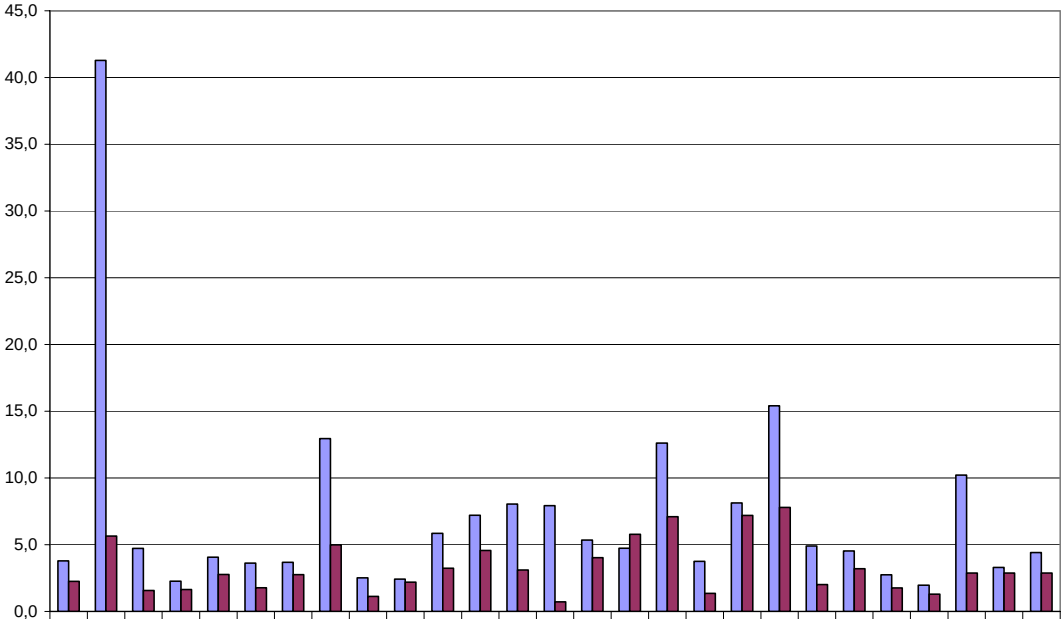
4 Specialists grazing livestock

Graph 48. *Average UAA of organic and conventional holdings and average organic area in organic holdings (ha) in 2007*



	BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	IT	LV	LT	HU	NL	AT	PL	PT	RO	SI	SK	FI	SE	UK	EU-12	EU-15	EU-27
Non organic farms	30	3	39	58	35	46	31	12	45	54	21	16	10	13	28	20	7	40	10	8	37	40	40	60	9	38	25
Organic farms	58	46	281	140	55	95	40	34	157	80	59	38	61	1.52	52	20	27	154	19	18	590	69	118	169	76	53	56
of which organic area	47	0	229	124	49	72	28	15	97	66	49	24	35	951	46	17	22	115	3	18	389	65	104	155	54	44	46

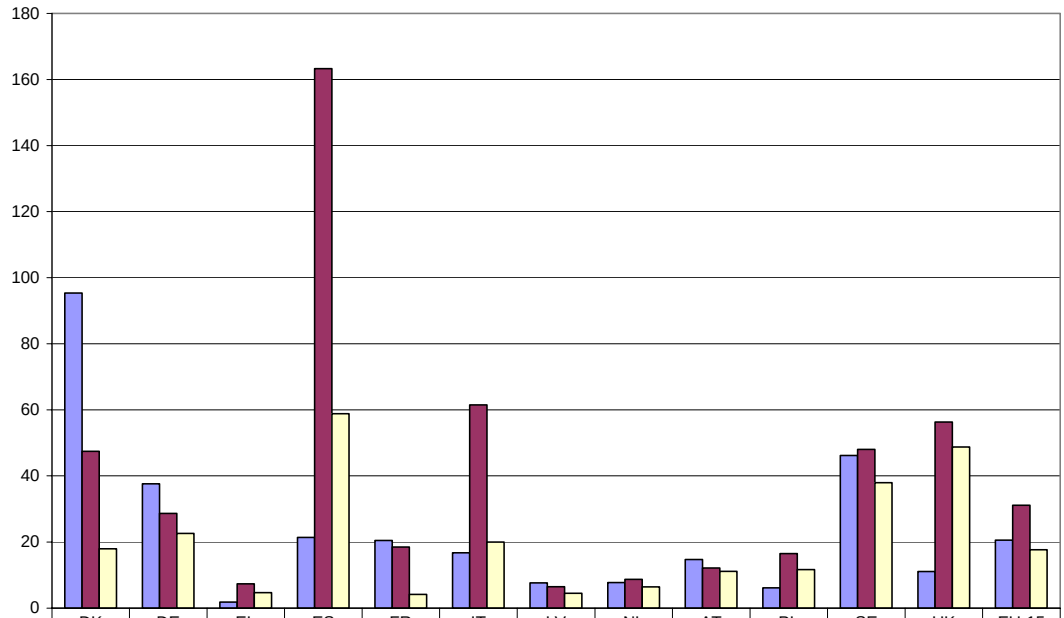
Graph 49. *Employment of labour per area (AWU / 100 ha, 2007)*



	BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	IT	LV	LT	HU	NL	AT	PL	PT	RO	SI	SK	FI	SE	UK	EU-12	EU-15	EU-27
Non organic holdings	3,8	41,3	4,7	2,3	4,1	3,6	3,7	12,9	2,5	2,4	5,8	7,2	8,0	7,9	5,3	4,7	12,6	3,7	8,1	15,4	4,9	4,5	2,7	2,0	10,2	3,3	4,4
Organic holdings	2,2	5,6	1,6	1,6	2,8	1,8	2,8	5,0	1,1	2,2	3,2	4,6	3,1	0,7	4,0	5,8	7,1	1,3	7,2	7,8	2,0	3,2	1,8	1,3	2,9	2,9	2,9

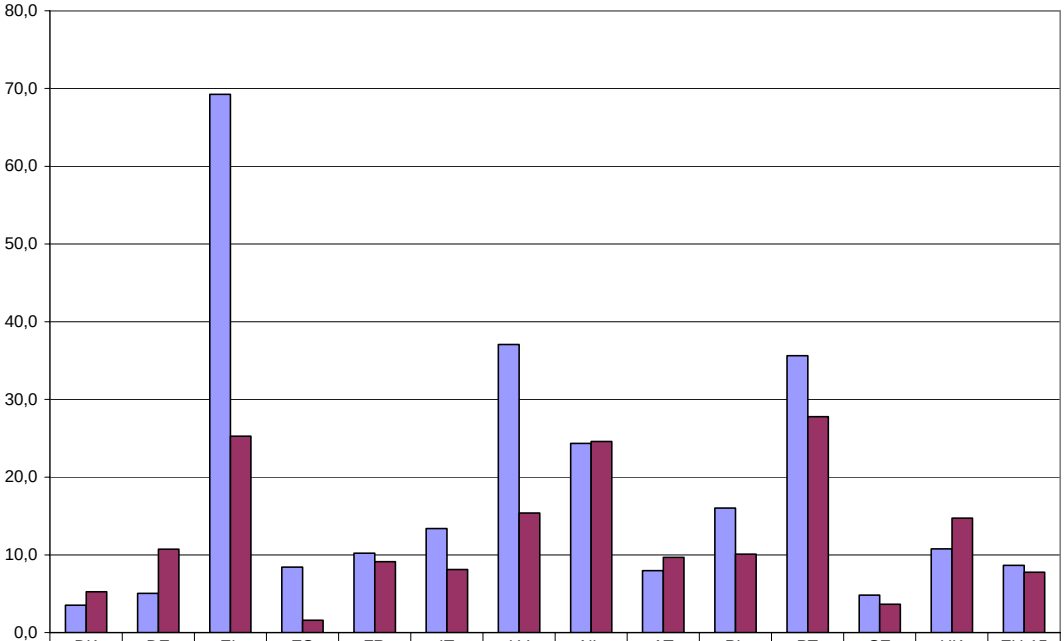
5 Specialists granivores

Graph 50. *Average UAA of organic and conventional holdings and average organic area in organic holdings (ha) in 2007*



	DK	DE	EL	ES	FR	IT	LV	NL	AT	PL	SE	UK	EU-15
Non organic farms	95	38	2	21	21	17	8	8	15	6	46	11	21
Organic farms	48	29	7	163	19	62	7	9	12	17	48	56	31
of which organic area	18	23	5	59	4	20	5	6	11	12	38	49	18

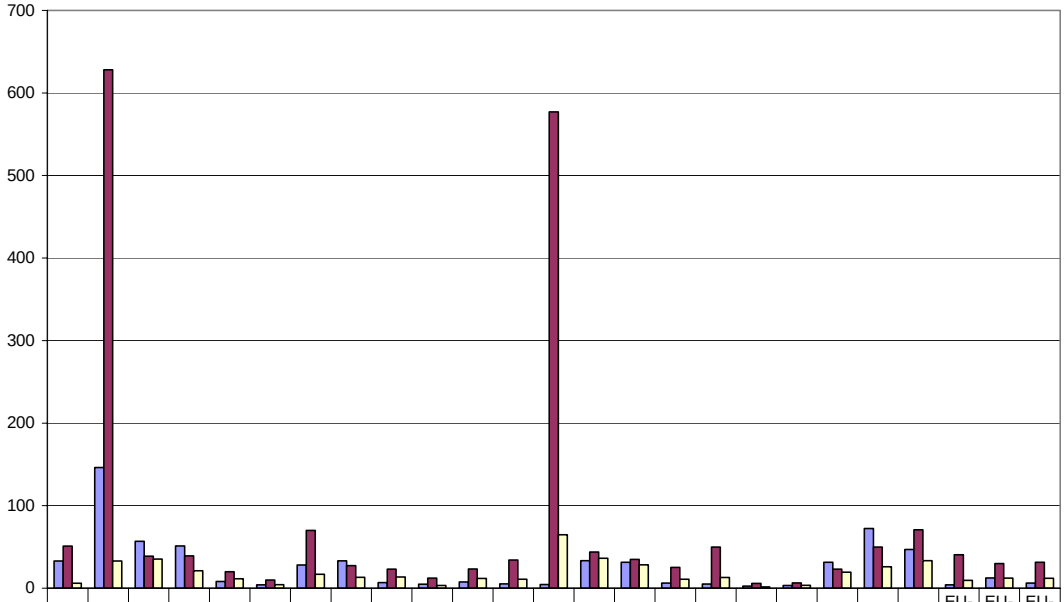
Graph 51. *Employment of labour per area (AWU / 100 ha, 2007)*



	DK	DE	EL	ES	FR	IT	LV	NL	AT	PL	PT	SE	UK	EU-15
Non organic holdings	3,5	5,1	69,2	8,4	10,2	13,4	37,1	24,4	8,0	16,0	35,6	4,8	10,8	8,7
Organic holdings	5,3	10,7	25,3	1,6	9,1	8,1	15,4	24,6	9,7	10,1	27,8	3,6	14,7	7,8

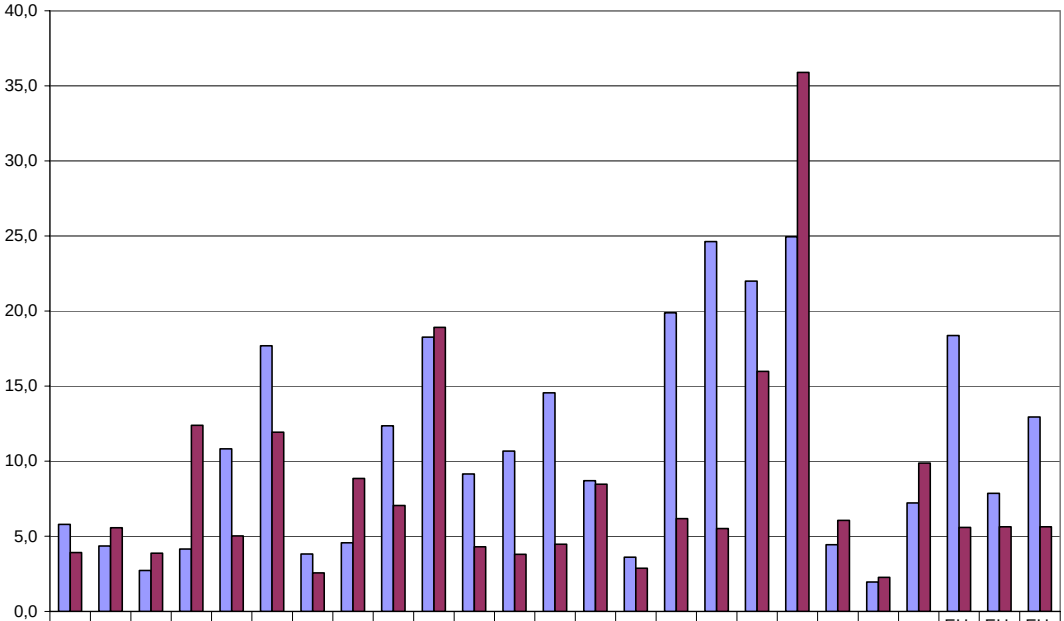
6 Mixed cropping

Graph 52. *Average UAA of organic and conventional holdings and average organic area in organic holdings (ha) in 2007*



	BE	CZ	DK	DE	EE	EL	ES	FR	IT	CY	LV	LT	HU	NL	AT	PL	PT	RO	SI	FI	SE	UK	EU-12	EU-15	EU-27
Non organic farms	33	146	57	51	8	4	28	33	7	5	8	5	5	33	32	6	5	3	3	31	73	47	4	13	6
Organic farms	51	628	39	39	20	10	70	28	23	12	23	34	577	44	35	25	50	6	7	23	50	71	41	30	32
of which organic area	6	33	35	21	12	4	17	13	14	3	12	11	65	36	28	11	13	2	4	20	26	33	10	12	12

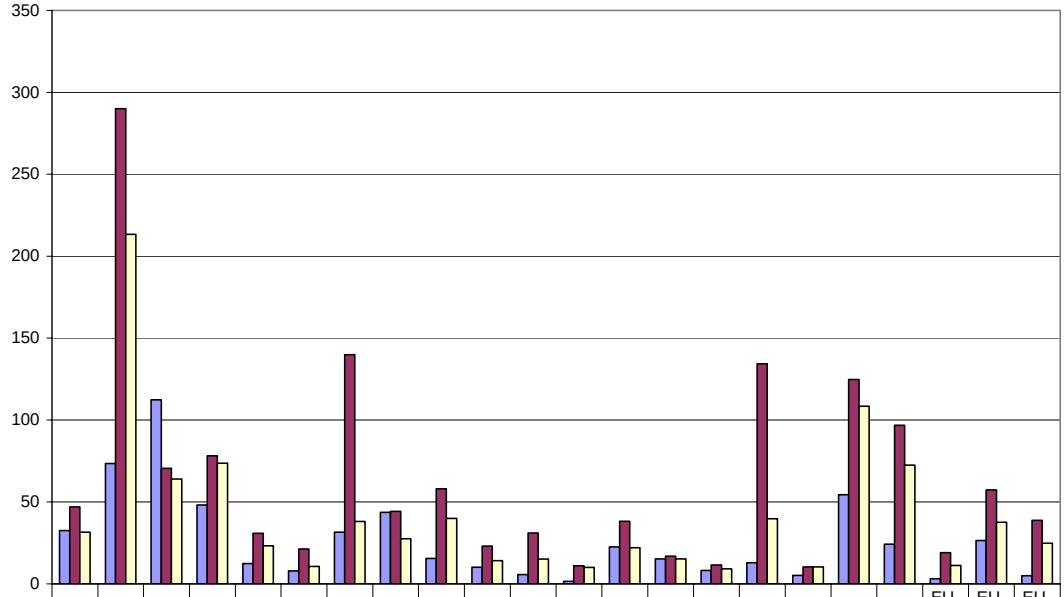
Graph 53. *Employment of labour per area (AWU / 100 ha, 2007)*



	BE	CZ	DK	DE	EE	EL	ES	FR	IT	CY	LV	LT	HU	NL	AT	PL	PT	RO	SI	FI	SE	UK	EU-12	EU-15	EU-27
Non organic holdings	5,8	4,3	2,7	4,1	10,8	17,7	3,8	4,6	12,4	18,3	9,2	10,7	14,6	8,7	3,6	19,9	24,6	22,0	24,9	4,4	2,0	7,2	18,4	7,9	12,9
Organic holdings	3,9	5,6	3,9	12,4	5,0	11,9	2,6	8,8	7,0	18,9	4,3	3,8	4,5	8,5	2,9	6,2	5,5	16,0	35,9	6,1	2,3	9,9	5,6	5,6	5,6

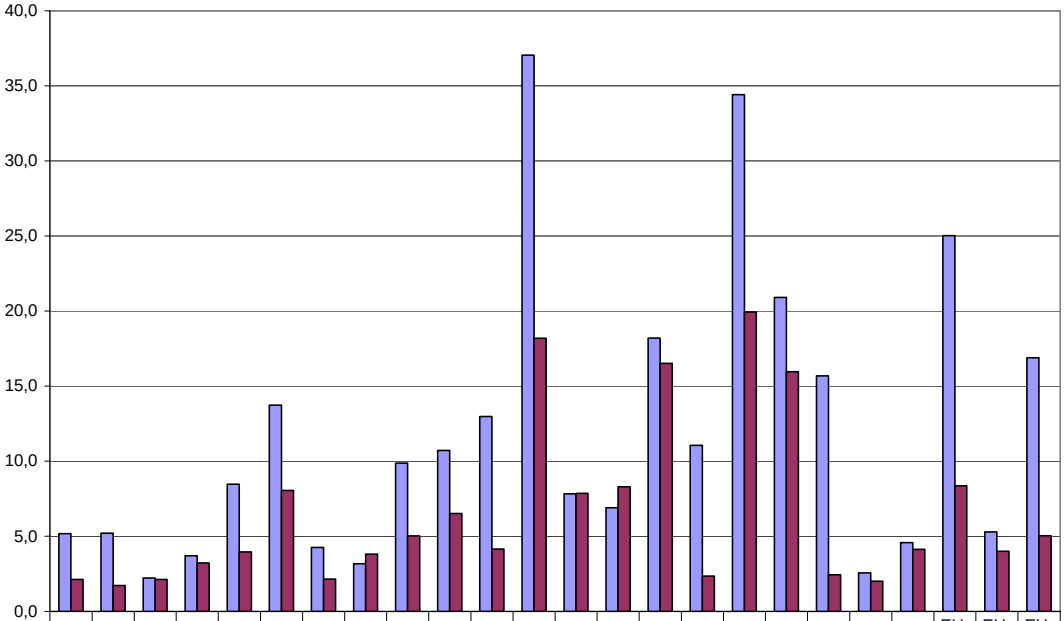
7 Mixed livestock

Graph 54. *Average UAA of organic and conventional holdings and average organic area in organic holdings (ha) in 2007*



	BE	CZ	DK	DE	EE	EL	ES	FR	IT	LV	LT	HU	NL	AT	PL	PT	SI	SE	UK	EU-12	EU-15	EU-27
Non organic farms	32	73	112	48	12	8	32	44	16	10	6	2	22	15	8	13	5	54	24	3	26	5
Organic farms	47	290	71	78	31	21	140	44	58	23	31	11	38	17	12	134	10	125	97	19	57	39
of which organic area	32	213	64	74	23	11	38	28	40	14	15	10	22	15	9	40	10	109	73	11	38	25

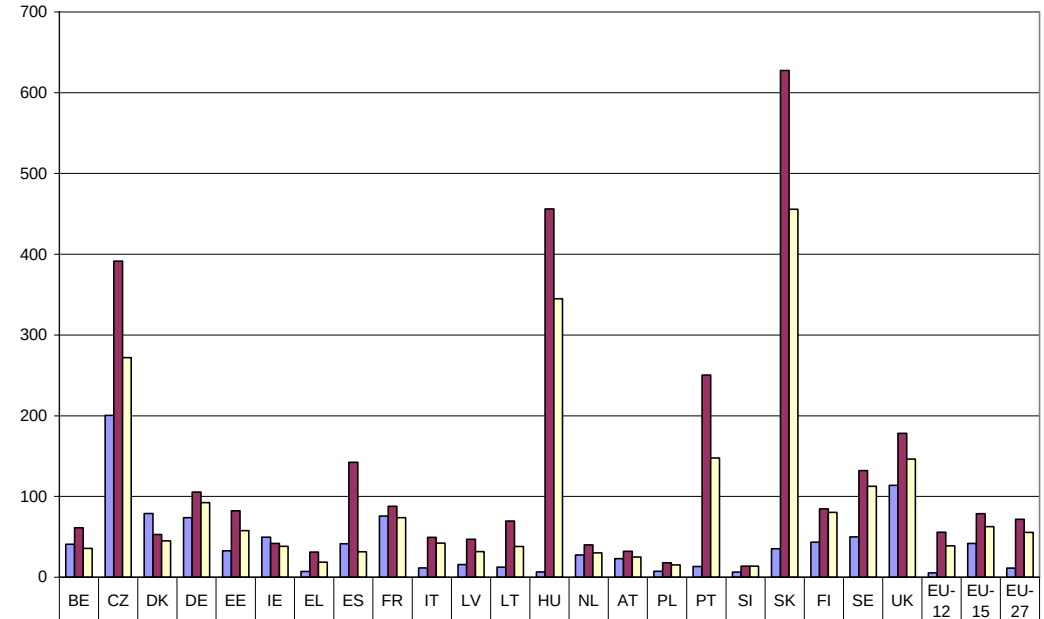
Graph 55. *Employment of labour per area (AWU / 100 ha, 2007)*



	BE	CZ	DK	DE	EE	EL	ES	FR	IT	LV	LT	HU	NL	AT	PL	PT	RO	SI	SK	SE	UK	EU-12	EU-15	EU-27
Non organic holdings	5,2	5,2	2,2	3,7	8,5	13,7	4,3	3,2	9,9	10,7	13,0	37,0	7,8	6,9	18,2	11,1	34,4	20,9	15,7	2,6	4,6	25,0	5,3	16,9
Organic holdings	2,1	1,7	2,1	3,2	4,0	8,1	2,1	3,8	5,0	6,5	4,1	18,2	7,9	8,3	16,5	2,3	19,9	16,0	2,4	2,0	4,1	8,4	4,0	5,0

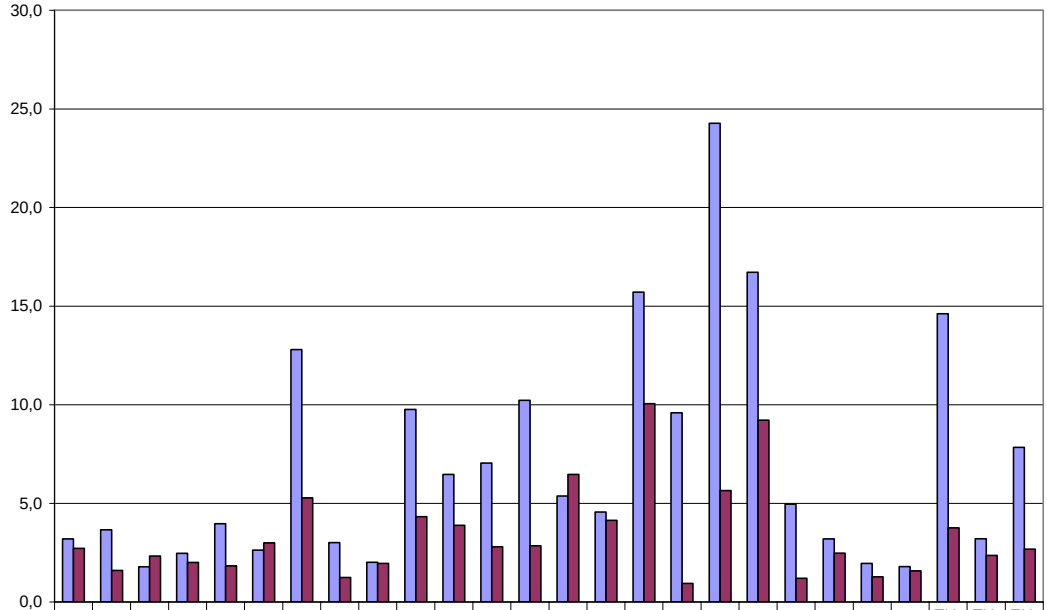
8 Mixed crops and livestock

Graph 56. *Average UAA of organic and conventional holdings and average organic area in organic holdings (ha) in 2007*



	BE	CZ	DK	DE	EE	IE	EL	ES	FR	IT	LV	LT	HU	NL	AT	PL	PT	SI	SK	FI	SE	UK	EU-12	EU-15	EU-27
Non organic farms	41	200	79	74	33	50	7	42	76	12	16	12	7	27	23	7	13	6	35	43	50	114	5	42	11
Organic farms	61	391	53	105	82	42	31	142	88	50	47	70	456	40	32	18	250	14	628	85	132	178	56	79	72
of which organic area	36	272	45	92	58	38	19	31	74	42	32	38	345	30	25	15	148	14	456	80	113	146	39	63	56

Graph 57. *Employment of labour per area (AWU / 100 ha, 2007)*



	BE	CZ	DK	DE	EE	IE	EL	ES	FR	IT	LV	LT	HU	NL	AT	PL	PT	RO	SI	SK	FI	SE	UK	EU-12	EU-15	EU-27
Non organic holdings	3,2	3,7	1,8	2,5	4,0	2,6	12,8	3,0	2,0	9,8	6,5	7,0	10,2	5,4	4,6	15,7	9,6	24,3	16,7	5,0	3,2	2,0	1,8	14,6	3,2	7,8
Organic holdings	2,7	1,6	2,3	2,0	1,8	3,0	5,3	1,2	2,0	4,3	3,9	2,8	2,9	6,5	4,1	10,1	0,9	5,6	9,2	1,2	2,5	1,3	1,6	3,8	2,4	2,7

Farm Accountancy Data Network (FADN)

The FADN is a European system of sample surveys which are implemented each year and collect structural and accountancy of farms. The aim is to monitor the income and business activities of agricultural holdings and to assess the impacts of the CAP. The FADN survey covers only farms exceeding a minimum economic size in order to cover the most relevant part of the agricultural activity in each EU Member State, i.e. at least the 90% of the total Standard Gross Margin (SGM) covered in the Farm Structure Survey (FSS). For 2007, the sample amounts to approximately 78 000 holdings in the EU-27, which represents 5.4 mio farms out of a total of about 14 mio farms (39%) covered by the FSS. Organic farming is identified in the FADN since 2000 but it should be underlined that the current methodology applied for farm selection and their weighting does not target the organic farming class (i.e. the farming methods "organic" / "non organic" are not stratification criteria). **This entails that the representativeness of the organic data is not guaranteed and the results should therefore be interpreted with caution.** In addition, the coverage of rural development measures is lower in some Member States (in particular Greece, Italy and Spain), see Commission 2009. The analysis below is carried out on the period 2000-2006 at the EU level.