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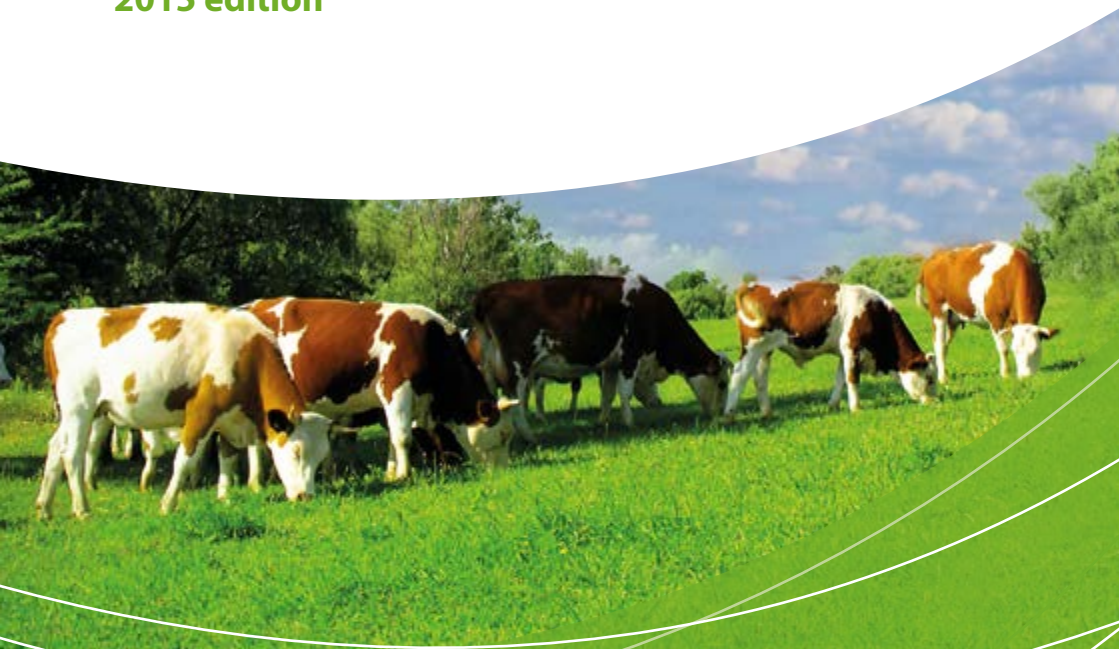
2015 edition



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Foreword

Globalisation, climate change, population growth and urbanisation are all having an impact on the world's agriculture. Through the Common Agricultural Policy (CAP), which accounts for the biggest share of the EU budget, the EU is driving developments in this strategic sector. Latest figures show that farming employs over 20 million people in the EU, many of which are in rural and peripheral regions where there are few alternative employment prospects. This illustrates the considerable contribution that the agricultural sector can make to the jobs, growth and investment agenda which is a core element of President Juncker's political guidelines for the European Commission (2014–19).

Agricultural statistics provide data for monitoring progress towards CAP targets and for the design and implementation of new policies that will ensure our wellbeing as well as a safe and sustainable global society.

Agriculture, forestry and fishery statistics gives an overview of EU statistics in these areas. It covers production data (such as tonnes of cereals, fish or wood) and includes a wide variety of indicators such as farm size, the prices of agricultural products, production methods (organic farming, aquaculture) and aspects that are relevant for the environment (e.g. pesticides, ammonia and greenhouse gas emissions, or wood used for energy). For most indicators, a time series is available, so they can be compared over time and between Member States. The milk quotas that had been in place for 31 years were abolished on 1 April 2015, so this edition sheds some light on milk production data gathered over the lifetime of the system, which succeeded in keeping EU production below the peak levels of the early 1980s.

You can find more info on the topics covered by this publication in a richer online format in *Statistics Explained*, the section of the Eurostat website that presents statistical topics in an accessible way. Also, the latest and most complete versions of the data can be downloaded directly from the Eurostat website.

Enjoy the book!

Marcel Jortay
Director, Sectoral and Regional Statistics

Abstract

The *Agriculture, forestry and fishery statistics* statistical book provides a selection of topical data. Information is presented for the European Union (EU) and its Member States, and is supplemented (when available) with data for EFTA members and for the candidate and potential candidate countries to the EU. This publication aims to cover some of the most popular data within the domain of agriculture, forestry and fishery statistics. It may be viewed as an introduction to European statistics in this area and provides a starting point for those who wish to explore the wide range of data that is freely available on Eurostat's website at: http://ec.europa.eu/eurostat.

Eurostat is the statistical office of the EU, situated in Luxembourg. Its task is to provide the EU with statistics at a European level that enable comparisons between countries and regions. Eurostat's mission is to be the leading provider of high quality statistics on Europe.

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Editors

Roberta Forti and Michel Henrard

Contact details

Eurostat

Bâtiment Joseph Bech
5, rue Alphonse Weicker
L-2721 Luxembourg
LUXEMBOURG

E-mail: estat-user-support@ec.europa.eu

Production

This publication was produced by William Helminger, Alain Mahieu, Carla Martins and Bruno Scuvée — CRI (Luxembourg) S.A.

For more information please consult

Eurostat website: http://ec.europa.eu/eurostat

Data extraction period

The statistical data presented in this statistical book were extracted from September to December 2015. The accompanying text was drafted in November and December 2015.

Table of contents

Introduction

This publication on *Agriculture, forestry and fishery statistics* presents a selection of tables and figures on a wide range of industry-related topics, covering the 28 EU Member States. The most recent data are presented where possible, the latest reference year (for some data sets) being 2014.

The official statistics in this statistical book are aimed at both specialists (including policymakers at EU and Member State level, enterprises, farms, producers' and consumers' associations, consultancy bodies, trade unions *et al.*) and generalists who have an interest in the subject. Statistics provide tools to help inform, monitor and measure progress towards agreed goals. As such, they are a key component of governance — for identifying needs, formulating objectives and orientating policies and goals — through evidence-based decision-making. For the European Commission, statistics are also required to support dialogue with the EU Member States and other partners.

The Common Agricultural Policy (CAP) is the agricultural policy of the EU. Its main objectives are to ensure a decent standard of living for farmers, to provide a stable and safe food supply chain at affordable prices for consumers, and to ensure the development of rural areas throughout the EU; a June 2013 reform of the CAP focused on the sustainable management of resources. Each of these objectives has been borne in mind when selecting the statistics shown in this statistical book.

There is no common forestry policy for the EU; rather, the Member States have their own national forestry policies. Nevertheless, an EU Forest Action Plan was adopted in 2006. Of the four objectives laid out, statistics are most readily available to help examine the need to improve the long-term competitiveness of the EU's forest sector.

The Common Fisheries Policy (CFP) is the fisheries policy of the EU. It sets catch limits, restricts the size of the fishing fleet that sets to sea, and lays down technical measures such as those relating to fishing gear. In addition, the CFP aims to help producers get a fair price for their produce and ensure that consumers can trust the seafood that they eat. A January 2014 reform of the CFP focused on environmental, economic and social sustainability. Statistics related to fishing production, catches, landings and the fishing fleet are presented in this publication.

The relative weight of agriculture, forestry and fisheries in the EU-28 economy has been in almost perpetual decline over the last 50 years. From 2000 to 2014 the share of agriculture, forestry and fisheries in the EU-28's total economic activity (as measured by gross value added) fell from 2.2 % to 1.6 %. (1).

(1) See in Eurobase nama_10_a10.

This edition of *Agriculture, forestry and fishery statistics* is divided into seven parts.

The year 2015 was an important one for milk production in the EU. After 31 years of existence, the quota system, which had been introduced in 1984 to control milk production in the EU Member States, came to an end. In a look back at this important milestone, the first chapter of this publication provides an overview of the milk sector under the quota system, as well as a more detailed look at the latest figures on milk production in the EU.

Chapter 2 is dedicated to the farm structure survey and provides readers with an overview of the structures of EU farms, including their specificities in different EU Member States, their activities or the makeup of their labour force.

Chapters 3 to 5 present the EU's agricultural industry with information on the latest reference period and developments over time. These chapters move beyond a structural presentation of the EU's agricultural industry, providing information on agri-environmental issues, reflecting recent reforms of the CAP:

- Chapter 3 covers economic developments within the agricultural industry and presents data on output and input values, income indicators, as well as price trends;
- Chapter 4 presents the most recent data on some of the most important EU agricultural products, first for crops (cereals, sugar beet, oilseeds, vegetables, fruit, grapes and olives), then for livestock and meat (livestock numbers and meat production);
- Chapter 5 provides a small selection of indicators related to the interaction between agriculture and the environment. This year's edition puts the spotlight on organic farming, pesticide sales, greenhouse gas emissions and ammonia emissions. Data on the EU's bird population is also presented briefly.

The remaining two chapters go beyond agriculture to look at the state of the EU's forestry and fishery industries:

- Chapter 6 provides an overview of the most recent forestry data;
- Chapter 7 offers a summary of the state of the EU's fishing fleet, aquaculture, fishery catches and landings of fishery products.

This publication reflects only a relatively small proportion of the statistics that are collected on the agricultural, forestry and fishery industries. More detailed data as well as methodological information both for these topics and a much broader range of economic, social and environmental themes can be found on the Eurostat website at: http://ec.europa.eu/eurostat.

The Eurostat website offers free access to Eurostat's databases, predefined tables, methodological documents and publications.

1

The milk sector in the European Union
30 years of quotas

Introduction

On 2 April 1984, following years of significant overproduction of milk and milk products (such as skimmed milk powder and butter), the Common Agricultural Policy (CAP) introduced milk quotas in the European Union (EU). Prior to that, EU dairy farmers had been guaranteed a price for their milk (considerably higher than on world markets) regardless of market demand. The system also had an impact on world market prices, as the EU frequently subsidised exports to the world market. Starting in 1984, each EU Member State had two types of quota: one defined the maximum amount of milk delivered to dairies and the other the limit for direct sales at farm level. If the quantities of milk were above the defined thresholds a levy was applied to the farmers concerned.

The milk quotas, along with several other CAP reforms, brought to an end the milk powder and butter 'mountains' of the late 1970s and early 1980s. Reduced guaranteed prices along with the decoupling of direct payments from production also contributed to the stabilisation of farmers' revenues in this sector ([1]).

In the 2009 'Health check' of the CAP, the EU decided to prepare the ending of milk quotas for a so-called 'soft landing' by increasing the quotas by 1 % every year over 5 consecutive years, beginning on 1 April 2009 ([2]). On 1 April 2015, 31 years after being put into place, dairy quotas were abolished. This change in the milk sector is set to allow farmers the flexibility to expand their production and to profit from the growing extra-EU demand for milk products ([3]).

The quota system was the main policy instrument in the EU milk sector. It is crucial for understanding the development of statistics on milk and milk products in the last 30 years analysed in this chapter.

([1]) The end of milk quotas: http://ec.europa.eu/agriculture/milk-quota-end/index_en.htm.
([2]) Soft landing report: http://eur-lex.europa.eu/legal-content/en/ALL/?uri=CELEX:52010DC0727.
([3]) http://europa.eu/rapid/press-release_MEMO-15-4697_en.htm.

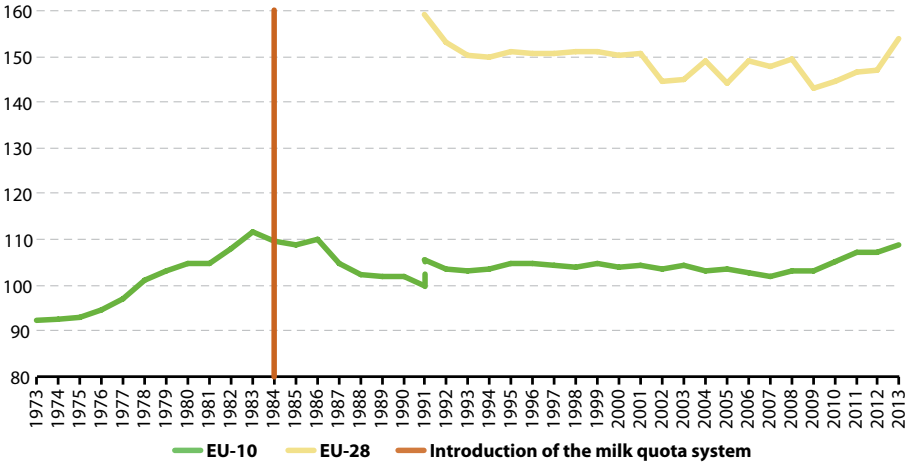
1.1 Historical data on the milk sector (1983–2013)

The availability of milk statistics in the EU is largely dependent on the EU enlargements and two aggregates have been used to better understand the historical data. In 1983 the European Community consisted of 10 Member States (Belgium, Denmark, Germany [at the time West Germany or Federal Republic of Germany], Ireland, Greece, France, Italy, Luxembourg, the Netherlands and the United Kingdom) which constitute the EU-10 aggregate. Depending on the variable, the EU-15, EU-27 and EU-28 aggregates can only be obtained in more recent datasets.

From 1973 to 1983 the production of cow's milk on EU-10 farms grew from 92.3 million tonnes to 111.8 million tonnes (see Figure 1.1). The milk quotas succeeded in maintaining the stability of cow's milk production in the EU and the high production of the early 1980s was never again reached. Even in the context of the successive enlargements, EU milk production has experienced an overall reduction.

The number of dairy cows has significantly decreased in the last 30 years. In 2014, the total EU-28 figure (24.0 million head) was lower than the EU-10 figure in 1983 (25.7 million head). The decrease in the dairy cow herd along with the stable level of milk production indicate an improvement in milk yields over the last three decades.

Figure 1.1: Cow's milk production, EU, 1973–2013 (1)
(million tonnes)



(1) Break in the series — covers reunified Germany from 1990 onward.
Source: Eurostat (online data code: apro_mk_farm)

30 years of milk production

As mentioned above, in 1983, the year before the introduction of milk quotas, EU-10 cow's milk production peaked at 111.8 million tonnes. Close to half of the production came from France and Germany (at the time West Germany or Federal Republic of Germany) with 25 % and 24 % of milk production respectively.

From 1973 to 1983 production had grown by 21 % in the EU-10 (see Figure 1.1) and indicated the need to reduce excessive production of milk and dairy products, which was overrunning demand. The capping of milk production in 1984 produced immediate effects, and in 1984 EU-10 production figures of cow's milk fell to 109.6 million tonnes.

The milk quotas were very effective in stabilising milk production and controlling growth. Over the course of the next three decades the production of milk in these 10 EU Member States would never reach 1983 levels again. In the EU-10 from 1984 to 2013, cow's milk production fell by 1.0 %, and the average annual growth rate was – 0.03 %. Throughout the various EU enlargements, the EU-10 kept the lion's share of overall EU-28 milk production, with more than two thirds of cow's milk production since 1991.

Looking into the production data of cow's milk in the EU-28 — which are available from 1991 onwards (including reunified Germany) — there was a declining trend as well: production shrunk from 159.0 million tonnes in 1991 to 153.8 million tonnes in 2013, a – 3.0 % change. The EU-28's production experienced an average annual growth rate of – 0.2 % over the same period.

Figure 1.1 highlights a significant decrease from 2008 to 2009, which is at least partly due to the global financial and economic crisis. This decrease was much more significant in the EU-28 (– 4.2 %) than in the EU-10 (– 0.2 %).

In the last five years cow's milk production has picked up, not only in the form of a post-crisis recovery but also due to the 'soft landing' measures introduced from 2009 onward in the EU. These measures consisted of a yearly increase of 1.0 % in the quotas to anticipate the end of the quota system in 2015. From 2009 to 2013, the rise in the cow's milk production was higher in the EU-28 Member States (+ 7.5 %) than in the EU-10 Member States (+ 5.4 %). In some countries (such as Greece, Croatia, Portugal and Romania) there was even a reduction in cow's milk production from 2009 to 2013 in spite of the increase in the quotas.

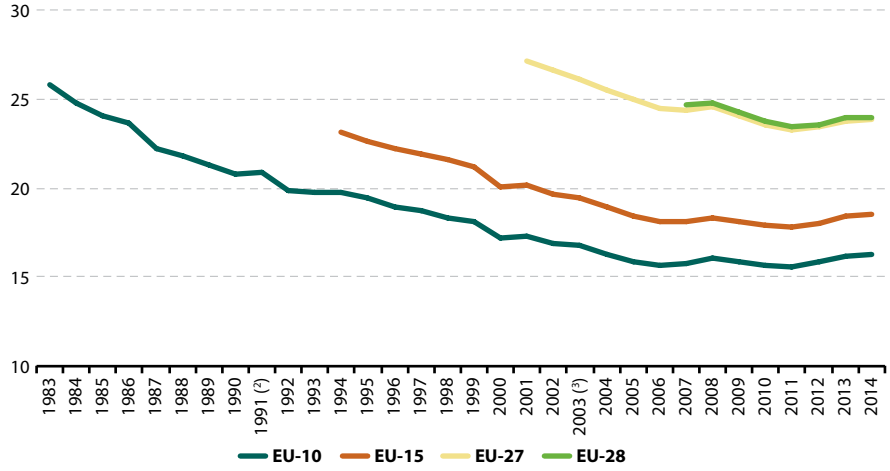
Dairy cows

Animal husbandry has gone through significant technical developments over the last few decades. Indeed, the increase in milk production is not only linked to a rise in the total number of dairy cows, but also depends on other production factors such as improved breeding techniques, optimised diets, better milking methods and increases in the size of farms.

As shown in Figure 1.2, the number of dairy cows in the EU decreased over the duration of the milk quotas. Within this timeframe the EU-10 Member States in particular showed a reduction of 38 % in the number of dairy cows, from 25.8 million head in 1983 to 16.3 million head in 2014. In 2001 the EU-27 population of dairy cows was close to the EU-10 figures in 1983: 27.1 million head. From 2001 to 2014 there was a 12 % decrease in the number of dairy cows. The EU-28 had 24.0 million head of dairy cows in 2014, which was 1.8 million head less than the number in the EU-10 31 years before.

The final five years of the quota system recorded a reduction in the EU-28 number of dairy cows. However this tendency is not homogeneous across all EU Member States. While the overall figures for the EU-28 show a decline (– 1 %), the EU-10 Member States experienced a 3 % increase in the number of dairy cows from 2009 to 2014. The share of EU-10 in the total EU-28 dairy cow population was 64 % in 2007 and increased to 68 % in 2014.

Figure 1.2: Number of dairy cows ([1]), EU, 1983–2014
(million heads)



([1]) Includes buffaloes.
([2]) Includes reunified Germany from this year onwards.
([3]) 2002 data used for Romania in 2003.
Source: Eurostat (online data code: apro_mt_lscatl)

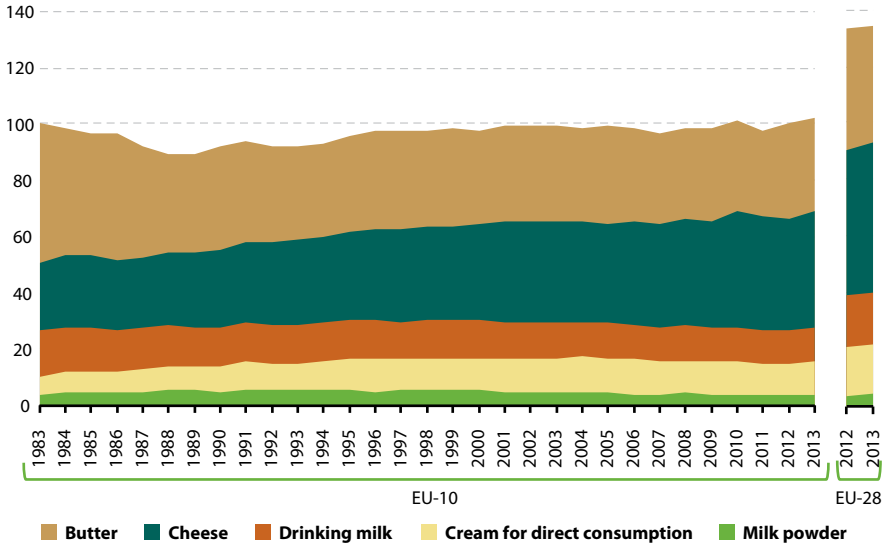
Dairy products

The extra-EU trade in dairy products has increased in recent years and, according to the European Milk Market Observatory, is expected to continue to grow.

The production of dairy foods is directly linked to the availability of its main ingredient: milk. Figure 1.3 representing the historical evolution of the use of milk by dairies from 1983 to 2013 follows the trend pictured in Figure 1.1 and shows (similarly to the data on milk production) small variations in the total quantities of milk throughout the three decades.

In 2013, three quarters of the 134 million tonnes of EU-28 milk used in dairy goods were produced in the EU-10. From 1983 to 2013 the volume of EU-10 milk used for dairy products increased by 3 %, an annual growth rate of 0.08 %.

Figure 1.3: Utilisation of milk by dairies, by type of product, EU, 1983–2013 ([1])([2])
(million tonnes)



([1]) Break in the series — covers reunified Germany from 1990 onward.
([2]) Due to confidentiality of data for certain Member States, the EU-28 aggregate has been especially calculated for this publication for 2012 and 2013 and is not available for the preceding years. Non-confidential data is available from 2004 onwards for a large number of EU-28 Member States in the Eurostat database.
Source: Eurostat (online data code: apro_mk_pobta)

The share of milk for each type of product has shown some deviations over the years. The percentage used in butter production decreased from 49 % in 1983 to 32 % in 2013. In 2000 milk for butter products lost its dominance to milk used in cheese production which had a 24 % share in 1983 and a 40 % share of all milk for dairy production in 2013. Milk used in the production of milk powder has varied from 3 % to 6 %, the smallest share throughout the time series of the dairy products.

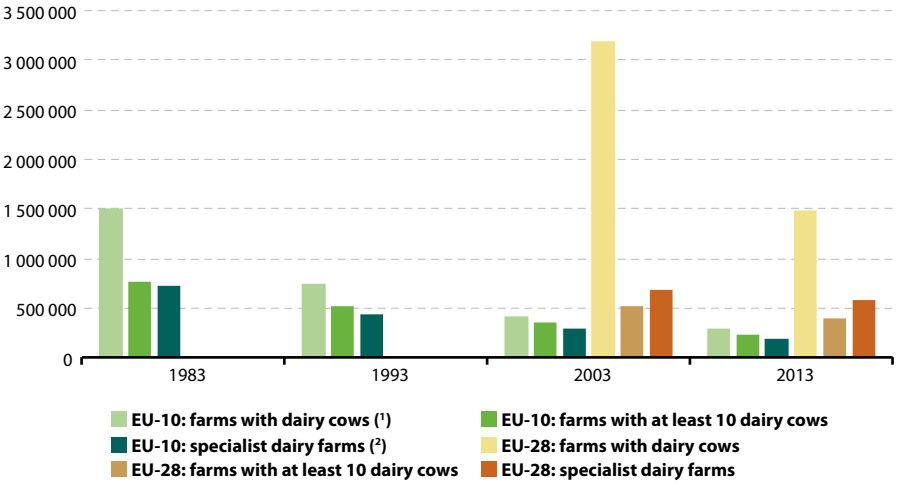
In 1983, drinking milk accounted for 16 million tonnes or 16 % of total dairy production. In 2013, this share had been reduced to 13 % (18 million tonnes). On the other hand, over the same period, milk used for the production of cream for direct consumption had gained 7 percentage points in the share of the EU dairy products, reaching 13 % in 2013.

Structure of the farms

From 1983 to 2013, the number of farms with dairy cows decreased by 81 % in the EU-10

The structure of EU farms has gone through significant changes within the 30 years of the milk quotas. In general, when taking into account all agricultural holdings, from 1983 until 2010 there was a decrease of 3.6 million farms (– 55 %) in the EU-10. On average in these 10 EU Member States, 326 holdings per day ceased their activity over the last 30 years.

Figure 1.4: Number of farms, EU, 1983, 1993, 2003 and 2013



(1) Does not include Germany.
(2) Farmtypes calculated with Standard Gross Margin (SGM) until 2000 and Standard Output (SO) from then onwards. Estimated for 1983 and 1993.
Source: Eurostat (online data codes: ef_ls_ovaareg, ef_ls_gzdcow, ef_olslsuft and ef_lscow)

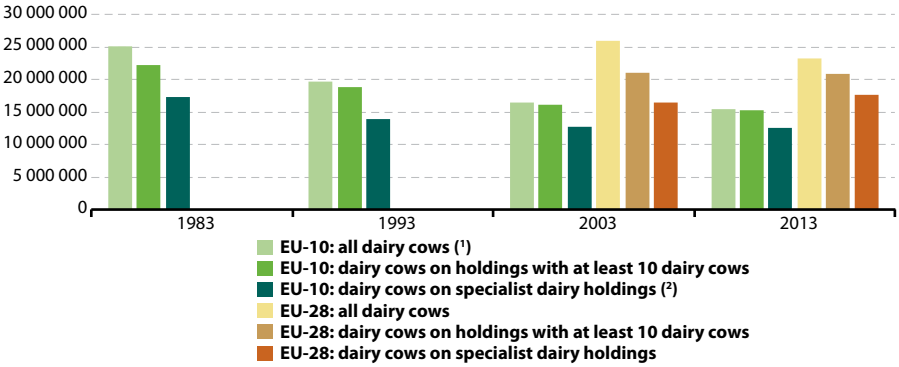
When looking in particular at farms with dairy cows, the reduction was even sharper: 81 % of the number of holdings disappeared (1.2 million holdings). The total number of farms with dairy cows in the EU-10 decreased from 1 514 441 in 1983 to 288 600 in 2013, meaning that four in every five farms with dairy cows disappeared from 1983 to 2013 (see Figure 1.4).

However, the proportion of specialised dairy farms has increased. In 1983, around 0.7 million holdings in the EU-10 were specialised in dairy cows. These farms represented 48 % of the holdings with dairy cows and reared 69 % of the dairy cows. In 2013, the number of specialised dairy farms fell to 0.2 million. These farms represented 65 % of the farms with dairy cows and raised 81 % of the EU-10's dairy cows. While in the EU-10 the number of specialised dairy farms was smaller than the number of farms with at least 10 dairy cows, on the contrary, in the EU-28 there are more specialised farms than farms with at least 10 dairy cows.

The EU-28 had close to 0.6 million specialised dairy farms in 2013, of which close to one third (33 %) were located in the EU-10 Member States. In the same period, these specialised farms had 17.7 million dairy cows, 71 % of which belonged to farms in the first 10 EU Member States.

When considering all holdings with dairy cows in the EU-28, including the newest EU Member States which generally present, numerous, smaller and less specialised farms, the situation is quite different from EU-10. In 2013, although the EU-10 had 15.5 million dairy cows (which represented two thirds of all EU dairy cows), the number of farms with dairy cows was 0.3 million — 19 % of the EU-28 total number of farms with dairy cows. The remaining 18 EU Member States had 7.8 million dairy cows (33 % of the EU-28 total) which were raised in 1.2 million holdings (81 % of the EU-28 total) (see Figure 1.5). This reflects the economic importance of dairy cattle mainly in those Member States that have joined the EU after 1983.

Figure 1.5: Number of dairy cows, EU, 1983, 1993, 2003 and 2013



(1) Does not include Germany.
(2) Estimated for 1983.
Source: Eurostat (online data codes: ef_ls_ovaareg, ef_ls_gzdcow, ef_olslsuft and ef_lscow)

Farm production and dairy products by country

61 litres of drinking milk per person were produced in the EU-28 in 2013

The production of milk amounted to 112 million tonnes in the EU-10 in 1983 (see Table 1.1). After 30 years under the milk quota policies these 10 countries produced 109 million tonnes of milk, a 2.8 % reduction in milk production.

With a share of 71 %, the EU-10 Member States dominated EU-28 milk production in 2013. Germany alone accounted for 20 % of the milk produced in the EU-28, followed by France (16 %), the United Kingdom (9 %), Poland and the Netherlands (each 8 %). The share of the EU-10 countries remained stable due to the rigid quota system in place. However recent changes have allowed for a yearly 1 % increase in the quotas (since 2009) enabling Germany to expand its share, from 24 % of the EU-10 total cow's milk production in 1983 to 29 % in 2013. This increase includes the effect of German reunification, which is estimated at 4.2 pp. The quotas of the other major milk producers had shrunk from 1983 to 2013 in France (22 % or – 3 percentage points), the United Kingdom (13 % or – 2 percentage points) and the Netherlands (11 % or – 1 percentage points).

Of the milk produced on EU-28 farms in 1983, 93 % was distributed to dairies for further processing. This percentage increased in the EU-10, reaching 97 % in 2013. In the EU-28 in 2013 the share of milk collected by dairies was 92 %. In Ireland, Malta and Sweden 100 % of the milk was delivered to dairies, contrasting with the lowest values in Romania (22 %) and Bulgaria (44 %).

Table 1.1: Farm production and dairy products, EU, 1983 and 2013
(thousand tonnes)

	Production			Dairy products			
	Cows' milk production	Ewes', goats' and buffaloes' milk collection	Cows' milk collected	Production of drinking milk	Production of milk powders	Production of butter	Production of cheese
1983							
EU-10	111 785	2 414	103 569	20 137	3 157	2 254	3 807
Belgium	3 872	0	3 178	736	177	80	43
Denmark	5 427	0	5 227	607	134	131	251
Germany (1)	26 913	22	25 176	3 637	854	627	847
Ireland	5 491	0	5 341	524	192	162	52
Greece	784	998	451	200	:	2	103
France	27 650	603	26 080	3 427	965	622	1 212
Italy	10 858	791	8 169	2 967	2	74	562
Luxembourg	290	0	246	31	13	8	3
Netherlands	13 240	0	12 914	991	484	306	489
United Kingdom	17 261	0	16 787	7 016	337	241	245
2013							
EU-28	153 774	5 084	141 243	31 925	2 105	1 707	9 300
EU-10	108 619	2 959	105 564	20 989	1 710	1 700	7 190
Belgium	3 528	0	3 475	747	165	53	79
Denmark	5 082	0	5 026	492	138	135	325
Germany	31 324	14	30 301	4 931	530	473	2 182
Ireland	5 601	0	5 581	494	98	202	183
Greece	731	1 087	607	441	:	:	187
France	24 426	865	23 994	3 640	368	398	1 936
Italy	11 281	759	10 397	2 563	:	98	1 158
Luxembourg	296	3	287	20	0	:	:
Netherlands	12 408	232	12 213	508	297	199	793
United Kingdom	13 943	0	13 687	6 981	116	145	349
Other EU-28	45 156	2 125	35 679	10 900	365	433	2 060
Bulgaria	1 149	157	511	71	0	1	68
Czech Republic	2 849	0	2 358	620	31	29	118
Estonia	772	0	706	88	2	4	44
Spain	6 559	1 072	5 949	3 662	24	36	315
Croatia	588	22	504	294	:	5	33
Cyprus	163	43	157	71	0	0	20
Latvia	912	3	736	61	:	:	:
Lithuania	1 720	4	1 339	96	23	13	113
Hungary	1 773	5	1 364	399	:	9	68
Malta	41	3	41	:	:	:	:
Austria	3 393	32	2 933	788	5	34	158
Poland	12 718	17	9 922	1 616	137	161	732
Portugal	1 848	103	1 777	834	15	26	70
Romania	3 966	653	882	219	2	10	70
Slovenia	596	1	517	153	:	2	16
Slovakia	912	10	827	320	5	9	9
Finland	2 328	0	2 287	735	:	53	102
Sweden	2 870	0	2 870	864	80	35	89

(1) Germany excluding the German Democratic Republic.
Source: Eurostat (online data codes: apro_mk_farm and apro_mk_pobta)

Only a small percentage of the milk was from ewes, goats and buffaloes and was produced in very specific EU regions. The share of these types of milk grew slightly in the last 30 years — from 2.3 % in 1983 (EU-10) to 3.5 % in 2013 (EU-28). In this period the collection of milk from ewes, goats and buffaloes increased by 23 % within the EU-10 Member States, reaching close to 3 million tonnes. Greece was the main producing country of these types of milk with a share of 21.4 %, in 2013, followed by Spain (21.1 %), France (17.0 %), Italy (14.9 %) and Romania (12.8 %).

In terms of volume in tonnes, drinking milk presented the largest production within the produce deriving from milk in 1983, with a share of 69 % in the EU-10. 30 years later, the EU-28 presented a very similar share: 71 %. The production of drinking milk presented a 4 % increase from 1983 to 2013 in the EU-10 Member States. In 2013, close to 32 million tonnes of drinking milk were produced in the EU-28, which corresponded to around 61 litres of milk per EU resident ([4]).

As for the other dairy products, both milk powder and butter production dropped (– 33 % and – 24 % respectively) between 1983 (EU-10) and 2013 (EU-28). In contrast, the production of cheese almost tripled in the same period, from an EU-10 production of 3.8 million tonnes in 1983 to 9.3 million tonnes in 2013. The United Kingdom was the top producer of drinking milk with a 22 % share of EU-28 production in 2013, while Germany was the leader in the other dairy foods, producing 25 % of the milk powder, 28 % of the butter and 23 % of the cheese.

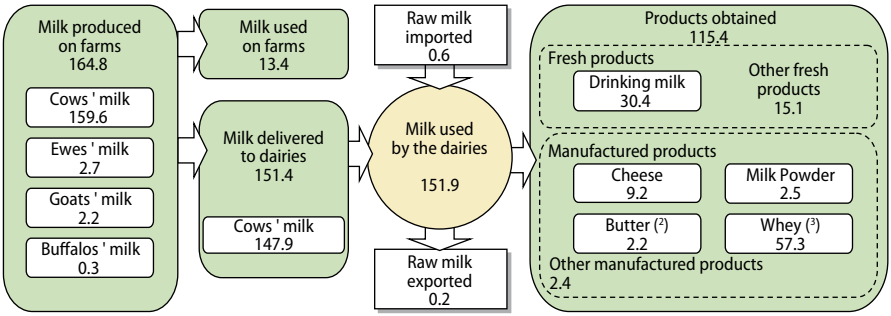
([4]) Using Eurostat data on demography: Population on 1 January, and a conversion rate of one kilogram of milk = 1.03 litres.

1.2 Milk and milk product statistics

Milk production

Farms across the EU-28 produced approximately 164.8 million tonnes of milk in 2014, of which 159.6 million tonnes (or 96.8 %) were cows' milk. Milk from ewes, goats and buffaloes represented 3.2 % of the total production. The majority of the milk produced on farms was delivered to dairies and the remaining amount was used on the farms (see Figure 1.6).

Figure 1.6: Production and use of milk, EU-28, 2014 ([1])
(million tonnes)



([1]) 2013 for Croatia; only flows of raw milk are displayed; changes in stocks are not recorded.
([2]) Includes other yellow fat dairy products; expressed in butter equivalent.
([3]) In liquid whey equivalent.
Source: Eurostat (online data codes: apro_mk_pobta and apro_mk_farm)

Between 2013 and 2014 the production of cows' milk on farms in the EU-28 increased by almost 5.8 million tonnes (3.8 %), while the number of dairy cows increased by 0.4 %. The EU-28's dairy herd of 23.6 million cows in 2014 had an estimated average yield of 6 777 kg per head (see Table 1.2).

Average yields of milk per cow varied considerably between regions of the EU Member States in 2014. The apparent yield was highest between 8 400 kg and 9 600 kg per cow per year in the most productive regions of Italy, Denmark, Finland and Sweden. By contrast, the apparent yield was relatively low between 2 750 kg and 3 600 kg per head in the most productive regions of Romania and Bulgaria, where milk production was typically less specialised.

The diversity of landscapes and climatic conditions within some EU Member States often helps explain regional specialisations as regards dairy farming pasture, which is generally grown in lowland areas with a temperate climate.

Table 1.2: Production of cows' milk on farms at national and regional level, by level of production, 2014

	Cows' milk prod. on farms	Number of dairy cows	Apparent yield	Number of NUTS 2 regions ([3])	NUTS 2 region with the highest level of cows' milk production ([3])	Regional cows' milk production on farms		Regional number of dairy cows	Regional apparent yield
	(1 000 tonnes)	(1 000 head)	(kg/head)			(1 000 tonnes)	(% of natl. total)	(1 000 head)	(kg/head)
EU-28 ([1])	159 641	23 557	6 777	248	–	–	–	–	–
Belgium ([2])	3 710	519	7 107	11	BE25 — Prov West-Vlaanderen	698	19	91	7 375
Bulgaria	1 103	302	3 656	6	BG42 — Yuzhen tsentralen	288	26	103	2 795
Czech Republic	2 933	372	7 877	8	CZ06 — Jihovýchod	680	23	85	8 032
Denmark	5 162	547	9 346	5	DK03 — Syddanmark	2 096	41	227	9 234
Germany	32 381	4 296	7 541	16	DE2 — Bayern	8 165	25	1 216	6 714
Estonia	805	96	8 418	1	No regional breakdown	–	–	–	–
Ireland	5 821	1 128	5 162	2	IE02 — Southern and Eastern	4 644	80	896	5 182
Greece	769	135	4 553	22	EL52 — Kentriki Makedonia	299	49	60	4 987
Spain	6 780	845	8 025	19	ES11 — Galicia	2 652	39	374	7 095
France	25 780	3 697	6 973	31	FR52 — Bretagne	5 594	22	751	7 449
Croatia	528	159	4 472	4	HR04 — Kontinentalna Hrvatska	649	91	142	4 558
Italy	11 500	2 069	5 754	23	ITC4 — Lombardia	4 631	39	485	9 547
Cyprus	165	25	6 500	1	No regional breakdown	–	–	–	–
Latvia	969	166	5 841	1	No regional breakdown	–	–	–	–
Lithuania	1 791	314	5 704	1	No regional breakdown	–	–	–	–
Luxembourg ([1])	317	47	6 324	1	No regional breakdown	–	–	–	–
Hungary	1 876	255	7 356	7	HU32 — Észak-Alföld	442	24	64	6 903
Malta	43	7	6 580	1	No regional breakdown	–	–	–	–
Netherlands	12 660	1 610	7 747	12	NL12 — Friesland	2 230	18	288	7 743
Austria	3 494	538	6 497	9	AT31 — Oberösterreich	1 109	32	170	6 533
Poland	12 986	2 248	5 777	16	PL12 — Mazowieckie	2 820	22	489	5 762
Portugal	2 000	234	8 554	7	PT11 — Norte	758	38	89	8 549
Romania	4 101	1 188	3 451	8	RO21 — Nord-Est	1 014	25	284	3 572
Slovenia	617	108	5 716	4	SI03 — Vzhodna Slovenija	407	66	74	5 521
Slovakia	931	143	6 505	4	SK02 — Západné Slovensko	504	54	64	7 882
Finland	2 400	283	8 483	8	FI1D — Pohjois- ja Itä-Suomi	1 330	55	152	8 734
Sweden	2 932	344	8 516	8	SE21 — Småland med öarna	855	29	100	8 550
United Kingdom	15 088	1 883	8 013	12	UKK — South West	3 527	23	443	7 962
Montenegro	178	63	2 827	1	No regional breakdown	–	–	–	–
Turkey ([1])	7 939	5 530	1 436	26	TR52 — Konya, Karaman	1 206	15	:	:

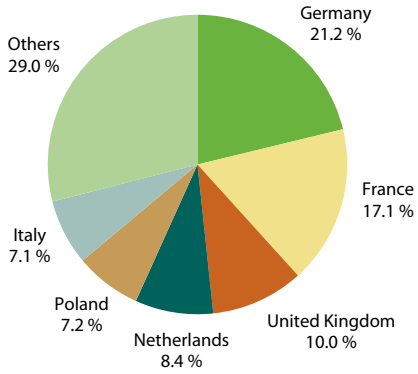
([1]) 2013 data. ([2]) 2013 regional data. ([3]) Germany and United Kingdom: NUTS 1.
Source: Eurostat (online data codes: agr_r_milkpr and agr_r_animal)

Cows' milk production on farms in 2014 was highest (across NUTS 2 regions of the EU) in *Bretagne* (France), *Southern and Eastern Ireland* and *Lombardia* (Italy), reaching 5.59, 4.64 and 4.63 million tonnes respectively (see Table 1.2). *Southern and Eastern Ireland* (with 896 thousand head), *Bretagne* (France) (with 751 thousand head), *Mazowieckie* (Poland) (with 489 thousand head) and *Lombardia* (Italy) (485 thousand head) recorded the highest number of dairy cows in 2014. Note that each NUTS 2 region has a different land area and that the count of animals is influenced to some degree by the size of each region, as well as the propensity of certain regions to specialise in dairy farming. Note also that the data on the numbers of dairy cows for Germany and the United Kingdom are only available for NUTS 1 regions (which cover larger areas of land).

The rise in milk production results from the 'soft landing' policy introduced by the Common Agricultural Policy (CAP) to minimise the impact of the removal of the EU milk quotas (see sub-chapter 1.1 above). The soft landing implemented an annual increase in milk quotas by 1 % over 5 consecutive years from 1 April 2009.

Just over one fifth (21.2 %) of all the cows' milk collected by EU-28 dairies in 2014 came from Germany, while slightly more than a sixth of the total (17.1 %) originated from dairies in France (see Figure 1.7). Dairies collected relatively little milk from other animals (sheep, goats and buffalos) in most EU Member States. However, in Greece the volume of milk collected from other species (669 thousand tonnes) was higher than the level of milk collected from cows (615 thousand tonnes). In Italy and France the quantities of milk collected from other animals were similar to Greece, but these volumes were dwarfed by the respective quantities of cows' milk that their dairies collected (see Table 1.3). Spain was the country that presented the highest quantity of milk from other animals (1 120 thousand tonnes), which represented 14 % of the total milk collected in Spain.

Figure 1.7: Collection of cows' milk by dairies, 2014
(% share of EU-28 total, based on tonnes)



Source: Eurostat (online data code: apro_mk_pobta)

Milk products

The milk delivered to dairies is converted into a number of fresh products and manufactured dairy products. Some 68.8 million tonnes of raw milk were used to produce 5.5 million tonnes of cheese in the EU-28 in 2014, while 31.0 million tonnes of raw milk were turned into a similar amount (30.4) of drinking milk. 23.1 million tonnes of raw milk were converted into 2.5 million tonnes of milk powder and 43.9 million tonnes of whole milk were used to produce an estimated 2.2 million tonnes of butter as well as associated skimmed milk and buttermilk. This explains why the amount of 'whole milk' used for producing butter was higher than the 'total' milk used.

Close to a quarter (24.3 %) of the estimated 30.4 million tonnes of drinking milk produced in the EU-28 in 2014 came from the United Kingdom, despite this Member State accounting for only about one tenth of the milk produced in the EU-28. This relative specialisation was also observed for other dairy products: for example, France, Germany and Italy accounted for 54.8 % of the 9.2 million tonnes of cheese produced across the EU-28 in 2014.

Table 1.3: Collection of milk by dairies, 2014
(1 000 tonnes)

	Milk collected from cows (1)	Milk collected from other animals (2)
EU-28	**147 904**	**3 582**
Belgium	3 689	12
Bulgaria	495	37
Czech Republic	2 370	0
Denmark	5 110	0
Germany	31 375	13
Estonia	730	0
Ireland	5 802	0
Greece	615	669
Spain	6 679	1 120
France	25 261	738
Croatia	504	6
Italy	10 500	596
Cyprus	165	44
Latvia	804	0
Lithuania	1 436	0
Luxembourg	306	0
Hungary	1 470	0
Malta	43	0
Netherlands	12 473	240
Austria	3 062	17
Poland	10 602	2
Portugal	1 924	38
Romania	997	44
Slovenia	532	0
Slovakia	844	7
Finland	2 357	0
Sweden	2 931	0
United Kingdom	14 829	0
Iceland	:	0
Norway	:	0
Switzerland	3 512	:
Montenegro	26	0
Turkey	8 626	99

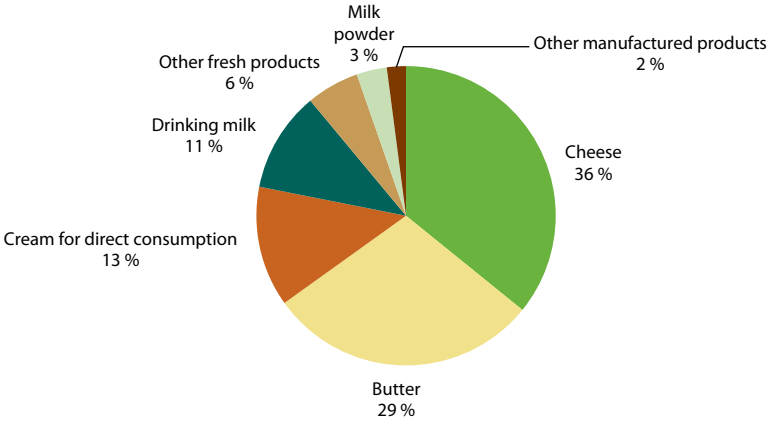
(1) 2013 data used for Croatia. 2013 data used for Croatia and Poland.
(2) 2013 data used for Croatia and Poland.
Source: Eurostat (online data code: apro_mk_pobta)

Table 1.4: Utilisation of milk by dairies, EU-28, 2014 ([1])
(million tonnes)

	Utilisation of milk		Products obtained
	Total ([2])	of which whole milk	
Drinking milk	31.0	16.3	30.4
Cream for direct consumption	2.8	19.5	2.7
Milk powder	23.1	4.9	2.5
Cheese	68.8	53.8	9.2
Butter ([3])	2.7	43.9	2.2

([1]) Estimates; 2013 data used for Croatia and Poland in utilisation of milk.
([2]) Sum of utilisation of skimmed milk and buttermilk and whole milk. Utilisation of whole milk can be greater than the total. For instance, production of butter uses whole milk and generates skimmed milk. In such a case, butter is expressed as the quantity of used whole milk (UWM) and a negative quantity of skimmed milk.
([3]) Includes other yellow fat dairy products; expressed in butter equivalent.
Source: Eurostat (online data code: apro_mk_pobta)

Figure 1.8: Utilisation of whole milk, EU-28, 2014 ([1])
(%)



([1]) Estimates, exclude 2013 data for Croatia and Poland.
Source: Eurostat (online data code: apro_mk_pobta)

Table 1.5: Dairy products obtained from milk, 2014
(1 000 tonnes)

	Drinking milk	Cream for direct consumption	Milk powder	Butter	Cheese
EU-28	30 433	*2 670*	2 516	1 787	9 160
Belgium	718	219	200	30	85
Bulgaria	67	2	0	1	77
Czech Republic	624	54	39	22	:
Denmark	506	61	129	43	369
Germany	:	567	580	441	1 893
Estonia	91	27	6	4	41
Ireland	494	24	:	166	188
Greece	449	17	0	1	190
Spain	3 521	142	30	:	388
France	3 535	417	528	365	1 949
Croatia (1)	294	27	:	4	2
Italy	2 548	131	:	100	1 176
Cyprus	67	3	0	0	20
Latvia	:	36	:	7	35
Lithuania	97	3	33	16	103
Luxembourg	:	:	0	:	:
Hungary	433	6	:	4	75
Malta	:	:	:	:	:
Netherlands	526	9	289	:	772
Austria	743	70	10	32	172
Poland	285	248	188	148	744
Portugal	832	20	20	:	73
Romania	250	59	4	0	75
Slovenia	155	12	:	:	17
Slovakia	287	32	6	7	33
Finland	728	63	:	49	:
Sweden	827	105	94	17	88
United Kingdom	7 410	307	173	:	378
Norway	424	26	10	17	106
Switzerland	471	87	99	48	185
Montenegro	8	1	0	0	0
Turkey	1 326	31	129	46	631

(1) 2013 data.
Source: Eurostat (online data code: apro_mk_pobta)

DATA SOURCES AND AVAILABILITY

Milk and milk product statistics are collected under Decision 97/80/EC, implementing Directive 96/16/EC. They cover statistics on production and utilisation of milk by dairy farms, as well as statistics on milk collection, utilisation and use by dairy enterprises. Further to these annual statistics, monthly cow's milk collection and triennial data on the structure of dairies are provided by the EU Member States.

Due to the continuously decreasing number of dairy enterprises, national data are often subject to statistical confidentiality. Thus, providing EU totals in this context is a challenge and information presented in the analysis may be based on data not available with the usual precision, so that the published figures cannot disclose confidential values; each exception is clearly footnoted under the tables and figures presented. On the one hand, statistics from these few enterprises provide early estimates on trends. On the other, a complete overview of the dairy sector requires detailed information from farms and this means that the final figures on milk production are only available at an EU level about one year after the reference year.

Statistics on the structure of agricultural holdings are taken from the Farm Structure Survey (FSS), for more information on this survey see the FSS dedicated section of Eurostat Website.

Dairy products are recorded in terms of weight. It is thus difficult to compare the various products (for example, fresh milk and milk powder). The volume of whole or skimmed milk used in the dairy processes provides more comparable figures. In such a system, some volume of used skimmed milk may acquire negative values. For instance, production of cream uses whole milk and generates skimmed milk the production of cream is thereby expressed in relation to the quantity of used whole milk and a negative quantity of skimmed milk. Whether this skimmed milk is then used by another process or kept as such, it will be recorded as a positive quantity of used skimmed milk.

2

Farm structure survey

Introduction

This chapter presents some statistics from the most recent farm structure survey (FSS) conducted in the European Union (EU) and Norway in 2013, which followed the Agricultural census in 2010. The FSS covers the land use, livestock, labour force, production methods, and standard output of the EU-28's agricultural holdings.

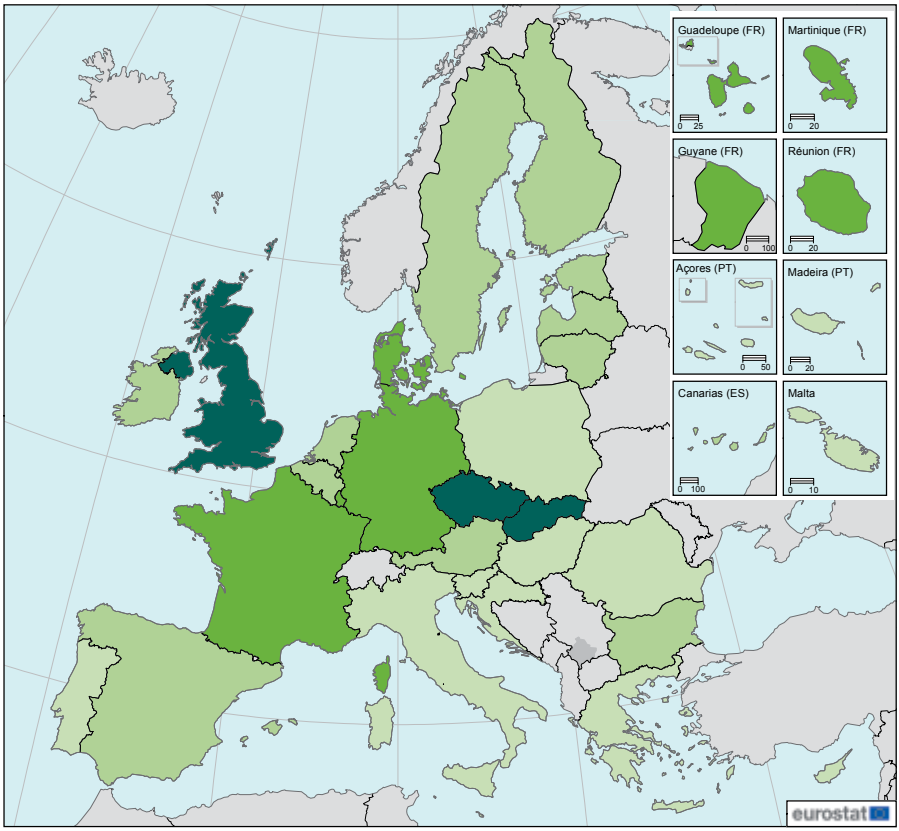
Since 2010, some methodological changes have been introduced in the FSS limiting comparability with previous survey years. The minimum size threshold for agricultural holdings was raised in some EU Member States. Moreover, under the new legislation, 98 % of the utilised agricultural area (UAA) and 98 % of the livestock of each country were covered, and common land was included in the UAA.

2.1 Agricultural holdings

Close to half of the agricultural holdings made up 2.5 % of the utilised agricultural area

There were 10.8 million farms across the EU-28 in 2013, working 174.4 million hectares of land (the utilised agricultural area or UAA) or two fifths (40.0 %) of the total land area of the EU-28. The average size of each agricultural holding (farm) in the EU-28 was 16.1 hectares (see Map 2.1 and Table 2.1). However, there were stark contrasts in the structure of agriculture across the EU: on the one hand, there were a large number (4.9 million — close to half of all holdings) of very small farms (less than 2 hectares in size) that farmed a small proportion (2.5 %) of the total land area that was used for farming in 2013 and, on the other hand, a small number (0.3 million corresponding to 3.1 % of all holdings) of very large farms (over 100 hectares) that farmed half (50.1 %) of the utilised agricultural area in the EU-28 (see Tables 2.2 and 2.3).

Map 2.1: Average utilised agricultural area per holding, 2013
(hectares)



Source: Eurostat (online data code: ef_kvaareg)

Table 2.1: Key farm variables, 2013

	Number of holdings	Utilised agricultural area	Livestock units	Labour force (1)	Standard output	Average area of holdings
	(1 000)	(1 000 hectares)	(1 000 LSU)	(1 000 AWU)	(million EUR)	(hectares)
EU-28	10 841.0	174 351.0	130 319.5	9 345.0	331 568.1	16.1
Belgium	37.8	1 307.9	3 584.4	56.7	8 406.7	34.6
Bulgaria	254.4	4 650.9	1 024.9	320.2	3 335.7	18.3
Czech Republic	26.3	3 491.5	1 728.4	105.1	4 447.0	133.0
Denmark	38.8	2 619.3	4 133.4	54.5	9 580.2	67.5
Germany	285.0	16 699.6	18 406.9	522.7	46 252.0	58.6
Estonia	19.2	957.5	310.1	22.1	676.3	49.9
Ireland	139.6	4 959.5	5 929.4	163.7	5 012.5	35.5
Greece	709.5	4 856.8	2 143.0	463.9	8 070.0	6.8
Spain	965.0	23 300.2	14 501.7	813.6	35 978.9	24.1
France	472.2	27 739.4	21 871.3	724.7	56 914.2	58.7
Croatia	157.5	1 571.2	864.0	175.1	2 029.1	10.0
Italy	1 010.3	12 098.9	9 374.3	816.9	43 766.6	12.0
Cyprus	35.4	109.3	174.5	16.6	495.4	3.1
Latvia	81.8	1 877.7	486.0	82.1	990.0	23.0
Lithuania	171.8	2 861.3	838.8	144.8	1 919.2	16.7
Luxembourg	2.1	131.0	165.4	3.5	313.8	63.0
Hungary	491.3	4 656.5	2 259.1	433.7	5 577.7	9.5
Malta	9.4	10.9	34.9	4.5	96.8	1.2
Netherlands	67.5	1 847.6	6 602.1	153.3	20 498.1	27.4
Austria	140.4	2 726.9	2 439.1	111.2	5 671.2	19.4
Poland	1 429.0	14 409.9	9 164.6	1 918.6	21 797.5	10.1
Portugal	264.4	3 641.6	2 035.5	323.5	4 509.0	13.8
Romania	3 629.7	13 055.9	4 975.3	1 552.6	11 989.6	3.6
Slovenia	72.4	485.8	488.0	82.5	1 009.2	6.7
Slovakia	23.6	1 901.6	644.8	50.6	1 812.2	80.7
Finland	54.4	2 257.6	1 145.7	27.4	3 349.2	41.5
Sweden	67.2	3 028.6	1 711.7	31.1	5 132.7	45.1
United Kingdom	185.2	17 096.2	13 282.3	170.2	21 937.1	92.3
Norway	43.7	987.1	1 246.6	44.0	3 424.7	22.6

(1) Labour force directly employed on the farm.
Source: Eurostat (online data code: ef_kvaareg)

Table 2.2: Agricultural holdings, by size of holding, 2013
(number of holdings)

	Total	Size of holding in hectares of utilised agricultural area								
		0	< 2	2–< 5	5–< 10	10–< 20	20–< 30	30–< 50	50–< 100	≥ 100
EU-28	10 841 000	174 170	4 707 080	2 307 350	1 277 520	888 340	374 500	387 460	388 390	336 110
Share of EU-28 (%)	100.0	1.6	43.4	21.3	11.8	8.2	3.5	3.6	3.6	3.1
Belgium	37 760	420	1 600	3 460	4 980	6 840	4 930	6 810	6 530	2 190
Bulgaria	254 410	9 550	183 640	27 810	10 880	6 780	3 210	3 410	2 960	6 160
Czech Republic	26 250	290	2 700	1 880	4 940	4 610	2 360	2 370	2 460	4 630
Denmark	38 830	1 450	310	870	7 750	6 870	3 950	4 360	5 380	7 880
Germany	285 030	2 870	12 010	9 720	44 580	59 020	28 920	42 530	50 220	35 160
Estonia	19 190	430	1 770	4 140	3 970	3 340	1 400	1 180	1 150	1 790
Ireland	139 600	30	2 380	7 390	15 610	34 200	24 570	30 290	20 350	4 770
Greece	709 500	5 910	358 970	179 470	86 520	45 560	15 080	11 120	5 430	1 450
Spain	965 000	20 700	253 410	232 440	140 780	110 800	51 550	53 550	49 960	51 820
France	472 210	8 500	51 590	56 280	41 090	44 770	31 610	47 440	93 330	97 600
Croatia	157 450	350	60 700	48 220	24 690	12 610	3 880	3 030	2 610	1 350
Italy	1 010 330	880	277 910	313 930	172 900	114 850	44 690	39 870	30 180	15 100
Cyprus	35 380	230	26 310	5 260	1 770	900	310	290	210	110
Latvia	81 800	1 080	17 630	16 150	16 090	15 790	5 320	4 140	2 700	2 890
Lithuania	171 800	70	24 250	67 100	38 440	20 070	6 520	5 560	5 100	4 680
Luxembourg	2 080	20	180	140	190	170	120	210	600	450
Hungary	491 330	38 250	334 760	42 550	25 550	20 160	8 350	7 490	6 590	7 640
Malta	9 360	360	7 600	1 110	250	40	10	0	:	:
Netherlands	67 480	1 690	6 930	9 860	9 400	10 060	6 890	10 980	9 280	2 390
Austria	140 430	820	14 580	27 670	24 430	30 290	16 680	14 660	8 730	2 570
Poland	1 429 010	7 450	326 140	444 220	308 200	208 990	62 040	40 440	20 570	10 950
Portugal	264 420	840	121 860	68 450	31 310	18 360	6 750	6 150	4 660	6 040
Romania	3 629 660	65 890	2 589 920	691 260	193 870	49 650	10 260	8 470	7 260	13 080
Slovenia	72 380	100	18 360	24 810	17 260	8 190	2 050	1 070	420	110
Slovakia	23 570	1 520	5 910	6 450	2 860	2 220	770	730	790	2 310
Finland	54 400	270	880	2 150	6 130	11 050	8 230	10 670	10 560	4 470
Sweden	67 150	700	700	6 320	15 830	13 600	6 590	7 330	8 110	7 970
United Kingdom	185 190	3 500	4 080	8 240	27 250	28 550	17 460	23 310	32 250	40 550
Norway	43 730	1 600	900	3 490	7 570	12 060	7 690	6 540	3 230	640

Source: Eurostat (online data code: ef_kvaareg)

Table 2.3: Utilised agricultural area (UAA), by size of the holding, 2013
(hectares)

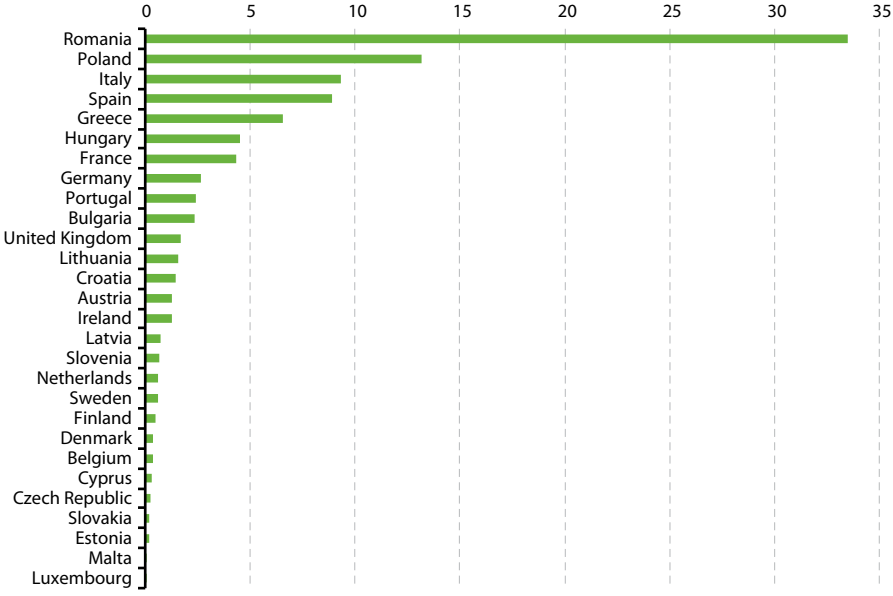
	Total	Size of holding in hectares of utilised agricultural area							
		< 2	2–< 5	5–< 10	10–< 20	20–< 30	30–< 50	50–< 100	≥ 100
EU-28	174 351 010	4 301 640	7 810 520	9 368 890	12 851 610	9 323 600	15 429 640	27 605 440	87 424 210
Share of EU-28 (%)	100.0	2.5	4.5	5.4	7.4	5.3	8.8	15.8	50.1
Belgium	1 307 900	1 870	12 170	36 570	99 700	122 020	265 740	450 220	319 600
Bulgaria	4 650 940	100 990	82 930	73 280	92 980	75 980	130 600	203 680	3 890 500
Czech Republic	3 491 470	2 390	5 920	34 790	64 040	56 680	90 730	171 470	3 065 450
Denmark	2 619 340	170	3 100	55 770	98 500	97 610	168 730	387 500	1 807 950
Germany	16 699 580	12 090	32 580	325 770	886 190	718 320	1 660 310	3 549 990	9 514 330
Estonia	957 510	2 430	13 830	28 470	47 540	34 510	46 040	80 610	704 080
Ireland	4 959 450	2 770	26 810	118 300	510 140	607 410	1 177 130	1 365 060	1 151 830
Greece	4 856 780	295 870	551 940	584 440	616 800	357 080	411 870	349 740	1 689 050
Spain	23 300 220	280 730	738 150	997 130	1 543 320	1 256 020	2 044 400	3 501 660	12 938 810
France	27 739 430	47 530	185 980	293 570	636 720	777 240	1 877 790	6 751 050	17 169 550
Croatia	1 571 200	55 550	155 010	171 950	174 560	92 310	113 630	178 850	629 350
Italy	12 098 890	382 230	995 470	1 206 600	1 586 340	1 084 130	1 523 080	2 062 130	3 258 910
Cyprus	109 330	17 720	16 100	12 250	12 240	7 440	10 700	14 380	18 500
Latvia	1 877 720	14 690	54 530	116 980	219 630	129 390	159 040	187 120	996 340
Lithuania	2 861 250	35 980	215 860	268 870	279 900	157 280	215 720	353 580	1 334 060
Luxembourg	131 040	120	510	1 370	2 410	2 870	8 460	44 880	70 430
Hungary	4 656 520	115 000	133 860	179 070	280 500	201 970	287 250	458 280	3 000 580
Malta	10 880	5 080	3 410	1 670	490	150	0	:	:
Netherlands	1 847 570	7 520	33 600	67 840	146 110	171 360	431 330	620 620	369 190
Austria	2 726 890	17 160	90 650	178 250	437 650	407 630	561 710	586 040	447 800
Poland	14 409 870	438 070	1 441 990	2 180 570	2 882 140	1 496 390	1 533 760	1 393 180	3 043 780
Portugal	3 641 590	125 350	213 700	218 670	255 860	163 260	234 440	322 840	2 107 480
Romania	13 055 850	1 584 500	2 141 100	1 295 180	653 930	247 980	326 490	506 200	6 300 460
Slovenia	485 760	20 810	81 110	120 630	111 340	49 800	40 060	27 930	34 080
Slovakia	1 901 610	6 740	20 550	19 870	32 370	18 800	28 190	56 480	1 718 610
Finland	2 257 630	430	8 610	46 000	163 590	203 370	416 070	734 660	684 900
Sweden	3 028 620	430	25 450	112 560	193 690	161 610	285 890	576 890	1 672 100
United Kingdom	17 096 170	4 390	28 840	197 410	410 180	428 270	917 780	2 317 780	12 791 530
Norway	987 120	970	12 550	56 240	176 000	188 140	248 250	214 050	90 910

Source: Eurostat (online data code: ef_kvaareg)

One third (33.5 % or 3.6 million) of all agricultural holdings in the EU-28 were in Romania (see Figure 2.1). These holdings can be characterised as being small; three quarters of them were under 2.0 hectares in size. Just over one fifth of the EU-28's holdings were in Italy (9.3 %) and Poland (13.2 %) and these too can be characterised as being small (on average, under 12.0 hectares in size). However, there were a number of EU Member States where larger farms were more typical; a majority of farms in Belgium (54.2 %) Germany (55.0 %), Denmark (55.5 %), France (57.2 %), Ireland (57.3 %), the United Kingdom (61.3 %), Finland (62.4 %) and Luxembourg (66.3 %) were larger than 20 hectares. Indeed, the average size of an agricultural holding in the United Kingdom (92.3 hectares) was a little under six times as high as the EU-28 average in 2013, and the average size of holdings in the Czech Republic was even higher (133.0 hectares) as a result of a small number of very large farms.

This contrast was also reflected in the economic size of holdings. Of the 10.8 million agricultural holdings in the EU-28 in 2013, 4.4 million holdings (40.2 %) had a standard output below EUR 2 000 and were responsible for only 1.0 % of total agricultural economic output in 2013. In contrast, the 2.4 % of holdings that had a standard output in excess of EUR 250 000 accounted for more than half (51.7 %) of all agricultural economic output (see Tables 2.4 and 2.5).

Figure 2.1: Agricultural holdings, 2013
(% share of number of holdings in the EU-28)



Source: Eurostat (online data code: ef_kvaareg)

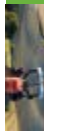


Table 2.4: Agricultural holdings, by economic size class, 2013
(number of holdings)

	Total	Size of holding in terms of standard output in EUR										
		0	< 2 000	2 000 – 3 999	4 000 – 7 999	8 000 – 14 999	15 000 – 24 999	25 000 – 49 999	50 000 – 99 999	100 000 – 249 999	250 000 – 499 999	≥ 500 000
EU-28	10 841 000	161 580	4 193 140	1 681 980	1 456 380	970 230	594 010	631 780	471 210	417 840	166 690	96 150
Share of EU-28 (%)	100.0	1.5	38.7	15.5	13.4	8.9	5.5	5.8	4.3	3.9	1.5	0.9
Belgium	37 760	20	330	630	1 640	2 820	2 740	4 410	5 090	9 380	6 540	4 170
Bulgaria	254 410	740	139 480	51 380	27 550	13 850	7 060	6 040	3 270	2 460	1 340	1 230
Czech Republic	26 250	60	1 560	2 490	4 640	4 520	3 010	2 870	2 430	1 990	850	1 810
Denmark	38 830	1 010	810	1 020	2 430	5 200	4 610	6 120	4 730	4 410	2 750	5 740
Germany	285 030	530	950	6 170	22 610	33 980	29 120	39 470	44 510	59 220	31 180	17 310
Estonia	19 190	4 510	4 620	2 470	2 190	1 650	1 020	980	760	570	190	240
Ireland	139 600	20	14 860	14 400	23 040	26 030	19 430	17 760	11 410	10 540	1 640	460
Greece	709 500	6 140	221 580	127 190	125 540	91 180	57 440	53 600	20 670	5 250	630	280
Spain	965 000	15 500	221 290	141 190	152 480	127 280	81 880	85 050	68 550	48 370	13 630	9 770
France	472 210	970	30 080	24 350	34 830	35 580	31 620	57 640	80 080	115 790	46 570	14 680
Croatia	157 450	190	39 450	36 310	33 430	22 880	10 530	8 820	3 840	1 600	220	180
Italy	1 010 330	8 770	109 990	180 000	175 200	154 930	103 080	115 030	81 510	55 500	16 000	10 330
Cyprus	35 380	160	18 920	5 830	4 230	2 410	1 120	1 100	790	530	170	120
Latvia	81 800	5 780	38 050	13 300	10 640	5 530	3 080	2 540	1 390	940	330	230
Lithuania	171 800	2 010	70 050	38 040	29 720	15 120	5 550	5 630	3 050	1 870	430	340
Luxembourg	2 080	:	20	70	130	140	130	240	290	630	360	70
Hungary	491 330	20 060	311 940	56 350	37 780	24 980	14 340	12 090	6 680	4 430	1 260	1 430
Malta	9 360	1 120	4 460	970	1 050	600	410	370	200	130	30	10
Netherlands	67 480	120	50	560	6 050	6 310	4 880	6 320	6 200	12 700	14 200	10 100
Austria	140 430	70	15 250	12 750	19 920	19 610	15 570	23 310	19 930	11 820	1 770	420
Poland	1 429 010	30 000	372 760	283 300	261 530	183 130	112 800	108 510	51 300	18 860	4 330	2 480
Portugal	264 420	2 700	104 200	55 940	39 570	23 080	11 570	10 570	8 040	6 080	1 720	950
Romania	3 629 660	56 270	2 437 160	577 640	375 280	114 280	33 830	18 820	7 830	5 000	2 100	1 470
Slovenia	72 380	10	12 190	15 370	19 280	11 430	5 850	4 700	2 410	950	120	50
Slovakia	23 570	320	6 280	5 800	4 410	2 100	1 000	980	710	730	400	840
Finland	54 400	:	20	5 040	8 390	9 410	7 120	7 980	7 180	6 740	1 850	690
Sweden	67 150	2 200	3 440	9 210	12 760	10 400	6 750	7 260	5 440	5 230	2 480	1 970
United Kingdom	185 190	2 300	13 350	14 210	20 060	21 800	18 470	23 570	22 920	26 120	13 600	8 780
Norway	43 730	20	310	1 330	4 590	7 440	6 590	7 370	6 160	6 930	2 340	650

Source: Eurostat (online data code: ef_kvecsleg)

Table 2.5: Standard output of agricultural holdings, by economic size class, 2013
(million EUR)

	Total	Size of holding in terms of standard output in EUR									
		< 2 000	2 000 – 3 999	4 000 – 7 999	8 000 – 14 999	15 000 – 24 999	25 000 – 49 999	50 000 – 99 999	100 000 – 249 999	250 000 – 499 999	≥ 500 000
EU-28	331 568	3 416	4 859	8 256	10 662	11 508	22 438	33 324	65 796	57 422	113 887
Share of EU-28 (%)	100.0	1.0	1.5	2.5	3.2	3.5	6.8	10.1	19.8	17.3	34.3
Belgium	8 407	0	2	10	32	54	160	369	1 584	2 282	3 913
Bulgaria	3 336	130	145	151	151	135	211	227	387	473	1 326
Czech Republic	4 447	2	8	27	50	59	102	172	310	302	3 416
Denmark	9 580	1	3	15	59	90	219	338	702	996	7 158
Germany	46 252	1	20	139	382	571	1 425	3 230	9 585	10 800	20 099
Estonia	676	4	7	13	18	20	34	54	89	65	372
Ireland	5 013	15	43	136	291	376	620	817	1 595	539	581
Greece	8 070	228	373	720	1 010	1 113	1 870	1 378	739	206	432
Spain	35 979	232	416	872	1 409	1 581	3 055	4 813	7 323	4 777	11 502
France	56 914	29	73	205	402	625	2 108	5 853	18 742	15 735	13 141
Croatia	2 029	45	106	189	248	201	305	259	234	74	368
Italy	43 767	145	525	1 004	1 720	2 005	4 096	5 734	8 436	5 503	14 598
Cyprus	495	16	17	24	26	21	39	56	80	58	159
Latvia	990	26	38	59	60	60	89	96	144	115	302
Lithuania	1 919	61	110	166	163	106	198	213	278	144	480
Luxembourg	314	0	0	1	2	3	9	21	108	119	52
Hungary	5 578	233	158	214	272	276	422	466	684	432	2 421
Malta	97	3	3	6	7	8	13	14	21	12	10
Netherlands	20 498	0	2	36	70	95	227	447	2 218	5 007	12 396
Austria	5 671	16	38	118	219	305	843	1 395	1 757	571	409
Poland	21 797	422	820	1 495	2 011	2 179	3 791	3 488	2 776	1 488	3 327
Portugal	4 509	103	159	221	252	223	374	572	936	586	1 081
Romania	11 990	1 661	1 647	2 059	1 200	639	642	541	773	733	2 093
Slovenia	1 009	15	45	111	124	112	165	165	138	40	94
Slovakia	1 812	7	17	25	23	19	34	51	113	144	1 379
Finland	3 349	0	15	50	105	138	284	517	1 032	612	596
Sweden	5 133	5	27	74	114	131	258	385	830	859	2 449
United Kingdom	21 937	14	42	117	244	361	845	1 648	4 183	4 750	9 733
Norway	3 425	0	4	28	84	128	260	448	1 075	781	616

Source: Eurostat (online data code: ef_kvecsleg)

2.2 Agricultural land use

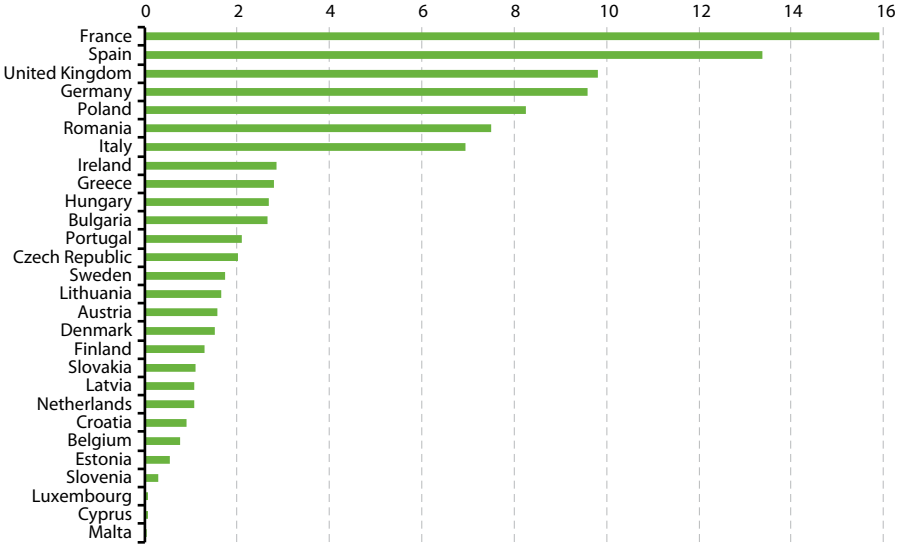
59.8 % of the utilised agricultural area in the EU-28 was used as arable land

Close to half of all the land used in agriculture across the EU-28 was located in just four EU Member States: France (15.9 % of the EU-28 total), Spain (13.4 %), the United Kingdom (9.8 %) and Germany (9.6 %). Approximately one quarter (22.7 %) was cultivated in Poland, Romania and Italy together. The other 21 EU Member States farmed 28.6 % of the EU-28's utilised agricultural area and accounted for at most 3 % each (see Figure 2.2).

Three fifths (59.8 %) of the utilised agricultural area in the EU-28 was used as arable land in 2013, a majority being used for cereal production. A further third (34.2 %) was permanent grassland and meadow. Permanent crops, such as vineyards, olive trees and orchards, accounted for a 5.9 % share and kitchen gardens around 0.2 % (see Table 2.6).

The majority of utilised agricultural area was used as arable land in 22 EU Member States, this share rising to over 90 % in Denmark and Finland. However, in Greece, Luxembourg, Slovenia, the United Kingdom and Ireland, where there is a high proportion of farms that specialise in grazing livestock, a majority of utilised agricultural area was permanent pasture and meadow. The proportion of utilised agricultural area occupied by permanent crops was relatively high in some of the Mediterranean countries, the highest shares (a little over 19 %) being in Cyprus, Greece and Portugal.

Figure 2.2: Utilised agricultural area (UAA), 2013
(% of total UAA in the EU-28)



Source: Eurostat (online data code: ef_oluft)

Table 2.6: Utilised agricultural area (UAA), by land use, 2013
(1 000 hectares)

	Total UAA	Arable land	Kitchen gardens	Permanent grassland and meadow	Permanent crops
EU-28	174 351.0	104 202.2	285.8	59 560.6	10 302.4
Share of EU-28 (%)	100.0	59.8	0.2	34.2	5.9
Belgium	1 307.9	799.8	:	486.6	21.8
Bulgaria	4 650.9	3 279.4	5.2	1 271.3	95.0
Czech Republic	3 491.5	2 492.1	0.2	960.1	39.1
Denmark	2 619.3	2 397.2	:	195.5	26.6
Germany	16 699.6	11 875.9	2.9	4 621.0	199.8
Estonia	957.5	628.3	1.2	324.6	3.5
Ireland	4 959.5	1 042.0	0.1	3 915.8	1.6
Greece (1)	4 856.8	1 816.8	8.5	2 102.4	929.1
Spain	23 300.2	11 294.6	1.2	7 962.0	4 042.4
France	27 739.4	18 466.2	6.5	8 242.2	1 024.5
Croatia	1 571.2	878.4	1.8	618.1	72.9
Italy	12 098.9	6 728.4	21.8	3 316.4	2 032.3
Cyprus	109.3	80.1	0.1	1.9	27.3
Latvia	1 877.7	1 204.1	12.7	654.3	6.6
Lithuania	2 861.3	2 277.8	0.0	560.1	23.3
Luxembourg	131.0	62.6	0.0	66.9	1.5
Hungary	4 656.5	3 800.8	14.4	702.7	138.6
Malta	10.9	8.6	1.0	0.0	1.3
Netherlands	1 847.6	1 037.9	:	773.1	36.6
Austria	2 726.9	1 363.9	1.6	1 296.3	65.2
Poland	14 409.9	10 759.6	31.8	3 206.3	412.2
Portugal	3 641.6	1 100.9	15.4	1 816.6	708.8
Romania	13 055.9	8 197.6	157.4	4 398.4	302.5
Slovenia	485.8	172.7	1.0	284.8	27.3
Slovakia	1 901.6	1 363.4	0.9	518.3	18.9
Finland	2 257.6	2 223.2	0.0	30.7	3.7
Sweden	3 028.6	2 581.2	:	442.9	4.6
United Kingdom	17 096.2	6 268.8	0.0	10 791.5	35.5
Norway	987.1	807.8	0.0	176.4	3.0

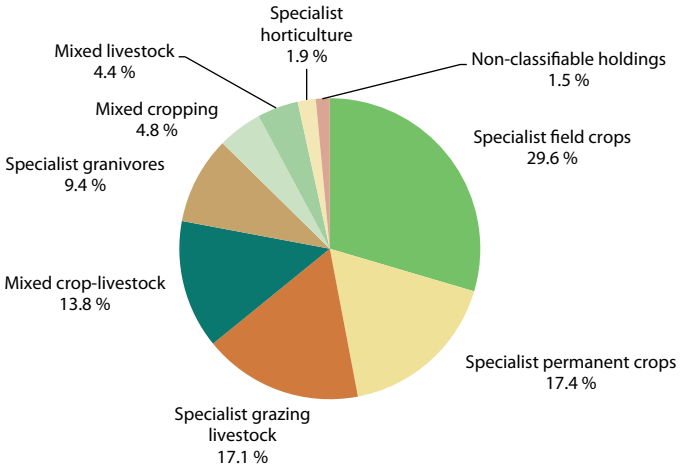
(1) Excluding common land.
Source: Eurostat (online data code: ef_oluft)

2.3 Farm typology

29.6 % of farms specialized in field crops

In 2013, just under a third (29.6 %) of EU-28 farms were holdings specialised in field crops (for example, cereals, oilseeds and vegetables). A further 17.4 % of farms were specialist permanent crop holdings (for example, vineyards, olive groves or orchards). Specialist grazing livestock holdings (dairy cows, cattle, sheep and other ruminants), granivore holdings (pigs or poultry), mixed livestock holdings and mixed crop-livestock holdings together accounted for over two fifths (44.7 %) of all agricultural holdings in the EU-28 (see Table 2.7).

Figure 2.3: Agricultural holdings, by farm type, EU-28, 2013



EU-28 total: 10 841 000

Source: Eurostat (online data code: ef_kvftreg)

Table 2.7: Agricultural holdings, by farm type, 2013
(number of holdings)

	Total	Main farm type based on standard output								
		Specialist field crops	Specialist horticulture	Specialist permanent crops	Specialist grazing livestock	Specialist granivores	Mixed cropping	Mixed livestock	Mixed crop-livestock	Non-classifiable holdings
EU-28	10 841 000	3 204 190	210 470	1 889 960	1 856 360	1 020 450	519 910	476 930	1 497 510	161 590
Share of EU-28 (%)	100.0	29.6	1.9	17.4	17.1	9.4	4.8	4.4	13.8	1.5
Belgium	37 760	9 480	2 330	910	16 340	2 880	730	1 130	3 950	10
Bulgaria	254 410	54 430	9 370	23 670	67 610	9 750	12 510	25 280	51 050	740
Czech Republic	26 250	8 060	:	2 990	8 850	410	280	900	4 350	60
Denmark	38 830	16 540	450	2 060	10 850	2 900	810	250	3 960	1 010
Germany	285 030	80 050	7 110	21 120	118 810	17 640	3 510	7 700	28 580	530
Estonia	19 190	6 140	570	330	4 480	490	450	300	1 900	4 510
Ireland	139 600	13 160	180	70	122 580	610	70	240	2 670	20
Greece	709 500	138 120	13 690	399 810	67 130	4 280	34 090	5 160	41 070	6 140
Spain	965 000	216 110	37 990	461 330	121 160	21 890	52 120	8 220	30 700	15 500
France	472 210	129 350	17 590	84 310	158 710	19 360	11 200	8 930	41 780	970
Croatia	157 450	33 420	2 310	30 130	22 560	4 430	19 500	10 160	34 750	200
Italy	1 010 330	315 350	26 520	427 310	107 340	7 550	85 700	3 900	27 900	8 770
Cyprus	35 380	2 310	1 230	24 230	1 830	600	2 630	200	2 180	160
Latvia	81 800	35 850	660	2 000	18 960	2 040	1 690	2 570	12 260	5 780
Lithuania	171 800	61 390	4 160	1 250	37 170	2 070	15 770	13 670	34 300	2 010
Luxembourg	2 080	170	10	330	1 360	:	10	40	130	:
Hungary	491 330	124 050	9 270	71 940	23 370	140 720	14 230	13 600	74 100	20 060
Malta	9 360	:	1 480	560	1 070	710	630	140	350	1 120
Netherlands	67 480	12 150	8 940	1 680	36 100	5 180	890	730	1 710	120
Austria	140 430	36 570	1 300	11 000	72 130	5 950	2 450	2 790	8 150	70
Poland	1 429 010	702 940	26 880	63 860	162 110	35 750	49 090	80 680	277 700	30 000
Portugal	264 420	26 690	9 520	98 680	42 450	4 420	27 550	11 560	40 860	2 700
Romania	3 629 660	1 041 840	21 500	154 040	438 920	722 200	176 080	271 210	747 600	56 270
Slovenia	72 380	14 980	450	7 240	28 540	560	6 020	4 180	10 390	10
Slovakia	23 570	8 930	130	460	6 770	800	190	1 260	4 700	320
Finland	54 400	32 480	2 060	380	15 830	1 400	610	80	1 570	:
Sweden	67 150	28 000	1 170	200	31 530	990	420	220	2 430	2 200
United Kingdom	185 190	51 220	1 970	1 700	110 380	5 430	820	2 670	8 710	2 300
Norway	43 730	12 250	820	660	25 700	2 200	260	550	1 290	20

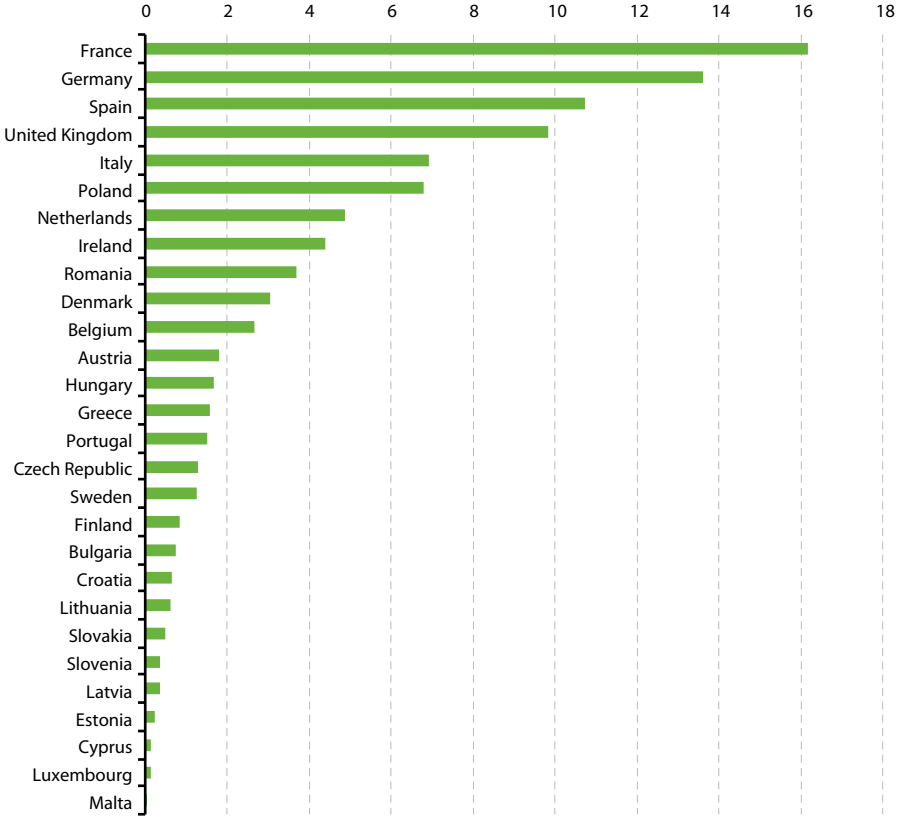
Source: Eurostat (online data code: ef_kvftreg)

2.4 Livestock units

Close to half of the EU-28 livestock units were bovine

In order to compare different livestock, a notional unit called a 'livestock unit' (LSU) is used. To calculate LSUs, a range of agreed weights are applied to the various types of farm animal to provide figures that are the grazing equivalent of one adult dairy cow producing 3 000 kg of milk annually. On this basis, the 'EU-28's livestock herd' was 130.3 million LSU in 2013; about one half (48.3 %) were cattle, 26.1 % were pigs and 15.3 % were poultry (see Table 2.8). Just over half (52.2 %) of the 'EU-28's livestock herd' was located in just four EU Member States: France, Germany, Spain and the United Kingdom (see Figure 2.4).

Figure 2.4: Livestock units, 2013
(% of total livestock units in the EU-28)



Source: Eurostat (online data code: ef_kvaareg)

Table 2.8: Livestock units, 2013
(1 000 LSU)

	Total	Cattle	Sheep	Goats	Pigs	Poultry	Others
EU-28	130 319.5	62 984.8	9 610.7	1 170.7	33 949.5	19 993.7	2 610.2
Share of EU-28 (%)	100.0	48.3	7.4	0.9	26.1	15.3	2.0
Belgium	3 584.4	1 674.5	11.7	3.9	1 523.7	340.2	30.5
Bulgaria	1 024.9	467.2	135.3	28.6	155.9	186.6	51.4
Czech Republic	1 728.4	991.8	19.9	1.8	370.3	323.0	21.5
Denmark	4 133.4	1 167.7	15.1	1.2	2 715.3	188.2	45.8
Germany	18 406.9	8 955.9	189.3	13.0	6 561.8	2 317.9	369.0
Estonia	310.1	195.7	8.7	0.4	77.6	22.4	5.4
Ireland	5 929.4	4 872.1	494.2	1.0	378.8	99.4	83.8
Greece	2 143.0	446.4	868.6	365.5	177.3	261.8	23.4
Spain	14 501.7	4 145.5	1 595.3	239.2	5 875.6	2 378.6	267.6
France	21 871.3	13 435.5	738.0	142.3	3 069.2	4 173.4	312.8
Croatia	864.0	335.5	80.2	8.6	289.1	136.0	14.7
Italy	9 374.3	4 187.5	659.8	92.1	2 302.8	1 985.5	146.6
Cyprus	174.5	39.3	25.7	17.1	71.8	19.7	0.9
Latvia	486.0	312.2	9.8	1.4	95.4	58.7	8.5
Lithuania	838.8	550.8	11.0	1.5	168.2	93.1	14.1
Luxembourg	165.4	139.0	0.9	0.5	19.7	1.6	3.8
Hungary	2 259.1	556.0	115.0	8.9	700.5	824.0	54.6
Malta	34.9	11.2	1.0	0.4	12.7	8.5	1.1
Netherlands	6 602.1	2 803.7	103.4	41.3	2 438.9	1 109.6	105.3
Austria	2 439.1	1 381.2	40.1	8.4	732.2	213.8	63.4
Poland	9 164.6	4 397.6	27.0	8.2	2 731.0	1 827.4	173.4
Portugal	2 035.5	1 007.7	206.7	38.3	430.1	310.2	42.5
Romania	4 975.3	1 646.5	894.5	132.6	1 015.6	902.8	383.5
Slovenia	488.0	323.4	13.1	3.5	68.9	61.3	17.9
Slovakia	644.8	343.6	39.9	1.3	128.9	124.2	6.9
Finland	1 145.7	645.5	13.6	0.5	317.0	146.7	22.6
Sweden	1 711.7	1 047.1	57.7	0.0	339.6	178.3	89.1
United Kingdom	13 282.3	6 904.6	3 235.2	9.5	1 181.8	1 700.8	250.3
Norway	1 259.7	592.3	227.4	6.4	197.6	203.9	32.1

Source: Eurostat, Farm structure survey

2.5 Agricultural labour force

Agricultural holders and their family make up three quarters of the agricultural work force

According to the EU's labour force survey (LFS), people employed in agriculture, forestry and fishing activities represented 5.2 % of all employment in 2013 ([1]).

The agricultural survey estimated that 22.2 million people worked regularly in agriculture, of which 20.2 million people were either holders or members of the holder's family. After taking into account the amount of time actually worked and converting this into full-time work equivalents (measured as annual work units or AWUs), the 2013 FSS estimated that the equivalent of 9.5 million people worked full-time on farms in 2013 (see Table 2.9). The agricultural labour force (in full-time labour equivalents) was highest in Poland (20.2 % of the EU-28 total), Romania (16.3 %), Italy and Spain (8.6 % each).

Farming was predominantly a family activity in the EU-28; about three quarters (76.5 %) of the labour input in agriculture came from the holder or members of his/her family in 2013. In Ireland, Croatia, Slovenia and Poland, family labour accounted for over 90 % of the volume of work carried out in agriculture (see Figure 2.4). In contrast, there was a small number of countries for whom non-family labour accounted for a majority of the labour force in 2013. These included Estonia (59.1 %), Slovakia (72.4 %) and the Czech Republic (74.2 %). Even in some countries where family labour provided a majority of labour, there were relatively large volumes of non-family labour: in particular, non-regular (seasonal) labour (often for picking perishable crops) represented between 10 % and 20 % of the total labour input within agriculture in Germany, Greece, France, the Netherlands, Italy and Spain.

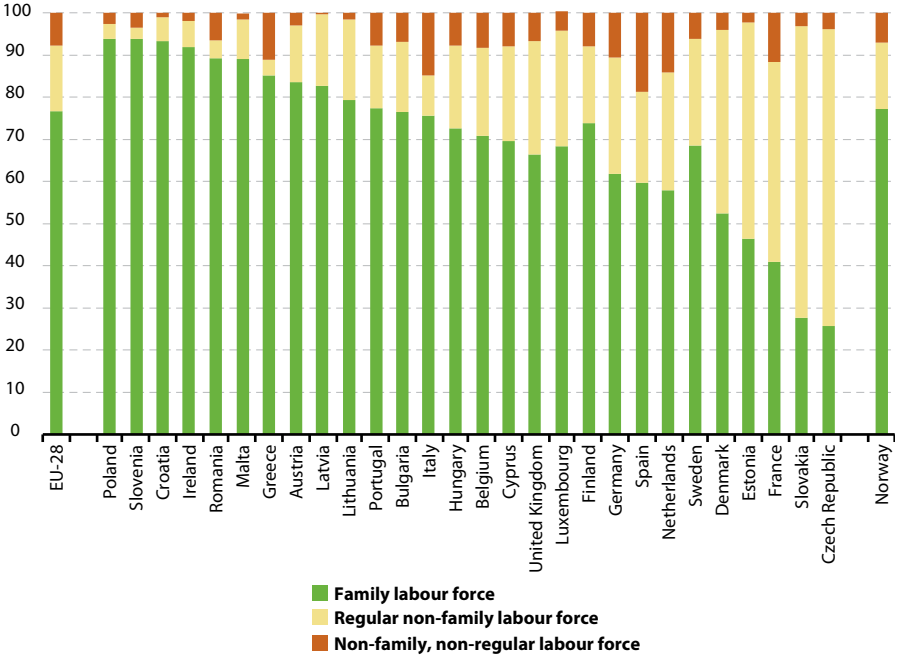
([1]) Data from table 'Employment by sex, age and economic activity (from 2008 onwards, NACE Rev. 2)' — 1 000 (lfsa_egan2).

Table 2.9: Farm labour force, 2013

	Family labour force	Regular non-family labour force	Family labour force	Regular non-family labour force	Non-family, non-regular labour force	Labour force directly employed by the holding
	(1 000 persons)		(1 000 annual work units)			
EU-28	20 202.7	2 007.3	7 272.5	1 461.1	774.9	9 508.6
Belgium	59.3	15.6	40.2	11.8	4.7	56.7
Bulgaria	499.7	58.0	245.1	53.3	21.9	320.2
Czech Republic	49.4	82.7	27.1	74.0	4.0	105.1
Denmark	54.3	26.7	28.6	23.7	2.2	54.5
Germany	529.3	177.0	322.9	143.9	55.9	522.7
Estonia	30.9	13.3	10.2	11.3	0.5	22.1
Ireland	252.3	17.2	150.5	10.1	3.1	163.7
Greece	1 213.4	25.1	395.3	17.2	51.4	463.9
Spain	1 437.2	345.5	486.0	175.1	152.5	813.6
France	491.1	416.0	296.7	343.8	84.2	724.7
Croatia	374.9	13.5	163.1	10.1	1.8	175.1
Italy	1 992.7	146.4	617.2	79.1	120.7	816.9
Cyprus	73.1	4.3	11.5	3.7	1.3	16.6
Latvia	153.6	20.3	67.8	14.0	0.3	82.1
Lithuania	264.1	33.9	114.9	27.6	2.3	144.8
Luxembourg	3.8	1.2	2.4	1.0	0.2	3.5
Hungary	962.6	97.4	314.7	85.3	33.7	433.7
Malta	14.3	0.6	4.0	0.4	0.1	4.5
Netherlands	133.3	59.8	88.7	43.0	21.6	153.3
Austria	308.7	28.9	92.9	14.8	3.4	111.2
Poland	3 480.3	78.5	1 799.2	67.3	52.1	1 918.6
Portugal	565.8	60.6	250.1	48.5	24.9	323.5
Romania	6 488.1	89.8	1 386.4	65.5	100.8	1 552.6
Slovenia	198.0	2.6	77.3	2.2	3.0	82.5
Slovakia	39.1	40.9	14.0	35.1	1.6	50.6
Finland	101.0	19.0	42.5	10.5	4.6	57.6
Sweden	108.7	22.0	40.6	15.1	3.7	59.3
United Kingdom	323.8	110.8	182.9	73.8	18.7	275.4
Norway	106.9	18.0	33.9	6.9	3.1	44.0

Source: Eurostat (online data code: ef_olfftecs)

Figure 2.5: Farm labour force, by type of labour, 2013
(% of farm labour force, by annual work units)



Source: Eurostat (online data code: ef_olfftecs)

2.6 Farm managers by age

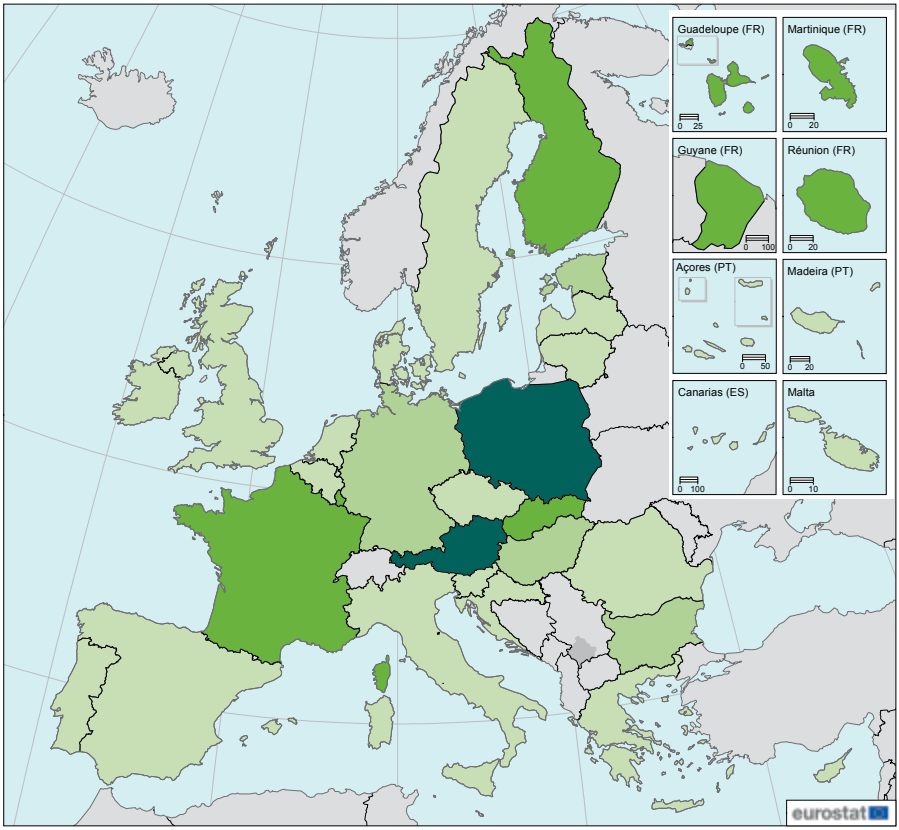
More than half of farm managers were aged 55 or above in EU-28

Of the 10.8 million farm managers in the EU-28 agricultural sector in 2013, there were relatively few young farm managers. On average, for all EU Member States, managers younger than 35 accounted for only 6 % of the total number of all managers. On the other hand, more than half of the farm managers, (some 6 million farm managers, or 55.8 %) were aged 55 or above and thus close to or beyond the regular retirement age.

As shown in Map 2.2, of all the EU Member States, only Poland (12.1 %) and Austria (10.9 %) recorded more than 10 % of farm managers younger than 35.

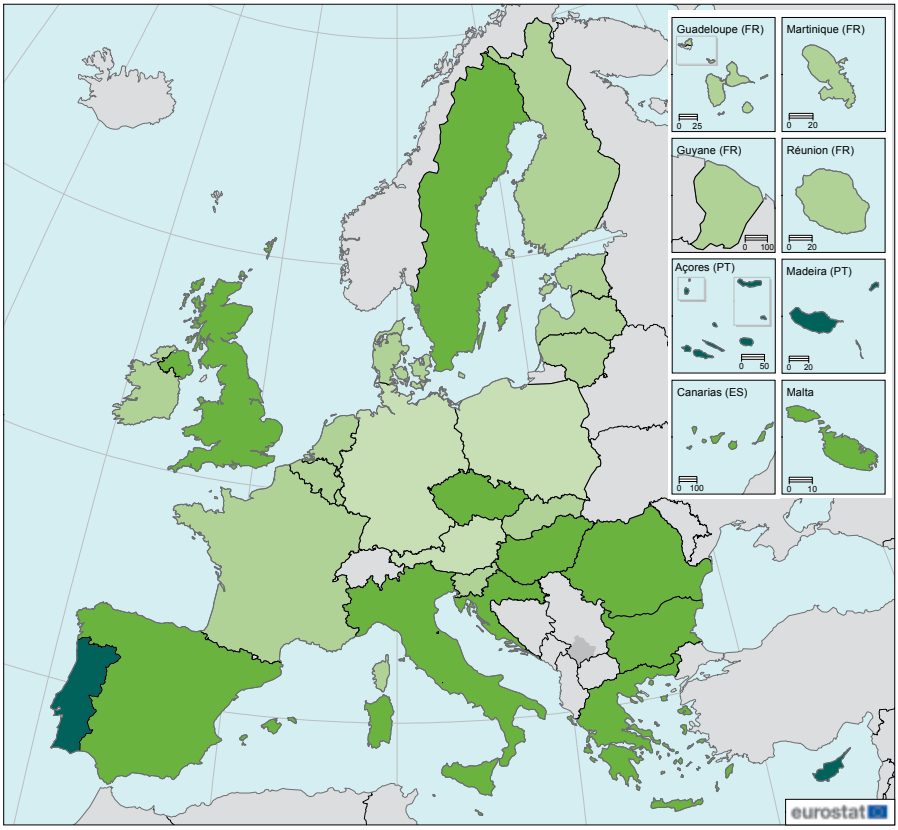
By contrast, in Portugal almost three out of four (73.7 %) of all farm managers were aged 55 or above, while Romania (64.4 %), Italy (63.0 %), Croatia (62.5 %), Bulgaria (62.0 %), Hungary (59.5 %), Malta, Spain and United Kingdom (all 58.5 %), Sweden (58.0 %) the Czech Republic (57.0 %) and Greece (56.2 %) also registered a proportion of managers aged over 55 above the EU-28 average of 55.8 % (see Map 2.3).

Map 2.2: Share of farm managers aged less than 35 years, 2013
(% of total number of managers)



Source: Eurostat (online data code: ef_kvage)

Map 2.3: Share of farm managers aged 55 years or more, 2013
(% of total number of managers)



Source: Eurostat (online data code: ef_kvage)

DATA SOURCES AND AVAILABILITY

The legal basis for the farm structure survey (FSS) is Regulation 1166/2008 of 19 November 2008. EU Member States collect information from individual agricultural holdings and, observing strict rules of confidentiality, data are forwarded to Eurostat. The information collected in the farm structure survey covers land use, livestock numbers, rural development, management and farm labour input (including the age, gender and relationship to the holder of the agricultural holding). The survey data can be aggregated by different geographic levels (for Member States, regions, and also districts). The data can also be arranged by size class, area status, legal status of the holding, objective zone and farm type.

The basic unit underlying the farm structure survey is the agricultural holding: a technical-economic unit, under single management, engaged in agricultural production. Although the thresholds for defining an agricultural holding can be different between countries (as high as five hectares of UAA in some cases), the survey covers 98 % of the UAA and the livestock of each country.

3

Agricultural accounts and prices

Introduction

One of the principal objectives of the common agricultural policy (CAP) is to provide farmers with a reasonable standard of living. Although this concept is not defined explicitly within the CAP, a range of indicators — including those on income development from farming activities — may be used to determine the progress being made towards this objective. Economic accounts for agriculture (EAA) provide an insight, among others, into:

- the economic viability of agriculture;
- the income received by farmers;
- the structure and composition of agricultural production and intermediate consumption;
- relationships between prices and quantities of both inputs and outputs.

A 2003 reform of the CAP introduced a new system of direct payments, known as the single payment scheme. Its goal was to ensure a safety net for farmers in the form of basic income support, decoupled from production, while stabilising farmer's incomes from their sales to market (which are subject to volatility). To maximise their profits, farmers were encouraged to respond to market signals — producing goods that consumers want — and to look after the farmland while fulfilling environmental, animal welfare and food safety standards.

The European Commission launched a public debate on the future of the CAP during 2010. Its outcome, coupled with input from the European Council and Parliament, led the Commission to present a Communication in November 2010, titled 'The CAP towards 2020: meeting the food, natural resources and territorial challenges of the future' (COM(2010) 672 final). This was followed, in October 2011, by a set of legal proposals concerning the future of the CAP. After almost two years of negotiations, a political agreement was reached on 26 June 2013, and these new proposals came into effect as of 1 January 2014. With a budget of EUR 303.1 billion foreseen for the period 2014–20, direct payments will continue to form a significant part of the EU's agricultural and rural development budget.

3.1 Agricultural output

The economic accounts for agriculture show that the total output of the agricultural industry (comprising the output values of crops and animals, agricultural services and the goods and services produced from inseparable non-agricultural secondary activities) in the EU-28 in 2014 was an estimated EUR 418.5 billion at basic prices. The equivalent of 60.3 % of the value of agricultural output generated was spent on intermediate consumption (input goods and services) (1). The residual gross value added at basic prices was the equivalent of 39.7 % of the value of total output in 2014 or EUR 166.3 billion.

(1) Data available in the table Economic accounts for agriculture (aact_eaa01) — values at real prices.

Table 3.1: Output value of the agricultural industry at producer prices, 2010–14

	Value (million EUR)					Share of EU-28 (%)	
	2010	2011	2012	2013	2014	2010	2014
EU-28	**362 259.3**	**399 082.1**	**410 149.5**	**421 810.4**	**415 055.0**	**100.0**	**100.0**
Belgium	7 656.7	7 865.0	8 706.1	8 530.4	8 045.3	2.1	1.9
Bulgaria	3 742.8	4 261.2	4 303.5	4 262.1	4 159.3	1.0	1.0
Czech Republic	4 009.2	4 781.2	4 835.6	4 919.2	4 936.4	1.1	1.2
Denmark	9 715.2	10 704.5	11 803.9	10 958.9	11 009.6	2.7	2.7
Germany	46 036.0	54 903.0	54 738.0	57 252.0	57 637.0	12.7	13.9
Estonia	663.9	806.9	894.1	920.0	896.3	0.2	0.2
Ireland	5 837.0	6 599.7	6 866.3	7 755.9	7 367.0	1.6	1.8
Greece	10 360.6	10 243.3	10 402.8	10 331.4	10 394.4	2.9	2.5
Spain	39 651.4	40 281.0	41 404.6	43 566.2	42 116.0	10.9	10.1
France	66 948.4	71 925.4	75 536.6	73 194.0	73 994.3	18.5	17.8
Croatia	2 551.7	2 530.7	2 479.8	2 335.2	2 008.5	0.7	0.5
Italy	47 762.7	52 156.1	54 143.0	57 329.8	53 793.9	13.2	13.0
Cyprus	685.7	706.3	719.6	724.5	694.2	0.2	0.2
Latvia	928.2	1 070.3	1 317.7	1 295.1	1 216.7	0.3	0.3
Lithuania	1 893.8	2 407.5	2 792.4	2 646.7	2 575.6	0.5	0.6
Luxembourg	326.1	348.6	430.5	445.4	447.9	0.1	0.1
Hungary	6 051.9	7 658.1	7 402.1	7 708.6	7 812.3	1.7	1.9
Malta	121.9	124.1	125.2	129.4	124.1	0.0	0.0
Netherlands	25 265.7	25 867.2	26 803.3	28 186.0	27 134.9	7.0	6.5
Austria	6 226.4	7 107.7	7 194.0	6 974.0	6 951.2	1.7	1.7
Poland	18 508.8	21 711.6	22 407.4	23 080.6	22 730.5	5.1	5.5
Portugal	6 221.6	6 162.7	6 340.1	6 624.2	6 526.5	1.7	1.6
Romania	15 244.0	18 048.3	14 410.2	17 756.2	16 770.8	4.2	4.0
Slovenia	1 098.3	1 230.3	1 148.7	1 158.6	1 249.5	0.3	0.3
Slovakia	1 824.9	2 246.4	2 395.7	2 405.8	2 385.9	0.5	0.6
Finland	3 902.3	4 489.7	4 718.9	4 647.6	4 197.6	1.1	1.0
Sweden	5 308.7	5 838.4	6 290.9	6 379.8	6 201.4	1.5	1.5
United Kingdom	23 715.5	27 007.1	29 538.9	30 293.0	31 678.4	6.5	7.6
Norway	3 860.0	4 049.1	4 472.2	4 370.4	4 345.9	1.1	1.0
Switzerland	7 212.8	8 177.2	8 287.6	8 298.3	8 720.4	2.0	2.1

Source: Eurostat (online data code: aact_eaa01)

Table 3.2: Real change in the main components of agricultural output, EU-28, 2013–14 (%)

	Annual change, 2013–14			Share in output value of the agricultural industry (at producer prices, 2014)
	Volume (at producer prices)	Real value (at producer prices)	Real value (at basic prices)	
Agricultural industry	2.6	–2.6	–2.6	100.0
Crop output	4.5	–4.6	–4.7	50.6
Cereals	7.1	–5.9	–6.1	12.6
Oilseeds	11.0	0.3	0.1	2.9
Sugarbeet	0.5	7.7	7.4	1.1
Fresh vegetables	1.1	–1.6	–1.6	7.4
Plants and flowers	4.3	–0.6	–0.6	4.9
Potatoes	8.9	–22.7	–22.6	2.2
Fruits	0.9	–6.8	–6.6	5.6
Wine	–2.4	–3.8	–3.8	5.1
Olive oil	44.4	36.0	35.5	1.1
Animal Output	0.6	–0.7	–0.7	40.9
Cattle	–3.1	–4.9	–4.6	7.6
Pigs	–1.0	–7.7	–7.6	8.4
Sheep and goats	–3.2	0.3	0.8	1.3
Poultry	4.8	–0.2	–0.1	5.1
Milk	0.9	5.8	5.5	14.8
Eggs	–0.3	–0.7	–0.7	2.1
Agricultural services	0.4	3.1	3.1	4.8
Secondary activities	0.7	–1.3	–1.3	3.7

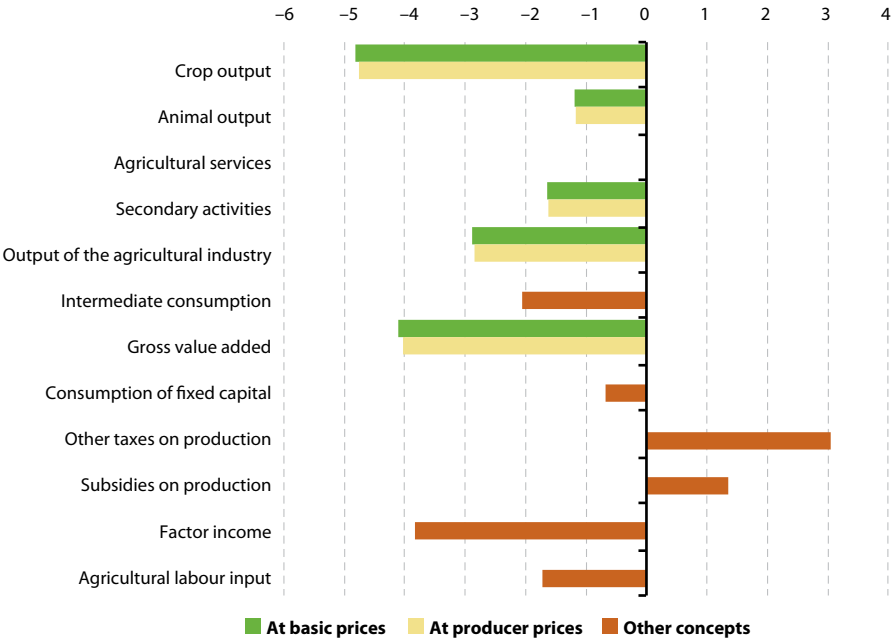
Source: Eurostat (online data codes: aact_eaa01, aact_eaa04 and aact_eaa05)

Final output

The output value of the EU-28's agricultural industry at producer prices (therefore excluding subsidies, but including taxes on products) was an estimated EUR 415.1 billion in 2014 (see Table 3.1). France was the largest agricultural producer in the EU-28 (EUR 74.0 billion or 17.8 % of the EU-28 total), followed by Germany (13.9 %), Italy (13.0 %) and Spain (10.1 %); relative to its size, the Netherlands accounted for quite a high share of the EU-28's agricultural output (6.5 %).

Compared with 2010, the value of agricultural industry rose in 2014 in all of the EU Member States other than Croatia (where output decreased by around 20 %). The highest increases in output value (in absolute terms) were recorded for the EU's larger producers, rising by EUR 11.6 billion in Germany, EUR 8.0 billion in the United Kingdom, EUR 7.0 billion in France and EUR 6.0 billion in Italy. There were also relatively large increases (over EUR 2 billion) in agricultural output in Spain and Poland within the same period.

Figure 3.1: Real change in the main components of the agricultural industry, EU-28, 2013–14
(%)



Source: Eurostat (online data codes: aact_eaa04 and aact_ali01)

Table 3.2 shows that the main components of the EU-28's agricultural industry in 2014 were crop output (50.6 % of the total) and animal output (40.9 %); agricultural services and inseparable secondary activities, generally the processing of agricultural products, provided the residual shares (4.8 % and 3.7 %). The agricultural products accounting for the highest share of output value in the EU-28's agricultural industry in 2014 were milk (14.8 %) and cereals (12.6 %), while pig and cattle output also accounted for relatively large shares (8.4 % and 7.6 %).

Table 3.2 also shows the annual change between 2013 and 2014 in EU-28 agricultural industry in volume terms (+ 2.6 %). The volume of crop output rose by 4.5 %, with the biggest rates of increase being recorded for olive oil (+ 44.4 %), oilseeds (+ 11.0 %) and potatoes (+ 8.9 %). The only rate of decline was recorded for wine (– 2.4 %).

The volume of animal output has remained fairly stable in the EU-28 between 2013 and 2014. There was a reduction in the volume of sheep and goat (– 3.2 %), cattle (– 3.1 %) and pig production (– 1.0 %), while poultry and milk production rose by 4.8 % and 0.9 %, respectively. There was little change in the volume of egg production in the EU-28 in 2014 (– 0.3 %).

The sharpest increase in the real value of crop products between 2013 and 2014 was recorded for olive oil (+ 36.0 %), while potatoes recorded the sharpest decrease (– 22.7 %). The increases among animal products were recorded for milk (+ 5.8 %) and sheep and goats (+ 0.3 %). All other animal categories registered a decrease, the largest of which affected pigs (– 7.7 %) and cattle (– 4.9 %).

Intermediate consumption

Intermediate consumption covers purchases made by farmers for raw and auxiliary materials that are used as inputs for crop and animal production; it also includes expenditure on veterinary services, repairs and maintenance, and other services. Intermediate consumption within the EU-28's agricultural industry in 2014 was valued at EUR 252.2 billion at basic prices. The relative share of intermediate consumption in the agricultural industry has slightly risen from 2010 (58.9 %) to 2014 (60.3 %).

Feedingstuffs for animals accounted by far for the highest share (36.9 %) of total intermediate inputs within the EU-28's agricultural activity in 2014, valued at more than three times the share of energy and lubricants (12.0 %); the latter are used for both animal and crop production. Fertilisers and soil improvers (7.6 %) accounted for the highest share of intermediate inputs among those inputs used exclusively for crop production (see Figure 3.2).

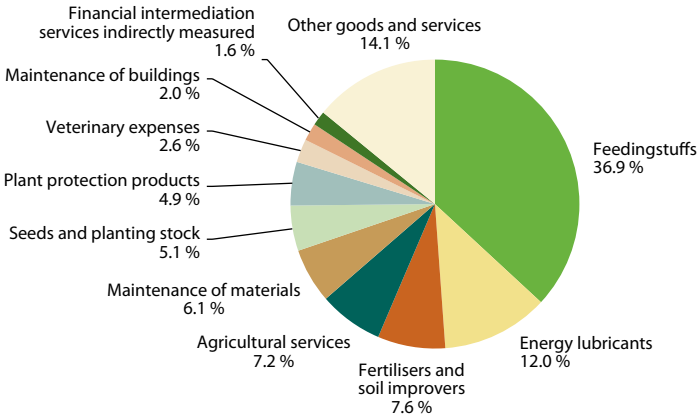
Three main intermediate inputs are used for the production of crops: seeds and plantings, fertilisers, and plant protection products which together accounted for 20.9 % of the production value of crops in the EU-28 in 2014 (2.4 percentage points higher than in 2010). The two main intermediate inputs for animal production: feedingstuffs and veterinary expenses, together accounted for 58.1 % of the EU-28's production value for animals in 2014. This was 2.2 percentage points lower than in 2010 (see Table 3.3).

Table 3.3: Share of main intermediate inputs in crop and animal production at basic prices, 2010–14
(%)

	Seeds, fertilisers and plant protection in crop production					Feedingstuffs and veterinary expenses in animal production				
	2010	2011	2012	2013	2014	2010	2011	2012	2013	2014
EU-28	18.5	18.8	19.7	20.0	20.9	60.3	63.0	62.3	60.5	58.1
Belgium	21.4	24.2	21.4	21.9	23.7	67.9	72.8	71.7	76.7	74.5
Bulgaria	18.6	16.9	17.2	18.8	15.3	74.9	78.7	78.2	68.2	71.0
Czech Republic	23.5	22.5	22.3	21.7	21.4	76.8	70.1	73.9	77.2	71.6
Denmark	21.6	24.9	22.3	25.7	26.4	54.2	56.2	53.1	56.6	53.1
Germany	20.0	17.7	20.9	20.5	22.6	69.0	74.5	74.7	61.2	64.8
Estonia	21.4	20.8	18.8	23.2	24.8	59.7	62.5	63.4	60.4	58.6
Ireland	33.2	35.2	34.9	35.6	39.4	60.6	53.9	57.7	60.7	51.0
Greece	11.4	11.9	11.5	11.5	11.9	63.6	69.2	65.8	76.8	76.7
Spain	11.5	13.0	13.7	14.2	16.2	69.0	70.4	68.5	68.5	65.4
France	20.5	20.9	21.6	24.0	23.0	64.2	66.4	67.5	68.3	62.5
Croatia	24.2	24.7	26.5	25.5	24.2	61.5	69.1	77.8	76.5	71.0
Italy	12.1	12.7	13.0	11.7	12.9	58.4	58.4	55.1	55.9	54.0
Cyprus	16.2	15.4	15.8	14.9	18.2	56.9	60.2	59.4	60.7	55.2
Latvia	29.6	32.0	29.3	37.3	36.9	59.2	61.6	64.8	62.1	62.8
Lithuania	29.1	26.2	24.6	28.9	31.4	62.1	66.9	63.9	60.3	56.8
Luxembourg	21.2	24.9	18.4	17.0	17.6	81.9	76.2	83.8	103.8	96.7
Hungary	27.7	24.9	28.6	28.1	26.6	66.9	68.6	67.2	63.0	55.9
Malta	13.3	12.5	13.4	13.4	14.0	47.9	54.6	53.0	49.3	45.7
Netherlands	18.0	20.0	18.5	18.5	19.9	49.3	56.6	57.6	54.8	51.0
Austria	15.0	14.4	15.9	17.8	18.0	50.0	52.4	53.3	49.5	49.5
Poland	20.4	20.8	21.5	23.8	26.4	49.1	58.9	56.2	51.5	52.2
Portugal	11.4	13.0	12.8	12.2	13.2	74.6	79.5	80.3	76.9	70.9
Romania	16.3	15.8	17.7	16.9	16.5	89.7	83.9	76.4	83.5	76.3
Slovenia	17.3	16.2	19.0	18.5	16.0	77.8	78.3	79.1	76.0	75.3
Slovakia	31.0	28.7	30.5	33.4	32.4	40.1	40.1	36.9	37.7	41.7
Finland	35.2	31.0	30.2	36.2	40.3	37.7	41.6	44.4	42.7	42.7
Sweden	26.3	25.5	23.9	27.2	25.5	49.5	49.9	54.3	53.9	51.9
United Kingdom	37.7	34.4	34.6	34.2	34.3	40.6	39.9	41.2	42.9	39.1
Norway	18.4	20.8	20.5	21.1	20.4	46.8	46.4	48.8	50.2	51.0
Switzerland	14.6	14.2	14.4	15.3	14.8	55.8	56.1	56.1	51.4	50.3

Source: Eurostat (online data code: aact_eaa01)

Figure 3.2: Intermediate inputs consumed by the agricultural industry at basic prices, EU-28, 2014
(% share of total intermediate inputs)



Source: Eurostat (online data code: aact_eaa01)

Gross value added and subsidies

Gross value added at producer prices of the EU-28's agricultural industry in 2014 was an estimated EUR 162.8 billion, while overall subsidies amounted to EUR 53.8 billion (see Table 3.4). The highest subsidies were generally granted to those EU Member States with the highest levels of output (France, Germany, Spain and Italy). The value of other subsidies on production received by 15 EU Member States accounted for a higher share of the EU-28's other subsides than their relative weight in the gross value added of the EU-28's agricultural industry. In Germany the share of subsidies was 3.5 percentage points higher than the share of gross value added, the difference was over 1.5 percentage points in Finland, Poland, Ireland and Greece.

The type of subsidies provided to the EU-28's agricultural industry has changed over time as a result of successive reforms of the CAP, 'decoupling' subsidies from particular crops and moving towards a system of single-farm payments. Subsidies on products in the EU-28 were valued at EUR 5.7 billion in 2010, which had fallen to EUR 3.8 billion by 2014. By contrast, other subsidies on production increased from EUR 50.7 billion in 2010 to EUR 53.8 billion by 2014.

Table 3.4: Agricultural gross value added at producer prices and subsidies, 2010–14
(million EUR)

	Gross value at producer prices					Other subsidies on production				
	2010	2011	2012	2013	2014	2010	2011	2012	2013	2014
EU-28	145 552	159 145	160 138	167 926	162 805	50 717	52 754	51 912	52 263	53 767
Belgium	2 390	2 006	2 603	2 228	2 041	691	693	638	598	608
Bulgaria	1 277	1 516	1 542	1 563	1 589	466	458	617	852	821
Czech Republic	918	1 388	1 327	1 410	1 470	1 062	1 121	1 164	1 059	1 198
Denmark	2 639	2 762	3 747	2 797	3 075	982	998	1 007	999	1 007
Germany	14 278	18 909	15 843	20 735	17 410	7 136	7 350	7 320	7 285	7 630
Estonia	230	306	355	329	340	165	174	187	192	168
Ireland	1 352	1 869	1 812	2 059	2 233	1 695	1 865	1 760	1 640	1 603
Greece	5 410	4 928	5 098	4 890	4 985	2 793	2 697	2 644	2 495	2 506
Spain	21 646	20 566	20 779	22 121	20 944	6 081	5 934	6 034	5 878	5 887
France	26 686	28 000	28 963	25 413	27 664	8 545	8 677	8 379	8 087	8 006
Croatia	1 007	967	872	926	753	46	38	21	32	28
Italy	26 051	28 606	29 898	32 903	30 069	4 406	5 085	4 493	4 797	5 849
Cyprus	315	325	333	339	320	40	41	45	41	68
Latvia	223	247	314	248	213	249	250	266	281	292
Lithuania	502	722	988	849	792	199	177	192	196	202
Luxembourg	86	94	143	108	117	65	75	67	65	66
Hungary	1 910	2 804	2 482	2 801	3 086	1 288	1 494	1 505	1 574	1 617
Malta	54	53	54	60	60	25	17	18	18	20
Netherlands	9 620	8 574	9 138	10 178	9 983	922	1 110	1 103	1 165	1 055
Austria	2 489	2 991	2 946	2 712	2 689	1 545	1 524	1 516	1 512	1 435
Poland	6 498	7 836	8 229	8 836	8 130	3 050	3 653	3 118	3 855	4 068
Portugal	2 378	1 949	1 977	2 366	2 340	724	614	803	723	683
Romania	6 534	8 109	6 209	7 621	7 099	1 012	1 196	1 357	1 460	1 839
Slovenia	399	474	386	408	496	242	242	254	259	252
Slovakia	300	485	577	596	596	433	431	488	469	489
Finland	1 121	1 313	1 373	965	640	1 832	1 793	1 839	1 738	1 705
Sweden	1 477	1 620	1 758	1 592	1 659	976	1 036	1 054	1 068	1 014
United Kingdom	7 763	9 725	10 389	10 875	12 013	4 047	4 012	4 022	3 925	3 653
Norway	1 220	1 283	1 397	1 312	1 377	604	666	760	743	708
Switzerland	2 710	3 083	3 054	3 174	3 419	2 084	2 363	2 428	2 375	2 422

Source: Eurostat (online data code: aact_eaa01)

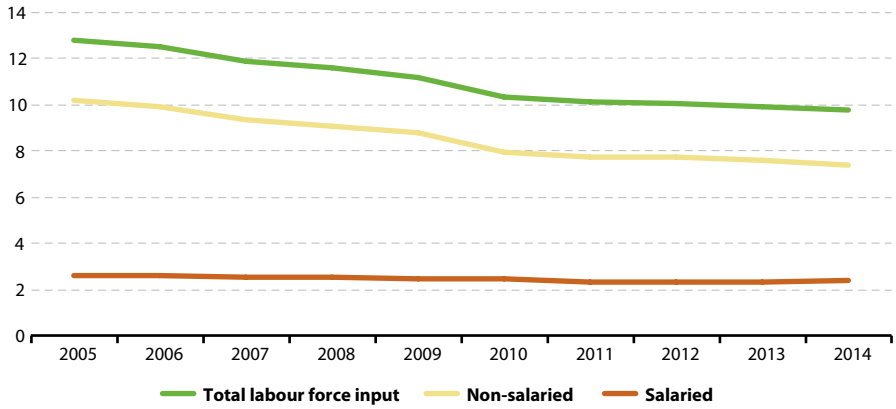
3.2 Agricultural labour input

The vast majority of the EU's farms are relatively small, family-run holdings. Often, these holdings draw on family members to provide labour (in addition to the farm holder). Agriculture is also characterised by seasonal labour peaks (for example those linked to harvesting), with high numbers of workers hired for relatively short periods of time. Otherwise, some farmers are occupied on a part-time basis (and they may have alternative, sometimes important sources of income) so while there are a large number of people providing labour within agriculture, many of these will have their main employment elsewhere. For this reason, estimates are made of the volume of labour input provided in terms of full-time labour equivalents (measured in annual work units (AWU)).

EU-28 agricultural labour input was estimated at 9.8 million AWUs (the equivalent of 9.8 million people working full-time) in 2014. As shown in Table 3.5, among the EU Member States, the highest levels of agricultural labour input were recorded for Poland (1.9 million AWUs), Romania (1.4 million AWUs) and Italy (1.1 million AWUs).

Between 2005 and 2014 there was a reduction of almost one quarter (– 23.6 %) in agricultural labour input in the EU-28; the steepest annual declines were posted in 2007 and 2010. The overall contraction of 3.0 million AWUs was almost exclusively due to a reduction in non-salaried labour input (2.8 million AWUs or 92.6 % of the total). Although the volume of agricultural labour input from salaried persons in the EU-28 fell in successive years from 2006 to 2013, there was a slight increase in the number of AWUs for salaried persons in 2014.

Figure 3.3: Agricultural labour input, EU-28, 2005–14
(million annual work units)



Source: Eurostat (online data code: aact_ali01)

Table 3.5: Agricultural labour input, 2010–14

	Total agricultural labour input (1 000 annual work unit)					Change, 2010–14 (%)
	2010	2011	2012	2013	2014	
EU-28	10 341.8	10 097.1	10 052.1	9 933.9	9 763.7	–5.6
Belgium	61.9	57.6	58.1	57.9	57.9	–6.5
Bulgaria	406.5	375.8	347.4	321.2	297.5	–26.8
Czech Republic	108.8	106.2	105.8	105.1	105.1	–3.4
Denmark	54.2	52.1	52.4	52.7	54.1	–0.2
Germany	522.0	517.5	513.6	503.0	504.0	–3.4
Estonia	25.4	24.4	23.1	22.3	22.0	–13.4
Ireland	165.6	165.6	165.6	163.8	163.6	–1.2
Greece	441.5	449.4	458.0	467.0	454.5	2.9
Spain	963.8	903.3	889.7	841.7	824.3	–14.5
France	809.1	799.5	788.2	780.4	774.2	–4.3
Croatia	202.0	199.0	202.0	196.0	190.0	–5.9
Italy	1 161.0	1 147.1	1 118.5	1 095.6	1 110.3	–4.4
Cyprus	25.4	25.4	25.3	25.0	25.0	–1.6
Latvia	85.9	88.3	84.5	82.9	77.2	–10.1
Lithuania	143.4	142.8	145.4	144.8	149.9	4.5
Luxembourg	3.7	3.7	3.8	3.6	3.5	–5.4
Hungary	444.2	437.0	433.3	444.4	462.9	4.2
Malta	4.9	4.9	4.9	5.0	5.0	2.0
Netherlands	150.4	149.1	146.5	146.5	145.3	–3.4
Austria	127.5	125.7	125.2	123.9	121.6	–4.6
Poland	1 914.8	1 914.8	1 914.8	1 937.1	1 937.1	1.2
Portugal	309.4	299.0	296.1	281.3	273.3	–11.7
Romania	1 639.0	1 532.0	1 573.0	1 564.0	1 433.0	–12.6
Slovenia	77.0	78.0	80.8	82.7	81.8	6.2
Slovakia	56.1	57.4	57.1	54.2	53.9	–3.9
Finland	82.1	81.2	79.5	75.9	81.2	–1.1
Sweden	65.3	64.2	63.1	62.1	61.0	–6.6
United Kingdom	291.1	296.1	296.3	293.8	294.5	1.2
Iceland	4.2	4.3	4.1	4.0	3.5	–16.7
Norway	51.4	50.3	49.2	48.1	47.0	–8.6
Switzerland	80.7	79.9	79.1	77.7	77.5	–4.0

Source: Eurostat (online data code: aact_ali01)

Agricultural labour input declined over the period 2010–14 (– 5.6%) only seven Member States recorded an increase: Slovenia (+ 6.2 %), Lithuania (+ 4.5 %), Hungary (+ 4.2 %), Greece (+ 2.9 %), Malta (+ 2.0 %), the United Kingdom and Poland (both + 1.2 %). A further twelve Member States registered declines in agricultural labour input, although less marked than for EU-28. The remaining nine Member States showed steeper decreases in particular Bulgaria (– 26.8%) and Spain (– 14.5%).

3.3 Agricultural income

Income is a key measure for determining the viability of the agricultural sector. The nominal factor income of the agricultural industry (the remuneration of all factors of production: land, capital, labour) in the EU-28 was valued at EUR 153.7 billion in basic price terms in 2014. Within agricultural accounts, income has traditionally been measured as an index, computed on the basis of the real factor income per AWU.

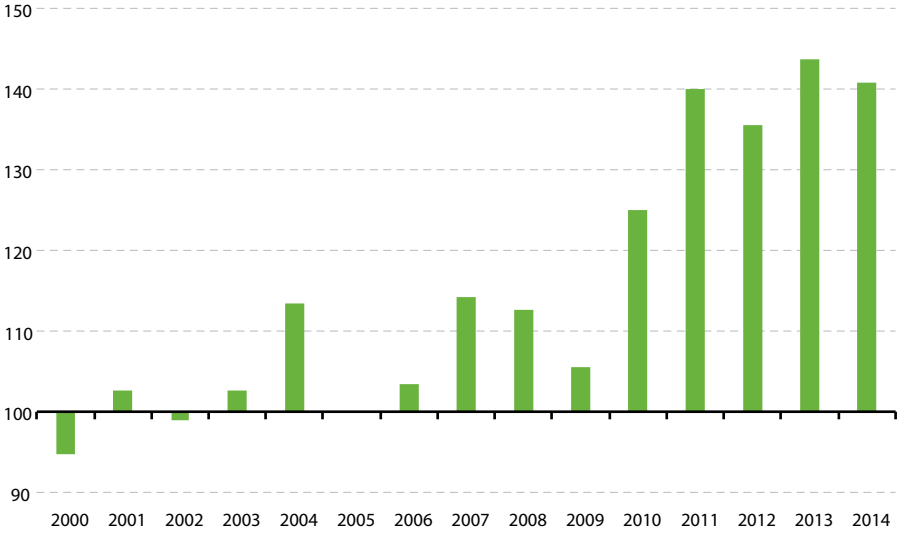
From the base year of 2005, the EU-28 index of agricultural income per AWU rose for two consecutive years, before falling back in 2008 and 2009 (at the height of the financial and economic crisis) to almost the same level as in 2005. Thereafter, the index of agricultural income per AWU rebounded, with relatively rapid growth in 2010 and 2011. Agricultural income per AWU in the EU-28 remained relatively high from 2012 to 2014, with values around the 2011 level.

The overall pattern for the development of agricultural income per AWU in the EU-28 during the 2005–14 period can be linked to the development of the two underlying indicators that are used in the construction of the index. EU-28 real factor income per AWU for the agricultural industry fluctuated considerably but in broad terms rose relatively slowly. This higher factor income per AWU was nominally shared amongst a smaller workforce, resulting in stronger rises in average income per AWU per full-time labour equivalent.

The variations in real factor income per AWU can be linked to rising commodity prices (in 2007 and again in 2010 and 2011) and the downturn in agricultural activity resulting from the financial and economic crisis (in 2008 and 2009). Some of the biggest changes in EU-28 real factor income per AWU were recorded in 2009 and 2010, – 6.3 % followed by + 18.5 % and these were apparent in the overall development of the index for agricultural income per AWU (see Figure 3.4). On the other hand, the relatively large declines in agricultural labour input recorded in 2007 and 2010 were also apparent as agricultural income per AWU increased in both years.

A group of five EU Member States reported that their index of agricultural income per AWU in 2014 was at a lower level than in 2005 (see Table 3.6). This group included Luxembourg (where the biggest contraction in income per AWU was recorded, – 23.9 %), Finland, Malta, Ireland and Croatia (where the smallest reduction was registered, at – 3.3 %). In the case of Malta and Ireland, the reduction in agricultural income per AWU could be largely attributed to an expansion in the number of AWUs, whereas in the other three EU Member States it could be largely attributed to a reduction in real factor income.

Figure 3.4: Agricultural income per AWU, EU-28, 2000–14 ([1])([2])
(2005 = 100)

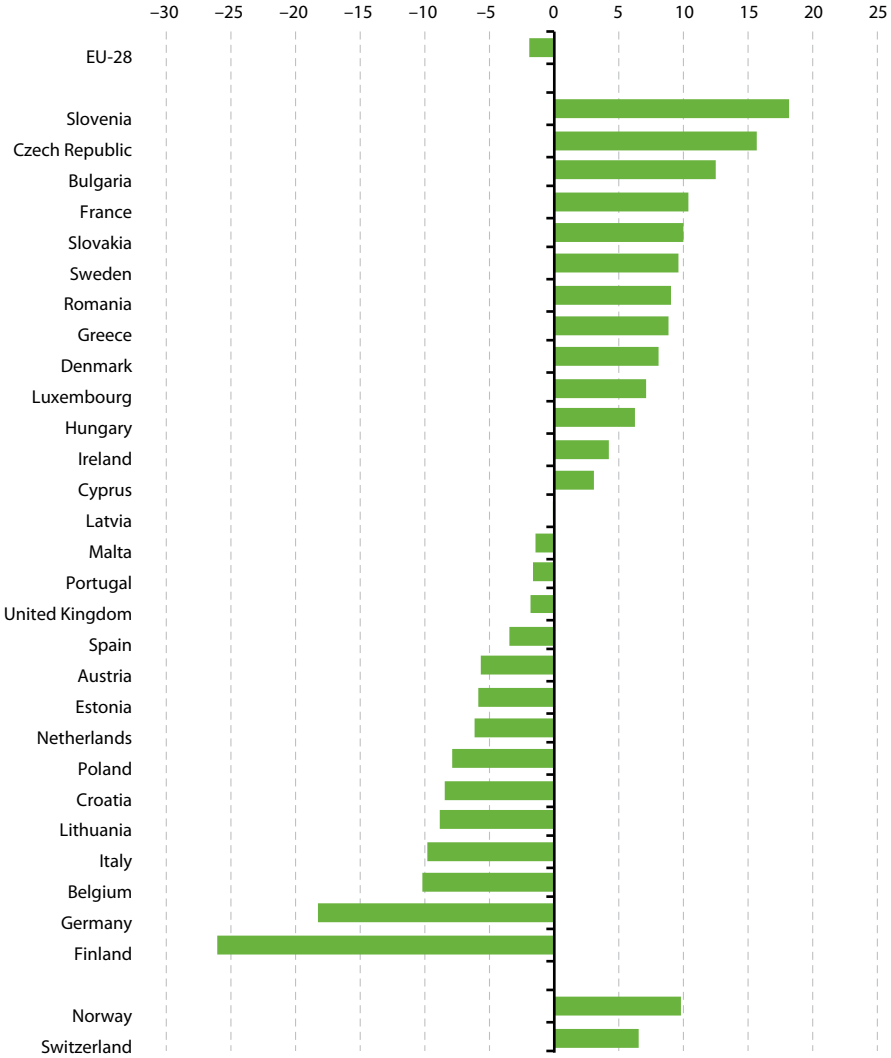


([1]) EU-27: 2000–04.
([2]) Estimates.
Source: Eurostat (online data code: aact_eaa06)

The index of agricultural income per AWU rose in the remaining EU Member States between 2005 and 2014. Increases were relatively small (below + 10.0 %) in Greece, Austria, Cyprus, Belgium, Spain and Slovenia. By contrast, agricultural income per AWU more than doubled in Bulgaria (+ 121.4 %) and Hungary (+ 138.4 %) between 2005 and 2014, rose around 91.5 % in Poland, while substantial increases were also recorded in Slovakia (+ 88.6 %) and Estonia (+ 88.5 %).

The latest developments from 2013–14 (see Figure 3.5) show that the index of agricultural income per AWU rose by 18.2 % in Slovenia, while double-digit gains were also recorded in the Czech Republic, Bulgaria, France and Slovakia. The majority of EU Member States saw their agricultural income per AWU vary by no more than +/– 10 % from 2013–14, although there were larger reductions in Finland (– 26.1 %) and Germany (– 18.3 %).

Figure 3.5: Change in agricultural income per AWU, 2013–14 ([1])
(%)



([1]) Estimates
Source: Eurostat (online data code: aact_eaa06)

Table 3.6: Agricultural income per AWU, 2000–14
(2005 = 100)

	Average 2000–05 (1)	Average 2005–10	2011	2012	2013	2014
EU-28	102.1	110.1	140.0	135.6	143.8	140.7
Belgium	117.7	116.3	117.6	142.7	116.6	104.7
Bulgaria	100.4	114.0	138.7	161.9	196.8	221.4
Czech Republic	79.4	102.7	138.0	140.1	146.1	179.1
Denmark	101.0	95.9	131.7	179.6	123.2	133.1
Germany	95.0	118.3	166.3	129.7	173.3	141.7
Estonia	68.0	113.5	185.2	216.2	200.3	188.5
Ireland	89.2	82.9	92.9	85.5	89.2	93.0
Greece	110.6	105.4	99.0	98.7	91.7	100.1
Spain	110.1	97.3	98.4	99.7	109.4	105.6
France	106.7	109.7	131.3	132.2	111.6	123.3
Croatia	100.0	119.9	116.0	100.3	104.9	96.7
Italy	114.0	94.9	99.5	106.7	127.2	114.7
Cyprus	101.3	92.3	69.7	96.0	99.9	102.9
Latvia	62.7	123.4	139.9	158.9	143.1	143.3
Lithuania	70.7	111.7	153.1	191.3	173.2	157.8
Luxembourg	121.6	94.2	78.2	106.2	71.1	76.1
Hungary	81.3	122.5	202.1	192.1	215.9	238.4
Malta	97.5	95.1	75.8	76.2	79.4	78.2
Netherlands	104.8	108.2	99.9	108.0	123.5	115.9
Austria	97.3	111.7	131.1	123.1	108.5	102.4
Poland	78.7	124.0	201.1	190.0	208.6	191.5
Portugal	101.8	98.9	88.7	97.4	113.4	111.6
Romania	110.4	106.8	183.2	142.3	166.5	182.5
Slovenia	77.9	99.3	115.1	90.3	92.5	109.4
Slovakia	97.7	110.8	156.1	175.8	171.4	188.6
Finland	96.0	107.4	129.4	132.3	105.0	77.5
Sweden	94.7	118.4	121.5	116.6	104.7	120.7
United Kingdom	90.9	132.0	187.3	165.8	187.8	175.0
Norway	118.9	110.8	121.0	121.1	123.6	145.3
Switzerland	99.7	102.8	85.2	82.8	90.5	95.1

(1) EU-27: 2000–05.
Source: Eurostat (online data code: aact_eaa06)

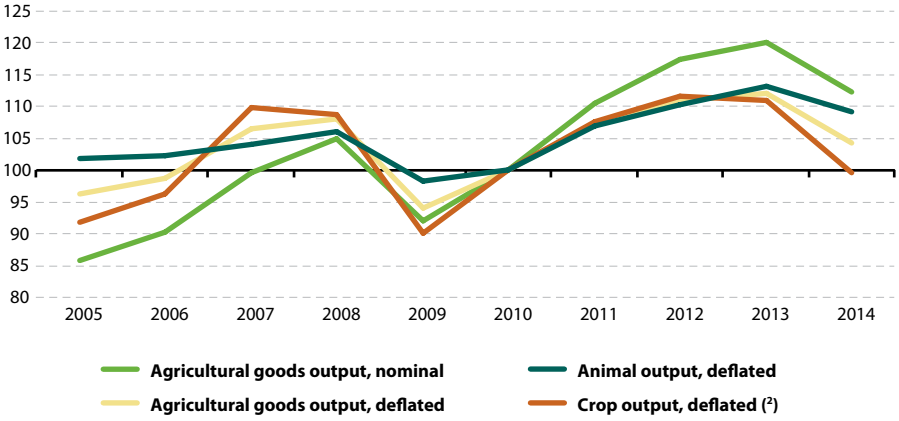
3.4 Price indices

EU-28 output prices for agricultural goods rose by 31.0 % in nominal terms from 2005–14. Taking into account price inflation (based on the harmonised index of consumer prices, HICP), the real increase in (deflated) output prices for agricultural goods was 8.4 %. After a period of successive increases from 2010 to 2013, in 2014 the output price indexes of agricultural goods showed a general decrease, reaching 112.3 in 2014 (2010 = 100) nominal prices.

Figure 3.6 shows that (deflated) output prices for agricultural goods in the EU-28 rose during the 2005–08 period by a total of 12.5 %. This was followed by a sharp reduction in prices in 2009 (– 13.1 %). Thereafter, output prices for agricultural goods in the EU-28 rose by just over 6 % in real terms in both 2010 and 2011, before slowing down somewhat in 2012 (+ 3.4 %) and 2013 (+ 1.0 %). In 2014, deflated output prices for agricultural goods decreased by 6.9 %. Figure 3.6 also shows that prices tended to rise at a slightly faster pace for crop output (8.5 % over the period 2005–14) than for animal output (an overall increase of 7.4 %).

Figures 3.7 and 3.8 present a more detailed picture of deflated output price developments over the 2005–14 period for a selection of crop and animal products. Among the selected crops shown in Figure 3.7, the greatest variations in EU-28 prices and the overall highest price increases between 2005 and 2014 were recorded for cereals and vegetables. By contrast the price of olive oil recorded in the same period the largest decrease.

Figure 3.6: Output price indices, EU-28 (1), 2005–14
(2010 = 100)

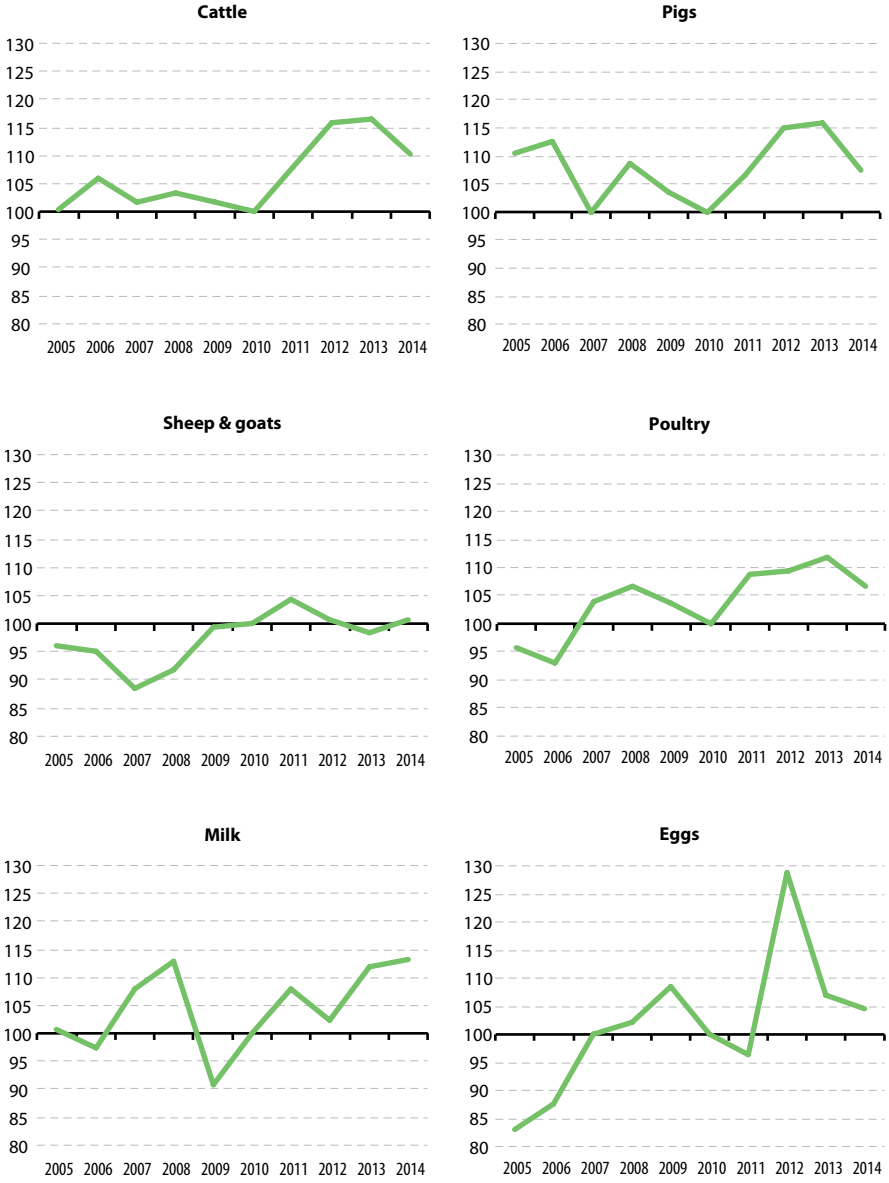


(1) Eurostat estimates.
(2) Including fruit and vegetables.
Source: Eurostat (online data codes: apri_pi10_outa)

Figure 3.7: Deflated price indices for selected crop outputs, EU-28 (1), 2005–14
(2010 = 100)

(1) Eurostat estimates.
Source: Eurostat (online data codes: apri_pi10_outa and apri_pi10_ina)

Figure 3.8: Deflated price indices for selected animal outputs, EU-28 ([1]), 2005–14
(2010 = 100)



([1]) Eurostat estimates.
Source: Eurostat (online data codes: apri_pi10_outa and apri_pi10_ina)

Compared to some crops, EU-28 output price fluctuations were relatively small for animal outputs, although the price of milk fell by 19.6 % from 2008 to 2009 and the price of eggs rose by 33.7 % from 2011 to 2012; the spike in the price of eggs could be linked to a shortage of supply. A comparison of EU-28 deflated output prices between 2005 and 2014 reveals overall price increases of 5–13 % for sheep and goats, poultry, cattle and milk, while prices rose faster for eggs (+ 25.8 %) and decreased in the case of pigs (– 2.8%).

Table 3.7 presents information on deflated price indices for crop and animal outputs for the 2010–14 period. For crop output at the EU-28 level, the price indexes were lower in 2014 than in 2010 (by – 0.4 %).This was the case in half of the EU Member States. Belgium (– 24.5 %), Malta (– 14.7 %) and Portugal (– 14.5 %) were the EU Member States with the sharpest decreases of deflated output prices for crops. By contrast, output prices for crops rose at a relatively fast pace in the Czech Republic, (+ 20.0 %) and Cyprus (+ 15.3 %) during the period 2010–14.

From 2010 to 2014 the output prices for animals rose by 9.3 % in the EU-28. This increase occurred in all the EU Member States. Ireland (+ 17.7 %), Hungary (+ 17.0 %) and the Czech Republic (+ 15.3 %) recorded the highest increases, while Belgium, Latvia, Finland, Lithuania and Greece all had increases of below 5 %.

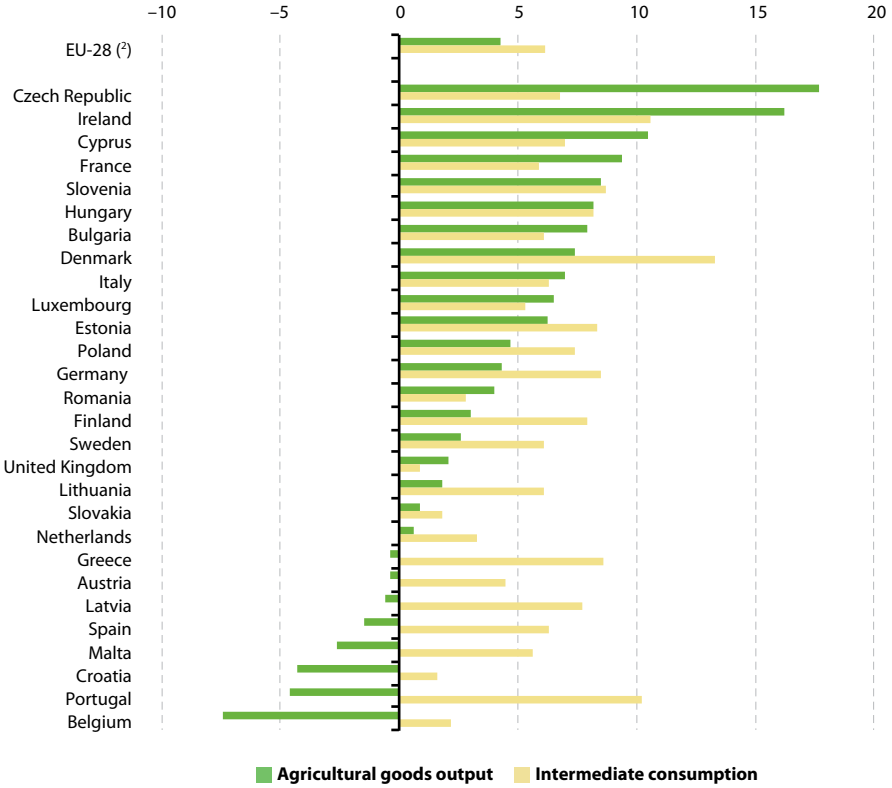
Figure 3.9 provides a comparison between deflated price indices for intermediate consumption and the output of agricultural goods. Deflated prices for intermediate consumption in the EU-28's agricultural industry rose by 6.2 % between 2010 and 2014, while the output price index for agricultural goods rose by 4.3 % (over the same period). There does not appear to be any robust link between the developments of these two indices across the EU Member States. In eleven EU Member States there was a relatively high price increase (over 5 %) for both intermediate consumption and the output of agricultural goods (the Czech Republic, Ireland, Cyprus, France, Slovenia, Hungary, Bulgaria, Denmark, Italy, Luxembourg and Estonia). In Greece, Latvia, Spain, Malta and Portugal the intermediate consumption recorded a price increase of over 5 % and a negative growth in the prices of agricultural goods output.

Table 3.7: Deflated price indices, crop and animal output, 2010–14
(2010 = 100)

	Crop output ([1])					Animal output				
	2010	2011	2012	2013	2014	2010	2011	2012	2013	2014
EU-28 ([2])	**100.0**	**107.5**	**111.6**	**111.0**	**99.6**	**100.0**	**107.1**	**110.3**	**113.2**	**109.3**
Belgium	100.0	89.7	107.1	109.4	75.5	100.0	105.2	109.2	113.4	104.9
Bulgaria	100.0	125.9	148.5	109.8	105.3	100.0	105.5	105.3	113.1	113.6
Czech Republic	100.0	130.6	129.6	134.7	120.0	100.0	105.9	107.7	110.3	115.3
Denmark	100.0	120.6	124.7	119.7	107.1	100.0	107.8	114.3	122.1	107.5
Germany	100.0	113.0	120.6	112.9	98.4	100.0	109.1	109.7	113.9	108.1
Estonia ([3])	:	:	:	:	:	:	:	:	:	:
Ireland	100.0	108.2	125.4	133.2	104.2	100.0	114.7	116.5	126.1	117.7
Greece	100.0	100.5	97.5	100.7	99.3	100.0	98.5	97.4	98.3	100.1
Spain ([3])	:	:	:	:	:	:	:	:	:	:
France	100.0	112.3	115.5	116.3	108.0	100.0	106.7	110.7	113.3	111.4
Croatia	100.0	106.9	111.5	96.4	87.6	100.0	103.4	108.3	106.7	106.1
Italy	100.0	105.6	107.8	112.1	105.4	100.0	107.4	111.2	111.9	109.3
Cyprus	100.0	119.9	120.4	121.0	115.3	100.0	106.9	104.7	104.7	105.8
Latvia	100.0	120.2	122.3	106.6	94.7	100.0	106.8	107.4	111.4	104.0
Lithuania	100.0	132.1	124.4	119.4	101.3	100.0	108.8	107.2	113.7	102.2
Luxembourg	100.0	105.5	117.2	100.1	93.6	100.0	104.6	104.6	112.5	110.7
Hungary	100.0	118.8	132.6	113.1	103.0	100.0	111.8	116.5	118.5	117.0
Malta	100.0	96.2	106.4	99.9	85.3	100.0	103.5	107.3	111.9	105.2
Netherlands	100.0	97.5	97.2	103.6	92.4	100.0	107.9	110.3	112.2	109.6
Austria	100.0	101.6	102.8	97.9	87.8	100.0	106.2	108.9	111.2	108.3
Poland	100.0	117.8	113.9	105.8	95.3	100.0	112.1	117.2	118.1	113.3
Portugal ([4])	:	:	:	92.8	85.5	:	:	:	108.6	106.4
Romania	100.0	111.1	119.7	122.0	103.3	100.0	103.6	107.7	107.1	106.2
Slovenia	100.0	106.0	106.4	119.8	100.7	100.0	108.3	110.0	112.0	112.5
Slovakia	100.0	119.3	121.5	110.1	95.4	100.0	106.0	110.4	108.1	107.4
Finland	100.0	116.5	116.4	122.6	104.0	100.0	107.0	111.2	117.1	102.4
Sweden	100.0	109.6	109.1	105.2	98.4	100.0	100.9	100.2	106.6	105.7
United Kingdom	100.0	113.4	115.5	116.7	96.4	100.0	104.9	106.9	112.0	106.1

([1]) Including fruit and vegetables.
([2]) Eurostat estimates.
([3]) Data for Estonia and Spain, years 2010 to 2014, re-referenced from 2005 = 100.
([4]) Data for Portugal, years 2010 to 2012, re-referenced from 2005 = 100.
Source: Eurostat (online data code: apri_pi10_outa)

Figure 3.9: Change in deflated price indices for the agricultural industry, 2010–14 ([1])
(%)



([1]) Ranked on agricultural goods output.
([2]) Eurostat estimates.
Source: Eurostat (online data codes: apri_pi10_outa and apri_pi10_ina)

Among the crop products shown in Table 3.8, the widest range was recorded for the selling prices of main crop potatoes across the EU Member States than there was for any of the other crops, soft wheat, rape or sunflower. The price of many cereals and oilseeds is linked to commodity markets and traded futures.

There was a wider variation in selling prices for animal products across the EU Member States (see Table 3.9); this was particularly true for chickens (1st choice) and cows. The ratio between the highest and lowest selling prices was above 7:1 for chickens (Luxembourg with the highest selling price and Portugal the lowest) and above 3:1 for cows (France with the highest selling price and Latvia with the lowest).

Table 3.8: Selling prices of crop products, 2014
(EUR per 100 kg)

	Soft wheat	Rape	Sunflowers	Main crop potatoes
Belgium	16.48	:	:	2.73
Bulgaria	16.06	32.08	30.57	20.37
Czech Republic	16.28	35.32	30.70	17.70
Denmark	16.62	33.54	:	24.13
Germany	16.89	33.47	:	15.44
Estonia	19.25	36.73	:	:
Ireland	:	:	:	:
Greece	19.07	:	35.00	44.83
Spain	18.09	29.07	30.37	11.23
France	23.87	22.17	41.00	36.71
Croatia	15.77	30.38	23.39	15.54
Italy	28.51	:	:	37.76
Cyprus	:	:	:	25.71
Latvia	15.50	29.52	:	15.85
Lithuania	15.73	29.32	:	15.43
Luxembourg	14.94	29.76	:	20.53
Hungary	16.06	34.05	32.06	19.80
Malta	:	:	:	28.25
Netherlands	15.80	32.50	:	10.19
Austria	13.48	29.01	24.51	12.25
Poland	16.39	31.61	:	12.45
Portugal	18.23	:	33.00	15.23
Romania	17.03	30.02	28.23	34.28
Slovenia	16.91	30.75	:	16.45
Slovakia	14.80	33.50	27.80	26.77
Finland	16.95	36.48	:	14.61
Sweden	16.30	30.92	:	26.62
United Kingdom	18.62	32.26	:	17.11

Source: Eurostat (online data code: apri_ap_crpouta)

Table 3.9: Selling prices of animal products, 2014
(EUR)

	Cows	Pigs (light)	Chickens (live 1st choice)	Raw cows' milk actual fat content (per 100 litres)	Fresh eggs (per 100 items)
	(per 100 kg live weight)				
Belgium	191.90	:	92.82	36.12	5.10
Bulgaria	88.67	118.18	102.68	:	6.04
Czech Republic	108.28	119.91	86.70	:	6.69
Denmark	99.86	99.60	89.01	40.08	8.77
Germany	:	:	94.00	37.85	11.59
Estonia	:	:	:	29.97	:
Ireland	:	:	:	36.48	7.79
Greece	151.13	207.96	151.46	43.16	18.37
Spain	140.45	128.46	115.04	35.38	7.54
France	284.69	130.92	182.86	37.50	2.91
Croatia	95.43	110.57	98.17	35.60	9.61
Italy	:	223.75	126.26	44.32	13.51
Cyprus	171.61	:	:	:	11.13
Latvia	80.07	115.76	:	:	6.91
Lithuania	85.31	115.01	91.34	28.03	6.28
Luxembourg	192.90	:	407.30	37.73	16.50
Hungary	:	128.44	91.42	35.15	5.85
Malta	:	:	124.85	46.84	8.98
Netherlands	124.55	109.98	88.66	40.75	5.53
Austria	123.53	129.07	107.66	39.46	13.89
Poland	:	:	88.63	32.83	5.81
Portugal	203.83	:	55.27	35.26	7.16
Romania	108.21	132.86	92.53	28.00	7.84
Slovenia	106.16	194.58	110.58	35.49	10.89
Slovakia	94.00	122.00	92.29	34.54	7.04
Finland	:	:	:	46.93	6.39
Sweden	:	:	:	41.30	8.26
United Kingdom	:	144.20	:	36.57	6.76

Source: Eurostat (online data code: apri_ap_anouta)

DATA SOURCES AND AVAILABILITY

Economic accounts for agriculture (EAA) are a satellite account of the European system of accounts (ESA 2010). They cover the agricultural products and services produced over the accounting period sold by agricultural units, held in stocks on farms, or used for further processing by agricultural producers. The concepts of the EAA are adapted to the particular nature of the agricultural industry: for example, the EAA includes not only the production of grapes and olives but also the production of wine and olive oil by agricultural producers. It includes information on intra unit consumption of crop products used in animal feed, as well as output accounted for by own account production of fixed capital goods and own final consumption of agricultural units.

The EAA comprises a production account, a generation of income account, an entrepreneurial income account and some elements of a capital account. For the production items, EU Member States transmit to Eurostat values at basic prices, as well as their components (values at producer prices, subsidies on products, and taxes on products).

The output of agricultural activity includes output sold (including trade in agricultural goods and services between agricultural units), changes in stocks, output for own final use (own final consumption and own-account gross fixed capital formation), output produced for further processing by agricultural producers, as well as intra-unit consumption of livestock feed products. The output of the agricultural sector is made up of the sum of the output of agricultural products and of the goods and services produced in inseparable non-agricultural secondary activities; animal and crop output are the main product categories of agricultural output.

Three indicators are computed in relation to agricultural income:

- an index of real income of factors in agricultural activity per AWU (indicator A);
- an index of real net agricultural entrepreneurial income, per unpaid AWU (indicator B); and
- the net entrepreneurial income of agriculture (indicator C).

The information presented on agricultural income relates to indicator A (the real income of factors in agriculture per AWU). This indicator corresponds to the real (deflated) net value added at factor cost of agriculture per AWU. Net value added at factor cost is calculated by subtracting from the value of agricultural output at basic prices the value of intermediate consumption, the consumption of fixed capital, and adding the value of (other) subsidies less taxes on production.

Agricultural price statistics provide information on the development of producer (output) prices for agricultural products and purchaser prices for the means of agricultural production (the intermediate consumption of goods and services within the production process). Data on prices are available for single commodities and for larger aggregates in the form of absolute prices and price indices.

The index of producer prices for agricultural products is based on sales of agricultural products, while the input index (for intermediate goods and services) is based on purchases of the means of agricultural production. Prices should be recorded at points which are as close as possible to those of the transactions which the farmer actually undertakes. This means that product prices should be recorded at the first marketing stage so as to best indicate the actual producer prices received by farmers. Similarly the prices paid by farmers for their means of production should be recorded at the last marketing stage, that at which the items arrive on the farm, so as to best indicate the purchase prices paid by farmers. It is assumed, by convention, that the fertilisers and feeding stuffs purchased are used in the same production period and that there are no stocks on farm.

As regards spatial comparisons, the structure of the weights with respect to products and means of production reflect the value of the sales and purchases in each country during the base year (currently 2010 = 100); the weights therefore differ from one country to another.

Selling prices for a range of agricultural products are likewise recorded at the first marketing stage often prices from the farmer to the trade (excluding transport). In most cases the selling prices collected relate to a standard quantity of 100 kilograms, while selling prices per 100 litres are used for liquids and prices per 100 items for eggs.

4

Agricultural products

Introduction

There is a diverse range of natural environments, climates and farming practices across the European Union (EU), reflected in the broad array of food and drink products that are made available for human consumption and animal feed, as well as a range of inputs for non-food processes. Indeed, agricultural products form a major part of the cultural identity of the EU's people and regions.

Statistics on agricultural products may be used to analyse developments within agricultural markets to help distinguish between cycles and changing production patterns. They can also be used to study how markets respond to policy actions. Additional agricultural product data provide supply-side information, furthering the understanding of price developments which are of particular interest to agricultural commodity traders and policy analysts.

4.1 Crop production

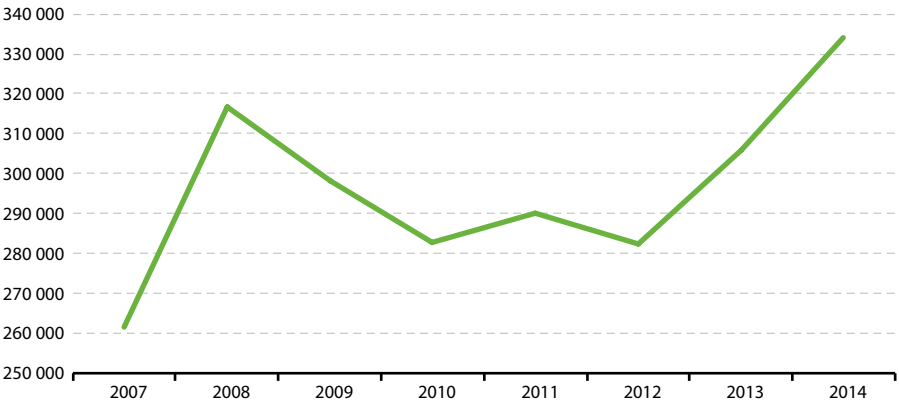
The term 'crop' covers a very broad range of cultivated plants. Within each type of crop there can also be considerable diversity in terms of genetic and phenotypic (physical or biochemical) characteristics. The range and variety of crops grown across the European Union (EU) reflects their heritable traits as well as the ability of plant breeders to harness those traits to best respond to the myriad of topographic and climatic conditions, pests and diseases.

The statistics on crop production in this article are shown at an aggregated level and have been selected from over 100 different crop products for which official statistics are collected.

Cereals

The harvested production of cereals (including rice) in the EU-28 was estimated to be around 334.2 million tonnes in 2014. This represented about 13 % of global cereal production (based on estimates made by the United Nations' Food and Agriculture Organization), making the EU one of the world's biggest producers of cereals. EU-28 production of cereals in 2014 was an estimated 28.5 million tonnes higher than in 2013 and 17.4 million tonnes (or 5.5 %) more than the previous peak production level recorded in 2008 (see Figure 4.1).

Figure 4.1: Production of cereals, EU-28, 2007–14 ([1])
(1 000 tonnes)



([1]) EU-27: 2007–13; EU-28: 2014.
Source: Eurostat (online data code: apro_acs_a)

Table 4.1: Production of cereals, 2014
(1 000 tonnes)

	Total (incl. rice)	Common wheat and spelt	Rye and maslin	Barley	Grain maize and CCM	Triticale
EU-28	334 182	149 862	9 345	60 711	78 170	13 163
Belgium	3 173	1 919	:	400	779	40
Bulgaria	9 523	5 319	28	851	3 136	60
Czech Republic	8 779	5 442	130	1 967	832	244
Denmark	9 764	5 153	678	3 548	73	96
Germany	52 010	27 711	3 854	11 563	5 142	2 972
Estonia	1 222	616	50	458	0	25
Ireland	2 567	710	0	1 710	0	0
Greece	4 670	581	35	395	2 170	22
Spain	20 397	5 699	229	6 934	4 692	450
France	72 715	37 501	128	11 775	18 542	2 023
Croatia	3 048	643	3	176	2 100	61
Italy	19 233	3 106	12	846	9 240	0
Cyprus	71	0	0	27	0	0
Latvia	2 227	1 468	114	419	:	27
Lithuania	5 123	3 231	85	1 019	115	395
Luxembourg	169	78	6	46	2	30
Hungary	16 448	5 169	95	1 279	9 169	488
Malta	0	0	0	0	0	0
Netherlands	1 767	1 304	7	197	240	9
Austria	5 710	1 737	250	846	2 334	303
Poland	31 951	11 636	3 229	3 275	4 468	5 246
Portugal	1 349	95	18	38	897	47
Romania	22 439	7 769	26	1 834	12 041	282
Slovenia	647	173	7	90	348	20
Slovakia	4 708	2 020	54	676	1 814	49
Finland	4 157	1 089	76	1 861	0	0
Sweden	5 790	3 088	176	1 573	11	226
United Kingdom	24 525	16 606	56	6 911	26	49
Norway	1 168	375	37	481	0	0
Turkey	32 382	15 706	301	6 300	5 950	110
Bosnia and Herzegovina	1 081	170	10	49	798	34

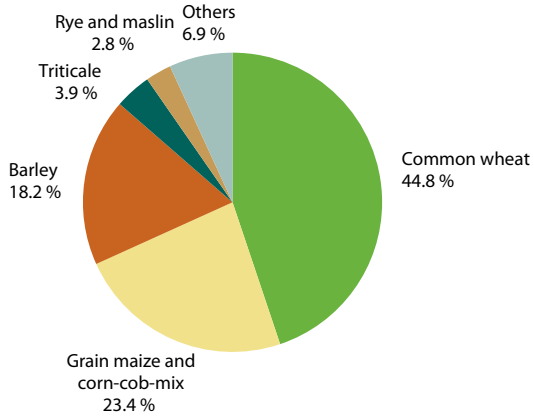
Source: Eurostat (online data code: apro_acs_a)

Common wheat and spelt, barley, grain maize and corn-cob-mix accounted for a high share (86.4 % in 2014) of the cereals produced in the EU-28 (see Figure 4.2). Between 2012 and 2014, the EU-28 level of production rose for all main types of cereals; the increase was only higher for grain maize and corn-cob-mix (30.7 %), common wheat and spelt had an increase of 19.9 % while barley grew 10.8 % between this two year period (see Figure 4.3).

France accounted for more than one fifth (21.8 %) of the EU-28's cereal production in 2014. Germany (15.6 %) and Poland (9.6 %) together contributed to a quarter of the EU total. The United Kingdom was the next largest cereal producer accounting for 7.3 % of the EU-28 output. Among the EU Member States, France was the largest producer of common wheat, barley and grain maize and corn-cob-mix in 2014 (see Figure 4.4). The largest absolute increase in cereal production between 2013 and 2014 was recorded for France (5.4 million tonnes) while Spain presented the highest decrease (– 5.0 million tonnes).

Triticale, which is a hybrid of wheat (Triticum) and rye (Secale), is mainly used for animal feed. Triticale production in the EU-28 amounted to 13.2 million tonnes in 2014 and increased moderately (by 14.8 %) from 2013. Poland produced almost two fifths (39.9 %) of the total EU-28 triticale in 2014.

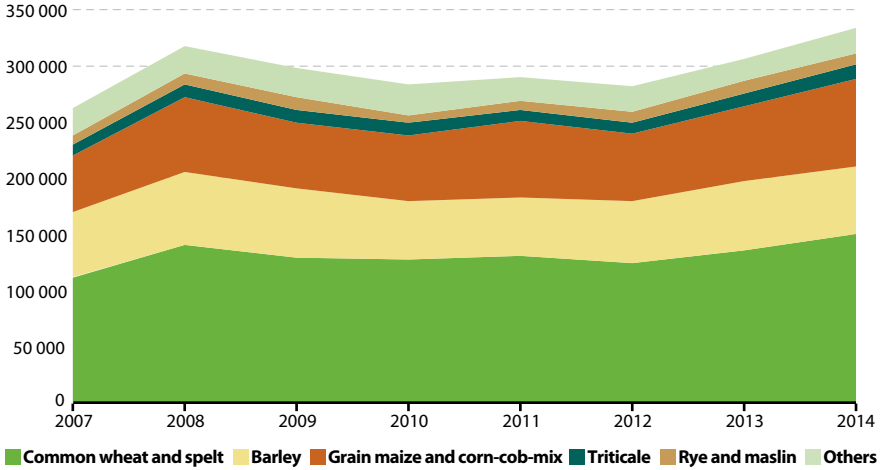
Figure 4.2: Production of cereals, EU-28, 2014
(% of total production of cereals)



EU total: 334.2 million tonnes

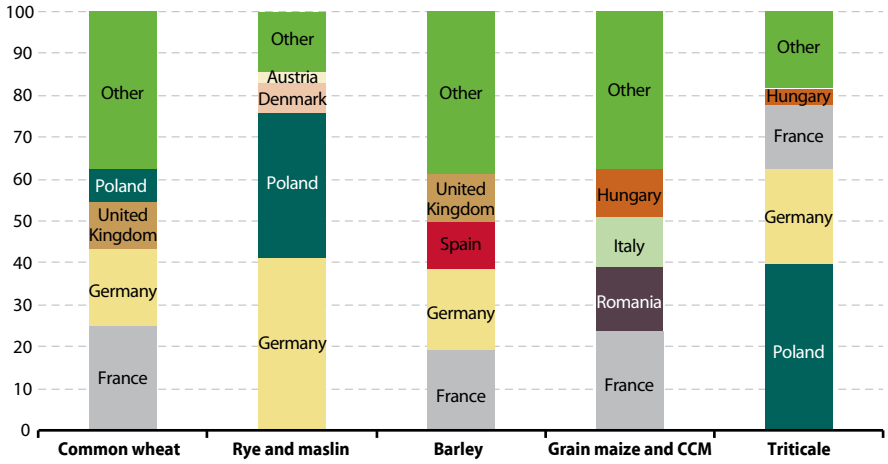
Source: Eurostat (online data code: apro_acs_a)

Figure 4.3: Production of cereals, by types, EU-28, 2007–14
(1 000 tonnes)



Source: Eurostat (online data code: apro_acs_a)

Figure 4.4: Production of cereals, by main producing EU Member States, 2014
(% of EU-28 total)

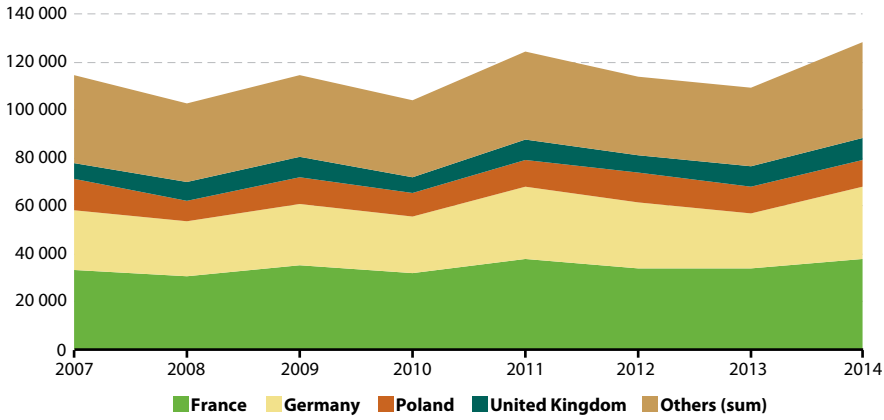


Source: Eurostat (online data code: apro_acs_a)

Sugar beet

The EU is the world's leading producer of sugar beet, with around 50 % of the global production according to the European Commission's Directorate- General of Agriculture and Rural Development ([1]). However, beet sugar only represents 20 % of the world's sugar production. The remaining 80 % are produced from sugar cane. Most of the EU's sugar beet is grown in the northern part of Europe, where the climate is more suitable. The most competitive producing areas are in northern France, Germany, the United Kingdom and Poland. The EU sugar market is regulated by production quotas, minimum beet prices and trade mechanisms. Following the major reform of the sugar beet market in 2006, which led to simplifications and greater market orientation of the EU's sugar policy, the EU has become a net importer of sugar.

Figure 4.5: Production of sugar beet, by main producing EU Member States, 2007–14 ([1])
(1 000 tonnes)



([1]) Sum of the production in the EU-28 Member States.
Source: Eurostat (online data code: apro_acs_a)

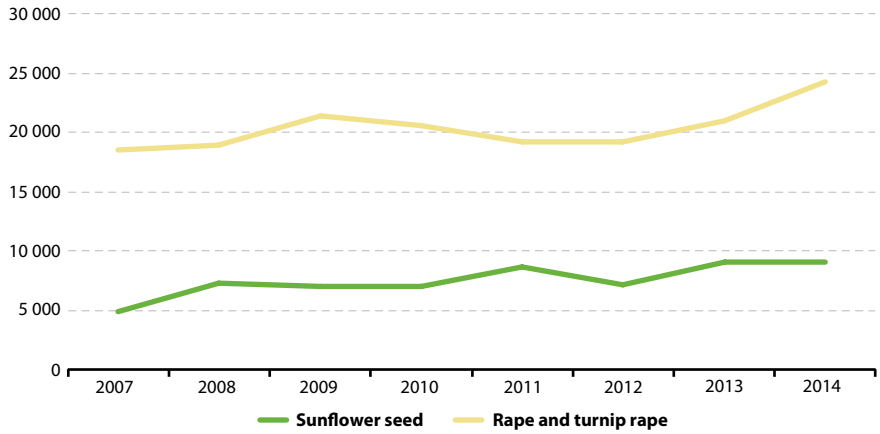
The EU-28 produced 128.4 million tonnes of sugar beet in 2014 — 19.4 million tonnes more than in 2013 (see Figure 4.5). The production has fluctuated between 102 and 114 million tonnes from 2007 to 2013, except for the relative high of 2011, when output reached 124.0 million tonnes. More than half of the EU-28 sugar beet production in 2014 came from France (29.5 %) and Germany (23.2 %) combined, with Poland (9.0 %) and the United Kingdom (7.3 %) being the next largest producers.

([1]) See http://ec.europa.eu/agriculture/sugar/index_en.htm

Oilseeds

Rape and turnip rape, and sunflower seeds are the main types of oilseeds produced in the EU-28. An estimated 24.3 million tonnes of rape and turnip rape were produced in 2014, a much larger volume than in 2013 (+15.7 %). In 2014, Germany produced more than a quarter (25.7 %) of rape and turnip rape in the EU-28. By comparison, an estimated 9.0 million tonnes of sunflower seeds were produced across the EU-28 in 2014. This was very close to the 2013 figure for sunflower seeds (9.1 million tonnes) and marked a slight increase (+ 5.0 %) compared with the most recent peak in production (8.6 million tonnes recorded in 2011) (see Figure 4.6). Bulgaria and Romania were the leading producers of sunflower in 2014, with shares of 22.2 % and 23.6 %, respectively.

Figure 4.6: Production of rape and turnip rape and sunflower seeds, EU-28, 2007–14
(1 000 tonnes)



Source: Eurostat (online data code: apro_acs_a)

Vegetables

The EU produces a broad range of fruits and vegetables thanks to its varied climatic and topographic conditions. It is one of the main global producers of tomatoes for example. Open-air production is typical in southern EU Member States and is complemented by all-season greenhouses production which is typical of countries such as the Netherlands or Belgium. The EU-28 produced an estimated 16.8 million tonnes of tomatoes in 2014, of which approximately two thirds came from Italy and Spain.

The EU-28 also produced an estimated 5.5 million tonnes of carrots and 6.4 million tonnes of onions in 2014 (see Table 4.2). Carrot production was relatively high in Poland and the United Kingdom — together these two countries accounted for more than one quarter (14.2 % and 14.9 % respectively) of EU-28 output in 2014. The production of carrots in these two EU Member States remained relatively stable during the 2000–14 period, at around 0.7–0.8 million tonnes. The Netherlands and Spain are the EU's principal onion producing countries, accounting together for a little over two fifths (46.0 %) of EU-28 output in 2014.

Fruit

Around 14 million tonnes of apples were produced in the EU-28 in 2014. Apples are produced in almost all EU Member States, although Poland, Italy and France are by far the largest producers. Citrus fruit production in the EU is much more restricted by climatic conditions; the vast majority of citrus fruits (59.8 %) are produced in Spain.

Table 4.2: Production of fruit and vegetables, 2014
(1 000 tonnes)

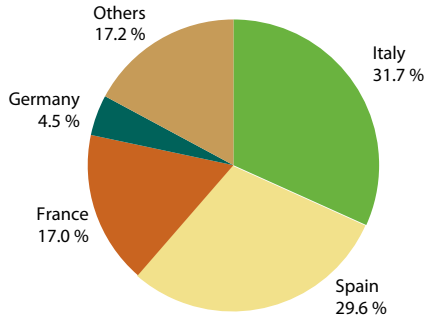
	Tomatoes	Carrots	Onions	Apples	Peaches	Citrus fruits
EU-28	16 837	5 537	6 356	14 304	2 894	11 773
Belgium	249	328	102	318	0	0
Bulgaria	120	10	13	55	28	0
Czech Republic	9	26	38	128	1	0
Denmark	13	107	52	35	0	0
Germany	85	609	590	1 116	0	0
Estonia	1	13	0	1	0	0
Ireland	5	37	4	14	0	0
Greece	1 054	44	238	1 533	828	1 059
Spain	4 889	376	1 365	621	931	7 043
France	778	558	372	1 892	125	51
Croatia	20	7	28	97	3	70
Italy	5 624	526	419	2 454	860	3 140
Cyprus	18	2	8	8	2	105
Latvia	5	19	7	10	0	0
Lithuania	12	61	26	52	0	0
Luxembourg	0	1	0	3	0	0
Hungary	116	100	58	779	32	0
Malta	13	1	8	0	1	0
Netherlands	900	548	1 379	353	0	0
Austria	57	107	206	310	3	0
Poland	811	823	651	3 195	10	0
Portugal	1 400	105	57	274	41	304
Romania	479	139	250	503	23	0
Slovenia	7	4	8	71	4	0
Slovakia	22	7	24	49	2	0
Finland	40	74	26	5	0	0
Sweden	15	119	53	25	0	0
United Kingdom	99	786	374	404	0	0
Norway	14	55	22	13	0	0
Serbia	128	50	43	336	91	0
Turkey	11 850	558	1 938	2 480	532	2 454
Bosnia and Herzegovina	29	20	33	45	9	0

Source: Eurostat (online data code: apro_acs_a)

Grapes

The EU is the largest wine producer in the world, accounting for about two thirds of global production according to the European Commission's Directorate-General of Agriculture and Rural Development ([2]). Of the estimated 22.6 million tonnes of grapes produced in the EU-28 in 2014, the vast majority (93 %) was destined for wine production. Italy, Spain and France were the principal wine grape producers in the EU (see Figure 4.7).

Figure 4.7: Production of grapes for wine use, by main producing EU Member States, 2014
(% of EU-28 total harvested production-tonnes)



EU-28 total: 22.6 million tonnes

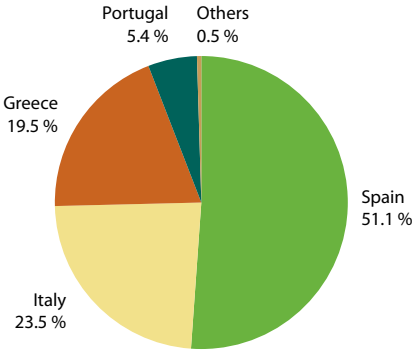
Source: Eurostat (online data code: apro_acs_a)

Olives

The EU was also the largest producer of olive oil in the world, accounting for almost three quarters of global production according to the European Commission's Directorate-General of Agriculture and Rural Development ([3]). Olive trees are grown in Spain, Italy, Greece, Portugal, France, Croatia, Cyprus, Slovenia and Malta — although 99.5 % of the olive production in the EU-28 in 2014 was concentrated in the first four of these nine EU Member States (see Figure 4.8).

([2]) See http://ec.europa.eu/agriculture/markets/wine/index_en.htm
([3]) See http://ec.europa.eu/agriculture/olive-oil/index_en.htm

Figure 4.8: Production of olives for olive oil, by main producing EU Member States, 2014
(% of EU-28 total)



EU-28 total: 8.1 million tonnes

Source: Eurostat (online data code: apro_acs_a)

DATA SOURCES AND AVAILABILITY

Statistics on crop products are obtained by sample surveys, supplemented by administrative data and estimates based on expert observations. The sources vary from one EU Member State to another because of national conditions and statistical practices. National statistical institutes or Ministries of Agriculture are responsible for data collection in accordance with EC Regulations. The finalised data sent to Eurostat are as harmonised as possible. Eurostat is responsible for establishing EU aggregates.

The statistics that are collected on agricultural products relate to more than 100 individual crop products. Information is collected for the area under cultivation (expressed in 1 000 hectares), the quantity harvested (expressed in 1 000 tonnes) and the yield (expressed in 100 kg per hectare). For some products, data at a national level may be supplemented by regional statistics at NUTS level 1 or level 2.

It should be noted that the annual crop statistics dissemination tables on the Eurostat website were renewed on 11 December 2015. The structure of the tables was changed and the new code lists for crop items structural dimensions and NUTS regions were taken into use. Simultaneously a major data revision was done for crop year 2014. This article refers to the data extracted in October 2015.

4.2 Livestock and meat

In recent years, the EU has been active in harmonising animal health measures and systems of disease surveillance, diagnosis and control; it has also developed a legal framework for trade in live animals and animal products. In part, this has been in response to consumer concerns regarding public health and food safety aspects of animal health. In this regard, the European Commission established a framework for animal health and welfare measures. In addition, the 2004 revision of the legislation on the hygiene of foodstuffs — known as the 'Hygiene package' — was implemented in the enlarged EU, with the aim of ensuring the hygiene of foodstuffs at all stages of the production process through to sale.

The Single Common Market Organisation (SCMO) for the meat sector establishes common rules and policy instruments to manage the market, to restore levels of consumption of animal products, and to make animal products more competitive worldwide.

Statistics on livestock and meat production (based on the slaughter of animals fit for human consumption) give some indication of supply-side developments and adjustments, which are important to monitor the Common Agricultural Policy (CAP).

Livestock numbers

Since the early 1980s, there has been a steady downward trend in the number of livestock on agricultural holdings across the EU.

In 2014, looking at EU Member States, Germany, Spain, France and the United Kingdom held the largest number of livestock. The largest number of pigs was recorded in Germany and Spain (28.3 and 26.6 million heads respectively), bovines in France (19.3 million heads) and sheep (23.0 million heads) in the United Kingdom, as shown in Table 4.3.

Table 4.3: Livestock numbers, 2014
(million heads)

	Bovine animals	Pigs	Sheep (1)	Goats (2)
EU-28	88.39	148.31	*83.13*	*10.58*
Belgium	2.48	6.35	:	:
Bulgaria	0.56	0.55	1.34	0.29
Czech Republic	1.37	1.61	:	:
Denmark	1.55	12.71	:	:
Germany	12.74	28.34	1.60	0.12
Estonia	0.26	0.36	:	:
Ireland	6.24	1.51	3.32	0.00
Greece	0.66	1.05	9.07	4.25
Spain	6.08	26.57	15.43	2.70
France	19.25	13.29	7.17	1.27
Croatia	0.44	1.16	0.61	0.06
Italy	6.13	8.68	7.17	0.94
Cyprus	0.06	0.34	0.32	0.24
Latvia	0.42	0.35	:	:
Lithuania	0.74	0.71	0.12	0.01
Luxembourg	0.20	0.09	:	:
Hungary	0.80	3.14	1.19	0.07
Malta	0.01	0.05	0.01	0.00
Netherlands	4.17	12.07	1.07	0.44
Austria	1.96	2.87	0.35	0.07
Poland	5.66	11.27	:	:
Portugal	1.55	2.13	2.03	0.38
Romania	2.07	5.04	9.52	1.42
Slovenia	0.47	0.28	:	:
Slovakia	0.47	0.64	0.39	0.04
Finland	0.91	1.22	:	0.00
Sweden	1.44	1.47	0.59	0.00
United Kingdom	9.69	4.49	23.03	0.00
Iceland	0.07	0.04	:	:
Montenegro	0.09	0.02	0.20	0.03
FYR of Macedonia	0.24	0.17	:	:
Serbia	0.92	3.24	1.75	0.22
Turkey	14.24	:	31.12	10.35

(1) Figures on sheep population are due only by 14 EU Member States. The EU aggregate is estimated on their sum.
(2) Figures on goat population are due only by 5 EU Member States. The EU aggregate is estimated on their sum.
Source: Eurostat (online data codes: apro_mt_lscatl, apro_mt_lspig, apro_mt_lssheep and apro_mt_lsgoat)

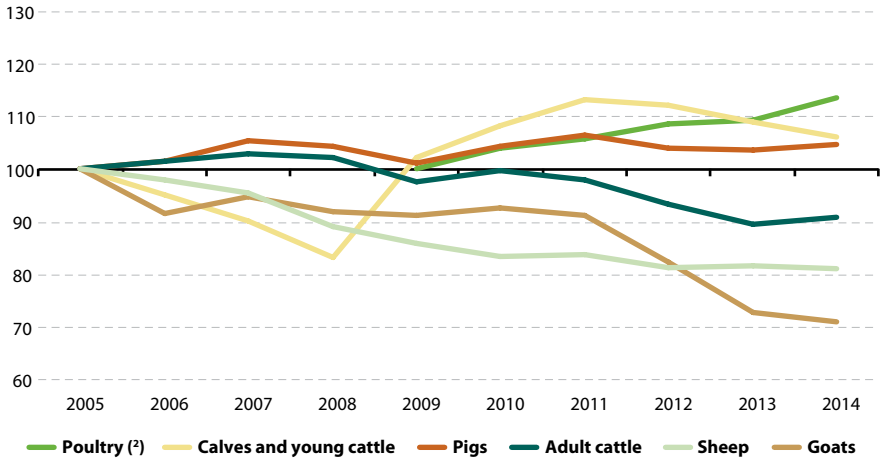
Meat production

There have been considerable structural changes in EU livestock farming since the 1980s. Smallholders on mixed farms have gradually given way to larger-scale, specialised livestock holdings.

Pig meat production for the EU-28 increased 0.9 % from 2013 to 2014, reaching 22.1 million tonnes. The production of pig meat fluctuated within a relatively narrow range (+/– 6 %) during the 2005–14 period. The production of meat of adult cattle also increased by 1.3 % between 2013 and 2014. Poultry meat production rose by an estimated 3.8 % between 2013 and 2014 confirming the upward trends in the production of this type of meat in recent years (Figure 4.9).

By contrast, between 2013 and 2014 sheep, goat and veal meat production decreased by 0.7 %, 2.7 % and 2.7 % respectively (see Figure 4.9 and Table 4.4).

Figure 4.9: Production of meat, by type of animal in tonnes, EU-28, 2005–14 ([1])
(2005 = 100)



([1]) Up to 2009, including other slaughtering; from 2009 onwards, excluding other slaughtering.
([2]) Poultry: 2009 = 100.
Source: Eurostat (online data code: apro_mt_pann)

Table 4.4: Production of meat, by type of animal, 2014
(1 000 tonnes of carcass weight)

	Bovine animals	Pig	Sheep	Goat	Poultry (1)
EU-28	*7 326.4*	22 135.8	*705.0*	*46.3*	*13 200.0*
Belgium	257.7	1 118.3	2.4	0.1	433.3
Bulgaria	4.8	53.7	:	:	97.9
Czech Republic	65.5	236.0	0.2	0.0	149.4
Denmark	125.6	1 587.4	1.7	0.0	143.0
Germany	1 128.0	5 507.0	19.0	0.0	1 527.0
Estonia	*8.9*	40.6	0.1	0.0	:
Ireland	581.8	254.1	57.9	0.0	:
Greece	46.0	96.2	58.4	23.9	190.5
Spain	578.6	3 620.2	114.2	8.6	1 436.7
France	1 420.4	1 943.6	80.5	6.2	1 678.0
Croatia	44.4	68.7	0.8	:	*59.1*
Italy	709.4	1 327.8	25.3	1.3	1 242.8
Cyprus	4.6	42.6	3.1	2.1	21.7
Latvia	17.0	28.2	0.2	0.0	28.6
Lithuania	39.1	66.5	0.1	0.0	93.3
Luxembourg	8.5	11.9	0.0	0.0	0.0
Hungary	23.1	368.6	0.3	0.0	430.1
Malta	1.1	6.2	0.1	0.0	3.9
Netherlands	376.2	1 370.9	12.7	1.6	:
Austria	221.6	525.6	7.2	0.8	:
Poland	412.7	1 838.5	0.6	0.0	1 804.1
Portugal	79.8	360.0	10.2	0.7	295.2
Romania	29.2	324.9	4.8	:	345.6
Slovenia	31.6	20.2	0.1	0.0	59.8
Slovakia	8.8	33.8	0.6	0.0	:
Finland	82.3	186.1	1.0	0.0	113.4
Sweden	142.0	236.2	5.1	0.0	133.7
United Kingdom	877.6	862.1	298.2	0.3	1 642.6
Iceland	3.7	6.4	10.1	0.0	8.2
Montenegro	3.9	0.4	0.8	0.0	0.5
Serbia	36.9	150.5	1.3	0.0	55.3
Turkey	:	:	:	:	1 943.4

(1) EU-28 value rounded at 100 000 tonnes for protection of national values.
Source: Eurostat (online data code: apro_mt_pann)

While 'veal' reflects slaughtering of bovine animals younger than one year (calves and young cattle), 'beef' reflects slaughtering of older bovine animals. Beef is mainly produced from cattle breeds grown specifically for their meat but can also come from dairy cattle. Male calves from dairy cows are of no use for producing milk and most of these are used for veal production. Just less than two thirds of the bovine meat produced in the EU-28 came from either bulls (33 %) or cows (30 %) in 2014 (Table 4.5). In many EU Member States this proportion was even higher. However in Ireland and the United Kingdom a majority (65 % and 68 % respectively) of the beef produced in 2014 came from heifers (over one-year old females that did not calve) and bullocks (over one-year old castrated males).

Germany produced about one quarter (24.9 % or 5.5 million tonnes) of the EU-28's pig meat in 2014, while Spain produced one sixth (16.4 % or 3.6 million tonnes) of the total (Figure 4.10).

France (19.1 %), Germany (17.0 %) and the United Kingdom (13.7 %) made up almost half (49.8 %) of total EU-28 beef production in 2014. Beef production in each of these countries was higher in 2014 than a year earlier. The growth rate was higher in the United Kingdom (3.4 %), in Germany it was (2.4 %) and in France the production of beef grew 1.5 % between 2013 and 2014, still above the EU-28 growth rate (1.3 %).

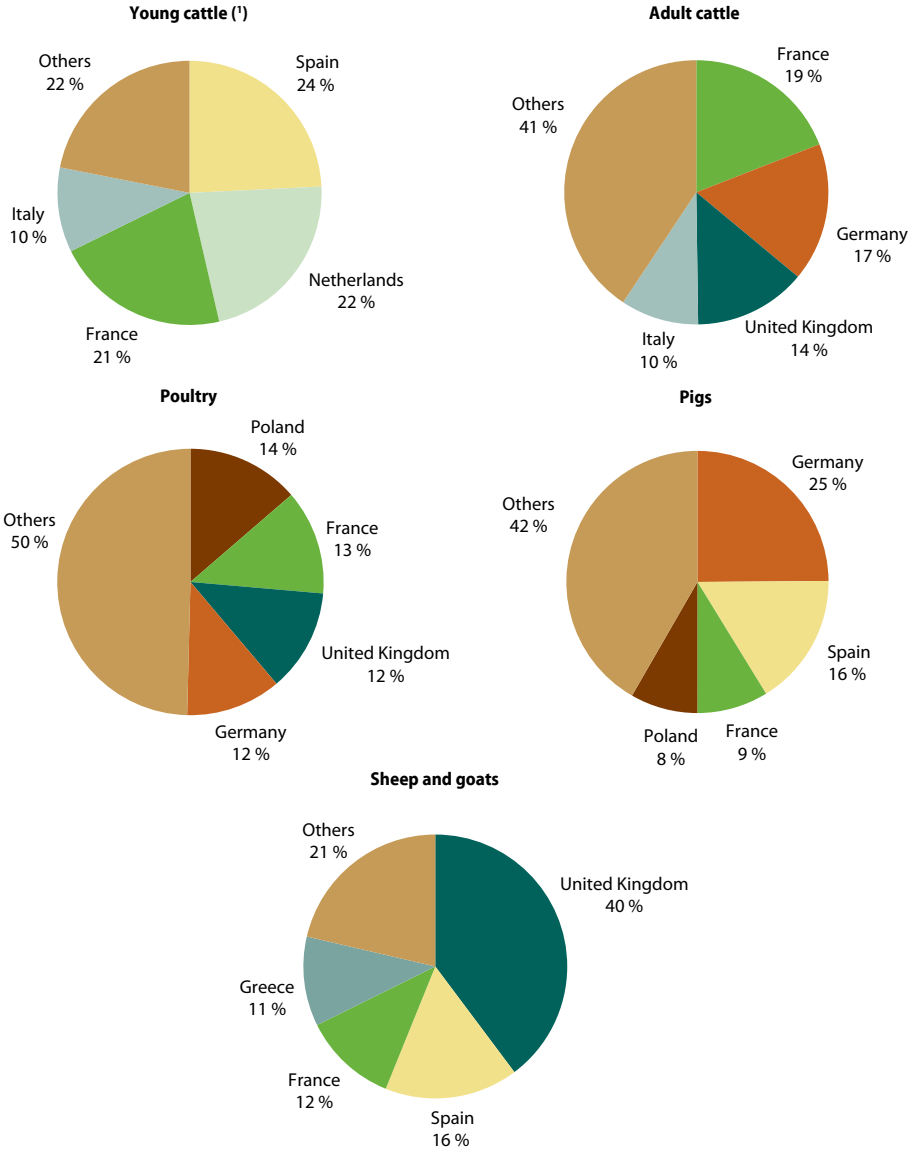
The United Kingdom (39.7 %) and Spain (16.4 %) contributed with 56.1 % of total EU-28 sheep and goat meat production in 2014. Germany, France, Poland, and the United Kingdom, each accounted for 12 to 14 % of the total production of poultry meat in the EU-28 in 2014.

Table 4.5: Production of beef and veal, by type of bovine animals, 2014
(1 000 tonnes of carcass weight)

	Total	Calves and young cattle	Heifers	Cows	Bullocks	Bulls
EU-28 (1)	*7 326.4*	*980.8*	1 057.9	2 202.1	*685.4*	*2 402.2*
Belgium	257.7	55.5	2.6	119.6	0.0	79.9
Bulgaria	4.8	0.5	0.5	2.7	:	:
Czech Republic	65.5	0.8	4.7	25.3	0.1	34.7
Denmark	125.6	26.2	12.3	60.4	2.1	24.6
Germany	1 128.0	55.0	140.0	381.0	8.0	547.0
Estonia	*8.9*	:	1.0	5.0	0.1	2.6
Ireland	581.8	1.2	160.6	115.9	217.1	87.1
Greece	46.0	8.8	3.9	7.6	0.8	25.0
Spain	578.6	237.6	73.3	90.1	1.8	175.8
France	1 420.4	209.2	146.8	602.0	68.7	393.7
Croatia	44.4	5.1	6.2	7.9	0.0	25.2
Italy	709.4	101.7	130.9	124.2	2.3	350.4
Cyprus	4.6	0.7	0.5	1.3	0.0	2.0
Latvia	17.0	1.1	2.4	9.0	0.0	4.6
Lithuania	39.1	0.4	4.8	16.8	0.0	17.0
Luxembourg	8.5	0.2	1.6	2.0	0.3	4.5
Hungary	23.1	0.6	1.5	16.1	0.0	4.9
Malta	1.1	0.0	0.1	0.4	0.0	0.7
Netherlands	376.2	217.2	2.9	136.1	0.0	20.0
Austria	221.6	6.9	31.4	63.8	10.2	109.4
Poland	412.7	3.6	51.6	130.2	:	227.4
Portugal	79.8	19.9	9.0	16.6	0.4	33.9
Romania	29.2	6.5	1.4	14.5	1.2	5.7
Slovenia	31.6	1.8	3.2	4.9	0.2	21.6
Slovakia	8.8	0.1	0.5	4.3	0.0	4.0
Finland	82.3	0.4	10.3	23.6	0.0	48.1
Sweden	142.0	14.4	17.8	42.7	10.4	56.6
United Kingdom	877.6	5.2	236.3	178.3	361.6	96.1
Iceland	3.7	0.0	0.0	1.3	0.0	1.2
Montenegro	3.9	2.7	0.2	0.4	0.0	0.6
Serbia	36.9	3.2	2.4	5.6	0.3	25.4

(1) The EU-28 totals do not include the confidential data.
Source: Eurostat (online data code: apro_mt_pann)

Figure 4.10: Production of meat, 2014
(% share of EU-28 total)



(1) Including calves.
Source: Eurostat (online data code: apro_mt_pann)

DATA SOURCES AND AVAILABILITY

Livestock and meat statistics are collected by EU Member States under Regulation (EC) No 1165/2008 of the European Parliament and of the Council of 19 November 2008, which covers bovine, pig, sheep and goat livestock; slaughtering statistics on bovine animals, pigs, sheep, goats and poultry; and production forecasts for beef, veal, pig meat, sheep meat and goat meat.

Livestock surveys cover sufficient agricultural holdings to account for at least 95% of the national livestock population, as determined by the last survey on the structure of agricultural holdings.

Bovine and pig livestock statistics are produced twice a year, with reference to a given day in May/June and a given day in November/December. Those EU Member States whose bovine animal populations are below 1.5 million head or whose pig populations are below 3.0 million head may produce these statistics only once a year, with reference to a given day in November/December. The November/December results are available for all EU Member States and are used in this article.

Sheep livestock statistics are only produced once a year, with reference to a given day in November/December, by those EU Member States whose sheep populations are 500 000 head or above; the same criteria and thresholds apply for statistics on goat populations.

Statistics on the slaughtering of animals in slaughterhouses are produced monthly by each EU Member State, the reference period being the calendar month. Statistics on slaughtering carried out other than in slaughterhouses is produced annually, the reference period being the calendar year.

5

Agriculture and environment

5.1. Organic farming

The EU recognises the benefits offered by organic farming, both to consumers and to the environment. The Common Agricultural Policy (CAP) considers organic farming an important element to the development of the European agricultural systems. It is essential for strengthening the links between farmers and consumers. Organic farms are often leaders in the sector's entrepreneurship networks setting new frontiers in the dynamics of agricultural development. Organic products also represent a growing share in the EU food market. In 2014, an 'Action Plan for the future of Organic Production in the European Union' was launched by the European Commission. The plan has three major lines of action:

- the development of the European organic sector (new EU instruments, developing research and innovation, and also targeting consumer awareness);
- ensuring consumer confidence in the organic products (more research and innovation to overcome challenges in organic rules);
- reinforce the external dimension of EU organic production.

Total organic area

Total organic area still increasing in the EU

The total organic area in the EU-28 (i.e. the area fully converted to organic production and area under conversion) was 10.3 million hectares (ha) in 2014 and continues to show an upward trend. The increase in area between 2013 and 2014 was 2.3 %, compared with + 0.2 % between 2012 and 2013 (see Table 5.1).

From 2013 to 2014, Croatia, Malta and Slovakia recorded growths of over 10 %. As showed in Figure 5.1, in absolute values, Spain presented the highest increase (100 300 ha), followed by Italy (70 700 ha). In 12 EU Member States, the area of organic crops decreased between 2013 and 2014. The most significant declines were in Bulgaria and Cyprus where the organic area fell by 8 373 ha (– 15 %) and 428 ha (– 10 %), respectively.

The size of the organic area differs considerably from one EU Member State to another. In terms of the total organic area of each EU Member State as a share of the total EU-28 organic area, four countries together accounted for around 51 % in 2014: Spain (16.6 %), Italy (13.5 %) France (10.8 %) and Germany (10.0 %) (see Figure 5.2).

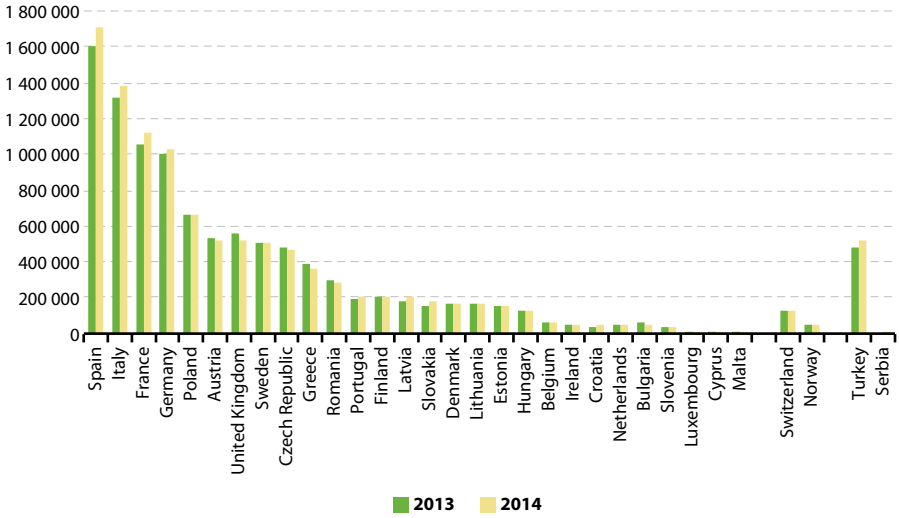
(1) Organic production area in 2013 and 2014 compared with UAA from the Farm Structure Survey 2013.

Table 5.1: Total organic area (fully converted and under conversion), 2013 and 2014

	Organic area (ha)		Change 2013–14 (%)
	2013	2014	
EU-28	**10 084 908**	**10 315 170**	**2.3**
Belgium	62 471	66 704	6.8
Bulgaria	56 287	47 914	–14.9
Czech Republic	474 231	472 663	–0.3
Denmark	169 298	165 773	–2.1
Germany	1 008 926	1 033 807	2.5
Estonia	151 164	155 560	2.9
Ireland	53 812	51 871	–3.6
Greece	383 606	362 826	–5.4
Spain	1 610 129	1 710 475	6.2
France	1 060 756	1 118 845	5.5
Croatia	40 660	50 054	23.1
Italy	1 317 177	1 387 913	5.4
Cyprus	4 315	3 887	–9.9
Latvia	185 752	203 443	9.5
Lithuania	165 885	164 390	–0.9
Luxembourg	4 447	4 490	1.0
Hungary	131 018	124 841	–4.7
Malta	7	34	380.9
Netherlands	48 936	49 159	0.5
Austria	526 689	525 521	–0.2
Poland	669 863	657 902	–1.8
Portugal	197 295	212 346	7.6
Romania	301 148	289 252	–4.0
Slovenia	38 664	41 237	6.7
Slovakia	157 848	180 307	14.2
Finland	204 810	210 649	2.9
Sweden	500 996	501 831	0.2
United Kingdom	558 718	521 475	–6.7
Norway	51 662	49 827	–3.6
Switzerland	127 282	133 002	4.5
Serbia	:	9 548	:
Turkey	474 766	515 817	8.6

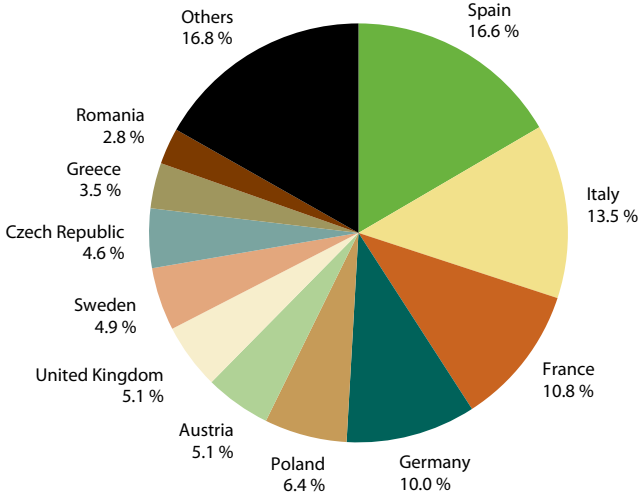
Source: Eurostat (online data code: org_cropap)

Figure 5.1: Total organic area (fully converted and under conversion), 2013 and 2014
(ha)



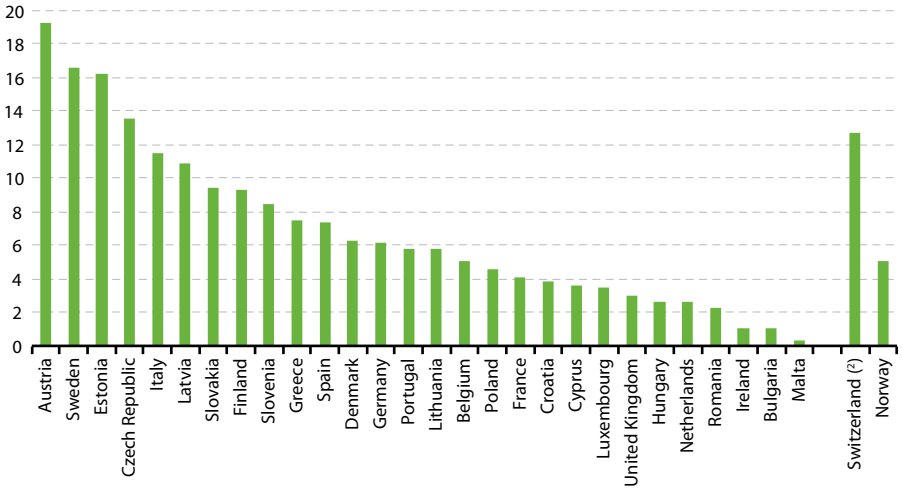
Source: Eurostat (online data code: org_cropap)

Figure 5.2: Share of total organic area (fully converted and under conversion), EU-28, 2014
(% of total EU-28)



Source: Eurostat (online data code: org_cropap)

Figure 5.3: Share of total organic area (fully converted and under conversion) in total utilised agricultural area (UAA), 2014 (1)
(%)



(1) 2014 data on organic farming area compared with 2013 FSS data on total UAA.
(2) 2010 data on FSS used in the case of Switzerland.
Source: Eurostat (online data codes: org_cropap and ef_kvaareg)

Total organic area made up 5.9 % of total EU-28 UAA in 2014

From 2013 to 2014 (1), the total organic area (i.e. fully converted and under conversion) as a percentage of the total utilised agricultural area (UAA) within the EU rose from 5.8 % to 5.9 %.

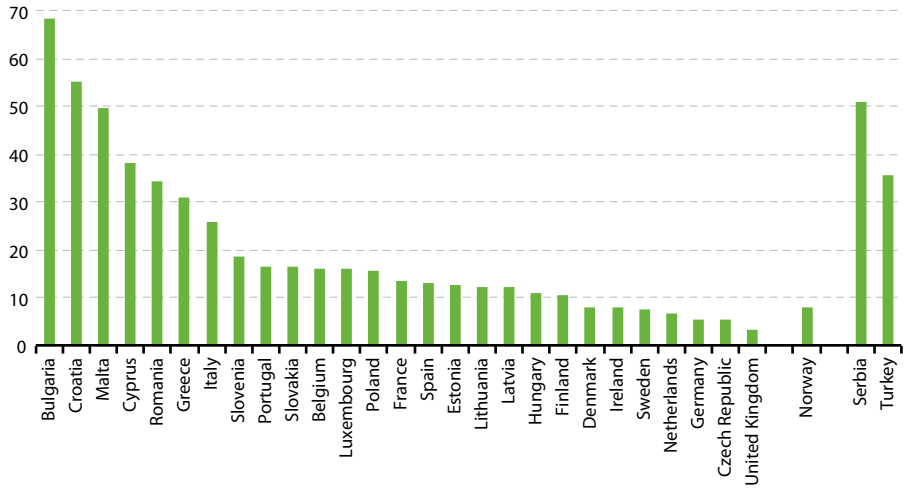
Figure 5.3 shows the organic crop area as a percentage of the total UAA by country for 2014. In Estonia, Sweden and Austria, the share of organic area was over 16 %, while in Latvia, Italy and the Czech Republic it was over 10 % of the UAA. In the remaining EU Member States, the share of organic area ranged from 0.3 % in Malta to 9.5 % in Slovakia.

Potential for growth

Considerable differences in growth potential of organic production between EU Member States

Organic production comes from fully converted areas. Before an area can be considered as 'organic', however, it must undergo a conversion process. The total organic area is the sum of the 'area under conversion' and the 'fully converted area'. The area under conversion as a percentage of the total organic area can give an indication of the potential growth in the organic sector in the years to come. In 2014, seven EU Member States had shares of less than 10 % (the United Kingdom presented the lowest value at 3.5 %), thirteen EU Member States had shares between 10 % and 20 % and seven exceeded 20 % with the biggest shares for Malta (49.7 %), Croatia (55.1 %) and Bulgaria (68.3 %) (see Figure 5.4).

Figure 5.4: Share of area under conversion, 2014 (1)
(% of total organic area — fully converted and under conversion)



(1) 2013 data for Germany, Greece and Italy. Data for Austria not available.
Source: Eurostat (online data codes: org_cropap)

Crop types

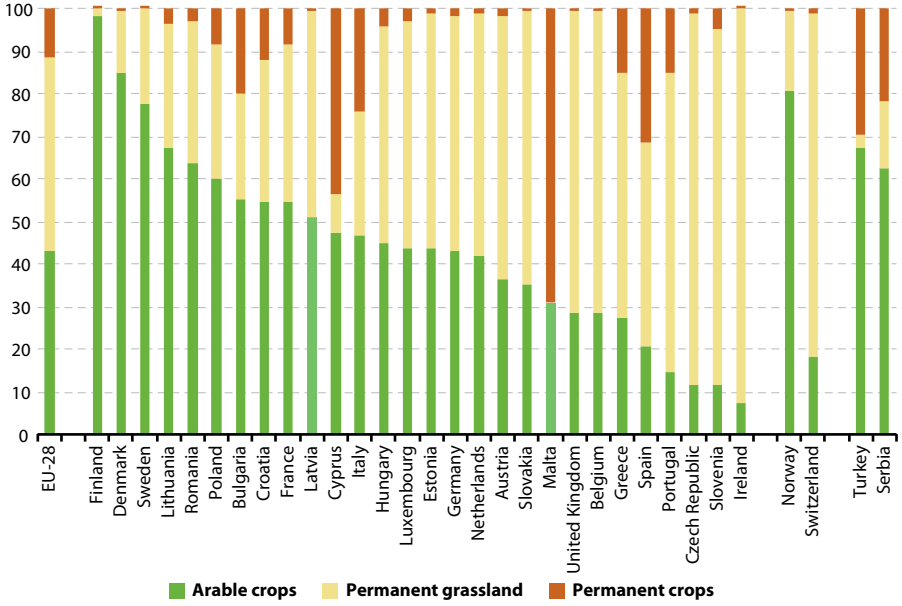
Main crop types in the organic sector: arable crops, permanent crops and permanent grassland

Organic production area is divided into three main crop types: arable land crops (mainly cereals, fresh vegetables, green fodder and industrial crops), permanent crops (fruit trees and berries, olive groves and vineyards) and permanent grassland.

Permanent grassland (mostly used for grazing organic livestock) occupied 4.7 million ha, which represented 45.7 % of the EU-28 total organic crop area. Arable crops came close with 42.8 %, while permanent crops made up the smallest share (11.5 %).

In 10 EU Member States arable land crops accounted for more than 50 % of the organic area, while in 14 EU Member States permanent grassland predominated (> 50 % of organic area). Arable crops were highly predominant in Finland, Denmark and Sweden with shares of 98 %, 85 %, and 78 % respectively. Ireland (92 %), the Czech Republic (87 %) and Slovenia (84 %) were in the lead in terms of permanent grassland (see Figure 5.5).

Figure 5.5: Arable land crops, permanent crops and permanent grassland, 2014
(% of total organic area — fully converted and under conversion)



Source: Eurostat (online data codes: org_cropap)

In most EU Member States permanent crops accounted for a relatively low share of the fully converted area of these three main types (in 16 EU Member States it was less than 5 % of the converted area). In 2014, permanent crops accounted for between 10 % and 20 % in Bulgaria, Croatia, Greece and Portugal, while in Italy and Spain the share was over 20 %. Cyprus and Malta had the highest shares, with 44 % and 69 % respectively. Olive trees dominated in these two countries.

Among the arable crops, cereals and green fodder occupied the largest area. In 14 EU Member States, these two categories together accounted for more than 80 % of the total organic arable land (fully converted and under conversion) in 2014. Lithuania and Romania had the highest shares of cereals among EU Member States (61.8 % and 55.7 % respectively) and Sweden and the United Kingdom the highest shares for green fodder (67.9 % and 62.7 % respectively). Bulgaria, with 37.4 %, had the highest share of industrial crops. The shares of fresh vegetables in Malta (32.3 %) and the Netherlands (29.2 %) were the highest in the EU-28 (see Table 5.2).

Table 5.2: Organic area of total arable land and shares of main arable land crops, 2014 (1)

	Total arable land	Cereals	Industrial crops	Green Fodder	Fresh vegetables	Other arable land (2)
	(ha)			(%)		
EU-28 (2)	**4 411 376.1**	**35.0**	**5.0**	**41.4**	**2.8**	**2.3**
Belgium	18 886.7	42.8	1.7	42.6	5.6	0.0
Bulgaria	26 382.9	40.9	37.4	7.8	4.3	0.0
Czech Republic	54 429.8	44.6	6.1	41.7	0.2	1.4
Denmark	140 995.0	36.5	0.7	54.9	1.5	0.0
Germany	447 742.0	48.8	2.4	33.7	2.5	0.8
Estonia	67 737.2	40.1	6.6	43.6	0.2	0.0
Ireland	3 899.9	35.8	0.9	50.6	5.5	0.0
Greece	100 172.6	45.0	4.3	32.5	2.1	3.5
Spain	352 522.3	43.9	3.3	6.5	3.4	0.3
France	612 488.5	22.9	6.3	50.6	2.6	4.9
Croatia	27 458.8	32.0	27.4	37.2	1.1	0.0
Italy	646 816.2	31.5	2.8	39.6	4.0	6.2
Cyprus	1 841.7	22.9	3.9	51.5	1.6	0.0
Latvia	103 578.6	30.3	1.7	59.1	0.3	0.1
Lithuania	110 770.2	61.8	9.2	1.7	0.1	0.0
Luxembourg	1 972.8	41.1	0.8	46.9	1.9	0.0
Hungary	56 149.7	42.9	17.8	24.9	3.3	1.2
Malta	10.4	4.8	0.7	13.4	32.3	0.0
Netherlands	20 589.3	17.2	0.5	41.5	29.2	0.8
Austria	191 709.8	51.0	10.0	27.5	1.5	0.0
Poland	393 238.5	28.4	1.2	60.0	7.1	0.5
Portugal	32 064.3	25.4	4.0	42.0	5.0	:
Romania	184 128.5	55.7	29.4	7.3	1.0	0.0
Slovenia	4 731.7	36.6	6.6	48.5	4.5	0.0
Slovakia	63 591.4	23.4	4.4	55.2	0.4	12.9
Finland	207 438.5	23.9	1.3	48.8	0.1	1.1
Sweden	390 252.0	23.8	1.0	67.9	0.4	0.9
United Kingdom	149 777.0	28.0	0.2	62.7	3.9	2.1
Norway	40 123.7	17.5	0.0	77.7	0.6	1.7
Switzerland	24 654.8	30.0	3.3	51.1	8.1	1.3
Serbia	5 937.4	47.6	21.7	20.3	4.9	1.7
Turkey	346 754.5	45.9	6.8	36.8	0.9	0.0

(1) Total organic area: fully converted and under conversion.
(2) Excluding dry pulses, root crops and fallow land.
Source: Eurostat (online data code: org_cropap)

Organic livestock

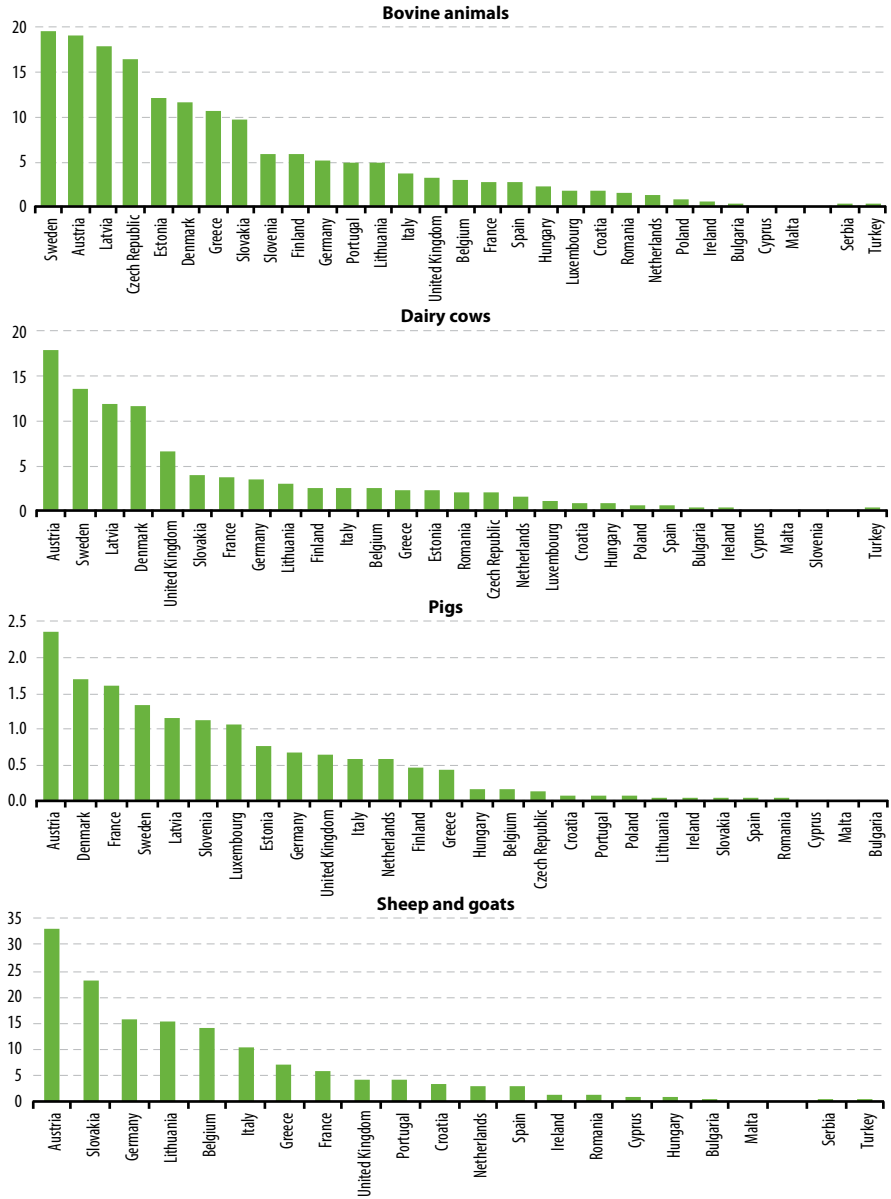
Cattle and sheep were the most popular species

The 2014 figures for organic livestock as a share of all livestock showed that, with respect to cattle, pigs and sheep, some EU Member States using organic methods were rearing remarkably large shares of animals — cattle and sheep being the most popular. In Austria, 33.0 % of the sheep and goat were reared using organic production methods, but organically reared cattle also achieved a noteworthy 19.2 % share (with organic dairy cows reaching 18.0 % of all the Austrian dairy cattle, the highest in the whole EU-28). Austria also top ranked in the organic pig production with 2.4 % of the national pig production (see Figure 5.6).

Sweden had the highest percentage of organic cattle in total cattle population with 19.6 %. Seven EU Member States had over 10 % of organic cattle, of which Denmark, Latvia, Sweden, and the already mentioned Austria, also had more than 10 % of organic dairy cows. As for organically reared pigs, they accounted for less than 1 % in most EU Member States.

The developments in the individual EU Member States from 2013 to 2014 differed according to the species (see Table 5.3). Romania and Finland recorded large increases in the number of organically farmed sheep (+ 43.0 % and + 24.3 % respectively), while Romania and Croatia accounted for the largest increases in cattle (+ 68.0 % and + 11.7 %). Estonia had the biggest increase for pigs (+ 139.4 %). In Poland, there was a significant drop in the number of organically reared cattle, pigs and sheep, which decreased by 13.3 %, 18.6 % and 8.2 % respectively. Greece and Austria recorded a negative trend in all three categories too.

Figure 5.6: Share of organic livestock in all livestock, 2014 (1)
(% of number of heads)



(1) Dairy cows: data for Portugal not available. Sheep and goats: data for the Czech Republic, Denmark, Estonia, Latvia, Luxembourg, Poland, Slovenia, Finland and Sweden not available.

Source: Eurostat (online data codes: org_lstspec, apro_mt_lscatl, apro_mt_lspig, apro_mt_lsgoat and apro_mt_lssheep)

Table 5.3: Organic livestock, 2013–14

	2013			2014			Change 2013–14		
	Cattle	Pigs	Sheep	Cattle	Pigs	Sheep	Cattle	Pigs	Sheep
	(number of heads)						(%)		
EU-28	3 552 114	923 595	4 332 667	3 630 385	915 065	4 366 042	2.2	–0.9	0.8
Belgium	76 214	11 350	14 102	76 620	9 532	15 923	0.5	–16.0	12.9
Bulgaria	1 311	0	7 894	1 344	0	7 250	2.5	0.0	–8.2
Czech Republic	213 303	1 860	101 528	224 873	1 994	100 385	5.4	7.2	–1.1
Denmark	181 508	239 453	10 257	182 131	215 581	9 820	0.3	–10.0	–4.3
Germany	621 900	193 900	226 300	643 600	195 300	230 700	3.5	0.7	1.9
Estonia	30 017	1 141	33 515	31 996	2 731	36 121	6.6	139.4	7.8
Ireland	37 473	489	42 500	38 923	479	42 201	3.9	–2.0	–0.7
Greece	71 034	4 797	610 489	70 346	4 664	604 364	–1.0	–2.8	–1.0
Spain	151 571	7 795	421 803	168 214	6 790	467 479	11.0	–12.9	10.8
France	550 121	201 201	426 412	541 129	212 854	427 873	–1.6	5.8	0.3
Croatia	6 540	1 122	19 433	7 308	961	21 690	11.7	–14.3	11.6
Italy	231 641	43 318	755 419	222 924	49 900	757 746	–3.8	15.2	0.3
Cyprus	0	0	1 060	0	0	1 306	:	:	23.2
Latvia	71 707	5 285	35 837	76 048	4 007	27 285	6.1	–24.2	–23.9
Lithuania	34 163	377	19 051	35 279	256	20 257	3.3	–32.1	6.3
Luxembourg	3 373	926	649	3 459	977	670	2.5	5.5	3.2
Hungary	19 273	4 880	7 839	18 871	5 340	7 916	–2.1	9.4	1.0
Malta	0	0	0	0	0	0	0.0	0.0	0.0
Netherlands	53 704	63 588	18 820	53 603	68 914	14 478	–0.2	8.4	–23.1
Austria	376 973	70 935	100 238	376 647	68 031	99 286	–0.1	–4.1	–0.9
Poland	44 663	9 771	32 548	38 744	7 958	29 880	–13.3	–18.6	–8.2
Portugal	69 095	2 009	88 528	74 343	1 723	91 299	7.6	–14.2	3.1
Romania	20 113	258	80 309	33 782	126	114 843	68.0	–51.2	43.0
Slovenia	25 168	2 798	34 234	27 359	3 135	35 790	8.7	12.0	4.5
Slovakia	43 142	187	106 713	44 772	175	96 976	3.8	–6.4	–9.1
Finland	49 101	5 442	19 229	52 395	5 656	23 897	6.7	3.9	24.3
Sweden	285 670	20 548	118 760	281 320	19 666	121 667	–1.5	–4.3	2.4
United Kingdom	283 336	30 165	999 200	304 355	28 315	958 940	7.4	–6.1	–4.0
Norway	31 454	2 808	49 059	27 385	2 631	46 390	–12.9	–6.3	–5.4
Switzerland	162 036	26 613	91 989	167 024	29 112	93 062	3.1	9.4	1.2
Serbia	:	:	:	2 557	44	1 285	:	:	:
Turkey	47 715	0	73 414	9 746	0	16 379	–79.6	:	–77.7

Source: Eurostat (online data code: org_lstspec)

Organic operators

More than 80 % of organic operators were producers

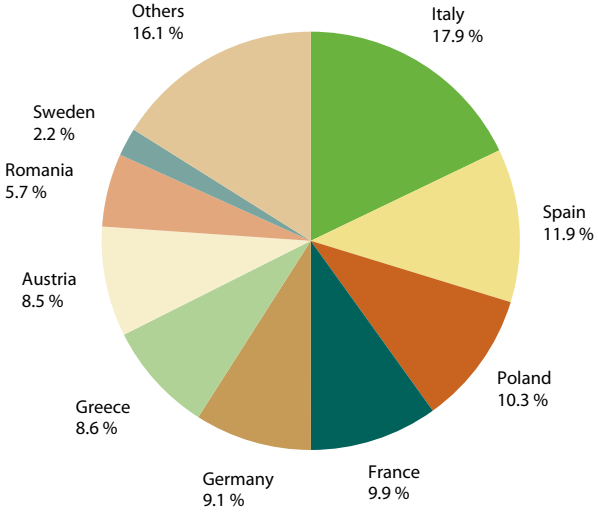
Activities within the organic sector include the food chain from production at farm level right through to industrial processing. Imports, exports and other activities, such as wholesale and retail trade, are also included.

The production of organic crops and the rearing of organic animals are the main activities in the organic sector at farm level, but the processing of goods is also important. Producers accounted for over 80 % of the 312 500 operators in 2014 in the EU-28.

The number of organic producers increased by 2.1 % between 2013 and 2014

In 2014, there were close to 257 100 organic producers in the EU-28. Spain and Poland each accounted for over 10 % of the EU-28 total, with Italy out in front with 17.9 %. France, Germany, Greece, Austria and Romania each had shares above 5 %. In 11 EU Member States the share was under 1 % (see Figure 5.7).

Figure 5.7: Leading organic producers, 2014
(% of total EU-28)



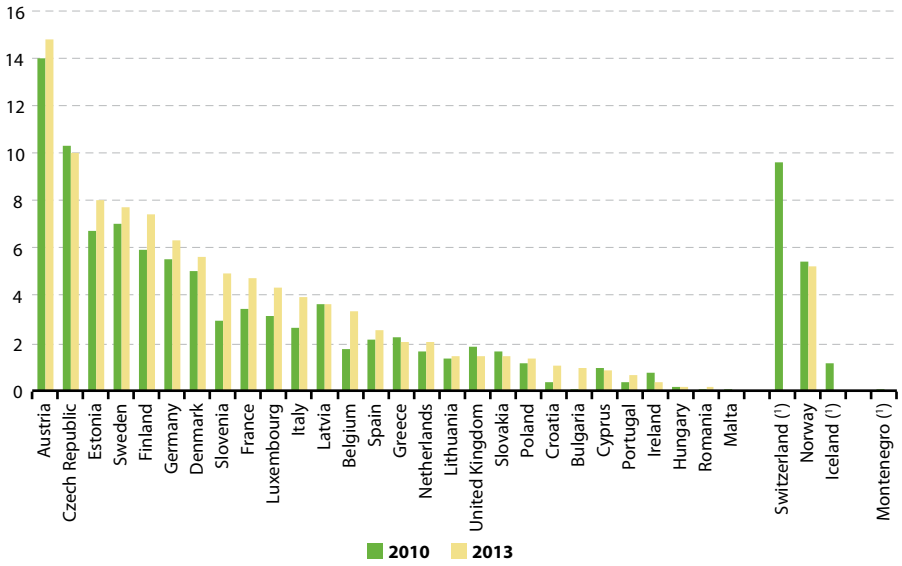
Source: Eurostat (online data code: org_coptyp)

Table 5.4: Number of organic producers, 2013–14

	Organic producers		Change 2013–14 (%)
	2013	2014	
EU-28 (1)	**251 922**	**257 124**	**2.1**
Belgium	1 435	1 656	15.4
Bulgaria	2 754	3 854	39.9
Czech Republic	3 907	3 910	0.1
Denmark	2 651	2 589	–2.3
Germany	23 032	23 271	1.0
Estonia	1 478	1 553	5.1
Ireland	:	1 351	:
Greece	23 448	21 986	–6.2
Spain	30 462	30 502	0.1
France	24 425	25 467	4.3
Croatia	1 413	1 583	12.0
Italy	43 831	45 965	4.9
Cyprus	719	746	3.8
Latvia	3 496	3 490	–0.2
Lithuania	2 511	2 570	2.3
Luxembourg	:	83	:
Hungary	1 560	1 682	7.8
Malta	12	9	–25.0
Netherlands	1 658	1 650	–0.5
Austria	21 843	21 863	0.1
Poland	25 944	26 598	2.5
Portugal	2 833	3 029	6.9
Romania	15 280	14 553	–4.8
Slovenia	2 680	3 045	13.6
Slovakia	362	343	–5.2
Finland	4 316	4 284	–0.7
Sweden	5 599	5 584	–0.3
United Kingdom	4 273	3 908	–8.5
Iceland	33	:	:
Norway	2 590	2 452	–5.3
Turkey	65 042	65 042	0.0

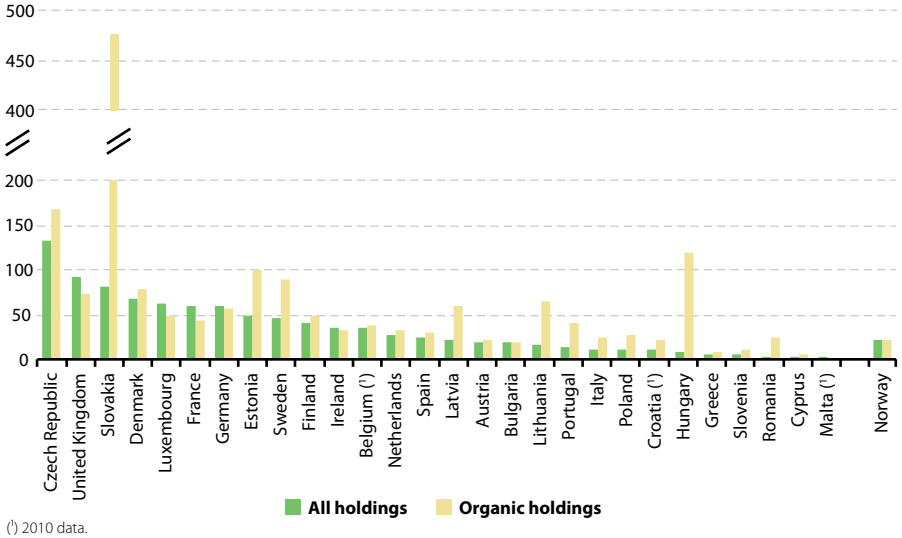
(1) Aggregate for EU-28 in 2013 does not include Ireland or Luxembourg.
Source: Eurostat (online data code: org_coptyp)

Figure 5.8: Share of organic holdings in total agricultural holdings, 2010 and 2013
(%)



(1) 2013 data not available.
Source: Eurostat (online data code: ef_mporganic)

Figure 5.9: Average size of holdings, 2013
(ha per holding)



(1) 2010 data.
Source: Eurostat (online data code: ef_mporganic)

Between 2013 and 2014 the number of organic producers in the EU rose by 2.1 %. The highest increases were recorded in Bulgaria (+ 39.9 %), Belgium (+ 15.4 %), Slovenia (+ 13.6 %) and Croatia (+ 12.0 %). Drops were registered in 10 EU Member States (Denmark, Greece, Latvia, Malta, the Netherlands, Romania, Slovakia, Finland, Sweden and the United Kingdom (see Table 5.4).

The average size of agricultural holdings in general was larger in the organic sector

The average size of organic agricultural holdings in 2013 was estimated at 36.7 ha for the EU-28 as a whole, compared with 16.1 ha for all agricultural holdings. In general, the average size of holdings in the organic sector was larger in most EU Member States and smaller only in Bulgaria, Germany, Ireland, France, Luxembourg and the United Kingdom. The most noticeable differences were seen in Slovakia (476.2 ha for organic holdings compared with 80.7 ha for all holdings) and Hungary (119.2 ha compared with 9.5 ha) (see Figure 5.9).

Manufacture of organic products

Bakery and farinaceous products and fruit and vegetables dominate

On the basis of the NACE Rev.2 classification, in 2014, most of the 38 000 organic processors in 25 EU Member States, where data was available ([3]), were engaged in the processing and preserving of bakery and farinaceous products (22.6 %), fruit and vegetables (18.5 %) and the processing of vegetable and animal oils and fats (15.8 %) (see Figure 5.10 and Table 5.5). Italy and France dominated the ranking of the number of organic processors within the nine categories of food manufacturing activities. France had the highest number of processors in the meat and meat products, fish, crustaceans and molluscs and also bakery and farinaceous products. Italy top ranked in all the other categories.

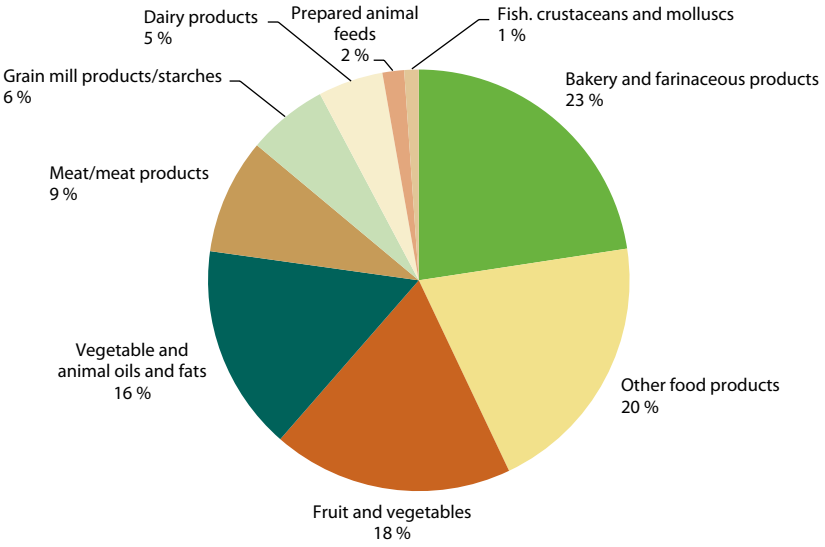
([3]) Data not available for Germany, Malta and Austria.

Table 5.5: Number of organic processors by type of economic activity (NACE Rev. 2), 2014

	Meat/meat products	Fish, crustaceans and molluscs	Fruit and vegetables	Vegetable and animal oils and fats	Dairy products	Grain mill products/ starches	Bakery and farinaceous products	Other food products	Prepared animal feeds	Total
EU-28 (1)	3 368	422	7 019	6 008	1 900	2 345	8 592	7 744	631	38 029
Belgium	76	8	116	24	64	44	263	267	9	871
Bulgaria	1	0	20	29	14	1	10	70	1	146
Czech Republic	104	0	65	18	63	32	36	111	39	468
Denmark	141	26	69	14	72	21	96	194	:	633
Germany (2)	:	:	:	:	:	:	:	:	:	:
Estonia	12	2	40	5	5	20	14	8	4	110
Ireland	28	25	11	3	10	4	10	22	3	116
Greece	49	5	286	788	55	57	59	241	29	1 569
Spain	356	38	1 439	631	121	81	634	840	51	4 191
France	1 053	136	733	168	305	535	5 640	1 398	120	10 088
Croatia	2	0	33	37	8	8	2	10	0	100
Italy	515	76	2 666	3 947	735	1 113	1 255	2 140	183	12 630
Cyprus	0	0	4	33	2	1	2	6	0	48
Latvia	17	0	47	2	22	6	8	51	2	155
Lithuania	3	4	9	2	7	4	7	28	2	66
Luxembourg	6	1	4	1	3	6	27	16	3	67
Hungary	28	1	157	26	14	39	27	143	1	436
Malta (2)	:	:	:	:	:	:	:	:	:	:
Netherlands	186	25	220	28	124	40	148	281	46	1 098
Austria (2)	:	:	:	:	:	:	:	:	:	:
Poland	25	5	126	9	11	33	44	101	2	356
Portugal	30	11	224	158	16	42	45	194	2	722
Romania	0	0	30	13	8	13	17	24	2	107
Slovenia	15	0	22	8	6	13	27	243	3	337
Slovakia	8	0	11	1	18	7	8	27	11	91
Finland	96	8	78	16	34	84	90	81	44	531
Sweden	143	30	155	24	38	72	92	220	13	787
United Kingdom	474	21	454	23	145	69	31	1 028	61	2 306
Norway	77	14	51	2	45	27	58	67	10	351
Serbia	2	0	42	4	3	4	4	17	0	76
Turkey	20	1	440	112	17	19	19	226	46	900

(1) Aggregates for EU-28 do not include Germany, Matla or Austria.
(2) Data not available.
Source: Eurostat (online data code: org_cpreact)

Figure 5.10: Organic processors by type of economic activity, EU-28, 2014 ([1])
(% of all organic processors)



([1]) Data not available for Germany, Malta and Austria.
Source: Eurostat (online data code: org_cpreact)

DATA SOURCES AND AVAILABILITY

The statistical information presented in this publication is drawn from the Eurostat database, available at the Eurostat website. Organic farming data exist in the European statistics in two different datasets:

- Organic farming statistics;
- Farm structure survey (FSS).

Organic farming statistics

Annual data collection. Data are provided by the Member States and Norway on the basis of a harmonised questionnaire. Data in this annual collection originates in the administrative data of national entities in charge of the certification of operators involved in the organic sector. Up to reference year 2007, data provision was voluntary. From reference year 2008 onwards, data have to be delivered following Council Regulation (EC) No 834/2007, implementing Commission Regulation (EC) No 889/2008.

Terminology:

- Organic **operator**: any natural or legal person who produces, prepares, imports, exports or deals with organic products.
- Organic **producer**: any natural or legal person who operates an agricultural holding involved in producing, packaging and labelling his own organic products.
- Organic **processor**: any natural or legal person who preserves and/or processes organic agricultural produce (including slaughter and butchering of livestock). Packaging and labelling of organic products is also considered to be processing.
- **Mixed** organic operator: operator involved in more than one of the activities, e.g. a producer who is also processing (not only his own products).

Statistics on the structure of agricultural holdings (FSS)

The Farm structure survey (FSS) is conducted every 10 years (full-scope Agricultural Census) and intermediate surveys (sample-based) in between. Availability of data by year and country can be found here. The statistical unit is the agricultural holding. In the FSS organic data has been collected since the 2000 Census. The type of data collected has changed throughout the various editions of the FSS as shown in the table below.

Organic data	Units	2000	2003	2005	2007	2010	2013
Organic farming	yes / no	x					
Area of organic farming	ha		x	x	x	x	x
Area of organic farming under certification	ha		x	x	x	x	x
Organic farming animals	total/partial		x	x	x		
Organic cereals	ha					x	x
Organic dried pulses	ha					x	x
Organic potatoes	ha					x	x
Organic sugar beet	ha					x	x
Organic oil crops	ha					x	x
Organic fresh vegetables, melons and strawberries	ha					x	x
Organic pastures and meadows (excluding rough grazing)	ha					x	x
Organic fruit and berries	ha					x	x
Organic citrus fruits	ha					x	x
Organic olives	ha					x	x
Organic vineyards	ha					x	x
Organic other crops	ha					x	x
Organic bovine animals	heads					x	x
Organic pigs	heads					x	x
Organic sheep and goats	heads					x	x
Organic poultry	heads					x	x
Organic other animals	yes / no					x	x

Source: Eurostat, Farm Structure Survey

5.2 Pesticide sales

The use of pesticides in agriculture has helped to improve yields and to prevent crop losses. Pesticides include active ingredients that in spite of the beneficial actions on agricultural production could have other less positive impacts on the environment and habitats where they are used. Data on the sale of pesticides are used in the agri-environmental indicator on consumption of pesticides.

Regulation (EC) No 1185/2009 is the legal basis for the data on pesticide sales and it outlines the definitions and list of active substances. The data collected is the active substance contained in the pesticides and is categorised into 6 major groups according to the action of the pesticide.

In 2013, the total quantity of pesticide sales amounted to close to 360 000 tonnes. Spain (19.5 %), France (18.7 %), Italy (13.8 %), Germany (12.3 %) and Poland (6.2 %) were the Member States in which the highest quantities of pesticides were sold and together they made up 70.5 % of the EU-28's pesticide sales (see Table 5.6 and Figure 5.11).

Fungicides and bactericides were the most sold group of pesticides with a 42 % share, followed by herbicides, haulm destructors and moss killers with 35 % of the total. Together with the group 'Other plant protection products' (13 %), the three groups added up to 91 % of the pesticides sold in the EU-28 in 2013. Of the other three groups of pesticides, insecticides and acaricides had a 5 % share of the total, plant growth regulators 3 % and molluscicides held the smallest share of pesticides sales with 1 % (see Figure 5.12).

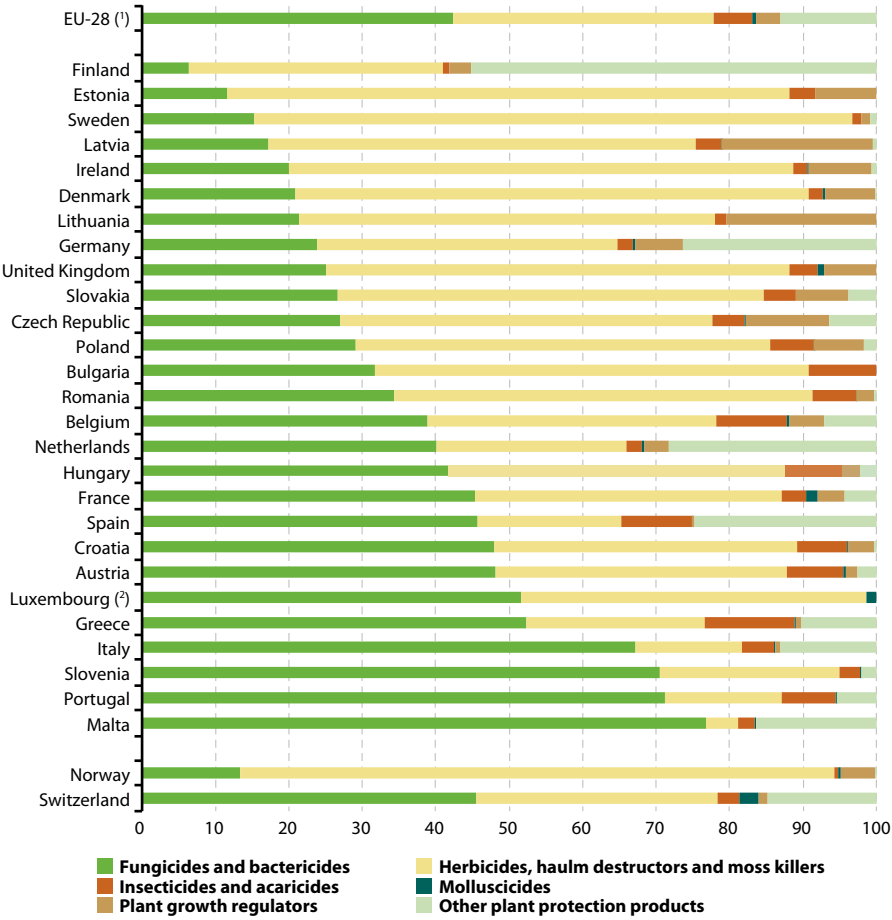
Looking at individual EU Member States, Spain, France, Italy and Germany are top ranked in the amount of sales of each group of pesticides, just like in the total amount of sold pesticides (see Figure 5.13).

Table 5.6: Pesticide sales by major groups, 2013

	Fungicides and bactericides	Herbicides, haulm destructors and moss killers	Insecticides and acaricides	Molluscicides	Plant growth regulators	Other plant protection products	Share in the total EU-28 pesticide sales
	(kilograms)						(%)
EU-28 (1)	151 031 629	126 200 290	19 148 842	1 695 049	12 005 481	46 303 491	100.0
Belgium	2 463 260	2 486 428	616 676	22 223	294 408	452 585	1.8
Bulgaria	380 174	705 944	110 672	:	:	:	0.3
Czech Republic	1 665 889	3 144 886	265 667	11 244	698 460	402 437	1.7
Denmark	879 915	2 935 899	84 658	9 387	289 096	6 057	1.2
Germany	10 418 031	17 896 271	894 974	162 084	2 850 146	11 529 917	12.3
Estonia	66 163	434 251	19 545	:	47 410	:	0.2
Ireland	583 027	2 004 502	53 554	6 007	247 529	20 651	0.8
Greece	5 520 830	2 571 536	1 287 010	18 678	75 264	1 090 818	3.0
Spain	31 831 615	13 547 119	6 695 557	82 481	168 438	17 262 176	19.5
France	30 213 840	27 833 550	2 244 126	1 071 376	2 394 545	2 902 056	18.7
Croatia	894 617	768 340	124 764	2 818	66 525	5 371	0.5
Italy	32 918 507	7 159 177	2 102 842	75 877	318 876	6 435 409	13.8
Cyprus	:	:	:	:	:	0	0.0
Latvia	214 274	728 065	43 895	225	257 621	6 405	0.4
Lithuania	538 225	1 421 923	39 926	0	513 046	:	0.7
Luxembourg (2)	91 039	82 778	:	2 258	:	:	0.0
Hungary	3 238 478	3 562 125	606 210	1 789	185 575	172 715	2.2
Malta	122 070	7 006	3 387	515	0	25 906	0.0
Netherlands	4 306 916	2 766 236	225 875	41 015	351 603	3 028 515	3.0
Austria	1 492 799	1 227 015	238 197	13 472	45 385	80 571	0.9
Poland	6 474 339	12 518 197	1 305 890	7 738	1 500 996	384 626	6.2
Portugal	7 201 606	1 611 016	745 785	17 687	671	547 868	2.8
Romania	3 630 952	6 034 253	626 348	1 018	260 171	32 909	3.0
Slovenia	647 491	223 472	26 749	810	564	18 272	0.3
Slovakia	531 417	1 157 477	90 226	:	143 017	74 458	0.6
Finland	209 572	1 132 945	25 484	:	100 193	1 805 628	0.9
Sweden	332 068	1 772 812	27 674	:	26 317	18 141	0.6
United Kingdom	4 164 515	10 467 067	643 151	146 347	1 169 625	:	4.7
Norway	101 900	614 662	4 148	2 173	36 343	519	:
Switzerland	989 038	711 399	64 518	56 352	24 900	323 010	:

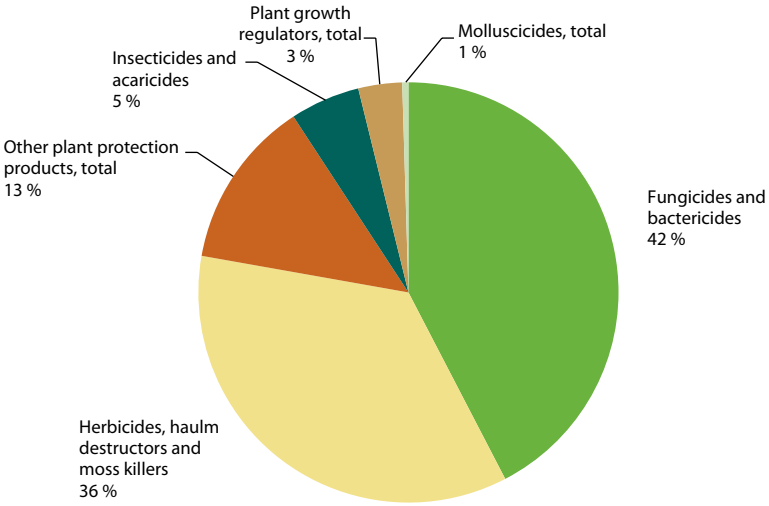
(1) Confidential data have been removed from the sums of pesticides sales.
(2) 2012 data.
Source: Eurostat (online data code: aei_fm_salpest09)

Figure 5.11: Share of pesticide sales by major groups, 2013
(%)



(1) Confidential data have been removed from the sums of pesticides sales.
(2) Fungicides and bacteriacides data for Luxembourg are from 2012.
Note: Data for Cyprus not available.
Source: Eurostat (online data code: aei_fm_salpest09)

Figure 5.12: Pesticide sales by major groups, EU-28, 2013 ([1])
(%)

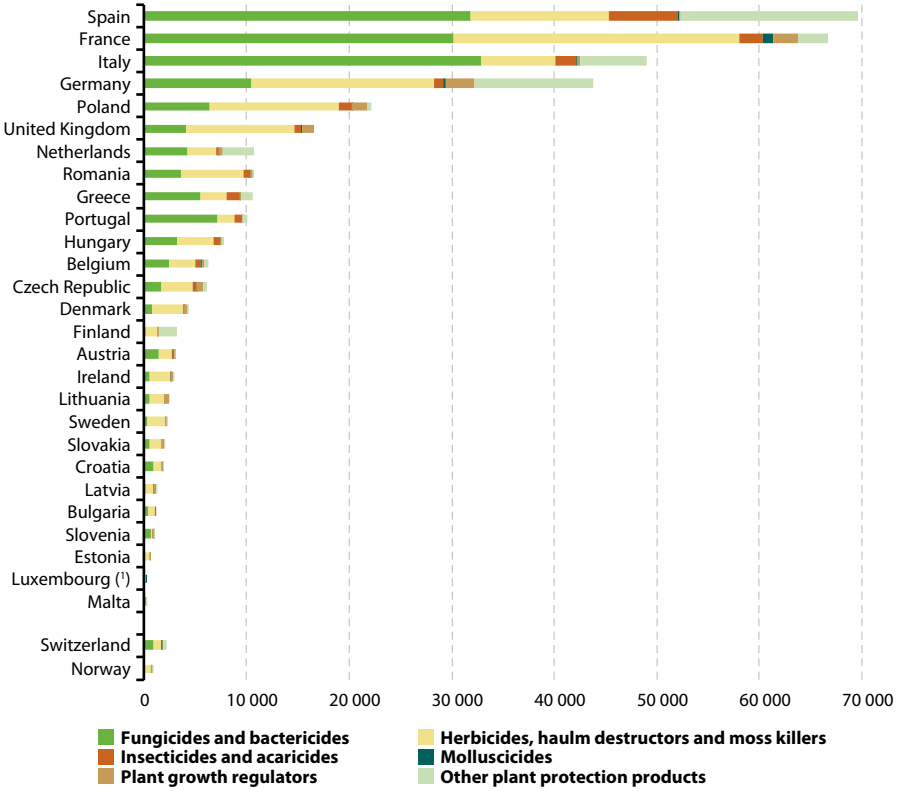


([1]) Confidential data have been removed from the sums. Fungicides and bactericides data for Luxembourg are from 2012.
Source: Eurostat (online data code: aei_fm_salpest09)

The largest quantities of both insecticides and acaricides (6.7 thousand tonnes) and other plant protection products (17.3 thousand tonnes) were placed on the market in Spain. At 32.9 thousand tonnes, Italy had the highest sales of fungicides and bactericides, France ranked top for herbicides, haulm destructors and moss killers with a share of 27.8 thousand tonnes and also in molluscicides with 1.1 thousand tonnes of sales. At 2.9 thousand tonnes in 2013, Germany had the highest share of sold plant growth regulators.

There were exceptions to the pattern of the top four countries. In Poland for instance, 12.5 thousand tonnes of herbicides, haulm destructors and moss killers, 1.3 thousand tonnes of insecticides and acaricides and 1.5 thousand tonnes of plant growth regulators were sold. The United Kingdom also ranked in the top four for sales of molluscicides and plant growth regulators (0.1 thousand tonnes), while sales of other plant protection products were fourth highest in the Netherlands (3.0 thousand tonnes).

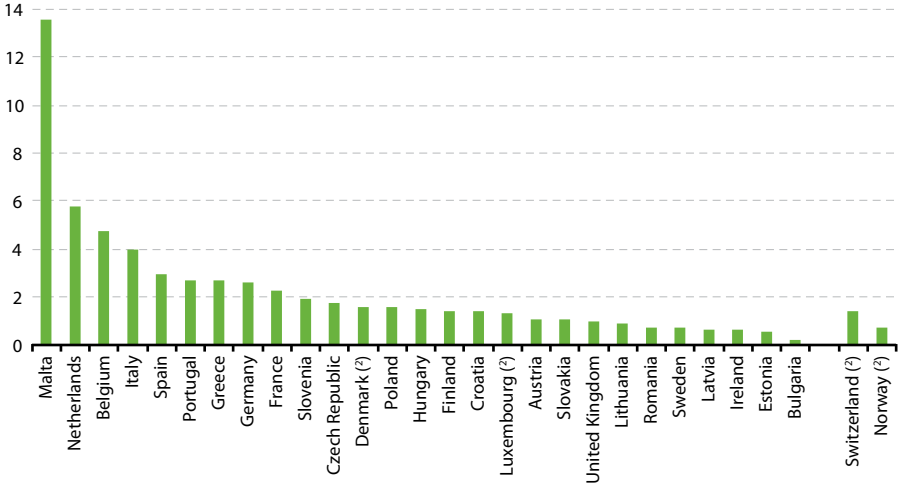
Figure 5.13: Pesticide sales by major groups, 2013
(tonnes)



(1) Fungicides and bacteriacides data for Luxembourg are from 2012.
Note: Data for Cyprus not available.
Source: Eurostat (online data code: aei_fm_salpest09)

The quantities of pesticides that are put on the market yearly can be associated with other statistics directly related to the use of the pesticides. In Figure 5.14, the quantities of sold pesticides are compared to each country's utilised agricultural area (UAA), and the Member States are ranked by the amount of pesticides (kilograms) per hectare of UAA. Bulgaria had the smallest proportion of pesticide sales per ha with 0.24 kg/ha. Estonia, Ireland, Latvia, Sweden, Romania, Lithuania and the United Kingdom all had quantities of sold pesticides under 1 kilogram.

Figure 5.14: Pesticide sales by UAA ([1]), 2013
(kilogram per hectare)



([1]) Confidential data have been removed from the sums of pesticides sales.
([2]) Fungicide and bactericide sales for Luxembourg is from 2012; UAA data for Denmark from 2012 and Norway and Switzerland from 2008.
Note: Data for Cyprus not available.
Source: Eurostat (online data codes: apro_cpp_luse and aei_fm_salpest09)

Among the top four countries having the highest pesticides sales, only Italy ranked in the top four of pesticide sales per hectare with 4.01 kg/ha. With a value of 13.59 kg/ha, Malta recorded the highest quantity of pesticides per hectare. The most active substance sold and used in Malta is Sulphur, which covers around 65 % of total sales and also around 90 % of total active substances used.

The Netherlands, Belgium, Italy, Spain, Portugal, Greece, Germany and France all had amounts of pesticides sold per hectare above 2 kg/ha.

DATA SOURCES AND AVAILABILITY

The data on sales of pesticides from national industries is available in two different series:

- Data series 1997–2008
  This collection presents data on sales of plant protection products communicated by EU Member States and Norway on the basis of a 'gentlemen's agreement'.
- Data series from reference year 2011 onward

This collection is based on Regulation (EC) No 1185/2009 concerning statistics on pesticides which establishes a common framework for the systematic production of Community statistics on the placing on the market and use of those pesticides which are plant protection products. The current article focusses on this data series.

5.3 Greenhouse gas emissions

The concentration of greenhouse gases in the atmosphere has grown mainly as a result of human activity. Greenhouse gases trap heat that would otherwise escape into space and they radiate it back towards the earth's surface: a phenomenon known as the 'greenhouse effect'. The growth of greenhouse gas emissions may be linked to rising temperatures otherwise referred to as 'global warming'.

Some greenhouse gases, such as carbon dioxide (CO_2), occur naturally and are emitted to the atmosphere through natural processes. However, CO_2 emissions also result from human activities, primarily the burning of fossil fuels (oil, natural gas and coal). Some other greenhouse gases (for example, fluorinated gases) are generated and emitted solely as a result of human activities (for example, industrial processes).

Like most economic sectors, agriculture produces greenhouse gases. Agricultural emissions are generally linked to the management of agricultural soils, livestock, rice production and biomass burning. The main agricultural sources of greenhouse gas emissions are:

- enteric fermentation (flatulence) by ruminant animals such as cattle, sheep and goats, which produce methane (CH_4) emissions; enteric fermentation is a natural part of the digestive process for many ruminants as anaerobic microbes decompose and ferment food in the rumen, then they are absorbed by the ruminant; this digestion process is not 100 % efficient, so some of the food energy is lost in the form of methane; measures to mitigate enteric fermentation would not only reduce emissions, they may also raise animal productivity by increasing digestive efficiency;
- soil nitrification and denitrification, which produces nitrous oxide (N_2O) emissions; nitrification is the aerobic microbial oxidation of ammonium (NH_4) to nitrates (NO_3), whereas denitrification is the anaerobic microbial reduction of nitrates to nitrogen gas (N_2);
- manure decomposition, which produces methane and nitrous oxide emissions.

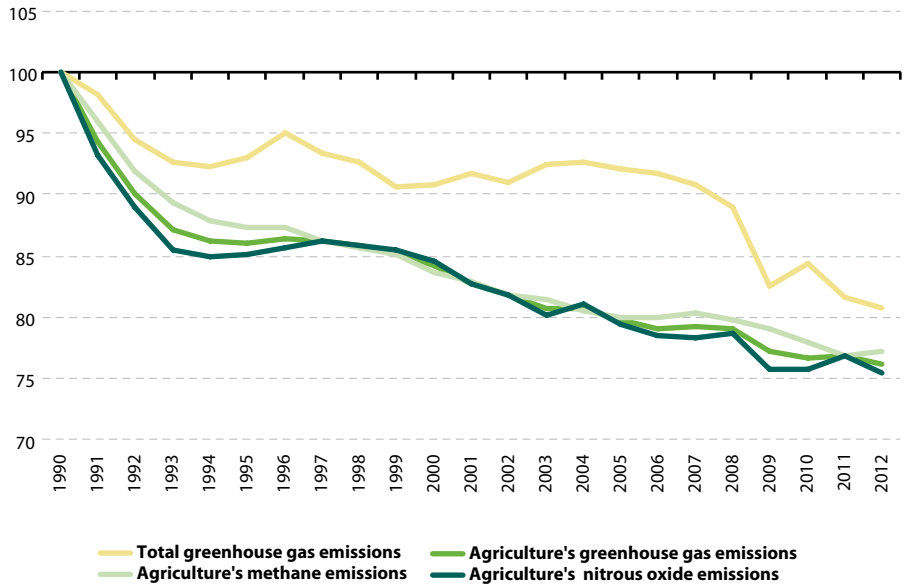
In recent years, greenhouse gas emissions from agriculture have been influenced by a number of factors: general underlying economic trends; regulatory instruments; farm management practices; and trends in the number of ruminant animals.

Agriculture's contribution

Agricultural activities in the EU-28 generated 470.6 million tonnes of CO_2 equivalent in 2012, corresponding to about 10 % of total greenhouse gas emissions (see Table 5.7); note that information on land use, land use change and forestry is excluded (as this heading is omitted from the measurement of greenhouse gases under the Kyoto Protocol).

EU-28 greenhouse gas emissions from agriculture declined by 147.3 million tonnes of CO_2 equivalents over the 1990–2012 period, a decline of almost one quarter (– 23.8 %). This was a slightly faster pace than the reduction recorded for all greenhouse gas emissions in the EU-28 (down 19.2 %), although the difference narrowed rapidly from 2008 onwards (see Figure 5.15) — reflecting the impact of the financial and economic crisis on industrial emissions and emissions linked to levels of consumption.

Figure 5.15: Greenhouse gas emissions, EU-28, 1990–2012
(1990 = 100)



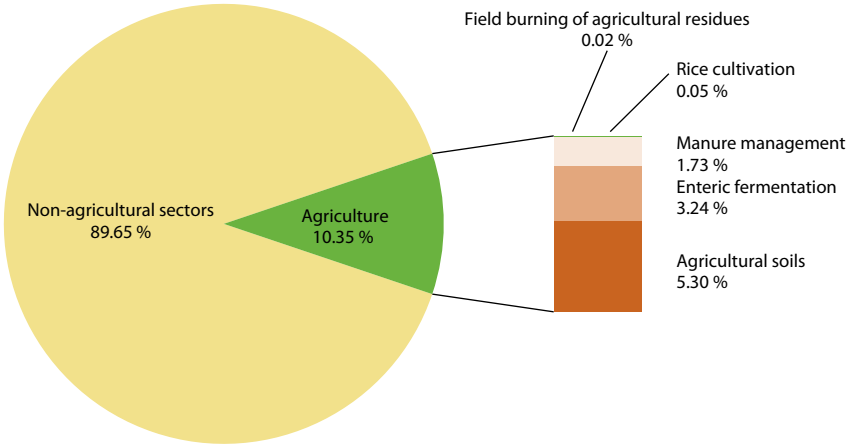
Source: European Environment Agency and Eurostat (online data code: aei_pr_ghg)

Table 5.7: Greenhouse gas emissions, 2012
(million tonnes of CO_2 equivalent)

	Total greenhouse gas emissions (1)	Emissions from agriculture (2)		
		Methane (CH_4) emissions	Nitrous oxide (N_2O) emissions	CH_4 and N_2O emissions
EU-28	4 548.4	198.8	271.9	470.6
Belgium	116.5	5.0	4.3	9.3
Bulgaria	61.3	1.9	4.6	6.5
Czech Republic	131.5	2.5	5.6	8.1
Denmark	51.6	4.2	5.4	9.6
Germany	939.1	25.8	43.7	69.5
Estonia	19.2	0.5	0.9	1.3
Ireland	58.5	11.0	6.9	18.0
Greece	111.0	3.7	5.4	9.1
Spain	340.8	17.9	19.8	37.7
France	490.3	38.4	50.8	89.3
Croatia	26.4	1.0	2.4	3.4
Italy	461.2	15.3	20.1	35.4
Cyprus	9.3	0.3	0.5	0.8
Latvia	11.0	0.8	1.6	2.4
Lithuania	21.6	1.7	3.4	5.1
Luxembourg	11.8	0.3	0.3	0.7
Hungary	62.0	2.8	5.9	8.7
Malta	3.1	0.1	0.0	0.1
Netherlands	191.7	9.2	6.7	15.9
Austria	80.1	3.5	4.0	7.5
Poland	399.3	11.5	25.2	36.7
Portugal	68.9	4.0	3.3	7.2
Romania	118.8	8.7	9.5	18.2
Slovenia	18.9	1.0	0.8	1.9
Slovakia	43.1	1.0	2.2	3.3
Finland	61.0	1.8	3.9	5.7
Sweden	57.6	2.9	4.8	7.6
United Kingdom	582.9	22.1	29.7	51.8
Iceland	4.5	0.3	0.4	0.7
Liechtenstein	0.2	0.0	0.0	0.0
Norway	52.8	2.2	2.3	4.5
Switzerland	51.5	3.1	2.4	5.5
Turkey	439.9	21.4	10.9	32.3

(1) Excluding land use, land use change and Forestry (LULUCF) net removals.
(2) Emissions from agricultural transport and energy use are excluded, as these sectors are not defined as part of the agriculture sector by the current IPCC reporting guidelines.
Source: European Environment Agency and Eurostat (online data code: aei_pr_ghg)

Figure 5.16: Greenhouse gas emissions, EU-28, 2012 ([1])
(% of total greenhouse gas emissions)



([1]) Land use, land use change and Forestry (LULUCF) net removals are not included in total greenhouse gas emissions. Emissions from agricultural transport and energy use are not included in agriculture emissions, as these sectors are not defined as part of the agriculture sector by the current IPCC reporting guidelines.
Source: European Environment Agency and Eurostat (online data code: aei_pr_ghg)

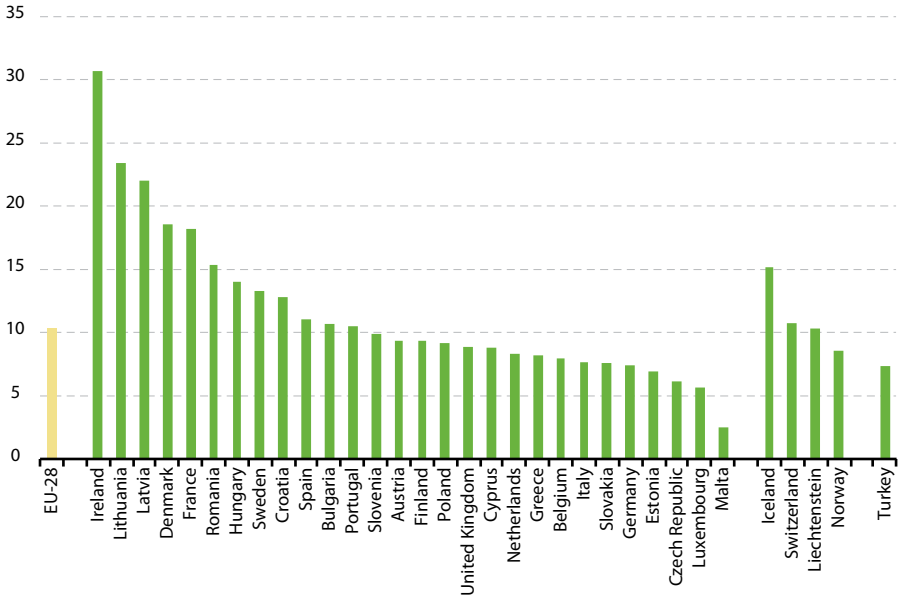
The vast majority of the EU-28's greenhouse gas emissions from agriculture came from one of three sources: agricultural soils (accounting for about one half of agricultural emissions), enteric fermentation (about one third) and manure management (about one sixth). The other sources of agricultural greenhouse gas emissions — field burning of agricultural residues and rice cultivation — were only minor contributors at the EU-28 level (see Figure 5.16).

The reduction in agricultural emissions of greenhouse gases may, at least in part, be attributed to an overall reduction in livestock numbers, more efficient farming practices, the reduced application of nitrogen-based fertilisers, as well as better forms of manure management. Between 1990 and 2012, the volume of soil-related greenhouse gas emissions in the EU-28 declined by 74.3 million tonnes of CO_2 equivalents. The volume of livestock-related greenhouse gas emissions fell by 48.2 million tonnes of CO_2 equivalents for enteric fermentation and by 24.4 million tonnes of CO_2 equivalents for manure management during the same period.

As may be expected, those EU Member States with the largest agricultural sectors tend to account for the highest greenhouse gas emissions from agriculture, reflecting their larger areas of farmland, higher levels of production, and extended livestock populations. France and Germany together contributed just over one third (33.7 %) of the EU-28's greenhouse gas emissions from agriculture in 2012. The combined emissions of the United Kingdom (11.0 %), Italy (7.5 %), Spain (8.0 %) and Poland (7.8 %) accounted for more than one third (34.3 %) of the total.

Figure 5.17 shows that agriculture accounted for a 30.7 % share of total greenhouse gas emissions in Ireland in 2012. This was the highest contribution from agriculture among any of the EU Member States and could be contrasted with a low of 2.5 % recorded in Malta. These figures reflect the relative importance of the livestock industry to Ireland's (agricultural) economy, as well as the relatively low level of greenhouse gas emissions in Ireland from other sectors (such as energy production or transport).

Figure 5.17: Greenhouse gas emissions from agriculture, 2012
(% of total greenhouse gas emissions)



Source: European Environment Agency and Eurostat (online data code: aei_pr_ghg)

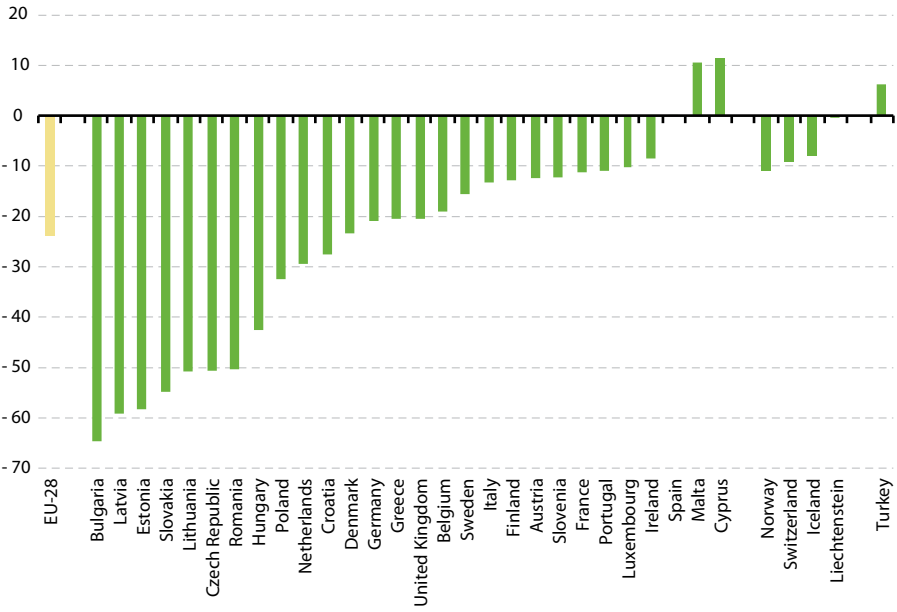
Developments in agricultural greenhouse gas emissions by Member State

Over the period from 1990 to 2012, the largest overall declines in agricultural greenhouse gas emissions were recorded in Romania (a reduction of 18.5 million tonnes of CO_2 equivalents), Germany (18.3 million tonnes of CO_2 equivalents) and Poland (17.7 million tonnes of CO_2 equivalents). The reduction in agricultural greenhouse gas emissions was sharpest in Bulgaria (– 64.6 %), followed by Latvia (– 59.2 %) and Estonia (– 58.3 %), while Slovakia, Lithuania, the Czech Republic and Romania also cut their agricultural greenhouse gas emissions by more than half (see Figure 5.18).

By contrast, the volume of agricultural greenhouse gas emissions produced in Spain was similar in 2012 to the level recorded in 1990 (+ 0.1 %), while the level rose in Cyprus by 11.3 % and by 10.6 % in Malta; in these Member States there were marked changes in the livestock mix. In Spain, the number of cattle rose by 14.0 % during the period 1990 to 2012 (adding 700 000 head to the national herd), while the number of pigs increased by 58 % (an additional 9.3 million head), although there were 32 % fewer sheep (the national flock declining by about 7.7 million head). In the case of Cyprus, livestock numbers were consistently higher (across all types of animal) in 2012 than in 1990, with a 4 % increase in the number of cattle, a 12 % increase in the number of sheep, and a 42.0 % increase in the number of pigs. In the case of Malta the increase in livestock was in the goat and sheep categories, with an 85 % and 45 % rise, respectively over the last decade ([4]).

Figure 5.18: Change in aggregated emissions of methane and nitrous oxide from agriculture, 1990–2012 ([1])

(%)



([1]) Field burning of agricultural residues also contributes to nitrous oxide emissions — however, this is a relatively minor source of emissions compared with the two sources illustrated.

Source: European Environment Agency and Eurostat (online data code: aei_pr_ghg)

([4]) Figures taken from livestock tables in Agricultural production database (apro_mt_ls).

DATA SOURCES AND AVAILABILITY

The emissions data used in this publication are official national totals and sectoral greenhouse gas emissions figures submitted to the United Nations Framework Convention on Climate Change (UNFCCC), the EU's greenhouse gas monitoring mechanism and the European Environment Agency's (EAA) European environment information and observation network (EIONET).

Data for the EU are compiled and published by the European Environment Agency in their 'European Union greenhouse gas inventory' as well as their online database. Recommended methodologies for emissions data collection are compiled by the Intergovernmental Panel on Climate Change (IPCC) and released as 'Guidelines for national greenhouse gas inventories', supplemented by 'Good practice guidance and uncertainty management in national greenhouse gas inventories'.

Greenhouse gases vary in their ability to absorb and hold heat in the atmosphere. Emissions are expressed in terms of carbon dioxide equivalents (CO_2 equivalents). All greenhouse gases have what is called a global warming potential (GWP). These potentials relate to the heat-absorbing ability of each gas relative to that of carbon dioxide, as well as the decay rate of each gas (the amount removed from the atmosphere during a given number of years). By assigning a GWP to each gas, policymakers can compare the potential impact of emissions for different gases. For example, the potential effect of methane and nitrous oxide is considerably higher than that of carbon dioxide. Indeed, methane is a significant contributor to the greenhouse effect and has a GWP of 21. This means that methane is approximately 21 times more heat-absorptive than carbon dioxide per unit of weight. Nitrous oxide is 310 times more heat-absorptive than carbon dioxide per unit of weight.

Each country estimates greenhouse gas emissions by measuring the volume of specific activities (for example, livestock numbers or agricultural practices) and multiplying these by associated emission factors. International guidelines foresee these estimates being made using country-specific methods in order to improve the quality of emission estimates.

Agricultural emissions of greenhouse gases do not include those from fossil fuel combustion arising from agricultural-related processes such as transport, greenhouse heating or grain drying; these sources are inventoried under the energy section of the IPCC.

5.4 Ammonia emissions

Ammonia (NH_3) is a colourless, pungent-smelling and corrosive gas that is produced by the decay of organic vegetable matter and from the excrement of humans and animals. When released into the atmosphere, ammonia increases the level of air pollution. Once deposited in water and soils, it can potentially cause two major types of environmental damage, acidification and eutrophication (where over-fertilisation causes oxygen depletion in water bodies as they become suffocated with weeds), both of which can harm sensitive vegetation systems, biodiversity and water quality.

The agricultural sector is currently responsible for the vast majority of ammonia emissions in the EU. Ammonia emissions from agriculture mainly occur as a result of volatilisation from livestock excreta (the vaporisation of a dissolved sample), whether this occurs from livestock housing, manure storage, urine and dung deposition in grazed pastures, or following manure spreading on agricultural land. A smaller proportion of ammonia emissions result from the volatilisation of ammonia from nitrogenous fertilisers and from fertilised crops.

Agriculture's contribution

Agricultural activities in the EU-28 resulted in the emission of 3.6 million tonnes of ammonia in 2013. This represented a decline of almost 30 % compared with the level emitted in 1990 (see Table 5.8). Nevertheless, agriculture was still responsible for the vast majority (93.3 %) of total ammonia emissions in the EU-28 in 2013 (see Figure 5.19). Specifically, manure management (the capture, storage, treatment and use of animal manure) accounted for almost three fifths of agricultural ammonia emissions in the EU-28 in 2013, agricultural soil emissions accounting for the rest.

Developments in ammonia gas emissions from agriculture by Member State

France accounted for almost one fifth (19.5 %) of ammonia emissions from agriculture in the EU-28 in 2013 and Germany accounted for the next highest proportion (17.6 %). However, the trends in emission levels between these two Member States contrasted starkly: ammonia emissions from agriculture declined by 16.8 % in Germany between 1990 and 2013 but remained relatively unchanged (– 3.9 %) throughout the period in France. Among other EU Member States, developments were even more contrasting, with declines of 60–75 % in Bulgaria, Latvia, Lithuania, the Netherlands and Slovakia, but with a rise in Spain (+ 11.0 %).

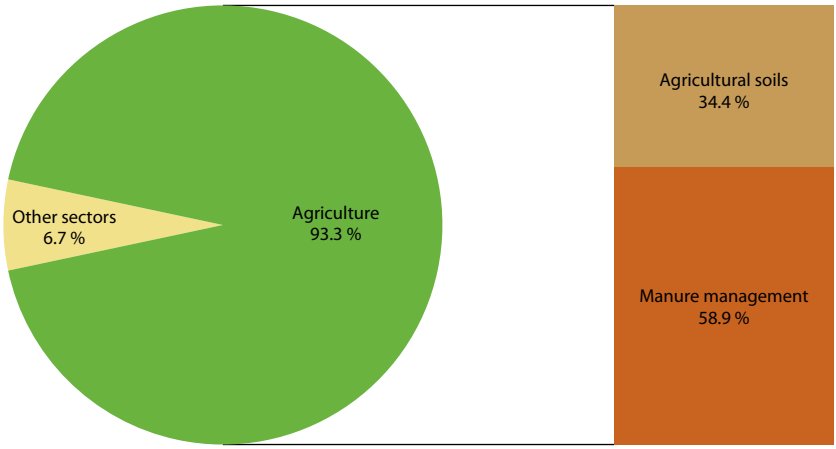
The main contributory reason for the increase in ammonia emissions from agriculture observed in Spain was the increased density of cattle, swine and poultry production. By contrast, the considerable reduction in emissions from agriculture that were recorded in the majority of countries was due mainly to changes in the management of organic manures, to the decreased use of nitrogenous fertilisers and to some reduction in livestock numbers (especially for cattle).

Table 5.8: Ammonia emissions from agriculture, 1990 and 2013

	Emissions		Change, 1990–2013	Share of EU-28 emissions, 2013
	1990	2013		
	(1 000 tonnes)		(%)	
EU-28	5 028.4	3 591.3	–28.6	100.0
Belgium	108.9	56.0	–48.6	1.6
Bulgaria	110.8	27.1	–75.6	0.8
Czech Republic	156.0	66.1	–57.7	1.8
Denmark	123.7	70.5	–43.0	2.0
Germany	760.8	633.3	–16.8	17.6
Estonia	25.0	10.6	–57.7	0.3
Ireland	108.0	106.3	–1.5	3.0
Greece	84.5	59.0	–30.2	1.6
Spain	316.2	351.0	11.0	9.8
France	729.0	700.6	–3.9	19.5
Croatia	50.3	29.4	–41.6	0.8
Italy	461.3	385.7	–16.4	10.7
Cyprus	5.1	4.4	–14.1	0.1
Latvia	38.1	11.3	–70.3	0.3
Lithuania	96.9	37.6	–61.3	1.0
Luxembourg	4.9	4.3	–11.4	0.1
Hungary	146.8	77.2	–47.4	2.2
Malta	1.9	1.5	–20.0	0.0
Netherlands	351.3	113.8	–67.6	3.2
Austria	63.6	62.0	–2.5	1.7
Poland	490.3	258.5	–47.3	7.2
Portugal	56.1	44.0	–21.7	1.2
Romania	262.4	139.1	–47.0	3.9
Slovenia	21.6	16.9	–21.8	0.5
Slovakia	63.1	24.4	–61.3	0.7
Finland	35.1	33.8	–3.9	0.9
Sweden	49.0	45.2	–7.6	1.3
United Kingdom	307.8	221.9	–27.9	6.2
Iceland	5.8	5.3	–7.9	0.1
Liechtenstein	0.2	0.2	–1.7	0.0
Norway	23.4	25.1	7.4	0.7
Switzerland	69.6	57.3	–17.6	1.6
Turkey	502.5	1 060.8	111.1	29.5

Source: European Environment Agency

Figure 5.19: Ammonia emissions, EU-28, 2013
(% of total ammonia emissions)

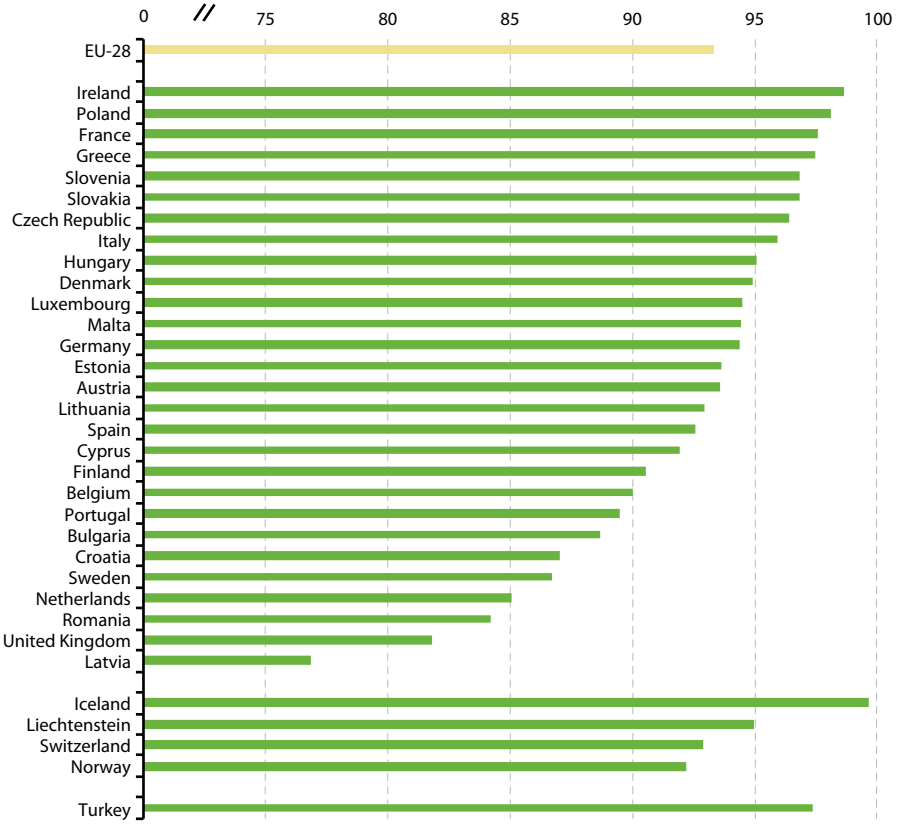


Source: European Environment Agency

By way of example, the considerable reduction in ammonia emissions from agriculture in the Netherlands was principally due to a change in manure management practices: manure spreading onto the surface of the soil has been phased out and replaced by either injection or 'band spreading' with a rapid incorporation of manure into the soil. Most ammonia volatilises within the first 12 hours, so speed of incorporation into the soil reduces nitrogen loss considerably.

Agricultural activity was responsible for the majority of ammonia emissions in each of the EU Member States in 2013 (see Figure 5.20). The wider adoption of new manure management and fertiliser application practices, of dietary changes that reduce nitrogen excretion from livestock, and of more efficient use of nitrogen remain the key supply-side drivers in reducing total ammonia emissions. Nevertheless, in a few countries the reductions from other sources (such as solid waste disposal on land in Bulgaria and waste water handling in Romania) are also key to the continued overall reduction in ammonia emissions.

Figure 5.20: Ammonia emissions from agriculture, 2013
(% of total ammonia emissions)



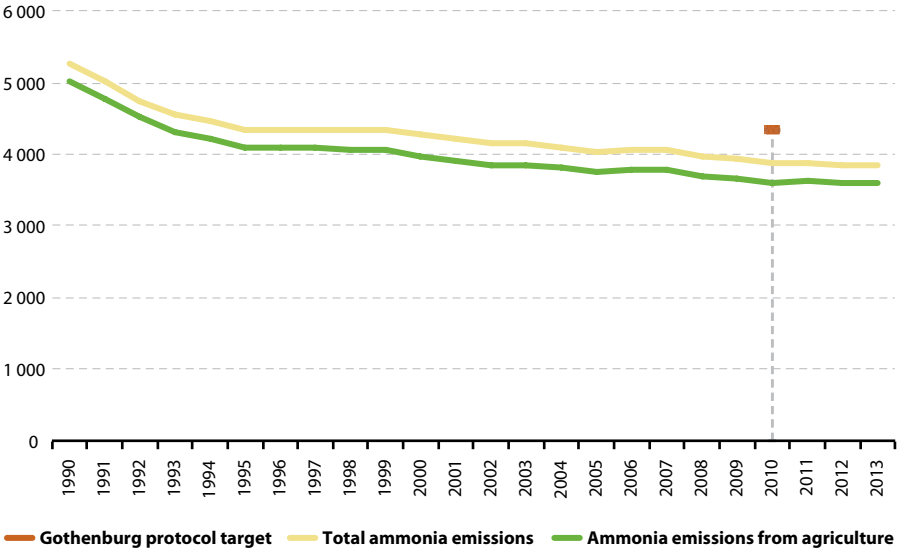
Source: European Environment Agency

Ammonia emissions' targets

The EU-28's total emissions of ammonia declined by 27.0 % between 1990 and 2013 to 3.8 million tonnes, a level below the reduced emission ceilings target of 4.33 million tonnes that was agreed for the individual EU Member States under the Long-range Transboundary Air Pollution (LRTAP) Convention (see Figure 5.21). The decline in EU-28 emissions was sharpest in the period from 1990–95 (a 17.9 % reduction). After relatively unchanged levels from 1995–99, ammonia emissions then declined relatively steadily through until 2010 before stabilising in 2011 and continuing with a slight downward trend until 2013.

The majority of EU Member States also met their individual LRTAP targets for 2010, the principal exceptions being Germany, Finland, Croatia, Denmark, Spain and the Netherlands (see Figure 5.22); Liechtenstein and Norway also fell short of their targets. The downward pressure on ammonia emissions was further embraced with the ratification of a revised Gothenburg Protocol on the 4 May 2012 in Geneva. The amendments to the 1999 Protocol detail the national emission reduction commitments from 2005 level for main air pollutants including ammonia to be achieved in 2020 and beyond.

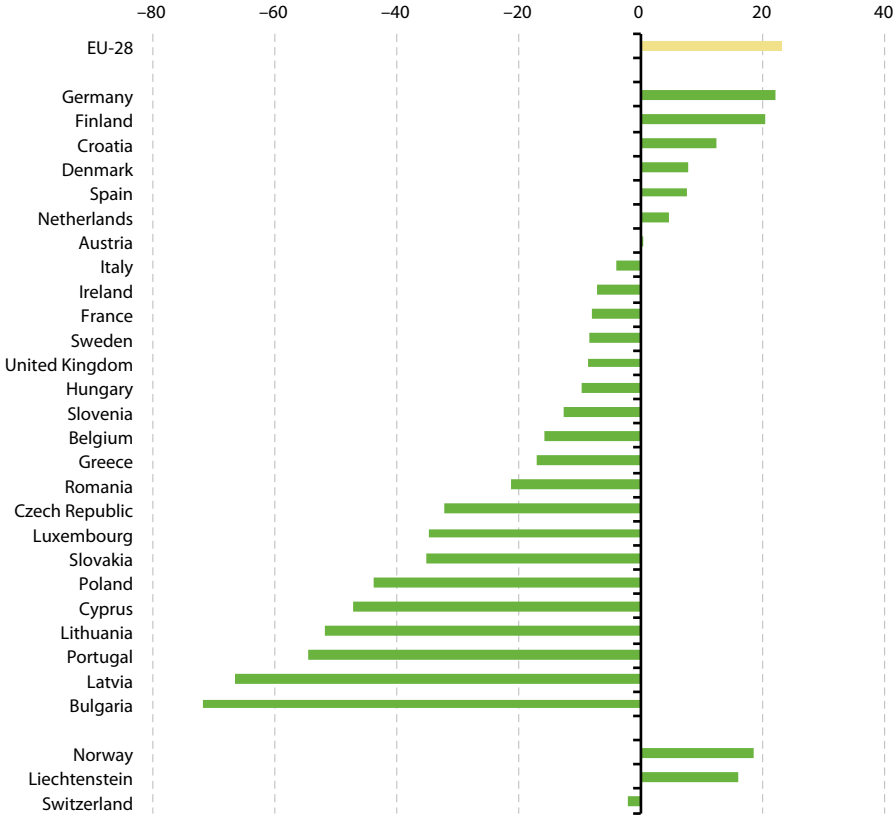
Figure 5.21: Ammonia emissions, EU-28, 1990–2013
(1 000 tonnes)



Source: European Environment Agency

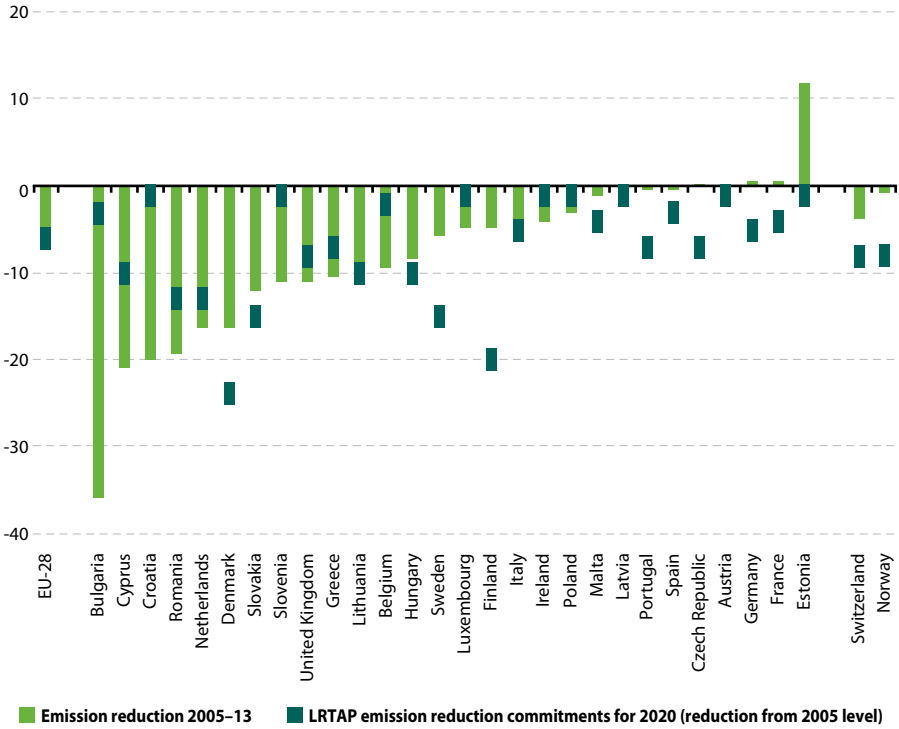
Figure 5.23 compares the national ammonia emission reductions between 2005 and of 2013 with the targets commitments for 2020 set out in revised Gothenburg Protocol. In 12 EU Member States, the level of reduction was already below the target set out in the revised Protocol, among which Bulgaria, Croatia and Cyprus were ahead by more than 10 percentage points (pp). The 2013 ammonia emissions in the Czech Republic, Austria, Germany, France and Estonia were still above the 2005 values. With a deficit of more than 9 pp, Estonia, Finland and Sweden were the countries that remained further away from their 2020 targets.

Figure 5.22: Ammonia emission attaintment status (2010 ceilings), 2013
(% distance from LRTAP ceiling)



Note: Data for Estonia and Malta not available.
Source: European Environment Agency

Figure 5.23: Change in ammonia emissions between 2005 and 2013 compared with Goethenburg commitments for 2020
(% distance from reduction targets)



Source: European Environment Agency

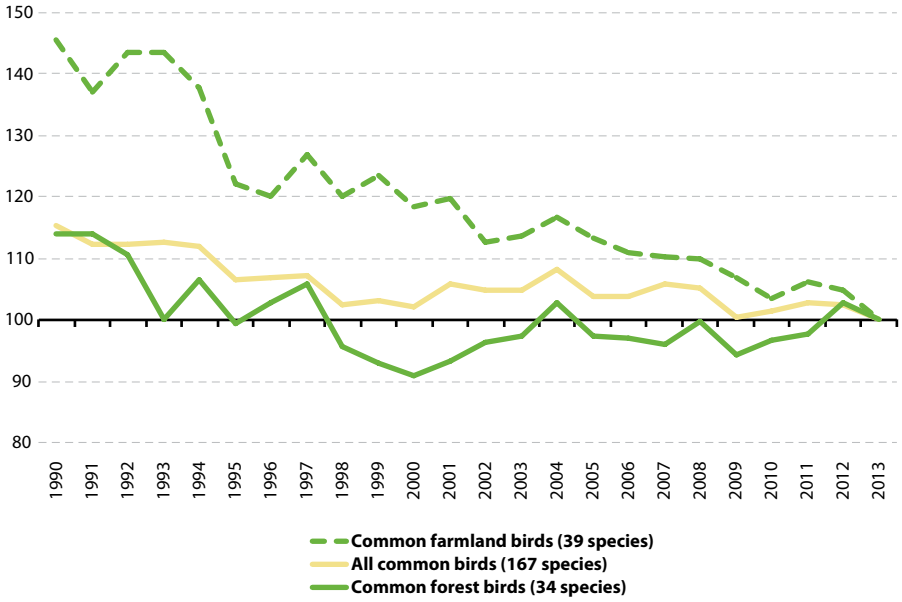
DATA SOURCES AND AVAILABILITY

The ammonia emissions data used in this publication are the official national data included in the EU emissions inventory report for the period 1990–2013, collected under the UNECE convention on long-range transboundary atmospheric pollution LRTAP convention. Supporting livestock and fertiliser use information is taken from the 2013 official national greenhouse gas data submitted to the EU's greenhouse gas monitoring mechanism and the European Environment Agency's (EAA) European environment information and observation network (EIONET). International guidelines foresee estimates of greenhouse gases being made using country-specific methods in order to improve the quality of emission estimates.

5.5 Bird populations

The common bird index covers 167 different species of birds across the EU. Between 1990 and 2000, there was a general decline in the EU's populations of both common farmland birds and common forest birds. This pattern was even sharper before 2000 for common farmland birds — covering 39 species — resulting in a substantial decline by 45 % overall between 1990 and 2013. Many of these losses can be attributed to changes in land use and agricultural practices, including the intensification of crop rotation patterns and of pesticide use. While the number of common forest birds in the EU — covering 34 species — declined by 23 percentage points between 1990 and 2000 (indexed on 2013), there was a small recovery during the period 2000–13, so that the overall decline between 1990 and 2013 was around 14 %, while all common species declined by 16 % in the same period.

Figure 5.24: Common bird indices, EU, 1990–2013 ([1])
(aggregated index of population estimates of selected groups of breeding bird species, 2013 = 100)



([1]) Estimates. EU: aggregate changing according to the context. Common farmland species covers 39 bird species. Common forest species covers 33 bird species.

Source: EBCC / RSPB / BirdLife / Statistics Netherlands; Eurostat (online data code: env_bio3)

6

Forestry

Introduction

The European Union (EU) accounts for approximately 5 % of the world's forests and contrary to what is happening in many other parts of the world, the forested area of the EU is slowly increasing. Ecologically, the forests of the EU belong to many different bio-geographical regions and have adapted to a variety of natural conditions, ranging from bogs to steppes and from lowland to alpine forests. Socioeconomically, they vary from small family holdings to state forests or to large estates owned by companies.

6.1 Forests and other wooded land

The EU-28 has just over 180 million hectares (ha) of forests and other wooded land, corresponding to 42 % of its land area. Wooded land covers a slightly greater proportion of the land than is used for agriculture (some 40 %). In six EU Member States, more than half of the land area was wooded in 2010. Just over three quarters (77 %) of the land area was wooded in Finland and Sweden, while Slovenia reported 63 %; the remaining three EU Member States, each with shares in the range of 54–56 %, were Estonia, Spain and Latvia.

Sweden reported the largest wooded area in 2010 (31.2 million ha), followed by Spain (27.7 million ha), Finland (23.3 million ha), France (17.6 million ha), Germany (11.1 million ha) and Italy (10.9 million ha). Of the total area of the EU-28 covered by wooded land in 2010, Sweden accounted for 17.3 %. Spain (15.4 %) and Finland (12.9 %) were the only other EU Member States to record double-digit shares.

New data were collected by the Food and Agriculture Organization (FAO) in 2015 for the Global Forest Resources Assessment. They show that several EU Member States have revised their time series upwards, but this does not mean that forest area has actually increased in the EU, only that the area estimates produced from existing inventory data have been corrected.

Not all data are available for both forests and other wooded land; ownership is one example. Just under 60 % of the EU-28's forests were privately owned in 2010. There were 11 EU Member States where the share of privately owned forests was above the EU-28 average, peaking at 98.4 % in Portugal. By contrast, the share of privately owned forests was below 20 % in Poland and Bulgaria (where the lowest proportion was recorded, at 13.2 %).

Table 6.1: Forest area and ownership, 2010 and 2015

	Land area 2010 without inland water (1)	Forest and other wooded land 2010	Forest and other wooded land 2015	Forest 2010	Forest 2015	Forest ownership 2010	
						Public	Private (2)
	(1 000 hectares)					(%)	
EU-28	424 578	180 232	181 924	158 785	161 081	40.3	59.7
Belgium	3 033	706	719	678	683	44.3	55.7
Bulgaria	10 893	3 927	3 845	3 927	3 823	86.8	13.2
Czech Republic	7 723	2 657	2 667	2 657	2 667	76.8	23.2
Denmark	4 243	591	658	544	612	23.7	76.3
Germany	34 877	11 076	11 419	11 076	11 419	51.5	48.5
Estonia	4 343	2 350	2 456	2 217	2 232	39.0	61.0
Ireland	6 839	789	801	739	754	54.3	45.7
Greece	13 082	6 539	6 546	3 903	4 054	77.5	22.5
Spain	50 176	27 748	27 627	18 173	18 418	29.4	70.6
France	55 010	17 572	17 579	15 954	16 989	25.8	74.2
Croatia	5 659	2 474	2 491	1 920	1 922	72.7	27.3
Italy	29 511	10 916	11 110	9 149	9 297	33.6	66.4
Cyprus	921	387	386	173	173	68.7	31.3
Latvia	6 220	3 467	3 468	3 354	3 356	49.4	50.6
Lithuania	6 268	2 240	2 284	2 160	2 180	63.5	36.5
Luxembourg	259	88	88	87	87	47.1	52.9
Hungary	8 961	2 029	2 190	2 029	2 069	57.8	42.2
Malta	32	0	0	0	0	:	:
Netherlands	3 372	365	376	365	376	50.4	49.6
Austria	8 241	4 006	4 022	3 887	3 869	25.7	74.3
Poland	30 633	9 337	9 435	9 337	9 435	82.2	17.8
Portugal	9 068	3 611	4 907	3 456	3 182	1.6	98.4
Romania	23 016	6 733	6 951	6 573	6 861	67.7	32.3
Slovenia	2 014	1 274	1 271	1 253	1 248	23.2	76.8
Slovakia	4 810	1 933	1 940	1 933	1 940	50.6	49.4
Finland	30 389	23 269	23 019	22 157	22 218	30.3	69.7
Sweden	40 734	31 247	30 505	28 203	28 073	26.8	73.2
United Kingdom	24 251	2 901	3 164	2 881	3 144	33.3	66.7
Iceland	10 024	116	193	30	49	27.8	72.2
Liechtenstein	16	7	7	7	7	91.4	8.6
Norway	30 425	12 384	14 124	10 250	12 112	14.1	85.9
Switzerland	4 000	1 311	1 324	1 240	1 254	71.7	28.3
Montenegro	1 345	744	964	467	827	72.2	27.8
FYR of Macedonia	2 491	1 141	1 141	998	998	90.4	9.6
Serbia	8 746	3 123	3 228	2 713	2 720	50.6	49.4
Turkey	76 960	20 864	21 845	10 175	11 715	99.9	0.1

(1) Latest available year; France: only covers the mainland.
(2) Includes any other form of ownership.
Source: Eurostat (online data code: demo_r_d3area) Food and Agriculture Organization of the United Nations — Global Forest Resources Assessment, 2015; Ministerial Conference for the Protection of Forests in Europe (Forest Europe) — State of Europe's Forests, 2011

Table 6.2: Timber resources, 2010 and 2014

	Forest and other wooded land	Forest available for wood supply		Roundwood production		
	Growing stock		Net annual increment	Total	Fuelwood	Industrial roundwood
	2010			2014		
	(1 000 m³ over bark)			(1 000 m³ under bark)		
EU-28	24 484 127	22 084 665	775 750	425 351	98 208	327 143
Belgium	167 900	164 288	5 289	:	:	:
Bulgaria	656 000	435 000	14 677	5 570	2 534	3 036
Czech Republic	769 300	737 650	23 086	15 476	2 111	13 365
Denmark	109 500	111 862	5 796	3 180	1 950	1 230
Germany	3 492 000	3 466 179	107 000	54 356	11 114	43 243
Estonia	455 200	398 300	11 201	8 460	2 691	5 769
Ireland	74 300	74 300	3 588	2 831	206	2 625
Greece	185 000	170 385	4 511	:	:	:
Spain	913 900	783 900	45 842	15 911	3 435	12 476
France	2 584 000	2 453 193	94 367	51 671	27 220	24 451
Croatia	415 590	334 400	7 423	5 003	1 925	3 078
Italy	1 448 300	1 285 330	32 543	:	:	:
Cyprus	8 829	3 269	38	9	5	4
Latvia	634 900	584 000	18 333	12 597	1 299	11 298
Lithuania	472 200	408 022	10 750	7 351	2 316	5 035
Luxembourg	25 950	25 756	650	:	:	:
Hungary	359 387	259 154	11 099	5 671	2 576	3 095
Malta	80	0	0	0	0	0
Netherlands	70 000	56 000	2 250	1 337	357	980
Austria	1 135 000	1 106 722	25 136	17 089	5 059	12 030
Poland	2 049 000	2 092 000	68 519	40 565	5 140	35 425
Portugal	187 800	154 000	19 087	:	:	:
Romania	1 390 200	1 098 328	33 984	15 068	4 584	10 484
Slovenia	417 000	389 927	9 165	5 099	1 589	3 511
Slovakia	514 100	477 600	13 193	:	:	:
Finland	2 199 391	2 024 000	91 038	57 033	7 832	49 202
Sweden	3 369 300	2 651 100	96 486	70 100	5 900	64 200
United Kingdom	380 000	340 000	20 700	11 184	1 823	9 361
Iceland	1 192	0	0	:	:	:
Liechtenstein	1 750	1 399	–	:	:	:
Norway	997 000	797 000	21 878	19	19	0
Switzerland	429 000	415 000	6 232	12 386	2 579	9 807
Montenegro	74	68	–	4 709	1 643	3 066
FYR of Macedonia	76 410	52 150	830	915	707	208
Serbia	415 000	–	5 232	691	577	114
Turkey	1 400 437	1 212 164	36 609	22 835	4 300	18 535

Source: Eurostat (online data code: for_remov, for_vol); Food and Agriculture Organization of the United Nations — Global Forest Resources Assessment, 2010; Ministerial Conference for the Protection of Forests in Europe (Forest Europe) — State of Europe's Forests, 2011

The growing stock of forests and other wooded land in the EU-28 totalled some 24.5 billion m³ (over bark) in 2010: Germany had the highest share (14.3 %), followed by Sweden (13.8 %) and France (10.6 %). Germany also had the largest growing stock in forests available for wood supply in 2010, some 3.5 billion m³, while Finland, Poland, France and Sweden each reported between 2.0 and 2.7 billion m³. The net annual increment in forests available for wood supply was also highest in Germany, rising by 107 million m³ in 2010 (13.8 % of the total increase for the EU-28), while Sweden, France and Finland each accounted for around 12 % of the annual increment across the EU.

6.2 Primary and secondary wood products

Among the EU Member States, Sweden produced the most roundwood (70 million m³) in 2014, followed by Finland, Germany and France (each producing between 52 and 57 million m³) (see Table 6.3). Slightly more than one fifth of the EU-28's roundwood production in 2014 was used as wood for fuel, while the remainder was industrial roundwood used either for sawnwood and veneers, or for pulp and paper production.

In 2013 and 2014, two EU Member States (Sweden and Ireland) reported that over 90 % of their total roundwood production was used as industrial roundwood. Denmark, France and Cyprus were the only EU Member States where over half of the roundwood produced in 2013 and 2014 was used as fuelwood, while Bulgaria, Croatia, Hungary and Lithuania reported proportions between 32 and 46 %. In many EU Member States, however, no estimates of actual fuelwood consumption by households are included in the numbers reported. Separate studies would be needed to produce such estimates, because this wood may be acquired informally, including from forests owned by households. The numbers reported here are probably under-reported in several EU Member States, given the recent increases in the EU's production of wood pellets and other agglomerates used for energy (see Figure 6.4) and the share of wood in gross inland energy consumption (see Figures 6.2 and 6.3).

Table 6.3: Roundwood production, 2000–14
(1 000 m^3)

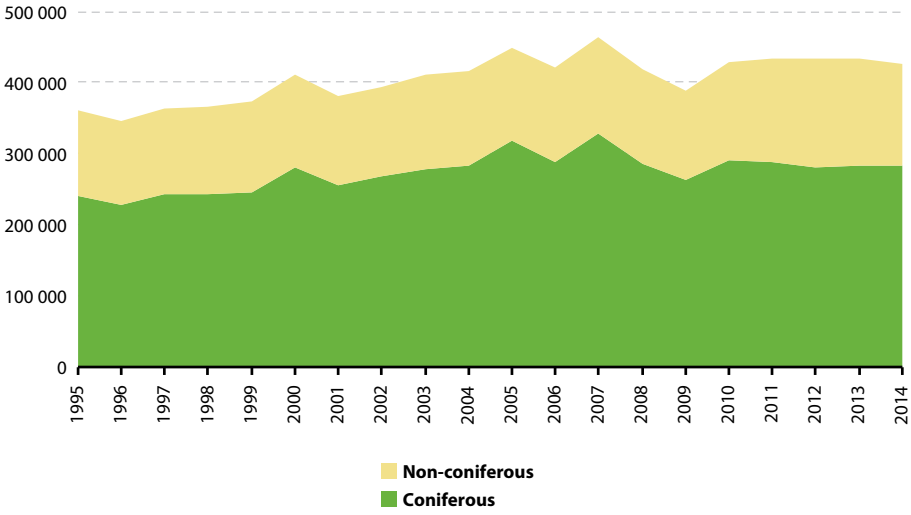
	2000	2005	2010	2011	2012	2013	2014
EU-28	411 764	447 502	427 611	433 657	433 173	434 326	425 351
EA (1)	236 540	232 925	234 993	237 590	237 347	237 044	225 127
Belgium	4 510	4 950	4 827	5 128	6 663	:	:
Bulgaria	4 784	5 862	5 668	6 205	5 973	5 804	5 570
Czech Republic	14 441	15 510	16 736	15 381	15 061	15 331	15 476
Denmark	2 952	2 962	2 669	2 583	2 669	3 180	3 180
Germany	53 710	56 946	54 418	56 142	52 338	53 207	54 356
Estonia	8 910	5 500	7 200	7 110	7 290	7 655	8 460
Ireland	2 673	2 648	2 618	2 635	2 580	2 760	2 831
Greece	2 245	1 523	1 048	1 196	:	:	:
Spain	14 321	15 531	16 089	15 428	14 657	15 758	15 911
France	65 865	52 499	55 808	55 041	51 495	51 671	51 671
Croatia	3 669	4 018	4 477	5 258	5 714	5 436	5 003
Italy	9 329	8 691	7 844	7 744	7 744	:	:
Cyprus	21	10	9	8	11	9	9
Latvia	14 304	12 843	12 534	12 833	12 530	12 242	12 597
Lithuania	5 500	6 045	7 097	7 004	6 921	7 053	7 351
Luxembourg	260	249	275	261	:	:	:
Hungary	5 902	5 940	5 740	6 232	5 946	6 027	5 671
Malta	0	0	0	0	0	0	0
Netherlands	1 039	1 110	1 081	982	8 063	1 108	1 337
Austria	13 276	16 471	17 831	18 696	18 021	17 390	17 089
Poland	26 025	31 945	35 467	37 180	38 015	38 939	40 565
Portugal	10 831	10 746	9 648	10 961	10 711	10 642	:
Romania	13 148	14 501	13 112	14 359	16 088	15 195	15 068
Slovenia	2 253	2 733	2 945	3 388	3 341	3 415	5 099
Slovakia	6 163	9 302	9 599	9 213	8 063	9 168	:
Finland	54 542	52 250	50 952	50 767	52 310	56 992	57 033
Sweden	63 300	98 200	72 200	71 900	69 499	69 600	70 100
United Kingdom	7 791	8 519	9 718	10 020	10 120	10 821	11 184
Iceland	0	0	:	3	4	:	:
Liechtenstein	:	:	25	26	23	19	19
Norway	8 156	9 667	10 443	10 291	10 572	11 598	12 386
Switzerland	9 238	5 285	4 938	4 861	4 466	4 577	4 709
Montenegro	:	:	364	364	915	915	915
FYR of Macedonia	:	822	631	631	779	691	691
Turkey	15 939	16 185	20 554	21 039	21 959	20 858	22 835
Brazil	:	255 743	271 501	284 019	284 985	264 443	264 443
Canada	201 845	203 121	142 013	148 178	152 594	152 076	154 259
China	:	302 037	291 251	288 466	285 135	347 512	347 512
India	:	328 677	332 499	331 969	331 436	357 226	357 226
Indonesia	:	123 791	113 849	117 994	115 623	115 232	115 232
Russia	158 100	185 000	175 000	220 224	216 379	194 461	203 000
United States	466 549	467 347	323 986	338 090	376 629	396 818	398 693

(1) EA-11 for 2000. EA-12 for 2005. EA-16 for 2010. EA-17 for 2011–13. EA-18 for 2014.
Note: Data that were not available were nevertheless estimated by Eurostat and are included in the EU aggregates.
Source: Eurostat (online data codes: for_remov)

The overall level of EU-28 roundwood production reached an estimated 425 million m³ in 2014, some 37 million m³ (8 %) less than the peak output level recorded in 2007. Note that some of the peaks (most recently 2000, 2005 and 2007) in roundwood production are due to forestry and logging having to cope with unplanned numbers of trees that were felled by severe storms.

From 1996 to 2007, there was a steady increase in the level of roundwood production in the EU-28 (see Figure 6.1). While the output of non-coniferous (broadleaved or hardwood) species remained relatively stable, there were greater year-on-year differences for coniferous (softwood) species. The effects of the financial and economic crisis led to a drop of the level of EU-28 coniferous production in 2008, a pattern confirmed by a further reduction in 2009. The output has since returned to pre-crisis levels of approximately 280 million m³ per annum. Non-coniferous production increased relative to coniferous production ever since the crisis years. In 2010, EU-28 total roundwood production rebounded strongly by 10 % and continued to rise in 2011, but has since levelled out at – 2 % in 2014.

Figure 6.1: Annual production of roundwood, EU-28, 1995–2014 (1)
(1 000 m³)



(1) 2014 provisional.
Source: Eurostat (online data code: for_remov)

The total output of sawnwood across the EU-28 was approximately 100 million m³ per year from 2010 to 2014, some 14 % lower than in 2007, the first year of the global financial and economic crisis, which was also the year of the all-time maximum in production at 116 million m³. The situation has now returned to the average production level of the years preceding the crisis. Germany and Sweden are the EU's leading sawnwood producers, regularly accounting for approximately 22 % and 17 % of the EU-28 total output over the past few years. (see Table 6.4).

6.3 Wood as a source of energy

Energy supply has always been one of the main uses for wood. Policy interest in energy security and renewable sources of energy, combined with relatively high oil and gas prices, has led in recent years to a reassessment of the possible use of wood as a source of energy. The use of renewables is enshrined in legally binding targets that have been set for each EU Member State concerning the role to be played by renewable energy sources through to 2020. The 'Renewable energy progress report' (COM(2013) 175 final) provides information on the progress being made towards the target of achieving a 20 % share of renewable energy in final energy consumption by 2020. This goal is designed to help reduce emissions, improve the security of energy supply and reduce dependence on energy imports.

Between 2004 and 2013, the consumption of renewable energy within the EU-28 almost doubled (see Figure 6.2). Some renewable energy sources grew exponentially. The consumption of solar energy for example, grew by 1 433 % between 2004 and 2013. However, the consumption of more established renewable energy sources, such as biomass other than wood (including municipal waste) also increased substantially (+ 235 %) during the same period. Among renewable energy sources, total biomass (wood and other biomass including municipal waste) plays an important role, accounting for just over two thirds (65.0 %) of the gross inland energy consumption of renewables in the EU-28 in 2013. As part of this biomass total, wood and wood waste provided the highest share of energy from organic, non-fossil materials of biological origin, accounting for almost half (46 %) of the EU-28's gross inland energy consumption of renewables in 2013.

In many EU Member States, wood is the most important single source of energy from renewables (see Figure 6.3). Wood and wood waste accounted for 5.5 % of the total energy consumed within the EU-28 in 2013. The share of wood and wood waste in gross inland energy consumption ranged from over 20 % in Latvia and Finland down to less than 1 % in Cyprus and Malta.

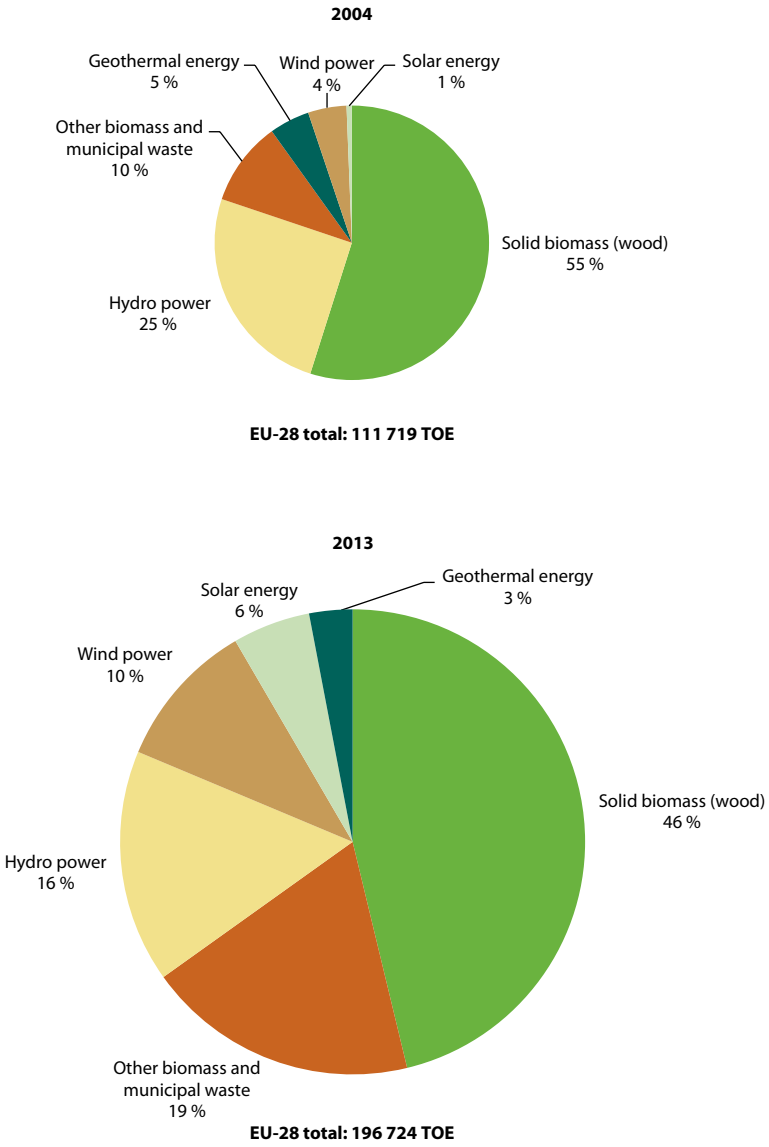
Wood was the source for more than three quarters of the renewable energy consumed in Estonia, Lithuania, Finland, Poland and Latvia. By contrast, the relative weight of wood in the mix of renewables was relatively low in Malta and Cyprus (where the lowest share was reported, 6.7 %); this was also the case in oil- and gas-rich Norway (8.0 %).

Table 6.4: Sawnwood production, 2000–14
(1 000 m^3)

	2000	2005	2010	2011	2012	2013	2014
EU-28	100 706	108 706	100 815	101 994	100 058	99 736	99 208
EA (1)	61 337	66 777	59 673	60 627	57 947	58 002	55 133
Belgium	1 150	1 285	1 383	1 388	1 342	:	:
Bulgaria	312	569	554	728	698	801	:
Czech Republic	4 106	4 003	4 744	4 454	4 259	4 037	3 861
Denmark	364	196	448	372	392,7	357,6	358
Germany	16 340	21 931	22 059	22 628	21 081	21 478	21 787
Estonia	1 436	2 063	1 771	1 503	1 491	1 558	1 600
Ireland	888	1 015	772	761	782	825	907
Greece	123	191	118	106	:	:	:
Spain	3 760	3 660	2 038	2 162	1 971	2 047	2 047
France	10 536	9 715	8 316	8 675	8 067	7 901	7 901
Croatia	642	624	677	754	851	877	780
Italy	1 630	1 590	1 200	1 250	1 370	1 360	1 430
Cyprus	9	4	4	3	3	2	2
Latvia	3 900	4 227	3 150	3 432	3 316	3 367	3 657
Lithuania	1 300	1 445	1 272	1 260	1 150	1 120	1 345
Luxembourg	133	133	94	78	:	:	:
Hungary	291	215	133	:	302	109	121
Malta	0	0	0	0	0	0	0
Netherlands	389	279	231	238	1 430	216	227
Austria	10 390	11 074	9 603	9 636	8 952	8 534	8 351
Poland	4 262	3 360	4 220	4 422	4 249	4 321	4 615
Portugal	1 427	1 010	1 045	1 044	1 097	872	:
Romania	3 396	4 321	4 323	4 442	5 500	5 532	5 762
Slovenia	439	527	760	703	660	660	700
Slovakia	1 265	2 621	2 576	2 204	1 430	1 750	:
Finland	13 420	12 269	9 473	9 750	9 440	10 440	10 940
Sweden	16 176	17 600	16 750	16 500	16 492	16 074	17 500
United Kingdom	2 622	2 780	3 101	3 279	3 409	3 581	3 764
Iceland	0	0	:	:	0	:	:
Liechtenstein	:	:	4	8	0	0	0
Norway	2 280	2 326	2 118	2 271	2 289	2 206	2 407
Switzerland	1 625	1 591	1 457	1 313	1 135	1 044	1 140
Montenegro	:	:	50	50	53	53	53
FYR of Macedonia	:	18	5	5	8	4	4
Turkey	5 528	6 445	6 243	6 461	6 682	6 405	6 635
Brazil	:	23 557	25 080	25 210	25 210	15 397	15 397
Canada	50 465	60 187	38 667	38 880	40 715	42 813	43 351
China	:	18 348	37 231	44 638	55 738	63 040	68 440
India	:	14 789	6 889	6 889	6 889	6 889	6 889
Indonesia	:	4 330	4 169	4 169	4 169	4 169	4 169
Russia	20 000	22 033	28 870	31 215	32 230	33 500	33 900
United States	91 076	97 020	57 629	60 185	64 246	71 115	74 803

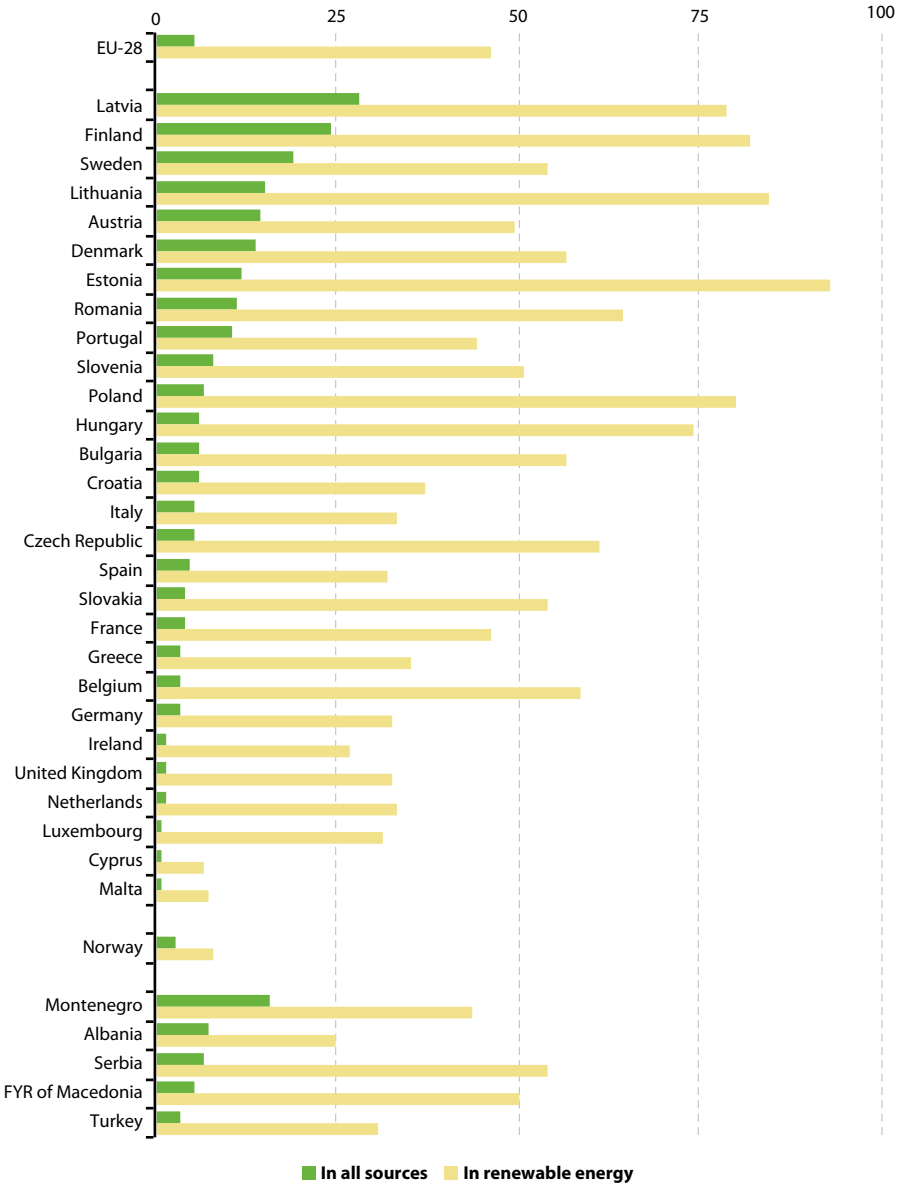
(1) EA-11 for 2000. EA-12 for 2005. EA-16 for 2010. EA-17 for 2011–13. EA-18 for 2014.
Note: Data that were not available were nevertheless estimated by Eurostat and are included in the EU aggregates.
Source: Eurostat (online data codes: for_swpan)

Figure 6.2: Gross inland consumption of renewable energy, EU-28, 2004 and 2013
(1 000 tonnes of oil equivalent, %)



Source: Eurostat (online data code: nrg_107a)

Figure 6.3: Wood as a source of energy, 2013
(% share of wood and wood products in gross inland energy consumption, in TOE)

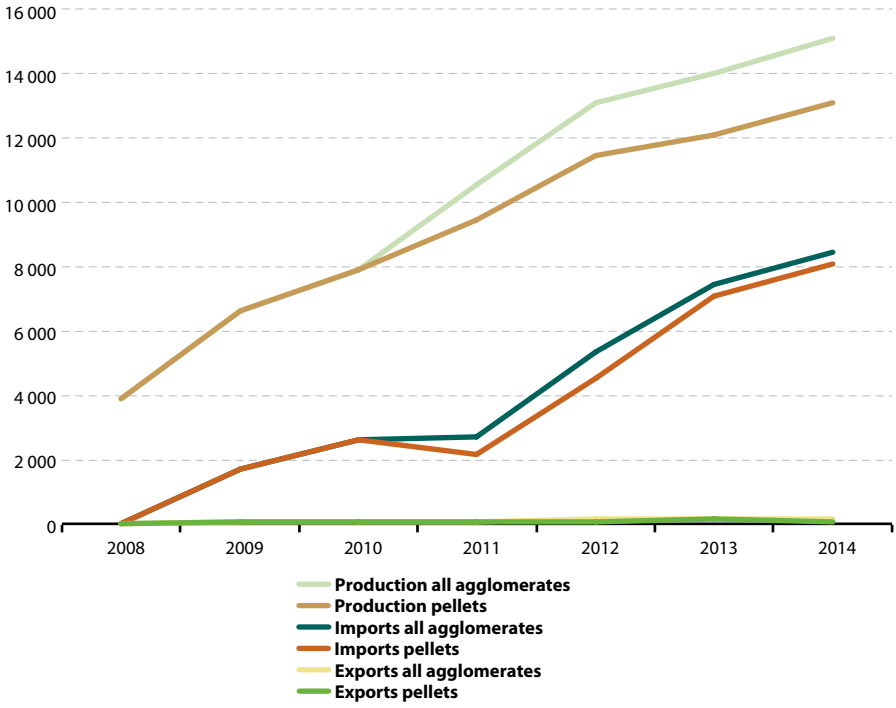


Source: Eurostat (online data codes: nrg_100a and nrg_107a)

Wood pellets are made from dried sawdust, shavings or wood powder, with the raw material being subjected to high pressure to increase the density of the final product. Pellets are currently the most economical way of converting biomass into fuel and are a fast-growing source of energy in Europe. They can be used for power production, or, more efficiently, directly for combustion in residential and commercial heating.

The EU-28 is the largest global producer of wood pellets, its output reaching an estimated 13.1 million tonnes in 2014; production in the EU-28 rose by 97 % overall between 2009 and 2014 (see Figure 6.4). The EU-28 is also a net importer of wood pellets: the level of imports from non-EU Member States rose to 8 million tonnes in 2014, an overall increase of 364 % compared with 2009. The main suppliers of EU imports are the United States and Canada; much less is supplied by Russia and other countries (i.a. Belarus and Ukraine).

Figure 6.4: Production and trade in wood pellets and other agglomerates, EU-28, 2008–14 ([1])
(1 000 tonnes)



([1]) EU-27: 2008–11.
Source: Eurostat (online data code: for_basic)

Germany produced an estimated 2 million tonnes of wood pellets in 2014, or 16 %, of the EU-28's output. Sweden was the second largest producer with around 1.6 million tonnes, followed by Latvia (1.3 million tonnes), France (1.2 million tonnes), Austria and Portugal (945 and 944 thousand tonnes) (see Table 6.5).

Although potential biomass supplies within most EU Member States are substantial, some countries import significant volumes of fuel pellets and other forms of biomass as they seek to meet their renewable energy targets, raising concerns about the impact of importing wood as a source of energy and the consequences this may have on the global sustainability of forests and resulting levels of carbon emissions.

The United Kingdom was the biggest importer of wood pellets in 2014 among the EU-28 Member States, some 7.2 million tonnes (note that this figure relates to total imports, from non-EU countries as well as from Member States). Denmark and Italy each imported around 2 million tonnes of wood pellets in 2014. By contrast, Latvia was the only EU Member State to export more than 1 million tonnes of wood pellets in 2014, followed by Portugal with 750 thousand tonnes and the Czech Republic with 701 thousand tonnes. The Czech Republic also exported 591 thousand tonnes of other agglomerates, such as wood briquettes (1).

(1) See table 'Roundwood, fuelwood and other basic products (online data code: for_basic).

Table 6.5: Production and trade in wood pellets, 2010 and 2014
(1 000 tonnes)

	Production		Imports (1)		Exports (1)	
	2010	2014	2010	2014	2010	2014
EU-28	**7 898**	**13 123**	**2 576**	**8 070**	**70**	**98**
Belgium	0	:	315	657	38	96
Bulgaria	7	:	1	20	8	155
Czech Republic	85	671	15	299	99	701
Denmark	0	92	1 443	2 106	35	174
Germany	1 744	2 078	270	370	740	627
Estonia	423	720	50	62	421	641
Ireland	28	32	12	0	0	0
Greece	0	0	0	21	0	1
Spain	184	250	13	37	5	40
France	449	1 200	144	138	231	124
Croatia	:	124	:	4	:	161
Italy	539	450	816	1 936	2	11
Cyprus	0	0	0	1	0	0
Latvia	615	1 280	9	88	589	1 277
Lithuania	205	250	44	72	213	300
Luxembourg	8	:	4	:	11	:
Hungary	0	3	43	8	12	13
Malta	0	0	0	0	0	0
Netherlands	120	279	1 024	383	135	233
Austria	686	945	231	342	397	481
Poland	429	620	34	52	69	274
Portugal	486	944	64	38	550	750
Romania	175	810	3	3	165	413
Slovenia	65	100	45	159	42	111
Slovakia	87	:	4	19	38	98
Finland	177	324	11	46	109	56
Sweden	1 386	1 577	697	522	117	253
United Kingdom	0	335	551	7 220	60	50
Norway	45	57	14	75	1	17
Switzerland	0	160	:	59	:	3

(1) Extra-EU trade for the EU-28 aggregate.
Source: Eurostat (online data code: for_basic)

6.4 Forestry and logging: economic indicators and employment

A range of economic indicators are presented for forestry and logging activities across EU Member States in Table 6.6. The data come from forest accounts, which complement the other data collections. These data confirm the information presented at the start of this chapter, insofar as the largest forestry and logging activities on the basis of gross value added generated in 2012 were found in Sweden, Germany and Finland.

Gross fixed capital formation measures the proportion of gross value added that is (re)invested, rather than being consumed. As such it may be considered an important indicator for the competitiveness of an industry. On the basis of the information that is available for 15 EU Member States, EUR 2.4 billion was invested in forestry and logging in 2012, accounting for a 13.0 % share of gross value added. Almost half of the investment that took place in 2012 could be attributed to Sweden and Finland. The highest relative shares of gross fixed capital formation in value added for 2012 were recorded in Cyprus (42.1 %) and Greece (26.3 %) although these figures tended to reflect low levels of added value, rather than high levels of investment. They were followed by Poland (24.0 %), while Finland and Sweden each recorded shares of gross fixed capital formation in gross value added in the range of 16.1 % a.d 18 %, respectively.

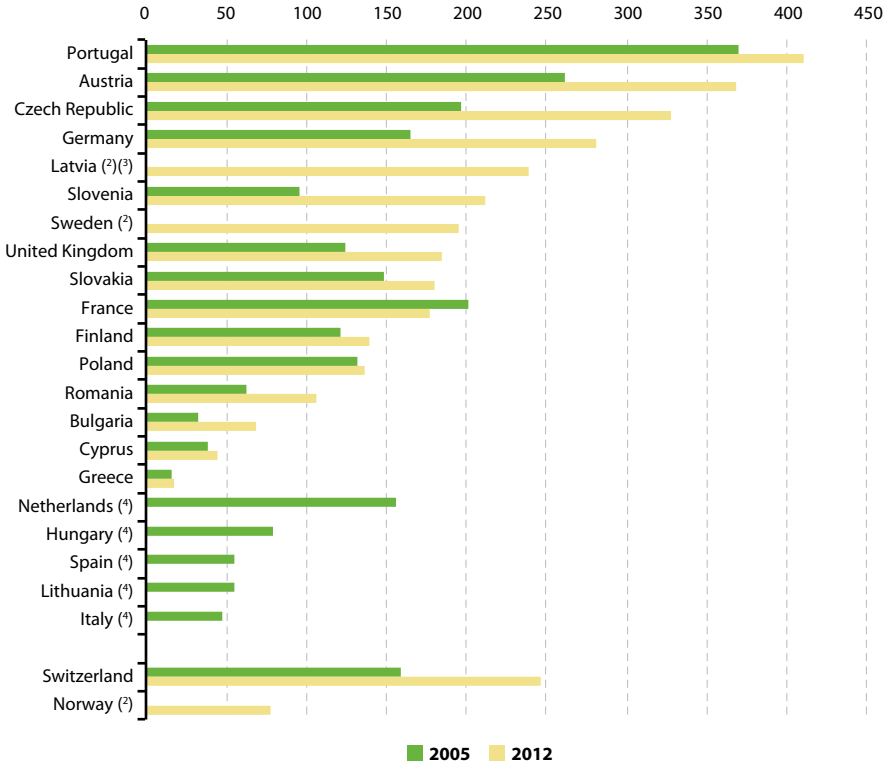
The ratio of value added generated within the forestry and logging sector compared with the forest area available for wood supply is one indicator that can be used to analyse the productivity of forestry activities across the EU (see Figure 6.5). The indicator shows that the highest shares of value added per forest area in the EU were in Portugal, Austria, the Czech Republic, Germany, Latvia and Sweden; forests accounted for at least 30 % of the total land area in each of these EU Member States.

Table 6.6: Economic indicators for forestry and logging, 2005 and 2012

	Gross output		Gross value added at basic prices		Gross fixed capital formation		Gross value added/ forest area available for wood supply	
	(million EUR)						(EUR/hectare)	
	2005	2012	2005	2012	2005	2012	2005	2012
Belgium	:	:	:	:	:	:	:	:
Bulgaria	216	459	84	197	11	20	33	69
Czech Republic	1 035	1 744	496	764	63	103	197	328
Denmark	:	:	:	:	:	:	:	:
Germany	4 141	6 348	1 738	2 975	168	226	164	282
Estonia	:	:	:	:	:	:	:	:
Ireland	:	:	:	:	:	:	:	:
Greece	60	70	54	63	4	17	16	18
Spain	1 438	:	787	:	:	:	55	:
France	4 446	4 578	2 968	2 690	472	275	201	178
Croatia	:	:	:	:	:	:	:	:
Italy	443	:	365	:	83	:	47	:
Cyprus	2	3	2	2	2	1	38	44
Latvia (1)	:	1 168	:	749	:	:	:	239
Lithuania	167	:	102	:	10	:	55	:
Luxembourg	:	:	:	:	:	:	:	:
Hungary	277	:	132	:	24	:	79	:
Malta	:	:	:	:	:	:	:	:
Netherlands	22	:	46	:	10	:	156	:
Austria	1 592	2 244	873	1 222	155	149	261	368
Poland	1 991	2 051	1 110	1 166	137	280	132	137
Portugal	693	758	666	747	98	97	370	410
Romania	286	1 075	314	550	:	42	62	106
Slovenia	178	341	115	230	8	12	99	211
Slovakia	551	656	259	321	33	28	148	181
Finland	1 890	2 251	2 422	2 761	388	444	121	139
Sweden	:	8 728	:	3 996	:	704	:	194
United Kingdom	535	856	357	444	20	46	150	184
Norway	:	1 014	:	500	:	69	:	78
Switzerland	279	407	188	296	83	119	159	246

(1) 2011 data.
Source: Eurostat (online data codes: for_eco_cp and for_area)

Figure 6.5: Forestry and logging value added per forest area available for wood supply, 2005 and 2012 (1)
(EUR/hectare)



(1) Ranked on 2012; those EU Member States not shown: not available or not applicable.
(2) 2005: not available.
(3) 2012: not available; 2011 instead.
(4) 2012: not available.
Source: Ministerial Conference for the Protection of Forests in Europe (Forest Europe) — State of Europe's Forests, 2011, supplemented by Eurostat estimates (online data code: for_area)

Table 6.7 provides some information in relation to employment within the EU's forestry and logging sector. The largest workforce in the EU's forestry and logging sector was recorded in Romania, with 60 300 annual work units (AWUs) in 2012. There were also relatively large workforces in Poland (47 700 AWUs), Sweden (42 700 AWUs), Germany (38 800 AWUs) and France (29 300 AWUs); note that this information is incomplete with data only available for 15 EU Member States.

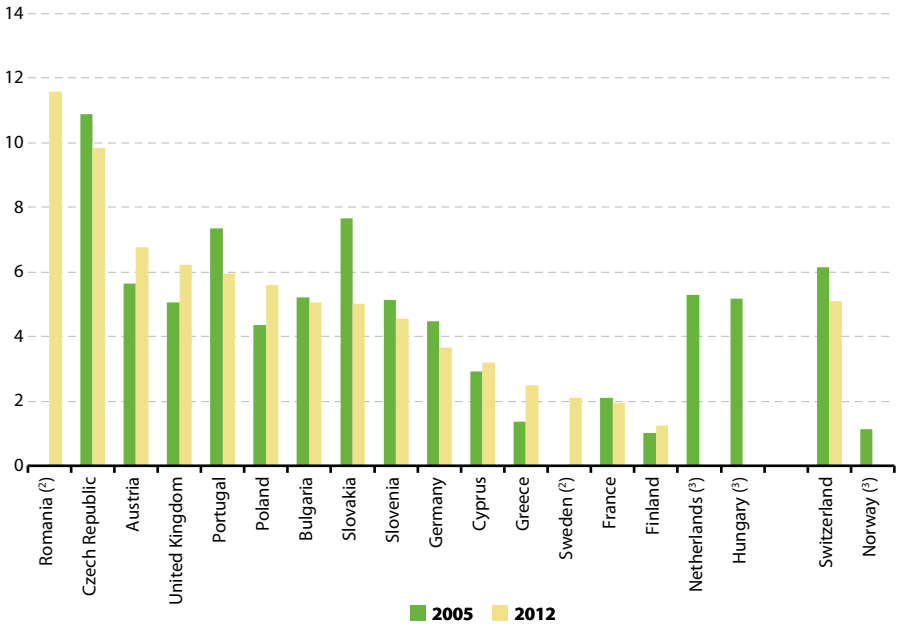
Table 6.7: Employment in forestry and logging, 2005 and 2012

	Employment		Employment/ forest area available for wood supply		Apparent labour productivity			
	2005	2012 (1)	2005	2012 (2)	2005	2012	2005	2012
	(1 000 annual work units)		(annual work units/ 1 000 hectares)		(1 000 m^3 removals/ annual work units)		(1 000 EUR gross value added / annual work units)	
Belgium	:	:	:	:	:	:	:	:
Bulgaria	13.3	14.5	5.2	5.0	0.4	0.4	6.3	13.6
Czech Republic	27.4	22.9	10.9	9.8	0.6	0.7	18.1	35.3
Denmark	:	:	:	:	:	:	:	:
Germany	47.4	38.8	4.5	3.7	1.2	1.4	36.6	76.8
Estonia	:	:	:	:	:	:	:	:
Ireland	:	:	:	:	:	:	:	:
Greece	4.7	9.0	1.4	2.5	0.3	:	11.4	7.0
Spain	:	:	:	:	:	:	:	:
France	30.8	29.3	2.1	1.9	1.7	1.8	96.4	91.8
Croatia	:	:	:	:	:	:	:	:
Italy	:	:	:	:	:	:	:	:
Cyprus	0.1	0.1	2.9	3.2	0.1	0.1	13.1	13.8
Latvia	:	:	:	:	:	:	:	:
Lithuania	:	:	:	:	:	:	:	:
Luxembourg	:	:	:	:	:	:	:	:
Hungary (3)	8.7	9.1	5.2	5.3	0.7	0.7	15.2	:
Malta	:	:	:	:	:	:	:	:
Netherlands	1.6	:	5.3	:	0.7	:	29.5	:
Austria	19.0	22.6	5.7	6.8	0.9	0.8	46.0	54.1
Poland	36.8	47.7	4.4	5.6	0.9	0.8	30.2	24.4
Portugal	12.0	10.8	6.7	5.9	0.9	1.0	55.3	72.8
Romania	:	60.3	:	11.6	:	:	:	9.1
Slovenia	6.0	5.3	5.1	4.5	0.5	0.6	18.8	43.1
Slovakia	13.4	8.9	7.7	5.0	0.7	0.9	19.4	36.0
Finland	20.0	25.0	1.0	1.3	2.6	2.0	121.1	110.4
Sweden	:	42.7	:	2.1	:	:	:	93.6
United Kingdom	12.0	15.0	5.1	6.2	0.7	0.7	24.6	29.6
Norway	7.1	11.5	1.1	1.8	1.4	0.9	:	43.5
Switzerland	7.2	6.1	6.1	5.1	0.7	0.7	25.9	42.3

(1) Hungary and Norway: 2011.
(2) Data on forest area available for wood supply from 2010.
(3) Employment and gross value added: 2009 instead of 2011.

Source: Eurostat (online data codes: for_awu, for_remov and for_area)

Figure 6.6: Employment per area of forest available for wood supply, 2005 and 2012 ([1])
(annual work units/1 000 hectares)



([1]) Ranked on 2012; those EU Member States not shown: not available or not applicable. Data on forest area: 2010.
([2]) 2005: not available
([3]) 2012: not available.
Source: Ministerial Conference for the Protection of Forests in Europe (Forest Europe) — State of Europe's Forests, 2011, supplemented by Eurostat estimates (online data codes: for_awu and for_area)

A ratio of labour input (as measured by AWUs) per area of exploited forest provides some information on the labour intensity of the forestry sector across the EU Member States. This indicator varies considerably between countries, ranging from a high of around 11.6 AWUs per 1 000 ha in Romania to less than 2 AWUs per 1 000 ha in France and Finland. Some of the differences across EU Member States may, at least in part, be explained by the local terrain in areas where forestry and logging takes place, as work in mountainous areas will generally require a higher level of labour input than work on large tracts of flat land.

The labour productivity of the forestry and logging sector (calculated as gross value added per AWU) also varied substantially across the EU Member States in 2012. The highest levels of labour productivity using this measure were recorded in Finland (EUR 110 400 per AWU) and Sweden (EUR 93 600 per AWU), while at the other end of the range, Bulgaria, Greece, Cyprus and Romania recorded productivity levels that were below EUR 14 000 per AWU.

6.5 Wood-based industries

The EU's wood-based industries cover a range of downstream activities, including woodworking industries, large parts of the furniture industry, pulp and paper manufacturing and converting industries, and the printing industry. Together, some 438 000 enterprises were active in wood-based industries across the EU-28; they represented more than one in five (20.1 %) manufacturing enterprises across the EU-28, highlighting that — with the exception of pulp and paper manufacturing that is characterised by economies of scale — many downstream wood-based industries had a relatively high number of small or medium-sized enterprises.

The economic weight of the wood-based industries in the EU-28 as measured by EUR 132 billion of gross value added was equivalent to 8.1 % of the manufacturing total in 2012. The distribution of value added across each of the three wood-based activities is presented in Table 6.8. Within the EU-28's wood-based industries in 2012; the highest share was recorded for pulp, paper and paper products manufacturing (32 % or EUR 42 billion), the other three sectors had nearly equal shares — printing and service activities related to printing presented 24 % of the gross value added of wood based industries, manufacturing of wood and wood products 23 % and manufacture of furniture 22 %.

Table 6.8: Main indicators for wood-based industries, EU-28, 2005 ([1]) and 2012

Activity (NACE Rev. 2)	Number of enterprises (1 000)		Gross value added at factor cost (billion EUR)		Number of persons employed (1 000)	
	2005	2012	2005	2012	2005	2012
Manufacturing (C)	2 183	2 100	1 668	1 620	34 185	30 000
Wood-based industries (16+17+18.1+31)	472	438	159	132	4 310	3 404
Manufacture of wood and wood products (16)	188	178	36	30	1 292	1 001
Manufacture of pulp, paper and paper products (17)	21	20	46	42	757	649
Printing and services related to printing (18.1)	133	117	41	31	978	755
Manufacture of furniture (31)	130	124	36	28	1 284	999

([1]) 2005: EU-27.

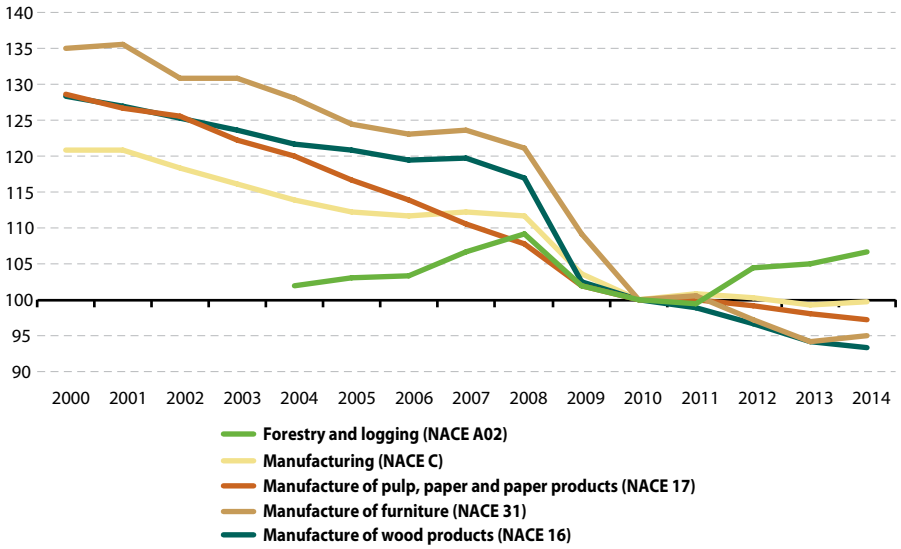
Source: Eurostat (online data codes: sbs_na_2a_dade, sbs_na_2a_dfdn and sbs_na_ind_r2)

Between 2005 and 2012 the overall added value generated within the EU-28's manufacturing industries fell by 2.9 %. The wood-based industries in the EU-28 experienced a decline in activity as gross value added fell by 17.0 %. Double-digit reductions in activity were recorded by all four wood-based industries, with the largest decline in output recorded for printing and service activities related to printing (– 22.8 %). The added value generated by the EU-28's wood and wood products manufacturing enterprises fell by 17.2 % between 2005 and 2012, and manufacturing of pulp, paper and paper products decreased 8.1 %.

Wood-based industries employed 3.4 million persons across the EU-28 in 2012, or 11.3 % of the manufacturing total. There were just around 1 million persons employed within both the manufacture of wood and wood products and the manufacture of furniture, while the lowest level of labour input (649 000 persons) was recorded for the relatively capital-intensive and highly automated activity of pulp, paper and paper products manufacturing.

A longer time series and fresher data are available concerning the development of employment within three of the wood-based industries. Across the EU-28, manufacturing employment fell by 17.5 % during the 2000–14 period, while the largest losses among the three wood-based industries shown in Figure 6.7 were recorded for furniture manufacturing (29.8 % fewer persons employed). Pulp, paper and paper products was the least affected manufacturing industry, noting a 24.4 % reduction in employment during the 2000–14 period, and in manufacturing of wood products it reduced by 27.2 %. The forestry and logging industry had an increase of 4.7 % from 2003 to 2014.

Figure 6.7: Employment in wood-based industries compared with total manufacturing, EU-28, 2000–14
(2010 = 100)



Source: Eurostat (online data codes: sts_inlb_a, for_emp_lfs1 and for_emp_lfs)

Each of these wood-based industries, in keeping with most manufacturing sectors, experienced a reduction in the number of persons employed during the 2000–14 period. The development of EU-28 employment for wood and wood products and furniture manufacturing closely followed the overall pattern for total manufacturing during the period 2000–08. Thereafter, with the onset of the global financial and economic crisis, job losses for these two wood-based industries accelerated at a faster pace than the manufacturing average. In contrast, employment in the upstream supply of timber to the wood-based industries presented a peak in 2008 (following the 2007 storms) and an increase from 2011 onward.

6.6 Tropical wood imports to the EU

The EU has agreed a voluntary scheme titled the Forest Law Enforcement, Governance and Trade (FLEGT) action plan to fight illegal logging and associated trade. One key element of the plan is to ensure that only legally harvested timber is imported to the EU. The EU legal framework for the scheme is Council Regulation (EC) No 2173/2005 adopted in December 2005 'on the establishment of a FLEGT licensing scheme for imports of timber into the European Community' and a 2008 European Commission implementing Regulation (EC) No 1024/2008 laying down detailed measures for the introduction of the scheme.

Bilateral FLEGT agreements between the EU and various tropical wood producing nations are designed to halt trade in illegal timber, notably with a license scheme to verify the legality of timber exported to the EU. The first agreements to be formally concluded were with Cameroon, the Central African Republic, Ghana, Indonesia, Liberia, and Congo, while negotiations are on-going with nine more countries: Cote d'Ivoire, the Democratic Republic of the Congo, Gabon, Guyana, Honduras, Laos, Malaysia, Thailand and Vietnam.

The statistics shown in Table 6.10 therefore relate to the potential value of legal timber that could enter the EU from tropical wood partners with bilateral FLEGT agreements. The value of wood imports into the EU-28 from the fifteen tropical countries (FLEGT countries) that have signed or are in the process of signing voluntary partnership agreements (VPAs) with the EU reached a peak of EUR 2.7 billion in 2007, before falling by 10 % in 2008 and by another 33 % in 2009. This shows how hard the global financial and economic crisis hit these high-value imports. There was a modest recovery in 2010, but a further decline in the period 2011–14, at the end of which the EU-28's imports from these countries totalled EUR 1.372 billion.

The countries that are presented in Table 6.10 accounted for approximately 80 % of the EU-28's tropical wood imports (in value terms) during the 2000–14 period. The main origin of tropical wood imports in 2014 was Cameroon (20.3 % of the total), followed by Malaysia (19.2 %) and Indonesia (10.7 %).

Table 6.9: Total wood imports to the EU and the share of FLEGT countries, EU-28, 2000–14
(million EUR)

	2000	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Cameroon	467.3	427.1	394.5	447.0	378.4	229.7	269.1	298.5	277.6	231.6	229.4
Central African Republic	30.4	24.7	27.9	24.6	21.4	11.4	10.1	10.7	9.7	6.8	5.6
Congo	83.3	101.1	99.3	91.8	94.7	53.0	79.9	60.8	53.9	65.3	64.8
Côte d'Ivoire	261.9	244.4	216.4	227.5	210.8	111.1	120.7	102.1	100.2	86.1	94.5
Democratic Republic of Congo	24.8	69.5	100.0	124.2	110.4	58.6	57.9	56.5	42.2	42.7	32.0
Gabon	204.2	269.9	250.0	289.9	265.9	180.6	168.5	161.8	140.8	147.1	143.8
Ghana	126.4	121.9	103.5	101.1	86.4	47.8	50.3	50.3	42.0	35.4	34.8
Guyana	2.7	5.5	7.7	8.2	6.1	4.8	7.6	4.7	4.3	2.3	2.0
Honduras	12.7	4.7	4.5	4.7	2.7	2.7	2.3	2.4	3.5	3.0	4.1
Indonesia	588.0	703.2	741.0	655.1	581.4	427.7	494.0	470.4	428.6	363.8	362.8
Laos	1.3	0.2	0.1	0.4	0.9	0.3	0.2	0.2	0.1	0.2	0.3
Liberia	70.3	0.0	0.0	0.0	0.3	3.6	2.3	16.2	11.0	4.7	2.3
Malaysia	557.6	439.0	582.8	587.2	539.4	391.5	441.4	408.1	376.4	316.5	310.9
Thailand	128.2	120.1	121.8	126.5	111.1	73.9	63.0	57.5	60.6	44.5	48.6
Vietnam	24.1	33.5	42.5	50.5	60.5	55.8	60.0	58.5	68.1	64.4	36.0
Sum of the 15 countries above	2 583.3	2 564.6	2 692.0	2 738.8	2 470.5	1 652.3	1 827.3	1 758.8	1 618.9	1 414.3	1 371.9
All countries of the world	8 926.0	10 427.4	11 336.3	13 129.9	11 343.4	7 881.5	9 532.6	9 767.1	9 421.9	9 209.0	9 463.6

Source: Eurostat (online data code: for_trop)

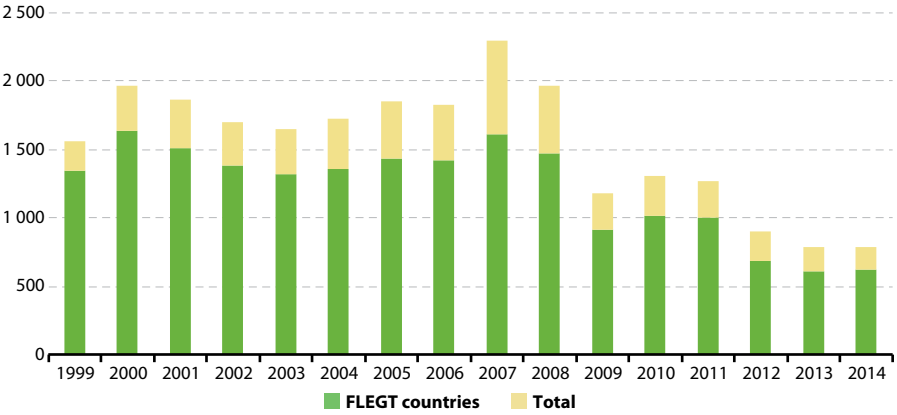
Table 6.10: Tropical wood imports, EU-28, 2002–14
(million EUR)

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
All countries of the world	1 695.6	1 646.3	1 728.8	1 856.3	1 827.8	2 302.7	1 962.1	1 177.8	1 303.6	1 268.3	897.1	786.5	786.7
FLEGT-VPA countries (1)	1 385.1	1 325.0	1 355.2	1 428.9	1 421.4	1 614.4	1 467.0	916.5	1 011.9	1 001.1	690.6	612.1	618.0
Cameroon	327.4	323.9	340.2	384.1	350.1	405.3	340.7	208.9	253.0	277.9	204.6	162.6	160.0
Central African Republic	28.5	32.4	25.2	22.3	26.7	22.8	19.7	11.0	9.8	10.3	9.2	5.9	4.8
Congo	93.7	89.3	104.1	89.0	85.3	77.3	78.1	35.6	55.7	54.2	35.9	44.0	48.8
Côte d'Ivoire	185.4	162.3	187.6	195.3	170.6	187.6	178.2	93.0	103.8	87.8	69.4	57.3	65.3
Democratic Republic of the Congo	22.3	22.5	36.6	60.2	83.6	100.6	85.5	41.5	47.6	51.1	36.8	35.8	27.0
Gabon	205.0	194.6	220.9	226.0	207.4	268.1	249.2	169.6	161.6	158.2	54.6	57.9	53.4
Ghana	96.6	90.3	86.5	85.4	68.2	69.9	64.5	34.7	35.1	33.2	15.8	14.1	14.4
Guyana	1.1	0.6	0.7	1.6	2.1	2.7	3.7	2.5	2.5	1.2	1.7	1.3	1.8
Honduras	0.2	0.2	0.1	0.1	0.3	0.7	0.2	0.6	0.3	0.2	0.5	0.7	1.8
Indonesia	80.6	85.6	80.8	88.8	81.0	135.2	132.9	100.8	107.3	102.7	85.9	80.1	83.9
Laos	:	:	:	:	:	:	:	:	:	:	:	0.0	0.3
Liberia	62.6	37.9	0.0	:	:	:	0.3	0.7	1.2	5.6	5.6	2.5	2.2
Malaysia	263.4	266.2	255.1	258.3	329.2	325.9	295.5	211.2	228.7	213.9	165.0	147.4	151.4
Thailand	17.9	18.6	16.9	17.4	16.4	17.4	17.1	6.0	4.8	4.1	5.2	1.4	1.8
Vietnam	0.5	0.5	0.5	0.4	0.6	1.0	1.4	0.4	0.3	0.7	0.5	0.9	1.3

(1) Forest Law Enforcement, Governance and Trade – Voluntary Partnership Agreement (FLEGT-VPA) countries are producers of tropical wood that have signed or are about to sign a VPA with the EU. The agreement requires licensing arrangements to ensure that timber placed on the EU market is from legal sources.

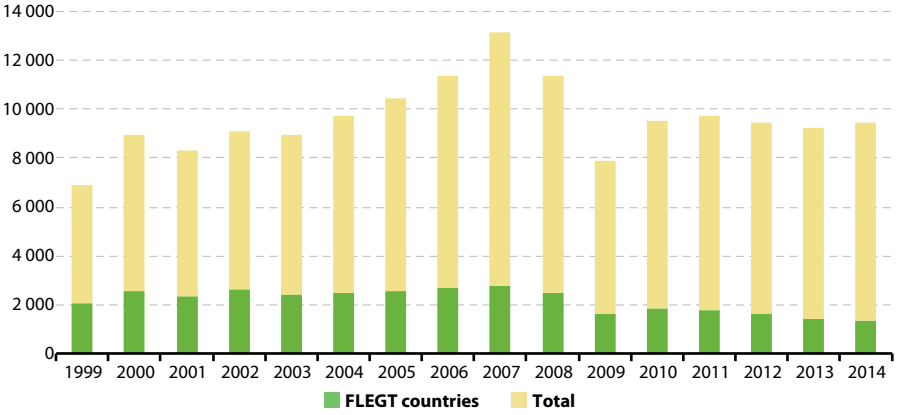
Source: Eurostat (online data code: for_trop)

Figure 6.8: FLEGT countries' stable share in tropical wood imports to the EU-28, 1999–2014
(million EUR)



Source: Eurostat (online data code: for_trop)

Figure 6.9: FLEGT countries' diminishing share in total wood imports to the EU-28, 1999–2014
(million EUR)



Source: Eurostat (online data code: for_trop)

DATA SOURCES AND AVAILABILITY

Eurostat, the Timber Committee of the United Nations Economic Commission for Europe (UNECE), the Forestry Section of the United Nations Food and Agriculture Organisation (FAO) and the International Tropical Timber Organisation (ITTO) collect and collate statistics on the production and trade of wood through their Joint Forest Sector Questionnaire (JFSQ). Each partner collects data from a different part of the world; Eurostat is responsible for the data collection exercise pertaining to the EU Member States and EFTA countries.

Eurostat produces annual data on forestry using two questionnaires:

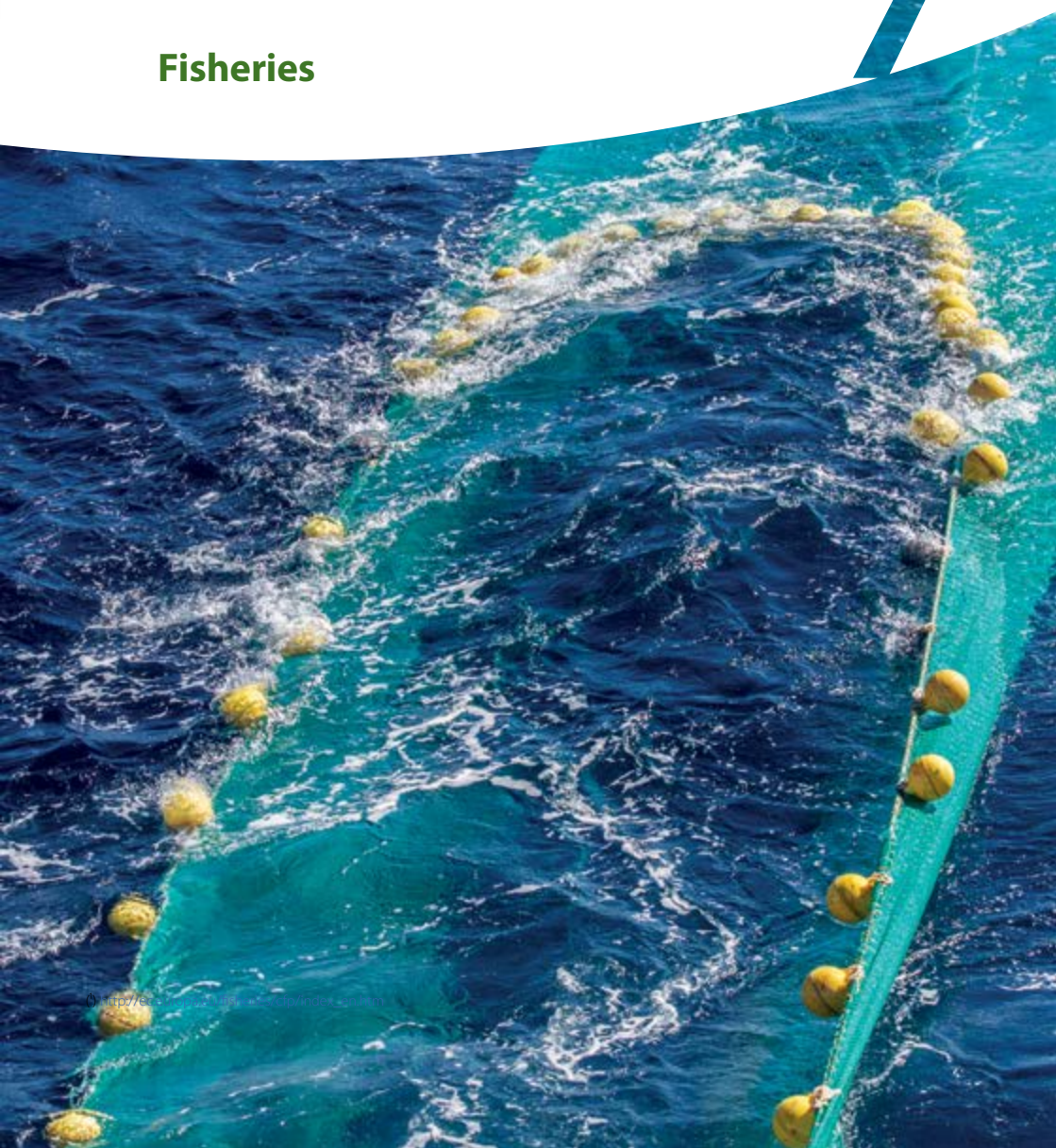
- the Joint Forest Sector Questionnaire (JFSQ) on production and trade in wood and wood products;
- integrated environmental and economic accounting for forests (IEEAF); countries are currently providing data on economic accounts for forestry and logging, forming part of an environmental satellite accounts initiative that started in the late 1990s.

The JFSQ provides data on supply balances for wood products. The data have also been used for: modelling whether supply will match demand in the future due to competing uses for materials and for energy; estimating carbon in harvested wood products for post-Kyoto negotiations.

The collection of data for integrated environmental and economic accounting for forests restarted in 2008 after a break of several years. This data provides, among others, information relating to the economic viability of forestry, employment in forestry and logging and the multi-functionality of forests. Note that the monetary values concern current basic prices (in other words, the analysis of time series is not adjusted for inflation.

7

Fisheries



Introduction

Fish are a natural, biological, mobile (sometimes over long distances) and renewable resource. Aside from fish farming, fish are generally not owned until they have been caught. As such, fish stocks continue to be regarded as a common resource which needs to be managed collectively. This has led to a range of policies that regulate the amount of fishing at the European level, as well as the types of fishing techniques and gear that can be used in fish capture.

A renewed common fisheries policy (CFP) (1) entered into force on 1 January 2014 aiming at an environmentally, economically and socially sustainable use of the common resource including aquaculture production. Based on EU legislation, Eurostat produces data on catches and landings of fishery products, aquaculture and the EU fishing fleet.

7.1 Fishing fleet

Under the Common fisheries policy (CFP), reducing fleet capacity is an essential tool for achieving a sustainable exploitation of fisheries resources. The EU fleet is very diverse, with the vast majority of boats being no more than 12 metres long, and a small number of vessels exceeding 40 metres in length.

The EU's fishing fleet capacity has declined fairly steadily since the early 1990s, in terms of both tonnage (an indicator of fish-holding capacity) and engine power (an indicator of the power available for fishing gear). The size of the EU-28 fishing fleet has dropped to about 85 800 vessels in 2014 compared to 95 300 vessels for the EU-15 in 2000, although it increased by 7.2 % between 2012 and 2013, following Croatia's EU accession. The EU's fishing fleet in 2014 had a combined capacity of 1.6 million gross tonnes and a total engine power of 6.5 million kilowatts (2).

Almost one fifth (18.3 %) of the EU-28's fishing fleet is registered in Greece. On average, however, these Greek vessels are small, with an average size of 4.9 gross tonnes (much less than the EU-28 average of 19.2 gross tonnes) and an average engine power of 28.8 kilowatts in 2014 (compared with an EU-28 average of 75.9 kilowatts). In terms of capacity Spain, France, Italy and the United Kingdom had the largest fishing fleets, accounting for 54.1 % of gross tonnage and 55.9 % of engine power in 2014.

The capacities of most national fishing fleets declined in the short period between 2005 and 2014, however increases of over 1 % in tonnage were registered in Denmark, France, Cyprus, Lithuania and Sweden from 2013 to 2014. The capacity downsizing in Spain, France and Italy was in line with the EU-28 average for this period (2005–14), but was smaller in the United Kingdom, Portugal, Germany and Finland. Poland was the only Member State to register an increase of the fleet gross tonnage capacity from 2005 to 2014.

This reduced capacity in the EU-28 stands in stark contrast with the upkeep of fishing fleet capacities in Iceland and Norway (data from 2013). The capacity of the Norwegian fishing fleet (about 393 000 gross tonnes in 2013) was similar to Spain's in terms of overall tonnage, although Norway's 64.1 gross tonnes average per vessel was considerably higher than Spain's. The Norwegian fishing fleet was also considerably more powerful than that of any EU Member State. In the case of Iceland, despite having a much smaller fleet than France and Italy in terms of numbers of vessels, the overall holding capacity (gross tonnage) was very similar.

(2) Based on the fishing fleet of the EU Member States active at 31 December of each year.

Table 7.1: Fishing fleet, 2000–14 ([1])
(number of vessels)

	2000	2005	2010	2011	2012	2013	2014
EU ([2])	95 285	88 947	83 534	81 987	80 643	86 479	85 768
Belgium	129	120	89	86	83	80	79
Bulgaria	:	:	2 340	2 336	2 366	2 043	1 951
Czech Republic	–	–	–	–	–	–	–
Denmark	4 138	3 264	2 819	2 784	2 743	2 663	2 449
Germany	2 315	2 116	1 673	1 582	1 550	1 533	1 492
Estonia	:	1 044	934	923	1 360	1 445	1 515
Ireland	1 621	1 860	2 144	2 187	2 247	2 197	2 157
Greece	19 598	17 965	17 032	16 527	15 981	15 790	15 693
Spain	16 685	13 705	10 851	10 505	10 116	9 872	9 632
France ([3])	8 229	8 239	7 219	7 207	7 142	7 125	7 069
Croatia	:	:	:	:	:	7 039	7 313
Italy	17 369	14 397	13 444	13 043	12 731	12 650	12 451
Cyprus	:	882	1 003	1 078	1 074	894	949
Latvia	:	928	786	731	715	703	700
Lithuania	:	267	171	151	148	146	142
Luxembourg	–	–	–	–	–	–	–
Hungary	–	–	–	–	–	–	–
Malta	:	1 418	1 091	1 054	1 043	1 032	1 020
Netherlands	1 101	825	846	841	848	846	831
Austria	–	–	–	–	–	–	–
Poland	:	974	793	790	798	838	873
Portugal	10 677	9 113	8 440	8 346	8 269	8 216	8 172
Romania	:	:	476	502	195	194	158
Slovenia	:	175	182	182	174	170	169
Slovakia	–	–	–	–	–	–	–
Finland	3 664	3 268	3 366	3 332	3 241	3 211	3 179
Sweden	2 019	1 599	1 360	1 369	1 392	1 368	1 365
United Kingdom	7 740	6 788	6 475	6 431	6 427	6 424	6 409
Iceland	1 997	1 756	1 628	1 658	1 691	1 692	:
Norway	13 017	7 723	6 309	6 250	6 211	6 126	:

([1]) The Czech Republic, Luxembourg, Hungary, Austria and Slovakia are landlocked countries without a marine fishing fleet.
([2]) EU-15: 2000; EU-25: 2005; EU-27: 2010–12; EU-28: from 2013.
([3]) French data include vessels registered in the French Overseas Departments.
Source: Eurostat (online data code: fish_fleet)

Table 7.2: Tonnage of the fishing fleet, 2000–14 ([1])
(total gross tonnage, 1 000 tonnes)

	2000	2005	2010	2011	2012	2013	2014
EU ([2])	2 030	2 021	1 748	1 687	1 631	1 657	1 646
Belgium	24	23	16	15	15	15	15
Bulgaria	:	:	8	7	7	6	6
Czech Republic	–	–	–	–	–	–	–
Denmark	108	91	66	65	66	65	69
Germany	71	64	68	65	64	62	60
Estonia	:	24	15	14	15	13	13
Ireland	72	88	69	64	65	63	63
Greece	107	93	87	84	80	78	77
Spain	520	488	414	399	385	373	358
France ([3])	226	220	173	171	168	164	173
Croatia	:	:	:	:	:	50	50
Italy	234	214	185	175	165	164	164
Cyprus	:	9	4	4	4	3	4
Latvia	:	39	41	35	34	30	20
Lithuania	:	65	46	45	27	34	49
Luxembourg	–	–	–	–	–	–	–
Hungary	–	–	–	–	–	–	–
Malta	:	15	12	8	8	7	7
Netherlands	212	171	147	152	145	151	143
Austria	–	–	–	–	–	–	–
Poland	:	30	37	33	33	34	34
Portugal	118	108	101	101	100	99	99
Romania	:	:	1	1	1	1	1
Slovenia	:	1	1	1	1	1	1
Slovakia	–	–	–	–	–	–	–
Finland	21	17	17	16	16	17	16
Sweden	52	44	33	30	31	29	31
United Kingdom	265	218	207	202	201	197	196
Iceland	180	181	150	159	165	154	:
Norway	392	373	366	389	378	393	:

([1]) The Czech Republic, Luxembourg, Hungary, Austria and Slovakia are landlocked countries without a marine fishing fleet.
([2]) EU-15: 2000; EU-25: 2005; EU-27: 2010–12; EU-28: from 2013.
([3]) French data include vessels registered in the French Overseas Departments.
Source: Eurostat (online data code: fish_fleet)

Table 7.3: Total engine power of the fishing fleet, 2000–14 ([1])
(1 000 kW)

	2000	2005	2010	2011	2012	2013	2014
EU ([2])	7 646	7 278	6 529	6 361	6 236	6 574	6 506
Belgium	65	65	51	49	48	47	46
Bulgaria	:	:	63	61	61	57	52
Czech Republic	–	–	–	–	–	–	–
Denmark	393	325	240	232	230	223	225
Germany	168	159	159	150	147	144	139
Estonia	:	62	40	39	47	44	44
Ireland	212	227	198	195	198	195	190
Greece	617	532	502	481	461	457	451
Spain	1 336	1 128	935	901	873	849	823
France ([3])	1 114	1 104	991	1 001	999	1 000	1 013
Croatia	:	:	:	:	:	398	397
Italy	1 396	1 224	1 107	1 057	1 019	1 017	1 008
Cyprus	:	47	43	45	46	39	42
Latvia	:	65	61	53	51	50	37
Lithuania	:	71	54	54	34	42	51
Luxembourg	–	–	–	–	–	–	–
Hungary	–	–	–	–	–	–	–
Malta	:	99	85	78	77	75	73
Netherlands	522	400	343	342	331	336	323
Austria	–	–	–	–	–	–	–
Poland	:	105	87	83	82	81	82
Portugal	399	383	371	371	367	366	363
Romania	:	:	7	8	6	6	6
Slovenia	:	11	11	11	9	8	8
Slovakia	–	–	–	–	–	–	–
Finland	198	172	173	171	171	173	172
Sweden	246	219	178	171	173	167	168
United Kingdom	981	881	827	808	806	801	793
Iceland	529	526	470	479	496	482	:
Norway	1 321	1 272	1 238	1 102	1 246	1 254	:

([1]) The Czech Republic, Luxembourg, Hungary, Austria and Slovakia are landlocked countries without a marine fishing fleet.
([2]) EU-15: 2000; EU-25: 2005; EU-27: 2010–12; EU-28: from 2013.
([3]) French data include vessels registered in the French Overseas Departments.
Source: Eurostat (online data code: fish_fleet)

7.2 Total production

Total fishery production covers total catches in the seven regions covered by EU Statistical Regulations ([3]) as well as aquaculture production for human consumption. The monitoring of catches and aquaculture production is an essential tool for securing fish stocks and sustaining the common resources available in Europe's large and rich fishing area. The total production of fishery products in the EU was an estimated 6.0 million tonnes of live weight equivalent (in other words, the mass or weight when removed from water) in 2013. It should be noted that this figure excludes catch data for the Czech Republic, Hungary, Luxembourg, Austria and Slovakia, which are landlocked countries without a marine fishing fleet. The EU figure for 2013 suggests a rise in fishery production (+ 6.5 % compared with 2012), contradicting the steady decline noted over the previous 13 years (– 28.5 % from 2000 to 2012). This rise in total production was only due to increased catches given the decline of aquaculture production.

Within the EU, the four largest fishery producers in terms of volume in 2013 were Spain (1.1 million live weight tonnes), the United Kingdom (0.8 million live weight tonnes), France and Denmark (0.7 million live weight tonnes each) (see Table 7.4). The share of aquaculture production among these countries ranged from 20 to 27 %, with the exception of Denmark, where aquaculture made up 6 % of the total.

Total fisheries production in Spain was estimated to be 20.5 % higher in 2013 than in 2005, while production in the United Kingdom decreased slightly from 2012 to 2013, but remained close to its 2005 level. A 43.6 % decline of total fishery production was observed in Lithuania since 2005. Sharp production declines were also registered between 2005 and 2013 in the Netherlands (– 40.0 %), Estonia (– 30.7), Italy (– 33.9 %), and Sweden (– 27.2 %).

It is also worth noting that total fisheries production in Iceland (1.4 million tonnes of live weight) and Norway (3.2 million tonnes of live weight) was larger than that of any of the EU Member States in 2013. In spite of a 5 % decrease between 2012 and 2013, fish production of these two north Atlantic countries in 2013 was equivalent to three quarters of the total EU-28 figure.

7.3 Aquaculture

The cultivation of fish is an alternative to catches of wild fish. Data on aquaculture are used by the CFP for monitoring this activity which made up one fifth of the EU-28's total fishery production in 2013. Production was approximately 1.2 million tonnes of live weight in 2013, an estimated 6 % lower than in 2012 (see Table 7.5). This also represented a decline in aquaculture production of about 16 % since the peak in 2000.

The three largest aquaculture producers among EU Member States were Spain, the United Kingdom and France, which together accounted for more than half (53 %) of total EU-28 aquaculture production in 2013. There was a clear downward trend in aquaculture production in France between 2000 and 2010, fluctuating lightly around the 200 thousand tonnes mark since. By contrast, there was an overall growth in the United Kingdom from 2000 to 2010 which stabilised on the same level than France in recent years. Production volumes in Spain have fluctuated, with 2013 production levels being close to the lowest recorded in 2005.

([3]) Food and Agriculture Organization of the United Nations (FAO) major areas 21, 27, 34, 37, 41, 47, 51 (see Map 1).

Table 7.4: Total production of all fishery products, 2000–13 ([1])([2])
(1 000 tonnes live weight, rounded)

	2000	2005	2010	2011	2012	2013
EU-28 ([3])	7 890	6 772	6 274	6 082	5 645	6 012
Belgium	31	24	23	22	24	25
Bulgaria	10	6	18	16	15	21
Czech Republic	19	20	20	21	*21*	19
Denmark	1 578	950	860	748	537	700
Germany	249	309	256	257	232	244
Estonia	110	98	93	79	65	68
Ireland	328	327	365	250	312	*280*
Greece	191	197	191	174	171	178
Spain	1 296	938	996	1 073	1 025	1 130
France	959	831	643	681	*666*	*729*
Croatia	28	46	68	88	78	89
Italy	515	475	384	377	333	314
Cyprus	5	4	5	6	5	6
Latvia	136	151	165	157	91	117
Lithuania	79	140	141	139	73	79
Luxembourg	0	0	0	0	0	0
Hungary	13	14	14	16	15	14
Malta	3	6	9	6	9	*11*
Netherlands	569	618	443	409	*391*	*371*
Austria	3	2	2	3	3	3
Poland	182	169	167	202	213	:
Portugal	197	226	231	223	206	*203*
Romania	12	9	9	9	11	*12*
Slovenia	3	2	2	2	1	1
Slovakia	1	1	1	1	1	1
Finland	137	109	139	136	151	158
Sweden	342	261	222	193	164	190
United Kingdom	895	838	806	794	832	821
Iceland	2 004	1 669	1 068	1 159	1 459	*1 391*
Norway	3 190	3 053	3 582	3 323	3 368	3 192

([1]) Total production includes catches and aquaculture.
Total catches in all fishing regions are calculated as the sum of the seven regions covered by legal acts, namely: 21 - Atlantic, Northwest, 27 - Atlantic, Northeast, 34 - Atlantic, Eastern Central, 37 - Mediterranean and Black Sea, 41 - Atlantic, Southwest, 47 - Atlantic, Southeast and 51 - Indian Ocean, Western.
Aquaculture excludes production from hatcheries and nurseries, fish eggs for human consumption, ornamental and aquarium species.
([2]) 2012 data: Czech Republic, France are estimated, the Netherlands are estimated and provisional.
2013 data: EU-28, Ireland, France, Romania and Iceland are estimated; Malta and Portugal are provisional; the Netherlands are forecasted.
([3]) 2012 data for Poland was used to estimate the EU-28 2013 total. Differences in the sum of all EU countries and the EU-28 totals are owed to rounding.

Source: Eurostat (online data codes: fish_ca_main, fish_aq_q and fish_aq_2a)

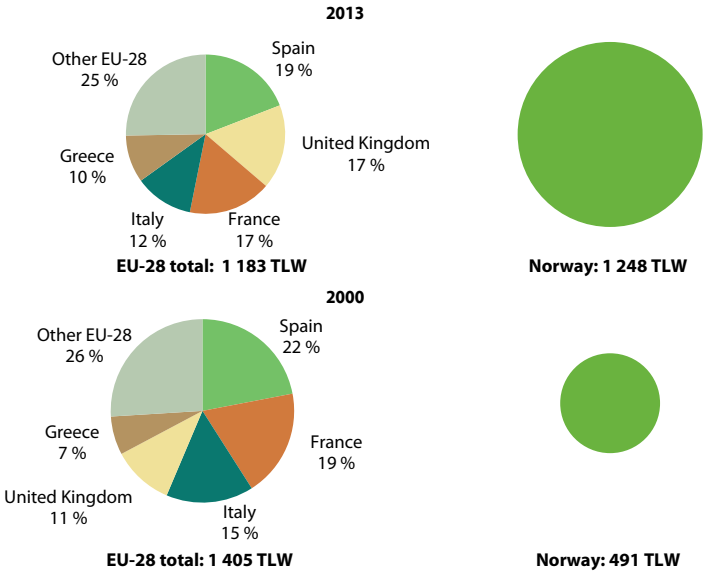
Within the EU-28 about 130 different species were farmed in aquaculture in 2013. Mussels, mostly Mediterranean and blue mussel, accounted for more than a third (roughly 400 thousand tonnes) of all aquaculture production in terms of weight (including shells), while trouts and Atlantic salmon accounted for roughly 15 % each. These species are followed by gilthead seabream, Pacific cupped oyster, European seabass and common carp as top species in terms of weight.

Table 7.5: Aquaculture production, 2000–13 ([1])([2])
(1 000 tonnes live weight, rounded)

	2000	2005	2010	2011	2012	2013
EU-28 ([3])	1 405	1 278	1 272	1 249	1 225	*1 183*
Belgium	2	0	1	0	0	0
Bulgaria	4	3	8	7	7	11
Czech Republic	19	20	20	21	*21*	19
Denmark	44	39	32	32	34	32
Germany	66	45	41	39	27	25
Estonia	0	1	1	0	1	1
Ireland	51	60	46	44	36	*34*
Greece	95	106	121	111	109	114
Spain	309	221	254	274	*267*	226
France	*267*	245	203	194	*205*	*200*
Croatia	7	11	16	17	14	14
Italy	217	181	154	164	137	141
Cyprus	2	2	4	5	4	5
Latvia	0	1	1	1	1	1
Lithuania	2	2	3	2	3	4
Luxembourg	0	0	0	0	0	0
Hungary	13	14	14	16	15	14
Malta ([3])	2	5	7	4	7	*9*
Netherlands	75	71	*67*	44	*46*	*47*
Austria	3	2	2	3	3	3
Poland	36	38	37	26	33	:
Portugal ([3])	8	7	8	9	10	*8*
Romania	10	7	9	8	10	*10*
Slovenia	1	1	1	1	1	1
Slovakia	1	1	1	1	1	1
Finland	15	14	12	11	13	14
Sweden	5	6	11	13	14	13
United Kingdom	152	173	201	199	206	203
Iceland ([3])	4	8	5	5	7	*7*
Norway	491	661	1 020	1 145	1 321	1 248

([1]) Excluding production from hatcheries and nurseries, fish eggs for human consumption, ornamental and aquarium species.
([2]) 2012 data: Czech Republic, France are estimated, the Netherlands are estimated and provisional.
2013 data: EU-28, Ireland, France, Romania and Iceland are estimated; Malta and Portugal are provisional; the Netherlands are forecasted.
([3]) 2012 data for Poland was used to estimate the EU-28 2013 total. Differences in the sum of all EU countries and the EU-28 totals are owed to rounding.
Source: Eurostat (online data codes: fish_aq_q and fish_aq2a)

Figure 7.1: Main aquaculture producers, EU-28 and Norway, 2000 and 2013 (1)
(1 000 tonnes live weight)



(1) Excluding production from hatcheries and nurseries, fish eggs for human consumption, ornamental and aquarium species.
Source: Eurostat (online data codes: fish_aq_q and fish_aq2a)

Despite the large total number of species produced in the EU, countries tend to focus their aquaculture production on a few species. As such, Mediterranean mussels accounted for 72 % of the live weight from aquaculture in Spain in 2013, gilthead seabream, rainbow trout, European seabass and turbot together accounted for another 25 % while the remaining production included 28 different species. In the United Kingdom Atlantic salmon accounted for 80 % of the total national production followed by sea mussels and rainbow trout. In France, the largest volumes were produced by Pacific cupped oyster (38 %), blue mussel (30 %), rainbow trout (15 %) and Mediterranean mussel (7 %).

From the estimated total economic value of EU-28 aquaculture production of EUR 3.85 billion, Atlantic salmon produced by far the highest economic value (almost EUR 0.9 billion) although the species is cultivated in only a few EU countries and mostly in the United Kingdom. Second most important species in terms of economic value was rainbow trout, followed by Pacific cupped oyster in third gilthead seabream in fourth, and European seabass in fifth.

In 2013, Norway's aquaculture production (1.25 million tonnes of live weight) was larger than the estimated volume for the entire EU-28 (1.18 million tonnes of live weight) (see Figure 7.1). Unlike the EU's, Norway's aquaculture production expanded steadily from 2000 to 2012. In 2013, Norway produced 1.17 million tonnes of Atlantic salmon with a value of EUR 4.86 billion. Its 71 thousand tonnes of rainbow trout were sold for EUR 0.29 billion.

7.4 Catches

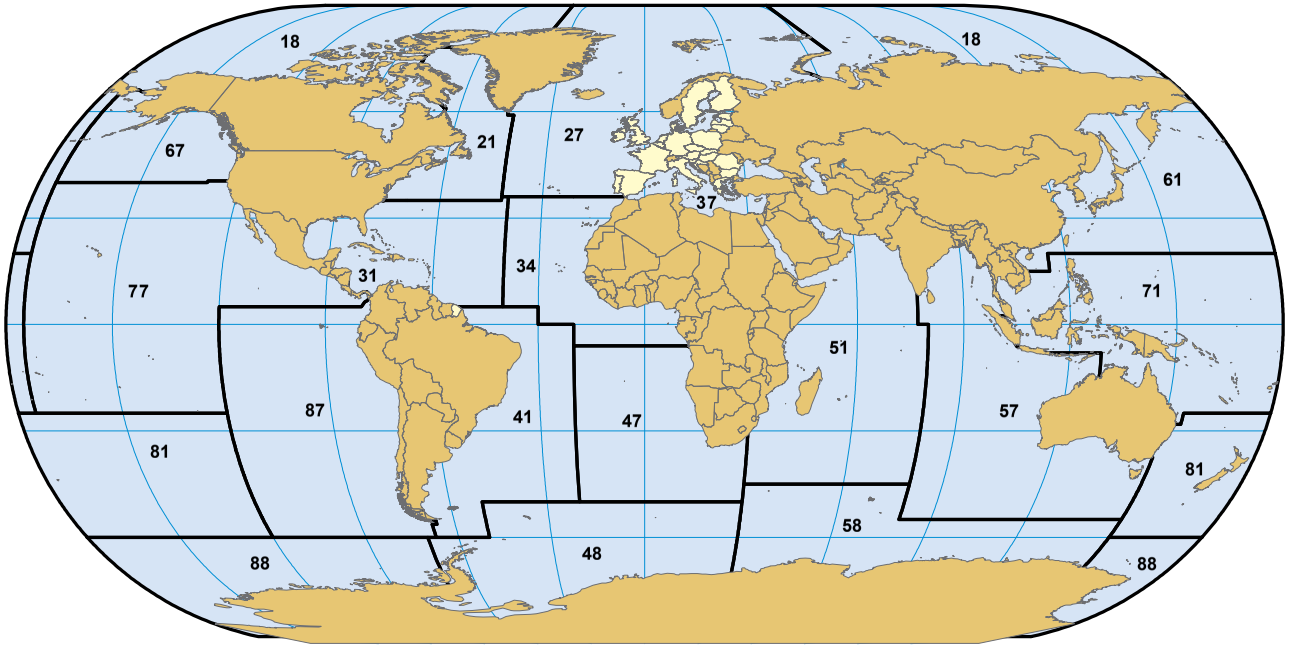
About 80 % of the EU-28's total fishery production relates to catches. The live weight of catches for the EU-28 was 5.4 million tonnes in 2014, 11.5 % more than in 2013. However Table 7.6 illustrates an overall decline of about 17 % or 1.1 million tonnes of live weight since 2000.

Table 7.6: Total catches in all fishing regions, 2000–14 ([1])([2])
(1 000 tonnes live weight)

	2000	2005	2010	2011	2012	2013	2014
EU-28	6 484	5 496	4 999	4 833	4 421	4 829	5 383
Belgium	29	24	22	22	24	25	27
Bulgaria	6	3	10	9	8	10	9
Czech Republic	–	–	–	–	–	–	–
Denmark	1 534	911	828	716	503	668	745
Germany	183	264	215	218	205	219	216
Estonia	110	97	92	79	64	67	66
Ireland	277	267	319	206	276	246	277
Greece	96	91	70	63	62	64	60
Spain	987	717	742	799	758	904	1 109
France	692	586	440	487	461	529	544
Croatia	21	35	52	71	64	75	79
Italy	298	294	230	213	196	173	177
Cyprus	3	2	1	1	1	1	1
Latvia	136	150	164	156	90	116	119
Lithuania	77	138	138	137	70	75	149
Luxembourg	–	–	–	–	–	–	–
Hungary	–	–	–	–	–	–	–
Malta	1	1	2	2	2	2	2
Netherlands	494	547	376	365	345	324	375
Austria	–	–	–	–	–	–	–
Poland	146	131	130	176	180	195	170
Portugal	189	219	223	214	196	195	177
Romania	2	2	0	1	1	2	2
Slovenia	2	1	1	1	0	0	0
Slovakia	–	–	–	–	–	–	–
Finland	122	95	127	125	138	144	154
Sweden	337	255	211	180	150	177	172
United Kingdom	743	665	605	595	626	618	752
Iceland	2 000	1 661	1 063	1 154	1 452	1 384	1 080
Norway	2 699	2 392	2 562	2 178	2 047	1 944	2 135
Turkey	461	380	891	478	396	339	266

([1]) Total catches in all fishing regions are calculated as the sum of the seven regions covered by legal acts, namely: 21 - Atlantic, Northwest, 27 - Atlantic, Northeast, 34 - Atlantic, Eastern Central, 37 - Mediterranean and Black Sea, 41 - Atlantic, Southwest, 47 - Atlantic, Southeast and 51 - Indian Ocean, Western. Consequently, total catches in all fishing areas now exclude catches in inland waters.
([2]) The Czech Republic, Luxembourg, Hungary, Austria and Slovakia are landlocked countries without a marine fishing fleet.
Source: Eurostat (online data code: fish_ca_main)

Map 7.1: Fishing areas of the world



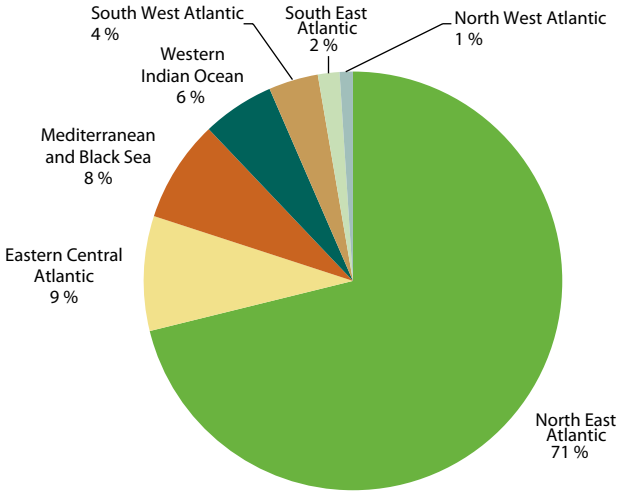
Source: UN FAO, VLIZ, DG MARE Unit D.4., 19/12/2014

Table 7.7: Catches by fishing area, 2014 ([1])
(1 000 tonnes live weight, rounded)

	North West Atlantic	North East Atlantic	Eastern Central Atlantic	Mediter-ranean and Black Sea	South West Atlantic	South East Atlantic	Western Indian Ocean	Total
EU-28	55	3 830	477	425	206	90	300	5 383
Belgium	:	27	:	:	:	:	:	27
Bulgaria	:	:	:	9	:	:	:	9
Denmark	3	742	:	:	:	:	:	745
Germany	2	206	8	:	:	:	:	216
Estonia	3	63	:	:	:	:	:	66
Ireland	:	277	0	:	:	:	:	277
Greece	:	:	1	60	:	:	:	61
Spain	26	356	158	78	200	52	239	1 109
France	:	426	40	15	0	2	60	544
Croatia	:	:	:	79	:	:	:	79
Italy	:	:	:	177	:	:	:	177
Cyprus	:	:	:	1	:	:	:	1
Latvia	:	62	58	:	:	:	:	120
Lithuania	0	47	102	:	:	:	:	149
Malta	:	:	:	2	:	:	:	2
Netherlands	:	290	75	:	:	10	:	375
Poland	0	124	20	:	:	25	:	169
Portugal	19	138	15	0	2	1	1	176
Romania	:	:	:	2	:	:	:	2
Slovenia	:	:	:	0	:	:	:	0
Finland	:	154	:	:	:	:	:	154
Sweden	:	172	:	:	:	:	:	172
United Kingdom	:	748	0	:	4	:	0	752
Iceland	:	:	:	:	:	:	:	1 080
Norway	3	2 132	:	:	:	:	:	2 135
Turkey	:	:	:	266	:	:	:	266

([1]) Landlocked countries without a marine fishing fleet are not showed in this table (Czech Republic, Luxembourg, Hungary, Austria and Slovakia).
Source: Eurostat (online data code: fish_ca_main)

Figure 7.2: Catches by fishing area, EU-28, 2014
(1 000 tonnes live weight, %)

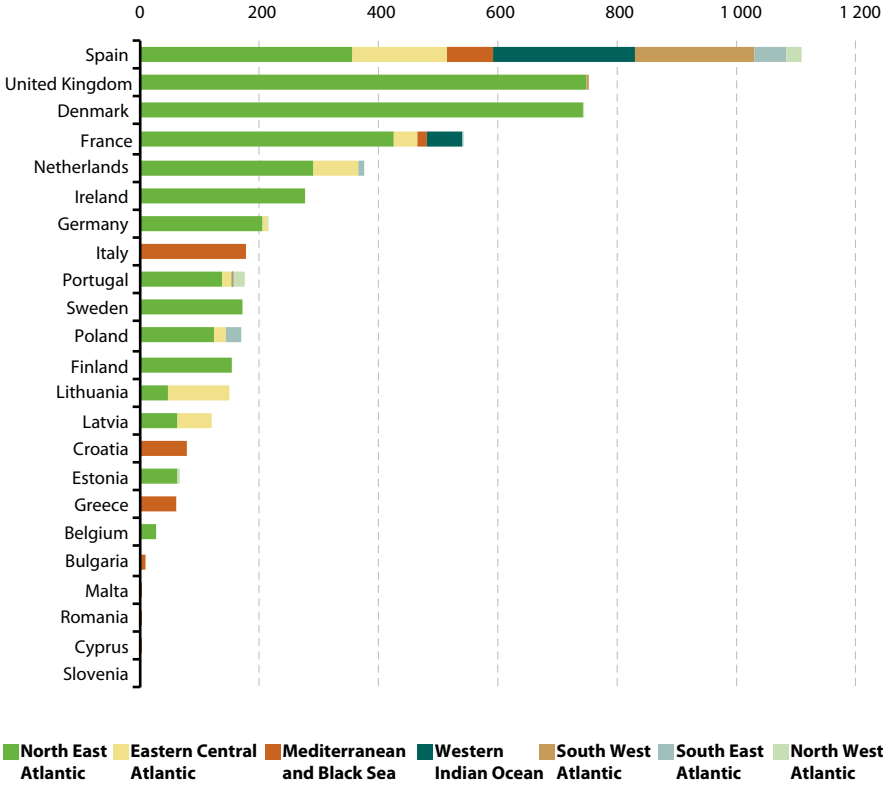


EU-28 total: 5 383 TLW

Source: Eurostat (online data code: fish_ca_main)

Although the European fishing fleet operates worldwide, EU catches are taken primarily from the Eastern Atlantic and the Mediterranean (see Table 7.7). Indeed, around 71 % of EU-28 catches were made in the North East Atlantic in 2014, with another 9 % coming from the Eastern Central Atlantic and 8 % from the Mediterranean and Black Sea (see Figure 7.2 and Map 7.1).

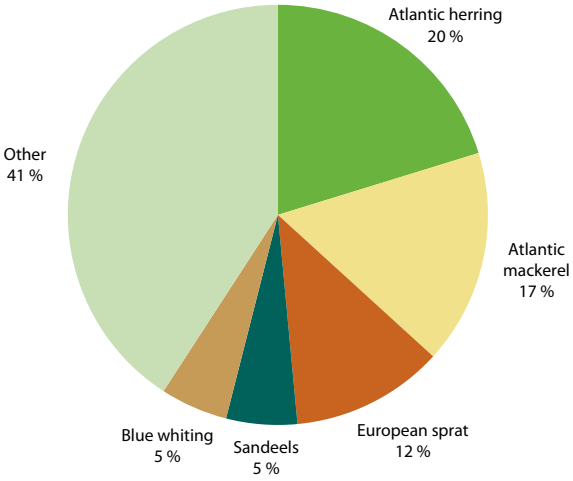
Figure 7.3: Catches by fishing area, 2014
(1 000 tonnes live weight)



Source: Eurostat (online data code: fish_ca_main)

Figure 7.4 shows the five most popular species that were caught by EU Member States in 2014 in the North East Atlantic which is their most important fishing area. Atlantic herring was by far the most caught species representing one fifth of the total EU-28 catch. It was followed by Atlantic mackerel (17 %) and European sprat (12 %), sandeels (5 %) and blue whiting (5 %). These top five species made up 59 % of the EU North East Atlantic catch in 2014.

Figure 7.4: Top 5 species caught by EU Member States in the North East Atlantic, 2014
(%)



Source: Eurostat (online data code: fish_ca_atl27)

7.5 Landings

Landings data relate to fishery products (product weight and value) landed in a country regardless of the nationality of the vessel making the landings, but also to fishery products landed by the country's vessels in non-EU ports and then imported into the EU. Over one fifth (20.6 % or 0.87 million tonnes of live weight) of the landings to EU-28 ports in 2013 were made in Spain, the highest share among EU Member States. Only landings to Danish ports (0.85 million tonnes of product weight) came close to the Spanish levels. By contrast, landings to ports in Iceland (1.3 million tonnes) and Norway (1.8 million tonnes) were much higher.

About one third of the value of landings for the EU-28 in 2013 also came into Spanish ports (31 % or EUR 2.1 billion), reflecting the high value attached to its landings of species like tuna, hake, swordfish, squid and pilchards. Landings in France had the next highest value (EUR 1.0 billion), followed by Italy (EUR 0.8 billion) and the United Kingdom (EUR 0.7 billion). Denmark only accounted for a relatively small share (7 % in 2013) of EU-28 landings in terms of value (EUR 0.5 billion). The values of landings to ports in Iceland (EUR 0.9 billion) and Norway (EUR 1.8 billion) were closer to the values of France and Spain respectively, reflecting the lower average price of the species landed in each of these countries.

Table 7.8: Landings by weight, 2000–13 ([1])
(1 000 tonnes product weight)

	2000	2005	2010	2011	2012	2013
EU-28	:	4 640	4 374	4 198	3 996	4 223
Belgium	18	20	16	17	18	16
Bulgaria	:	3	10	9	8	10
Czech Republic	–	–	–	–	–	–
Denmark	1 144	1 091	1 067	911	614	849
Germany	89	140	80	117	107	99
Estonia	:	69	87	71	64	65
Ireland	203	199	248	181	341	229
Greece	90	90	70	63	61	64
Spain	984	703	755	713	733	868
France	371	295	255	418	441	458
Croatia	:	:	:	70	62	75
Italy	295	282	229	213	196	173
Cyprus	:	1	1	1	1	1
Latvia	:	91	67	59	60	65
Lithuania	:	7	6	6	3	3
Luxembourg	–	–	–	–	–	–
Hungary	–	–	–	–	–	–
Malta	:	1	2	2	2	2
Netherlands	509	621	444	388	373	303
Austria	–	–	–	–	–	–
Poland	:	82	84	88	105	102
Portugal	164	106	183	182	140	168
Romania	:	:	0	1	1	2
Slovenia	:	:	1	1	0	0
Slovakia	–	–	–	–	–	–
Finland	96	84	83	78	103	110
Sweden	314	269	221	171	109	126
United Kingdom	420	486	464	438	454	435
Iceland	1 947	1 680	1 018	1 147	1 431	1 327
Norway	2 792	2 078	2 422	1 966	1 912	1 790

([1]) The Czech Republic, Luxembourg, Hungary, Austria and Slovakia are landlocked countries without a marine fishing fleet.
Source: Eurostat (online data code: fish_ld)

Table 7.9: Landings by value, 2000–13 ([1])
(EUR million)

	2000	2005	2010	2011	2012	2013
EU-28	:	5 972	6 634	7 181	7 029	6 924
Belgium	64	80	66	70	65	58
Bulgaria	:	2	2	3	5	5
Czech Republic	–	–	–	–	–	–
Denmark	423	442	462	495	426	461
Germany	95	122	125	130	144	131
Estonia	:	10	18	18	21	22
Ireland	184	149	288	261	397	299
Greece	236	308	399	331	317	325
Spain	1 751	1 513	1 869	1 766	1 843	2 140
France	845	775	527	1 082	955	971
Croatia	:	:	:	81	52	66
Italy	823	1 413	1 148	1 103	925	835
Cyprus	:	6	10	8	8	7
Latvia	:	16	13	17	19	22
Lithuania	:	5	5	7	4	2
Luxembourg	–	–	–	–	–	–
Hungary	–	–	–	–	–	–
Malta	:	6	9	11	13	12
Netherlands	357	310	573	563	582	380
Austria	–	–	–	–	–	–
Poland	:	32	41	45	61	53
Portugal	272	127	237	251	252	274
Romania	:	:	0	1	1	1
Slovenia	:	:	2	2	1	1
Slovakia	–	–	–	–	–	–
Finland	20	15	19	24	29	35
Sweden	112	106	100	104	95	98
United Kingdom	693	537	719	806	815	726
Iceland	829	940	807	1 029	1 052	933
Norway	1 540	1 607	1 758	2 013	2 118	1 762

([1]) The Czech Republic, Luxembourg, Hungary, Austria and Slovakia are landlocked countries without a marine fishing fleet.
Source: Eurostat (online data code: fish_ld)

DATA SOURCES AND AVAILABILITY

Fishery statistics are collected by Eurostat from official national sources for the members of the European Economic Area (EEA). The data are collected using internationally agreed concepts and definitions developed by the Coordinating Working Party (CWP), comprising Eurostat and several other international organisations with responsibilities in fishery statistics.

The European fisheries production statistics include production from catches and aquaculture. **Catches** refer to fishery products taken for all purposes (commercial, industrial, recreational and subsistence) by all types and classes of fishing units (including fishermen, vessels, gear, etc.). The flag of the fishing vessel is used as the primary indication of the nationality of the catch. In addition to catches, Eurostat also collects data on landings which relate to all fishery products (expressed as product weight) landed in the reporting country, regardless of the nationality of the vessel making the landings. Landings by vessels of the reporting country in non-EU ports and imported into the EU are to be included as well. **Aquaculture** production refers to the farming of aquatic (freshwater or saltwater) organisms for human use or consumption, under controlled conditions. Aquaculture implies some form of intervention in the natural rearing process such as regular stocking, feeding and protection from predators. Farming also implies individual or corporate ownership of the stock being cultivated.

Catch statistics are submitted to Eurostat by EEA member countries in compliance with the following EU legislation:

- Regulation (EC) No 218/2009 of the European Parliament and of the Council of 11 March 2009 on the submission of nominal catch statistics by Member States fishing in the North East Atlantic (OJ L87 of 31.03.2009);
- Regulation (EC) No 217/2009 of the European Parliament and of the Council of 11 March 2009 on the submission of catch and activity statistics by Member States fishing in the North-West Atlantic (OJ L87 of 31.03.2009);
- Regulation (EC) No 216/2009 of the European Parliament and of the Council of 11 March 2009 on the submission of nominal catch statistics by Member States fishing in certain areas other than those of the North Atlantic (OJ L87 of 31.03.2009, p.1).

The data are reported as the live weight equivalent of the landings (in other words, the landed weight of a product to which an appropriate conversion factor has been applied). The data therefore exclude quantities of fishery products which are caught but not landed. For example, fish caught but rejected at sea or fish consumed on board of the vessel. The amount of fish caught but not landed is bound to shrink in the near future due to the landing obligation in the new common fisheries policy (CFP). For the **landings statistics**, each EEA member country reports annual data on the quantities and values of fishery products landed in its ports under the terms of Regulation (EC) No 1921/2006 of 18 December 2006 on the submission of statistical data on landings of fishery products in EU Member States and repealing Council Regulation (EEC) No 1382/91 (OJ L403 of 30 December 2006). For **aquaculture statistics**, the national authorities of EEA countries submit aquaculture production data to Eurostat under the terms of Regulation (EC) No 762/2008 of 9 July 2008 on the submission by Member States of statistics on aquaculture and repealing Council Regulation (EC) No 788/96 (OJ L218 of 13.08.2008).

Concerning the **fishing fleet**, data for the EU Member States are derived from the Community Fishing Fleet Register maintained by the European Commission's Directorate-General for Maritime Affairs and Fisheries. Data for Iceland and Norway are compiled from fleet files submitted by the national authorities. Gross tonnage (GT) under the London convention (1969) was adopted as the unit of tonnage measurement in the 1990s. This was a change from the previously used gross registered tonnage (GRT) under the Oslo convention (1946). Implementation of the change involved re-measurement of vessels over time. This was carried out at different rates in different countries and was largely complete by 2003. However care should be taken when comparing data between countries and over time since the GT of a vessel is generally significantly greater than the GRT.

Data coverage

Eurostat online databases contain a large amount of metadata that provides information on the status of particular values or data series. In order to improve readability of this publication, only the most significant meta-information has been included under the tables and figures. The following symbols are used, where necessary:

Italic data value is forecasted, provisional or estimated and is likely to change;

: not available, confidential or unreliable value;

– not applicable.

Breaks in series are indicated in the footnotes provided under each table and figure.

This publication generally presents information for the EU-28 (the 28 Member States of the EU), as well as the individual EU Member States. The order of the Member States in tables and figures generally follows their order of protocol; in other words, the alphabetical order of the countries' names in their respective original languages; in some of the figures the data are ranked according to the values of a particular indicator.

The EU-28 aggregate is provided when information for all of the countries is available, or if an estimate has been made for missing information. Any incomplete totals that are created are systematically footnoted.

When available, information is also presented for EFTA countries, candidate and potential candidate countries. In the event that data for any of these non-member countries are not available, they have been excluded from the tables and figures presented.

If data are not available for a particular country, then efforts have been made to fill tables and figures with data for previous reference periods (these exceptions are footnoted); generally, an effort has been made to go back at least two years, for example showing data for 2012 or 2013 if data for 2014 are not yet available.

Glossary

Agricultural holding

This is a single unit, in both technical and economic terms, operating under a single management, which undertakes agricultural activities within the economic territory of the European Union (EU), either as its primary or secondary activity. Other supplementary (non-agricultural) products and services may also be provided by the holding.

Agricultural income

The main indicator for agricultural income is 'factor income per labour input', where labour input is expressed in annual work units (AWUs).

Agri-environmental indicators

A set of 28 agri-environmental indicators has been proposed for monitoring the integration of environmental concerns into the Common Agricultural Policy (CAP). In the context of the 'Renewed EU Sustainable Development Strategy', these indicators serve to:

- provide information on the farmed environment;
- track the impact of agriculture on the environment;
- assess the impact of agricultural and environmental policies on environmental management of farms;
- inform agricultural and environmental policy decisions;
- illustrate agri-environmental relationships to the broader public.

Animal output

Animal output comprises the sales, changes in stock levels, and the products used for processing and own final use by producers.

Annual work unit (AWU)

One annual work unit corresponds to the work performed by one person who is occupied on an agricultural holding on a fulltime basis. Full-time means the minimum hours required by the relevant national provisions governing contracts of employment. If the national provisions do not indicate the number of hours, then 1 800 hours are taken to be the minimum annual working hours: equivalent to 225 working days of eight hours each.

Aquaculture

Aquaculture, also known as aquafarming, refers to the farming of aquatic (freshwater or saltwater) organisms, such as fish, molluscs, crustaceans and plants for human use or consumption, under controlled conditions. Aquaculture implies some form of intervention in the natural rearing process to enhance production, including regular stocking, feeding and protection from predators. Farming also implies individual or corporate ownership of, or contractual rights to, the stock being cultivated.

Arable land

Arable land is land worked (ploughed or tilled) regularly, generally under a system of crop rotation.

Biodiversity

Biodiversity, a contraction of biological diversity, refers to the number, variety and variability of living organisms, including mankind, within a given area.

Biomass

Biomass is organic, non-fossil material of biological origin that can be used for heat production or electricity generation. It includes:

- wood and wood waste;
- biogas;
- municipal solid waste;
- biofuels.

Bovine

Bovine refers to a domestic animal of the species *Bos taurus* (cattle) or *Bubalus bubalis* (water buffalo), and also includes hybrids like *Beefalo*.

A distinction can be made by the age of the animal (less than one year old, aged between one and two years, and two years and over), with a further division between male and female bovines.

Carcass weight

The definition of carcass weight depends on the animal species under consideration:

- for pigs, it is the weight of the slaughtered pig's cold body, either whole or divided in half along the mid-line, after being bled and eviscerated and after removal of the tongue, bristles, hooves, genitalia, flare fat, kidneys and diaphragm;
- for cattle, it is the weight of the slaughtered animal's cold body after being skinned, bled and eviscerated, and after removal of the external genitalia, the limbs, the head, the tail, the kidneys and kidney fats, and the udder;
- for sheep and goats, it is the weight of the slaughtered animal's cold body after having been bled, skinned and eviscerated, and after removal of the head, feet, tail and genital organs. Kidneys and kidney fats are included in the carcass weight;
- for poultry, it is the weight of the cold body of the slaughtered farmyard poultry after being bled, plucked and eviscerated; the weight includes poultry offal, with the exception of foie gras.

For other species, 'carcass weight' is considered to be the weight of the slaughtered animal's cold body.

Cattle

Cattle refer to domestic animals of the species *Bos taurus* (cattle) and *Bubalus bubalis* (water buffalo); together are called bovines.

Census

A census is a survey conducted on the full set of observation objects belonging to a given population or universe.

Cereals

Cereals include wheat (common wheat and spelt and durum wheat), rye, maslin, barley, oats, mixed grain other than maslin, grain maize and corn cob mix, sorghum, triticale, rice and other cereal crops such as buckwheat, millet and canary seed.

Climate change

Climate change refers to man-made (anthropogenic) climate change that is thought to be causing an increase in global temperatures driven by emissions of gases such as carbon dioxide and methane, known as greenhouse gases.

Common Agricultural Policy

The Common Agricultural Policy (CAP) is the EU's agricultural policy. CAP is an area in which competence is shared between the EU and its Member States. Under Article 33 of the Treaty establishing the European Community, its aims are to 'ensure reasonable prices for Europe's consumers and fair incomes for farmers, in particular through the common organisation of agricultural markets and by enforcing compliance with the principles adopted at the Stresa Conference in 1958, namely single prices, financial solidarity and Community preference'.

The CAP is one of the most important EU policies from a budget point of view: agricultural spending accounts for some 45 % of the EU budget. Qualified majority voting in the Council and consultation with the European Parliament decide policy. The CAP has fulfilled its main goal of food self-sufficiency in the EU. Major policy changes, however, proved necessary in order to correct imbalances and overproduction resulting from the CAP. Therefore, its aims have changed in the course of time, and the instruments used have also evolved as a result of successive reforms.

Common Fisheries Policy

The Common Fisheries Policy (CFP) is the EU's policy for managing fisheries in the waters of the EU Member States. Its objectives are to:

- increasing productivity;
- stabilising markets;
- ensuring security of supply and reasonable prices to the consumer.

Although a Common Fisheries Policy was already provided for in the Treaty of Rome in 1957, it did not become a common policy in the full sense of the term until 1983. The CFP has the same legal basis (Articles 32–38 of the EC Treaty) as the Common Agricultural Policy and shares the same aims mentioned above. Like the CAP, the CFP is a shared responsibility of the EU and its Member States. Successive reforms of the CFP have added new aims to its initial goals, namely:

- sustainable exploitation of resources;
- protection of the environment;
- safeguards for a high level of human health protection;
- contributing to economic and social cohesion.

Protection of fish stocks and the marine environment are key issues for the CFP given the threat posed by resource depletion.

Common land

Common land is the land that does not directly belong to any agricultural holding but on which common rights apply. It can consist of pasture, horticultural or other land.

Cow

A cow is a female bovine that has calved (including any aged less than 2 years). A dairy cow is a cow kept exclusively or principally for the production of milk for human consumption and/or other dairy produce.

Crop output

Crop output comprises sales, changes in stock levels, and crop products used as animal feedstuffs, or for processing and own final use by the producers.

Eutrophication

Eutrophication is a process by which a body of water acquires a high concentration of nutrients, especially phosphates and nitrates. It may occur naturally but can also be the result of human activity (fertiliser run-off, sewage discharge). These nutrients typically promote excessive growth of algae. As the algae die and decompose, high levels of organic matter and the decomposing organisms deplete the water of available oxygen, causing the death of other organisms, such as fish.

Family labour force

The family labour force of the agricultural holding in the context of the farm structure survey (FSS) refers to persons who carry out farm work on the holding and are classified either as a holder or the members of the sole holder's family. The term family workers is also used with the same meaning.

Farm labour force

The farm labour force of the holding includes all persons having completed their compulsory education (having reached school-leaving age) who carried out farm work on the holding during the 12 months ending on the reference day of the survey. All persons of retirement age who continue to work on the holding are included in the farm labour force.

Farm manager

A farm manager or manager of the agricultural holding is the natural person responsible for the normal daily financial and production routines of running the holding concerned. In the context of the farm structure survey (FSS), a manager is considered to be non-family labour. Holder of the holding who is a natural person and the sole holder of an independent holding is generally, but not necessarily, also the manager. There can be only one manager on the holding.

Farm structure survey

The Farm structure survey (FSS), also known as Survey on the structure of agricultural holdings, is carried out by all EU Member States. The FSS are conducted consistently throughout the EU with a common methodology at a regular base and provides therefore comparable and representative statistics across countries and time, at regional levels (down to NUTS 3 level). Every 3 or 4 years the FSS is carried out as a sample survey, and once in ten years as a census.

Feed

Feed (or feeding stuff) is any substance or product, including additives, whether processed, partially processed or unprocessed, intended to be used for oral feeding to animals.

Fertiliser

A fertiliser is a substance used in agriculture to provide crops with vital nutrients to grow (such as nitrogen (N), phosphorus (P) and potassium (K)). Fertilisers can be divided into inorganic fertilisers (also called mineral, synthetic or manufactured) and organic fertilisers. Organic fertilisers include manure, compost, sewage sludge and industrial waste.

Fishing area

Geographical fishing areas in the EU's Common Fisheries Policy are defined for a number of specific areas of water, including:

- the *North East Atlantic*, which is roughly the area to the east of 42°W longitude and north of 36°N latitude, including the waters of the Baltic Sea;
- the *North West Atlantic*, which is the region that is roughly the area to the west of 42°W longitude and north of 35°N latitude;
- the *Eastern Central Atlantic*, which is the region that is roughly the area to the east of 40°W longitude between latitudes 36°N and 6°S;
- the *Mediterranean*, which is also known as the Food and Agriculture Organization Major Fishing Area 37, comprises the Mediterranean Sea and the adjacent Black Sea.

Fish catch

Fish catch (or simply catch) refers to catches of fishery products including fish, molluscs, crustaceans and other aquatic animals, residues and aquatic plants that are:

- taken for all purposes (commercial, industrial, recreational and subsistence);
- taken by all types and classes of fishing units (including fishermen, vessels, gear, and so on);
- operated in fresh and brackish water areas, and in inshore, offshore and high-seas fishing areas.

The catch is normally expressed in live weight and derived by the application of conversion factors to the actual landed or product weight. As such, catch statistics exclude quantities of fishery products which are caught but which, for a variety of reasons, are not landed. Production from aquaculture is excluded from catch statistics.

Fishing fleet

The data on the number of fishing vessels, the fishing fleet, in general refer to the fleet size as recorded on 31 December of the specified reference year. The data are derived from the national registers of fishing vessels which are maintained according to Commission Regulation (EC) No 26/2004 which specifies the information on vessel characteristics to be recorded in the registers.

Forest

Forest is defined as land with tree crown cover (meaning all parts of the tree above ground level including its leaves, branches and so on), or equivalent stocking level, of more than 10 % and with an area of more than 0.5 hectares (ha). The trees should be able to reach a minimum height of five metres at maturity *in situ*.

Fossil fuel

Fossil fuel is a generic term for non-renewable natural energy sources such as coal, natural gas and oil that were formed from plants and animals (biomass) that existed in the geological past (for example, hundreds of millions of years ago). Fossil fuels are carbon-based and currently supply most human energy requirements.

Goats

A goat is a domestic animal of the subspecies *Capra aegagrus hircus*.

Grazed area

The grazed area is the total area of pastures owned, rented or otherwise allocated to the agricultural holding on which animals are kept for grazing during the reference year. The grazed area can also be harvested by mowing or other means. It includes all grasslands that are grazed, independent of whether they are temporary or permanent in nature. Permanent grasslands no longer used for production purposes are however excluded, as well as common lands not allotted to individual holdings.

Greenhouse gas

Greenhouse gases constitute a group of gases contributing to global warming and climate change. The Kyoto Protocol, an environmental agreement adopted by many of the parties to the United Nations Framework Convention on Climate Change (UNFCCC) in 1997 to curb global warming, covers six greenhouse gases:

- *non-fluorinated gases*:
  - carbon dioxide (CO_2);
  - methane (CH_4);
  - nitrous oxide (N_2O).
- *fluorinated gases*:
  - hydrofluorocarbons (HFCs);
  - perfluorocarbons (PFCs);
  - sulphur hexafluoride (SF_6).

Gross value added (GVA)

Gross value added (GVA) is output at market prices minus intermediate consumption at purchaser prices; it is a balancing item of the national accounts' production account:

- GVA at producer prices is output at producer prices minus intermediate consumption at purchaser prices — the producer price is the amount receivable by the producer from the purchaser for a unit of a product minus value added tax (VAT), or similar deductible tax, invoiced to the purchaser.
- GVA at basic prices is output at basic prices minus intermediate consumption at purchaser prices — the basic price is the amount receivable by the producer from the purchaser for a unit of a product minus any tax on the product plus any subsidy on the product.
- GVA at factor cost is not a concept explicitly used in national accounts. It can be derived by subtracting other taxes on production *from GVA at basic prices and adding other subsidies on production.*

Joint Forest Sector Questionnaire

The joint forest sector questionnaire (JFSQ) is an initiative of the International Tropical Timber Organisation (ITTO), the United Nations Economic Commission for Europe (UNECE), the Food and Agriculture Organisation of the United Nations (FAO) and Eurostat to collect statistics on the world timber situation. Each agency collects data from the countries for which it is responsible, with Eurostat compiling information from the EU Member States and EFTA countries.

Kitchen gardens

Kitchen gardens are areas of an agricultural holding devoted to the cultivation of agricultural products not intended for selling but for consumption by the farm holder and his household.

Land use

Land use refers to the socioeconomic purpose of the land. Areas of land can be used for residential, industrial, agricultural, forestry, recreational, transport purposes and so on.

Live weight of fishery products

Live weight of fishery products is derived from the landed or product weight by the application of certain factors and is designed to represent the actual weight of the fishery product as it was taken from the water and before being subjected to any processing or other operations.

Livestock survey

The livestock survey provides information about the livestock population in the EU, as well as information at a national and regional level — it is more detailed than the farm structure survey (FSS), proving more animal categories in its classification of livestock. It is conducted once a year, in December, in all of the EU Member States and in May/June for bovine animals and pigs in the Member States with the largest herds.

Livestock unit (LSU)

The livestock unit is a reference unit which facilitates the aggregation of livestock from various species and age as per convention, via the use of specific coefficients established initially on the basis of the nutritional or feed requirement of each type of animal. The reference unit used for the calculation of livestock units (= 1 LSU) is the grazing equivalent of one adult dairy cow producing 3 000 kg of milk annually, without additional concentrated foodstuffs.

Meat production

Meat production refers to the slaughter, in agreed slaughterhouses, of animals whose carcass weight is declared fit for human consumption; the definition applies to bovine animals, pigs, sheep, goats and poultry.

Milk

Milk is produced by the secretion of the mammary glands of one or more cows, ewes, goats or buffaloes. Farms produce milk for two distinct purposes: to distribute to dairies as well as for domestic consumption, direct sale and cattle feed.

Nominal factor income

Nominal factor income is the net value added at factor cost, defined as net value added at basic prices less other taxes on production plus other subsidies. It represents all the value generated by a unit engaged in a production activity.

Non-family labour

The non-family labour force of the agricultural holding in the context of the farm structure survey (FSS) refers to persons directly employed by the holding. They can be classified as:

- non-family labour regularly employed — all persons other than the holder and members of his family doing farm work and receiving any kind of remuneration (salary, wages, profits or other payments including payment in kind) from the agricultural holding;
- non-family labour employed on a non-regular basis — all persons other than the holder and members of his family doing farm work and receiving any kind of remuneration from the agricultural holding who did not work each week on the agricultural holding in the 12 months ending on the reference day of the survey; this category usually covers seasonal workers.

Organic area

Organic area covers land fully converted to organic farming and areas under conversion.

Organic farming

Organic farming is a way of agricultural production which uses organic production methods and places the highest emphasis on environmental and wildlife protection and, with regard to livestock production, on animal welfare considerations. Organic production involves holistic production management systems for crops and livestock, emphasizing on-farm management practices over off-farm inputs.

Permanent crops

Permanent crops are tree/shrub crops not grown in rotation, but occupying the soil and yielding harvests for several (usually more than five) consecutive years. Permanent crops mainly consist of fruit and berry trees, bushes, vines and olive trees.

Permanent grassland and meadow

Permanent grassland and meadow is land used permanently (for several — usually more than five — consecutive years) to grow herbaceous forage crops, through cultivation (sown) or naturally (self-seeded); it is not, therefore, included in the crop rotation scheme on the agricultural holding. Permanent grassland and meadow can be either used for grazing by livestock, or mowed for hay or silage (stocking in a silo).

Pig

A pig is a domesticated animal of the species *Sus*. A distinction is made between pigs, piglets, fattening pigs and breeding pigs.

Poultry

Poultry refers to domestic birds of the following species: *Gallus gallus* (hens and chickens); *Meleagris spp.* (turkeys); *Anas spp. and Cairina moschata* (ducks); *Anser anser dom.* (geese); *Coturnix spp.* (quail); *Phasianus spp.* (pheasants); *Numida meleagris dom.* (guineafowl); *Columbinae spp.* (pigeons); *Struthio camelus* (ostriches). It excludes, however, birds raised in confinement for hunting purposes and not for meat production.

Producer price

The producer price is the amount receivable by the producer from the purchaser for a unit of a good or service produced as output minus any value added tax (VAT), or similar deductible tax, invoiced to the purchaser. It excludes any transport charges invoiced separately by the producer.

Regular agricultural labour force

A regularly employed labour force of the agricultural holding in the context of the farm structure survey (FSS) refers to the directly employed persons who carried out farm work every week on the holding during the 12 months ending on the reference day of the survey, irrespective of length of the working week. Regularly employed labour force may be classified either as a family labour or the non-family labour regularly employed.

Roundwood production

Roundwood production (the term is also used as a synonym for removals in the context of forestry) comprises all quantities of wood removed from the forest and other wooded land, or other tree felling site during a defined period of time.

Sawnwood

Sawnwood is wood that has been produced either by sawing lengthways or by a profile-chipping process and, with a few exceptions, is greater than 6 millimetres (mm) in thickness.

Sheep

Sheep are domesticated animals of the species *Ovis aries* kept in flocks mainly for their wool or meat.

Slaughterhouse

A slaughterhouse is an officially registered and approved establishment used for slaughtering and dressing animals whose meat is intended for human consumption.

Slaughtering and meat production

Data on slaughtering and meat production are collected on a monthly basis. They refer to the activity of slaughterhouses, while the share of domestic slaughtering (in other words, outside officially recognised slaughterhouses) is explicitly left out of the statistics in order to improve comparability of the results across EU Member States.

Standard gross margin (SGM)

The standard gross margin (SGM) is a measure of the production or the business size of an agricultural holding. It is based on the separate activities or 'enterprises' of a farm and their relative contribution to overall revenue.

Standard output (SO)

The standard output of an agricultural product (crop or livestock) is the average monetary value of the agricultural output at farmgate price, in euro per hectare or per head of livestock. A regional coefficient for each product is applied, as an average value over a reference period (five years). The sum of all the standard outputs per hectare of crop and per head of livestock for a farm is a measure of its overall economic size, expressed in euro.

Utilised agricultural area (UAA)

The utilised agricultural area (UAA) describes the area used for farming. It includes the land categories: arable land; permanent grassland; permanent crops, and; other agricultural land such as kitchen gardens (even if they only represent small share of the total UAA). The term does not include unused agricultural land, woodland and land occupied by buildings, farmyards, tracks, ponds, and so on.

Waste

Waste means any substance or object which the holder disposes of or is required to dispose of pursuant to the provisions of national law in force. Disposal of waste means:

- the collection, sorting, transport and treatment of waste as well as its storage and tipping above or underground;
- the transformation operations necessary for its re-use, recovery or recycling.

Abbreviations

Geographical aggregates and country codes

EU-28	The 28 Member States of the European Union from 1 July 2013 (EU-27 and Croatia)
EU-27	The 27 Member States of the European Union from 1 January 2007 to 30 June 2013 (EU-15, Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia, Slovenia, Bulgaria and Romania)
EU-15	The 15 Member States of the European Union from 1 January 1995 to 30 April 2004 (Belgium, France, Italy, Luxembourg, the Netherlands, the Federal Republic of Germany [West Germany], Denmark, Ireland, the United Kingdom, Greece, Spain, Portugal, Austria, Finland and Sweden)
EU-10	The 10 Member States of the European Communities from 1 January 1981 to 31 December 1985 (Belgium, France, Italy, Luxembourg, the Netherlands, the Federal Republic of Germany [West Germany], Denmark, Ireland, the United Kingdom and Greece)
EU	European Union
BE	Belgium
BG	Bulgaria
CZ	Czech Republic
DK	Denmark
DE	Germany
EE	Estonia
IE	Ireland
EL	Greece
ES	Spain
FR	France
HR	Croatia
IT	Italy
CY	Cyprus
LV	Latvia
LT	Lithuania
LU	Luxembourg
HU	Hungary
MT	Malta
NL	Netherlands
AT	Austria
PL	Poland
PT	Portugal

RO	Romania
SI	Slovenia
SK	Slovakia
FI	Finland
SE	Sweden
UK	United Kingdom

EFTA	European Free Trade Association

IS	Iceland
LI	Liechtenstein
NO	Norway
CH	Switzerland

EU candidate countries

AL	Albania
ME	Montenegro
MK (1)	The former Yugoslav Republic of Macedonia
RS	Serbia
TR	Turkey

EU potential candidate countries

BA	Bosnia and Herzegovina
XK	Kosovo (2)

In this publication like in the other Eurostat publications, the geographical descriptions and the use of the terms 'southern', 'northern', 'central', 'eastern' and 'western' Europe are not meant as political categorisations. The references in the text are made in relation to the geographical location of one group of Member States of the European Union in comparison to another group of Member States.

Units of measurement

%	per cent
AWU	annual work unit
EUR	euro
ha	hectare
kg	kilogram
km^2	square kilometre
kW	kilowatt
LSU	livestock unit
m^3	cubic metre
toe	tonne of oil equivalent
tonne	1 000 kg

(1) Provisional ISO code which does not prejudge in any way the definitive nomenclature for this country, which is to be agreed following the conclusion of negotiations currently taking place on this subject at the United Nations

(2) This designation is without prejudice to positions on status, and is in line with UNSCR 1244/99 and the ICJ Opinion on the Kosovo declaration of independence.

Other abbreviations

AEI	agri-environmental indicators
CAP	Common Agricultural Policy
CFP	Common Fisheries Policy
CLRTAP	Convention on Long-range transboundary air pollutants
CH_4	Methane
COM	Communication
CO_2	Carbon dioxide
CMO	Common Market Organisation
EAA	economic accounts for agriculture
EC	1. European Community 2. European Commission
EEA	European Environment Agency
EEC	European Economic Community
EFTA	European Free Trade Association
EMEP	European Monitoring and Evaluation Programme
Eurostat	statistical office of the European Union
FLEGT	forest law enforcement, governance and trade
FSS	farm structure survey
HICP	harmonised index of consumer prices
LULUCF	land-use, land change and forestry
NH_3	ammonia
NH_4	ammonium
NO_3	nitrate
N_2	nitrogen
N_2O	nitrous oxide
NUTS	classification of territorial units for statistics (NUTS levels 1, 2 and 3)
P	phosphorus
SAPM	survey on agricultural production methods
UAA	utilised agricultural area
UNECE	United Nations Economic Commission for Europe
UNFCCC	United Nations Framework Convention on Climate Change

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  – by contacting the Europe Direct service
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Agriculture, forestry and fishery statistics

2015 edition

This publication presents a selection of topical data. Most data cover the European Union and its Member States, while some indicators are provided for other countries, such as members of EFTA, candidate and potential candidate countries to the European Union.

This publication may be viewed as an introduction to European statistics and provides a starting point for those who wish to explore the wide range of data that is freely available on Eurostat's website at

http://ec.europa.eu/eurostat

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