Farm structures

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1. EU farms - characteristics and trends

- A total of roughly **11 million farms** operated in the EU-28 in 2013.
- **Romania** alone accounted for 33% of all farms (partly because even the smallest holdings are included in its agricultural census), followed by Poland (13%) and Italy (9%).

Figure 1: Number of farms by country, 2013

![Map showing number of farms by country](image1)

Figure 2: Number of agricultural holdings, 2013

![Bar chart showing number of agricultural holdings](image2)

Data source: Eurostat
Physical farm size

- The average farm in the EU-28 had 16.1 ha of agricultural land in 2013. Big differences remain between the EU-15 (28.1 ha/holding) and the 13 countries that joined the EU in 2004 or later (7.8 ha/holding).

- Most farms in the EU-28 can be characterised as small in physical terms, since 66% of them had less than 5 ha of agricultural land and only 7% had more than 50 ha of agricultural land in 2013. Close to half (47%) of the very small (<5ha) farms are located in Romania, with another 11% in Poland.

- On average, farms were biggest in the Czech Republic (133 ha/farm) and smallest in Romania (3.6 ha/farm).

- In comparison with farms in other big agricultural producing countries, European farms remain rather small (Brazil: 64 ha; Chile: 107 ha; USA: 170 ha; Canada: 315 ha; Argentina: around 590 ha; Australia: more than 3 000 ha per holding).

- Average physical farm size in the EU grew by 4% per year between 2005 and 2013. Annual growth rates in the EU-N13 (+4.5% per year) were higher than in the EU-15 (+3.5% per year).

- The 66% of all farms with less than 5 ha of agricultural land occupy only 6.2% of the total agricultural land in the EU-28, while the 7% with 50 ha or more cover 68%. This dualism is particularly pronounced in Bulgaria, Hungary, Slovakia and the Czech Republic, where some very large corporate farms co-exist with numerous very small family farms.

Figure 3: Average physical farm size at NUTS 2 level, 2013

Data source: Eurostat

See also Common Context Indicator 17: Agricultural holdings (farms) and http://ec.europa.eu/agriculture/rural-area-economics/briefs/pdf/09_en.pdf
The percentage of farms with 100 ha UAA or more underlines major differences in farm structures across Member States – while one out of five farms in the United Kingdom, Luxembourg, Denmark and France works on more than 100 ha, there are no or hardly any such farms in Malta, Slovenia and Greece.

Data source: Eurostat
- Farms with more than 100 ha UAA can cover a very large part of the UAA, leaving only very little land for smaller holdings. This situation is particularly pronounced in Slovakia, the Czech Republic and Bulgaria, where (few) very big farms operate on close to all agricultural land, while many very small farms share the rest.

Figure 5: Percentage of UAA managed by farms with 100 ha or more, 2013

Data source: Eurostat
If a threshold was set to separate the biggest farms which together cover 10% of UAA, this threshold would have to be above 3 000 ha in Slovakia and the Czech Republic, above 2 500 ha in Bulgaria, the UK and Hungary and above 1 000 ha in another 6 Member States. The number of farms affected by such a threshold is below 1% of all holdings in 21 Member States and comes to roughly 26 000 in the EU (for a total of 16.5 million ha).

Figure 6: Threshold values (top 10% UAA) and number of farms above the threshold, 2013

Data source: Eurostat
Economic farm size

- In the EU-28, the average standard output per farm was EUR 30 536 in 2013.
- The average economic size in the EU-15 (EUR 61 916) is more than seven times higher than in the EU-N13 (EUR 8 672)\(^1\).
- In line with their small average physical size, most EU farms are small in economic terms: 69% of them have less than EUR 8 000 standard output per year and only 10.6% have more than EUR 50 000.
- Many small farms are either subsistence farms (producing mainly for their own consumption) or run as part-time operations (see graph 27).
- Again, close to half (46%) of the very small farms (<8 000 EUR) are located in Romania, another 12% are in Poland.
- Between 2005 and 2013, the average standard output per farm increased by 5.7% per year in the EU-27\(^2\). This growth rate was higher in the EU-N12 (+7.2% per year) than in the EU-15 (+5.1% per year).
- This rate is higher than the growth rate for farm size based on agricultural area, indicating an increase in the average economic output per unit of land (due to either a shift to agricultural activities with higher output values or an increase in average yields and/or prices).

What is the standard output? The standard output (SO) of an agricultural product (crop or livestock) is the average monetary value of the agricultural output at farm-gate price, in euro per hectare or per head of livestock. There is a regional SO coefficient for each product, as an average value over a reference period (5 years). The sum of all the SO per hectare of crop and per head of livestock in a farm is a measure of its overall economic size, expressed in euro.

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\(^1\) These values are not adjusted for differences in purchasing power.
\(^2\) 2005 data for Croatia are not available.
On average, farms in the north-western and central parts of the EU are biggest in economic terms (led by the Netherlands, Denmark and Belgium), while smaller farms are dominant in the more recent EU Member States (especially in Romania).

Average farm sizes can differ within a country (Spain and Italy are good examples), and averages can hide the fact that there may be many small and a few very big farms, as is the case in some Eastern European countries.

Figure 8: Average economic farm size in SO per holding at NUTS 2 level, 2013

Data source: Eurostat
- In terms of **farm numbers**, the **smallest farms in economic terms (blue bar)** are clearly dominant. They make up **more than half** of all farms in the EU. Very few farms are in the biggest economic size class (**purple bar, hardly visible**).

- Most of the **agricultural employment** comes from farms in intermediate economic size classes (**red and green bars**).

- The largest share of **land** is managed by farms in the **upper-medium economic size class (green bar)**.

- These farms also hold most of the total **livestock** in the EU – but **note the big share** of livestock held by farms in the highest economic size class – an indication that many of them are **big livestock producers** which generate a lot of output value without necessarily having much land.

- Finally, farms in the upper-medium economic size class generate most of the **total production value** of EU agriculture.

![Figure 9: Key farm parameters by economic size class, EU-28, 2013](image)

Data source: Eurostat
Declining farm numbers

- Farm numbers are continuously decreasing. After adjusting for changes in thresholds between survey years, the average annual rate of decline between 2005 and 2013 stood at 2% for the EU-27, with greater losses in the countries that joined the EU in 2004 and 2007 (EU-N12: -2.7% per year) than in the older Member States (EU-15: -0.9% per year).

Figure 10: Trends in farm numbers, 2003-2013

Figure 11: EU farm numbers 1975-2013

Data source: Eurostat
The vast majority of farms that go out of business (or move to a higher size class) belong to the smallest economic size class. Only from a size class of 100 000 EUR onwards does the overall number of holdings increase. The observed reduction in farm numbers is thus first and foremost an indication of farm size growth, in which very small holdings become part of larger farms.

Figure 12: Change in farm numbers by economic size class, EU-27, 2005-2013

Data source: Eurostat
Organisational structure

- In 2013, 97% of all holdings in the EU were held by a single natural person. In most cases, this person was also the farm manager, and the corresponding holdings can be considered family farms, as opposed to corporate farms (where the holder is a legal entity; 2.8% of all farms) or group holdings (owned by a group of natural persons; 0.7% of all farms).
- These family farms managed 67% of the agricultural land in the EU-28, while 27.5% of the area was managed by corporate farms, an indication of their bigger average size.
- Corporate farms and group holdings are most prevalent in the higher economic size classes.
- Corporate farms are most common in France, which also has the highest number of group holdings. Together, these two categories account for one-third (33.2%) of all holdings in France.
- The legal structure of farms is reflected in the agricultural labour force, where 83% of all agricultural labour input in the EU-28 is provided by members of the sole holder's family.

Data source: Eurostat
Land ownership

- More than 43% of the land in the EU-28 is farmed under a tenancy arrangement.
- In Slovakia, Malta and France, this even comes close to 80%, while in Ireland and Poland only 16% of the land is farmed by tenants.
- In Greece, 32% of the agricultural area is managed under share farming or other modes, most likely as common land.

Figure 15: Land farmed under tenancy arrangements, 2013

Data source: Eurostat
Farm types and specialisation

- Farms can be classified into different types, according to the share of the farm's main activity in total farm standard output\(^3\).

**Number of holdings by farm type**

- While in the EU-15 34% of all holdings are specialised in permanent crops (mostly due to the situation in Mediterranean countries), granivores (pigs and poultry) and mixed production systems play a more prominent role in the EU-N13.

- Farm size varies with farm specialisation. Holdings with no agricultural land are predominantly producing granivores (or grazing livestock held in intensive indoor systems or on common land). Farms with bigger areas of agricultural land tend to specialise in field cropping and grazing livestock.

  The smallest farms show the greatest diversity in their farming activities and often practise mixed crop-livestock farming.

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\(^3\) For details, see Commission Implementing Regulation (EU) 2015/220.

**Data source:** Eurostat
Land use by farm type

- The largest share of agricultural land is taken up by field cropping and grazing livestock (significantly more field cropping and less grazing livestock in the EU-N13 than in the EU-15).
- Around one-quarter of the agricultural land in the EU-N13 belongs to farms which practise a mix of activities or are not classified.
- Farms specialised in horticulture, permanent crops or granivores take up very little agricultural land.

Data source: Eurostat
Standard output by farm type

- In terms of standard output, farms specialised in grazing livestock contribute the largest share in the EU-15, while field cropping and mixed farming dominate in the EU-N13.
- Horticulture, despite its low share in the number of holdings and in agricultural land use, contributes 10% to total standard output in the EU-15, a result of the high value of horticultural products.

Data source: Eurostat
**Structural diversity of farming**

- Structural diversity is here described as the distribution of agricultural holdings across different farm types in a given area, measured by Simpson's Index of Diversity\(^4\). When all holdings in a given region specialise in the same farming activity, there is no diversity and the index value is "0". On the other hand, a perfect distribution of holdings across all farm types is shown by the index value of 1.

- The analysis of the index at Member State level gives a snapshot of the structural diversity of agricultural activities in the EU in 2010 (the year of the last agricultural census).

- Croatia, Romania and Bulgaria show the greatest degree of structural diversity with index values above 0.8. In those countries, farms are well distributed across several farm types.

- Relative high values of Simpson's Index can be also observed in a group of 8 countries (France, Germany, Belgium, the Czech Republic, Slovakia, Hungary, Poland and Slovenia), where agriculture represents a rich variety of activities: in France for example, 35% of the holdings produce grazing livestock, 26% field cropping, 18% permanent crops and 8.4% mixed crops/livestock; the other farm types (horticulture, granivores, mixed cropping and mixed livestock) are also represented and together account for 12% of all holdings.

- A less diverse structure of agriculture holdings exists in Italy, Spain and Greece, where permanent crops form the dominant farm type with a share of around 50% or more in all holdings.

- Ireland has the lowest degree of farm type diversity, with 87% of all holdings specialised in grazing livestock. In the United Kingdom and Luxembourg, more than 60% of all holdings specialise in grazing livestock, while in Cyprus and Finland the same rate of concentration applies to permanent crops and field cropping, respectively.

\(^4\) Simpson's Index of Diversity determines the degree of concentration when individuals are classified into types.
• The degree of structural diversity and thus the different combination of farm types across the EU is however clearly influenced by external factors such as topography, climate or other specific conditions of the territory and this is even more evident at a lower geographic level.

• At regional level, the index values present in fact a bigger variation than the national ones and this reflects the specific and local diversity in term of climate, topographical and social conditions. The distribution of holdings across farm types within the same country can change significantly: in some Mediterranean countries such as Italy and Spain, the most southern and coastal regions are characterized by a more specialised structure of agriculture where very few farm types dominate the production: in Sicily, Calabria and Puglia and in Andalucia, Comunidad Valenciana and Región de Murcia holdings specialised in permanent crops dominate the production with a share of at least 60%.

Figure 23: Structural diversity at regional level, 2010
2. The agricultural labour force

How many people work in EU agriculture?

- Labour input in agriculture is notoriously difficult to survey, and different sources provide different figures depending on the definitions, samples and methods used.

- Estimates for the number of persons involved in agricultural activities reach 22.2 million for 2013, many of whom are working part-time. Converted into full-time equivalents, this comes to somewhere between 8.7 and 9.5 million.

- The share of agriculture in overall employment is in the area of 4%.

For more information on different ways of measuring agricultural labour input, see EU Agricultural Economics Brief no. 8: [How many people work in agriculture in the European Union?](#)

Data source: Eurostat

See also [Common Context Indicator 13: Employment by economic activity](#)
Evolution of agricultural labour input

- Over the last decade, the long-term downward trend in agricultural labour input continued.
- Since 2005, more than one out of four agricultural jobs disappeared (-25.5%).
- The period 2005-2010 showed stronger losses (-4.1% per year on average) than the period 2011-2017 (-0.9% per year). Since 2015 the numbers have changed very little.
- The greatest reduction can be seen for family labour (-31.5% between 2005 and 2017), while hired labour has hardly changed (-1.3%). In recent years (2011-2017), hired labour has even increased by 1% per year on average.
- Romania reported by far the biggest losses in agricultural jobs, possibly reflecting a process of structural adjustment after accession to the EU.
In 2013, roughly 22 million people were involved in agricultural production. These are people who were regularly engaged in farm work, but not necessarily on a full-time basis. Converted into full-time equivalents, this represents about 9 million, i.e. less than one fulltime job per farm.

Over the years, the agricultural labour force has declined. Between 2005 and 2015, more than 3 million full-time jobs were lost – a minus of 25%.

Most jobs were lost in farms belonging to the smallest size classes. This is roughly in line with the reduction in farm numbers, which also concerned mostly the smallest farms.

See also Common Context Indicator 22: Farm labour force

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Depending on the data source, figures vary between 8.7 million and 9.6 million AWU.
Age of farmers

- The majority of farmers in the EU (56%) is older than 55 years, while only 6% are younger than 35 years. This means that for every farmer younger than 35 years, there were 9 farmers older than 55 years in the EU-27 in 2013.
- Portugal has the highest proportion of elderly (above 55 years) farm managers (73.7%), while Austria has the lowest (28.2%).
- The share of young farmers (below 35 years) is highest in Poland (12.1%), followed by Austria (10.9%). It is lowest in Cyprus (1.7%), Portugal and Denmark (both 2.5%).
- See also Common Context Indicator 23: Age structure of farm managers

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6 Figures refer to farm managers (the natural person responsible for the normal daily financial and production routines of running the holding concerned), not to the total labour force.
2 Data for Croatia are not available.
Figure 29: Age structure of farm managers, 2013

Source: Eurostat - Farm Structure Survey Year: 2013
Calculations: DG AGRI - ES
Cartography: DG AGRI GIS-Team 01/2018
© EuroGeographics for the administrative boundaries
Age and farm size – an inverse correlation?

- While average farm size is lowest for elderly farmers, young farmers especially in the EU-15 tend to manage the largest holdings.

- Similarly, the proportion of older farmers is highest in the smallest farm size class and decreases for higher size classes.

- There seems thus to be an inverse relationship between farm size and the age of the farm manager.

- These figures suggest that the decline in farm numbers needs to be put into the demographic context, where many small farms are managed by older farmers, often beyond the normal retirement age. When these farmers stop farming, their farms are not likely to be maintained as such but will be merged into other farms. As a result, the overall number of farms declines and average farm size increases.

Data source: Eurostat
Gender of farmers

- Women manage less than one-third (28%) of all holdings in the EU-27\(^8\). They only farm 13% of the agricultural area, which means that on average their farms are less than half as big (7.6 ha/farm) as that of a male farmer (19.5 ha/farm).

- Two out of five female farmers are older than 65 years (40%). For male farmers, this ratio comes to 28%. The proportion of female farmers is thus greater in the higher age groups (possibly due to the higher life expectancy of women in general).

Working patterns

- Managers of small farms tend to put in less working time than those of bigger farms. One out of five farmers with less than 5 ha of agricultural land spends less than a quarter of his or her working time on the farm; This percentage declines with increasing farm size: 82% of farmers with 100 ha or more work full time.

Data source: Eurostat

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\(^8\) Data for Croatia are not available.