



KEY FIGURES ON

THE EUROPEAN FOOD CHAIN

2023 EDITION





List of countries

BE Belgium
BG Bulgaria
CZ Czechia
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
IS Iceland
LI Liechtenstein
NO Norway
CH Switzerland

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THE EUROPEAN FOOD CHAIN

2023 EDITION

Printed by Imprimerie Bietlot in Belgium

Manuscript completed in November 2023

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Luxembourg: Publications Office of the European Union, 2023

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Theme: Agriculture and fisheries

Collection: Key figures

Print: ISBN 978-92-68-07812-9
PDF: ISBN 978-92-68-07811-2

doi: 10.2785/62986
doi: 10.2785/265789

KS-FK-23-001-EN-C
KS-FK-23-001-EN-N

Foreword



I am pleased to present this third edition of *Key figures on the European food chain*. The publication responds to interest in the European Commission's *Farm to Fork Strategy*, which is an integral part of the *European Green Deal* that sets out to make Europe the first climate-neutral continent by 2050. The *Farm to Fork Strategy* aims to establish a sustainable food system in the European Union (EU) that is fair, healthy and environmentally-friendly.

The common agricultural policy (CAP) plays a pivotal role in the EU's agricultural sector. It sets both economic and social goals, while incorporating sustainability and environmental concerns into its framework. Indeed, recent reforms to the CAP have encouraged farmers to adopt greener practices by allocating more funds to conservation and biodiversity. By doing so, the CAP aims to revitalise rural areas, diversify economic activity and improve local infrastructure. It also supports farmers' livelihoods, while ensuring food supply and security through support measures that stabilise agricultural markets. Finally, the CAP contributes to EU trade negotiations by setting the terms that help maintain quality and safety standards for agricultural imports and exports. Likewise, the common fisheries policy (CFP) aims to contribute to a healthier marine environment, to maintain profitability in the sector, to support the revitalisation of coastal communities and improve their economic prospects with more innovation and technology.

Key figures on the European food chain presents data in an intuitive and innovative way, supported by concise text. It starts with an overview of agriculture and fisheries: while some products are sold raw (for example milk, fruit and vegetables) or processed (such as wine and olive oil) directly from farms, most pass along a much more complex food chain; the EU also imports a range of goods. This journey is reflected in the different sections of the publication that cover processing, distribution, and the consumption of food and beverages. The final chapter concerns environmental issues in the various stages of the food chain, including the generation of food waste.

Most datasets included within *Key figures on the European food chain* are presented until 2021 or 2022. Some effects of the Russian military aggression against Ukraine may be reflected in the data for 2022. Ukraine and Russia have historically been important trading partners for various agricultural inputs or outputs (such as fertilisers, cereals, and animal or vegetable fats and oils).

I hope that you find this publication interesting and useful.

Viveka Palm

Director of sectoral and regional statistics, Eurostat

Abstract

Key figures on the European food chain presents a selection of indicators on the food chain, from primary production in agriculture and fisheries through to consumption. Data are presented for the European Union (EU), its individual Member States and European Free Trade Agreement (EFTA) countries.

This publication may be viewed as an introduction to agriculture, fisheries and food chain statistics. It provides a starting point for those who wish to explore the wide range of data that are freely available on Eurostat's website at <https://ec.europa.eu/eurostat>, together with a range of online articles in *Statistics Explained*, some of which may be accessed through QR codes.

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Layout

Graphic design: Ecorys, working under contract for Eurostat

For more information please consult

Eurostat's website: <https://ec.europa.eu/eurostat>
Statistics Explained: <https://ec.europa.eu/eurostat/statistics-explained>

Acknowledgements

The editor of this publication would like to thank colleagues in Eurostat who were involved in its preparation.

You can find this publication online by scanning the QR code below:



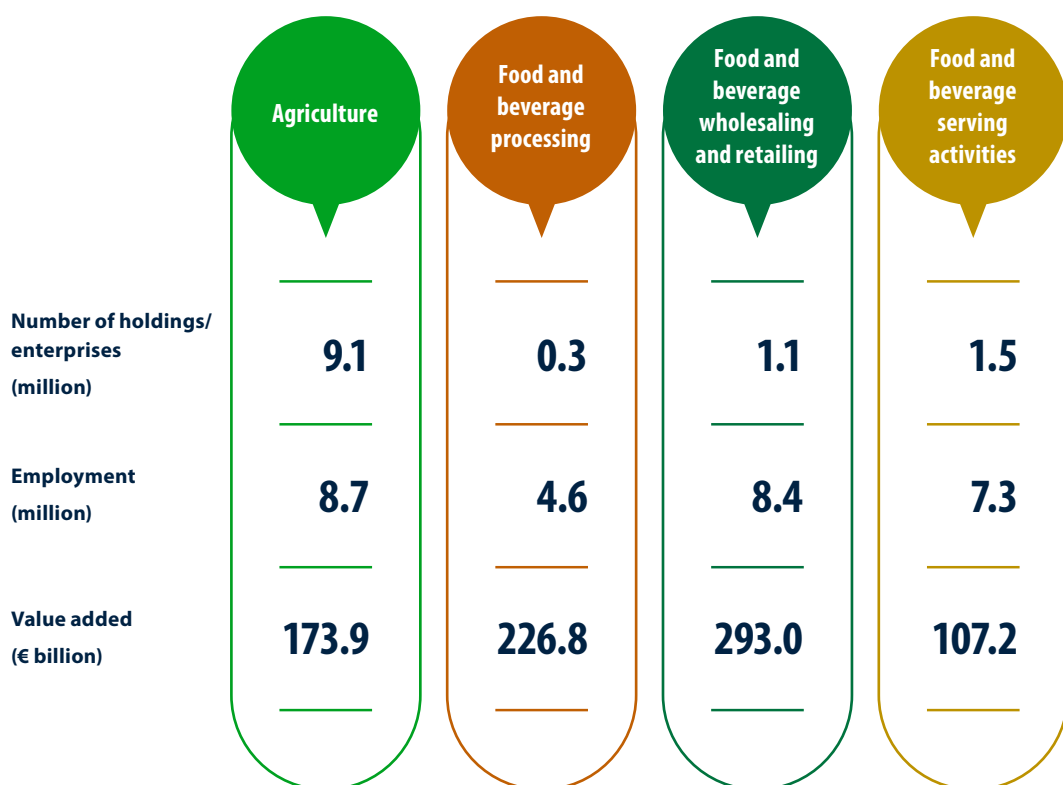


Table of contents

Foreword	3
Introduction	8
Farms and farm labour force	13
Agricultural products	23
Agricultural output value and economic performance	37
Fishing and aquaculture	45
Processing of food and beverages	53
Trade in agricultural, fishery, food and beverage products	59
Transport	69
Wholesale, retail and services provision of food and beverages	73
Human consumption of food and beverages	81
Agriculture and food: environment	91

The European food chain

(EU, 2020)



Note: value added at basic prices for agriculture; value added at factor cost for the other parts of the food chain.

Source: Eurostat (online data codes: [aact_eaa01](#), [sbs_na_ind_r2](#), [sbs_na_dt_r2](#) and [sbs_na_1a_se_r2](#))





Farms and farm labour force

There were **9.1 million** farms across the EU in 2020; they used **38.4 %** of the EU's land area and employed **8.7 million** persons.

p.13



Agricultural products

The EU produced **271 million** tonnes of cereals in 2022, as well as **160 million** tonnes of raw milk and **22.1 million** tonnes of pigmeat, among a wide range of products.

p.23



Agricultural output value

Value added from agriculture was **1.4 %** of GDP in 2022

p.37



Fishing and aquaculture

There were **72 600** fishing vessels in the EU in 2022; the total fish catch by the EU's fishing fleet was **3.5 million** tonnes in 2021.

p.45



Processing of food and beverages

In 2020, there were **291 000** enterprises in the EU processing food and beverages; they employed **4.6 million** persons and added **€227 billion** of value.

p.53



International trade

The EU ran an extra-EU trade surplus for agricultural, fisheries and food and beverage products in 2022: exports were valued at **€222 billion** and imports at **€192 billion**.

p.59



Transport

In 2022, some **1.3 billion** tonnes of agriculture, forestry and fishery products and **1.6 billion** tonnes of food, beverage and tobacco products were transported by heavy goods road vehicles registered in the EU.

p.69



Distribution

In 2020, there were **2.6 million** enterprises wholesaling, retailing and serving food and beverages in the EU; they employed **15.7 million** persons and added **€400 billion** of value.

p.73



Human consumption

On average, people in the EU each spent **€3 470** on food, beverages and catering services in 2021.

p.81



Agriculture and food: environment

Agriculture accounted for **10.7 %** of the EU's greenhouse gas emissions in 2021.

p.91

Source: Eurostat

Introduction

[Eurostat](#) is the statistical office of the [European Union \(EU\)](#) situated in Luxembourg. Its mission is to provide high quality statistics and data on Europe. Key information on the EU's economy, society and environment may be of interest to the general public and decision makers.

Key figures on the European food chain describes the EU's food chain, from primary production in agriculture and fisheries through to consumption (see the infographic on the previous page). For most datasets, statistics are available until 2021 or 2022. In February 2022, Russia launched a large-scale military aggression against Ukraine. In response, the EU – along with several non-EU countries – imposed a range of sanctions on Russia. Many of the sanctions imposed are economic in nature, affecting trade and business.

Policy background

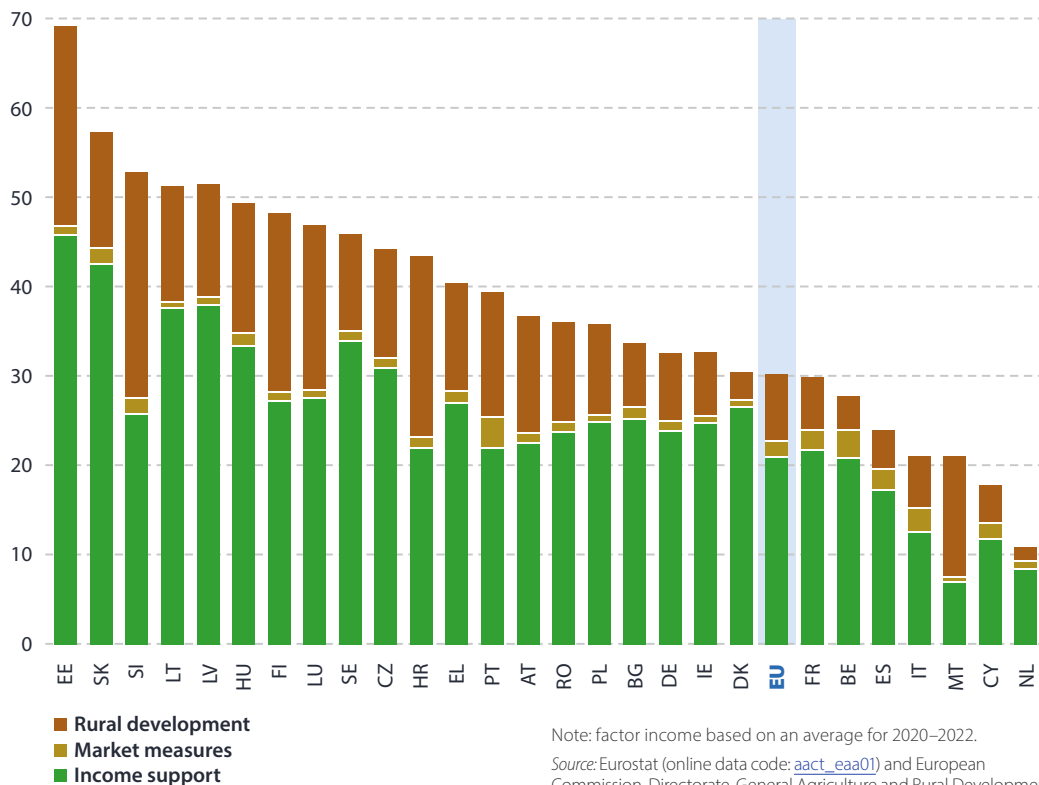
Within the framework of the [European Green Deal](#) – which sets out how to make Europe the first climate-neutral continent by 2050 – the [Farm to Fork Strategy](#) aims to make food production systems within the EU more sustainable, recognising the complex links between healthy people, healthy societies and a healthy planet.

The *Farm to Fork Strategy* aims to accelerate the transition to a sustainable food system. Agriculture, fisheries and aquaculture, as well as the wider food value chain, will need to play their part in the achieving this transition. A sustainable food system should have a neutral or positive environmental impact, help combat climate change, reverse biodiversity decline, ensure food security, nutrition and public health, while promoting equitable economic returns and fair trade practices. As such, the *Farm to Fork Strategy* is aligned with the [United Nations' sustainable development goals \(SDGs\)](#) that are designed to foster ecological, health and social advantages, while advancing economic prosperity.

The EU's [common agricultural policy \(CAP\)](#) was launched in 1962 and is funded from the EU's budget. The CAP is designed as a partnership between society and agriculture that seeks to ensure the stable supply of food and safeguard farmers' income, while protecting the environment, rural landscapes and biodiversity.

Common agricultural policy financing relative to agricultural factor income

(%, 2021)



Note: factor income based on an average for 2020–2022.

Source: Eurostat (online data code: [aact_eaa01](#)) and European Commission, Directorate-General Agriculture and Rural Development

CAP financing accounted for almost one quarter (23.6 %) of the EU's total expenditure in 2021. The largest expenditure item was direct payments (€38.0 billion), followed by rural development (€13.7 billion) and market measures (€2.4 billion). When expressed relative to the EU's agricultural factor income at [basic prices](#) (measuring the income derived from agricultural activities that can be used for the remuneration of own and rented production factors), CAP financing in 2021 was 30.2 %, with considerable variations across the EU Member States.

The [common agricultural policy 2023–27](#) entered into force on 1 January 2023. It has a budget of €387 billion, split between the [European Agricultural Guarantee Fund \(EAGF\)](#) and the [European Agricultural Fund for Rural Development \(EAFRD\)](#). The former primarily provides income

support for farmers, coupled with market measures to stabilise agricultural markets. The latter is focused on rural development, aiming to boost agricultural competitiveness, sustainability, and rural community support. During the period 2023–27, the CAP intends to provide increased funding for eco-schemes, climate-friendly farming practices and the preservation of biodiversity. Among other actions, it also aims to redistribute income support in favour of smaller farms and younger farmers. At the same time, it seeks to promote gender equality and to strengthen the position of farmers in the food supply chain. The CAP 2023–27 is designed to give EU Member States more flexibility to redistribute funds according to local conditions by developing [national strategic plans](#). Overall, 40 % of total CAP expenditure during the period 2023–27 will be dedicated to climate action.

Structure of the publication

Key figures on the European food chain provides its readers with an overview of the wealth of information on the food chain, available on Eurostat's website and its online databases.

The publication is divided into three sections.

- It starts with an overview of agriculture and fisheries. While the main focus is on the production of agricultural and fishery products, this section also includes structural information about farms and the fishing fleet and about employment in these activities, as well as key economic data.
- The second section focuses on downstream activities, such as the processing, wholesaling, retailing and serving of food and beverages. It also includes chapters on the import and export of agricultural products, food and beverages, as well as their transport. The final chapter in this section brings the food chain to its end, looking at human consumption of food and beverages.
- The third section comprises a single chapter looking at selected environmental issues related to various stages of the food chain, including fertiliser and pesticide use, greenhouse gas emissions in agriculture, and waste within the food chain.

This publication provides a concise overview of the EU's food chain. A number of QR codes have also been included; these lead to more detailed analysis in the form of [Statistics Explained](#) articles on Eurostat's website.

Data extraction and coverage

Data extraction

The statistical data presented in this publication were generally extracted in the middle of September 2023. Data for crops (Chapter 2) and agricultural output value and economic performance (Chapter 3) were extracted at the start of November 2023. Note that data from the agricultural census 2020 have been revised when compared with the provisional release of this dataset that was included in the 2022 edition.

Spatial data coverage

This publication presents information for the EU (a sum/average covering the 27 Member States of the EU), the individual EU Member States and the four [EFTA](#) countries. The order of the Member States and EFTA countries in the illustrations usually reflects their ranking according to the values for (one of) the indicator(s) illustrated.

The map presented on the inside of the cover identifies the EU Member States and the EFTA countries, and pinpoints their capital cities.

Codes and names for EU Member States and EFTA countries

BE Belgium	HU Hungary
BG Bulgaria	MT Malta
CZ Czechia	NL Netherlands
DK Denmark	AT Austria
DE Germany	PL Poland
EE Estonia	PT Portugal
IE Ireland	RO Romania
EL Greece	SI Slovenia
ES Spain	SK Slovakia
FR France	FI Finland
HR Croatia	SE Sweden
IT Italy	
CY Cyprus	IS Iceland
LV Latvia	LI Liechtenstein
LT Lithuania	NO Norway
LU Luxembourg	CH Switzerland

Temporal data coverage

If data for a reference year (or other [reference period](#)) are not available for the EU, a particular EU Member State or EFTA country, then efforts have been made to complete the coverage using data for recent earlier reference years (these exceptions are footnoted). Particular attention should be paid to these deviations when the standard reference year is 2020 or 2021, as for some indicators – particularly those impacted by the COVID-19 pandemic – data for earlier reference periods (before 2020) may not be a good proxy for missing values in the most recent period(s). Equally, data for 2020 or 2021 may not be a good proxy for missing values for 2022.

Economic activity coverage

The [statistical classification of economic activities in the European Community](#) (NACE Rev. 2) is used to define economic activities. Within this publication, the following terms related to economic activities are applied, all based on the NACE Rev. 2 classification.

- Agriculture, forestry and fishing – Section A
 - Agriculture (officially crop and animal production, hunting and related service activities) – Division 01
 - Fishing and aquaculture – Division 03
- Food and beverage (F&B) processing
 - Manufacture of food products – Division 10
 - Manufacture of beverages – Division 11
- Wholesaling, retailing and serving of food and beverages
 - Food and beverage wholesaling (includes tobacco wholesaling)
 - Food and beverage wholesale agents – Class 46.17
 - Food and beverage wholesale resellers – Group 46.3
 - Food and beverage retailing (includes tobacco retailing)
 - Non-specialised in-store food and beverage retail – Class 47.11
 - Specialised in-store food and beverage retail – Group 47.2
 - Food and beverage retail via stalls and markets – Class 47.81
 - Food and beverage serving (covers restaurants, bars, cafés and other food and beverage outlets) – Division 56

In Chapter 5, data for food and beverage processing are compared with the manufacturing total, which is defined in NACE as Section C. In Chapter 8, data for the wholesaling, retailing and serving of food and beverages are compared with the total for non-financial services, which is defined as NACE Sections G to J and L to N and Division 95.

More information about the NACE Rev. 2 classification is available on Eurostat's [website](#).

Notes and flags

Notes and flags are means of explaining and defining specific data characteristics. In this publication, these have been restricted to the main notes required for interpretation of the data and to highlight when data for one year have been replaced with data for another. Where data for a particular indicator are not shown in individual illustrations this is because the required data are not available or are confidential. A full set of notes and flags are available on Eurostat's [website](#) via the online data code(s) given in each source.

Accessing European statistics

The simplest way to obtain Eurostat's wide range of statistical information is through its [website](#). Eurostat provides users with free access to its databases and its publications in portable document format (PDF). The website is updated daily and presents the latest and most comprehensive statistical information available on the EU, its Member States, the EFTA countries and the enlargement countries. For some datasets, information may be provided for a wider range of non-member countries.

Eurostat online data codes, such as *ef_lus_main*, allow easy access to the most recent data on Eurostat's [website](#). In this publication these online data codes are given as part of the source below each illustration.

Some of the indicators presented in this publication are relatively complex. *Statistics Explained* provides a comprehensive online glossary with definitions for a broad range of statistical indicators, concepts and terms; it is organised under [thematic headings](#).

1

Farms and farm labour force



Farmland

Land used for agriculture as a share of land area and farm land use as a share of total utilised agricultural area (% , 2020)

Land used for agriculture covered **38.4 %** of the EU's land area in 2020

Source: Eurostat (online data codes: ef_lus_main and reg_area3)



Farming is principally about growing crops and raising livestock. It provides key primary ingredients for food and drink. Statistics on farmland and farms are taken from the 2020 [agricultural census](#). As part of a global programme, this exhaustive survey is carried out every 10 years. Every 3–4 years between each census, a sample-based farm structure survey is conducted in the EU.

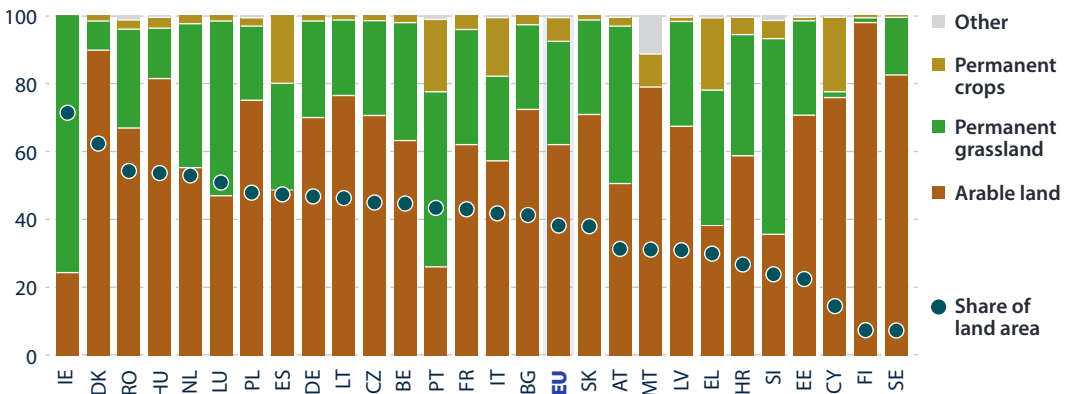
The area used for agricultural production is known as the [utilised agricultural area](#). This is somewhat smaller than the farm area, which also includes wooded areas or land on farms that is unsuitable for production, such as land covered by buildings, roads and water areas.

The EU's utilised agricultural area covered 157.4 million hectares of land in 2020, equivalent to 38.4 % of its land area. This share of the utilised agricultural area within the land area ranged from

less than one tenth in Sweden and Finland to more than half in Luxembourg, the Netherlands, Hungary, Romania and Denmark, and peaked at 71.7 % in Ireland.

In absolute terms, France (27.4 million hectares) and Spain (23.9 million hectares) had the largest utilised agricultural areas in the EU; they accounted for 17.4 % and 15.2 %, respectively, of the EU total.

In 2020, more than three fifths (62.3 %) of the EU's utilised agricultural area was [arable land](#) used to produce crops, principally for human and animal consumption. [Permanent grassland](#) accounted for almost one third (30.5 %) of the utilised agricultural area and was mainly used to provide fodder and forage for animals. The remaining share was used almost exclusively for [permanent crops](#) (7.1 % of the total agricultural area) such as fruit (including grapes) and olives.



Source: Eurostat (online data codes: [ef_lus_main](#) and [reg_area3](#))

Farms

For more information on [farms and farmland](#), please refer to the Statistics Explained article.

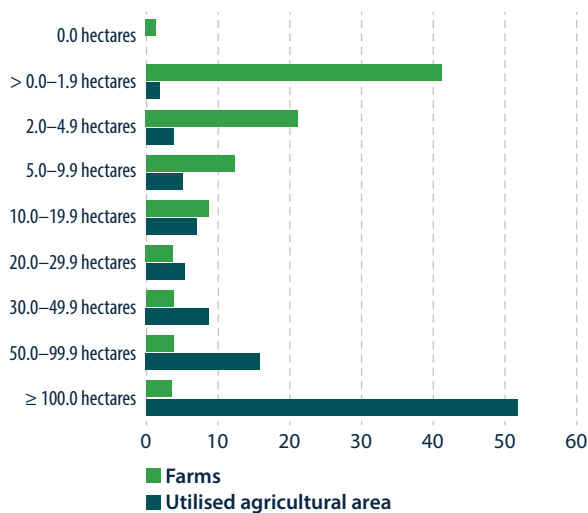


Distribution of farms and farmland by farm size

(% share of total, EU, 2020)

There were 9.1 million farms in the EU in 2020. Almost one third (31.8 %) of these were located in Romania, with more than one tenth in each of Poland (14.4 %), Italy (12.5 %) and Spain (10.1 %).

The average (mean) size of a farm in the EU in 2020 was 17.1 hectares. However, almost two thirds (63.8 %) of the EU's farms were less than 5.0 hectares in size, while just over one tenth (11.4 %) of the farms in the EU had 30.0 hectares or more. Farms with at least 100.0 hectares, accounted for 3.6 % of the total number of farms, but collectively had slightly more than half (51.8 %) of the total area used for agricultural production in the EU. As such, there were very many semi-[subsistence farms](#) in the EU and only a few particularly large ones.

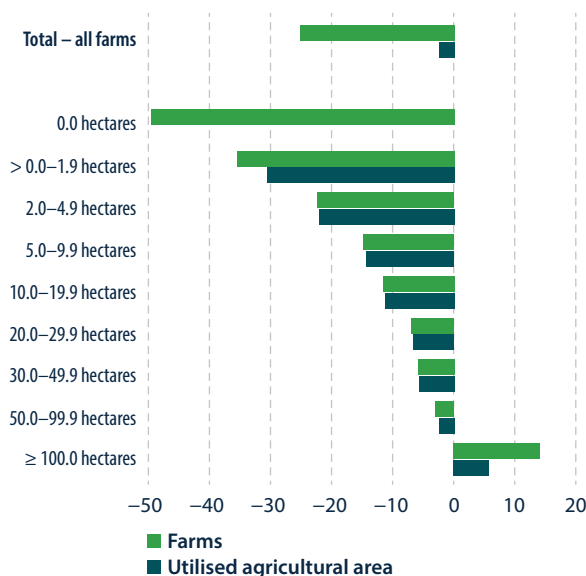


Source: Eurostat (online data code: [ef_m_farmleg](#))

Overall change in farms and farmland by farm size

(%, EU, 2010–2020)

There were 3.0 million fewer farms in the EU in 2020 than in 2010, a decrease of 24.8 % (!). The vast majority of the decrease in farm numbers concerned farms smaller than 5.0 hectares in utilised agricultural area; there were 2.7 million fewer farms in this category during the period under consideration. The only category of farms for which an increase in numbers was observed was for those with at least 100.0 hectares (up almost 40 000, or by 13.9 %). As the overall area used for agricultural production in the EU was relatively stable between 2010 and 2020 (a decrease of 2.2 %), the falling number of farms among all size categories except for the largest reflects mergers or takeovers of farms.



Source: Eurostat (online data code: [ef_m_farmleg](#))

(!) Some of this observed change may reflect methodological difference in the statistics for 2010 and 2020 (in particular, changes in survey thresholds).



Farm specialisations

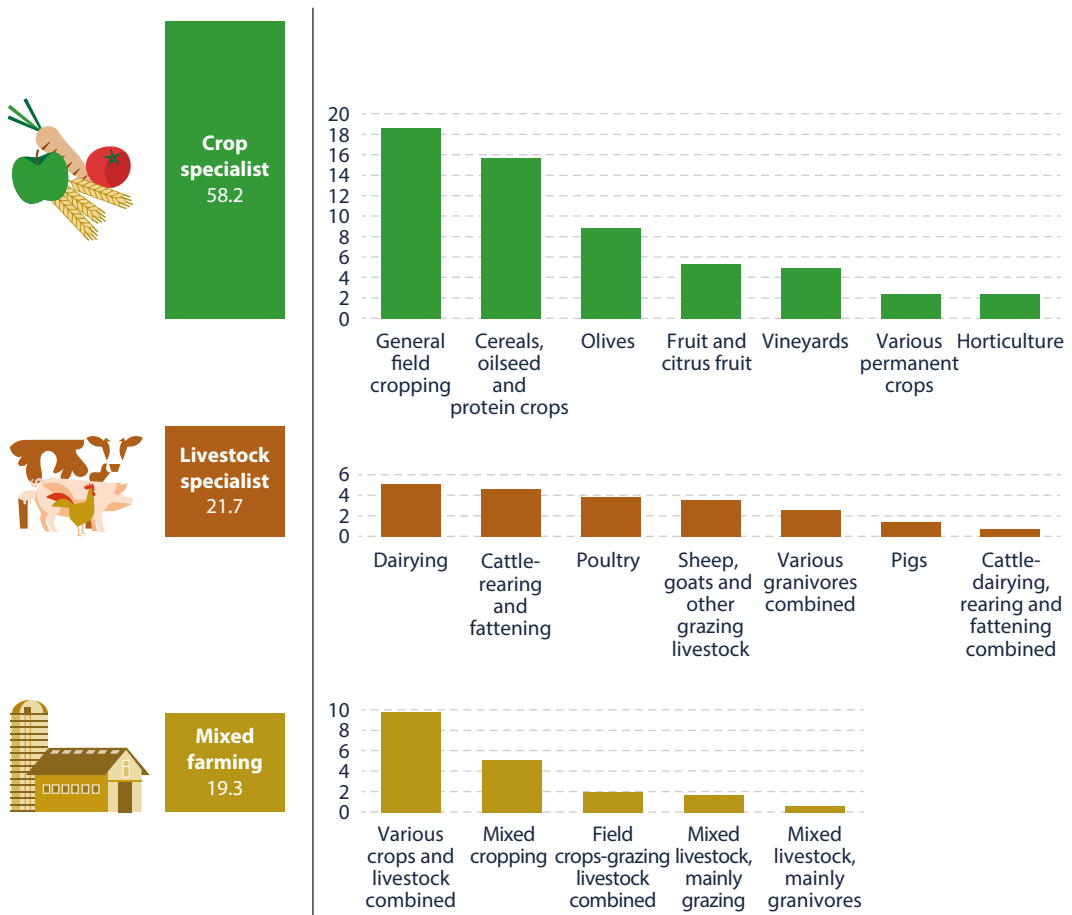
(% share of all farms, EU, 2020)

Almost three fifths (58.2 %) of all farms in 2020 were categorised as **specialist crop farms**: just over one third (34.4 %) of all farms were specialised in field cropping, more than one fifth (21.5 %) in **permanent crops** and a small share (2.3 %) in horticulture.

Around one fifth (21.7 %) of the EU's farms in 2020 were **specialist livestock farms**. Specialisations in dairying were the most common (5.2 % of all farms), followed by cattle-rearing and fattening (4.3 %), poultry (3.9 %) and **sheep, goats** and other grazing livestock (3.6 %).

Mixed farming comprises farms with crops and livestock, farms with various types of crops and farms with various types of livestock. As a whole, mixed farms accounted for just under one fifth (19.3 %) of all farms in the EU in 2020.

A small proportion of farms (0.8 % of the EU total) could not be classified as specialist holdings.

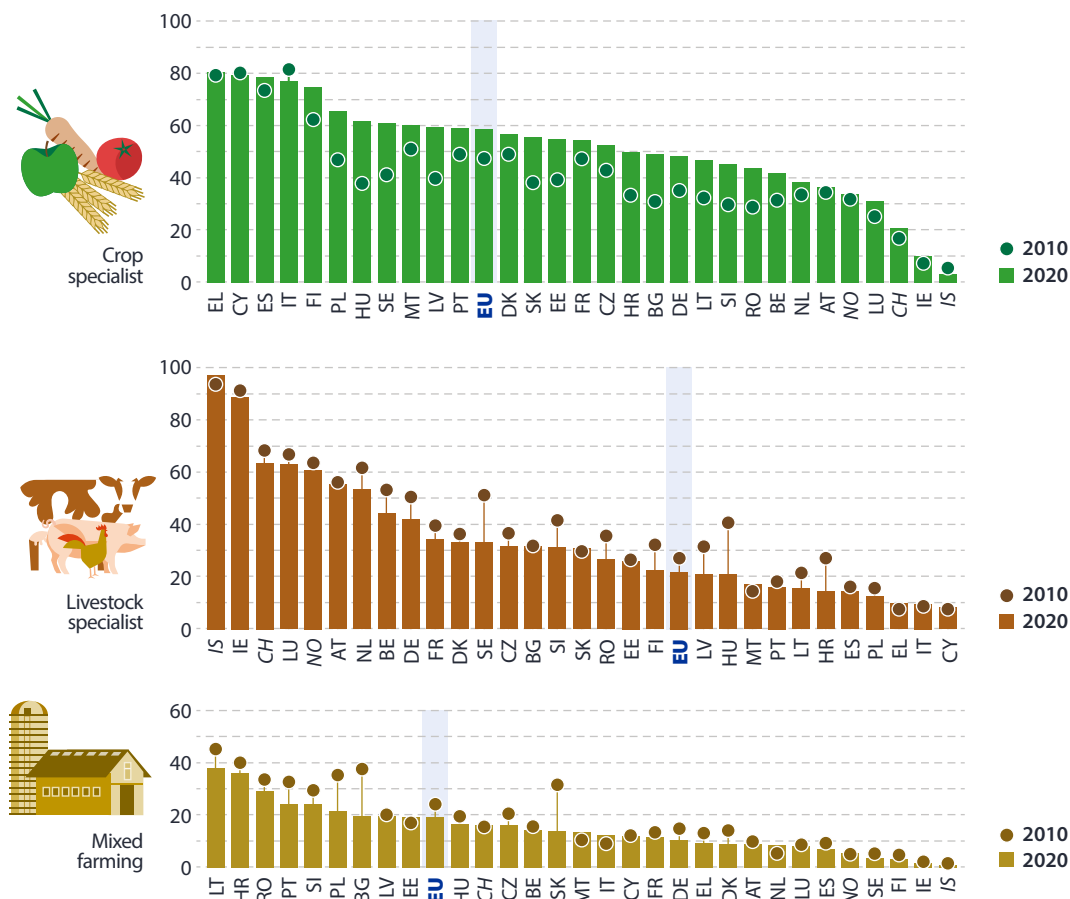


Note: 0.8 % of farms could not be classified as specialist holdings.

Source: Eurostat (online data code: [ef_m_farmleg](#))

Change in farm specialisations

(% share of all farms, 2010 and 2020)



In terms of farm types, between 2010 and 2020 there was a notable shift across the EU away from livestock specialists and mixed farms towards crop specialists. The largest increase in crop specialists as a share of the total number of farms was observed in Hungary (up 24 percentage points); Sweden, Latvia and Poland also recorded substantial increases. By contrast, Cyprus and Italy were the only EU Member States where the share of crop specialists fell.

Note: farms that are not classified in terms of a specialisation are not shown: their share in 2020 ranged from 0.0 % in six EU Member States to 9.2 % in Malta.

Source: Eurostat (online data code: [ef_m_farmleg](#))

Malta, Greece, Slovakia, Italy and Cyprus were the only EU Member States where the share of livestock specialists increased between 2010 and 2020, while the share of mixed farming rose only in Malta, Italy, the Netherlands and Estonia.

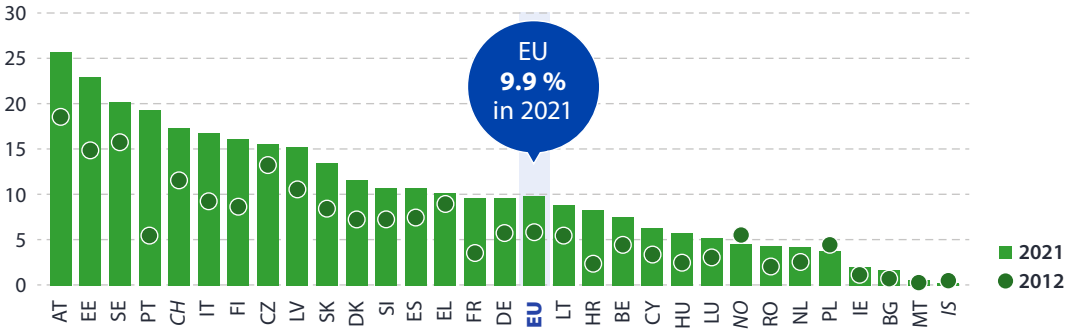
For more information on [farm specialisations](#), please refer to the Statistics Explained article.



Organic farming

Organic area

(% share of total utilised agricultural area, 2012 and 2021)



Note: includes fully converted areas and areas under conversion. EU: 2021, estimate made for the purpose of this publication. EL, AT, IS and NO: 2020 instead of 2021. IS: 2013 instead of 2012.

Source: Eurostat (online data code: [org_cropar](#))

[Organic farming](#) is a method that aims to use natural substances and processes and to do so in a more sustainable way than conventional farming. The EU's *Farm to Fork Strategy* set an objective that at least 25 % of the EU's agricultural land should be farmed using organic processes by 2030.

The share of the EU's utilised agricultural area that was organic increased from 5.9 % in 2012 to an estimated 9.9 % in 2021. The highest shares of organic farm areas were recorded in Austria (25.7 %; 2020 data), Estonia (23.0 %), Sweden (20.2 %) and Portugal (19.3 %). By contrast, the share of organic farming was below 5.0 % in six EU Member States, with the lowest shares in Bulgaria (1.7 %) and Malta (0.6 %). During the period 2012 to 2021, the share of the agricultural area used for organic farming increased in all of the EU Member States, except Poland.

In 2021, the total area used for organic agricultural production within the EU was around 16.0 million hectares. The EU's organic area increased by 6.6 million hectares between 2012 and 2021 (up about 70 %).



For more information on [organic farming](#), please refer to the Statistics Explained article.

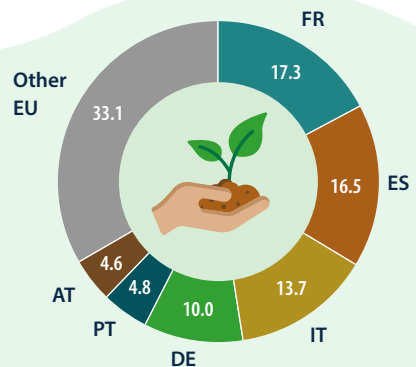
Share of EU organic area

(%, 2021)

Nearly three fifths (57.5 %) of the EU's total organic area in 2021 was located in four EU Member States: France (17.3 %), Spain (16.5 %), Italy (13.7 %) and Germany (10.0 %)

Note: EU total (used to calculate the shares) includes 2020 data for EL and AT. AT: 2020.

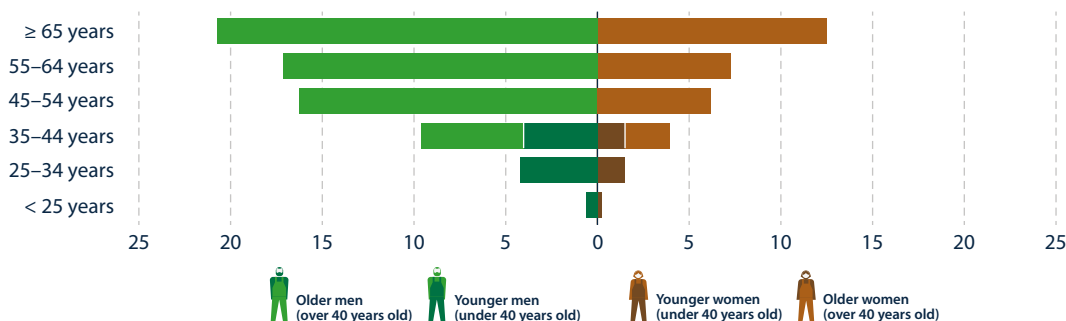
Source: Eurostat (online data code: [org_cropar](#))



Farm managers

Age and sex of farm managers

(% share of all farm managers, EU, 2020)



Note: one person per farm is identified as the farm manager.

Source: Eurostat (online data code: [ef_m_farmang](#))

Around one third (33.2 %) of farm managers on the EU's 9.1 million farms in 2020 were aged 65 years and over. These older farmers tended to work on very small (semi-subsistence) and small farms, managing 16.9 % of the EU's total utilised agricultural area. By contrast, 11.9 % of farm managers in the EU were under 40 years of age; together, they managed 17.6 % of the utilised agricultural area.

Overall change in the number of farm managers

(%, EU, 2010-2020)

The number of farm managers in the EU decreased 24.8 % between 2010 and 2020. The count of male farm managers declined at a faster rate (down 28.3 %) than for female farm managers (down 15.8 %). There was a decrease in the number of farm managers for both sexes and for all age classes during the period under consideration. The largest reductions were recorded for the number of male farm managers aged 25 to 34 years (down 38.3 %) and 35 to 44 years (down 44.1 %).



Note: one person per farm is identified as the farm manager. More detailed information for the age classes of 35 to 39 years and 40 to 44 years does not exist for 2010.

Source: Eurostat (online data code: [ef_m_farmang](#))



Farm workforce

Employment in agriculture, hunting and related service activities

(% share of total employment, 2010 and 2021)

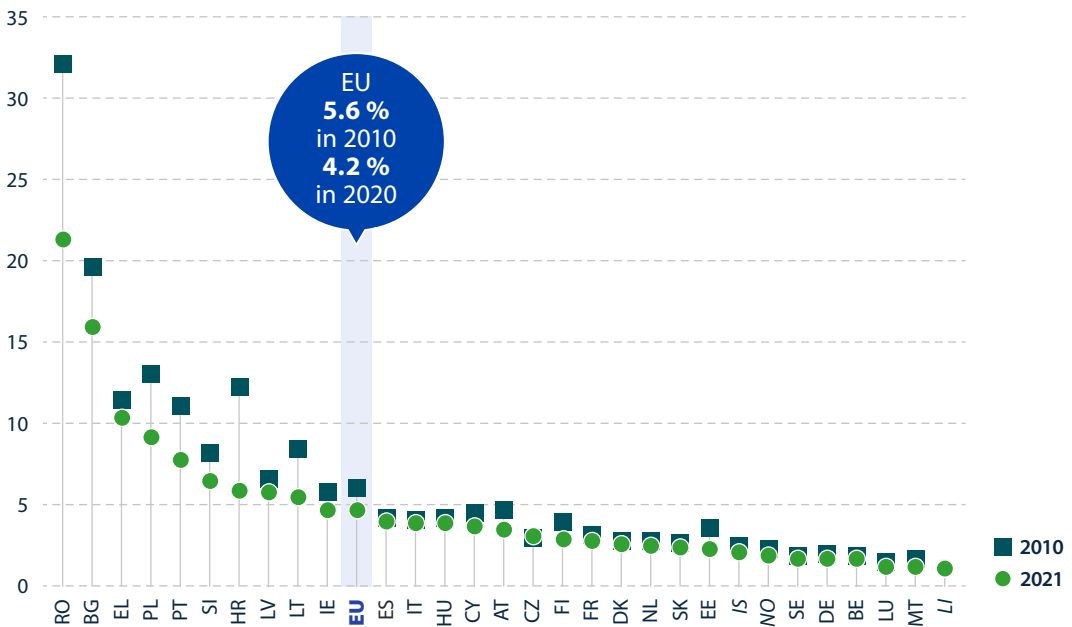
In 2020, there were 8.7 million people working ⁽²⁾ in agriculture (including hunting and related service activities) across the EU, the equivalent of 4.2 % of total [employment](#). As the number of farms in the EU has declined over time, so has agricultural employment. Agriculture's share of employment in the EU fell from 5.6 % in 2010 to 4.2 % in 2020.

Agriculture accounted for a particularly high share of total employment in Romania – more than one in every five persons (20.9 %) in 2020. The share of agriculture in total employment in 2021 was also relatively high in Bulgaria (15.5 %) and Greece (9.9 %).

By contrast, it accounted for less than 1.0 % of total employment in Luxembourg and Malta (both 0.7 %).

Between 2010 and 2020/2021, the share of agriculture in total employment decreased in every EU Member State. The largest decreases were observed in Romania (down 10.8 percentage points; 2010–2020) and Croatia (down 6.4 points; 2010–2021).

⁽²⁾ Note that simple counts of employed persons do not take into account the extent of part-time work in different economic activities.



Note: EU, DE, ES, IT, LV, LT, PT, RO, SE and NO, 2020 instead of 2021. LI: 2019 instead of 2021. LI: 2010, not available.

Source: Eurostat (online data code: [nama_10_a64_e](#))

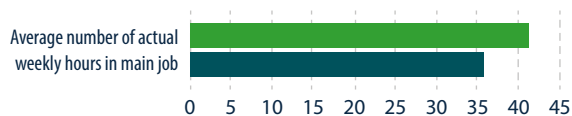
For more information on [farm managers and the agricultural labour force](#), please refer to the Statistics Explained article.



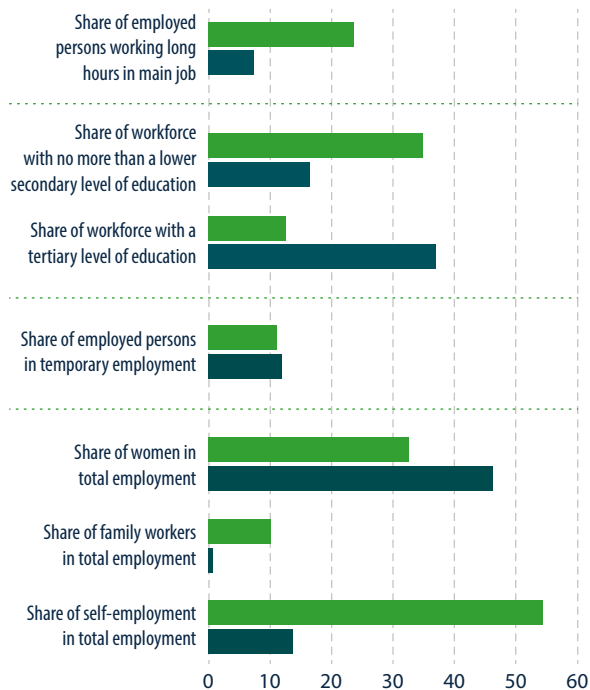
Agricultural workforce

(EU, 2022)

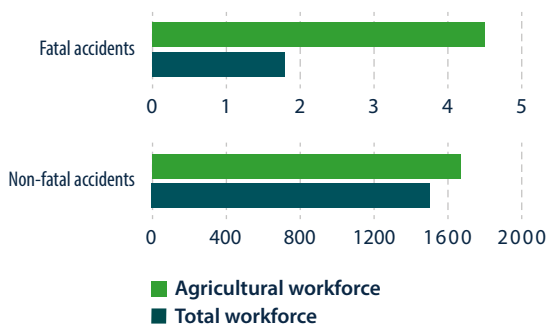
Working time (hours)



Workforce characteristics (%)



Incidence rates of accidents at work (per 100 000 persons in employment)



In many respects, the agricultural workforce differs from the overall workforce in the EU. [Average working hours](#) are longer than typical in agriculture, standing at 41.2 hours in 2022, compared with an economy-wide average of 35.9 hours. This is reinforced by the fact that 23.7 % of people working in agriculture worked long hours (defined as 49 hours or more per week), around three times as high as the average (7.4 %) for all persons in employment.

Slightly more than one third (34.9 %) of people working in agriculture in the EU had a low level (no more than a lower secondary level) of educational attainment in 2022; this was more than double the average (16.5 %) for all persons in employment. By contrast, more than one third (37.1 %) of persons in employment had a high (tertiary) level of educational attainment, which was almost three times as high as the share (12.7 %) recorded for agriculture.

In 2022, the share of family workers was considerably higher in EU agriculture (10.2 %) than it was, on average, for all persons in employment (0.7 %). There were also considerable disparities for [self-employment](#), with more than half (54.5 %) of those employed in agriculture self-employed, compared with a 13.8 % share for all persons in employment.

In 2021, there were 4.5 fatal accidents per 100 000 persons employed within agriculture, which was 2.6 times as high as the corresponding rate (1.8 fatal accidents per 100 000 persons employed) across all activities.

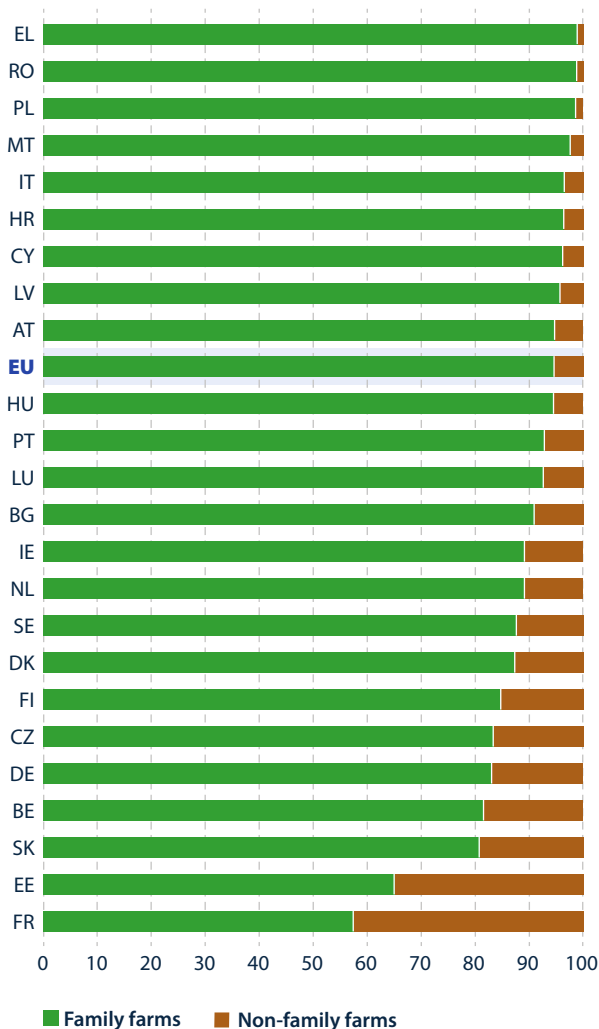
Note: data cover all persons aged 15 years and over in employment. Accidents: 2021.

Source: Eurostat (online data codes: [lfsa_ewhan2](#), [lfsa_qoe_3a2](#), [lfsa_egised](#), [lfsa_etgan2](#), [lfsa_eagan22d](#), [lfsa_egaps](#), [lfsa_esgan2](#), [hsw_n2_02](#) and [hsw_n2_01](#)) and special data extractions

Family farms

Distribution of family farms

(% share of all farms, 2020)



The [Food and Agriculture Organization \(FAO\)](#) of the United Nations defines a family farm as, 'an agricultural holding which is managed and operated by a household and where farm labour is largely supplied by that household'. Based on this definition, the term 'family farm' is used here to refer to any farm that is under family management and where family workers provide more than half of the agricultural labour.

Family farms are, by far, the most common type of farm in the EU; most are small, semi-subsistence farms with only family workers and farms which have to rely on other gainful activities for a diversified source of income, although some are much larger and more productive. Family farms tend to dominate the structure of EU farming in terms of their absolute numbers, their contribution to agricultural employment and, to a lesser degree, the area of land that they cultivate and the value of the output they generate.

Based on comparable information available for 24 EU Member States, the vast majority (94.9 %) of farms in the EU were classified as family farms in 2020. The share of family farms in the total number of farms peaked at more than 99.0 % in Greece and Romania. Family farms accounted for more than four fifths of all farms in most of the remaining Member States, the only exceptions being Estonia (65.2 %) and France (57.6 %).

Note: EU average excluding ES, LT and SI. ES, LT and SI: not shown (as not comparable with the other EU Member States).

Source: Eurostat
(Agricultural census, 2020)



For more information on [family farms](#), please refer to the [Statistics Explained](#) article.

2

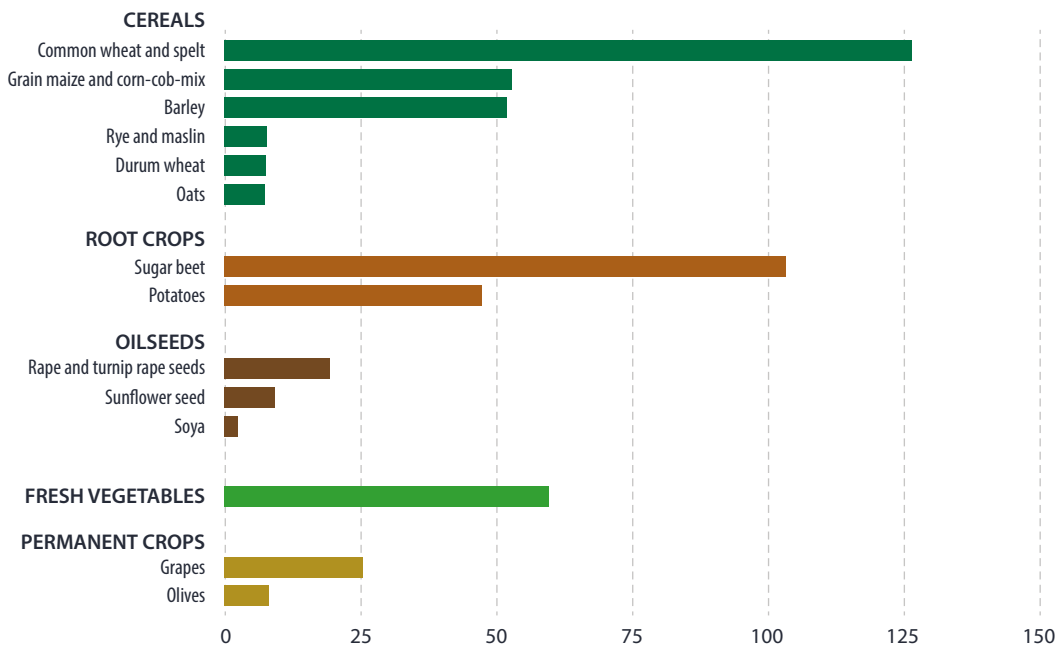
Agricultural products



Crop production

Production of selected crops

(million tonnes, EU, 2022)



The EU's *Farm to Fork Strategy* aims to encourage a more sustainable and resilient form of farming, whereby consumers feel closer to the food that they eat, for example choosing sustainably sourced food. The strategy aims to reward farmers and other operators in the food chain who have undergone this transition to sustainable practices.

[Crop production](#) is sensitive to weather conditions throughout the growing season and at harvest, as well as to other factors like soil quality, nutrient availability and pests; they impact on both [yields](#) (the quantity of crops harvested per hectare of cultivated land) and quality. There were exceptionally hot and/or dry weather conditions across large parts of the EU during 2022; this led to a fall in the level of production for a wide variety of crops (when compared with the year before).

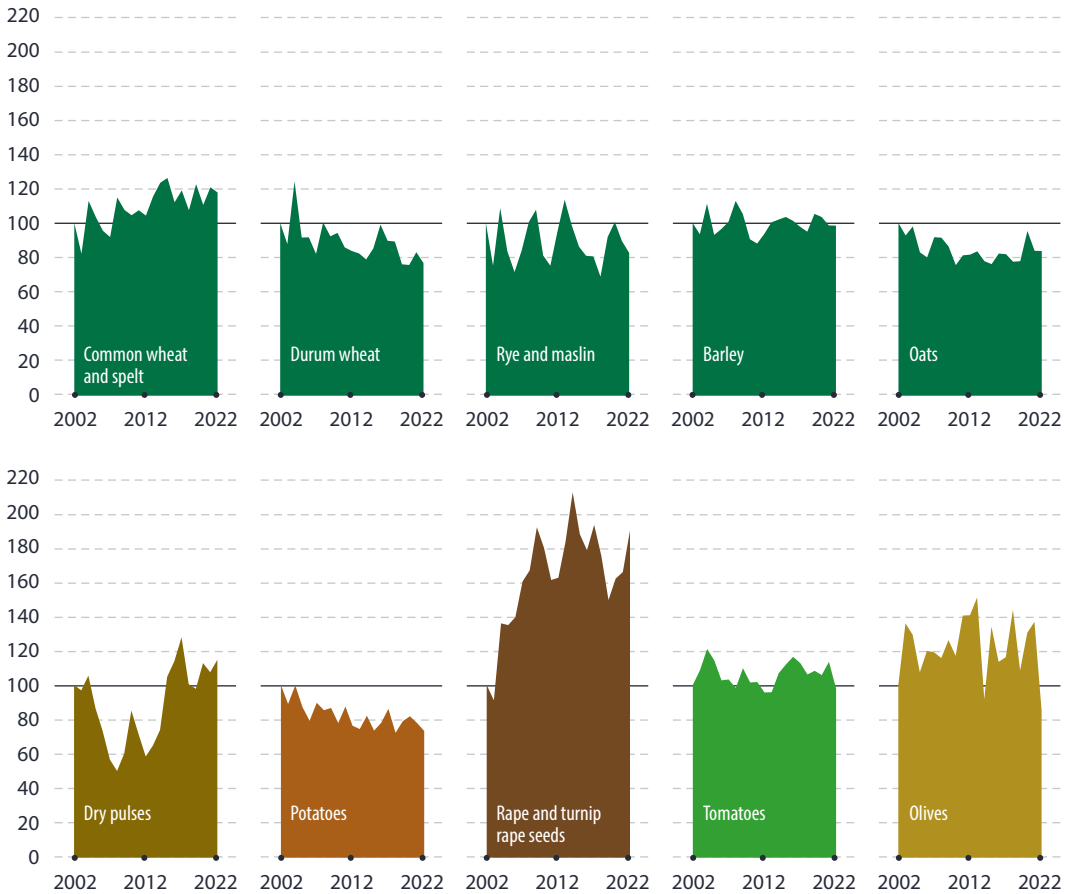
In 2022, some of the principal crops [harvested](#) in the EU – in quantity terms – included common wheat and spelt (126.7 million tonnes), sugar beet (103.5 million tonnes), fresh vegetables (59.8 million tonnes; note this figure also includes melons and strawberries), grain maize and corn-cob mix (53.0 million tonnes), barley (52.0 million tonnes) and potatoes (47.5 million tonnes).

Note: data are shown for selected crops; the list is not exhaustive. Fresh vegetables also include melons and strawberries.

Source: Eurostat
(online data code: [apro_cpsh1](#))

Developments of crop production

(2002 = 100 based on tonnes, EU, 2002–2022)



When making decisions on which crops to sow each year, farmers consider agronomic factors (for example, [crop rotations](#) and soil conditions), the availability of labour and machinery, input costs (for example, of seeds and fertilisers) and anticipated returns, and policy incentives or restrictions. These decisions have an impact on the production of specific crops from one year to the next.

This annual decision-making is less relevant for farmers of permanent crops, like olives, apples and grapes. However, there can be sharp annual fluctuations in production levels, not only because of weather conditions and disease but also because olive trees and some fruit trees have a biennial bearing: a heavy load is generally followed by a lighter one.

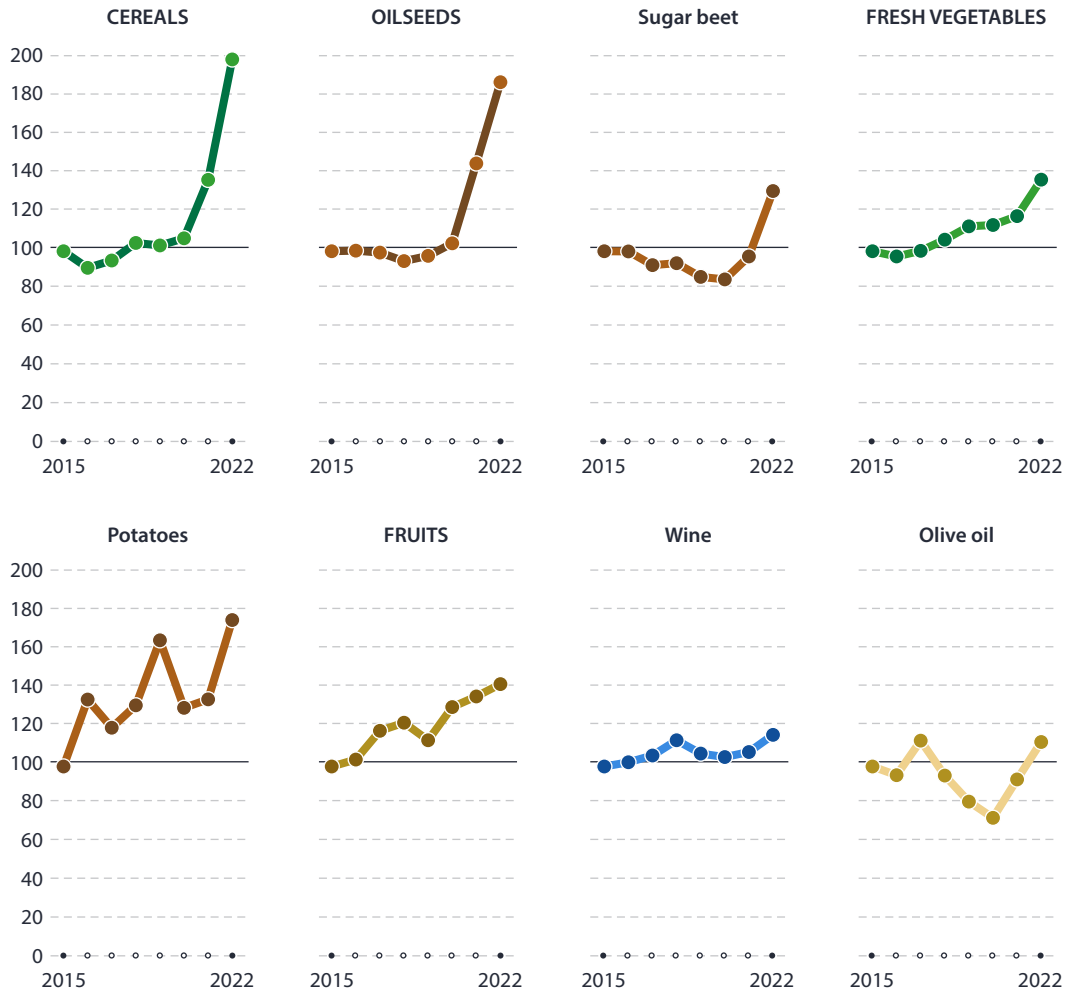
Comparing 2022 with 2002, there was a considerable increase in the EU's harvested production for rape and turnip rape seeds; common wheat and spelt and dry pulses were the only other crops where production was higher in 2022. By contrast, the EU's harvested production levels of durum wheat and potatoes were notably lower.

Note: estimates made for the purpose of this publication. Data are shown for selected crops that have a relatively complete time series for the EU.

Source: Eurostat (online data code: [apro_cpsh1](#))

Developments of output price indices for crop products

(2015 = 100, EU, 2015–2022)



The important role of climatic and other natural conditions on the quantity and quality of harvested production tends to have a knock-on impact on agricultural prices to balance supply and demand. During 2021 and 2022, [output \(or producer\) prices](#) in the EU increased at a rapid pace for most crops. This may be linked to a variety of factors, among which: poor growing conditions; increases in the cost of fertiliser, energy and other inputs; and disruptions to global trade (linked to the effects of the Russian military aggression against Ukraine).

Source: Eurostat
(online data code: [apri_pi15_outa](#))

Between 2020 and 2022, the highest output price increases in the EU were for cereals and for [oilseeds](#) and oleaginous fruits, with overall increases of 86.8 % and 80.2 %, respectively. Relatively large price increases were also observed for sugar beet and for olive oil, where output prices rose 53.6 % (for both crops). None of the crops among those for which information is shown had lower output prices in 2022 than in 2020.

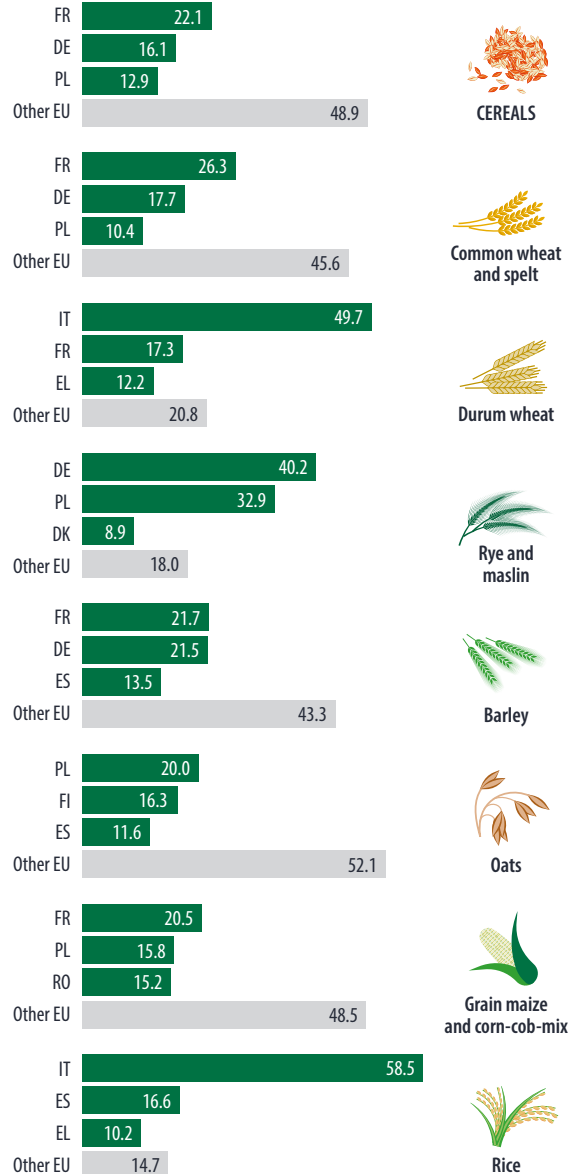
Share of EU production of various types of cereal

(% based on tonnes, 2022)

Wheat accounts for close to half of the total quantity of cereals grown across the EU each year (49.6 % in 2022). The remainder is principally composed of barley and grain maize and corn-cob mix, with smaller quantities of other cereals such as rye and oats. Based on a limited set of information for 17 EU Members States in 2020, an overall majority (around 54 %) of the main cereals consumed in the EU were used for animal feed, with the next highest share (around 27 %) for human consumption. More than one tenth (12 %) of the harvest was for industrial uses (other than for biofuels), around 4 % for seed and around 3 % for biofuels.

In 2022, the harvested area of cereals across the EU was 51.5 million hectares (or 515 000 km²), on which 270.9 million tonnes of cereals were produced. France accounted for a little more than one fifth (22.1 %) of the EU's cereals production in 2022, while Germany (16.1 %) and Poland (12.9 %) were the next largest producers.

A majority of the EU's cereals are grown over the extensive plains of France, Germany, Poland, Romania and Spain. In 2022, the harvested production of durum wheat was principally concentrated in Italy (where it is used in the manufacture of pasta), while the production of rye and maslin (used in the manufacture of bread, vodka and animal fodder) was concentrated in Germany and Poland. As well as Poland, Finland and Spain that had the highest levels of production for oats, Sweden and Ireland were also relatively specialised in their production, as this crop tends to grow well in cooler and wetter conditions. France, Poland and Romania were the main grain maize and corn-cob-mix producers, while Italy and Spain were the main producers of rice within the EU.

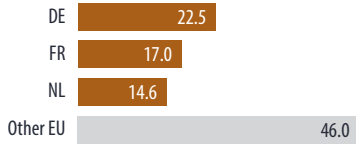


Note: estimates made for the purpose of this publication.

Source: Eurostat (online data codes: [apro_cpsh1](#))

Harvested production of potatoes

(% based on tonnes, 2022)



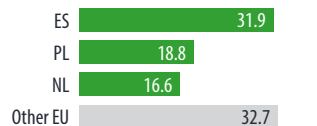
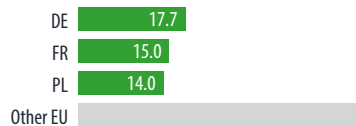
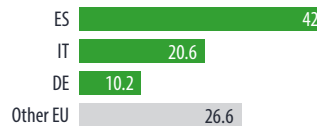
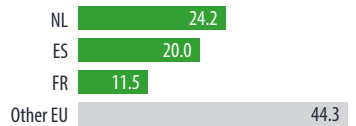
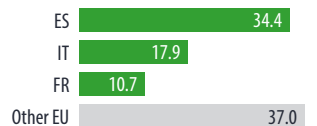
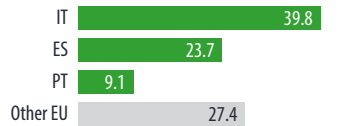
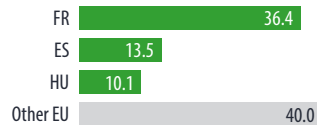
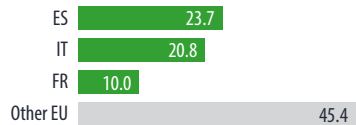
Note: due to rounding, the shares do not sum to 100.0 %.

Source: Eurostat (online data code: [apro_cpsh1](#))

In 2022, the harvested area of potatoes across the EU was 1.4 million hectares, on which 47.5 million tonnes of crop were produced. Note that the harvested production of potatoes includes seed potatoes, in other words, those potatoes that are grown to be planted to produce the following year's crop. Germany (22.5 %, 10.7 million tonnes), France (17.0 %), the Netherlands (14.6 %) and Poland (12.7 %) together accounted for around two thirds of the EU's potato harvest in 2022.

Share of EU production of various types of vegetable

(% based on tonnes, 2022)



Note: estimates made for the purpose of this publication. EU total (used to calculate the shares) for cauliflowers and broccoli excludes EE. Due to rounding, not all shares sum to 100.0 %.

Source: Eurostat (online data code: [apro_cpsh1](#))

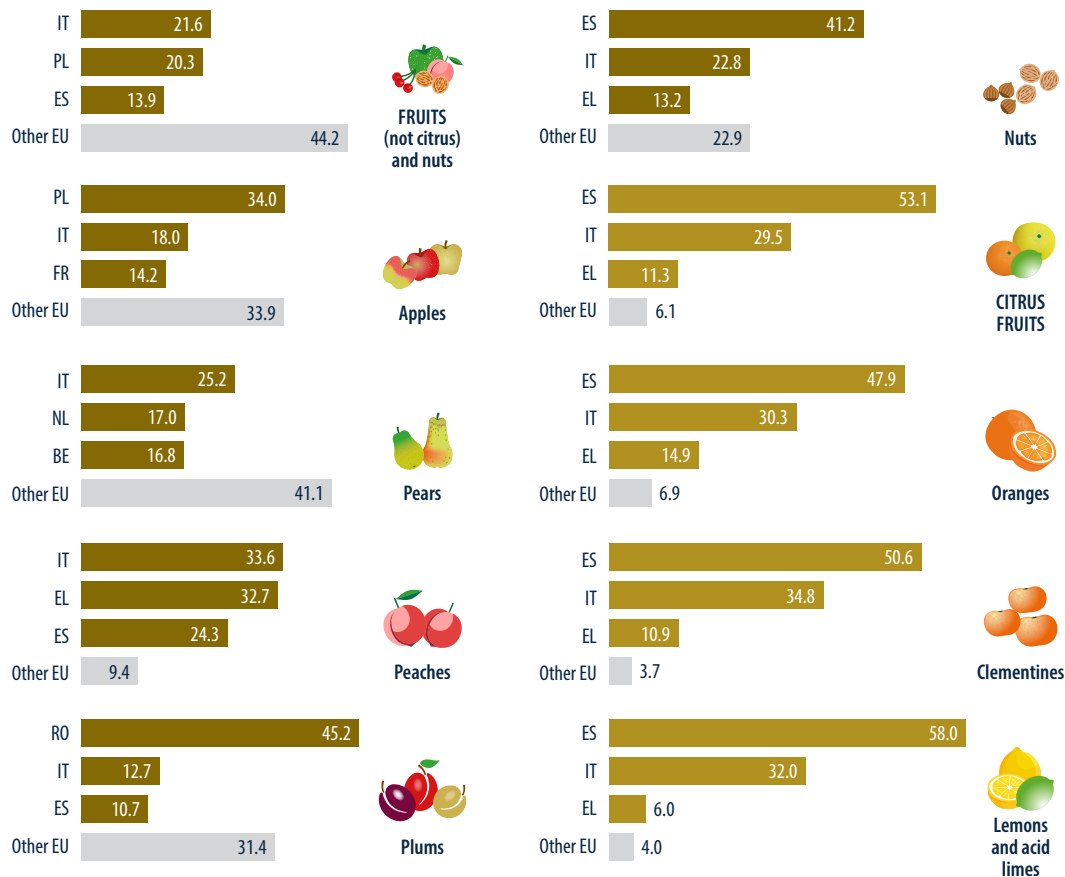
In 2022, fresh vegetables were cultivated on 2.0 million hectares of land across the EU, on which 59.8 million tonnes of crop were produced. The three most commonly grown fresh vegetables – in quantity terms – were tomatoes (15.4 million tonnes of harvested production), onions (6.2 million tonnes) and carrots (4.4 million tonnes).

Spain was the leading producer of fresh vegetables (23.7 % of the EU's harvested production in 2022),

followed by Italy (20.8 %). The production of some types of fresh vegetables is concentrated in a few EU Member States. For example, Italy accounted for close to two fifths (39.8 %) of the EU's harvested production of tomatoes in 2022. The Netherlands (24.2 % of the EU's harvested production) and Spain (20.0 %) were the principal producers of onions, while Germany (17.7 % of the EU total) had the highest share of the harvested production of carrots.

Share of EU production of various types of fruit, berries and nuts

(% based on tonnes, 2022)



Note: excluding grapes and strawberries.
Due to rounding, not all shares sum to 100.0 %.

Source: Eurostat (online data code: [apro_cpsh1](#))

The EU produces a wide range of fruit, berries and nuts. A total of 25.4 million tonnes were harvested in 2022 (excluding citrus fruit, grapes and strawberries), of which 14.7 million tonnes were pome fruit (apples and pears), 6.3 million were stone fruit (such as peaches, nectarines, apricots, cherries and plums), 2.6 million tonnes were sub-tropical and tropical fruit (such as figs, kiwis, avocados and bananas), 1.1 million tonnes were nuts and 0.7 million tonnes were berries (other than strawberries).

In 2022, Italy (21.6 %), Poland (20.3 %), Spain (13.9 %) and France (11.2 %) were the main producers of fruit, berries and nuts in the EU. For some specific fruits, other EU Member States were key producers, such as the Netherlands and Belgium for pears.

In addition, 10.5 million tonnes of citrus fruit (such as oranges, satsumas and lemons) were harvested in 2022. For climatic reasons – abundant sunshine and warmth without sub-zero temperatures – Spain is the leading citrus fruit producer in the EU: fruit orchards are primarily in eastern and southern regions. In 2022, Spain accounted for just over half (53.1 %) of all citrus fruit production in the EU and was the largest producer of each major type of citrus fruit. This was despite a drought impacting Spanish production levels (down 1.2 million tonnes on the level in 2021).

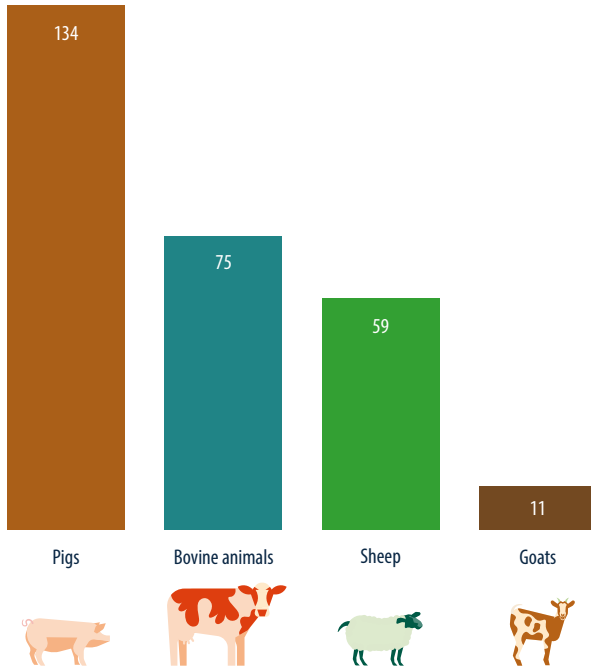
For more information on [crops](#), please refer to the Statistics Explained article.



Livestock population

Livestock populations

(million head, EU, 2022)



The EU has introduced a range of legislation covering the traceability of livestock, in part as a response to various food safety concerns. For most animal species, this traceability concerns a system of identification – usually through ear-tags or tattoos – coupled with a national register that details animals as they are reared, held or handled at each stage of the food chain.

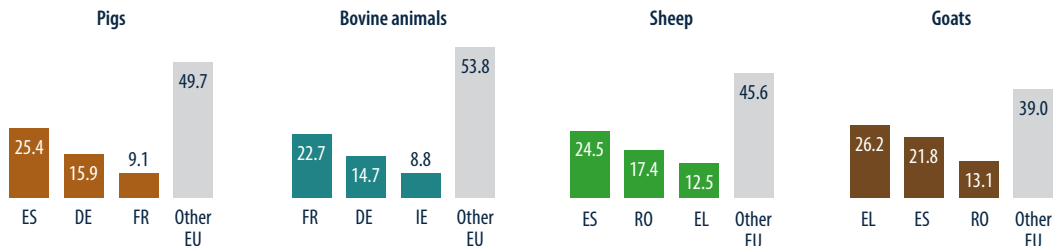
As part of the EU's *Farm to Fork Strategy*, the [European Commission](#) is in the process of drafting a proposal to revise the [Feed Additives Regulation](#) with the goal of reducing the environmental impact of livestock farming. For example, it will examine rules to lessen dependency on feed materials grown on deforested land and aim to replace these with EU-grown plant proteins and alternative feed.

The EU has a sizeable livestock population: at the end of 2022, there were 134 million head of [pigs](#), 75 million head of [bovine animals](#) (such as cattle or buffalo), and 70 million head of sheep and goats on EU farms.

Source: Eurostat (online data codes: [apro_mt_lspig](#), [apro_mt_lscatl](#), [apro_mt_lssheep](#) and [apro_mt_lsgoat](#))

Share of EU livestock populations

(% based on head of animals, 2022)



Note: due to rounding, not all shares sum to 100.0 %.

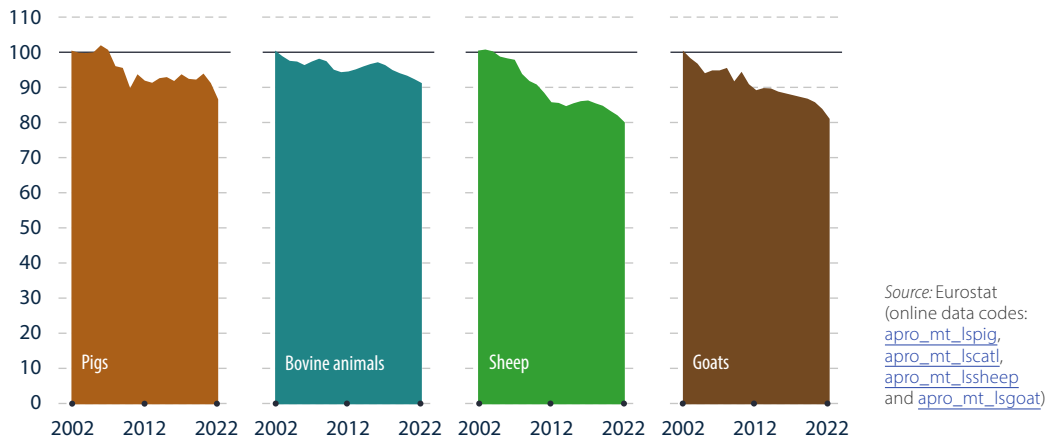
Source: Eurostat (online data codes: [apro_mt_lspig](#), [apro_mt_lscatl](#), [apro_mt_lssheep](#) and [apro_mt_lsgoat](#))

A majority of the EU's livestock are held in just a few of the EU Member States. Spain accounted for around one quarter of the EU's pig (25.4 %), sheep (24.5 %) and goat (21.8 %) populations in 2022, while Greece

had a somewhat larger share (26.2 %) of the EU's goat population and France had a 22.7 % share of the bovine population.

Developments of livestock populations

(2002 = 100 based on head of animals, EU, 2002–2022)



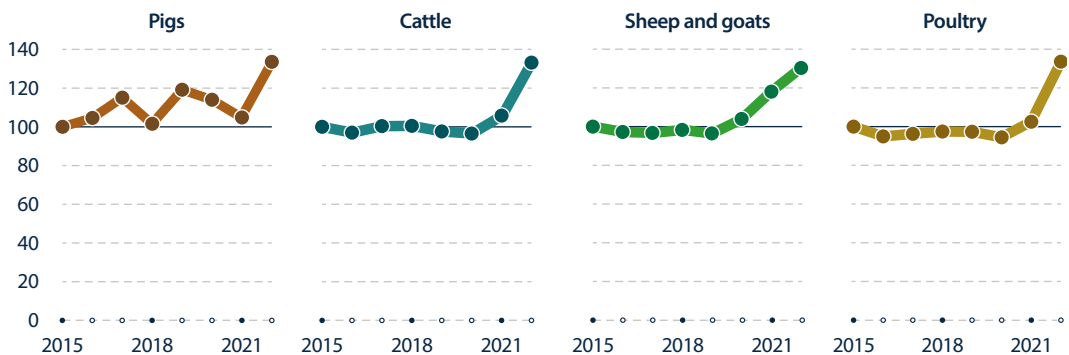
During the last two decades, there has been a decline in livestock populations across the EU. Between 2002 and 2022, the EU's total livestock count for pigs, bovine animals, sheep and goats fell by an estimated 14.4 %, from 326 million to 280 million. The number of head declined for each livestock population during the period under consideration: the largest overall declines (in percentage terms) were recorded for

the number of sheep and goats, while the smallest decrease was in the number of bovine animals.

Looking in more detail at developments between 2021 and 2022, the population of bovine animals in the EU decreased 1.2 %, while there were sharper rates of decline for sheep (down 2.4 %), goats (down 3.4 %) and pigs (down 5.1 %).

Developments of output price indices for animals

(2015 = 100, EU, 2015–2022)



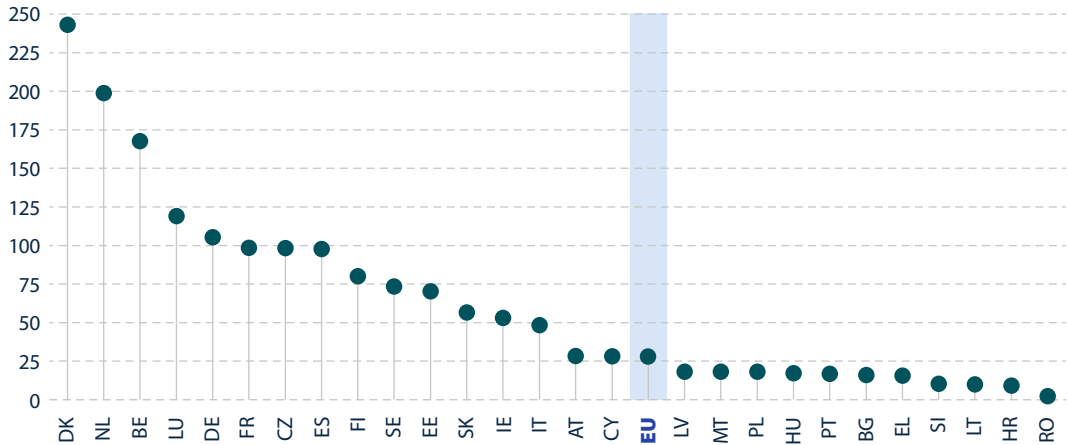
Source: Eurostat (online data code: [apri_pi15_outa](#))

In contrast to the relative price stability observed for poultry and cattle during the period between 2015 and 2020, their output prices rose strongly in 2021 and especially 2022 (with annual increases in 2022 of 29.8 % for poultry and 25.6 % for cattle). Price developments for sheep and goats were also relatively moderate in the earlier years but increased in 2020

and rose at a faster pace in 2021 and 2022. There was more volatility to price developments for pigs (in contrast to developments for other types of livestock): output prices fluctuated throughout the period under consideration but rose particularly strongly in 2022, up 26.4 %.

Livestock density

(livestock units per livestock farm, 2020)



A [livestock unit \(LSU\)](#) is a reference unit which facilitates the aggregation of livestock from various species and age. The reference unit (=1 LSU) is the grazing equivalent of one adult dairy cow producing 3 000 kilograms of milk annually, without additional concentrated foodstuffs. Based on this measure, there were 113.4 million livestock units across the EU in 2020. France (19.0 million LSU), Spain (16.6 million LSU) and Germany (16.3 million LSU) had the highest counts.

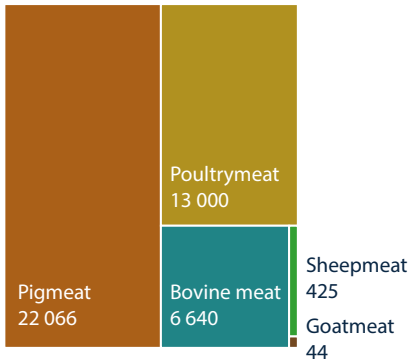
Source: Eurostat (online data code: [ef_lsk_main](#))

One relative measure for the size of livestock farms is defined as the number of livestock units per livestock farm. On average, there were 28 livestock units per livestock farm across the EU in 2020. The highest average sizes among the EU Member States were in Denmark (243 livestock units per holding), the Netherlands (199) and Belgium (168). At the other end of the range, there were fewer than 10 livestock units per livestock farm on average in Croatia and Romania (where semi-subsistence livestock farming on relatively small farms tends to predominate).

Meat production

Meat production

(1 000 tonnes, EU, 2022)



Note: estimates made for the purpose of this publication.

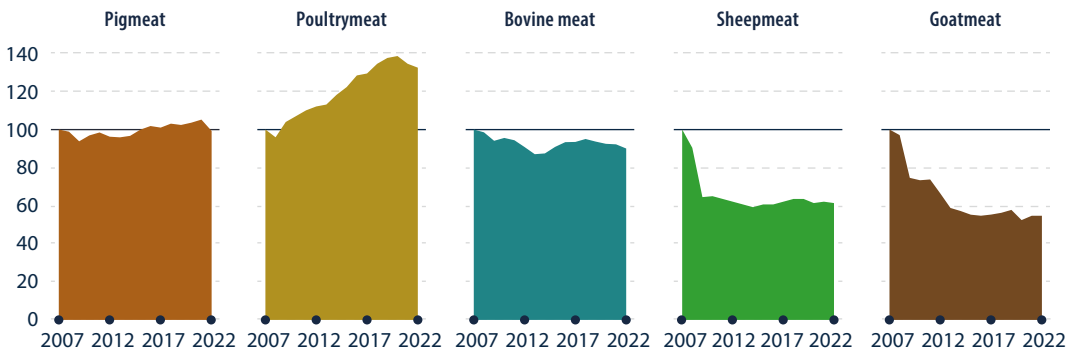
Source: Eurostat (online data code: [apro_mt_pann](#))

Better animal welfare improves animal health and food quality. Under the EU's *Farm to Fork Strategy*, the European Commission plans to revise legislation on the [slaughter of animals](#) so that it is aligned with scientific evidence, broadening its scope, making it easier to enforce, and ultimately ensuring a higher level of animal protection/welfare.

In 2022, 22.1 million tonnes of pigmeat were produced within the EU, which marked a decrease of 5.7 % compared with 2021. An estimated 13.0 million tonnes of poultrymeat were produced across the EU in 2022, almost twice as much as the production quantity of bovine meat (6.6 million tonnes); sheepmeat and goatmeat were produced in much smaller quantities.

Developments of the quantity of meat production

(2007 = 100 based on tonnes, EU, 2007–2022)



During the period 2008 to 2020, there was a rapid and relatively uniform increase in the production of poultrymeat, as EU output increased overall by an estimated 44.5 %. This pattern was reversed in 2021 (down 2.9 %) and the level of poultrymeat production continued to fall in 2022 (down 1.5 %).

Note: estimates made for the purpose of this publication.

Source: Eurostat (online data code: [apro_mt_pann](#))

Across the EU, pigmeat production grew most years from a relative low in 2009 through to 2021, rising overall by 12.2 %; note this growth in production was achieved despite a falling number of pigs. In 2022, pigmeat production in the EU fell 5.7 %. By contrast, the production of bovine meat, sheepmeat and goatmeat followed a downward path during the period from 2007–2022. EU production of sheepmeat and goatmeat fell at a particularly fast pace at the start of the period under consideration (down more than 40 % for 2007–2014), although production was more stable in recent years.

Share of quantity of EU meat production

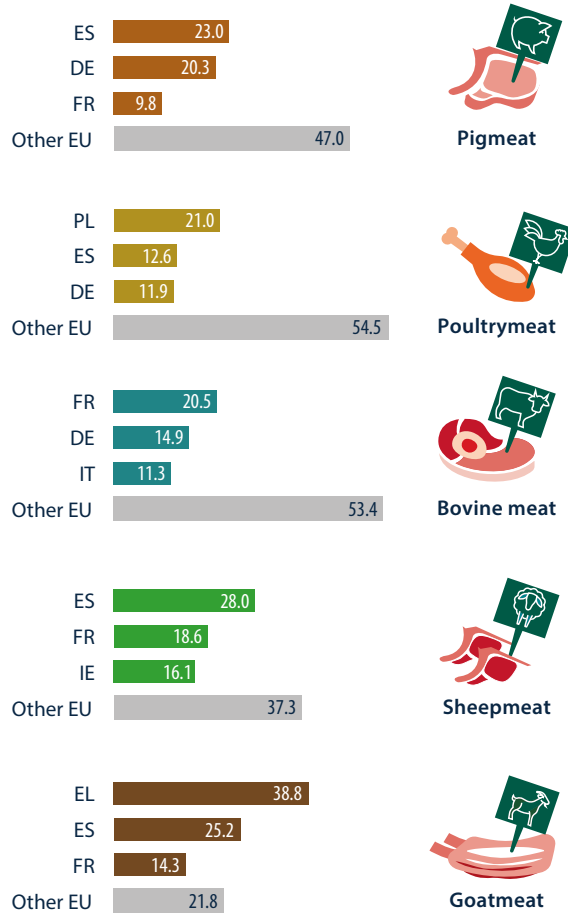
(%, 2022)

In 2022, almost one quarter (23.0 %, or 5.1 million tonnes) of the EU's pigmeat production came from Spain, with a slightly smaller contribution made by Germany (20.3 %); each of the remaining EU Member States had single-digit shares of the EU total.

Spain also had the highest share of the EU's sheepmeat production (28.0 %, or 119 000 tonnes), while most of the remaining production came from France (18.6 %), Ireland (16.1 %) and Greece (11.8 %).

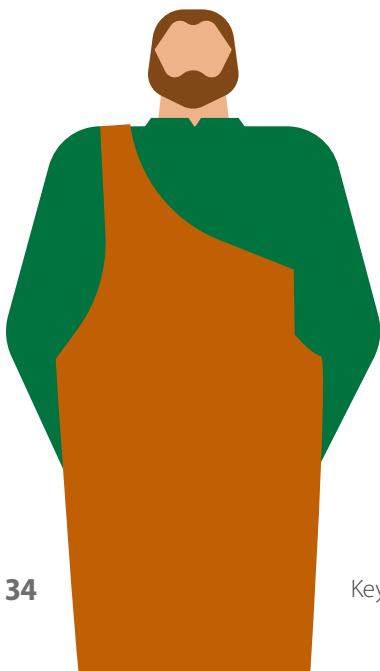
The highest level of poultrymeat production in 2022 was recorded in Poland (21.0 % of the EU total, or 2.7 million tonnes); Spain (12.6 %), Germany (11.9 %) and France (11.6 %) each recorded double-digit shares of EU production.

Slightly more than one fifth of the EU's bovine meat production in 2022 was from France (20.5 %, or 1.4 million tonnes), with relatively large shares also from Germany (14.9 %), Italy (11.3 %), Spain (11.0 %) and Ireland (9.4 %).



Note: estimates made for the purpose of this publication. Due to rounding, not all shares sum to 100.0 %.

Source: Eurostat (online data code: [apro_mt_pann](#))

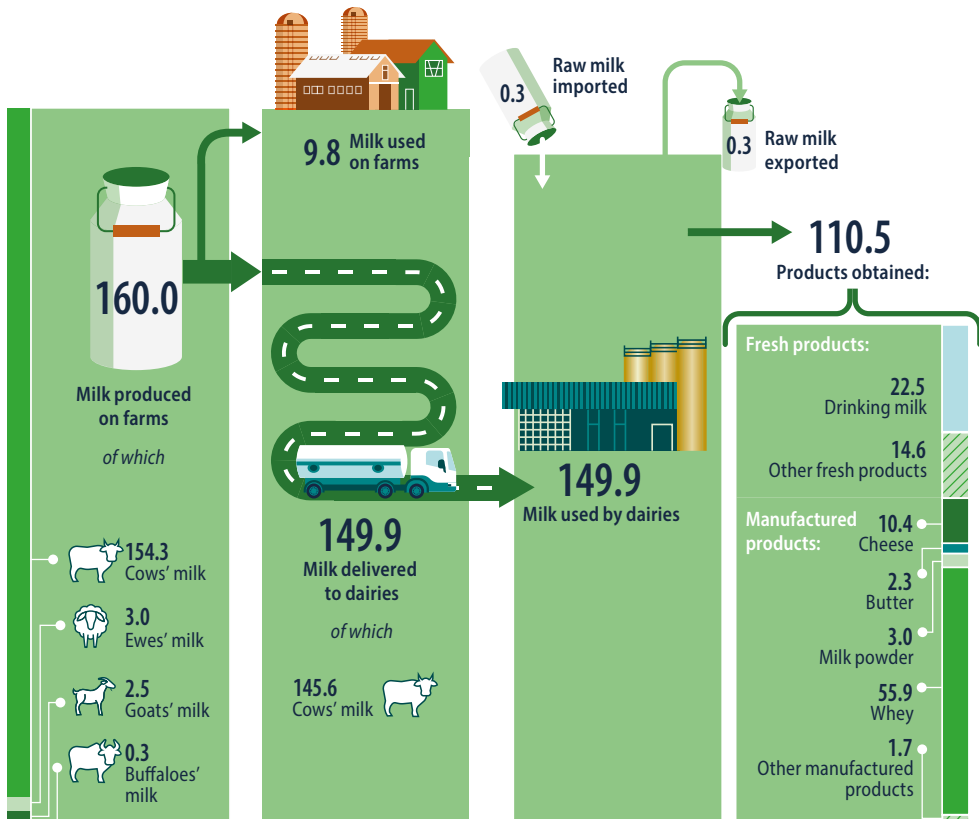


For more information on **livestock and meat**, please refer to the **Statistics Explained** article.

Milk production

Production and use of milk

(million tonnes, EU, 2022)



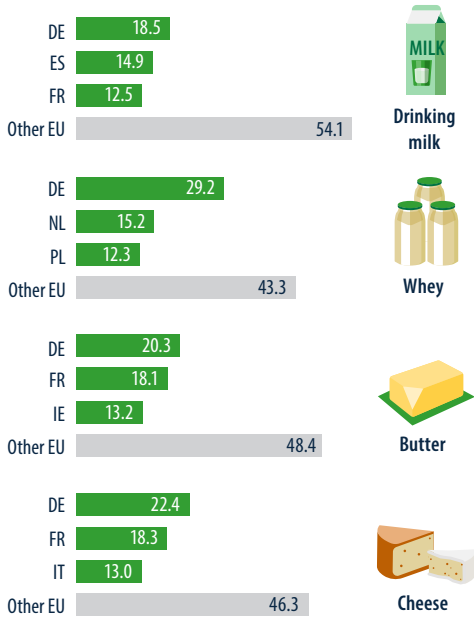
In 2022, the [production](#) of raw milk on EU farms was an estimated 160.0 million tonnes; this represented a modest reduction of 0.3 million tonnes (or 0.2 %) compared with the previous year. The vast majority of raw milk production in the EU is delivered to dairies; only 9.8 million tonnes were used on farms, being consumed by the farmer's family, sold directly to consumers, used as feed, or processed directly. Of the 149.9 million tonnes of milk delivered to dairies, 145.6 million tonnes were cows' milk, the rest being milk from other livestock: ewes (sheep), goats and buffaloes.

Note: provisional data, estimates made for the purpose of this publication. Due to rounding, not all components sum to their total. Milk used on farms: in whole milk equivalent. Butter: includes other yellow fat dairy products; expressed in butter equivalent. Whey: in liquid whey equivalent.

Source: Eurostat (online data codes: [apro_mk_pobta](#) and [apro_mk_farm](#))

Share of EU dairy products

(%, 2022)



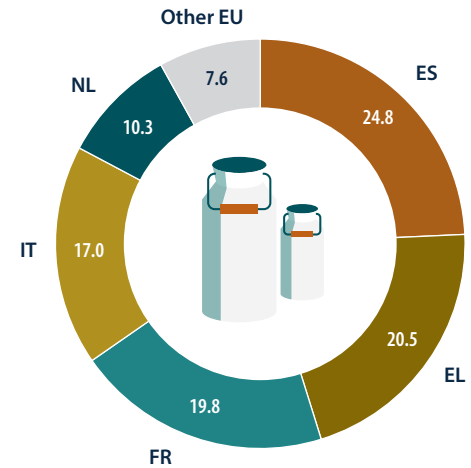
Note: estimates made for the purpose of this publication.
 Source: Eurostat (online data code: [apro_mk_pobta](#))

Some of the principal [dairy products](#) that are produced in the EU include drinking milk, whey (a by-product in the manufacture of cheese), butter and cheese. Germany had the highest level of production for all four of these products in 2022: 16.3 million tonnes of whey, 4.2 million tonnes of drinking milk, 2.3 million tonnes of cheese and 383 000 tonnes of butter.

Following Germany, the other main cheese producing Member States included France (1.9 million tonnes in 2022, or about 18 % of the EU total), Italy (1.4 million tonnes; 13 %), the Netherlands (974 000 tonnes; 9 %) and Poland (926 000 tonnes; also 9 %). The Netherlands and Poland had the second and third highest levels of production for whey (an estimated 8.5 million tonnes and 6.9 million tonnes, respectively). France and Ireland were the second and third largest producers of butter in the EU (349 000 and 269 000 tonnes, respectively).

Share of EU milk from animals other than cows

(% of deliveries to dairies, 2022)



Note: estimates made for the purpose of this publication.
 Source: Eurostat (online data code: [apro_mk_pobta](#))

There are a few EU Member States where livestock other than cows make an important contribution to overall milk production; this is the case in many arid regions, particularly within the Mediterranean basin. In 2022, there were 715 000 tonnes of ewes' milk delivered to dairies in Greece, with a relatively high level also recorded in Spain (623 000 tonnes). The main producers of goats' milk included France (540 000 tonnes delivered to dairies), the Netherlands (440 000 tonnes) and Spain (435 000 tonnes). In Italy, some 234 000 tonnes of milk delivered to dairies came from buffaloes; this was approximately 98 % of the EU total and was principally used for making cheese.



For more information on [milk and milk product statistics](#), please refer to the Statistics Explained article.

3

Agricultural output value and economic performance



Gross output and intermediate consumption

Distribution of gross output for the agricultural industry

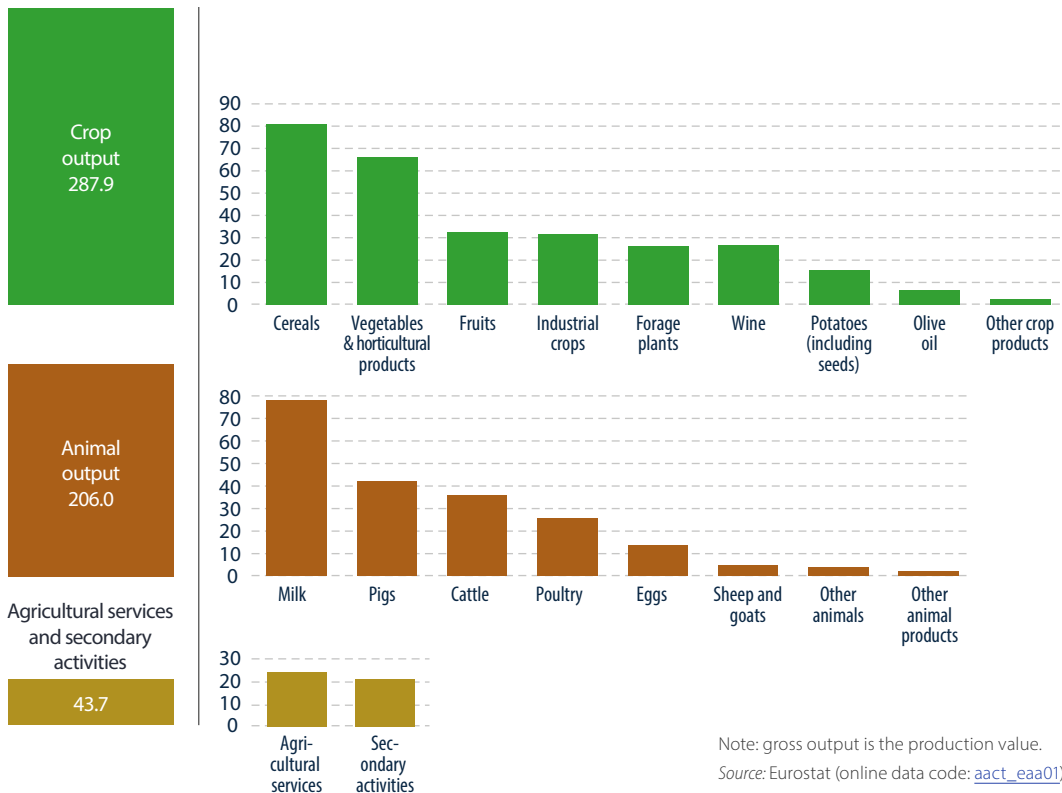
(€ billion, values at basic prices, EU, 2022)

Among other objectives, the EU's *Farm to Fork Strategy* aims to generate fairer economic returns and foster competitiveness within the EU's agricultural sector. The economic performance of this sector matters: directly for farms, farmers and farm workers; and indirectly for upstream and downstream activities, rural communities, as well as final consumers of products derived from agricultural output.

The term agricultural industry is used to describe all farms involved in agricultural production, groups of producers (co-operatives) that make wine and olive oil, and specialised agricultural contractors. The value of the gross output produced by the EU's agricultural industry was €537.5 billion in 2022. This included crop output

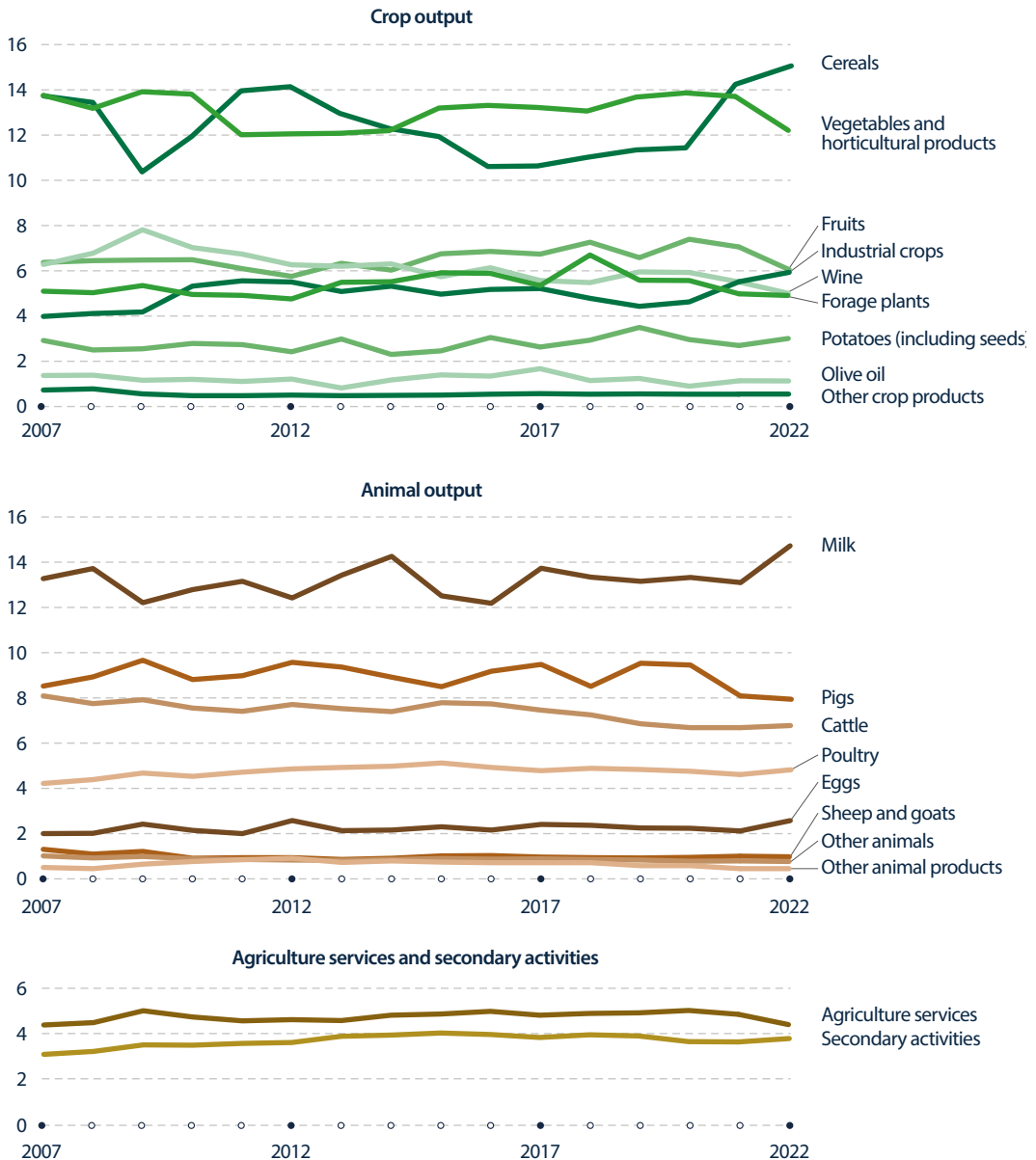
(€287.9 billion; 53.6 % of the total), animal output (€206.0 billion; 38.3 %), agricultural services (€23.4 billion; 4.3 %) and some inseparable non-agricultural goods and services (€20.3 billion; 3.8 %).

At a more detailed level, the largest categories of the EU's agricultural output in 2022 were cereals (€80.6 billion; 15.0 %), milk (€78.1 billion; 14.5 %), vegetables and horticultural products (€65.9 billion; 12.3 %), pigs (€42.1 billion; 7.8 %) and cattle (€35.9 billion; 6.7 %). A majority of the cereals produced in the EU are used for animal feed, with the remainder for human consumption and use within non-food/feed industries, such as the production of biofuels.



Developments of gross output for the agricultural industry

(% share of the output of the agricultural industry, values at basic prices, EU, 2007–2022)

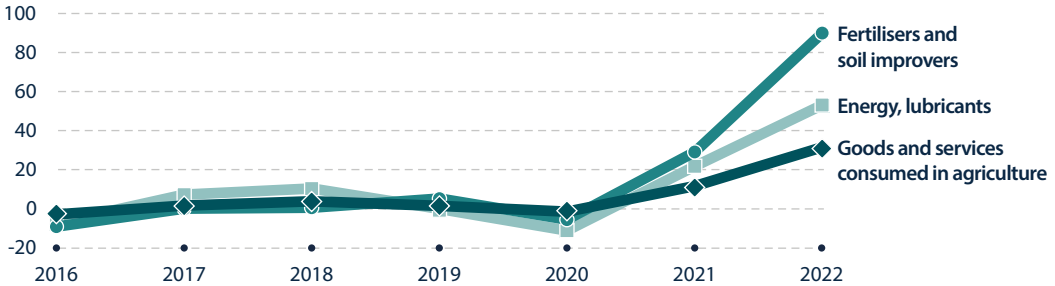


The relative share of crops in the gross output of the EU's agricultural industry decreased by 2.0 percentage points between 2021 and 2022, while there was a somewhat larger increase for animal output (up 2.2 points). The gains recorded for animal output were principally driven by an increase in the gross output of animal products – namely, milk and eggs – as their combined share of the agricultural industry's output was up 2.1 points. There were smaller gains in the relative shares of output for poultry (up 0.3 points) and cattle (up 0.1 points).

Source: Eurostat
(online data code: [aact_eaa01](#))

Annual rate of change of input price indices for the agricultural industry

(%, EU, 2016–2022)



Note: based on indices compiled with 2015 = 100.

Source: Eurostat (online data code: [apri_pi15_ina](#))

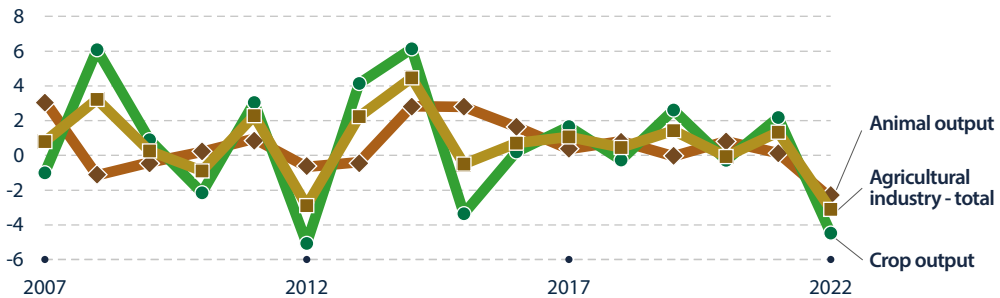
One of the principal effects of the Russian military aggression against Ukraine has been considerable pressure on global energy prices. This has impacted on a number of downstream/related activities; within the context of agriculture, one of the main impacts has been on the price of [fertilisers](#).

Input price indices cover the intermediate consumption of goods and services (for example, fertilisers, pesticides, seed or energy) and gross

fixed capital formation (for example, machinery and equipment). There was a rapid increase in input prices for the EU’s agricultural industry in 2022, as the overall price of goods and services consumed in agriculture rose 31.4 % compared with 2021. Particularly sharp input price increases were recorded for energy and lubricants (up 53.2 %) and, in particular, for fertilisers and soil improvers (up 89.9 %).

Annual rate of change of volume indices for the agricultural industry

(%, basic prices, EU, 2007–2022)



Note: based on indices compiled with 2015 = 100.

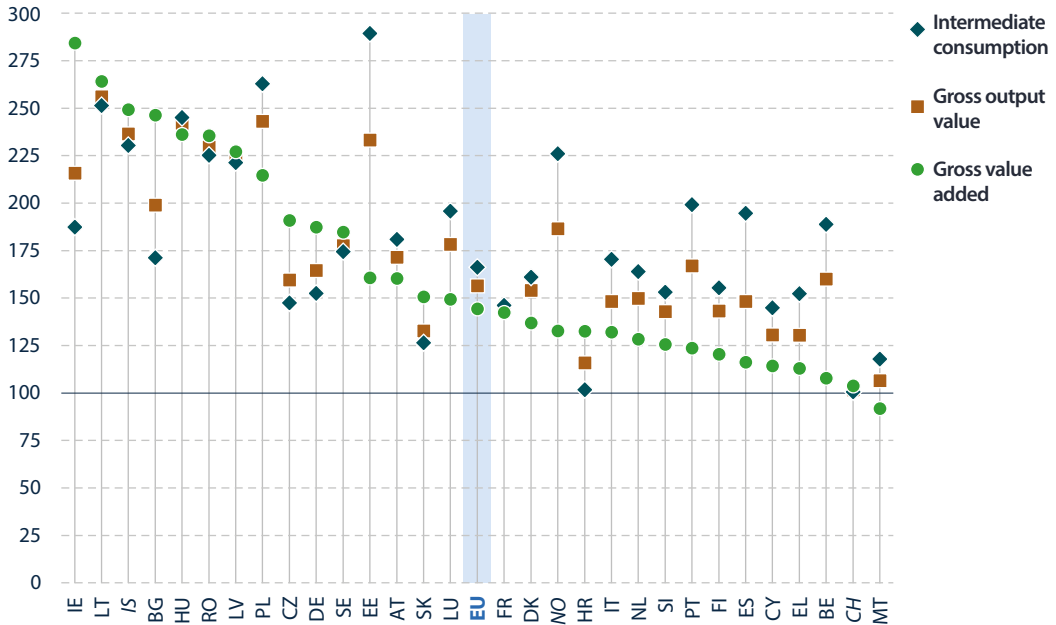
Source: Eurostat (online data code: [aact_eaa05](#))

Changes in volume indices of output reflect a change in the value of output after removing any output price changes (inflation or deflation); this is broadly synonymous with a change in constant prices. With a 19.0 % increase in the value of output and a

somewhat higher increase (up 22.8 %) in output prices of agricultural goods and services, the volume index of output for the EU’s agricultural industry fell 3.1 % in 2022. This reflected falling volume indices for both animal (down 2.3 %) and crop output (down 4.5 %).

Developments of output and consumption for the agricultural industry

(2007 = 100, values at current basic prices, 2022)



Inputs of products that are used up (consumed) in a production process, such as fertilisers, pesticides, seed, animal feed, energy and veterinary services, are referred to as intermediate consumption. The cost of these inputs for the EU's agricultural industry totalled €316.7 billion in 2022. The difference between the output value (€537.5 billion) and the cost of intermediate consumption is the value added at basic prices, in other words, the value that has been added through production (in this case agricultural) processes. Gross value added for the EU's agricultural industry was €220.7 billion.

Note: indices originally compiled with 2015 = 100; rescaled to 2007 = 100. Ranked on the change in value added.

Source: Eurostat (online data code: [aact_eaa05](#))

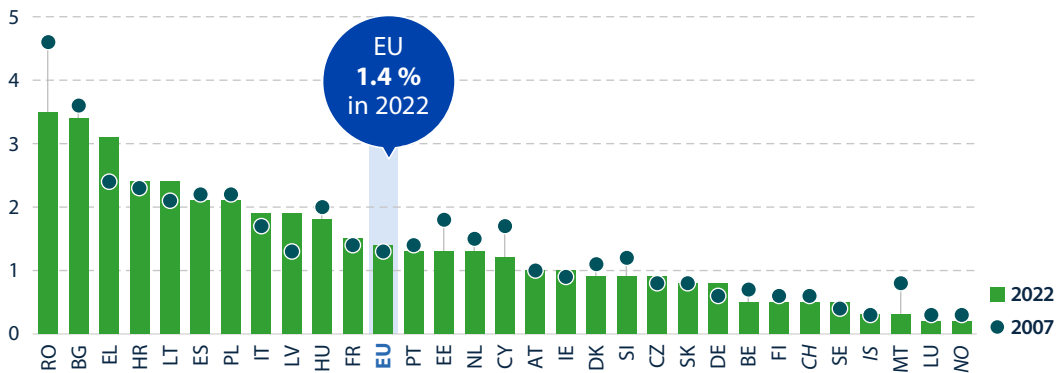
Between 2007 and 2022, gross value added in the EU's agricultural industry increased overall by 44.4 % in current price terms, reflecting a 56.6 % increase in the value of output offset to some extent by a 66.3 % increase in the expenditure on intermediate consumption.

Seven of the EU Member States – Ireland, Lithuania, Bulgaria, Hungary, Romania, Latvia and Poland – recorded value added in their agricultural industries at least doubling in current price terms between 2007 and 2022. In Czechia, Germany, Sweden, Estonia, Austria and Slovakia, value added increased by more than 50.0 % during this period. By contrast, value added was lower in 2022 than in 2007 in Malta. The gross output of the agricultural industry and the expenditure on intermediate consumption were both higher in 2022 than in 2007 for all of the EU Member States.

Value added and labour productivity

Gross value added from agriculture

(% relative to GDP, 2007 and 2022)



In 2022, value added from the EU's agricultural industry was equivalent to 1.4 % of [gross domestic product \(GDP\)](#); as such, this was marginally higher than in 2007 (1.3 % of GDP).

The ratio of the value added of the agricultural industry to GDP in 2022 was notably greater in Romania (3.5 %), Bulgaria (3.4 %) and Greece (3.1 %) than in any of the other EU Member States: the next highest ratios were 2.4 % in Croatia and Lithuania. In 12 Member States, value added from the agricultural industry was equivalent to 1.0 % or less of GDP; the lowest ratios were 0.3 % in Malta and 0.2 % in Luxembourg.

Between 2007 and 2022, the ratio of the value added of the agricultural industry to GDP increased in nine of the EU Member States. The largest increases were recorded for Greece (0.7 percentage points; note there is a break in series) and Latvia (0.5 points). The largest decrease were recorded in Malta, Estonia and Cyprus (all down 0.5 points) and Romania (down 1.2 points).

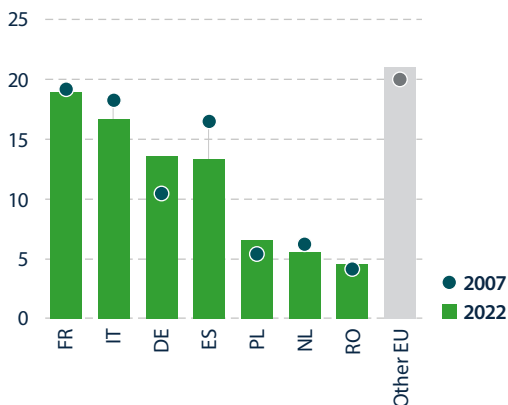
Note: EL, break in series.

Source: Eurostat (online data codes: [aact_eaa01](#) and [nama_10_gdp](#))



Gross value added for the agricultural industry

(% share of EU total, values at current prices, 2007 and 2022)



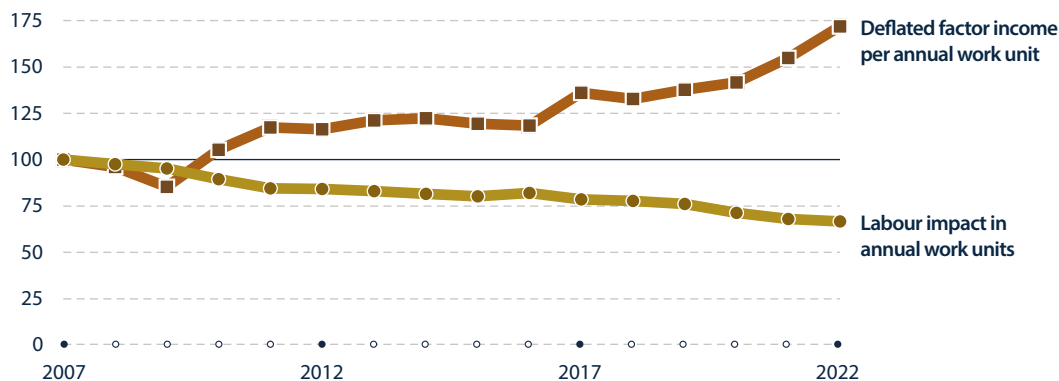
In 2022, France's agricultural industry had the highest value added among the EU Member States, contributing 18.9 % of the EU total. Italy had a share of 16.7 %, followed by Germany with 13.6 % and Spain with 13.3 %; none of the remaining Member States registered a share in double-digits.

Comparing 2007 with 2022, Spain and Italy saw their shares of EU value added decrease by the biggest margin (down 3.2 and 1.6 percentage points, respectively). The largest increases were recorded for Germany (up 3.1 points, reflecting very rapid growth in value added between 2021 and 2022), Ireland and Poland (both up 1.1 points).

Source: Eurostat (online data code: [aact_eaa01](#))

Agricultural labour input and income

(2007 = 100, EU, 2007–2022)



Note: indices originally compiled with 2015 = 100; rescaled to 2007 = 100.

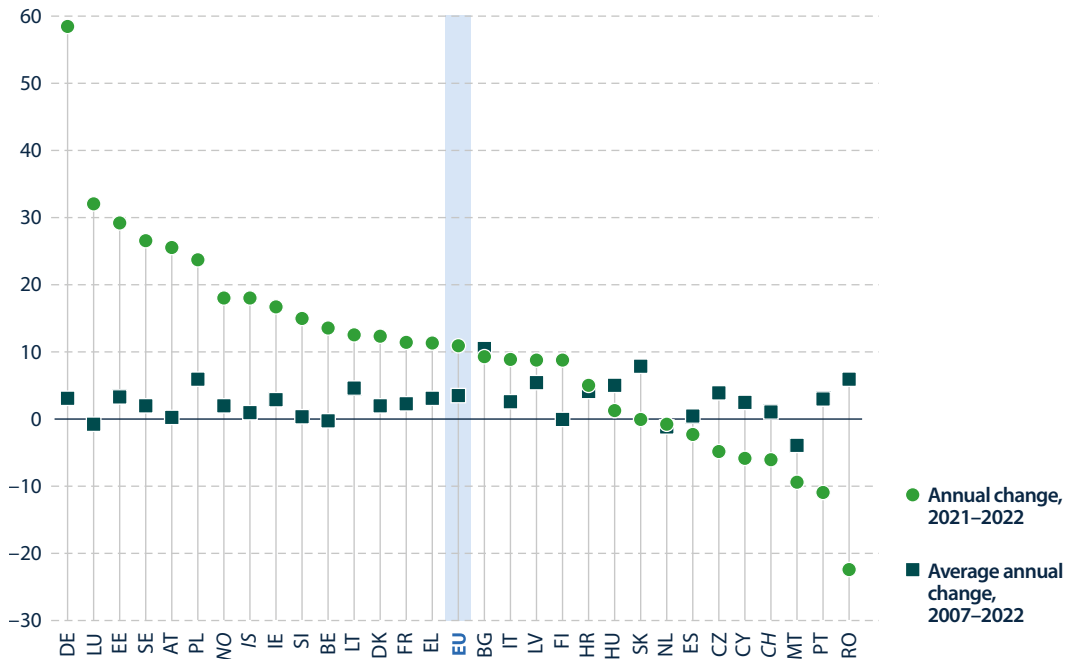
Source: Eurostat (online data codes: [aact_eaa06](#) and [aact_ali02](#))

The economic performance of the agricultural industry can also be measured in terms of net value added at factor cost, so-called factor income. It is the remuneration for all the factors of production, such as labour and capital. Factor income can be presented as a ratio to employment and can then be considered as a partial labour productivity measure. To do so, care has to be taken of part-time, seasonal and unpaid (often family) labour input. The amount of work actually carried out in agriculture is described using a unit called the [annual work unit](#): this is equivalent to the amount of work done by one person working full-time for a whole year.

The [factor income per annual work unit](#) shows the net value added by the equivalent of each full-time worker, with this value deflated and expressed as an index. Between 2007 and 2022, agricultural labour input in the EU fell overall by 33.4 %, equivalent to an annual average decline of 2.7 %. Real factor income per annual work unit in the EU was 71.9 % higher in 2022 than it was in 2007, equivalent to an annual average increase of 3.7 %.

Real developments in agricultural factor income per annual work unit

(%, 2007–2022 and 2021–2022)



Note: IS, 2009–2022 instead of 2007–2022.

Source: Eurostat (online data code: [aact_eaa06](#))

Between 2021 and 2022, the real increase in agricultural factor income per annual work unit was 11.0% across the EU. This reflected, among other changes, high increases for several EU Member States with relatively large agricultural industries: for example, the index of agricultural factor income rose 57.8% in Germany, 25.4% in Austria, 23.6% in Poland and 16.7% in Ireland. A majority (20) of the Member States recorded an increase for their indices of agricultural factor income in 2022. At the other end of the range, the sharpest decrease was reported in Romania (down 21.8%).

Looking at a longer time perspective – comparing 2022 with 2007 – there were four EU Member States that reported a real fall in agricultural factor income

per annual work unit. The biggest decrease was recorded in Malta (down on average by 3.6% each year), with smaller decreases in the Netherlands, Luxembourg and Belgium. Among the larger economies, increases were often slightly below the EU average of 3.7% per year, as was the case for example in France (2.5%), Italy (2.8%) and Germany (3.3%). The main exceptions were Spain (where there was a relatively small increase, up 0.7%) and Poland (where the index increased, on average, by 6.1% per year); the latter was the third highest increase of all, smaller only than the average increases recorded for Slovakia (8.0%) and Bulgaria (10.6%).

For more information on the [performance of the agricultural sector](#), please refer to the Statistics Explained article.



4

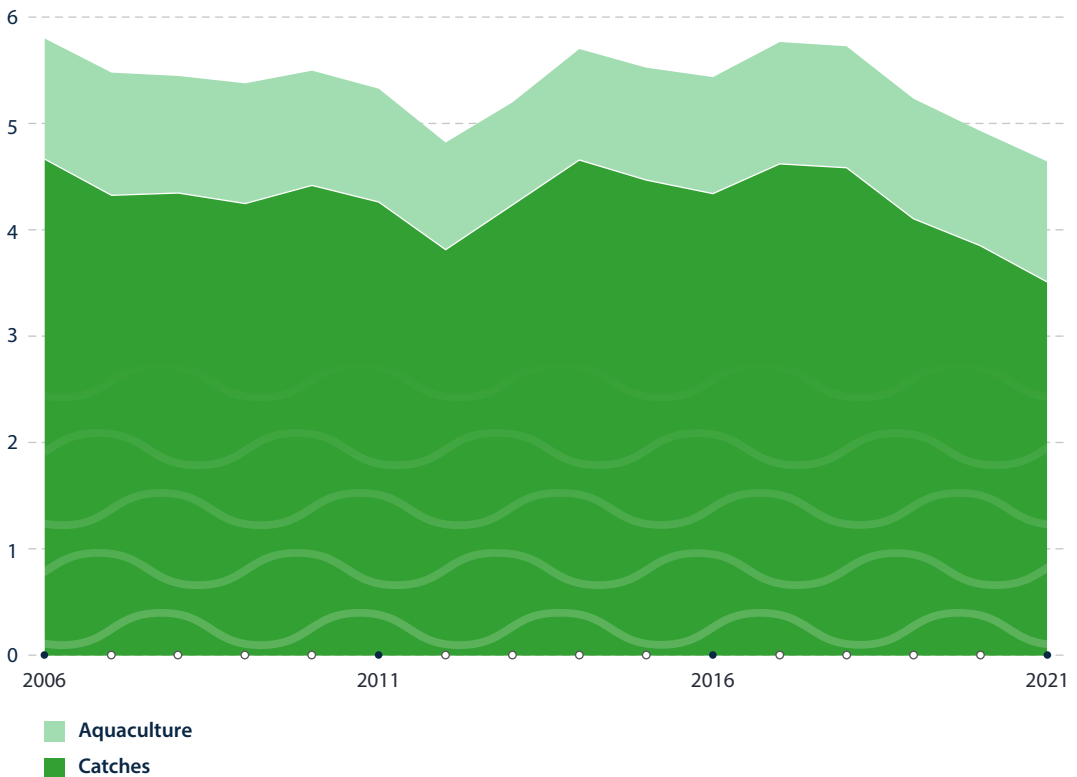
Fishing and aquaculture



Key figures for the EU

Total production of fishery products

(million tonnes, EU, 2006–2021)



Fish are a renewable and mobile natural resource. Within the EU, fish stocks are managed collectively under the [common fisheries policy](#). Within the broader context of the *Farm to Fork Strategy*, the European Commission aims to bring fish stocks to sustainable levels by reducing wasteful discarding, enhancing traceability and strengthening fisheries management, among other actions.

The EU's total production of fishery products was estimated to be 4.6 million tonnes of [live weight equivalent](#) in 2021, which was 5.8 % lower than its level in 2020 and 19.9 % lower than in 2006. Developments in the production of fishery products since 2006 largely reflected a relatively stable [output from aquaculture](#) – mainly fish farming – accompanied by somewhat more volatility in the quantity of [fish caught](#) at sea (around four fifths of total production most years). The fish catch was notably lower in 2012, 2020 and 2021, falling below 4.0 million tonnes in each of these years, while it exceeded 4.5 million tonnes in 2006 and in three more recent years – 2014, 2017 and 2018.

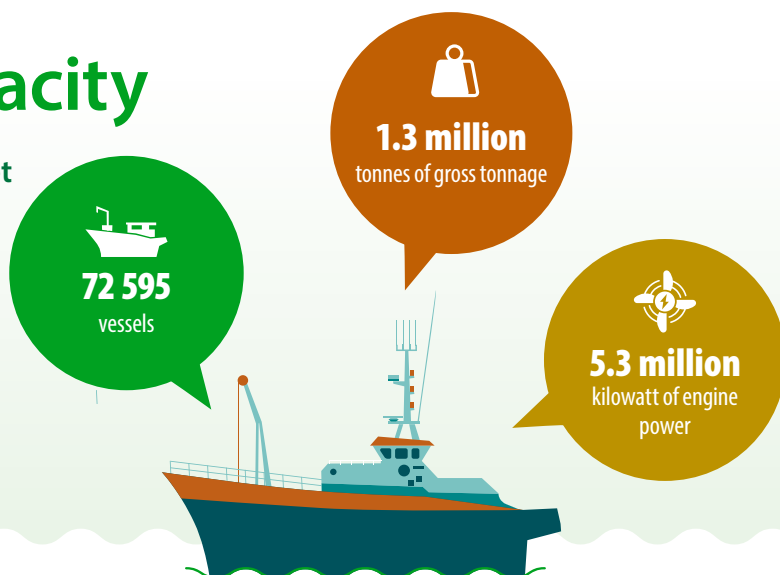
Note: estimates made for the purpose of this publication.

Source: Eurostat (online data codes: [fish_ca_main](#), [fish_aq_q](#) and [fish_aq2a](#)) and the Food and Agriculture Organization of the United Nations (FAO) – [Fisheries and Aquaculture Division \(NFI\)](#)

Fleet capacity

Size of the fishing fleet

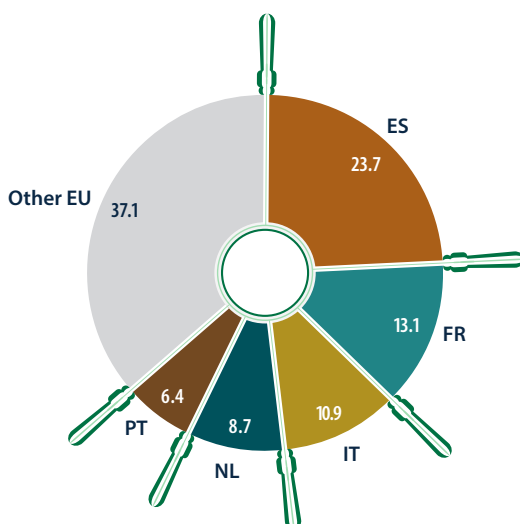
(EU, 2022)



Source: Eurostat (online data code: [fish_fleet_alt](#))

The EU's [fishing fleet](#) numbered 72 595 active vessels in 2022, with a gross tonnage (a measure of the capacity for holding fish) of 1.3 million tonnes and a total engine power (an indicator of the power available for fishing gear) of 5.3 million kilowatts. The vast majority of boats within the EU's fishing fleet are no more than 10 metres long.

The EU's fishing fleet has declined steadily over the last decade, in terms of number, tonnage and engine power. The fleet had about 8 900 fewer vessels in 2022 than in 2012, down 12.0 %, with a combined capacity that was 9.3 % smaller and a total engine power that was 8.2 % smaller; note that this comparison excludes data for Croatia (for which 2012 data are not available).



Share of Member States in the EU's fishing fleet

(% based on gross tonnage, 2022)

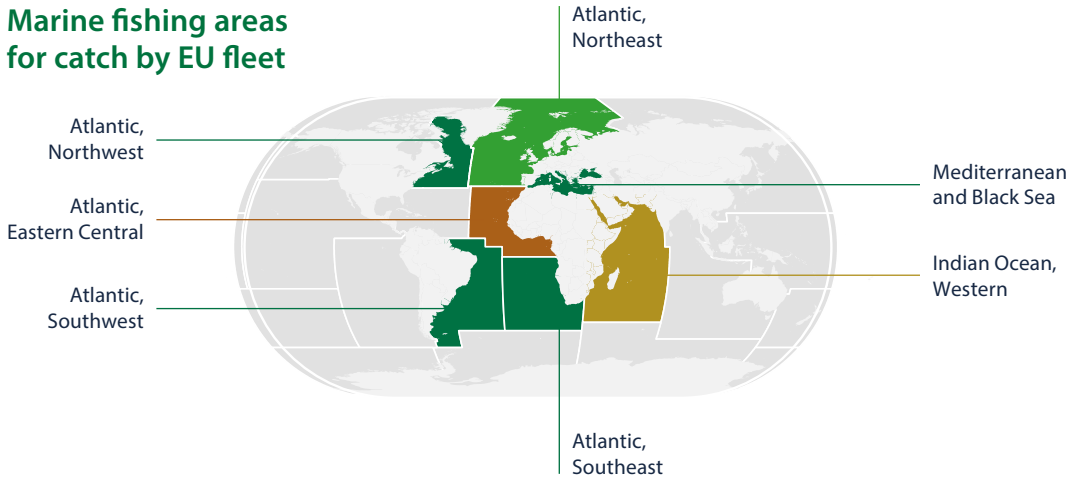
When measured by gross tonnage, Spain had, by far, the largest fleet among EU Member States (23.7 % of the EU total in 2022), followed by France (13.1 %) and Italy (10.9 %). However, when measured by engine power, France had the largest fleet (18.0 % of the EU total), while the highest number of vessels was in Greece (17.8 % of the EU total).

Note: due to rounding, not all shares sum to 100.0 %.

Source: Eurostat (online data code: [fish_fleet_alt](#))

Production

Marine fishing areas for catch by EU fleet

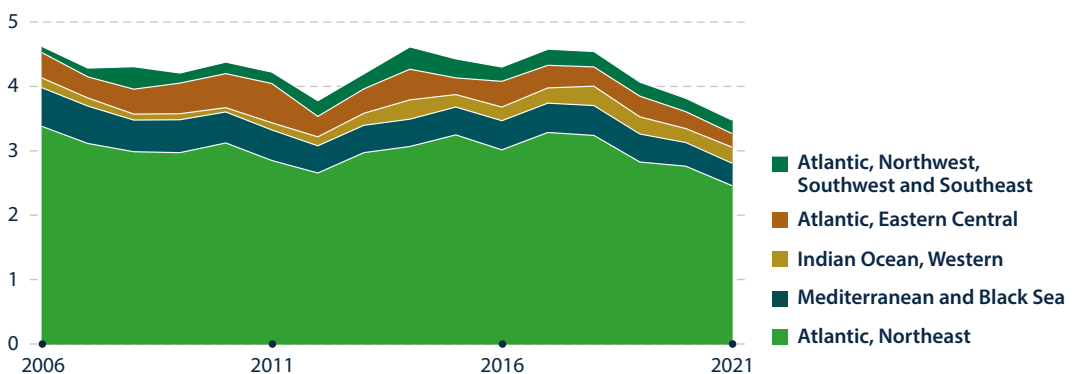


Although the EU's fishing fleet operates worldwide, official statistics on EU fishing activities cover seven major marine fishing areas, as shown in the map. The fishing areas are defined by the [Food and Agriculture](#)

[Organization of the United Nations](#). Based on scientific advice, annual quotas are set by the EU for its Member States for most commercial fish species in each fishing area, detailing the total allowable catch.

Developments of catch

(million tonnes, EU, 2006–2021)



The vast majority of the EU's catch is taken in the Atlantic, Northeast: in 2021, this area accounted for 71 % of the EU's total catch across the seven major fishing areas. Around one tenth of the EU's total catch was taken in the Mediterranean and Black Sea, while the next highest shares were recorded for the Indian Ocean, Western area (7 %) and the Atlantic, Eastern Central area (6 %).

Note: estimates made for the purpose of this publication.

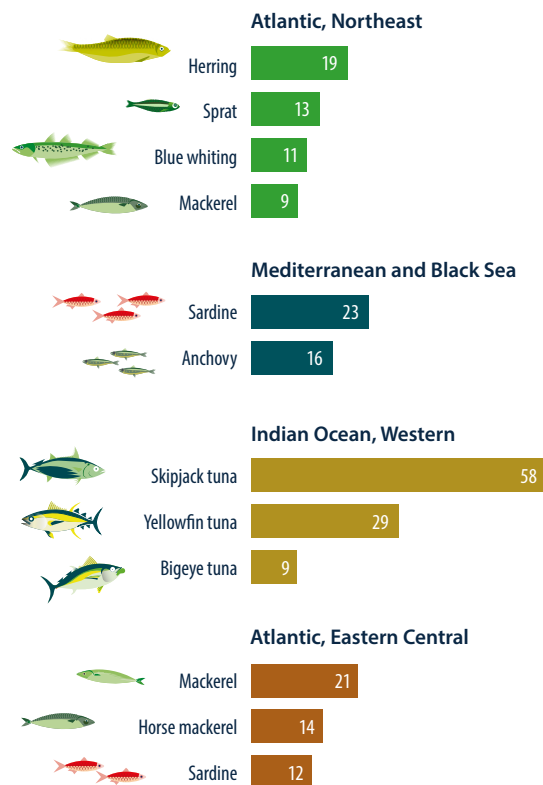
Source: Eurostat (online data code: [fish_ca_main](#)) and the Food and Agriculture Organization of the United Nations (FAO) – [Fisheries and Aquaculture Division \(NFI\)](#)

Share of main species in catch

(% of total live weight caught in each marine fishing area, EU, 2021)

The EU's fishing fleet catches a wide variety of fish species. This reflects, among other factors, the characteristics of fishing grounds, different types of fishing techniques and gear, quotas, and patterns of consumer demand.

In 2021, the main species that were caught in the Atlantic, Northeast area included herring (19 % of the live weight caught in this area), sprat (13 %), blue whiting (11 %) and mackerel (9 %). The two main species caught in the Mediterranean and Black Sea were sardine (23 %, mainly European pilchard) and anchovy (16 %). The fish caught by the EU's fleet in the Indian Ocean, Western area were almost exclusively tuna, in particular skipjack (58 %), yellowfin (29 %) and bigeye (9 %). In the Atlantic, Eastern Central area, the main species that were caught included mackerel (21 %), horse mackerel (14 %) and sardine (12 %).

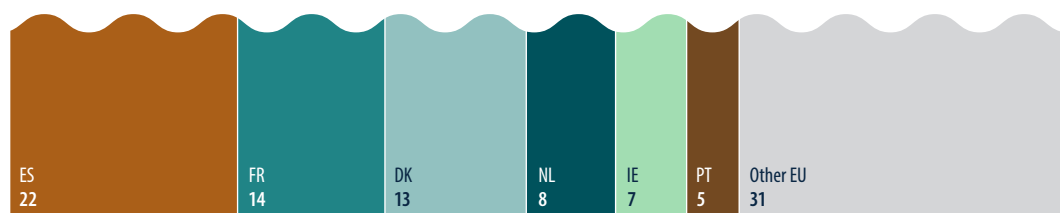


Note: estimates made for the purpose of this publication.

Source: Eurostat (online data code: [fish_ca_main](#))

Share of Member States in EU catch

(%, 2021)



Note: estimates made for the purpose of this publication.

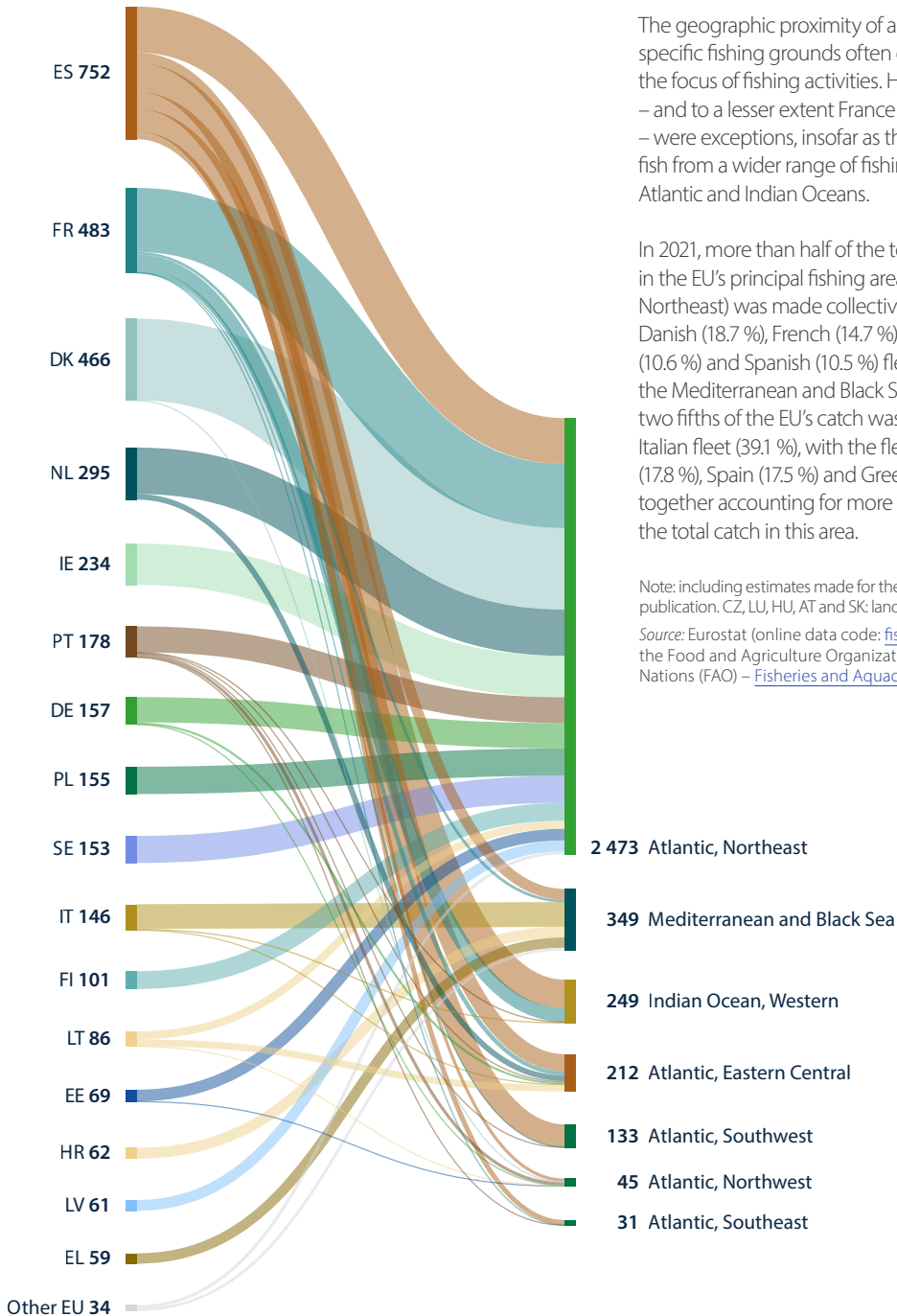
Source: Eurostat (online data code: [fish_ca_main](#)) and the Food and Agriculture Organization of the United Nations (FAO) – [Fisheries and Aquaculture Division \(NFI\)](#)

Spain, with 752 000 tonnes of live weight, had the largest fish catch among EU Member States in 2021 (about 22 % of the total), followed by France (14 %) and Denmark (13 %). Iceland and Norway had a

combined catch of 3.32 million tonnes of fish in 2021; this was equivalent to 95 % of the total quantity of fish caught by the EU fleet.

Catches by Member States' fleets in marine fishing areas

(1 000 tonnes, 2021)



The geographic proximity of a port to specific fishing grounds often determines the focus of fishing activities. However, Spain – and to a lesser extent France and Portugal – were exceptions, insofar as their fleets took fish from a wider range of fishing areas in the Atlantic and Indian Oceans.

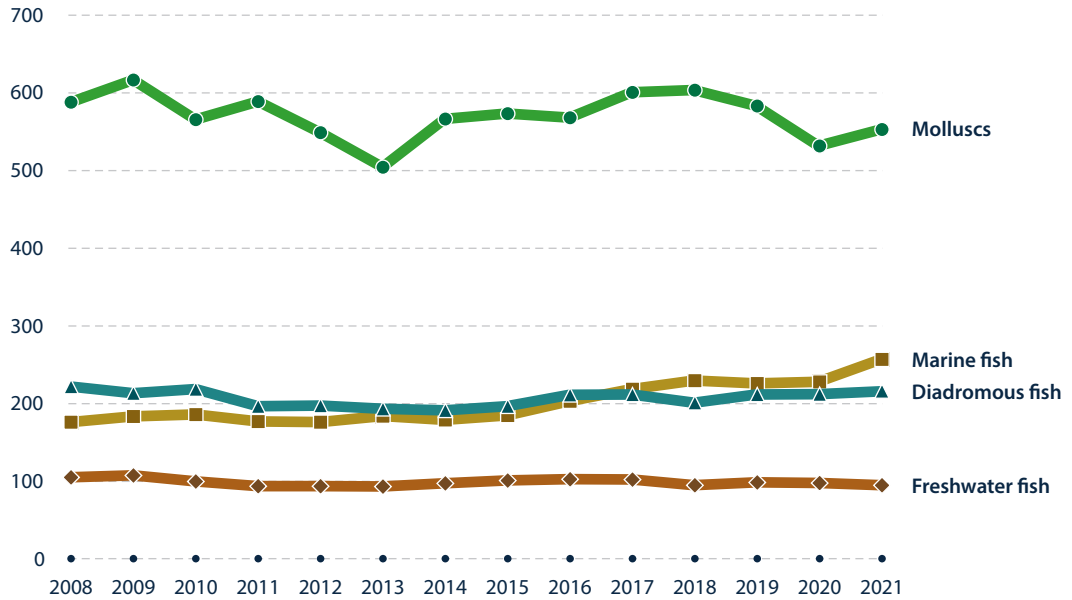
In 2021, more than half of the total catch in the EU's principal fishing area (Atlantic, Northeast) was made collectively by the Danish (18.7 %), French (14.7 %), Dutch (10.6 %) and Spanish (10.5 %) fleets. Within the Mediterranean and Black Sea, almost two fifths of the EU's catch was taken by the Italian fleet (39.1 %), with the fleets of Croatia (17.8 %), Spain (17.5 %) and Greece (16.8 %) together accounting for more than half of the total catch in this area.

Note: including estimates made for the purpose of this publication. CZ, LU, HU, AT and SK: landlocked.

Source: Eurostat (online data code: [fish_ca_main](#)) and the Food and Agriculture Organization of the United Nations (FAO) – [Fisheries and Aquaculture Division \(NAF\)](#)

Developments of aquaculture production

(1 000 tonnes, EU, 2008–2021)



Aquaculture is the production of fish and other aquatic organisms like molluscs and crustaceans under controlled conditions, both inland and in marine areas.

The EU's aquaculture production for all fishery products was estimated at 1.12 million tonnes of live weight equivalent in 2021. Output fluctuated between 0.96 and 1.14 million tonnes during the period from 2008 to 2021: the low point of production was in 2013, but this was followed by four consecutive annual increases to reach a peak in 2017. There was a modest decline in aquaculture production in 2018, which accelerated in 2019 and 2020 (when output was down 4.5 % compared with the previous year), before a rebound in 2021 (up 4.8 %).

Molluscs (for example mussels, oysters or clams) accounted for just under half (49.2 %) of the EU's total aquaculture production in 2021, while marine fish accounted for just under one quarter (22.9 %). Diadromous fish – species that migrate between seawater and freshwater – had the next highest share of EU aquaculture production (19.3 %), followed by freshwater fish (8.5 %); the farming of crustaceans and aquatic plants was negligible in EU waters.

Note: estimates made for the purpose of this publication. Crustaceans and aquatic plants: not significant.

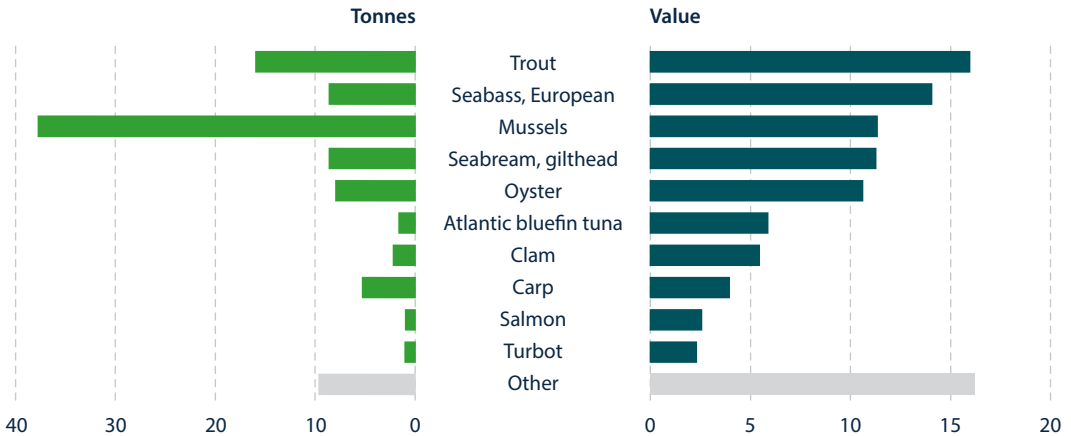
Source: Eurostat (online data code: [fish_aq2a](#)) and the [European Market Observatory for Fisheries and Aquaculture \(EUMOFA\)](#)

For more information on [fisheries – catches and landings](#), please refer to the Statistics Explained article.



Main species of aquaculture production

(%, EU, 2021)



The EU produced 425 000 tonnes of farmed mussels in 2021. This equated to almost two fifths (38 %) of the EU's total aquaculture output, considerably higher than the shares recorded for the next largest species: trout (16 %), gilthead seabream (9 %), European seabass (also 9 %) and oysters (8 %).

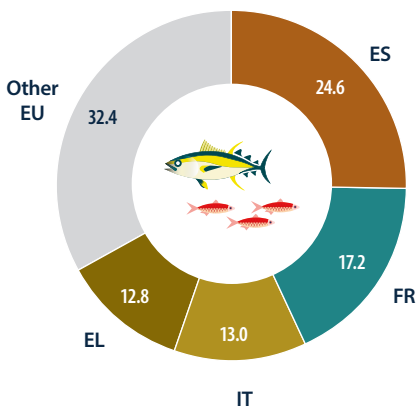
Note: estimates made for the purpose of this publication. Different scales are used for the two parts of the figure.

Source: Eurostat (online data code: [fish_aq2a](#))

The value of production of trout was estimated at about €690 million in 2021, which was more than any other species farmed and equivalent to 16 % of the EU's aquaculture production value. Different species fetch different prices, and this explains why, for example, the relative share of mussels in value terms was considerably lower, at 11 % of the EU total, than in quantity terms. By contrast, the relatively high price of bluefin tuna resulted in a share in value terms (6 % of the EU total) that was 3.6 times as high as in quantity terms.

Share of Member States in EU aquaculture production

(% based on tonnes, 2021)



Aquaculture plays an important role in most EU Member States that border the Mediterranean and Black Sea and is relatively concentrated. In 2021, Spain (24.6 %), France (17.2 %), Italy (13.0 %) and Greece (12.8 %) together accounted, in quantity terms, for more than two thirds of the EU's aquaculture output. The quantity of aquaculture production in Norway (1.67 million tonnes) exceeded that for the whole of the EU (1.12 million tonnes) and was almost exclusively composed of farmed salmon.

Source: Eurostat (online data code: [fish_aq2a](#))

For more information on [aquaculture statistics](#), please refer to the Statistics Explained article.



5

Processing of food and beverages



Key figures for the EU

Size of food and beverage processing

(EU, 2020)



Note: includes estimates made for the purpose of this publication.

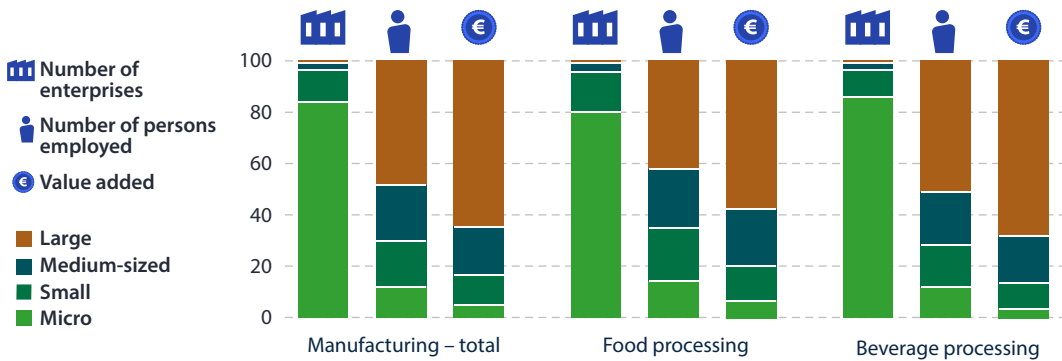
Source: Eurostat (online data code: [sbs_na_ind_r2](#))

The food chain is much wider than primary agricultural production; it also covers food and drink processing, distribution and service. Under the EU's *Farm to Fork Strategy*, food and beverage (F&B) processors are encouraged to increase the availability and affordability of healthy, sustainable food, by changing the types and nutritional composition of the food they produce, their choice of suppliers, or their production methods.

In 2020, there were 291 000 F&B processing [enterprises](#) in the EU, equivalent to 14.1 % of all [manufacturing](#) enterprises. Some 4.6 million people were employed in F&B processing (15.5 % of the total number of persons employed in manufacturing). The [value added](#) of F&B processing enterprises was €227 billion, which was around 30 % higher than that of agriculture (€174 billion, at basic prices).

Key size class indicators

(%, EU, 2020)



Note: includes estimates made for the purpose of this publication.

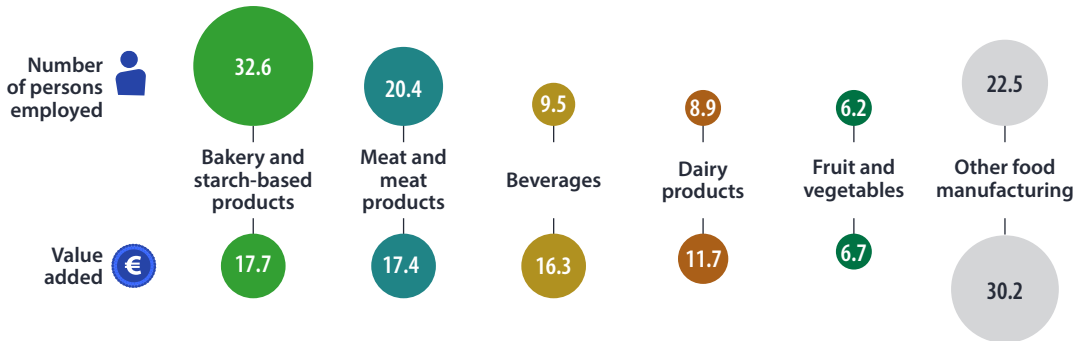
Source: Eurostat (online data code: [sbs_sc_ind_r2](#))

Most F&B processors within the EU serve local or national markets. By contrast, there are a few very large F&B processors characterised by global brands with considerable market reach.

In 2020, the vast majority (95.8 %) of the EU's F&B processors were [micro or small enterprises](#): in other words, they employed fewer than 50 persons. By contrast, large enterprises – employing 250 or more persons – accounted for 57.6 % of the total value added in food processing, and for an even higher share (68.0 %) of the added value in beverage processing.

Structure of food and beverage processing

(%, EU, 2020)



Around one third (32.6 %) of the EU's F&B processing workforce in 2020 was employed in the manufacture of bakery and starch-based products (for example bread, cakes, biscuits, pasta and noodles). The next highest share was recorded for the manufacture of meat and meat products (20.4 %).

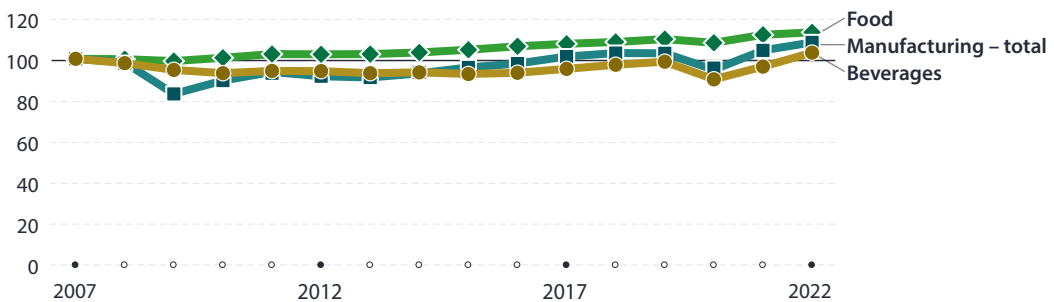
A little more than one sixth (17.7 %) of the value added by EU F&B processors was generated within the manufacture of bakery and starch-based products. This was closely followed by the manufacture of meat and meat products (17.4 %) and the manufacture of beverages (16.3 %; a much higher share than for employment).

Note: ranked on the share for the number of persons employed. Includes estimates made for the purpose of this publication.

Source: Eurostat (online data code: [sbs_na_ind_r2](#))

Volume index of production

(2007 = 100, EU, 2007–2022)

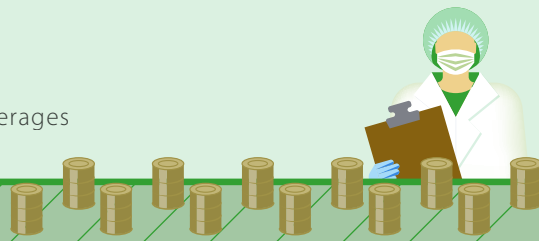


'Real-terms' changes (where price developments have been removed) in the output of EU food manufacturing had a much more uniform development between 2007 and 2022 than those for manufacturing as a whole or for beverage manufacturing. A downturn in economic activity often has a greater impact on purchases of non-essential items (such as alcoholic beverages), whereas demand for essentials – such as staple food products – is more likely to be maintained.

In 2020, the fall in the [production index](#) of beverage manufacturing across the EU (down 8.7 %) reflected a reduction in demand linked, at least in part, to the closure of downstream F&B serving businesses (like bars and restaurants) during the initial stages of the COVID-19 pandemic. There was a partial rebound in 2021 (as output rose 6.9 %), followed by a similar growth rate in 2022 (up 7.0 %). The level of output for food manufacturing was higher in 2021 than it had been before the COVID-19 pandemic, while the same was true for beverage manufacturing by 2022.

Note: index originally compiled with 2015 = 100; rescaled to 2007 = 100.

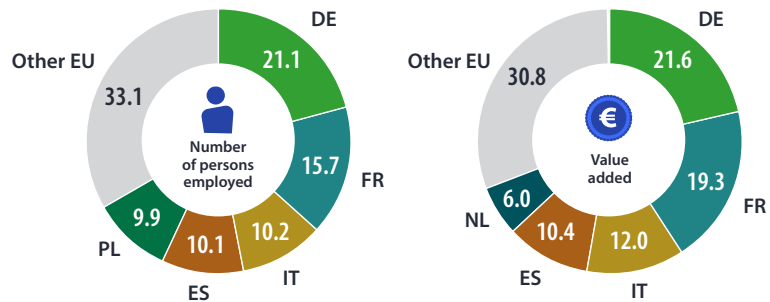
Source: Eurostat (online data code: [sts_inpr_a](#))



Employment and value added in the EU Member States

Share of EU food and beverage processing

(%, 2020)



Note: includes estimates made for the purpose of this publication. Due to rounding, the shares for value added do not sum to 100.0 %.

Source: Eurostat
(online data code: [sbs_na_ind_r2](#))

F&B processors employed 4.6 million persons across the EU in 2020. Of these, Germany had the highest share (21.1 %), followed by France (15.7 %). Italy, Spain and Poland each accounted for about one tenth of the EU's employment among F&B processors.

F&B processing enterprises in the EU added €227 billion of value in 2020: as for persons employed, Germany once again had the highest share of the EU total, accounting for slightly more than one fifth (21.6 %). France had the second highest share (19.3 %) – which was considerably higher than its share of persons employed – followed by Italy (12.0 %) and Spain (10.4 %). Note that while Poland had close to one tenth of the EU workforce, its share of value added was much lower, at 5.7 %.

While F&B processing employed 15.5 % of the EU's manufacturing workforce in 2020 and accounted for a 12.1 % share of manufacturing value added, several EU Member States recorded much higher shares of their manufacturing activity concentrated

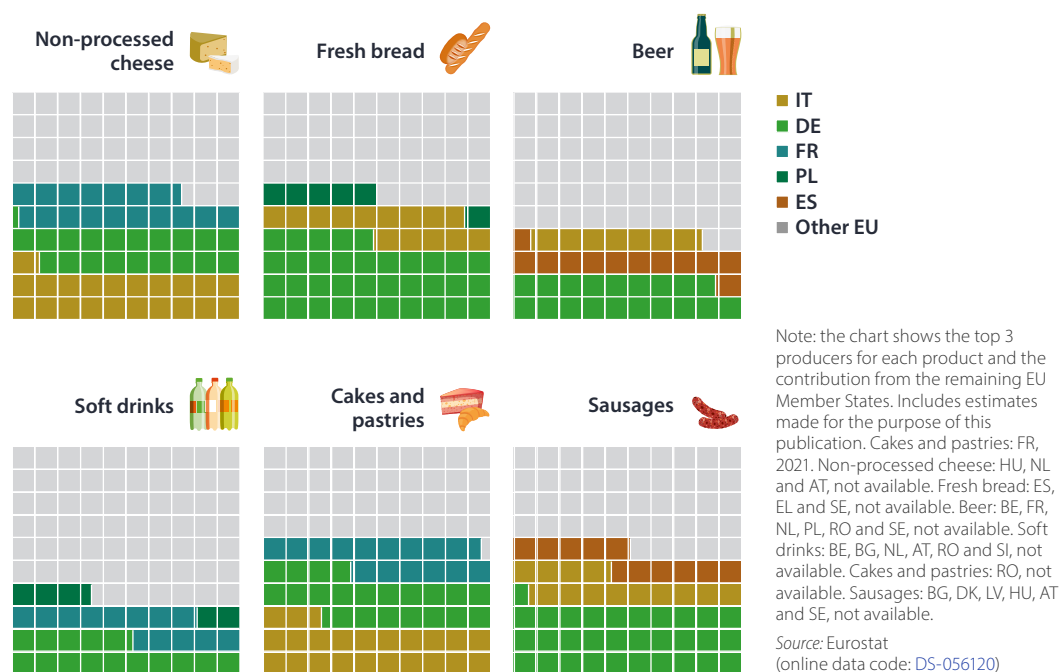
within F&B processing. This was most notably the case in Cyprus and Greece, where around two fifths of the manufacturing workforce was employed in F&B processing (40.2 % and 37.3 %, respectively). F&B processing also accounted for more than one fifth of the manufacturing workforce in Spain, France, Croatia and Belgium; this was also the case in Ireland (2019 data). At the other end of the scale, F&B processing provided work to less than 1 in 10 people across the manufacturing workforces of Sweden, Czechia, Slovakia and Slovenia.

In 2020, the contribution of F&B processors to manufacturing employment was, in each of the EU Member States, consistently higher than their contribution to manufacturing value added. In other words, F&B processors were characterised by lower levels of [labour productivity](#) than the manufacturing average. This can be linked to a number of factors including relatively low average wages and salaries and/or high seasonal and part-time employment.

Manufactured F&B products

Principal producers of selected manufactured food and beverage products

(% based on production value, 2022)



F&B processors manufacture a vast array of products that range from staple food products to luxury, sometimes high-value, items. Based on the [Prodcom list](#), non-processed cheese – including for example, Brie, Edam, Feta or Gorgonzola – was the manufactured F&B product with the highest value (€42.0 billion) of EU production in 2022. This product is of particular importance for dairy farmers. A majority of the non-processed cheese produced in the EU was manufactured by enterprises from Italy (€8.9 billion), Germany (€8.0 billion) and France (€7.2 billion).

The second and third highest values of production were recorded for fresh bread and beer, with EU

output valued at €33.8 billion and €32.0 billion, respectively, in 2022. These products are important for cereal producers, in particular, those growing wheat and rye for bread, and barley for beer. Germany was the principal producer in the EU for both products, with considerably higher shares than any other EU Member State. It accounted for more than one third (34.9 %) of the EU's fresh bread and for almost one fifth (18.9 %) of its beer.

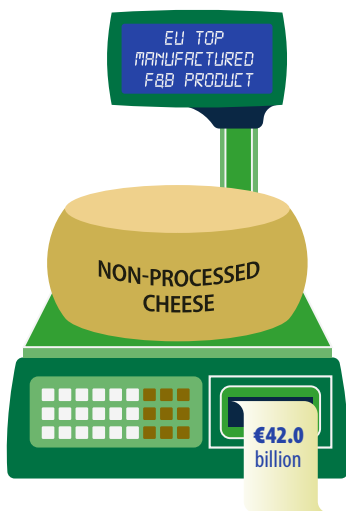
There were three other product groups where the value of EU production in 2022 was above €25 billion: soft drinks (€30.0 billion), cakes and pastries (€27.8 billion) and sausages (€26.6 billion).

Largest manufactured food and beverage products

(€ billion, 2022)

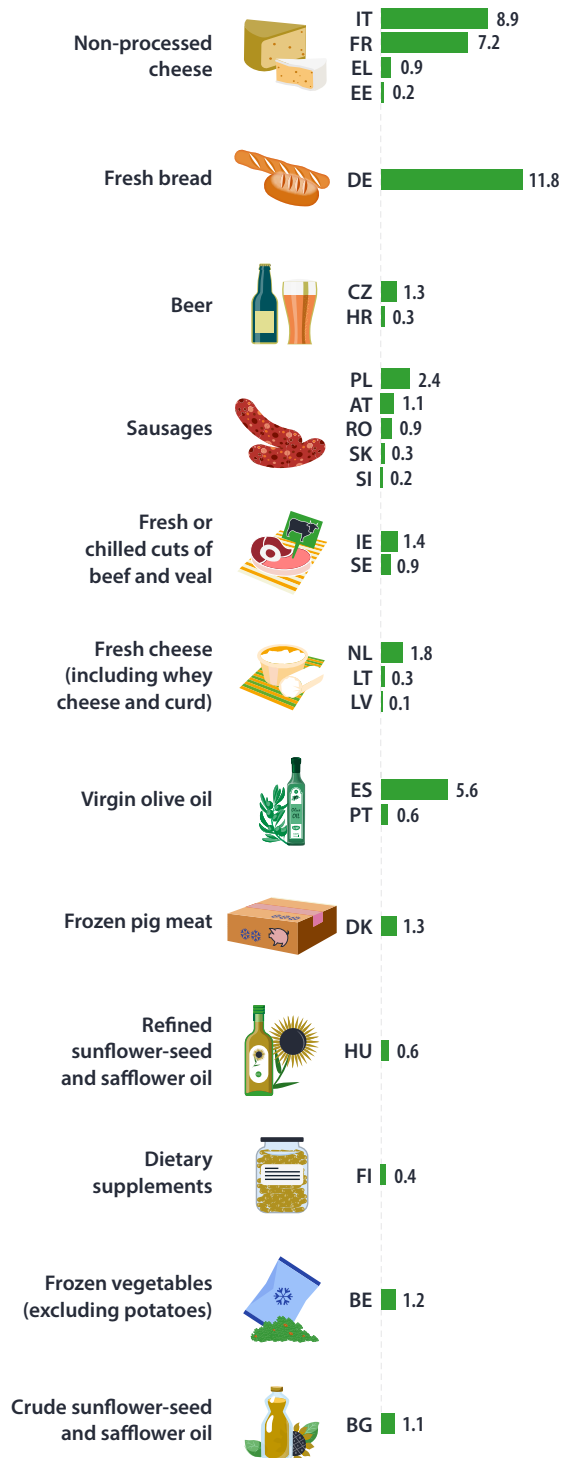
Across the EU Member States, the highest level of output for manufactured F&B products was spread across 12 different product categories in 2022. In value terms, non-processed cheese was the leading F&B product in Italy, France, Greece and Estonia, while sausages had the highest value of production in Poland, Austria, Romania, Slovakia and Slovenia. In Czechia and Croatia, beer had the highest level of production among F&B products. Germany was the only Member State to report that fresh bread was its principal F&B product, while Ireland and Sweden both reported their highest level of output for fresh or chilled cuts of beef and veal.

Aside from the high levels of production for fresh bread in Germany and for non-processed cheese in Italy and France (already noted above), the value of production for leading F&B products was also particularly high for virgin olive oil in Spain.



Note: based on available data for products in the Prodcom list (2021 data were used if 2022 data were not available). DE, EL and AT: 2021 for their largest manufactured product. CY, LU and MT: not available.

Source: Eurostat (online data code: [DS-056120](#))



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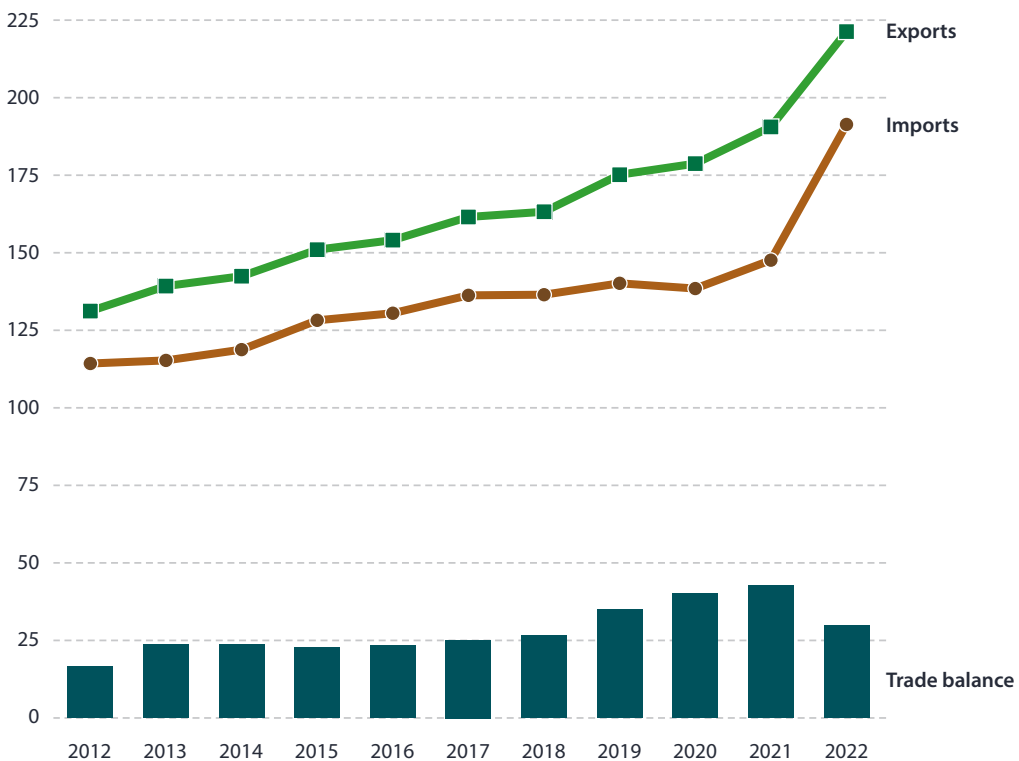
Trade in agricultural, fishery, food and beverage products



Trade and trade balance

Extra-EU trade developments for agricultural, fisheries and food and beverage products

(€ billion, EU, 2012–2022)



Source: Eurostat (online data code: [DS-045409](#))

The EU aims to ensure there is a sustainability chapter in its international trade agreements. In doing so, it seeks to develop bilateral commitments, for example in areas such as animal welfare, food safety, cooperation and aid for developing countries, or fair access to markets for trade.

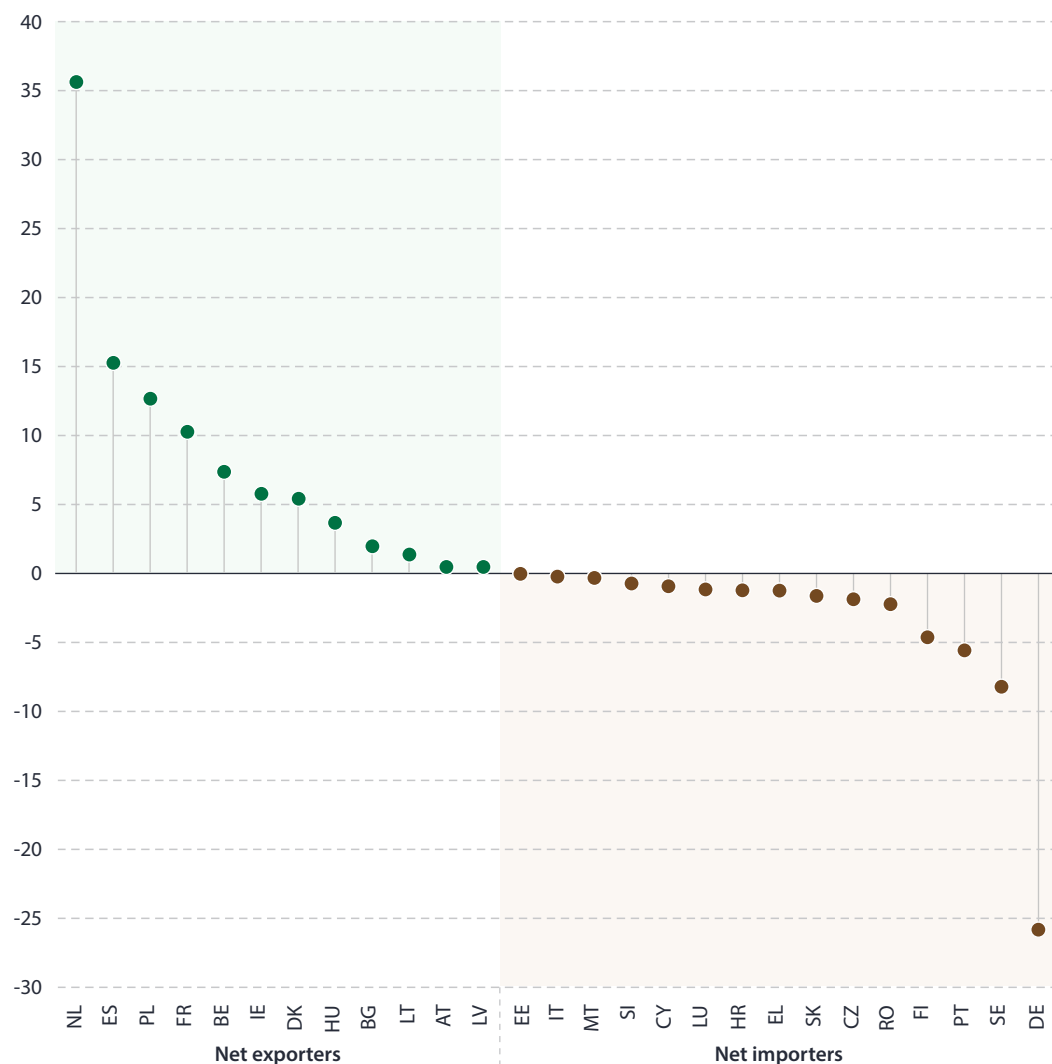
In 2022, the EU's [exports](#) to non-member countries (also referred to as [extra-EU trade](#)) of agricultural and fisheries products combined with food and beverage (F&B)

products was valued at €222 billion. Having widened for six consecutive years up to 2021, the EU's [trade surplus](#) for these products narrowed in 2022 by €13 billion.

Nevertheless, the value of extra-EU exports remained €30 billion higher than the value of extra-EU imports. Agricultural, fisheries and F&B products accounted for 8.6 % of all exported goods that left the EU in 2022 and for 6.4 % of all goods imported into the EU.

Trade balance for agricultural, fisheries and food and beverage products

(€ billion, 2022)



Source: Eurostat (online data code: [DS-045409](#))

Trade data for individual Member States covers both [intra-EU](#) (trade between EU Member States) and extra-EU flows. In 2022, more than two thirds (68.6 %) of the EU's total trade in agricultural, fisheries and F&B products was between EU Member States, in part reflecting the perishable nature of some products.

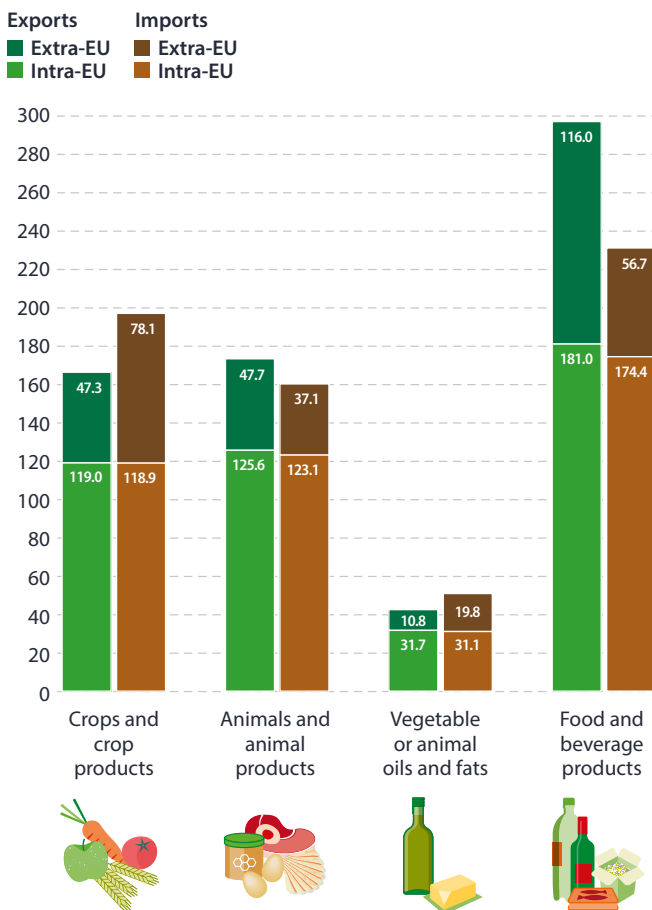
Among the EU Member States, the biggest net exporters of agricultural, fisheries and F&B products in 2022 were

the Netherlands (with a trade surplus of €35.5 billion), Spain (€15.1 billion), Poland (€12.5 billion) and France (€10.1 billion); the large surplus for the Netherlands reflects the fact that many goods imported into the Netherlands (for example, into the freight hub of Rotterdam) from all over the world are re-exported to other EU Member States. By contrast, Germany had the largest trade deficit (€26.0 billion) for agricultural, fisheries and F&B products by a considerable margin.

Traded products

Intra- and extra-EU trade in agricultural, fisheries and food and beverage products

(€ billion, EU, 2022)



The EU generally imports raw, unprocessed agricultural and fishery products, while its principal exports are processed F&B products. For example, a number of crops and crop products, including varieties of fruit and nuts or coffee beans, can only be grown in certain climates outside the EU. This helps explain why the EU imported crops and crop products from non-member countries in 2022 valued at €78.1 billion, some €30.8 billion more than its exports of these products. The EU also recorded a trade deficit for vegetable or animal oils and fats (€9.0 billion).

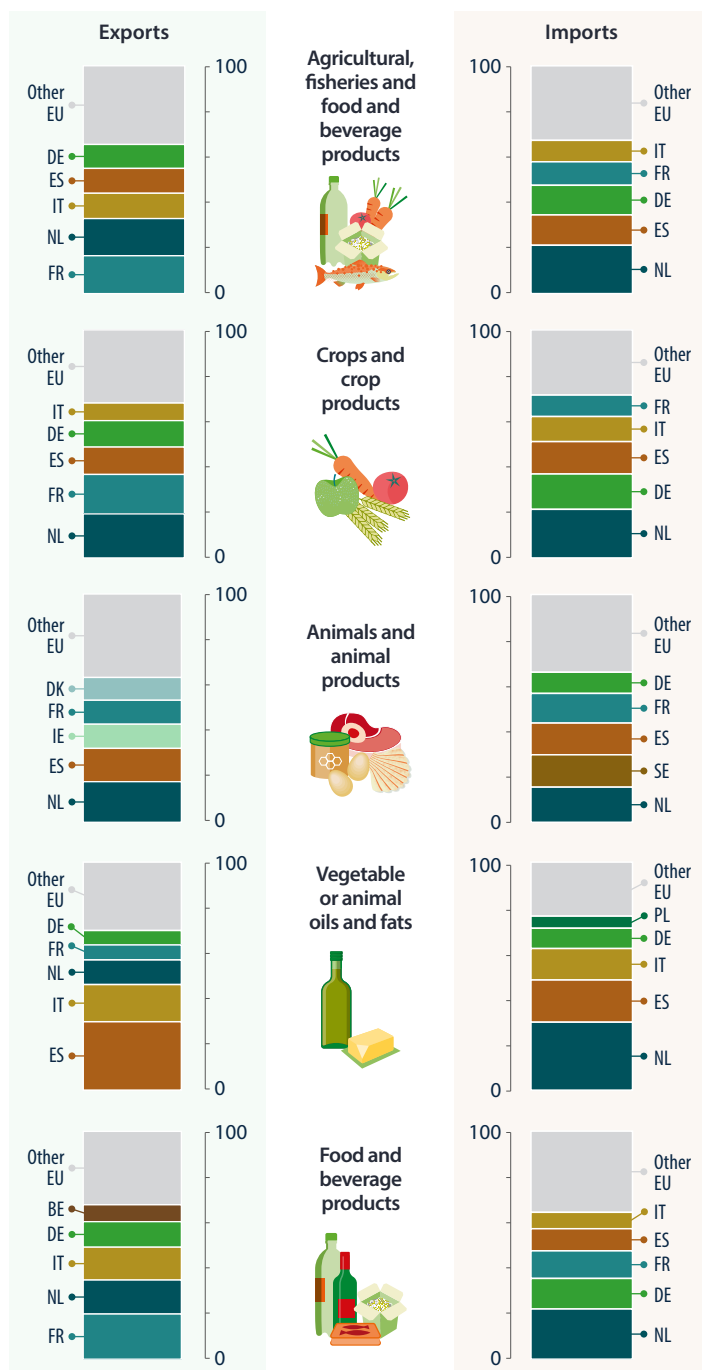
By contrast, the EU exported (processed) F&B products to non-member countries in 2022 that were valued at €116.0 billion, which was more than twice as high as the value of its imports (€56.7 billion) of these products. The EU also recorded a trade surplus for animals and animal products (€10.7 billion).

Note: due to quasi-transit trade, the addition of intra-EU trade and extra-EU trade may lead to double counting. An example of this would be goods imported from China via the Netherlands where they are cleared by customs for free circulation before being dispatched to Germany. This would lead to the same goods being counted as imports by both the Netherlands and Germany. More precisely, they would appear in the Netherlands' extra-EU imports from China and intra-EU exports to Germany and in Germany's intra-EU imports from the Netherlands.

Source: Eurostat (online data code: [DS-045409](#))

Share of EU Member States within extra-EU trade

(% based on value, 2022)



In 2022, France had the highest share (16.6 %) of the EU's exports of agricultural, fisheries and F&B products to non-member countries, some €36.9 billion in value terms. This was closely followed by the Netherlands, which accounted for 16.3 % (€36.1 billion) of the EU's exports of these products and for more than one fifth of the EU's imports (21.2 %; €40.7 billion).

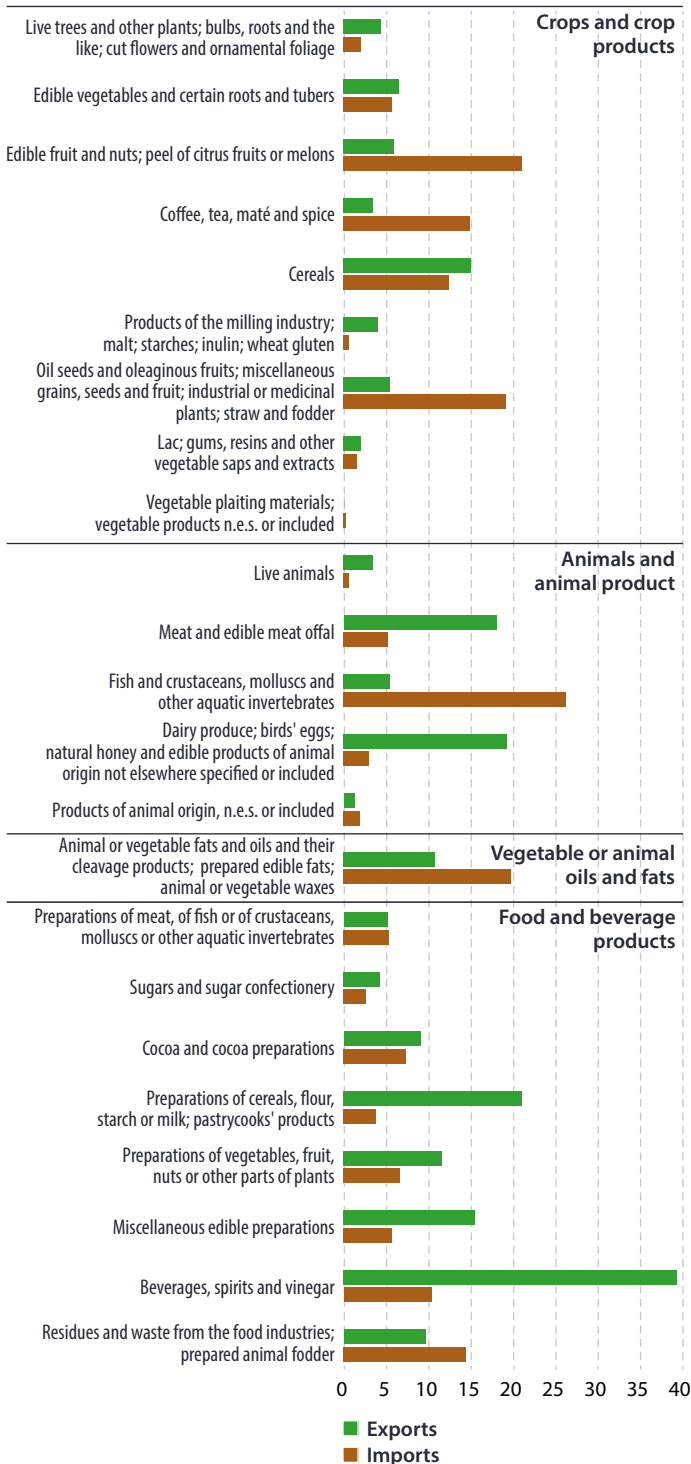
In 2022, the Netherlands recorded the highest share of extra-EU exports for crops and crop products (19.3 % of the EU total) and for animals and animal products (17.8 %), while Spain had the highest share of exports for vegetable or animal oils and fats (30.0 %), and France the highest share of exports for F&B products (19.8 %).

The Netherlands recorded the highest share of extra-EU imports in 2022 for all four main product groups within agricultural, fisheries and F&B products. Its highest share was for vegetable or animal oils and fats (29.8 % of the EU total), followed by F&B products (22.0 %), crops and crop products (21.3 %) and animals and animal products (15.4 %).

Source: Eurostat
(online data code: [DS-045409](#))

Extra-EU trade in agricultural, fisheries, food and beverage products

(€ billion, EU, 2022)



A more detailed view of extra-EU trade in 2022 shows that the EU's principal exports included beverages, spirits and vinegar (€39.5 billion), preparations of cereals, flour, starch or milk (€21.1 billion) and dairy produce (including cheese, milk and yoghurts), birds' eggs and natural honey (€19.3 billion). The EU's principal imports included fish, crustaceans and aquatic invertebrates (€26.3 billion), edible fruit and nuts (€21.1 billion), and animal or vegetable fats and oils (€19.8 billion).

The EU ran a sizeable trade deficit in 2022 for several crop and crop products, including: edible fruit and nuts (€15.1 billion), oilseeds and oleaginous fruits (€13.7 billion), and coffee, tea, mate and spices (€11.5 billion).

For animals and animal products, the EU's largest trade surpluses were recorded for dairy produce, birds' eggs and natural honey (€16.3 billion) and for meat and edible meat offal (€12.8 billion). By contrast, the EU had a trade deficit of €20.9 billion for fish, crustaceans and aquatic invertebrates (the biggest deficit among any of the product categories covered).

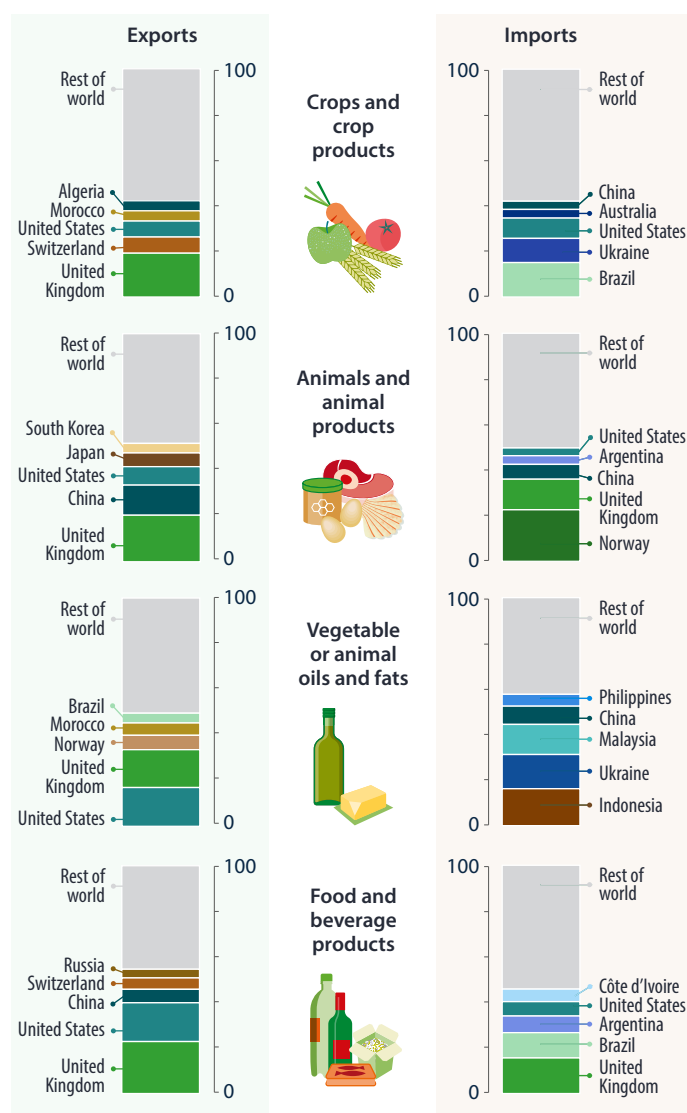
Among F&B products, the EU's largest trade surpluses were recorded for beverages, spirits and vinegar (€29.1 billion; the biggest surplus among any of the product categories covered) and preparations of cereals, flour, starch or milk (€17.3 billion).

Source: Eurostat
(online data code: [DS-045409](#))

Trade partners

Extra-EU trade partners for agricultural, fisheries, food and beverage products

(%, EU, 2022)



EU exports of agricultural, fisheries and F&B products to the United Kingdom were valued at €47.1 billion in 2022. This represented slightly more than one fifth (21.2 %) of the EU's total exports of these products, with the next highest shares recorded by the United States (13.0 %) and China (6.8 %). The United Kingdom was the EU's main export destination for F&B products (22.8 % of all EU exports within this product group), animals and animal products (20.4 %), and crops and crop products (19.2 %), while the United States was the principal destination for vegetable or animal oils and fats (17.0 %).

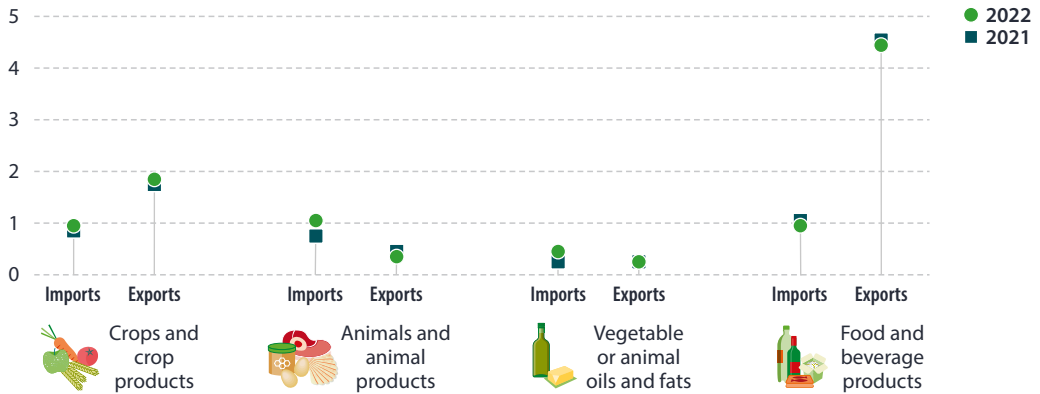
In 2022, the EU imported €19.3 billion of agricultural, fisheries and F&B products from Brazil (10.1 % of the EU total). The United Kingdom (8.5 %) and Ukraine (6.8 %) recorded the next highest shares. Brazil was the main origin for EU imports of crops and crop products (15.1 % of all EU imports within this product group, principally coffee, oilseeds and cereals), while Norway was the main origin for EU imports of animals and animal products (22.6 % of all EU imports, principally fish), Indonesia was the main origin for vegetable or animal oils and fats (16.2 %, principally palm oil), and the United Kingdom for F&B products (15.6 %, principally beverages and spirits).

Source: Eurostat (online data code: [DS-045409](#))

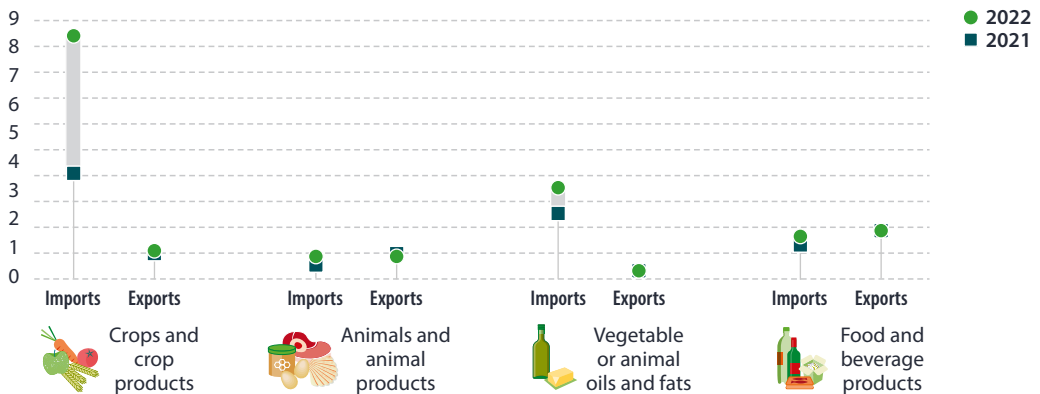
Trade in agricultural, fisheries and food and beverage products with Russia and Ukraine

(€ billion, EU, 2021 and 2022)

Russia



Ukraine



Note: different scales are used for each part of the figure.

Source: Eurostat (online data code: [DS-045409](#))

Since the start of Russia's military aggression against Ukraine in February 2022, there have been global concerns over product shortages for some foodstuffs and intermediate agricultural products. These were primarily linked to some products no longer being grown/produced in Ukraine (as a result of the war) and the periodic threat of Black Sea ports being blockaded, thereby hindering Ukraine from exporting agricultural goods (primarily wheat).

In 2022, Ukraine was a particularly important origin of EU imports of crops and crop products (€8.3 billion), as

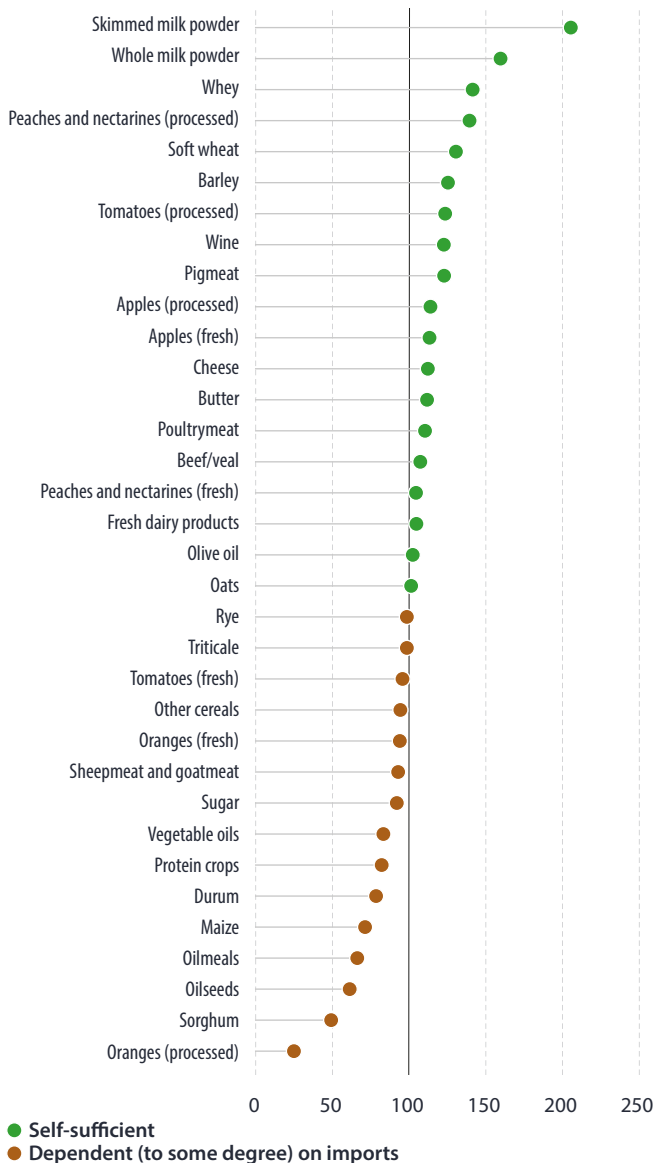
well as vegetable or animal oils and fats (€3.0 billion). The value of EU imports of crops and crop products from Ukraine more than doubled between 2021 and 2022; this may, in part, reflect the re-routing of Ukrainian grain exports to the rest of the world, and higher prices.

Looking in more detail, more than one third (36.5 %) of the EU's imports of cereals in 2022 originated from Ukraine, while Ukraine also accounted for more than one tenth of the EU's imports of oil seeds and oleaginous fruits (16.9 %), vegetable or animal oils and fats (15.0 %), and sugars and sugar confectionery (10.6 %).

Self-sufficiency

Self-sufficiency in agricultural commodities

(%, EU, 2022)



The EU remains largely self-sufficient for most agricultural commodities, in particular dairy products and most meats. For example, the EU's production of skimmed milk powder in 2022 was more than twice as high as its level of consumption. By contrast, the EU is dependent (to some degree) on imports of sugar, vegetable oils, some cereals and oilseeds to meet demand for these products within the internal market.

Reduced levels of imports for maize, wheat, rapeseed and sunflower oil from Ukraine have had an impact on the price of these commodities, while their supply to the EU's F&B processing industry has fallen. Replacing imports of sunflower oil from Ukraine has proved particularly challenging.

Note: the self-sufficiency rate is the ratio between domestic agricultural production and consumption, expressed as a percentage. Data for arable crops, olive oil and wine refer to marketing years.

Source: Short-term outlook – Annex for EU, Directorate-General for Agriculture and Rural Development, European Commission

For more information on [extra-EU trade in agricultural goods](#), please refer to the Statistics Explained article.



7

Transport





The data in this chapter concern goods transported on roads in the EU by heavy goods vehicles registered in the EU Member States or EFTA countries. Therefore, the figures do not take into account products transported by vehicles registered in other countries nor by vehicles below a certain size threshold ⁽³⁾.



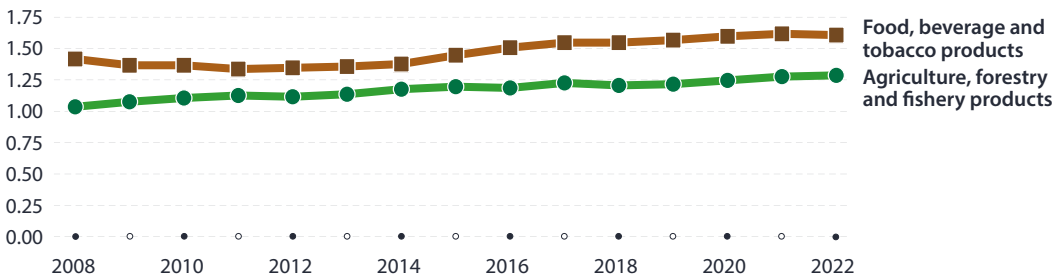
Road transport developments

(EU, 2008–2022)

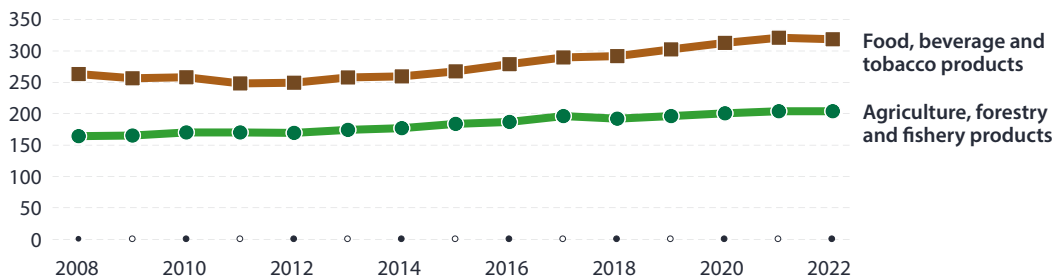
Some 1.3 billion tonnes of agriculture, forestry and fishery products were transported by heavy goods vehicles registered in the EU in 2022, along with 1.6 billion tonnes of food, beverage and tobacco products (hereafter referred to as F&B and tobacco products). These figures cover the transport of goods produced in the EU and imports from outside the EU.

Between 2008 and 2022, the quantity of agriculture, forestry and fishery products transported by heavy goods vehicles registered in the EU increased on average by 1.5 % per year; for F&B and tobacco products, the average increase was 0.9 % per year. When taking account of not only the quantity transported but also the distance these products were transported (in tonne-kilometres, the [payload distance](#)), the average annual increases were 1.6 % for agriculture, forestry and fishery products and 1.4 % for F&B and tobacco products.

Quantity (billion tonnes)



Payload distance (billion tonne-kilometres)



Note: goods transported by heavy goods vehicles registered in EU Member States.

Source: Eurostat (online data code: [road_go_ta_tg](#))

⁽³⁾ According to EU [legislation](#) (see Article 1), EU Member States may exclude road transport vehicles whose load capacity or maximum permissible weight is lower than a certain limit. This limit may not exceed a load capacity of 3.5 tonnes or maximum permissible weight of 6 tonnes in the case of single motor vehicles.

Distance of road transport for agriculture, forestry, fishery, food, beverage and tobacco products

(% based on tonnes, EU-registered vehicles, 2022)

Agriculture, forestry and fishery products



Food, beverage and tobacco products



All products



Under the EU's *Farm to Fork Strategy*, the European Commission aims to support measures to reduce the dependence on long-haul transportation through the creation of shorter supply chains that make regional and local food systems more resilient. It is also looking to improve animal welfare legislation by tackling issues such as the protection of animals during transport, the phasing-out of cages, slaughter and farm level welfare, as well as animal welfare labelling.

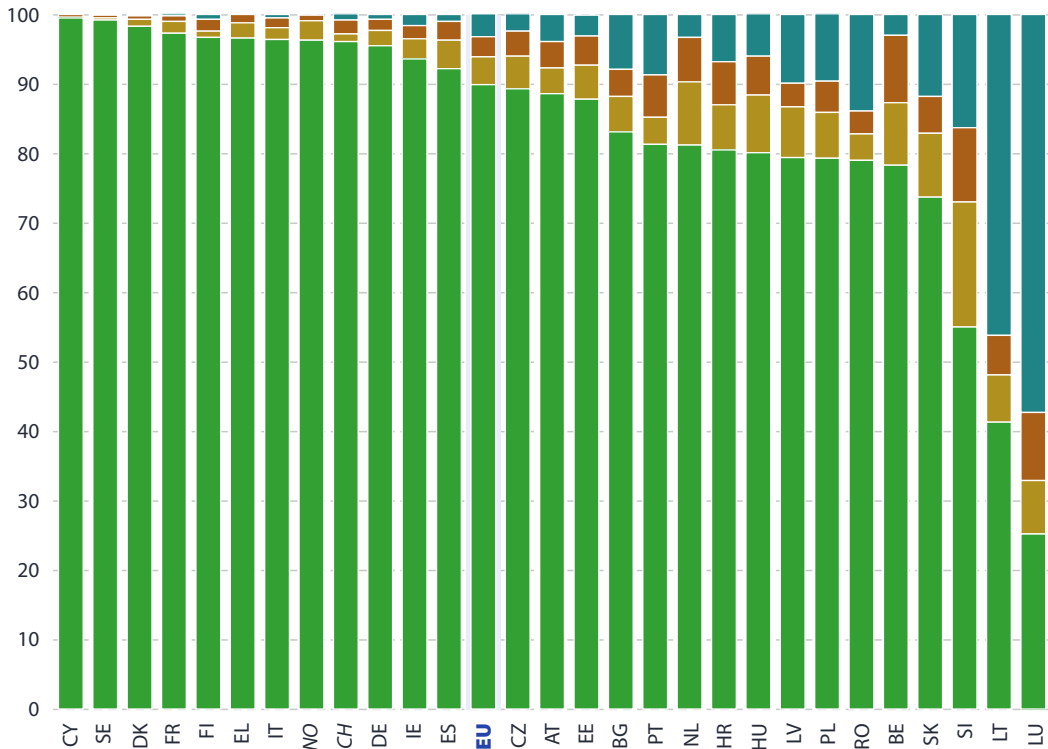
Note: goods transported by heavy goods vehicles registered in EU Member States. Due to rounding, not all shares sum to 100.0 %.

Source: Eurostat
(online data code: [road_go_ta_dcto](#))

In 2022, the vast majority of agriculture, forestry and fishery products (85.5 %) and F&B and tobacco products (78.7 %) transported by heavy goods vehicles registered in the EU were carried over distances of less than 300 km. Nevertheless, compared with all products (48.2 %), relatively small shares of agriculture, forestry and fishery products (33.6 %) and F&B and tobacco products (27.0 %), were carried over distances of less than 50 km. By contrast, the shares of agriculture, forestry and fishery products and F&B and tobacco products that were carried over distances of more than 50 km were higher than the corresponding shares for all products.

Type of road transport for agriculture, forestry, fishery, food, beverage and tobacco products

(% based on tonnes, 2022)



- Cabotage and cross-trade
- International – unloaded in the reporting country
- International – loaded in the reporting country
- National

Note: the data show the type of operations for vehicles registered in the EU Member States and EFTA countries. SE: 2021. FI: 2019. EU: based on available data. MT: not available.

Source: Eurostat (online data codes: [road_go_ta_tg](#), [road_go_na_tg](#), [road_go_ia_lg](#) and [road_go_ia_ug](#))

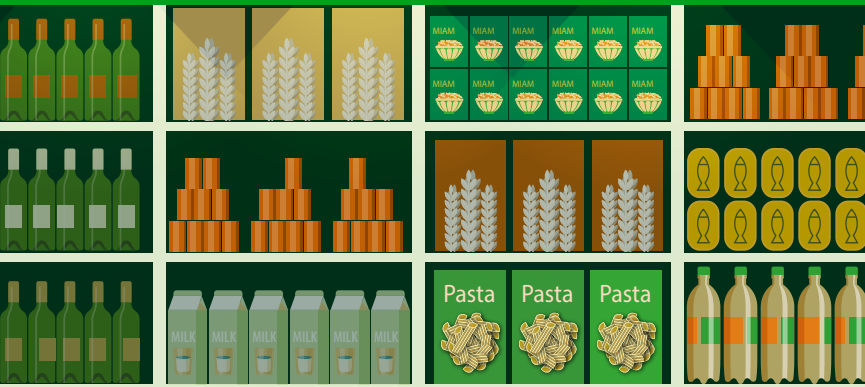
In 2022, the vast majority (89.9 %) of the road freight transport of agriculture, forestry, fishery, F&B and tobacco products by heavy goods vehicles registered in the EU was national transport. In other words, it was carried out within individual EU Member States by vehicles registered in that same Member State.

On average, the loading of goods for international transport accounted for 4.0 % of the total quantity of agriculture, forestry, fishery, F&B and tobacco products transported by heavy goods vehicles registered in the EU, while unloading after international transport accounted for 2.9 %. Other transport – [cross-trade](#) and [cabotage](#) – accounted for the remaining 3.3 %.

National transport dominated road freight transport of agriculture, forestry, fishery, F&B and tobacco products in 2022 in all EU Member States. Only for vehicles registered in a few of the smaller Member States, like Luxembourg, Lithuania and Slovenia, was the share of national transport below 70 %. In some of the Member States with large maritime freight [ports](#), such as Belgium and the Netherlands, international transport recorded a relatively high share of road transport for these goods.

8

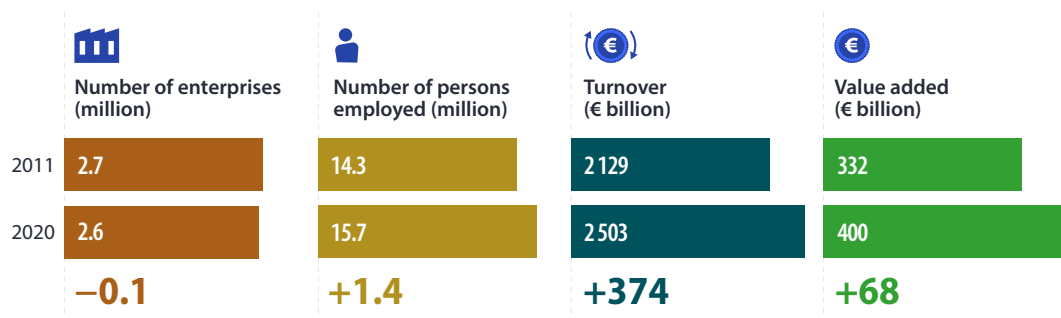
Wholesale, retail and services provision of food and beverages



Key figures for the EU

Wholesaling, retailing and serving of food and beverages

(EU, 2011 and 2020)



Enterprises trading or serving food and beverages (F&B) include F&B wholesalers and retailers (who also trade tobacco) as well as F&B serving businesses such as restaurants, bars, cafés and caterers. As part of the EU's *Farm to Fork Strategy*, the European Commission will seek commitments from these businesses on a range of health and sustainability issues, for example: reformulating food products in line with guidelines for healthy diets, reducing their environmental footprint, or cutting packaging.

Note: for wholesaling and retailing, food and beverages also covers tobacco. These trade and service activities include NACE codes: 46.17, 46.3, 47.11, 47.2, 47.81 and 56. Includes estimates made for the purpose of this publication. Different scales are used for each indicator.

Source: Eurostat (online data codes: [sbs_na_dt_r2](#) and [sbs_na_la_se_r2](#))

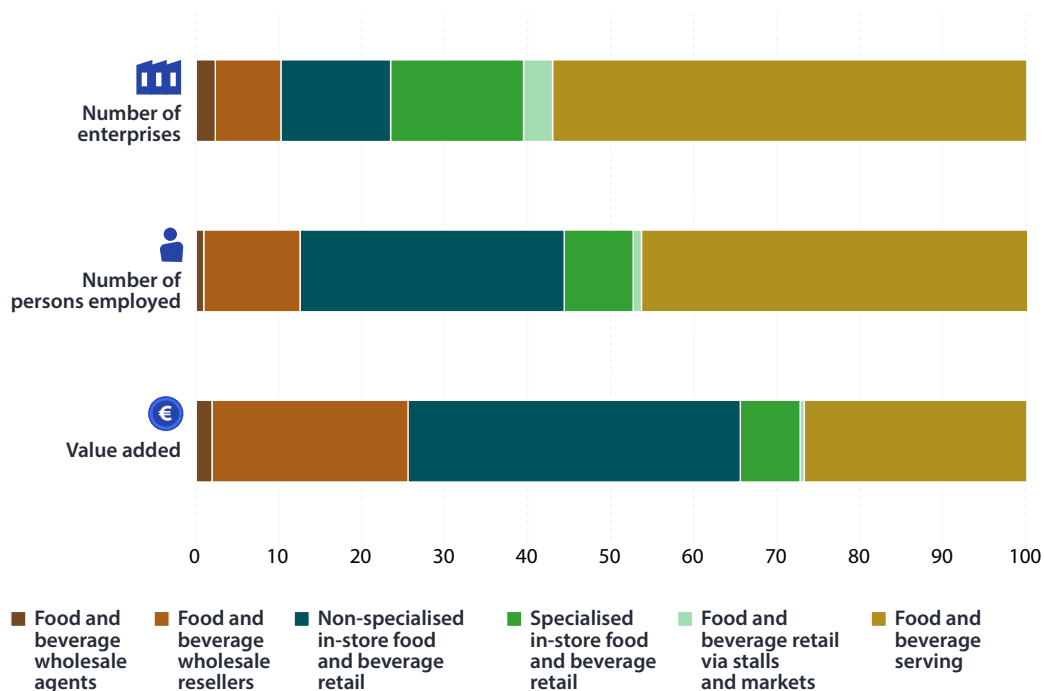
In 2020, there were 2.6 million F&B trade and serving enterprises in the EU: 265 000 were wholesalers, 851 000 were retailers and 1.5 million were F&B serving enterprises. Together they employed a total of 15.7 million persons, generating €2.5 trillion of turnover and adding €400 billion of value.

The total number of enterprises in F&B trade and serving in the EU was slightly lower in 2020 (2.6 million) than it had been in 2011 (2.7 million). However, the average size of enterprises grew; they employed an additional 1.4 million persons during the period under consideration, increased their turnover by €374 billion and their value added by €68 billion.

Although the economic performance of F&B trade and serving enterprises generally followed an upward path during the most recent decade for which data are available, there was a marked contraction for some activities in 2020, as governments imposed a range of restrictions at the onset of the COVID-19 pandemic (for example, closing F&B outlets). The crisis had a direct impact, with the number of persons employed falling 13.1 % for F&B serving activities between 2019 and 2020. Smaller losses were recorded for retail sale via stalls and markets of food, beverages and tobacco products (down 4.2 %), the retail sale of food, beverages and tobacco in specialised stores (down 4.1 %) and the wholesale of food, beverages and tobacco (down 2.8 %).

Structure of wholesaling, retailing and serving of food and beverages

(%, EU, 2020)



As is common for wholesaling in general, most F&B wholesalers in the EU in 2020 were resellers, buying and selling products. Wholesale resellers accounted for the vast majority of the workforce employed by F&B wholesalers and its value added; F&B wholesale agents (trading on commissions) had much lower shares.

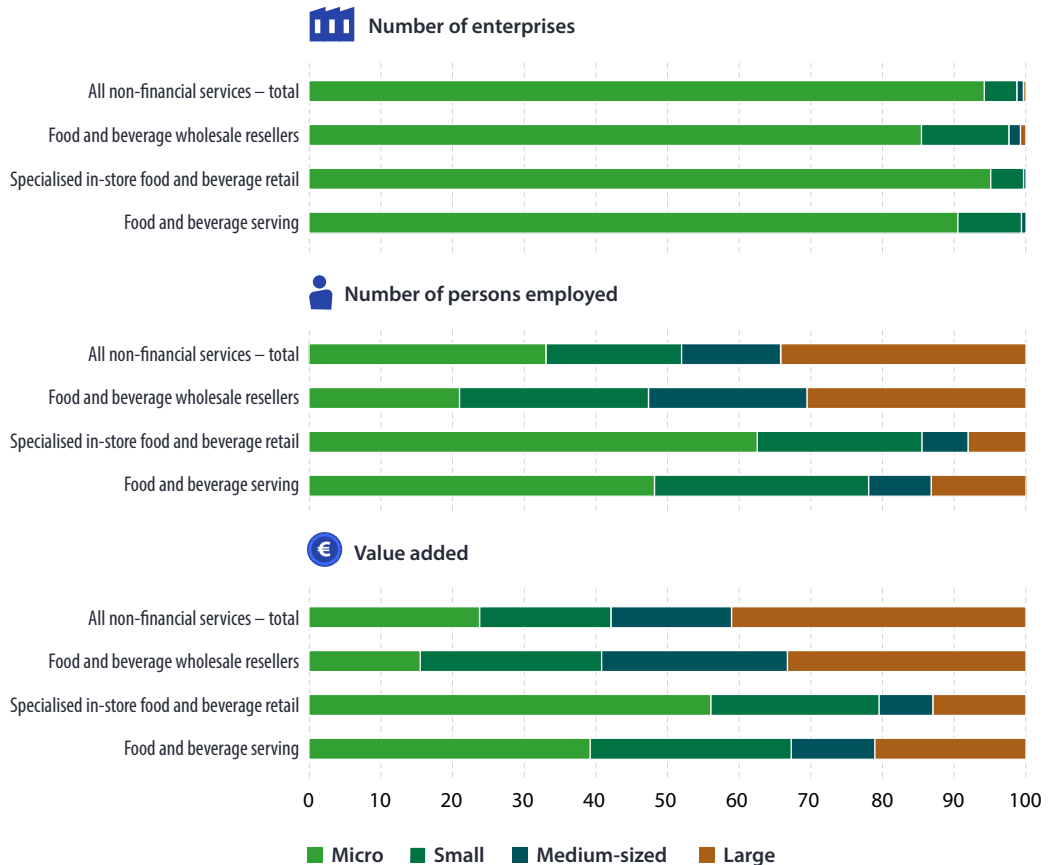
Source: Eurostat
(online data codes: [sbs_na_dt_r2](#)
and [sbs_na_1a_se_r2](#))

In 2020, the most common type of F&B retailer was specialised in-store retailers, such as greengrocers, butchers, fishmongers, bakers and tobacconists. These specialists outnumbered enterprises that were non-specialised in-store retailers with F&B predominating, such as general grocers and supermarkets. However, in terms of value added and employment, non-specialised in-store F&B retailers were considerably larger than their specialised competitors.

Whereas a majority (57.1 %) of all F&B trade and serving enterprises across the EU in 2020 were in the F&B serving activity, its contributions to employment and value added were lower, at 46.5 % and 26.8 %, respectively. Before the COVID-19 pandemic, F&B serving enterprises had accounted for considerably higher shares of employment and value added among F&B trade and serving enterprises (49.9 % and 36.3 % in 2019).

Key size class indicators for wholesaling, specialised retailing and serving of food and beverages

(%, 2020)



Note: includes estimates made for the purpose of this publication.

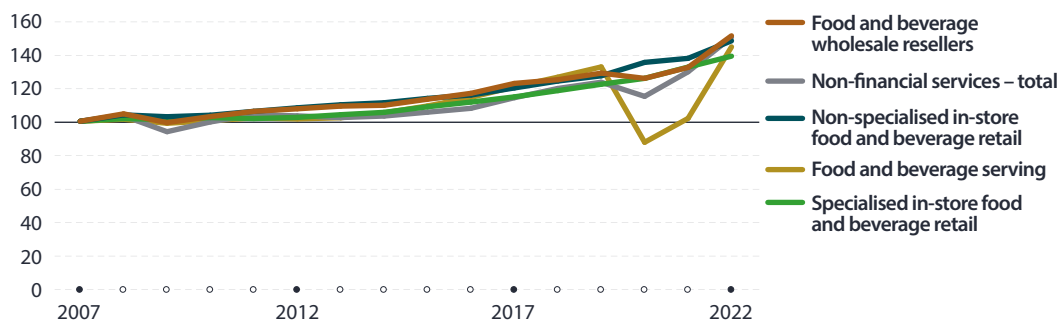
Source: Eurostat
(online data codes: [sbs_sc_dt_r2](#)
and [sbs_sc_1b_se_r2](#))

Enterprises can be classified according to their size in terms of employment: micro enterprises have less than 10 persons employed, small enterprises have 10–49 persons employed, medium-sized enterprises have 50–249 persons employed, and large enterprises have 250 or more persons employed. As is true for many [non-financial services](#), the count of F&B trade and serving enterprises was dominated by micro enterprises. Among F&B trade and serving activities, wholesale resellers recorded the lowest share of micro enterprises (85.8 % in 2020) and the highest share for each of the three larger size classes.

Micro enterprises also contributed a smaller share of employment and value added among wholesale resellers than was the case for the other two F&B activities shown. By contrast, micro enterprises contributed more than three fifths of total employment and more than half of value added among specialised in-store F&B retailers. The combined shares of micro and small enterprises accounted for just over three quarters of total employment and just over two thirds of total value added among F&B serving enterprises, considerably higher than the averages for all non-financial services.

Turnover index for wholesaling, retailing and serving of food and beverages

(2007 = 100, EU, 2007–2022)



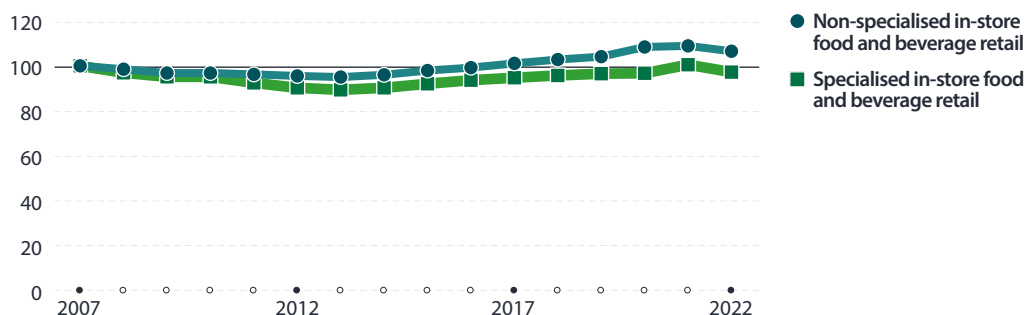
In current price terms, the [turnover](#) of enterprises in the EU serving F&B increased by around one third between 2007 and 2019, an average annual increase of 2.4 %. As noted above, this activity was particularly hard hit in 2020 by the COVID-19 pandemic; its turnover fell 33.9 % in 2020, partially rebounding in 2021 (up 16.3 %), before accelerating at a rapid pace in 2022 (up 41.7 %). The turnover of F&B wholesalers also fell in 2020 (down 2.5 %), which was more than recovered in 2021 and 2022 (with increases of 5.2 % and 14.2 %, respectively). By contrast, the turnover of specialised and non-specialised F&B in-store retailers rose throughout the period from 2020 to 2022, in part because people were eating more often at home.

Note: index originally compiled with 2015 = 100; rescaled to 2007 = 100.

Source: Eurostat
(online data codes: [sts_trtu_a](#)
and [sts_setu_a](#))

Volume index of sales for retailing of food and beverages

(2007 = 100, EU, 2007–2022)



For retail trade, a [volume index of sales](#) is available: compared with a value index, changes in the prices of the retailed products have been removed. After this adjustment, sales from specialised in-store F&B retailing in the EU were lower in 2022 than they had been in 2007, whereas they were higher for non-specialised in-store F&B retailing. In 2022, sales from specialised in-store F&B retailing were 3.2 % lower than a year before, while sales from non-specialised in-store F&B retailing were 2.2 % lower; these figures reflect a shift in spending patterns on food and beverages during the cost-of-living crisis.

Note: index originally compiled with 2015 = 100; rescaled to 2007 = 100.

Source: Eurostat
(online data code: [sts_trtu_a](#))

Employment, turnover and value added in the EU Member States

Share of EU wholesaling, retailing and serving of food and beverages

(%, 2020)

Number of persons employed

DE	ES	IT	FR	NL	Other EU
19.8	14.0	13.5	13.1	5.5	34.1

Value added

DE	FR	IT	ES	NL	Other EU
21.9	19.8	11.5	11.5	6.4	28.9

Note: includes estimates made for the purpose of this publication. NL: value added share is an underestimate as wholesale agents and retail via stalls and markets are excluded.

Source: Eurostat
(online data codes: [sbs_na_dt_r2](#)
and [sbs_na_1a_se_r2](#))

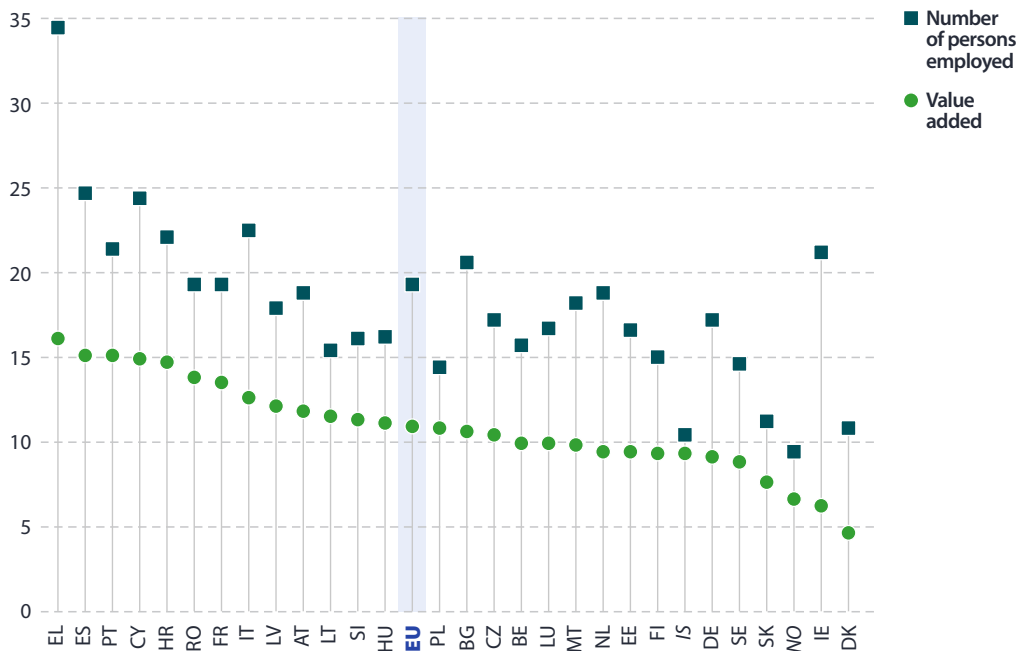
The relative size of each EU Member State within the EU's F&B trade and serving activities reflects a number of factors. While the size of the population clearly influences the overall level of sales, so do cultural factors related to the consumption of F&B products and differences in price levels.

Germany had the highest share of the EU's number of persons employed and value added for F&B trade and serving in 2020; it accounted for around one fifth (19.8 % and 21.9 %) of the EU total for these two indicators. France had the second highest share of the EU's F&B trade and serving in terms of value added (19.8 %). By contrast, it had the fourth highest share for the number of persons employed (13.1 %); this was principally due to a relatively low number of persons employed in F&B serving. Spain and Italy accounted for relatively high shares of the total number of persons employed in the EU's F&B trade and serving activities (14.0 % and 13.5 %, respectively).



Share of wholesaling, retailing and serving of food and beverages within non-financial services

(%, 2020)



Note: ranked on value added. CZ, DK, EE, LU, NL and FI: underestimates (due to one or more missing activities).

Source: Eurostat
(online data codes: [sbs_na_sca_r2](#),
[sbs_na_dt_r2](#) and [sbs_na_1a_se_r2](#))

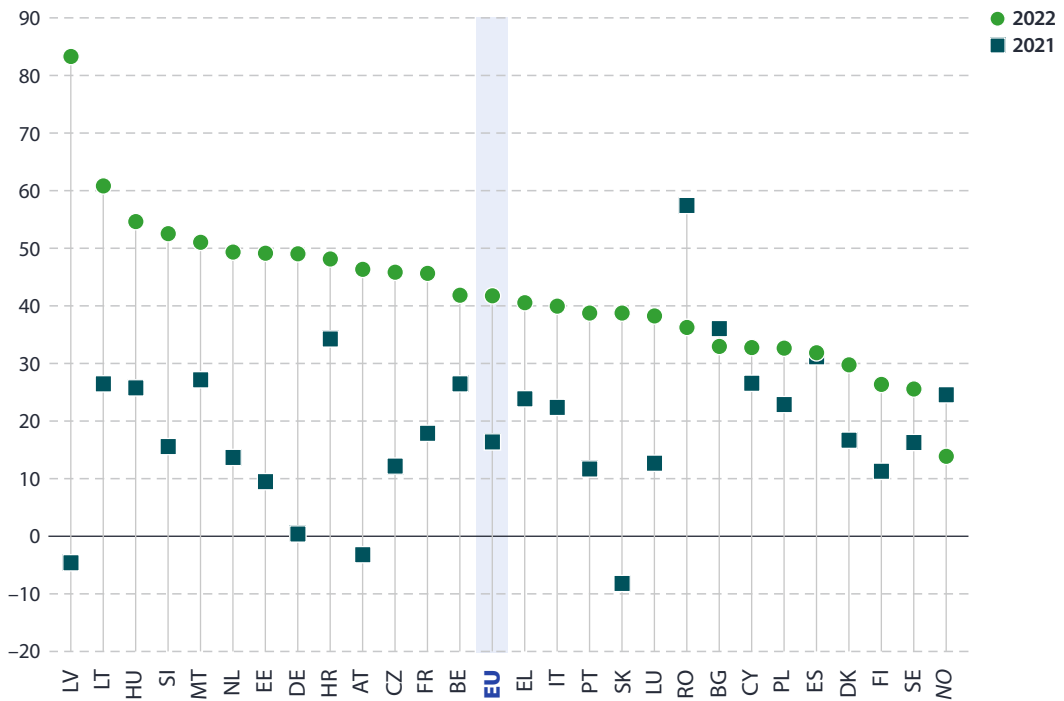
F&B trade and serving contributed almost one fifth (19.2 %) of the total number of persons employed within the EU's non-financial services sector in 2020, whereas its share of value added was considerably less (10.8 %); these shares indicate that labour productivity within F&B trade and serving activities was relatively low. Note however that some F&B trade and serving activities have a high proportion of part-time or seasonal workers and that employment figures are based on a simple headcount.

F&B trade and serving made relatively large contributions to non-financial services in many (generally southern) EU Member States that are known for being tourist destinations. In 2020, F&B trade and serving activities accounted for more than one fifth of the total number of persons employed in the non-financial services sectors of Greece, Spain, Cyprus, Italy, Croatia, Portugal, Ireland and Bulgaria; they were the only EU Member States to register shares above the EU average. The highest employment share was recorded in Greece (34.4 %), followed at some distance by Spain (24.6 %). By contrast, the lowest employment share was observed in Denmark (10.7 %).

Greece also recorded the highest share for value added: in 2020, F&B trade and serving activities accounted for about one sixth (16.0 %) of the total value added in the Greek non-financial services sector. The next highest shares were recorded in Spain and Portugal (both 15.0 %). At the other end of the range, the lowest share was, again, recorded in Denmark (4.5 %).

Annual change in turnover index for serving of food and beverages

(%, 2021 and 2022)



Note: IE, not available.

Source: Eurostat
(online data code: [sts_setu_a](#))

As noted above, the COVID-19 pandemic and related restrictions particularly affected F&B serving activities (such as restaurants, bars and cafés). There was a considerable contraction in activity from March 2020 onwards when many of the EU Member States put in place restrictions on socialising indoors. Sales across the EU fell 33.9 % in 2020 (compared with the year before), while there was a partial recovery in 2021 (growth of 16.3 %), that accelerated in 2022 (growth of 41.7 %).

As many restrictions linked to the pandemic were gradually eased, sales for F&B serving activities rose in 2021 across most of the EU Member States. The highest sales growth was recorded in Romania (up 57.4 %), followed by Bulgaria, Croatia and Spain (with growth rates in the range of 31.1–36.0 %). At the other end of the range, turnover was more or less unchanged in Germany and continued to fall in Austria, Latvia and Slovakia.

In 2022, the recovery from the pandemic continued as sales for F&B serving activities rose rapidly in all EU Member States; annual rates of change ranged from 25.5 % in Sweden up to 83.3 % in Latvia. Of the 26 Member States for which data are available (no information for Ireland), there were only two that had a lower level of turnover in 2022 than before the pandemic (2019): Austria (3.2 % lower) and Spain (2.6 % lower). At the other end of the range, sales for F&B serving activities were more than 50 % higher in 2022 than in 2019 in Hungary and Romania, with the highest increase (up 59.1 %) in Lithuania.

9

Human consumption of food and beverages

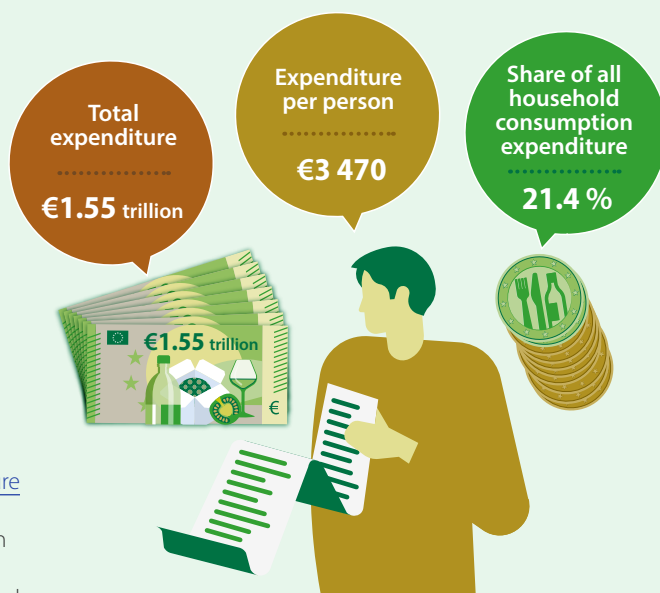


Consumption

Annual household consumption expenditure on food, beverages and catering services

(EU, 2021)

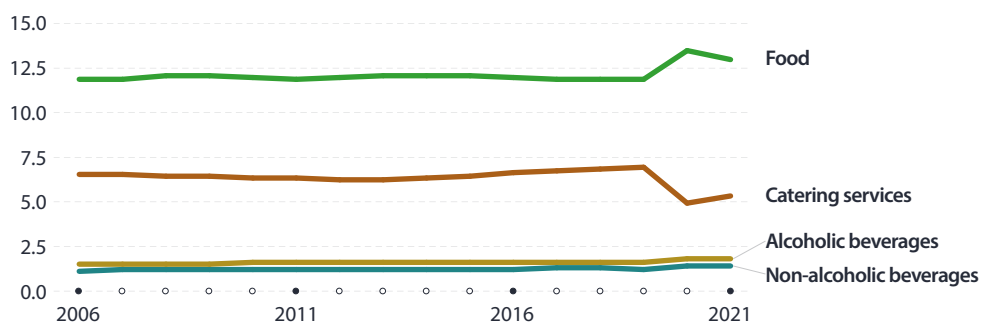
Food and beverages (F&B) are recurrent [expenditure](#) items for all households. There is a wide variety of these products available to EU citizens, whether on a retail basis or provided as a service (referred to as catering in this chapter). Purchases often reflect local, regional and national cuisine and may play a role in cultural identity.



Source: Eurostat (online data code: [nama_10_co3](#))

Share of total household consumption expenditure

(%, EU, 2006–2021)



Source: Eurostat (online data code: [nama_10_co3](#))

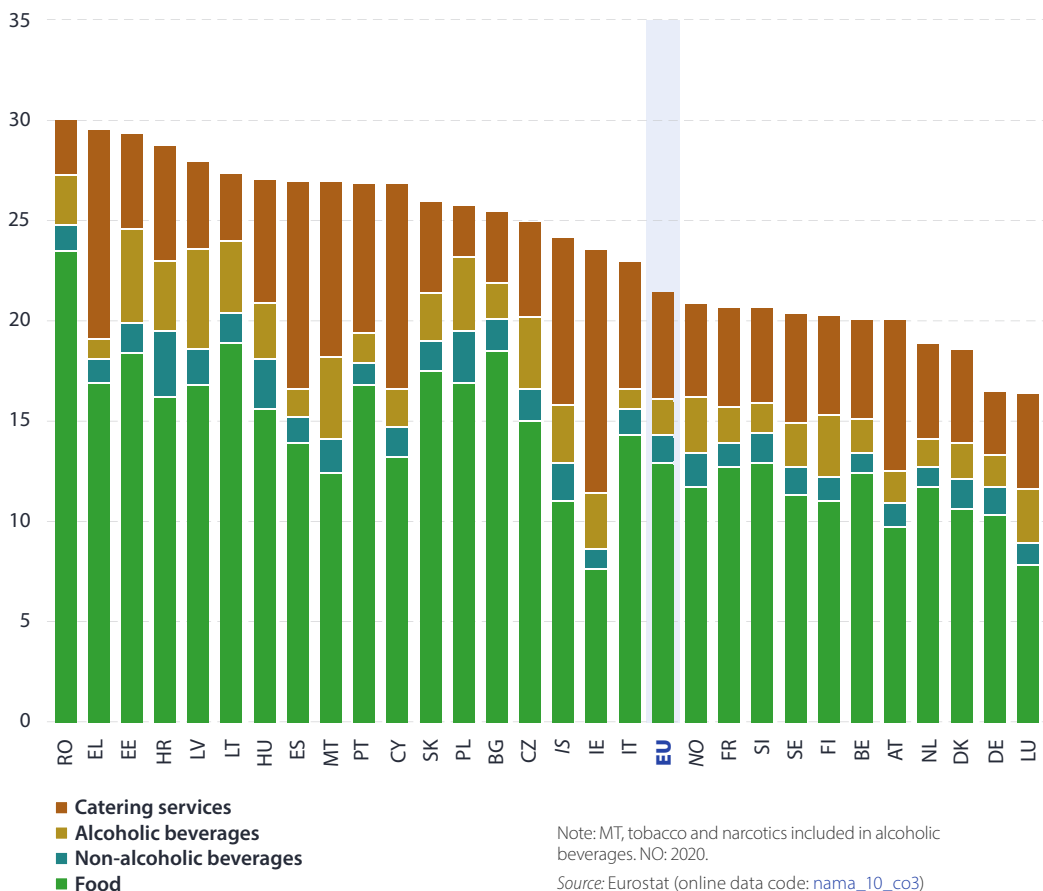
For the EU as a whole, final consumption expenditure of households on F&B and catering services was valued at €1.55 trillion in 2021, equivalent to €3 470 per person. These latest figures marked a 6.0 % increase in household expenditure on F&B and catering services compared with 2020.

F&B and catering services (serving of food and/or alcoholic or non-alcoholic beverages) accounted for 21.4 % of EU household consumption expenditure in 2021: 12.9 % was on food, 5.3 % on catering services, 1.8 % on alcoholic beverages and 1.4 % on non-alcoholic beverages.

Between 2020 and 2021, the share of catering services in total household consumption expenditure increased in a majority of the EU Member States. The relative share of spending on these services rose at a rapid pace in the southern EU Member States of Cyprus, Croatia, Spain, Greece and Malta, although the largest increase was recorded in Ireland (up 2.6 percentage points). By contrast, the share of food and non-alcoholic beverages in total household consumption expenditure fell in each of the EU Member States except for Poland.

Share of total household consumption expenditure

(%, 2021)



There is considerable variation between the EU Member States as concerns the proportion of household expenditure used for F&B and catering services. The lowest shares in 2021 were in Luxembourg (16.3 %) and Germany (16.4 %), while the highest were in Estonia (29.3 %), Greece (29.5 %) and Romania (30.0 %).

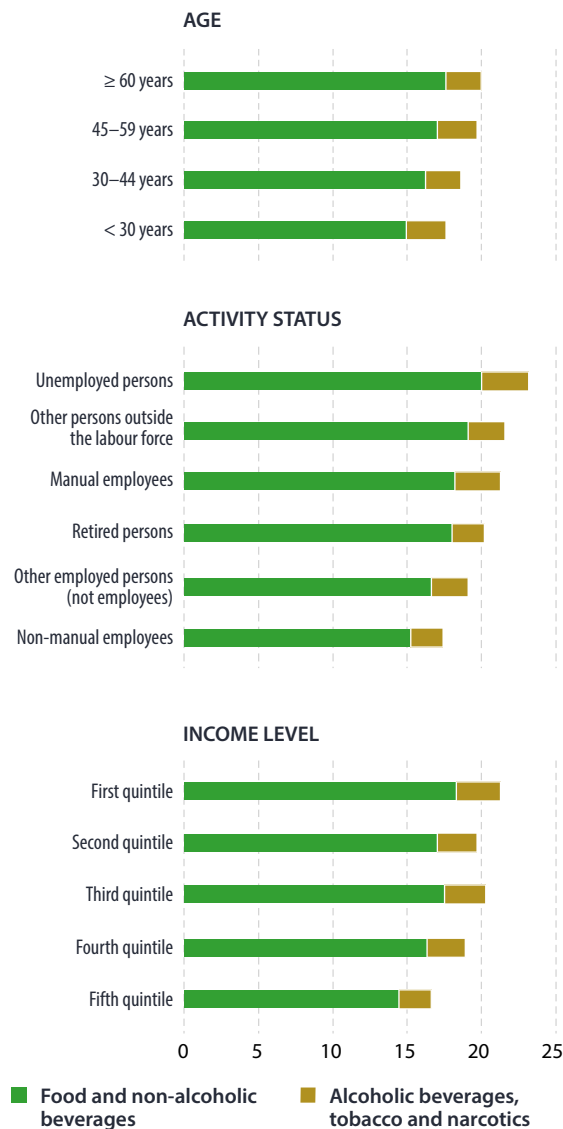
In all but one of the EU Member States, food was the largest item of F&B and catering services expenditure in 2021. The only exception was Ireland, where more was spent on catering services. Catering services were generally the second largest expenditure item, although Poland, Latvia and Lithuania recorded

a higher share of expenditure on alcoholic beverages and Poland also recorded a higher share of expenditure on non-alcoholic beverages. Greece and Italy were the only Member States where more was spent on non-alcoholic than on alcoholic beverages.

In 2021, Germany had an 18.1 % share of the EU's total household consumption expenditure on F&B and catering services. France (16.9 %), Italy (15.2 %) and Spain (11.8 %) were the only other EU Member States to record double-digit shares of the EU total; they were followed, at some distance, by Poland (5.3 %).

Share of consumption expenditure on food, beverages and tobacco, by socioeconomic characteristics

(%, EU, 2020)



The share of household consumption expenditure on food, beverage and tobacco products (F&B and tobacco products) varies according to different socio-economic characteristics. For example, households where the reference person was aged 60 years or over spent about one fifth (20.1 %) of their household budget on F&B and tobacco products in 2020, which was 2.4 percentage points higher than the corresponding share recorded for households where the reference person was aged less than 30 years.

In a similar vein, people without work often spent a higher proportion of their total budget on F&B and tobacco products. For example, EU households where the reference person was unemployed spent, on average, 23.3 % of their total budget on F&B and tobacco products in 2020, while the corresponding share for households where the reference person was a non-manual employee was 5.8 percentage points lower, at 17.5 %.

Likewise, people with low incomes tend to spend a higher proportion of their household budget on F&B and tobacco products. For example, households in the first income quintile (the 20 % of EU households with the lowest incomes) spent, on average, 21.4 % of their total budget on F&B and tobacco products in 2020. This was 4.7 percentage points higher than the corresponding share recorded for households in the fifth income quintile (the 20 % of EU households with the highest incomes).

Note: the fieldwork for the 2020 survey took place between 2018 and 2022 for the majority of EU Member States; data for FR, CY and MT were collected between 2015 and 2017. EU estimates excluding IE, PT, FI and SE. Household consumption expenditure data presented by age and activity status concern the status of the reference person (an adult aged 16 years or over, who is designated as the main income earner).

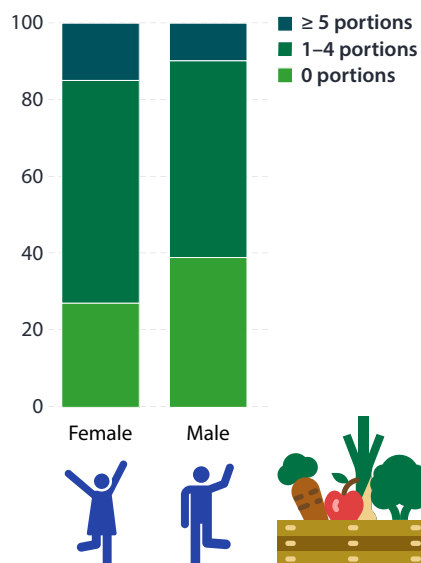
Source: Eurostat (online data codes: [hbs_str_t221](#), [hbs_str_t223](#) and [hbs_str_t225](#))

Daily consumption of fruit and vegetables

(%, EU, persons aged 15 years and over, 2019)

Fruit and vegetables are considered important elements of a healthy, balanced diet; among other benefits, they provide vitamins, minerals and fibre. Studies have shown that a high intake of fruit and vegetables ('five a day') is associated with a lower risk of chronic disease, such as certain cancers or cardiovascular disease.

Across the EU, 9.8 % of all males (aged 15 years and over) ate a daily average of at least five portions of fruit and vegetables in 2019; the share for females (of the same age) was notably higher, at 14.9 %. A majority of males and females consumed a daily average of 1–4 portions of fruit and vegetables, while almost two fifths of all males and slightly more than one quarter of all females did not eat fruit or vegetables regularly. Greece was the only EU Member State where a higher share of males (compared with females) ate a daily average of at least five portions of fruit and vegetables.



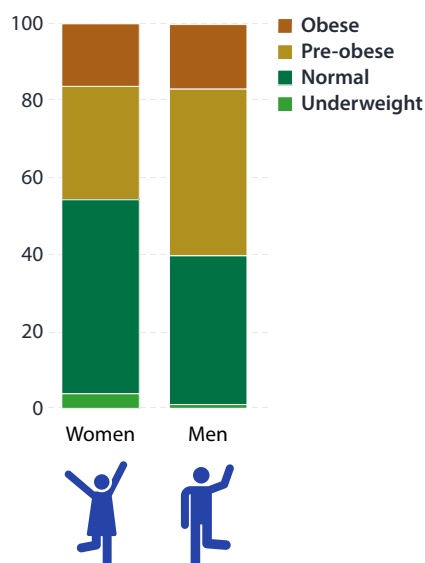
Source: Eurostat (online data code: [hlth_ehis_fv3e](#))

Share of the adult population aged 18 years and over, by body mass index and sex

(%, EU, 2019)

The body mass index (BMI) is defined as someone's weight (in kilograms) divided by their height (in metres) squared. The BMI is calculated for adults (aged 18 years and over) and can be used to estimate a person's body fat. Underweight people are at greater risk, among other conditions, of malnutrition, decreased muscle strength, osteoporosis or lowered immunity. Overweight people have an increased risk, among other conditions, of high blood pressure, coronary heart disease, type 2 diabetes or stroke.

In 2019, a higher proportion of women (3.8 %) than men (1.0 %) were considered underweight in the EU (a BMI < 18.5). At the other end of the scale, almost half (45.8 %) of all women were considered overweight (either pre-obese or obese; a BMI ≥ 25), compared with three fifths (60.2 %) of men. Breaking down these figures, there was little difference between the sexes in relation to the share of people considered obese (a BMI ≥ 30); 16.3 % for women and 16.8 % for men.

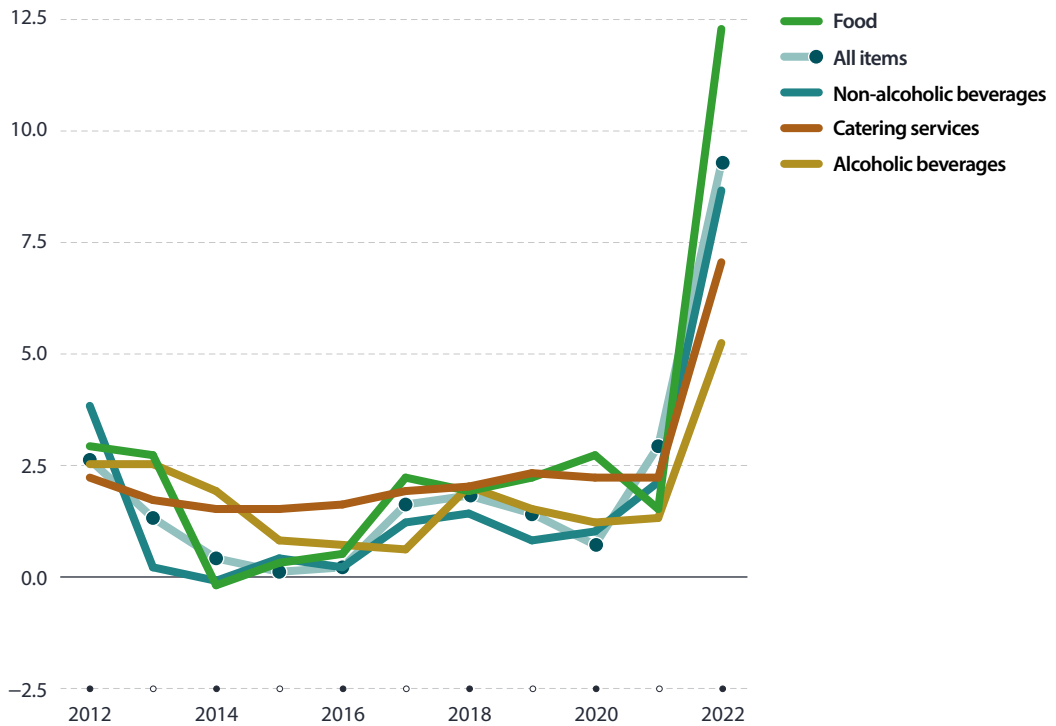


Source: Eurostat (online data code: [hlth_ehis_bm1e](#))

Prices

Annual rate of change of consumer prices

(%, EU, 2012–2022)



Source: Eurostat (online data code: [prc_hicp_aind](#))

Prices are a key consideration for many consumers when deciding what to eat and drink; they can also impact on the choice made in relation to more sustainable and healthy diets.

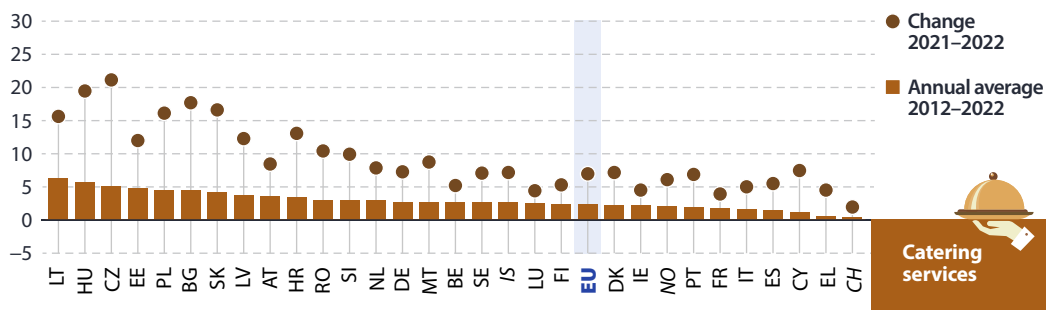
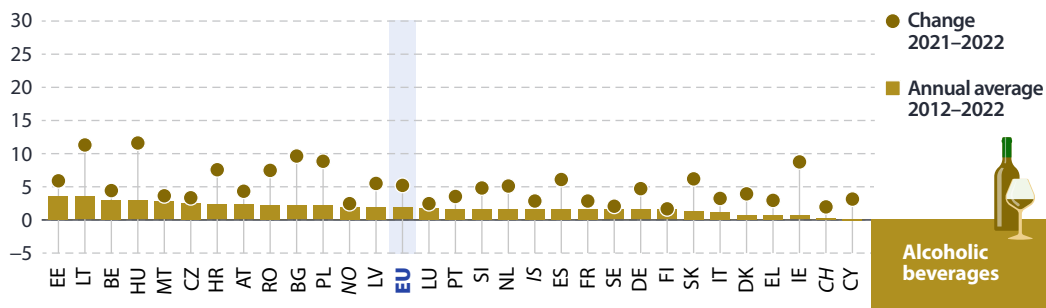
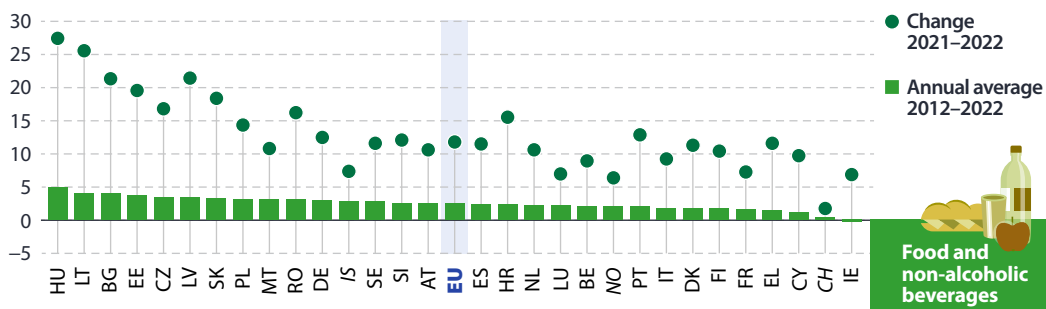
Between 2012 and 2022, inflation (a rise in prices as measured by the all-items [consumer price index](#)) was 21.0 % across the EU. Price increases for F&B and catering services were of a similar magnitude; during the same period they were up 16.5 % for non-alcoholic beverages, 19.0 % for alcoholic beverages, 26.5 % for catering services, and 28.7 % for food.

There was a rapid increase in F&B prices across the EU during 2021 and 2022, which contributed towards a cost-of-living crisis.



Long-term and recent changes in consumer prices

(%, 2012–2022 and 2021–2022)



Note: ranked on the annual average rate of change for 2012–2022.

Source: Eurostat (online data code: [prc_hicp_aind](#))

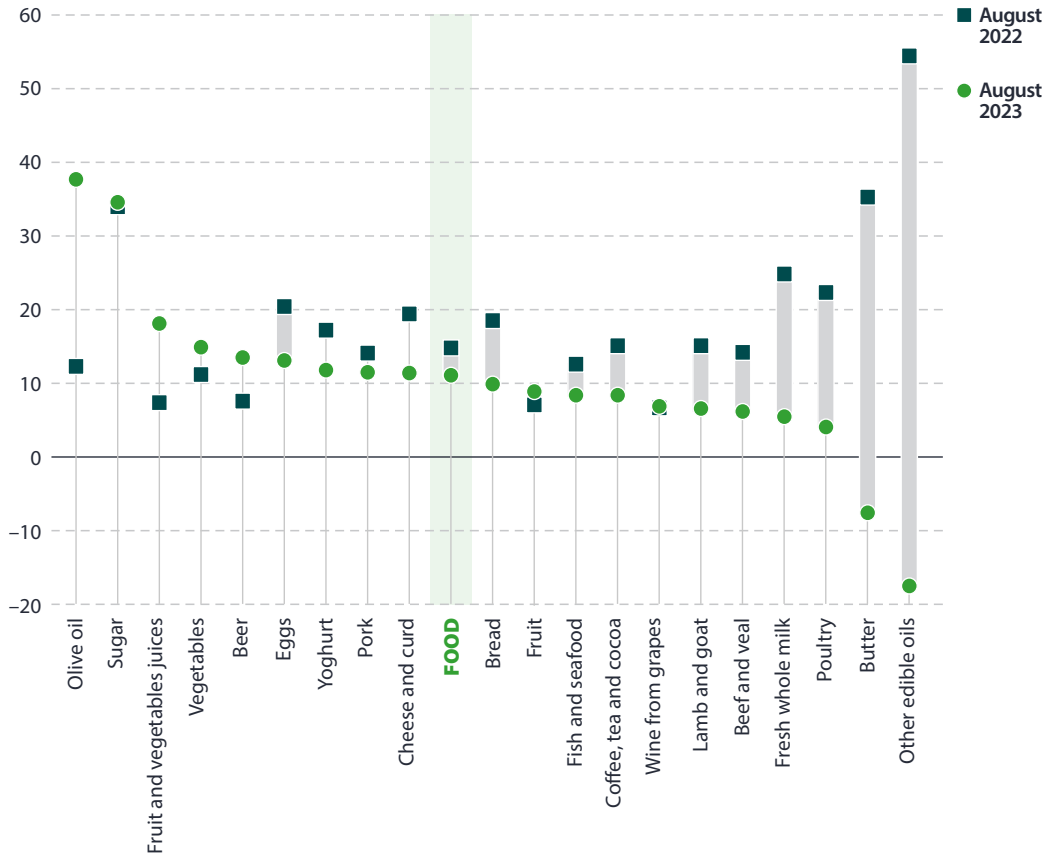
EU consumer prices for alcoholic beverages rose, on average, 1.8 % per year between 2012 and 2022. The price of catering services and the price of food and non-alcoholic beverages rose at a somewhat faster pace, averaging 2.4 % and 2.5 % per year, respectively.

In 2022, consumer prices for alcoholic beverages, catering services, and food and non-alcoholic beverages increased sharply; they jumped 5.2 %, 7.0 % and 11.9 %, respectively, which were considerably higher rates than their long-term averages.

The highest annual price increases for food and non-alcoholic beverages – at least 20.0 % in 2022 – were recorded in Hungary, Lithuania, Latvia and Bulgaria. At the other end of the range, there were only six EU Member States where the price of food and non-alcoholic beverages did not increase by at least 10.0 % – Cyprus, Italy, Belgium, France, Luxembourg and Ireland.

Annual change in consumer prices of selected food and beverage products

(%, EU, August 2022 and August 2023)



Note: other edible oils includes edible oils other than olive oil.

Source: Eurostat (online data code: [prc_fsc_idx](#))

Global food prices initially started to rise in the middle of 2020 as the impact of the COVID-19 pandemic led to pressure on supply chains. The rising cost of energy and fertilisers – major components of intermediate consumption for some farmers – also put pressure on food prices, as did the rising cost of energy for food transporters/distributors. The Russian military aggression against Ukraine is another reason that may explain, at least in part, rising food prices in the EU, especially when this impacted on the supply of certain goods to EU markets, for example cereals and fertilisers.

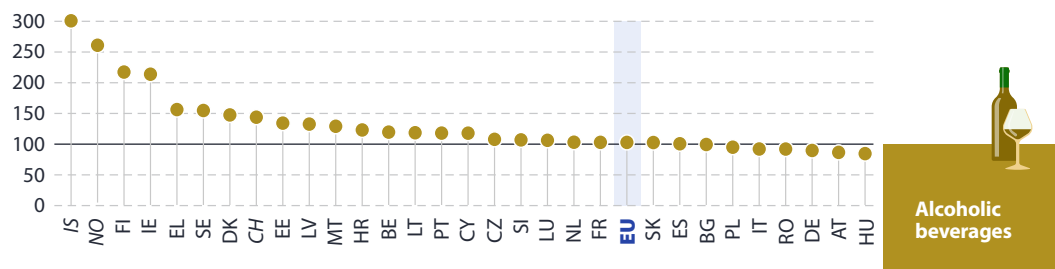
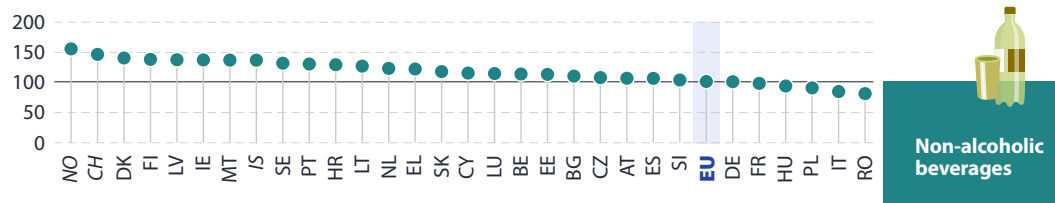
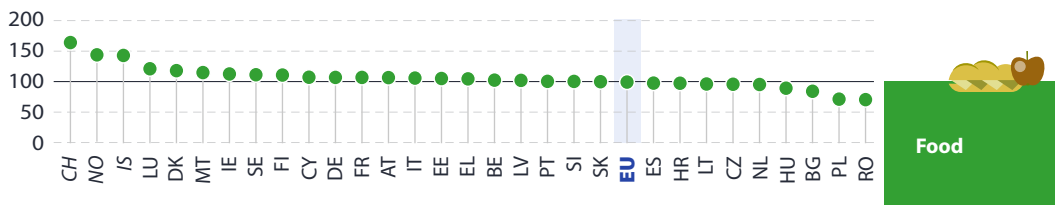
Overall food price inflation accelerated in 2022, with annual price increases above 10.0 % from May 2022 onwards. Food prices in the EU increased 19.6 % during the 12-month period to March 2023, after which the

rate of increase slowed. In August 2023, food price inflation was 10.6 %, some 3.7 percentage points lower than it had been a year before.

In August 2023, there was considerable variation in the annual price increases for selected food products in the EU. The highest price increases were recorded for olive oil and sugar, their price having risen by more than one third (up 37.1 % and 34.0 %, respectively, during the 12 months to August 2023), while there were also large price increases for a number of other food staples, including vegetables and eggs. By contrast, the price of butter and other edible oils fell, down 8.0 % and 17.9 % respectively, after rising particularly sharply during the 12 months to August 2022.

Price level comparisons

(EU = 100, 2022)



Source: Eurostat (online data code: [prc_ppp_ind](#))

Despite considerable differences in the developments of consumer prices over the last decade, a geographic pattern can still be observed in relation to [price levels](#) for food. In 2022, several eastern EU Member States had price levels below the EU average, as did the Netherlands, Lithuania and Spain. The Nordic and most western Member States tended to have above average food prices. In Romania, food prices were 71.0 % of the EU average whereas in Luxembourg they were 122.0 % of the EU average; these were the lowest and highest food price levels.

For non-alcoholic beverages, only six EU Member States had price levels below the EU average in 2022: alongside Hungary, this included five of the six most

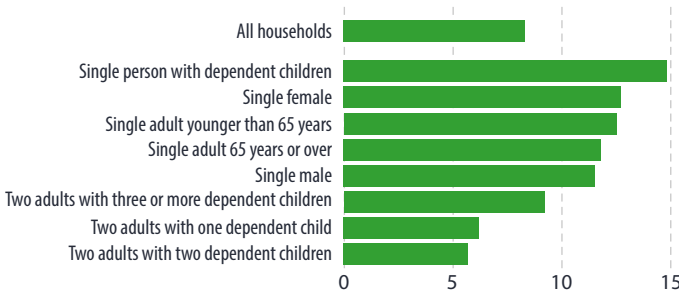
populous Member States – Romania, Italy, Poland, France and Germany. Price levels for non-alcoholic beverages ranged from 79.9 % in Romania to 139.0 % in Denmark.

A similar situation was observed for alcoholic beverages, with five of the six most populous EU Member States among the nine that reported price levels below the EU average in 2022. France was the exception, with a price level for alcoholic beverages that was just (0.1 %) above the EU average. Price levels for alcoholic beverages ranged from 81.8 % of the EU average in Hungary to 210.7 % in Ireland and 214.2 % in Finland. This large range may in part reflect differences in the taxation of alcoholic beverages.

Food affordability

Households unable to afford food, by type of household

(% of households, EU, 2022)



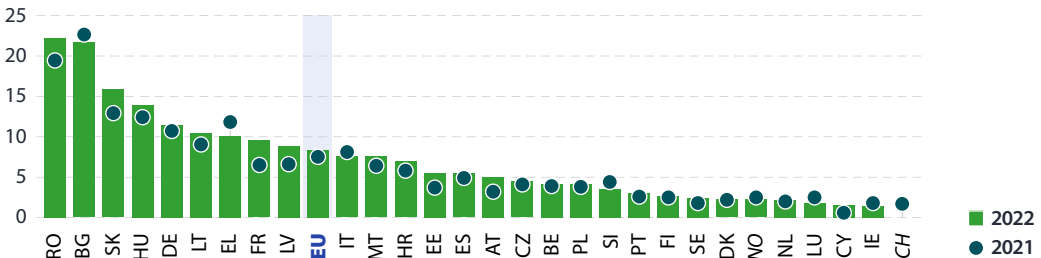
Some 8.3 % of all households in the EU were unable to afford a meal with meat, chicken, fish, or a vegetarian equivalent every second day in 2022. The affordability of food was particularly acute for households composed of a single person with dependent children (14.8 % were unable to afford a meal with meat, chicken, fish, or a vegetarian equivalent every second day). This was 2.6 times as high as the share recorded for households composed of two adults with two dependent children (5.7 %)

Note: inability to afford a meal with meat, chicken, fish or a vegetarian equivalent every second day.

Source: Eurostat (online data code: [ilc_mdcs03](#))

Households unable to afford food

(% of households, 2021 and 2022)



Note: inability to afford a meal with meat, chicken, fish or a vegetarian equivalent every second day. FR and LU: break in series. CH: 2022, not available.

Source: Eurostat (online data code: [ilc_mdcs03](#))

The share of households in the EU unable to afford a meal with meat, chicken, fish, or a vegetarian equivalent every second day increased from 7.3 % to 8.3 % between 2021 and 2022, reflecting in part the accelerating price of food during 2022.

In France, the share of households unable to afford a meal with meat, chicken, fish, or a vegetarian equivalent every second day rose 3.2 percentage points between 2021 and 2022, up from 6.3 % to 9.5 %; this was the highest absolute increase among the EU

Member States. Slovakia and Romania recorded the second and third highest increases, as their shares of households unable to afford a meal with meat, chicken, fish, or a vegetarian equivalent every second day rose 3.1 and 2.9 percentage points, respectively. As a result, the share of Romanian households unable to afford a meal with meat, chicken, fish, or a vegetarian equivalent every second day rose to more than one fifth (22.1 % in 2022), which was the highest proportion among the Member States.

10

Agriculture and food: environment

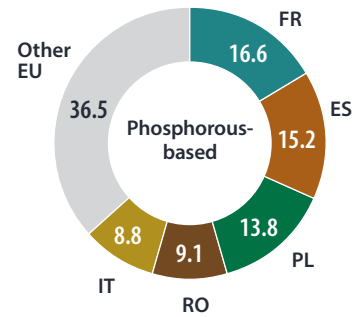
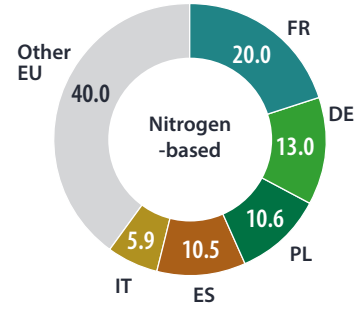


Fertilisers and pesticides

Share of Member States in EU consumption of inorganic fertilisers

(% based on tonnes, 2021)

Inorganic and organic fertilisers are widely used in agriculture to optimise production. Excessive use of inorganic fertilisers may lead to environmental pollution. Based on the latest available information, almost 10 million tonnes of nitrogen-based fertilisers were applied to agricultural land in the EU in 2021, together with about 1.1 million tonnes of phosphorous-based fertilisers. Those EU Member States that use the most fertilisers tend to be characterised as some of the biggest agricultural producers with relatively large utilised agricultural areas. In 2021, France had the highest consumption of nitrogen-based fertilisers (20.0 % of the EU total) and phosphorous-based fertilisers (16.6 %).



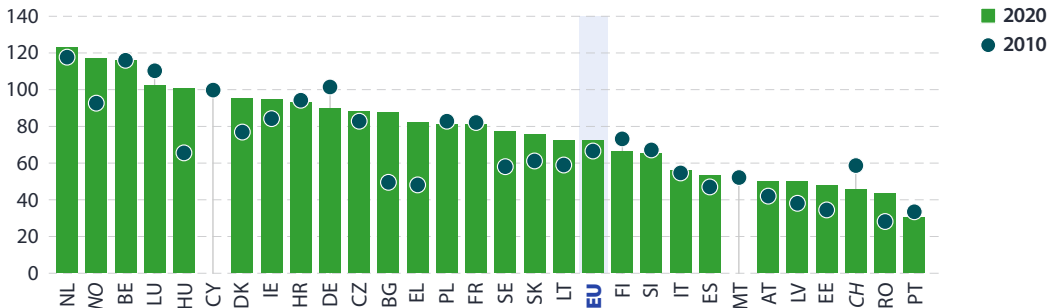
Note: EU total (used to calculate the shares) includes earlier reference periods for some EU Member States. EL and PL: 2020. CY and MT: 2019.
Source: Eurostat (online data code: [aei_fm_usefert](#))

Consumption of inorganic fertilisers (kg per hectare of UAA, 2010 and 2020)

A standardised measure for the extent of fertiliser use can be calculated relative to the utilised agricultural area. In 2020, an average of 71.9 kilograms of inorganic fertilisers were used on each hectare of agricultural land in the EU. The Netherlands had the highest use, 122.7 kilograms per hectare, while Belgium, Luxembourg and Hungary also used more

than 100 kilograms per hectare. In Austria, Latvia, Estonia, Romania and Portugal, inorganic fertiliser consumption was below 50.0 kilograms per hectare.

Between 2010 and 2020, the use of inorganic fertilisers relative to the utilised agricultural area in the EU increased 10.1 %. Most EU Member States reported an increase in this ratio, with growth of more than 50.0 % in Bulgaria, Greece, Romania and Hungary. The largest decrease was recorded for Germany (down 10.8 %).

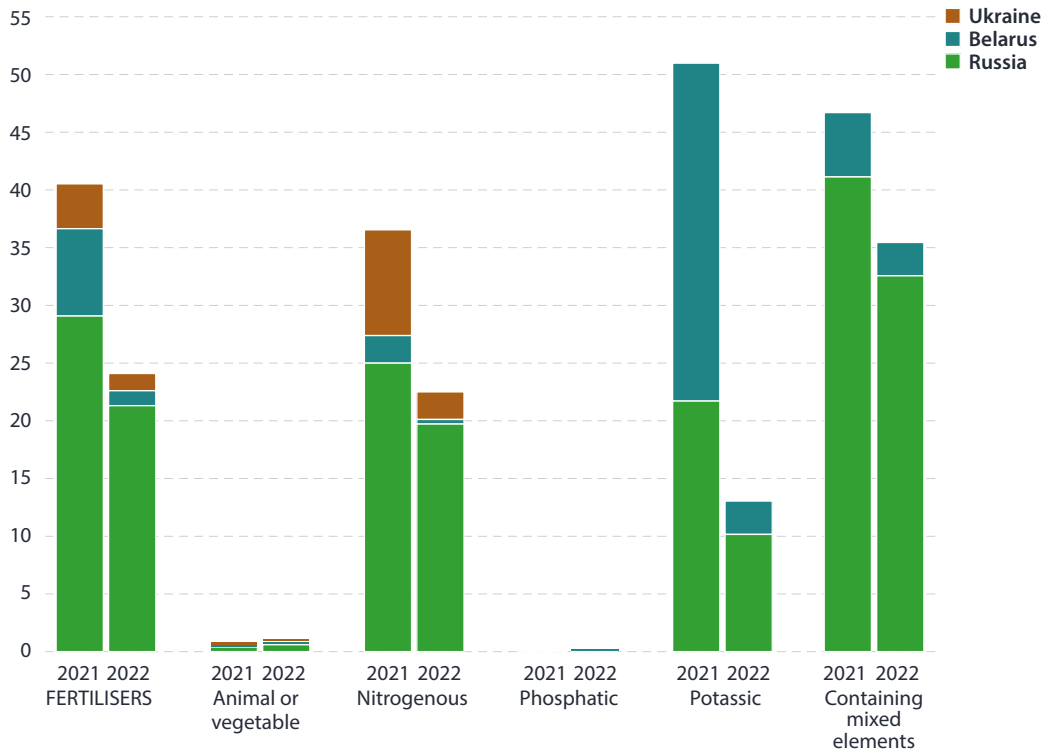


Note: EU total for inorganic fertilisers includes earlier reference periods for some EU Member States. CY and MT: 2020, not available.

Source: Eurostat (online data codes: [aei_fm_usefert](#) and [ef_m_farmleg](#))

Extra-EU imports of fertilisers

(% share originating from Ukraine/Belarus/Russia based on tonnes, EU, 2021 and 2022)



Note: Belarus (2021) and Ukraine, phosphatic, not available.

Source: Eurostat (online data code: [DS-045409](#))

Fertilisers (organic and inorganic) imported into the EU in 2022 were valued at €12.0 billion, equivalent to 0.4 % of all imported goods. More than three fifths (61.9 %) of all fertilisers imported into the EU were nitrogen-based, nearly one quarter (24.7 %) contained mixed elements, while more than one tenth (11.0 %) were potassium-based; there were relatively small shares of phosphorous-based fertilisers and organic (animal and vegetable) fertilisers.

One of the concerns related to the Russian military aggression against Ukraine is the impact on the price and availability of fertilisers. In 2021, Russia was the

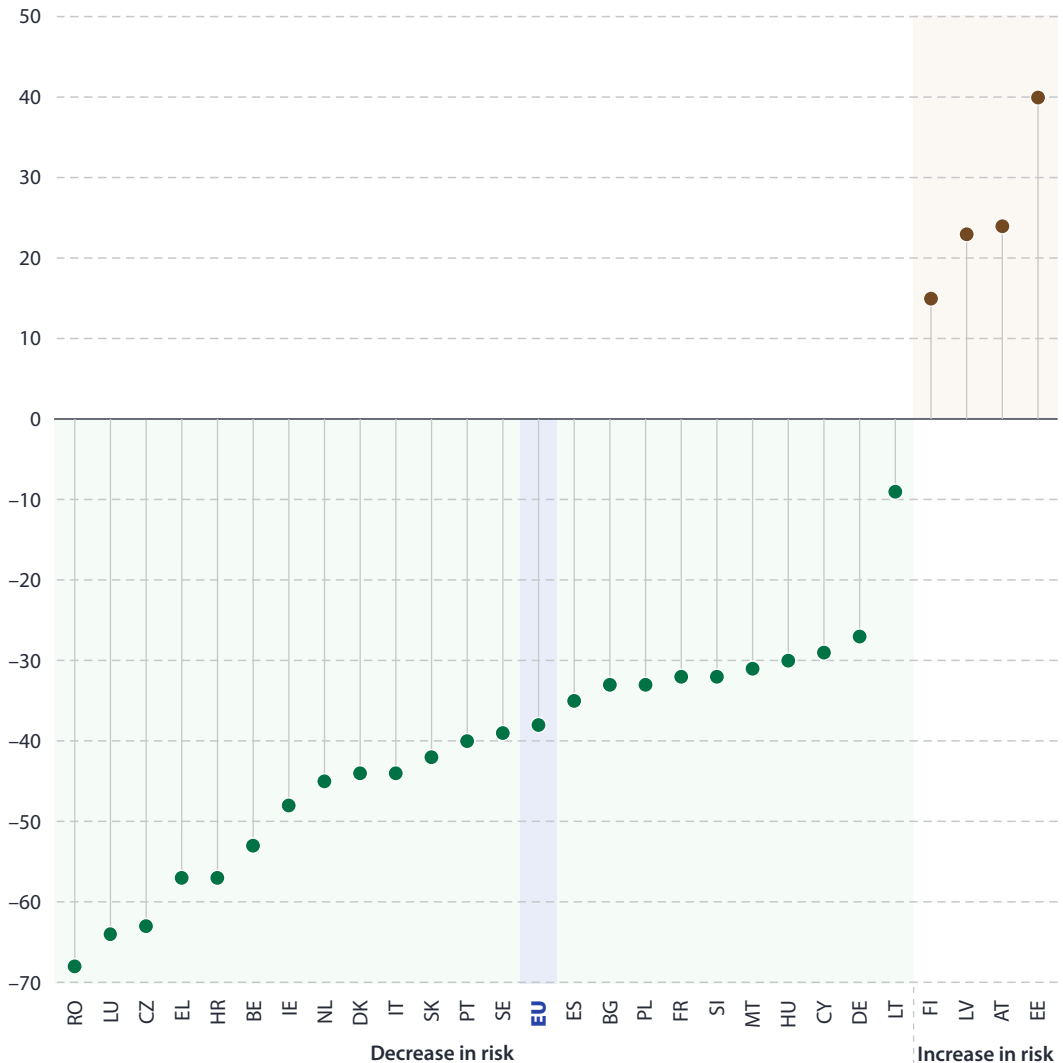
country of origin for 29.2 % of all fertilisers imported by the EU. Belarus, which is also subject to sanctions from the EU, provided 7.6 % of the EU's imports of fertilisers in 2021, while Ukraine's contribution was 3.9 %.

A year later, the share of EU fertiliser imports originating from all three of these countries had fallen. Russia accounted for more than one fifth (21.4 %) of the EU's fertiliser imports in 2022, with much lower shares for Ukraine (1.5 %) and Belarus (1.3 %). There was a particularly sharp decline between 2021 and 2022 in the share of imports of potassium-based fertilisers originating from Belarus and Russia.



Overall change in the risk from pesticide use

(%, 2021 compared with average for 2011–2013)



The types of active substances used in [pesticides](#) are changing, so the quantity of sales alone is not indicative of the potential hazards associated with the use of pesticides. [Harmonised Risk Indicator 1](#) includes estimates of the risk from pesticide use based on the active substances content.

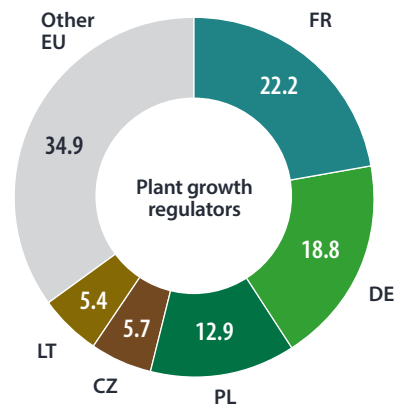
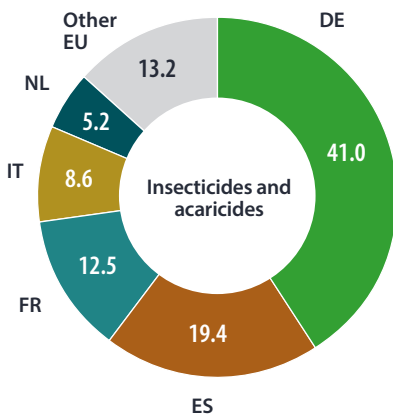
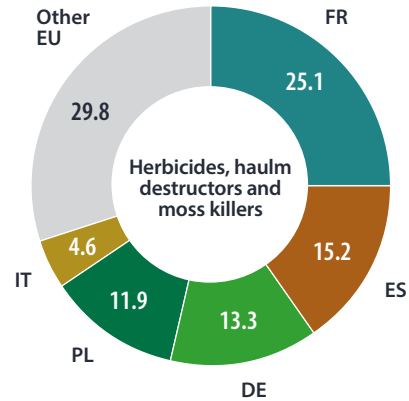
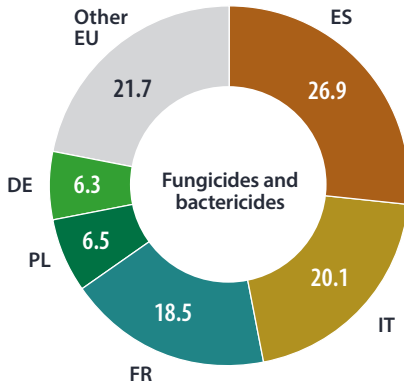
The risk from pesticide use in the EU was 38 % lower in 2021 compared with the average for 2011–2013 (note this indicator covers all sectors of the economy, not just sales to agriculture). During this period, the risk from pesticide use declined in a majority of EU Member States. The largest decrease was in Romania, down 68 %. The risk rose in Finland, Latvia, Austria and Estonia. Note that such increases may occur for countries starting from a baseline much lower than the EU average.

Note: more information on harmonised risk indicators is available from the European Commission's website.

Source: Eurostat
(online data code: [aei_hri](#))

Share of Member States in EU pesticide sales

(%, 2021)



Around 356 000 tonnes of pesticides were sold across the EU in 2021; this figure was broadly in line with the level of sales a year before.

The EU Member States making the greatest use of pesticides varied depending on the type: Germany used the most insecticides and acaricides (41.0 % of the EU total), Spain the most fungicides and bactericides (26.9 %), and France the most herbicides, haulm destructors and moss killers (25.1 %) and plant growth regulators (22.2 %).

Note: EU totals (used to calculate the shares) include 2020 data for EE and MT for insecticides and acaricides and exclude LU for fungicides and bactericides as well as for insecticides and acaricides. Due to rounding, not all shares sum to 100.0 %.

Source: Eurostat
(online data code: [aei_fm_salpest09](#))



For more information on the [consumption of pesticides](#) please refer to the Statistics Explained article.

Greenhouse gas emissions

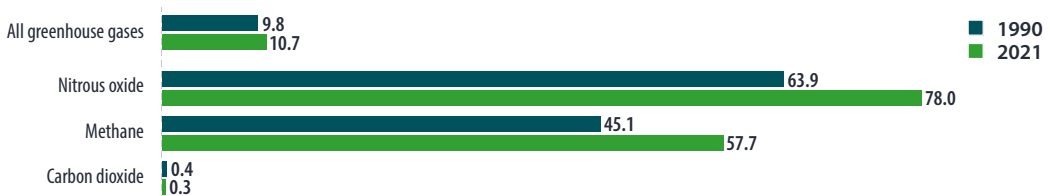
Share of agriculture in greenhouse gas emissions

(% based on tonnes of CO₂ equivalents, EU, 1990 and 2021)

In 2021, agricultural processes in the EU produced 378 million tonnes of CO₂-equivalents of greenhouse gases. Although emissions from agriculture fell by more than one fifth (down 21.9 % between 1990 and 2021), agriculture's share of all greenhouse gas emissions increased from 9.8 % in 1990 to 10.7 % by 2021.

Almost half of the overall decrease in the quantity of agricultural greenhouse gas emissions took place between 1990 and 1992 and the rest between 1992 and 2010. After this date, agricultural emission levels increased at a modest rate, up 0.6 % between 2010 and 2021.

By far the largest greenhouse gas emissions from agriculture were methane and nitrous oxide. Agriculture was the largest source of emissions of these gases: in 2021, agriculture accounted for 57.7 % of methane emissions in the EU and 78.0 % of nitrous oxide emissions. Both of these shares increased during the last three decades.

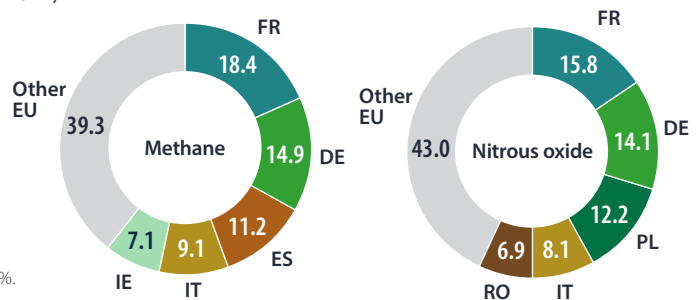


Source: Eurostat (online data code: [env_air_gge](#))

Share of Member States in EU emissions from agriculture

(% based on tonnes of CO₂ equivalents, 2021)

Among the EU Member States, France recorded the highest level of methane and nitrous oxide emissions from agriculture (18.4 % and 15.8 %, respectively, of the EU total) in 2021, followed by Germany.



Note: due to rounding, the shares do not sum to 100.0 %.

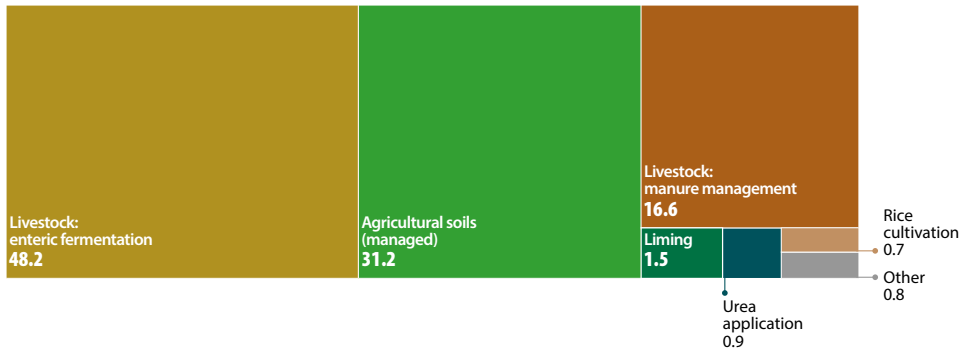
Source: Eurostat (online data code: [env_air_gge](#))



There are three main greenhouse gases in relation to agricultural processes: carbon dioxide (CO₂), methane (CH₄) and nitrous oxide (N₂O). To be able to compare and combine the emissions of these different gases, each gas is expressed in tonnes of CO₂-equivalents, a unit based on the global warming potential of each gas relative to that of carbon dioxide. For example, methane is 25 times more potent as a greenhouse gas than carbon dioxide.

Structure of agricultural greenhouse gas emissions

(% based on tonnes of CO₂ equivalents, EU, 2021)



Enteric fermentation, in other words the fermentation of feed during the digestive processes of animals, is a main source of methane emissions. Agricultural soils are a main source of emissions of carbon dioxide, methane and nitrous oxide; they can also be a sink, storing greenhouse gases. Emissions from [manure](#) management are around two-thirds methane and one-third nitrous oxide.

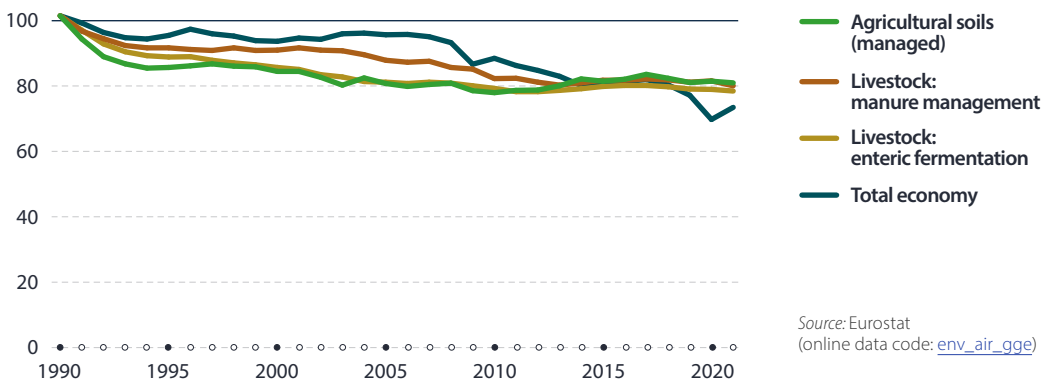
Note: liming is the application of calcium- and magnesium-rich materials to soils.

Source: Eurostat (online data code: [env_air_gge](#))

Emissions from enteric fermentation made up almost half (48.2 %) of all greenhouse gas emissions from agriculture within the EU in 2021, while the share for managed agricultural soils was close to one third (31.2 %); the third largest contributor to agricultural greenhouse gas emissions was manure management (16.6 %).

Developments in greenhouse gas emissions

(1990 = 100, based on tonnes of CO₂ equivalents, EU, 1990–2021)



Source: Eurostat (online data code: [env_air_gge](#))

Between 1990 and 2021, there was a fall in EU greenhouse gas emissions for each of the three main greenhouse gas emitting agricultural processes. Such emissions fell overall 20.5 % from managed agricultural soils, 21.4 % from manure management and 23.0 % from enteric fermentation. These figures may be placed in context if compared against the 28.0 % reduction in greenhouse gas emissions from all sources observed across the whole EU economy during the same period.

For more information on [greenhouse gas emissions by source sector](#), please refer to the [Statistics Explained](#) article.



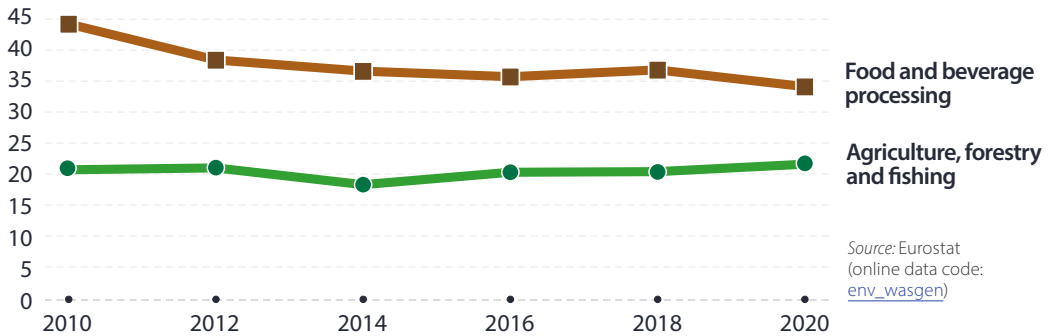
Waste

For more information on [food waste statistics](#), please refer to the Statistics Explained article.



Developments of waste generation from productive activities

(million tonnes, EU, 2010–2020)



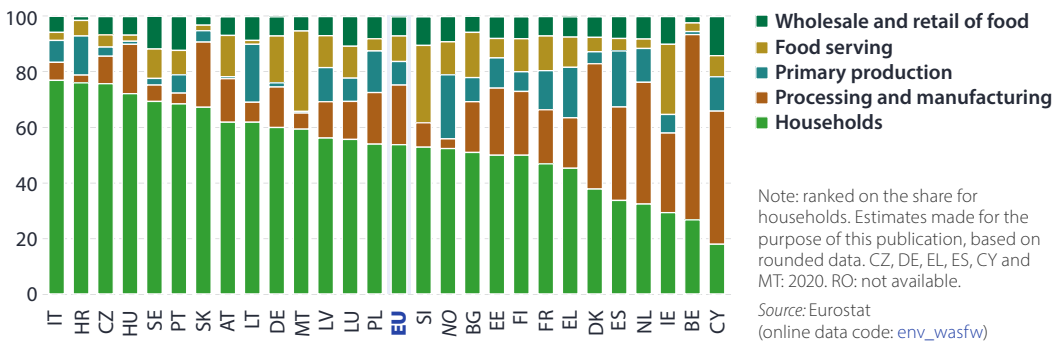
Reducing food loss and [waste](#) is an integral part of the [Farm to Fork Strategy action plan](#).

Agriculture, forestry and fishing as well as the processing of food, beverage and tobacco (hereafter referred to as F&B processing) generated 55.3 million tonnes of waste across the EU in 2020. Together

these activities accounted for 2.8 % of all waste from productive activities. EU waste generated by F&B processing fell by almost one quarter (down 22.9 % overall) between 2010 and 2020. The level of waste from agriculture, forestry and fishing was relatively stable, other than a short-lived contraction in 2014; it increased overall by 3.9 % between 2010 and 2020.

Food waste

(%, 2021)



Focusing specifically on food waste, an indicative average of 131 kilograms of fresh mass was collected per person within the EU in 2021; just over half of this quantity was from households. The main productive activity from which food waste was collected was the processing and manufacturing of food and beverages, with a share of just over one fifth of the total.

In the vast majority of EU Member States, most of the food waste collected in 2021 came from households; shares around three quarters were recorded in Italy, Croatia and Czechia. In Belgium, Cyprus (2020 data), Denmark and the Netherlands, processing and manufacturing accounted for a higher share (than households) of food waste.

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KEY FIGURES ON

THE EUROPEAN FOOD CHAIN

2023 EDITION

Key figures on the European food chain presents a selection of indicators on the food chain, from primary production in agriculture and fisheries through to consumption. Data are presented for the European Union (EU), its individual Member States and European Free Trade Agreement (EFTA) countries.

This publication may be viewed as an introduction to agriculture, fisheries and food chain statistics. It provides a starting point for those who wish to explore the wide range of data that are freely available on Eurostat's website at <https://ec.europa.eu/eurostat/> together with a range of online articles in *Statistics Explained*, some of which may be accessed through QR codes.



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