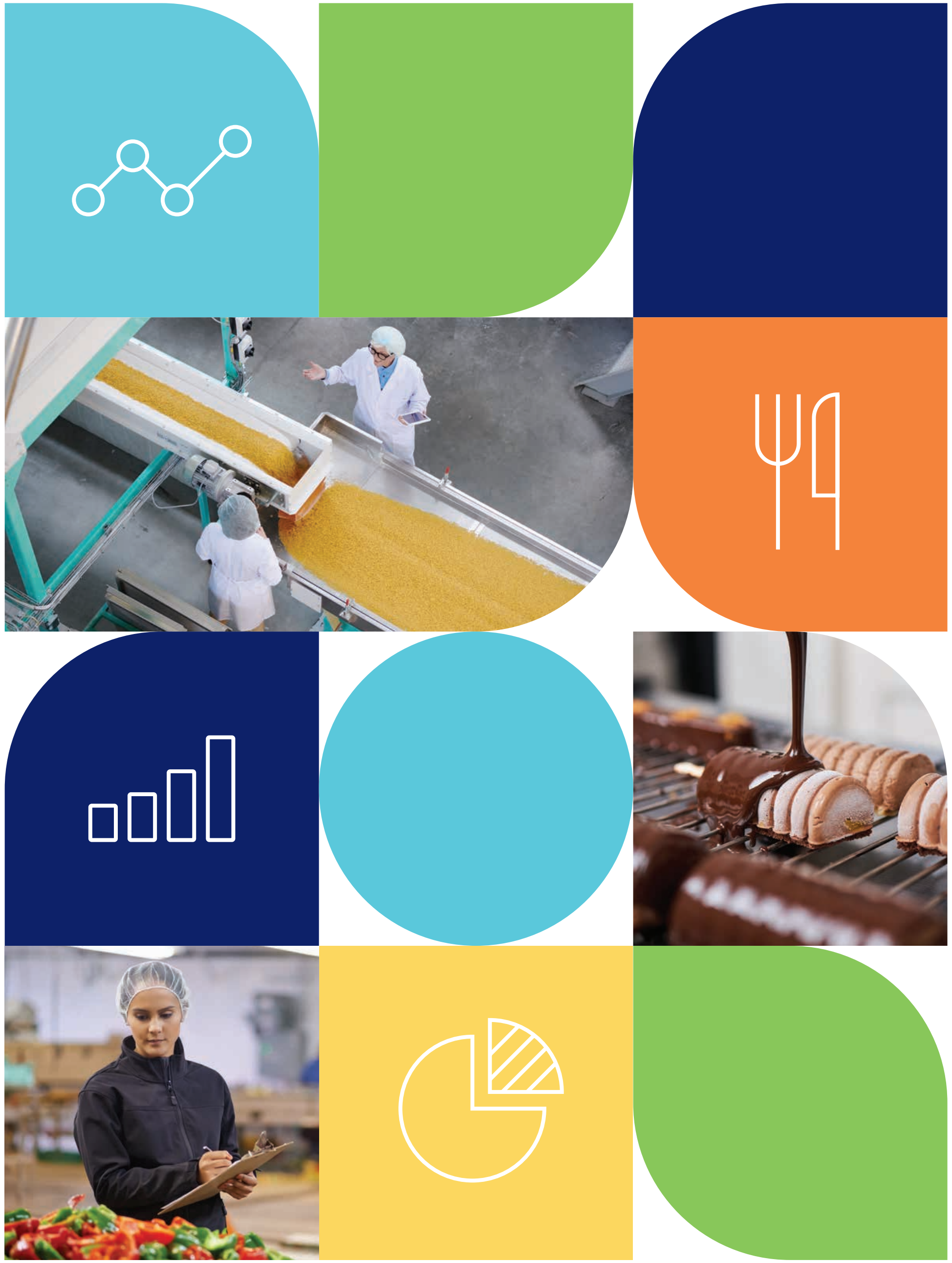
2022 Edition

Data & Trends
EU Food and Drink Industry



FOODDRINK EUROPE

EU Food and Drink Industry Figures

Turnover
€1,121 billion
Leading manufacturing sector in the EU

Value added
1.9%
of EU gross value added

Consumption
21.5%
of household expenditure on food and drink products

Employment
4.6 million people
Leading employer in the EU

Number of companies
294,000

R&D expenditure
€1.9 billion

Sales within the Single Market
87%
of food and drink turnover

Small and medium-sized companies
39.4%
of food and drink turnover

57.7%
of food and drink employment

External trade
€156 billion
Exports

€83 billion
Imports

€73 billion
Trade balance

#1
exporter of food and drinks

Sources: Eurostat; Joint Research Centre; UN COMTRADE

Contents

Introduction

The 2022 edition of the 'Data & Trends of the EU Food and Drink Industry' report offers a comprehensive picture of the structure and economics of Europe's food and drink sector, one of the largest manufacturing industries in the EU in terms of turnover, value added and employment.

The report provides in-depth analysis of the Single Market, world markets, and a global ranking of food and drink companies. Most of the data related to the structure of the food and drink sector date back to 2019, 2020, and 2021 for trade figures. To grasp the impact of the Covid-19 pandemic on the sector, refer to FoodDrinkEurope's Quarterly Economic Bulletins, including bulletins on Input Costs.

This report covers the EU27 food and drink industry, which is identified by the NACE Rev2 codes C10 (food products) and C11 (drinks).

All figures presented here come from official sources and have been elaborated by FoodDrinkEurope.

Contribution to the EU Economy

A leading manufacturing sector in terms of turnover, value added and investment

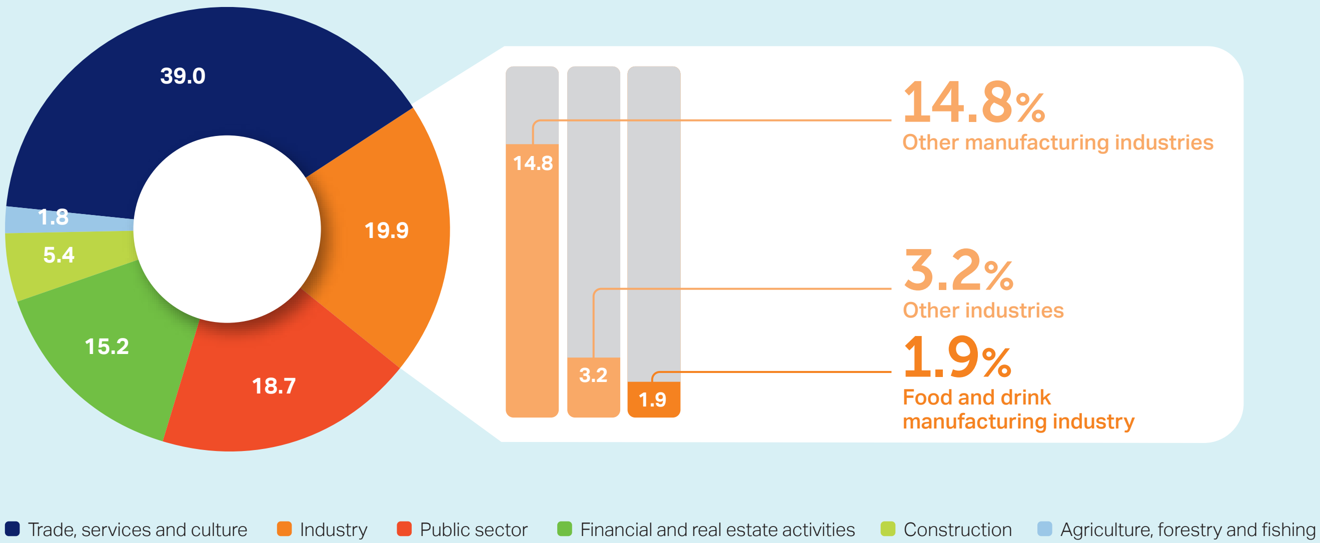
1.9%
Contribution of the food and drink industry to the EU gross value added

14.3%
Share of food and drink turnover in the EU manufacturing industry

9.2%
Share of food and drink value added in the EU manufacturing industry

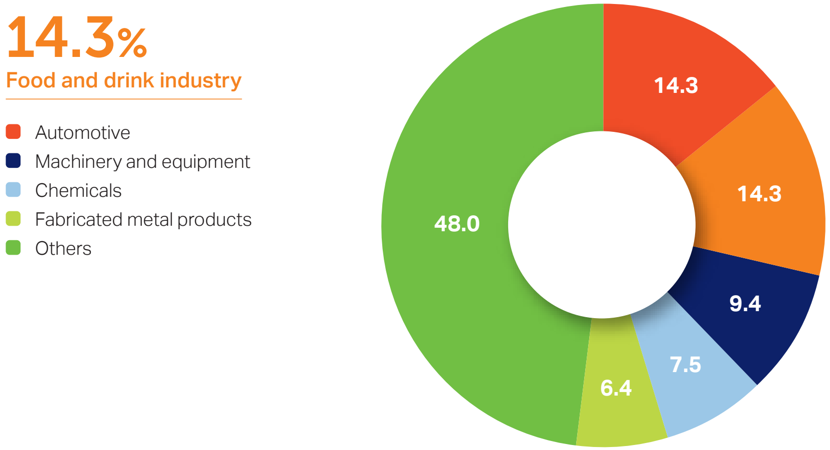
- The food and drink industry is a prominent contributor to the European economy, along with the automotive and machinery and equipment industries.
- In 2019, the EU food and drink industry generated a turnover of €1,121 billion and a value added of €230 billion.
- With €43 billion invested in 2019, the food and drink industry is the manufacturing sector with the highest capital spending.
- The industry maintains the characteristics of a stable, resilient and robust sector.

Contribution of the food and drink industry to the EU economy
(2019, %)



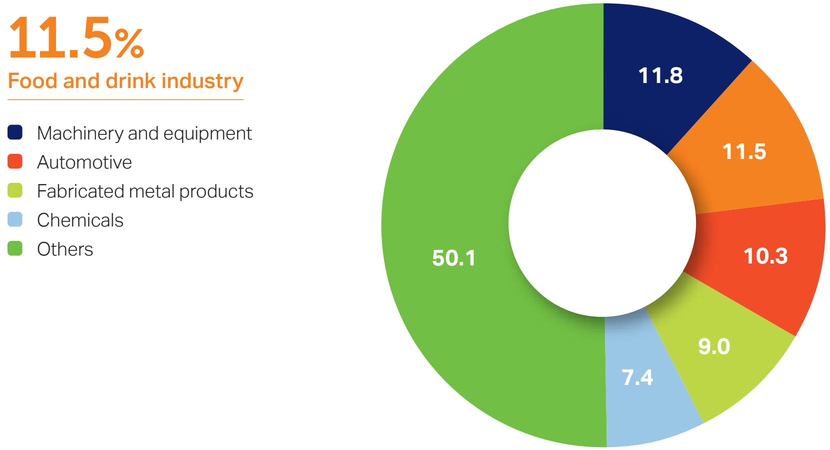
Source: Eurostat (National Accounts)

Turnover in the EU manufacturing industry (2019, %)



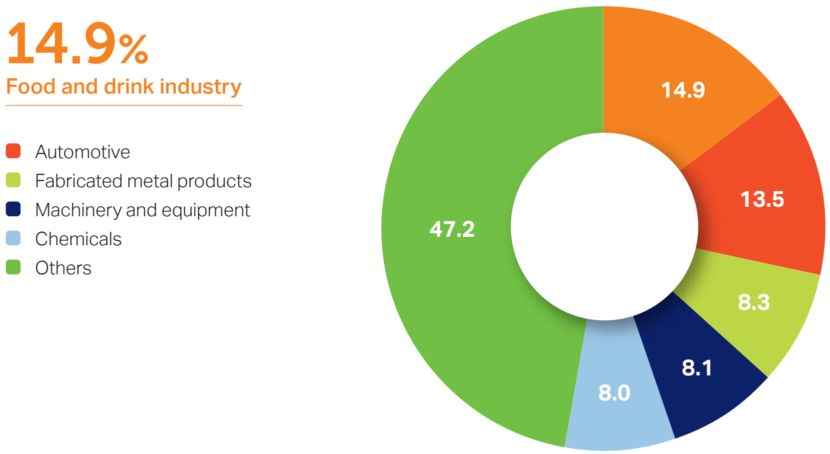
Source: Eurostat (SBS)

Value added in the EU manufacturing industry (2019, %)



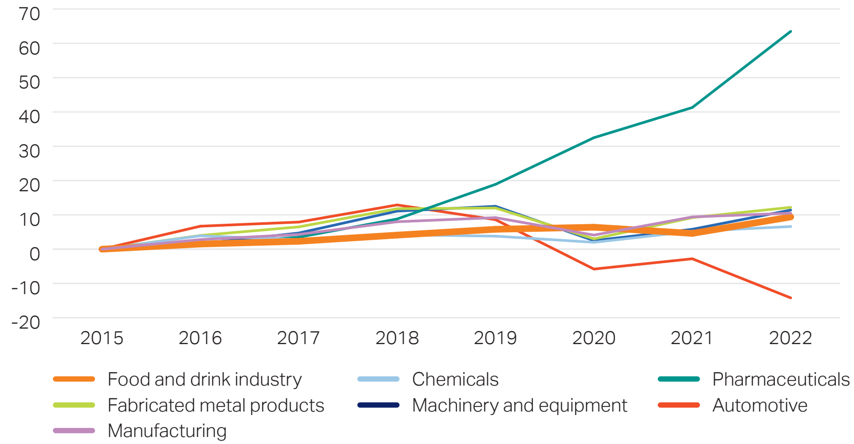
Source: Eurostat (SBS)

Investment in the EU manufacturing industry (2019, %)



Source: Eurostat (SBS)

Volume of production in the EU manufacturing industry (% change relative to the first quarter of 2015)



Source: Eurostat (STS)

Employment

Leading employer in the EU

4.62 million

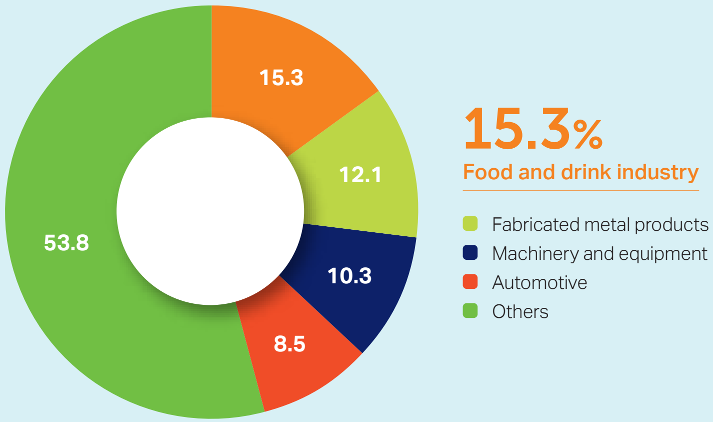
Total number of persons employed in the European food and drink industry

€110 billion

Wages and salaries paid by the European food and drink industry

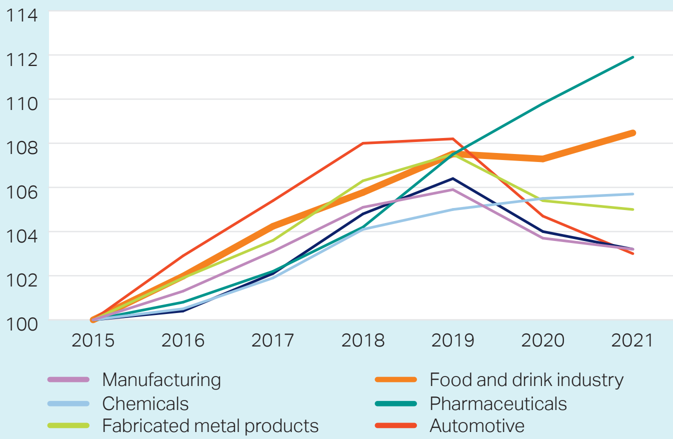
- Compared to other manufacturing sectors, the EU food and drink industry is a key job provider and a stable employer.
- On average, labour productivity in the food and drink industry is lower than in the manufacturing sector as a whole.
- A food and drink company employs on average 16 persons, i.e. 1 more than the average manufacturing company.

Employment in the EU manufacturing industry
(2019, %)



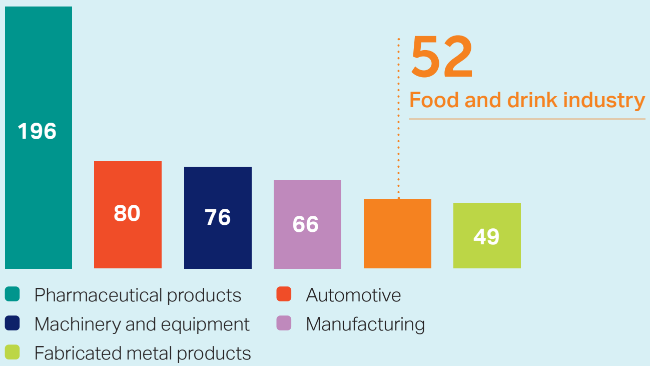
Source: Eurostat (SBS)

Employment in the EU manufacturing industry
(index, 2015=100)



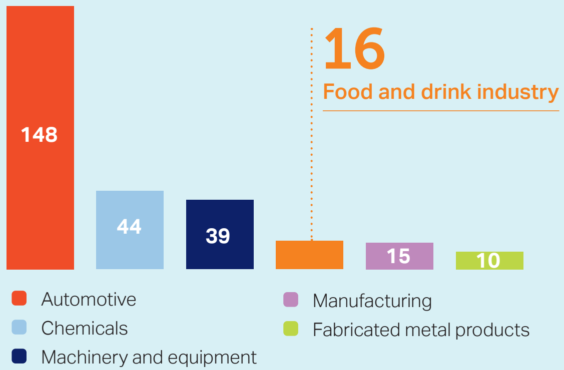
Source: Eurostat (STS)

Labour productivity in the EU manufacturing industry
(2019, €1,000/person)



Source: Eurostat (SBS)

Average number of persons employed per company in the EU (2019)

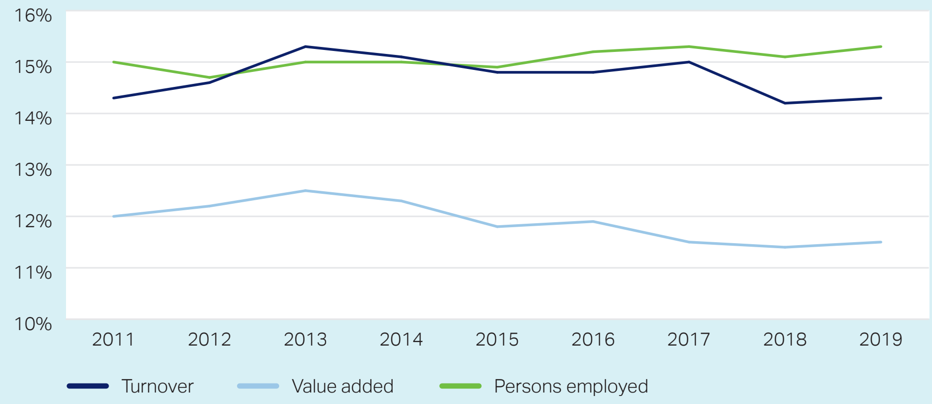


Source: Eurostat (SBS)

Trends in Turnover, Value-added, Employment and Production

- While the turnover and employment share in manufacturing remained relatively stable over the period 2011-2019, the share of food and drink value added in manufacturing decreased from 12.5% in 2013 to 11.5% in 2019.
- The contribution of the food and drink industry to manufacturing employment is higher than its contribution to manufacturing value added, i.e. labour productivity is below the manufacturing industry average.
- EU food and drink industry production has a more uniform development than manufacturing as a whole. The decline in 2020 reflects the fall in demand linked to the closure of food and drink services due to the COVID-19 pandemic.
- Employment in the food sector is stable, whereas the drink sector's employment follows the manufacturing trend.

Share of food and drink industry's turnover, value added and employment in the manufacturing industry, 2011-2019 (%)

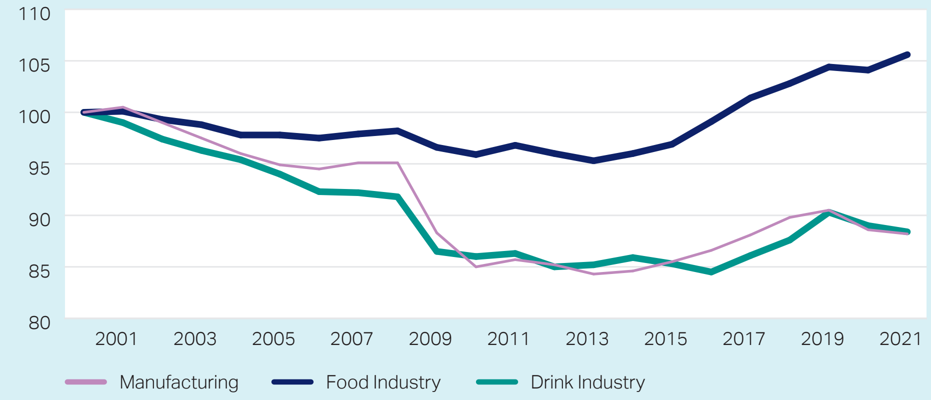


Source: Eurostat (SBS) and estimates

Volume of production in the food and drink industry and manufacturing industry (index, 2000 = 100)

Source: Eurostat (STS)

Employment in the food, drink, and manufacturing industry (index, 2000 = 100)



Source: Eurostat (STS)

Sectors at EU Level

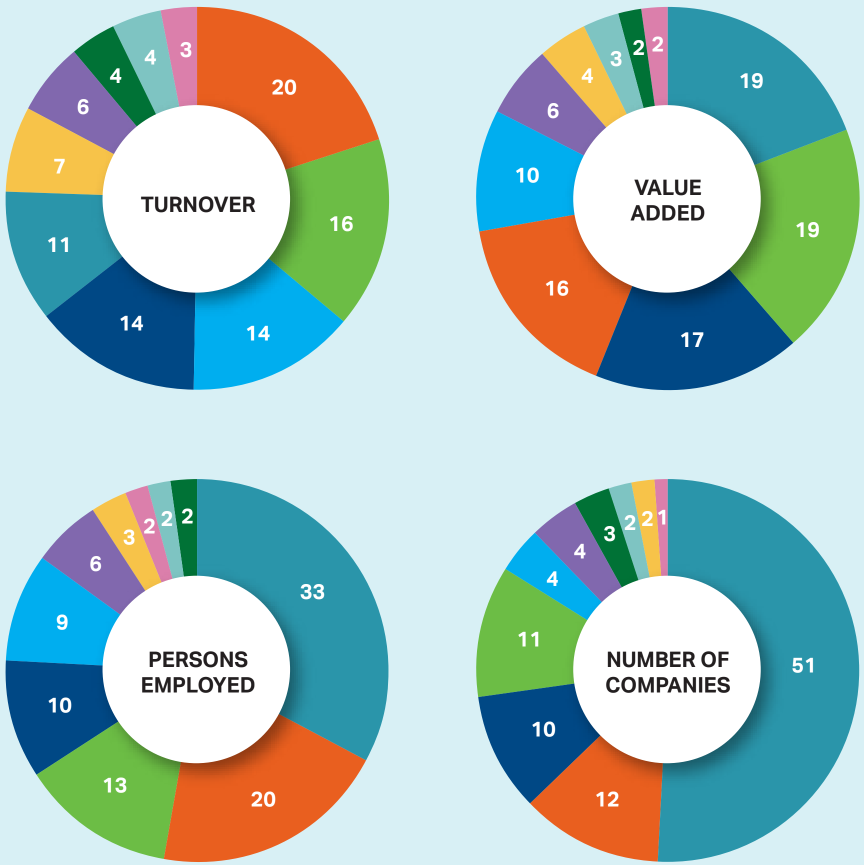
Offering a wide variety of food and drinks to consumers

20%
Share of the food and drink industry's turnover attributed to the meat sector

33%
Share of the food and drink industry's employment attributed to the bakery and farinaceous sector

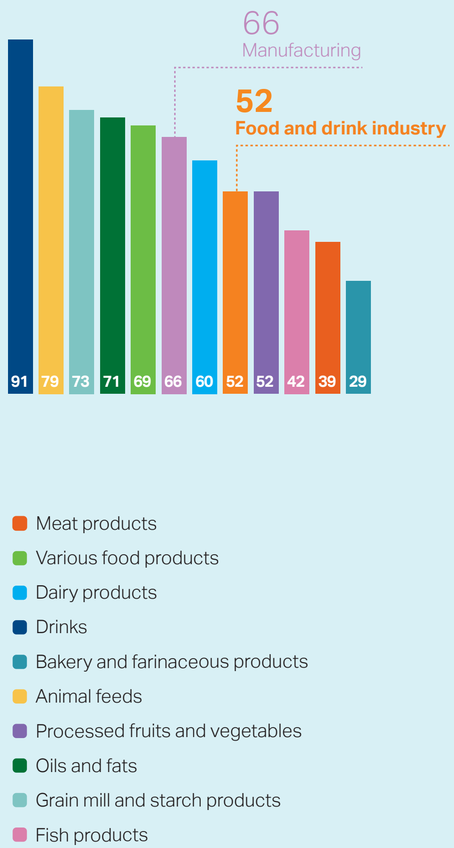
- The EU food and drink industry is diverse, with a variety of sectors ranging from fruit and vegetable processing to dairy production and drinks.
- The top 5 sub-sectors (bakery and farinaceous products, meat products, dairy products, drinks and the "various food products" category) represent three quarters of the total turnover and more than 85% of the total number of companies and employed persons.
- Labour productivity varies by sub-sector. Drinks and animal feeds register the highest value in the food and drink sector.

Turnover, value added, persons employed and number of companies in food and drink industry sectors (2019, %)



Source: Eurostat (SBS)

Labour productivity
(2019, €1,000/person)



Small and Medium-sized Enterprises

Small scale, big impact

€442 billion
Turnover

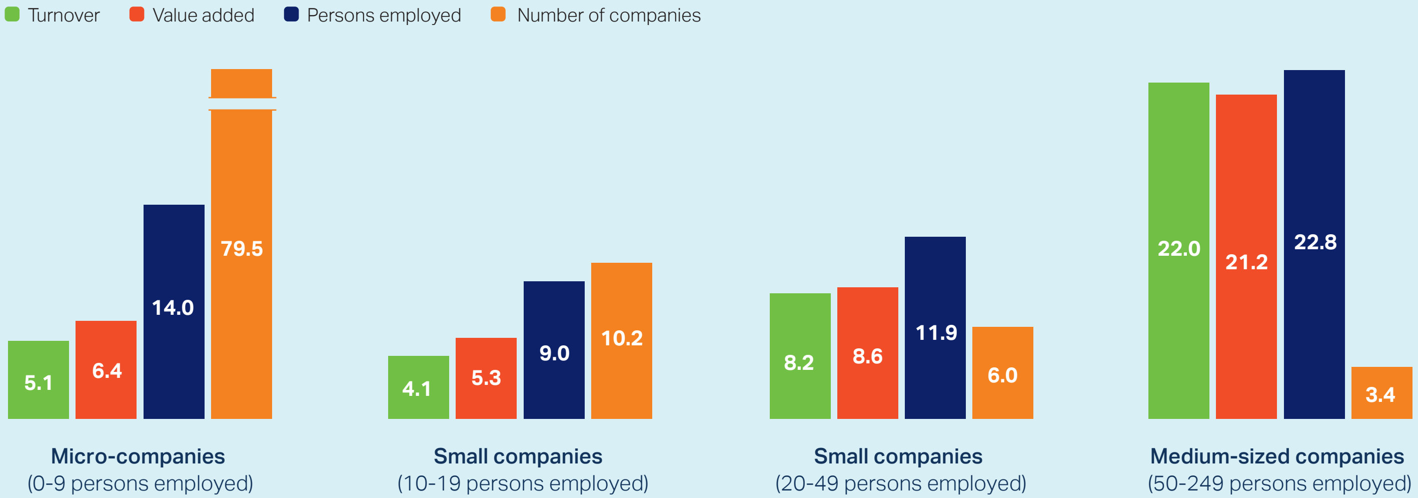
€95 billion
Value added

2.7 million
Persons employed

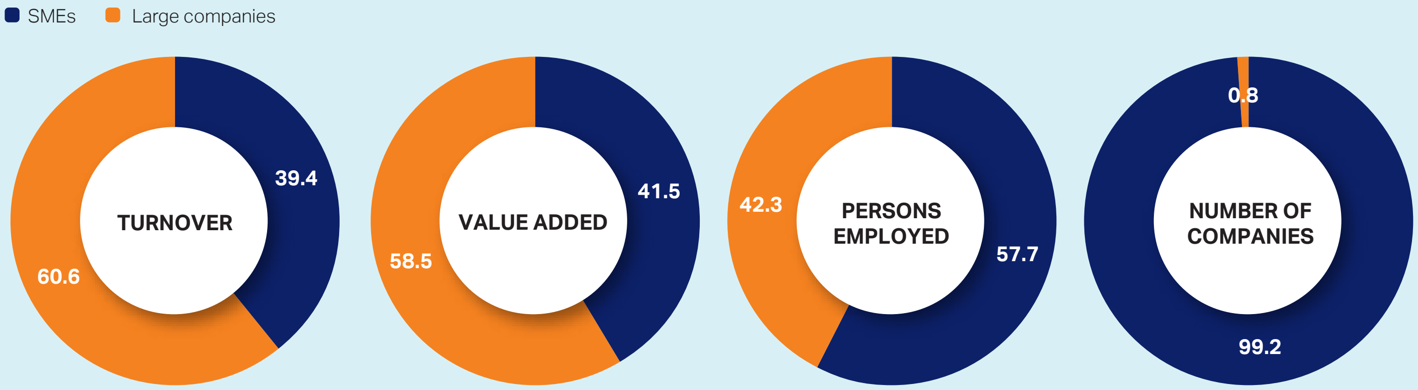
99.2%
of food and drink companies

- The food and drink industry is a highly diversified sector with many companies of different sizes.
- SMEs generate 40% of the food and drink industry turnover and value added and provide more than half of jobs in the sector.
- The food and drink industry accounts for over 290,000 SMEs.

SMEs in the food and drink industry (2019, % by company size)



Contribution of SMEs and large companies to the EU food and drink industry (2019, %)



Source: Eurostat (SBS)

The National Picture

A key industry in the economies of the EU Member States

#1 employer

The food and drink industry is the biggest employer in manufacturing in nearly half of the Member States

62%

Share of turnover of the EU's 4 largest food and drink producers

- The food and drink industry ranks among the top three manufacturing industries in terms of turnover and employment in most Member States.
- France, Germany, Italy and Spain are the largest EU food and drink producers by turnover.

Food and drink industry data by Member State[1] (2020)

	Employment ranking in manufacturing	Turnover (€ billion)	Value added (€ billion)	Number of employees (1,000)	Number of companies
Austria	2	25.7	-	87.2	3,883
Belgium[2]	1	52.4	8.6	83.4	7,387
Bulgaria	1	6.6	-	89.5	5,924
Croatia	1	4.7	-	58.7	3,260
Czech Republic	4	15.1	-	116.1	11,516
Denmark	2	28.6	4.3	58.5	1,602
Estonia	2	2.2	-	14.6	812
Finland	3	11.1	2.9	40.2	1,761
France[3]	1	212.2	47.1	582.2	54,899
Germany[4]	4	185	44	614	6,163
Greece[5]	1	16	3.4	133	16,243
Hungary	2	12.6	-	85.3	4,097
Ireland	1	26.9	7.6	54.7	2,047
Italy	2	143.8	30.8	472	56,750
Luxembourg	1	0.9	-	5.4	134
Netherlands	1	74.7	14.4	140.1	7,825
Poland	1	68.4	11.6	448.9	18,911
Portugal	1	16.5	3.1	108.8	10,850
Romania	2	13.2	7.6	175.5	10,907
Slovakia	3	4.9	-	42.5	4,889
Slovenia	3	2.2	0.6	14.5	772
Spain	1	127.5	-	465.4	29,366
Sweden	4	19.1	4.5	49	4,983

[1] As published by FoodDrinkEurope National Federations or by Eurostat (SBS)
[2] Value added includes tobacco
[3] Most data from 2019
[4] Data for companies with more than 20 employees
[5] All data from 2019; small food and drink producers and family businesses included in the number of companies
No data available for Cyprus, Latvia, Lithuania and Malta

Bioeconomy

The food and drink industry: a main contributor to the bioeconomy

4.7%
Contribution of the bioeconomy to the EU gross value added

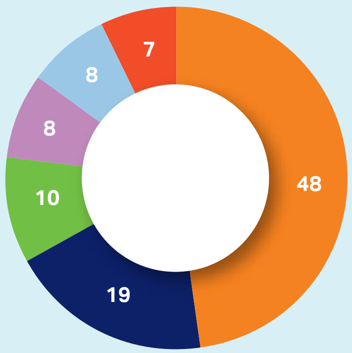
8.3%
Share of the bioeconomy in European labour force

- The EU bioeconomy generated a turnover of €2.3 trillion and a value added of €657 billion in 2019. The food and drink industry contributes to roughly half and one-third respectively.
- In 2019, the bioeconomy employed 17.5 million people in the EU, of which one quarter was in the food and drink industry.
- During the last decade, the value added of the EU bioeconomy and the value added of the food and drink industry contribution have increased.

Turnover in the EU bioeconomy (2019, %)

48%
Food and drink industry

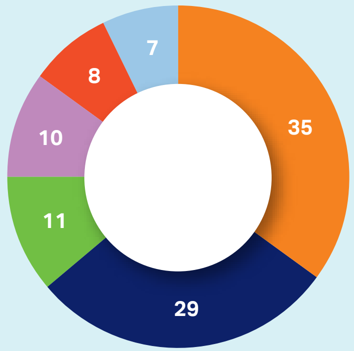
- Agriculture
- Others
- Bio-based chemicals and pharmaceuticals, plastics and rubber
- Paper
- Wood products and furniture



Value added in the EU bioeconomy (2019, %)

35%
Food and drink industry

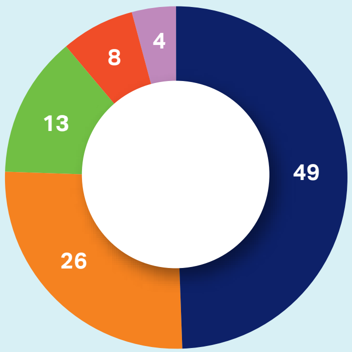
- Agriculture
- Others
- Bio-based chemicals and pharmaceuticals, plastics and rubber
- Wood products and furniture
- Paper



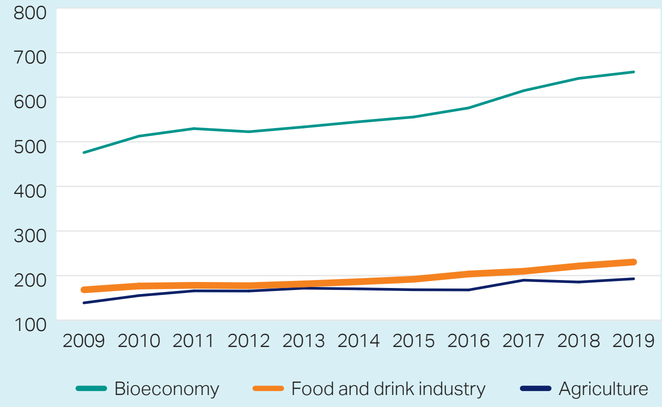
Employment in the EU bioeconomy (2019, %)

26%
Food and drink industry

- Agriculture
- Others
- Wood products and furniture
- Bio-based textiles



Value added of EU bioeconomy (billion €)



Source: Joint Research Centre

Food Supply Chain

Diverse economic operators with specific business models

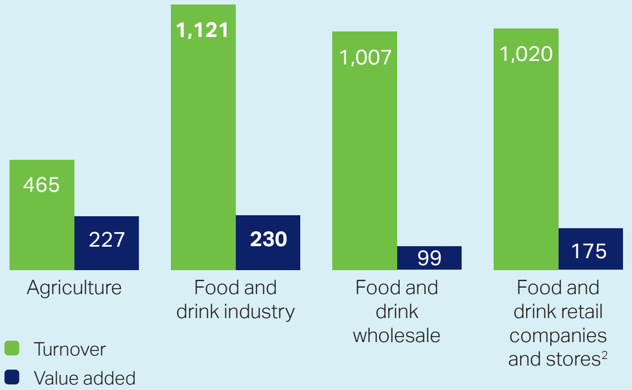
5.8%
Share of the food supply chain in EU gross value added

11.1%
Share of the food supply chain in EU employment

- The food supply chain employs 21.5 million people.
- The total turnover amounts to €3.6 trillion and the value added to €731 billion.
- The EU extensive food supply chain, from agriculture and the input industry to food and drink services, employs 30.7 million workers.

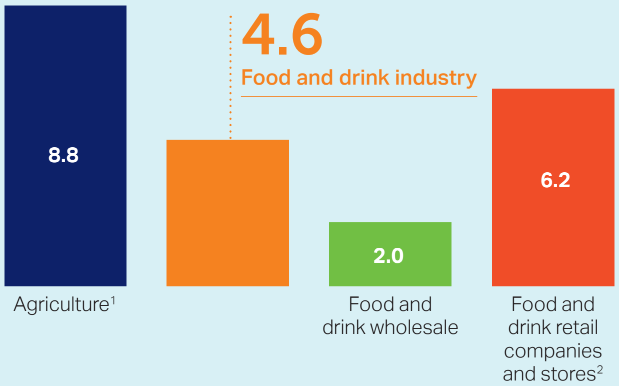
1 2016
2 Specialised and non-specialised stores with food and drinks predominating
3 2017 data for fertilisers and pesticides industry

Turnover and value added in the EU food supply chain
(2019, € billion)

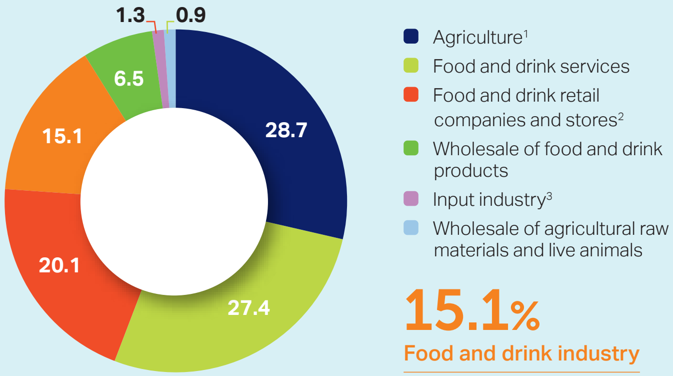


Number of companies in the EU food supply chain
(2019, 1,000 units)

Persons employed in the EU food supply chain
(2019, million)



Employment in the extensive EU food supply chain
(2019, %)



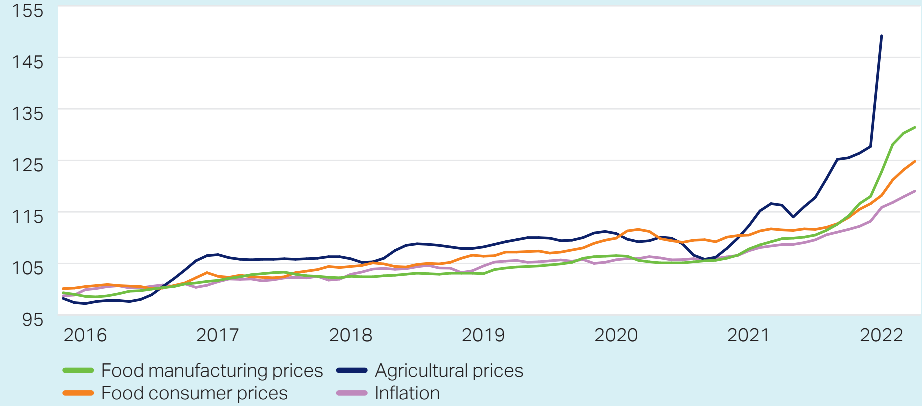
Source: Eurostat (Agriculture, National Accounts, SBS)

Price and Input Cost Developments in the EU Food Supply Chain

A challenging period of inflation and market uncertainty

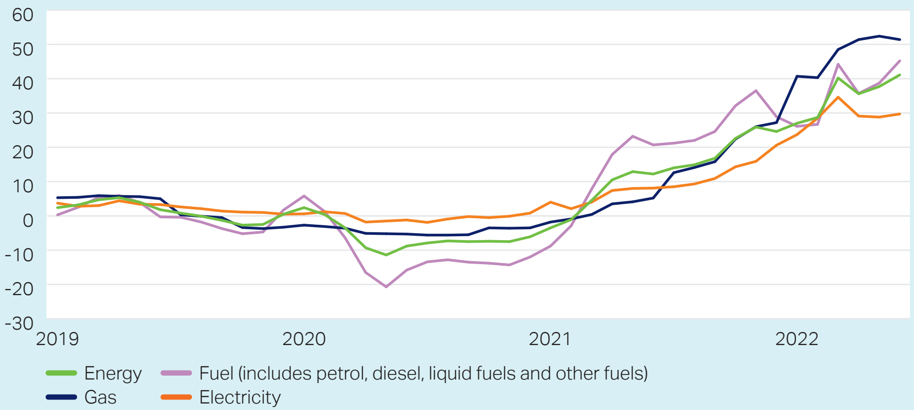
- In January 2022, prices in the EU food supply chain were significantly up compared to the same month in 2021: agricultural prices (+17%), food manufacturing prices (+15%), general inflation (+6%) and food consumer prices (+5%).
- Energy annual inflation reached 27% in January 2022. The sub-components such as gas reached 41%, ahead of other energy sources - fuel (including petrol, diesel, liquid fuels and other fuels) at +26% and electricity at +24% - all of which continued trending upwards in subsequent months.
- Packaging prices increased substantially over the same period. Wooden containers +38%, pulp, paper and paperboard +40%, primary plastics +38%, plastic packaging and light metal packaging +16%.

Price developments in the EU food supply chain
(index, 2015 = 100)



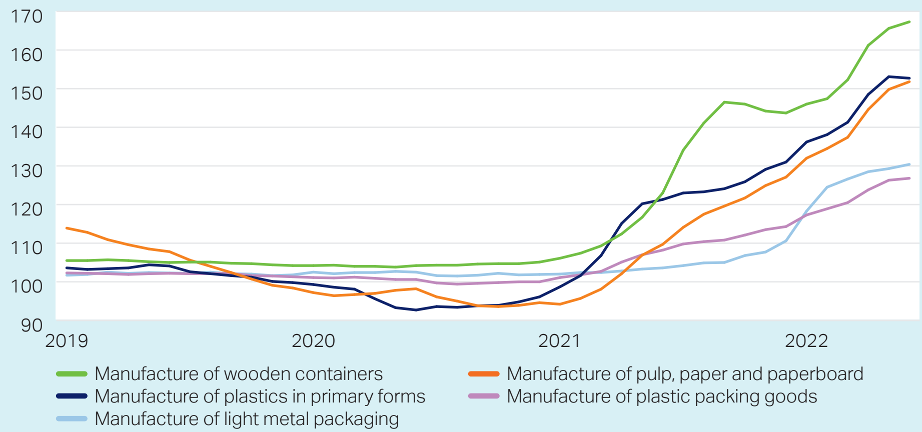
Source: Eurostat (Prices); DG Agriculture and Rural Development

Evolution of energy prices in the EU, January 2019 - June 2022
(% annual rate of change)



Source: Eurostat

Producer prices for different types of packaging, January 2019 - June 2022
(index, 2015=100)



Source: Eurostat (STS)

Consumption

Food and drinks[1]: the second largest household expenditure

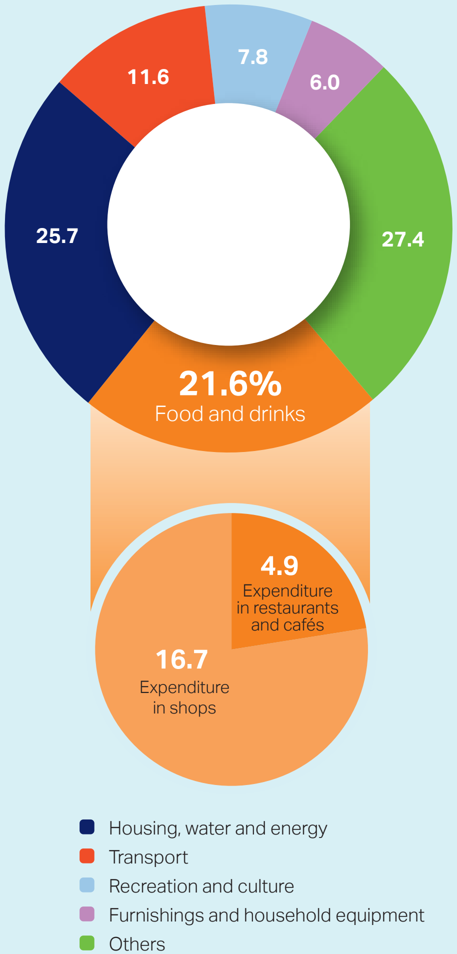
€1,461bn
EU household expenditure on food and drinks

21.6%
Average share of EU household expenditure on food and drinks

- In 2020, EU consumers spent €1,461 billion, or 21.6% of their budget, on food and drinks, either purchased in shops or consumed in restaurants and cafés.
- Out-of-home consumption represents less than a quarter of consumer spending on food and drink products. This decrease compared to previous year can be explained by the closure of food and drink services due to the COVID-19 pandemic.
- Across Member States, the share of overall household expenditure on food and drink products varied from 17% to 32% (12% to 29% when considering only food and drinks purchased in shops).

1 Either purchased in shops or consumed in restaurants and cafés

Breakdown of EU household consumption expenditure (2020, % of total expenditure)



Source: Eurostat (National Accounts)

Household consumption expenditure on food and drinks by Member State
(2020, % of total expenditure)

Source: Eurostat (National Accounts)

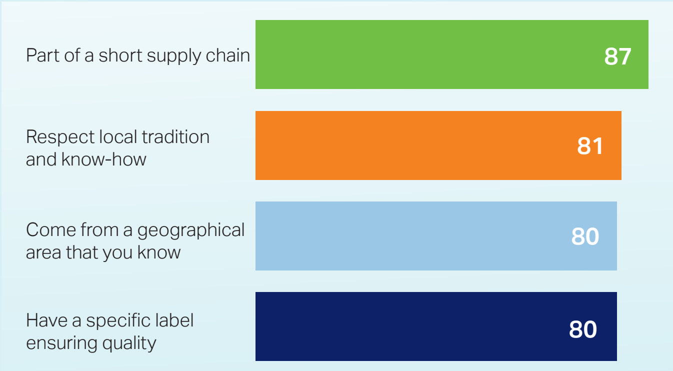
Consumer Preferences and Awareness

Public consumption preferences and knowledge of EU food quality labels

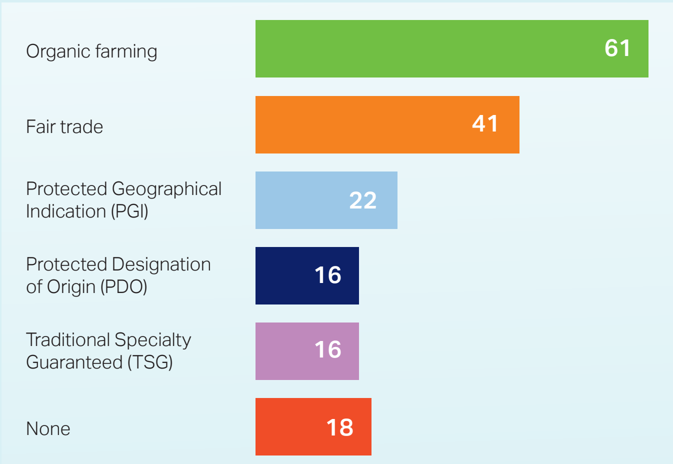
2 out of 3
Europeans are aware of the EU organic logo

- Short supply chains (87%), respect of local tradition (81%), sourcing from known areas and quality labels (80%) are important factors influencing the purchase of food products.
- 1 in 5 Europeans is aware of the Protected Designation of Origin (PDO) logo, while two-thirds recognise the organic logo.
- A majority of Europeans perceive products coming from organic agriculture are produced with better environmental practices (81%); are of better quality and taste (74%, 65%), and more expensive than other food products (92%).
- 1 out of 10 Europeans has a special dietary need: food intolerance (7%), vegan (2%), vegetarian (3%) or other types of diet (3%).

Factors influencing food product purchases (%)

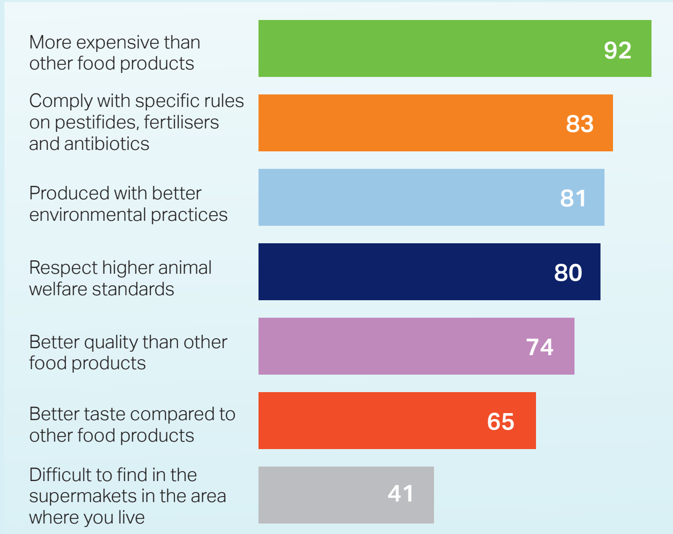


Awareness of quality label' logos (%)

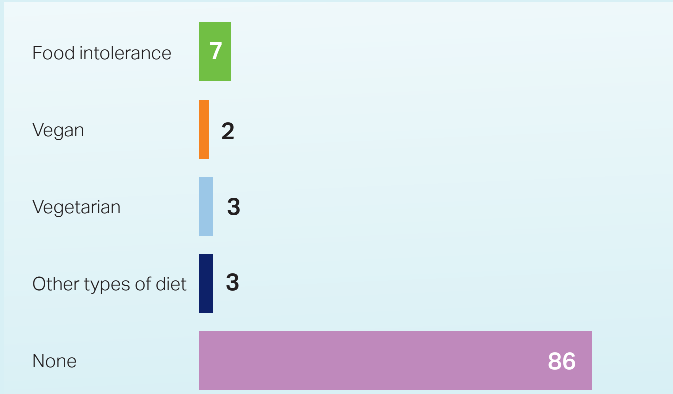


Source: Special Eurobarometer 520, European Commission, 2022

Perception of food products coming from organic agriculture (%)



Individual special dietary needs (%)



Sustainability

Delivering more sustainable food systems

5th

Rank of the food and drink industry[1] in terms of GHG emission in manufacturing

- The EU food and drink industry emits 85Mt CO_2e per year (2015). Most of these emissions are associated with energy use. From the electricity grid, 62% of energy use is consumed as heat and 38% as power.
- In the EU, an estimated 20% of total food produced each year is lost or wasted. Households generate more than half of total food waste in the EU (47 million tonnes).
- In 2020, more than 9% of the EU's agricultural area was farmed organically, 2 percentage points more than in 2016. Austria leads with 25.4% of its agricultural area farmed organically, followed by Estonia and Sweden.
- In the EU, 41% of plastic packaging waste was recycled in 2019, 8 percentage points more than in 2010. In 9 Member States, more than half of the plastic packaging waste was recycled.

[1] Including tobacco industry

The EU food and drink industry emits

85Mt CO_2e
Per year

It represents

11% of the emissions of the food supply chain

Source: Decarbonisation road map for the European food and drink manufacturing sector, Ricardo, July 2021

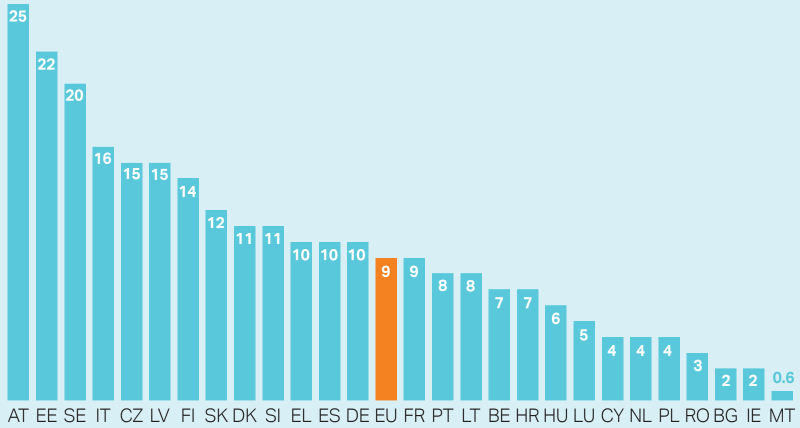
Food waste in the EU

88 million tonnes
or 173kg/person of food is wasted each year

Estimated costs:
€143 billion

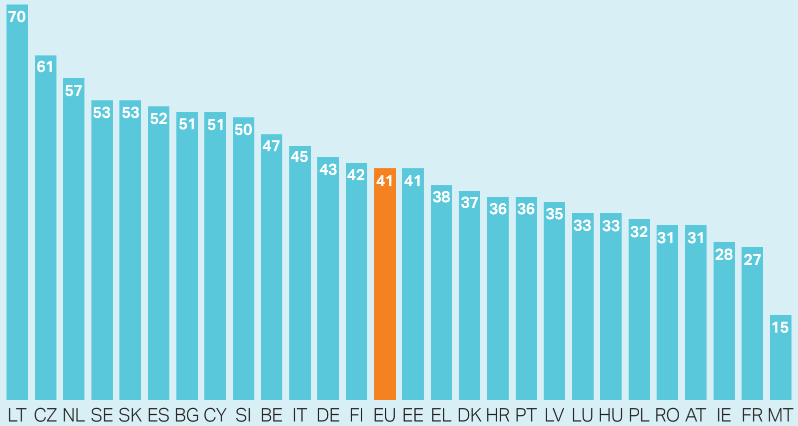
Source: European Commission

Area under organic farming by Member State
(2020, % of utilised agricultural area)



Source: Eurostat

Recycling rate of plastic packaging waste by Member State (2019, %)



Source: Eurostat

Trade Within the Single Market

The first market for EU food and drinks

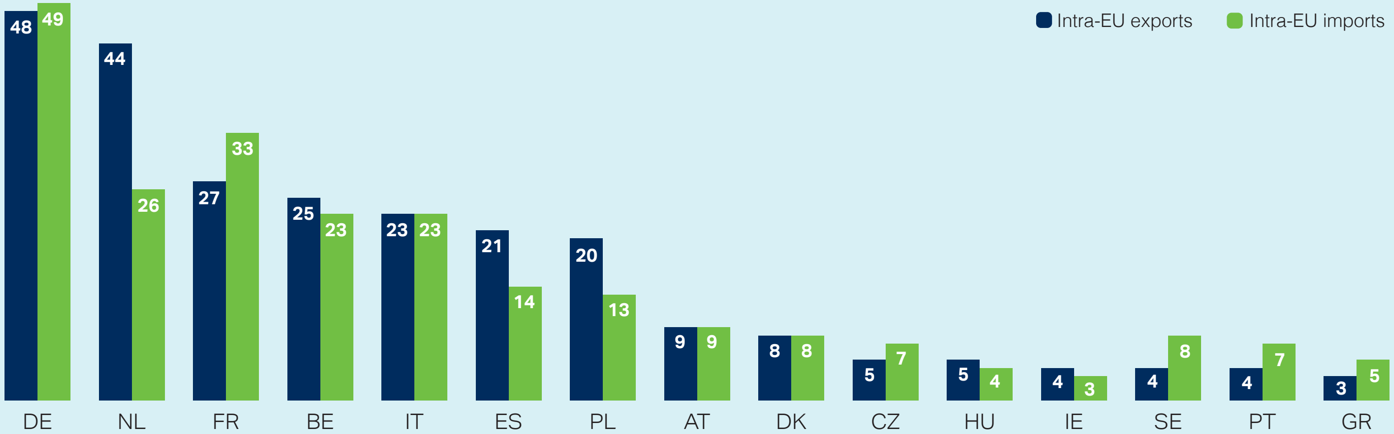
€266 billion
Intra-EU exports

€156 billion
Extra-EU exports

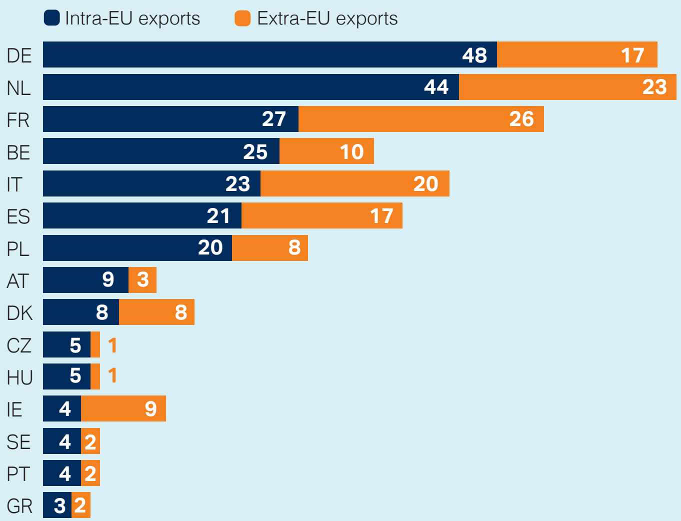
€422 billion
Total EU exports

- More than 60% of EU food and drink exports are destined for the Single Market.
- Germany is the EU Member State with the highest value of intra-EU trade in food and drinks.
- Except for drinks, the exports of most sectors to the Single Market exceed those to third countries.

Intra-EU food and drink trade for the top 15 exporters (2021, € billion)



Intra and extra-EU food and drink exports for the top 15 intra-EU exporters (2021, € billion)



Intra and extra-EU food and drink exports of main sectors (2021, € billion)

Source: Eurostat (Comext)

WORLD MARKETS[1]

Trade Figures

International trade: providing opportunities for growth and jobs

€156 billion Exports

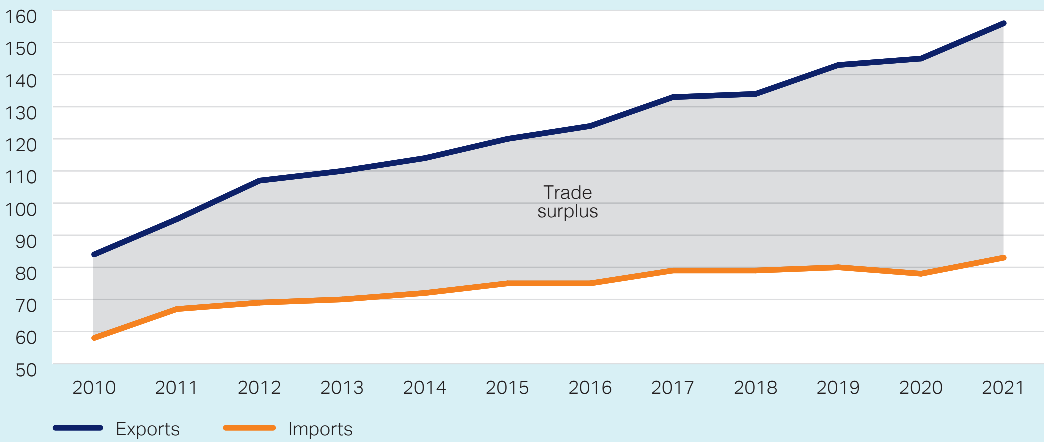
€83 billion Imports

€73 billion Trade balance

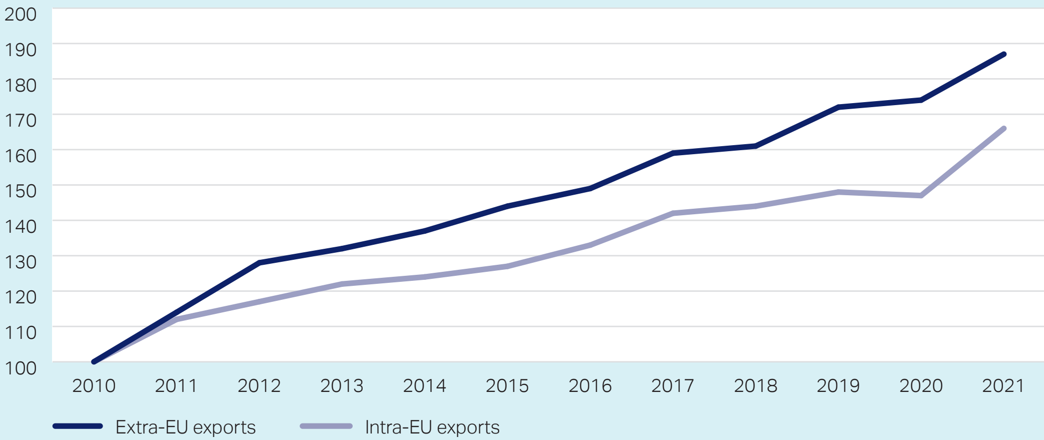
- Close to 40% of Member States' total food and drink exports were sold to non-EU markets. During the 2012-2021 period, extra-EU exports increased on average by 5% per year, compared to 4% per year for intra-EU exports.
- EU food and drink exports increased for the 12th consecutive year (+7% compared to 2020), representing 7% of total EU goods exports. Imports amounted to €83 billion (+6% compared to 2020). This makes the EU a net exporter with a trade balance of €73 billion.
- Export growth to most of the EU's top markets was positive (2020-2021 period), except to the UK and China. EU imports of food and drink from the UK declined by 21%.
- USMCA countries (US, Canada, Mexico) remain by far the EU's largest trading partner by region, followed by the Greater China region.

[1] Exports and imports refer to extra-EU trade, unless otherwise specified

Evolution of extra-EU food and drink trade (€ billion)

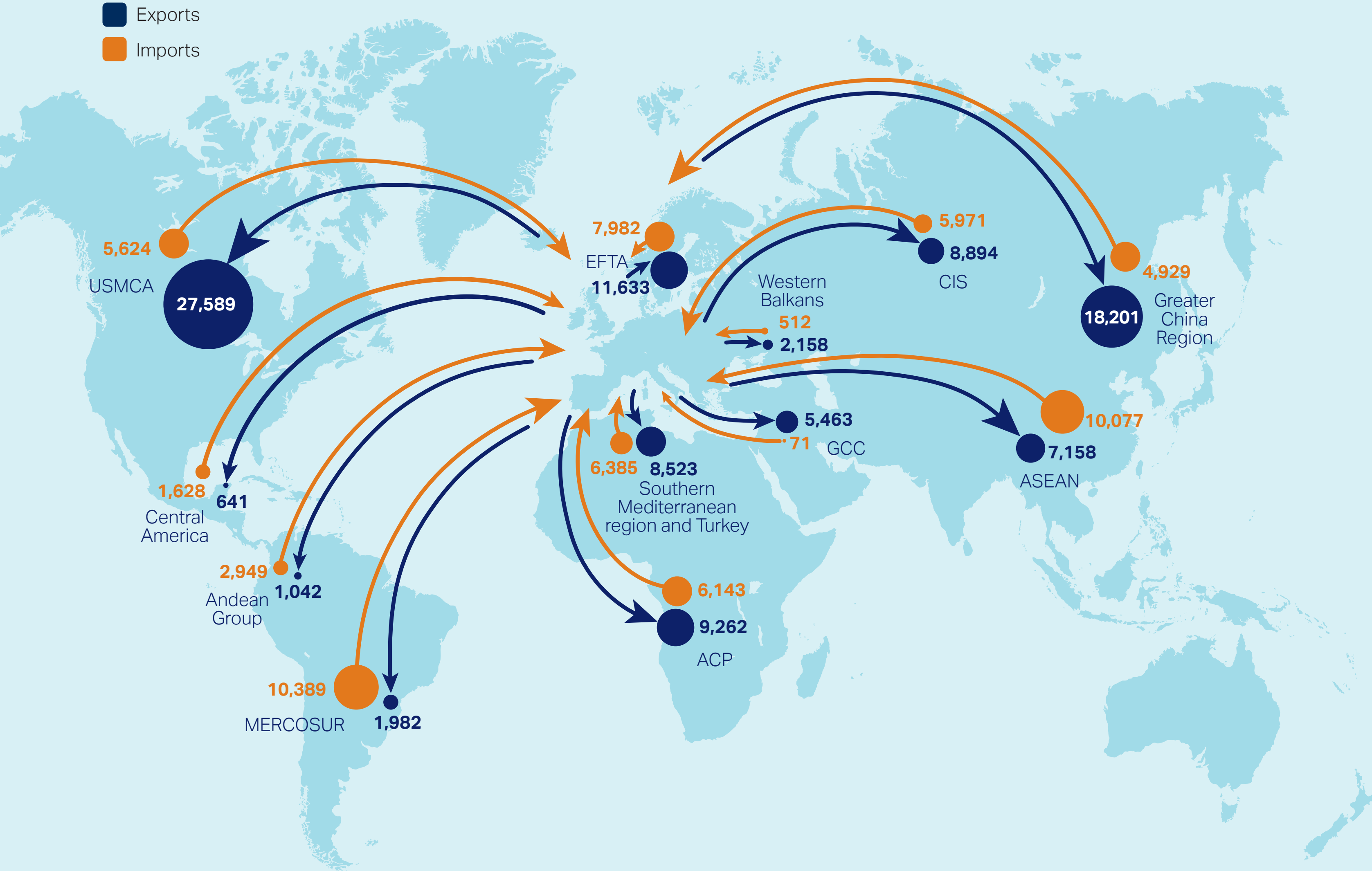


Evolution of extra and intra-EU exports (index, 2010=100)



Source: Eurostat (Comext)

EU food and drink trade flows with key regions (2021, € million)



Top EU trading partners

Export markets

	2021 € million	% change 2020-2021
UK	33,316	0
US	22,600	▲15
China	14,916	▼7
Switzerland	7,067	▲8
Japan	5,397	▲5
Russia	5,228	▲9
Norway	4,150	▲10
Canada	3,756	▲12
South Korea	3,483	▲25
Australia	3,186	▲5

Import origins

	2021 € million	% change 2020-2021
UK	13,545	▼21
Brazil	4,722	▲8
China	4,508	▲4
Argentina	4,421	▲31
Switzerland	3,764	▼2
US	3,516	▲6
Indonesia	3,249	▲12
Ukraine	2,749	▲28
Turkey	2,688	▲9
Norway	2,381	▲5

Source: Eurostat (Comext)

Trade Figures by Sector

International trade success backed by strong EU food and drink sectors

49%
Combined export market share of the drinks, meat and dairy sectors

57%
Combined import market share of oils and fats, fish products, and processed fruits and vegetables sectors

- Sectors with the highest growth in exports: wine, spirits, and oils and fats.
- Sectors with the highest growth in imports: oils and fats, beer, and spirits.
- The combined exports of the EU drinks, meat, and dairy sectors totalled €76.5 billion in 2021. The "various food products" category, which includes goods like chocolate, biscuits, confectionery and food preparations, generated exports worth €34.2 billion.

Sectors in EU food and drink exports
(2021, %)

Source: Eurostat (Comext)

Exports and imports by sector
(2021, € million)

	Exports		Imports	
	2021 € million	% change 2020-2021	2021 € million	% change 2020-2021
Drinks	35,936	17	7,089	3
of which: wine	16,157	24	1,620	-6
spirits	8,408	23	3,296	8
beer	3,597	-1	624	10
mineral waters and soft drinks	5,959	5	1,464	2
Various food products	34,226	5	14,058	0
of which: chocolate and confectionery	10,085	11	3,960	-3
prepared meals and dishes	5,589	6	1,423	3
processed tea and coffee	3,162	3	2,655	0
Meat products	23,601	-1	6,007	-3
Dairy products	17,009	5	1,937	-10
Processed fruits and vegetables	11,095	3	8,977	2
Bakery and farinaceous products	8,606	8	1,578	7
Oils and fats	8,575	18	19,779	23
Animal feeds	6,451	12	2,238	1
Fish products	5,136	2	18,141	5
Grain mill and starch products	4,825	8	2,706	-2

Trade Figures by Product

Providing high-quality, value-added food and drinks worldwide

>100

EU food and drink product categories exported

>200

Export markets

- Wine and pork meat remain the EU's key exports by product, with a value exceeding €16 billion and €9 billion respectively in 2021.
- On the export side, double-digit growth was registered for wine, spirits, animal feeds and pet foods, bread, pastries and biscuits, chocoloate, whereas pork meat and infant food each declined by 9%.
- On the import side, animal feeds and pet foods, palm oil, spirits, food preparations, prepared and preserved fruits and nuts, and sunflower seed oil increased while imports of fish products, fruit and vegetable juices declined.

Top 10 EU food and drink exports and imports by destination and origin (2021)

Exports

	€ million	% change 2020-2021	Top 3 destinations
Wine	16,156	24	US, UK, Switzerland
Pork meat fresh, chilled and frozen	9,131	-9	China, Japan, Korea
Spirits	8,408	23	US, China, UK
Animal feeds, pet foods	8,267	12	UK, Russia, US
Food preparations, not specified	8,082	9	US, UK, Russia
Bread, pastries and biscuits	7,230	13	UK, US, Switzerland
Infant food and other preparations	7,123	-9	China, UK, Saudi Arabia
Cheese	6,604	6	UK, US, Japan
Chocolate	6,409	10	UK, US, Russia
Offal, poultry meat	5,127	3	UK, China, Philippines

Imports

	€ million	% change 2020-2021	Top 3 origins
Palm oil	5,263	18	Indonesia, Malaysia, Guatemala
Fish fillets	4,888	0	Norway, China, Iceland
Spirits	3,296	8	UK, US, Mexico
Food preparations, not specified	2,910	8	UK, US, Switzerland
Prepared or preserved fish	2,527	-7	Ecuador, Morocco, Papua New Guinea
Frozen fish	1,976	-7	Norway, Russia, Greenland
Prepared and preserved fruits and nuts	1,931	7	Turkey, China, Thailand
Sunflower seed oil, safflower or cotton-seed oil	1,929	19	Ukraine, Serbia, Moldova
Fruit juices	1,775	-10	UK, Ukraine, Brazil
Coffee (decaffeinated or roasted)	1,749	3	Switzerland, UK, Vietnam

Source: Eurostat (Comext)

EU Position in Global Food and Drink Trade

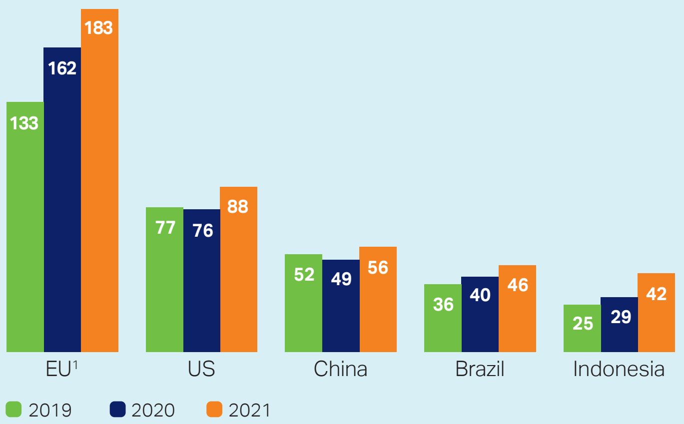
A leading player on the world stage

#1
Exporter of food and drinks

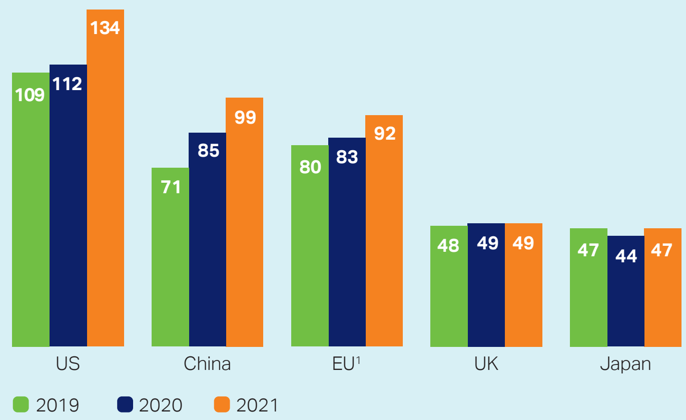
#3
Importer of food and drinks

- The EU is the world's largest exporter of food and drinks, ahead of the US, China, Brazil and Indonesia.
- The EU ranks in third place in terms of imports from the rest of the world, after the US and China and ahead of the UK and Japan.
- The EU share in total food and drinks imported by selected third countries showed a mixed five-year performance (2017-2021 period). Brazil (+5.4%), Australia (+2.9%), Canada (+2%), Switzerland (+1.6%), Japan (+0.3%), UK (-2.7%), China (-2.5%), US (-1.5%), Norway (-1.1%).

Main global exporters of food and drink products ($ billion)



Main global importers of food and drink products ($ billion)



Source: UN COMTRADE

EU products in total food and drink imports of selected countries (2017-2021, %)

[1] Takes into account the change in Member State composition of the EU.
[2] No data for Russia and South Korea, year 2021.

EU-UK Trade

Major trading partners with closely integrated supply chains

€33.3 billion
EU food and drink exports to the UK

€10.7 billion
EU food and drink imports from the UK

€22.6 billion
EU-UK trade balance

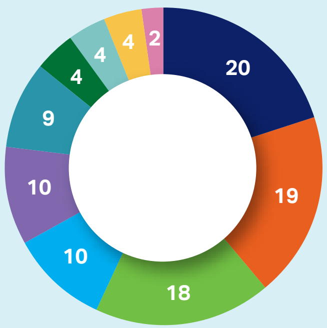
- EU exports of food and drinks to the UK amounted to €33.3 billion in 2021. The UK ranks first in terms of export market, ahead of the US (€22.6 billion) and China (€14.9 billion).
- Among the EU Member States, Ireland has by far the strongest trade link with the UK. 33.1% of Ireland's food and drink exports are destined for the UK and more than 40% of its imports come from the UK.
- Wine is the EU's most prominent product exported to the UK, while distilled spirits lead by far the imports of food and drinks from the UK.

Key Member State exporters of food and drinks to the UK (2021)

Member State	Exports to UK (€ billion)	Share of Member States' total exports[1] (%)	Rank of UK as export destination
Netherlands	5.2	7.9	4
France	4.6	8.8	4
Ireland	4.4	33.1	1
Belgium	3.9	10.9	4
Germany	3.6	5.5	6
Italy	3.3	7.9	4
Poland	2.5	8.9	2
Spain	2.1	5.5	6
Denmark	1.1	6.9	4
Greece	0.4	7.3	4

[1] Intra and extra-EU exports

Eu exports to the UK by sector (2021, %)



Top EU-UK food and drink exports and imports (2021, € million)

Product	Exports	Imports	Trade Balance
Wine	3,177	85	3,091
Bread, pastry and biscuits	2,523	655	1,867
Chocolate	2,013	525	1,488
Cheese	1,859	387	1,473
Animal feed, petfoods	1,743	733	1,010
Prepared and preserved meat	1,510	121	1,388
Offal, poultry meat	1,375	168	1,207
Food preparations	1,239	740	500
Bovine meat fresh, chilled and frozen	1,182	301	881
Soft drinks	1,158	333	825
Pork meat fresh, chilled and frozen	807	116	690
Spirits	775	1,926	-1,151
Sauce, condiments	739	273	466
Prepared and preserved vegetables	730	44	686
Sausages	711	19	692
Malt extract, other food preparations	637	164	473
Fat, meat smoked	623	28	594
Fruit and vegetable juices	604	32	572
Pasta	578	41	536
Beer	511	243	268

Source: Eurostat (Comext)

Innovation and Consumer Trends

Innovation key to greater consumer choice

Pleasure

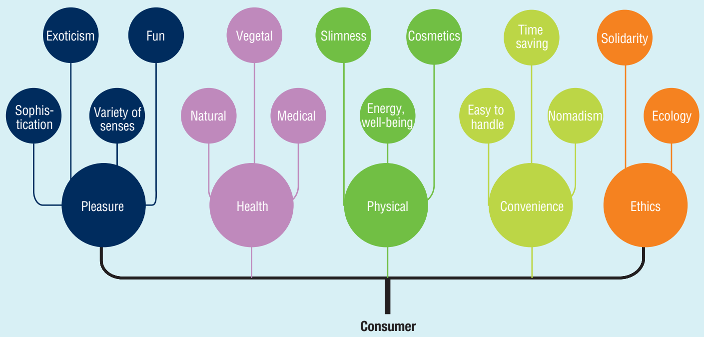
Leading driver of food innovation in Europe

#1

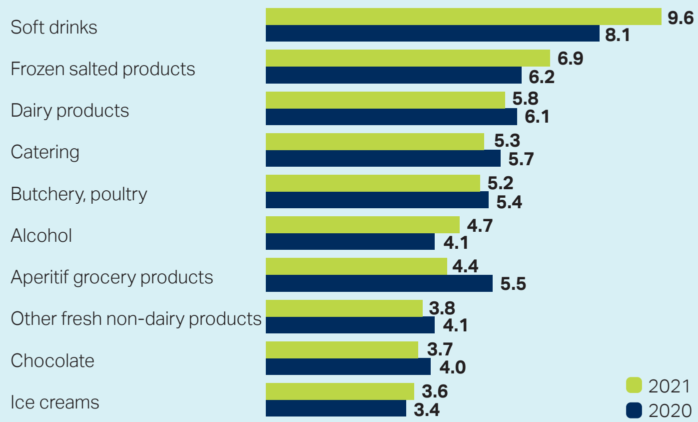
Soft drinks are the world's most innovative food sector

- Drivers of innovation can be divided into 15 trends, grouped along five axes, corresponding to general consumer expectations: pleasure, health, physical, convenience and ethics.
- Pleasure was still the leading driver of food innovation with a 48.3% relative share of the innovative offering in 2021.
- The Health axis continues slightly declining while the share of innovation related to the Ethics axis has been increasing steadily for 5 years, confirming its 3rd position in 2021.
- In 2021, the soft drinks category remains the most dynamic in terms of innovations. Savoury frozen products are in second place, as they were in 2020. The dairy products category also remains in third position in 2021.

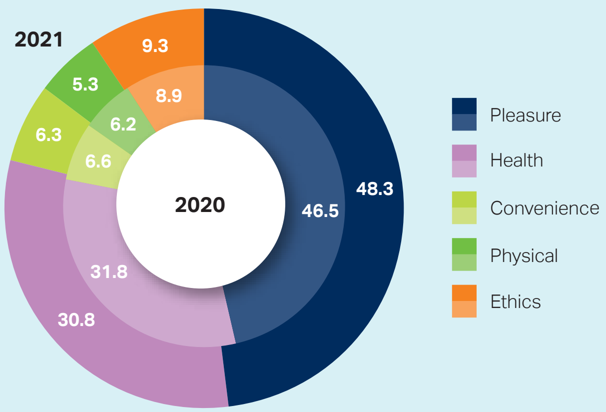
Food innovation trends



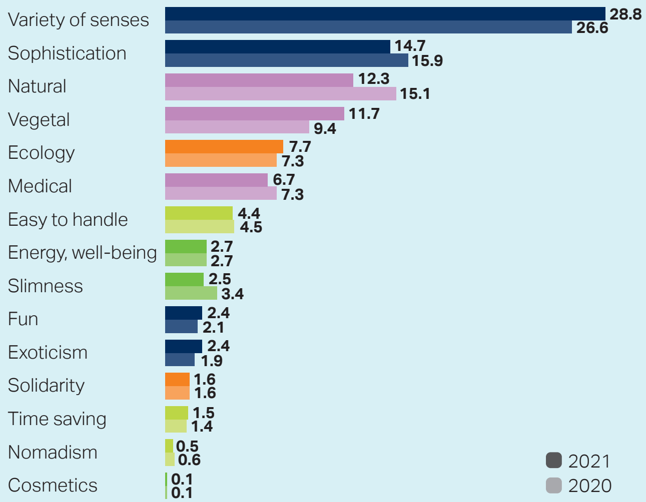
The world's 10 most innovative food sectors (%)



Drivers of innovation in Europe (%)



Food innovation trends in Europe (%)



Source: World Food Innovation Barometer by ProtéinesXTC

Global Trends in R&D

Sustained levels of R&D investment

0.23%

EU[1] R&D private investment intensity

- Out of the world's top 2,500 companies for R&D private investment, 60 operate in the food and drink industry. Together, these companies invested €9.1 billion in R&D in 2020, €1.9 billion of which was invested by 11 food and drink companies based in the EU.
- These 11 EU companies are located in the Netherlands (3), France, Ireland and Germany (2), Belgium and Denmark (1).
- The EU[1] food and drink industry[2] has a lower R&D investment intensity when compared with several food and drink industries worldwide.
- Across EU Member States[1], R&D investment intensity varies from 0.51% to 0.01%.

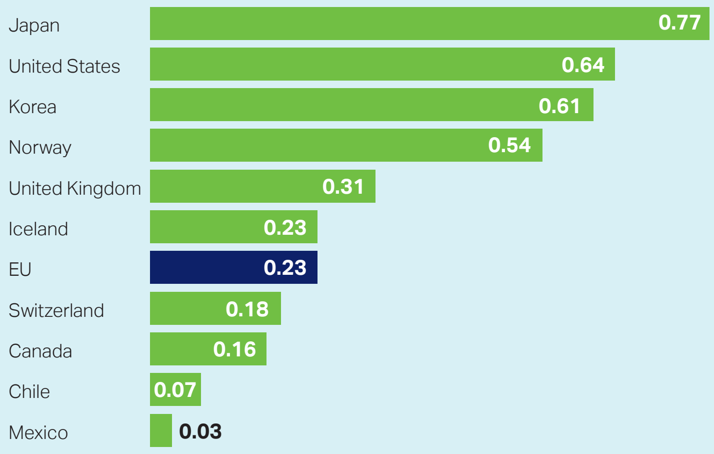
[1] Based on available data
[2] Including tobacco

R&D private investment of food and drink companies listed in the world's top 2,500 companies by R&D (2020)

	R&D investment (€ billion)	R&D investment (% of total)	Number of companies
TOTAL	**9.1**	**100**	**60**
EU	**1.9**	**21.4**	**11**
Japan	1.8	19.4	16
US	1.7	19.2	12
Switzerland	1.69	18.5	2
UK	1.0	10.5	4
China	0.8	8.7	12
New Zealand	0.1	1.0	1
Norway	0.1	0.9	1
South Korea	0.04	0.5	1

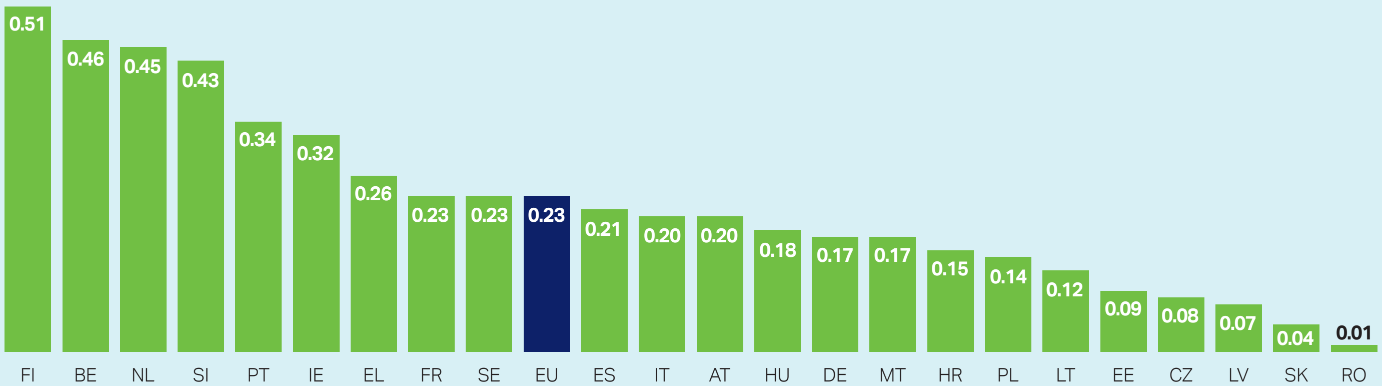
Source: Joint Research Centre

R&D private investment of the food and drink industry[2] (Average 2017-2019, % of output)



Source: Eurostat (BERD, National Accounts), OECD (ANBERD, STAN)

R&D private investment of the food and drink industry[1,2] by Member State (Average 2017-2019, % of output)



Source: Eurostat (BERD, National Accounts), OECD (ANBERD, STAN)

Food Future

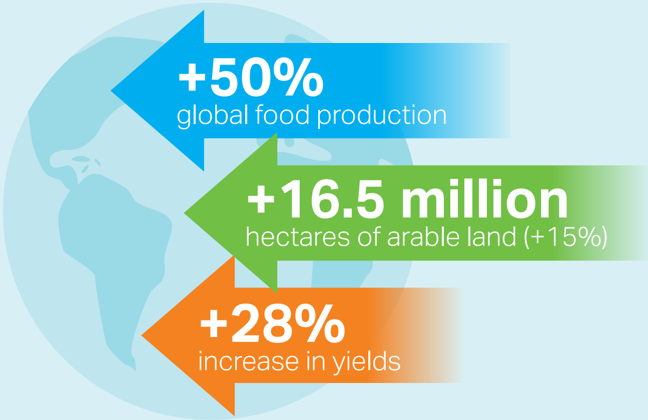
Availability of resources and sustainable production

9.7 billion
Global population in 2050

50%
Increase in global food production by 2050[1]

- Population and income growth will continue to drive food demand. Meeting the additional demand will depend on the availability of resources and capacity to boost sustainable production.
- Between 2019 and 2020, the number of people in the world who could not afford a healthy diet increased by 3.8%, reflecting the inflation in consumer food prices during the COVID-19 pandemic.
- Land degradation affects cropland, grassland and forests. Decreasing freshwater availability, higher population density, intense fire and deforestation leads to the loss of environmental and ecosystems services.
- The world's forest area continues to decline, representing a net loss of almost 100 million hectares since 2000. Agricultural expansion is driving almost 90% of global deforestation.

Meeting global demand for food by 2050[1]



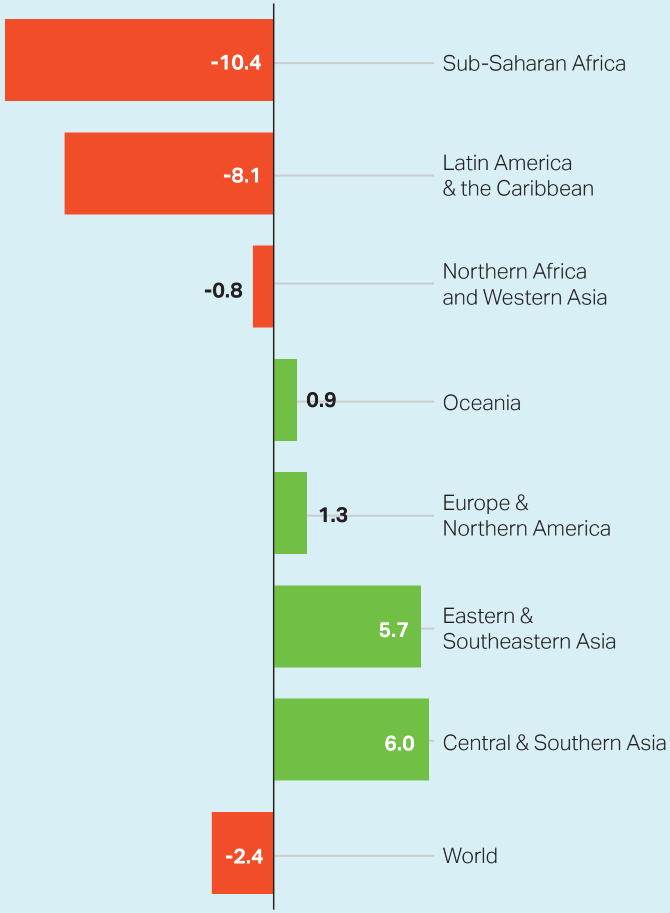
Source: FAO

Productive land at risk from land degradation (2015)

Land cover	Total area (million ha)	Area at risk (million ha)	Area at risk (%)
Cropland	1,527	472	31
Rainfed	1,212	322	27
Irrigated	315	151	48
Grassland	1,910	660	35
Forest land	4,335	1,112	26

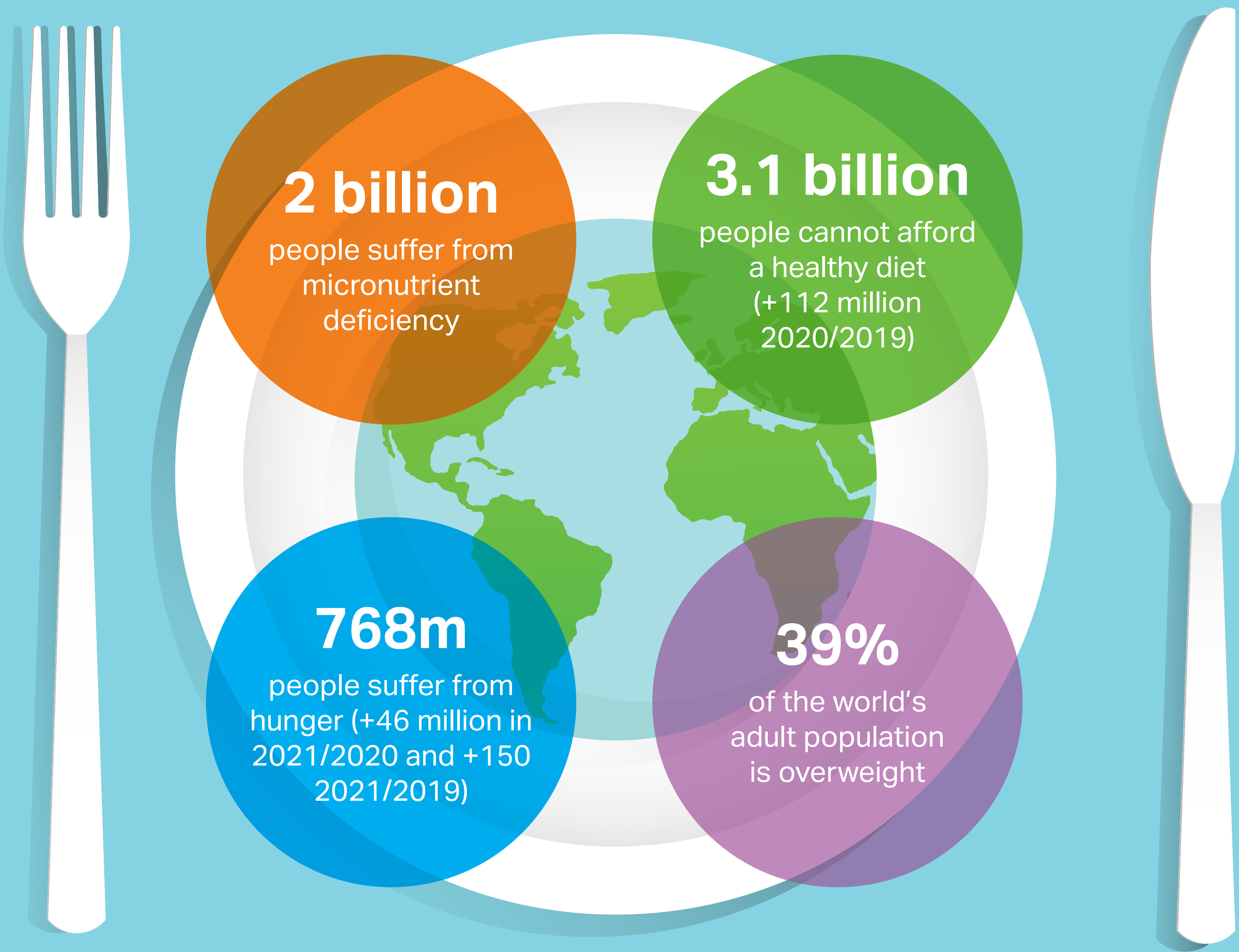
Source: The state of the world's land and water resources for food and agriculture (SOLAW 2021)

Change of forest area coverage, 2000-2020
(percentage)



Source: The Sustainable Development Goals Report, 2022

Global food and nutrition security challenge (2021)



Source: The State of Food Security and Nutrition in the World 2022, FAO; WHO

Key Food and Drink Companies

Ranking of agri-food companies with operations in Europe[1], by global agri-food sales[2]

Name	Headquarters	Sales (€ billion)[3]	Main sectors
Cargill	US	144.6	multi-product
Nestlé	CH	80.2	multi-product
Archer Daniels Midland Company	US	71.7	multi-product
PepsiCo, Inc.	US	66.8	beverages, snacks
JBS	BR	55	meat, dairy
Bunge	US	49.7	multi-product
AB InBev	BE	45.7	beer
Mars	US	43.5	prepared foods, confectionery, pet food
Olam International	SG	39.5	multi-product
The Coca-Cola Company	US	32.5	beverages
Heineken	NL	26.6	beer
Mondelez International	US	24.2	confectionery, snacks, dairy
Danone	FR	24.2	dairy, water, baby & medical nutrition
KraftHeinz	US	23	multi-product
WH Group	CN	23	meat
Lactalis	FR	22	dairy
Unilever	NL/UK	20	multi-product
Suntory	JP	19.7	(alcoholic) beverages and foods
Asahi Group	JP	17.1	(alcoholic) beverages and foods
General Mills	US	16.6	prepared foods
Diageo	UK	15.2	alcoholic beverages
Grupo Bimbo	MX	14.4	bakery
Ferrero	IT	12.7	confectionery
Pilgrim's Pride	US	12.4	meat
Fonterra	NZ	12.0	dairy
Kellogg Company	US	11.9	prepared foods, snacks, cereals
FrieslandCampina	NL	11.5	dairy

Name	Headquarters	Sales (€ billion)[3]	Main sectors
Arla Foods	DK	11.2	dairy
Molson Coors	US	10.5	beer
DSM	NL	9.2	multi-product
Carlsberg	DK	9.0	beer
Pernod Ricard	FR	8.8	alcoholic beverages
McCain Foods	CD	8.3	frozen potato products and potato specialties, appetizers and snacks
Danish Crown	DK	7.8	meat
Associated British Foods	UK	7.7	sugar, starch, prepared foods
Südzucker	DE	7.6	sugar, multi-product
BRF	BR	7.6	meat
Kerry Group	IE	7.4	multi-product
Müller Group	LU	7.0	dairy
Barry Callebaut	CH	6.9	chocolate, cocoa
LVMH	FR	6.0	wines, spirits
Savencia	FR	5.6	dairy
Oetker Group	DE	5.5	multi-product
DMK Group	DE	5.5	dairy
IFF	US	5.3	nutrition & biosciences
Vion	NL	4.6	meat
Glanbia	IE	4.2	nutrition, ingredients, dairy
Roquette	FR	3.9	ingredients
Bonduelle	FR	2.8	prepared and frozen vegetables
Tate & Lyle	UK	1.6	ingredients
The GB Foods	SP	1.3	multi-product
Yıldız Holding	TY	1.2	confectionery

[1] Operations in the EU refer to the presence of processing plants in one or more Member States
[2] Based on the most recent complete fiscal year
[3] Figures have been converted to Euro with ECB bilateral annual exchange rates series, but only figures in the original currency are relevant

Glossary

Abbreviation of world regions

ACP
African, Caribbean and Pacific countries

Andean Group
Bolivia, Colombia, Ecuador and Peru

ASEAN (Association of Southeast Asian Nations)
Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand and Vietnam

Central America
Panama, Guatemala, Costa Rica, El Salvador, Honduras and Nicaragua

CIS (Commonwealth of Independent States)
Armenia, Azerbaijan, Belarus, Kazakhstan, Kyrgyzstan, Moldova, Russia, Tajikistan, Turkmenistan, Ukraine and Uzbekistan

EFTA (European Free Trade Area)
Iceland, Liechtenstein, Norway and Switzerland

EU
EU refers to EU27, unless otherwise specified

GCC (Gulf Cooperation Council)
Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and the United Arab Emirates

Greater China region
China, Hong Kong, Macau and Taiwan

Mercosur
Argentina, Brazil, Paraguay and Uruguay

Southern Mediterranean region and Turkey
Algeria, Egypt, Israel, Jordan, Lebanon, Libya, Morocco, Palestine, Syria, Tunisia and Turkey

USMCA countries
US, Mexico, and Canada

Western Balkans
Albania, Bosnia-Herzegovina, Kosovo, North Macedonia, Montenegro and Serbia

Gross value added (GVA)
The gross value added is the value of goods and services produced by a sector minus the cost of the raw materials and other inputs used to produce them. GVA measures the contribution to the economy of each individual sector.

Investment
Investment is defined as investment during the reference period in all tangible goods. Investments in intangible and financial assets are excluded.

Labour productivity
Labour productivity provides a measure of the efficiency of the workforce to produce goods and services. Labour productivity is calculated as the gross value added (GVA) divided by persons employed.

Persons employed
The number of persons employed includes the total number of persons who work in the observation unit (inclusive of working proprietors, partners working regularly in the unit and unpaid family workers), as well as persons who work outside the unit who belong to it and are paid by it (e.g. sales representatives, delivery personnel, repair and maintenance teams).

Small and medium-sized enterprises (SMEs)
For Eurostat's Structural Business Statistics database: micro = less than 10; small = 10 to 49; medium-sized = 50 to 249; large = more than 250 persons employed. The SBS size-class data are solely based on the definition relating to the number of persons employed and not to the turnover level.

Value added
The value added at factor costs is the gross income from operating activities after adjusting for operating subsidies and indirect taxes.

Wages and salaries
Wages and salaries are defined as the total remuneration, in cash or in kind, payable to all persons counted on the payroll (including homeworkers), in return for work done during the accounting period regardless of whether it is paid on the basis of working time, output or piecework and whether it is paid regularly or not.

Avenue des Nerviens 9-31
Brussels 1040
Belgium

Tel.: +32 2 514 11 11
info@fooddrinkeurope.eu
@FoodDrinkEU
www.facebook.com/fooddrinkeurope

www.fooddrinkeurope.eu
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