Data & Trends

EU Food & Drink Industry

2019





EU food and drink industry figures

TURNOVER

€1,192 billion

Largest manufacturing sector in the EU

EMPLOYMENT

4.72 million people

Leading employer in the EU

VALUE ADDED

2.1%

of EU gross value added

NUMBER OF COMPANIES

294,000

CONSUMPTION

13.8%

of household expenditure on food and drink products

R&D

EXPENDITURE

€2.9 billion

SALES WITHIN
THE SINGLE MARKET

91%

of food and drink turnover

SMALL AND MEDIUM-SIZED COMPANIES

47.5%

of food and drink turnover

60.8%

of food and drink employment

EXTERNAL TRADE

€110 billion

Exports

€74 billion

Imports

€36 billion

Trade balance

19%

EU share of global exports

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INTRODUCTION

The 2019 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, the largest manufacturing industry 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.

This report covers the whole EU28 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.

Recent developments in the EU food and drink industry

	2016	2017	% change
Turnover (€ billion)	1,118	1,192	6.7
Value added (€ billion)	236	-	-
Number of persons employed (million)	4.73	4.72	-0.2
Number of companies (1,000 units)	295	294	-0.4

Source: Eurostat (SBS)

Single Market

Contribution to the EU economy



The largest manufacturing sector in terms of turnover, value added and employment

2.1%

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

15.1%

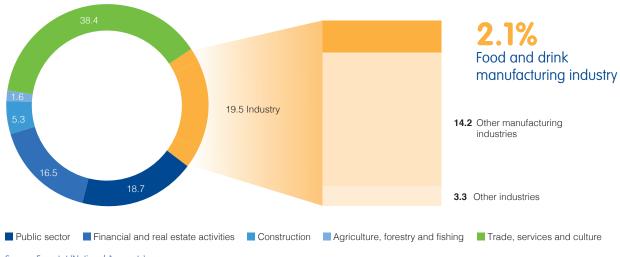
Share of food and drink turnover in manufacturing

12.3%

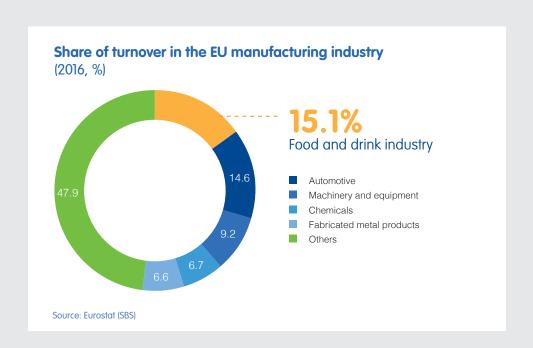
Share of food and drink value added in manufacturing

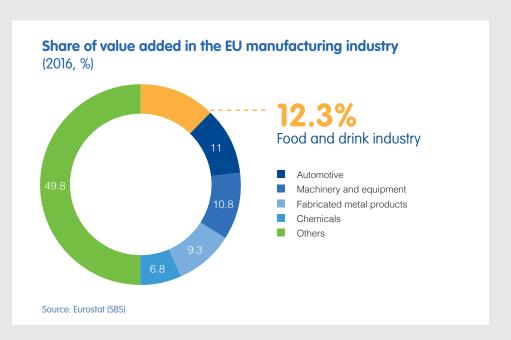
- The food and drink industry is a major contributor to Europe's economy, ahead of other large manufacturing sectors, such as the automotive industry.
- In 2016, the EU food and drink industry generated a turnover of €1,118 billion and a value added of €236 billion.
- With €40.1 billion invested in 2016, 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.

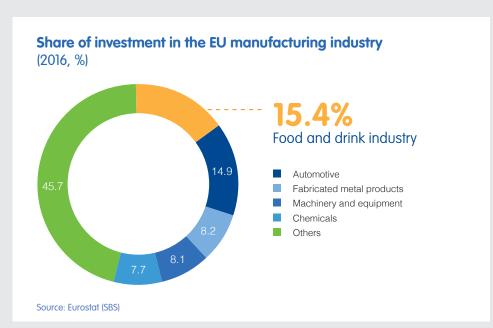
Contribution of the food and drink industry to the EU economy (2016, %)

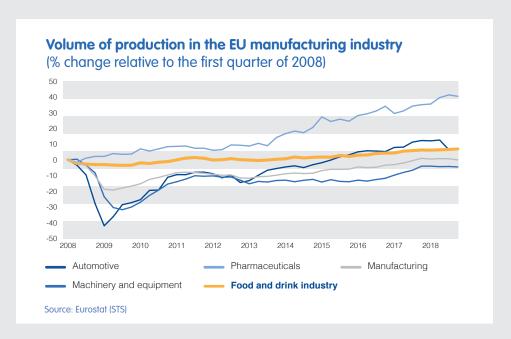


Source: Eurostat (National Accounts)









Employment

Leading manufacturing employer in the EU



4.72 million

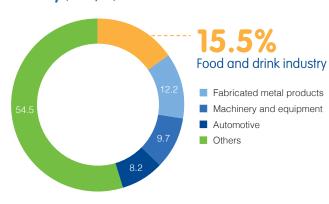
Total number of persons employed in the food and drink industry

€107 billion

Paid in wages and salaries

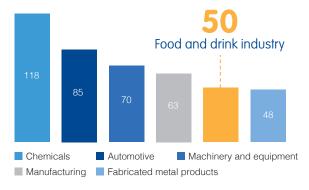
- Compared to other manufacturing sectors, the EU food and drink industry is a key job provider and a stable employer.
- On average, labour productivity in the food and drink industry is lower than in the manufacturing sector as a whole.
- A food and drink company employs on average 16 persons, i.e. 2 more than the average manufacturing company.

Share of employment in the EU manufacturing industry (2016, %)



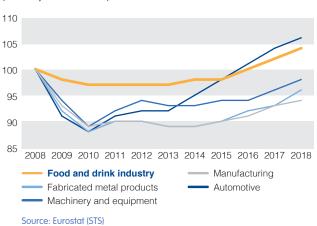
Source: Eurostat (SBS)

Labour productivity in the EU (2016, €1,000/person)

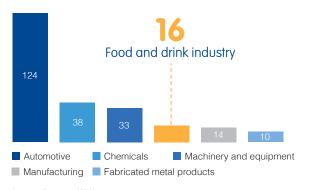


Source: Eurostat (SBS)

Employment in the EU manufacturing industry (index, 2008=100)



Average number of persons employed per company in the EU (2016)



Source: Eurostat (SBS)

Value added

Sustained growth over the past 10 years¹



+€240 billion

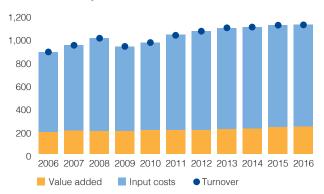
Growth of food and drink turnover over the past 10 years

21.1%

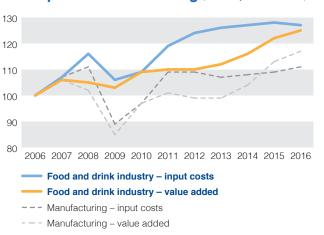
Share of value added in turnover of the food and drink industry

- In 2016, the EU food and drink industry generated a turnover of €1,118 billion, 78% of which was spent on input costs. Value added resulted in €236 billion.
- After having been outpaced by input costs for a number of years, the growth of value added in the EU food and drink industry has resumed recently.
- Over the last decade, value added and input costs in the food and drink industry have grown faster than in manufacturing in general.
- Input costs absorb a higher share of turnover in the food and drink industry, compared to manufacturing in general.

Value added and input costs of the EU food and drink industry (€ billion)

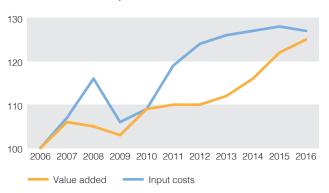


Value added and input costs in the EU food and drink industry and in manufacturing (index, 2016=100)

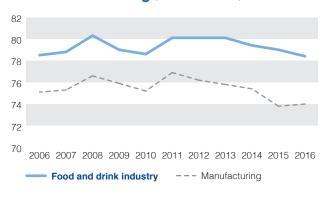


Sources: Eurostat (SBS); Wageningen Economic Research

Value added and input costs of the EU food and drink industry (index, 2006=100)



Input costs in the EU food and drink industry and in manufacturing (% of turnover)



¹ For more information, read FoodDrinkEurope's brochure "Let's step up to the plate"

Sectors at EU level

Offering a wide variety of food and drink products to consumers



20%

Share of the meat sector's turnover in the food and drink industry

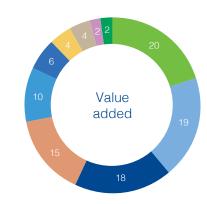
33%

Share of bakery and farinaceous sector's employment in the food and drink industry

- 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 80% of the total number of employed persons and companies.
- Labour productivity varies by subsector. 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 (2016, %)

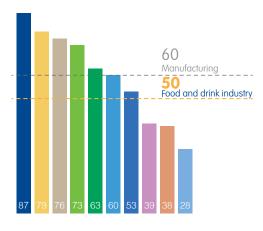










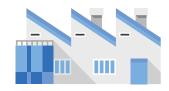






Small and medium-sized companies

Small scale, big impact



€531 billion Turnover

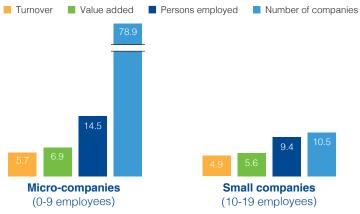
€108 billion Value added

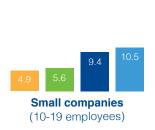
2.9 million Persons employed

of food and drink companies

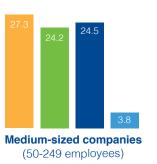
- The food and drink industry is a highly diversified sector with many companies of different sizes.
- SMEs generate almost 50% of the food and drink industry turnover and value added and provide two thirds of jobs in the sector.
- The food and drink industry accounts for more than 290,000 SMEs.











Contribution of SMEs and large companies to the EU food and drink industry (2016, %)



Source: Eurostat (SBS)

Digitalisation

Impact of new digital technologies¹



88%

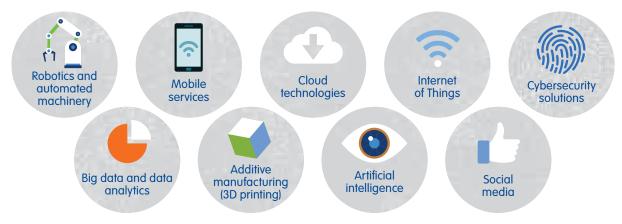
Share of food companies that are fully aware of the new prospects brought by the digital transformation

59%

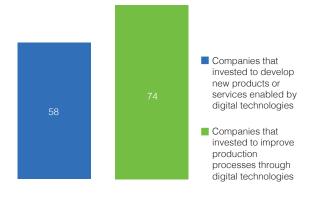
of food companies have the necessary skills to harness digital transformation

- The integration of digital technologies within a company requires significant investment, used to develop new products or services (58%) and to improve the production process (74%).
- 24% of the food companies that have seen concrete results from the adoption of digital technologies reported an increase in their employee numbers.
- 27% of food businesses have appointed a Chief Digital Officer.

9 key technologies

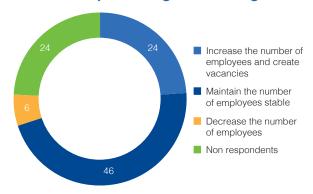


Purposes of investment in digital technologies in the food industry (2017, %)



Source: 2018 Digital Transformation Scoreboard

Impact of digital adoption on employee numbers, among companies that have seen concrete results from the adoption of digital technologies (2017, %)



¹ Based on a survey from the 2018 Digital Transformation Scoreboard



Robots

30,000

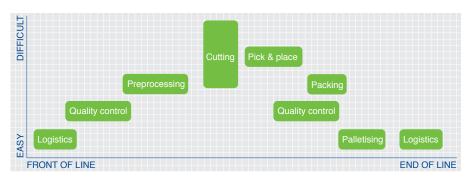
Number of robots in the EU food and drink industry

52%

Increase of robot sales to the food and drink industry between 2013 and 2017

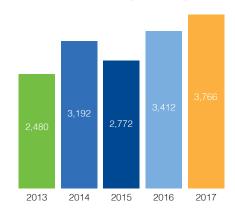
- Robotics is becoming common practice in the food and drink industry, all along the production line.
- Germany and Italy account for 45% of European food robots.
- Robot density¹ is highest in Sweden, Denmark, the Netherlands and Italy.

Examples of robot operations by degree of difficulty and their place in the production process



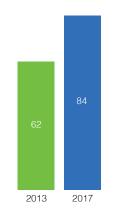
Source: ING Economics Department

New robots sold in the food and drink industry in Europe



Source: International Federation of Robotics (IFR) as reported by ING

Robot density¹



European robot stock in the food and drink industry (2017, %)



¹ Number of robots per 10,000 employees

The national picture

A key industry in the economies of the EU Member States



#1 employer

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

67%

Share of turnover of the EU's 5 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, Spain and the UK are the largest EU food and drink producers by turnover.

Food and drink industry data by Member State¹ (2017)

	Employment ranking in manufacturing	Turnover (€ billion)	Value added (€ billion)	Number of employees (1,000)	Number of companies
Austria	1	23.7	6.1	85.3	3,977
Belgium	1	51.8	8.2	92.7	4,284
Bulgaria ²	2	5.9	1.1	95.5	6,262
Croatia	1	5.5	1.3	60.6	3,248
Cyprus	1	1.6	0.4	12.7	925
Czechia	4	14.6	3.2	112.8	10,415
Denmark	2	25.1	4.2	53.7	1,635
Estonia	2	1.9	0.4	14.9	737
Finland	4	10.8	2.5	38.0	1,771
France	1	228.1	46.5	703.6	54,643
Germany	2	203.9	42.4	885.1	23,531
Greece ³	1	14.6	3.0	114.8	17,123
Hungary	1	12.4	2.3	105.2	6,778
Ireland ⁴	1	24.6	-	47.4	1,731
Italy	2	138.6	27.0	448.7	56,400
Latvia	2	1.9	0.4	23.7	1,184
Lithuania	1	4.2	0.8	41.1	1,619
Netherlands	1	76.7	13.0	140.0	6,611
Poland	1	62.4	13.0	426.0	15,154
Portugal	1	16.8	3.3	113.0	11,183
Romania ²	2	12.5	7.4	183.2	9,134
Slovakia	-	4.5	0.8	42.4	3,911
Slovenia ⁵	4	2.2	0.5	13.7	733
Spain	1	118.8	20.7	404.3	28,212
Sweden	3	20.0	4.8	51.0	4,488
United Kingdom	1	118.7	30.7	460.0	10,352

¹ As published by FoodDrinkEurope National Federations or by Eurostat (SBS)

² 2016 data for value added

³ Small food and drink producers and family businesses included in the number of companies

⁴ Only covering food products

⁵ Only limited liability companies, joint stock companies or similar and self-employed

No data available for Luxembourg and Malta

Bioeconomy

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

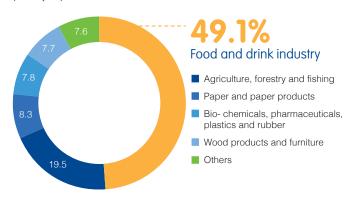


4.2%
Contribution of the bioeconomy to EU gross value added

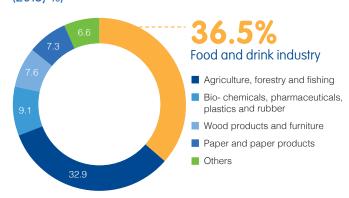
8.2%
Share of the bioeconomy in EU employment

- The turnover of the bioeconomy amounts to €2.2 trillion and the value added to €621 billion. The food and drink industry contributes to roughly half and one-third respectively.
- In 2015, the bioeconomy employed 18 million people in the EU, of which one quarter was in the food and drink industry.
- Labour productivity in the bioeconomy sectors is very diverse.

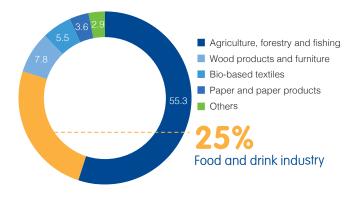




Share of value added in the EU bioeconomy (2015, %)

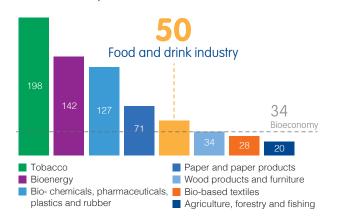


Share of employment in the EU bioeconomy (2015. %)



Source: Joint Research Centre

Labour productivity in the EU bioeconomy (2015, €1,000/person)



Food supply chain

Diverse economic operators with specific business models



5.5%

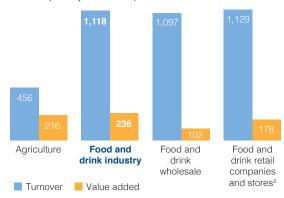
Share of the food supply chain in EU gross value added

10.3%

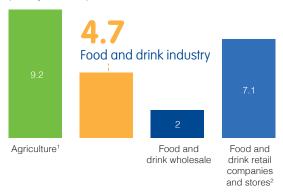
Share of the food supply chain in EU employment

- The food supply chain employs 23 million people.
- The total turnover amounts to €3.8 trillion and the value added to €732 billion.
- The EU extensive food supply chain, from agriculture and the input industry to food and drink services, employs 33 million professionals.

Turnover and value added in the EU food supply chain (2016, € billion)

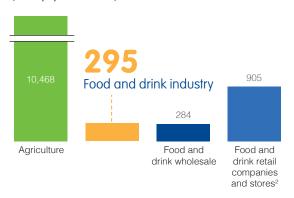


Persons employed in the EU food supply chain (2016, million)

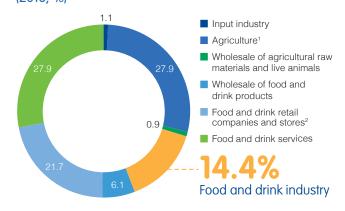


Source: Eurostat (Agriculture, National Accounts, SBS)

Number of companies in the EU food supply chain (2016, 1,000 units)



Employment in the extensive EU food supply chain (2016, %)



^{1 2015}

² Specialised and non-specialised stores with food and drinks predominating

Consumption

Food and drink products: the second largest household expenditure



13.8%

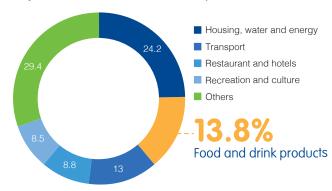
Share of EU household expenditure on food and drink products

€1,155 billion

EU household expenditure on food and drink products

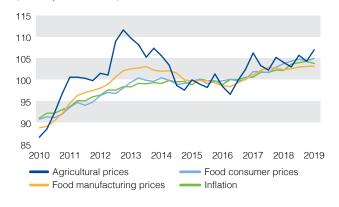
- In 2017, the share of household expenditure on food and drink products remained stable compared to the previous year.
- Across Member States, the share of household expenditure on food and drink products varied from 10% to 31%.
- Food manufacturing prices and food prices paid by consumers are more stable than agricultural prices. Food manufacturing prices include other input costs than agricultural raw materials.

Breakdown of EU household consumption expenditure (2017, % of total expenditure)



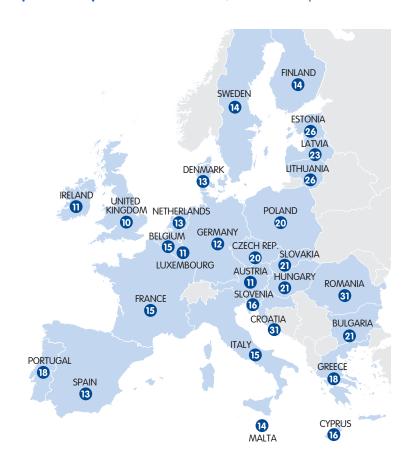
Source: Eurostat (National Accounts)

Price developments in the food chain (index. 2015=100)



Sources: DG Agriculture and Rural Development; Eurostat (Prices, STS)

Household consumption expenditure on food and drink products by Member State (2017, % of total expenditure)



Sources: Eurostat (National Accounts); Member States' Household Budget Surveys

Trade within the Single Market

The first market for EU food and drink products



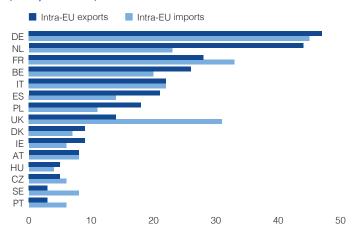
€277 billion Intra-EU exports

€110 billion
Extra-EU exports

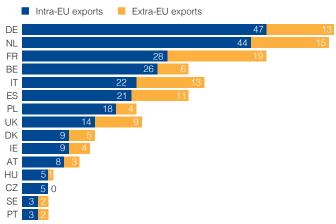
€387 billion
Total EU exports

- About ³/₄ of EU food and drink exports are destined for the Single Market.
- Germany is the EU Member State with the highest level of intra-EU trade in food and drinks.
- Intra-EU exports account for 25% of the EU food and drink industry turnover.
 More than 50% of the Dutch and Belgian food and drink industry turnover is generated by exports to other EU Member States.
- The EU drinks sector exports as much to the Single Market as to third countries, while for most other sectors the value of intra-EU exports considerably exceeds extra-EU exports.

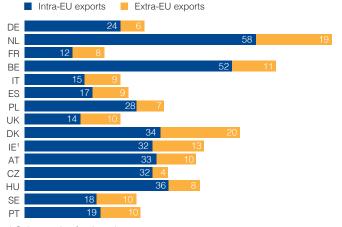
Intra-EU food and drink trade for the top 15 exporters (2018, € billion)



Intra and extra-EU food and drink exports for the top 15 intra-EU exporters (2018, € billion)

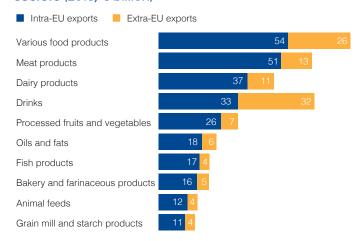


Exports as a share of turnover for the top intra-EU exporters (2017, %)



¹ Only covering food products

Intra and extra-EU food and drink exports of main sectors (2018, € billion)



EU27-UK trade

The UK is the largest trading partner of the EU27



€33 billion

EU27 food and drink exports to the UK

€14.5 billion

EU27 food and drink imports from the UK

€18.5 billion

EU27-UK trade balance

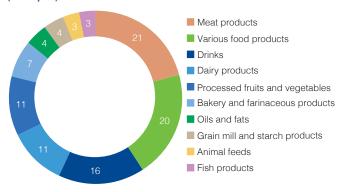
- EU27 exports of food and drink products to the UK would correspond to almost two times the exports to the US and three and a half times the exports to China.
- Among the EU27 Member States, Ireland has by far the strongest trade link with the UK. Close to 40% of Ireland's food and drink exports are destined for the UK and more than 50% of its imports originate from the UK.
- Wine is the EU27's most prominent product exported to the UK, while distilled spirits lead the EU27 imports from the UK.

Key Member State exporters of food and drinks to the UK (2018)

Member State	Exports to UK (€ billion)	Share of Member States' total exports ¹ (%)	Rank of UK as export destination
Netherlands	5.6	9.5	4
France	4.7	10.1	3
Ireland	4.6	37.7	1
Germany	4.3	7.1	4
Italy	3.1	9.0	4
Belgium	2.9	9.3	4
Poland	2.3	9.9	2
Spain	2.1	6.7	4
Denmark	1.4	9.8	3
Greece	0.3	8.3	3

¹ Intra and extra-EU27 exports

Share of EU27 exports to the UK by sector (2018. %)



Top EU27-UK food and drink exports and imports (2018, € million)

Product	Exports	Imports	Trade balance
Wine	2,603	352	2,251
Bread, pastry and biscuits	2,183	770	1,413
Chocolate	1,846	593	1,253
Cheese	1,822	516	1,306
Prepared and preserved meat	1,521	282	1,239
Offal, poultry meat	1,492	347	1,145
Animal feed, petfoods	1,424	917	507
Bovine meat fresh, chilled and frozen	1,310	470	840
Food preparations	1,213	720	493
Soft drinks	1,202	379	822
Pork meat fresh, chilled and frozen	985	209	776
Fruit and vegetable juices	810	183	626
Fat, meat smoked	727	55	672
Prepared and preserved vegetables	718	91	627
Spirits	632	2,082	-1,449
Malt extract, other food preparations	613	184	429

World Markets

Trade figures



International trade: providing opportunities for growth and jobs

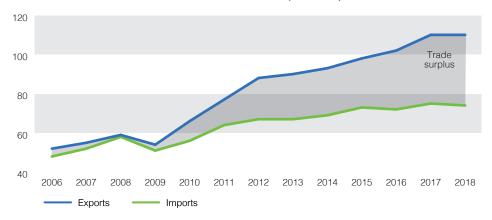
€110 billion Exports

€74 billion Imports¹

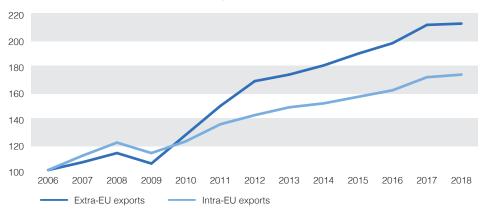
€36 billion Trade balance

- EU food and drink exports slightly increased for the 9th consecutive year (+0.4% compared to 2017), representing 5.6% of total EU goods exports. Imports amounted to €74 billion (-1.2% compared to 2017). This makes the EU a net exporter with a trade balance of €36 billion.
- More than ¹/₄ of Member States' food and drink exports were sold to non-EU countries. During the 2009-2018 period, extra-EU exports increased on average by 7% per year, compared to 4% per year for intra-EU exports.
- Exports increased to most top EU trading partners, (except for Hong Kong, China and Norway). They increased significantly towards Ukraine, Singapore, Egypt, Libya, Israel, Brazil and India.
- USMCA countries (formerly known as the NAFTA trade bloc) remain by far the EU's largest trading partner by region, followed by the China region.

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

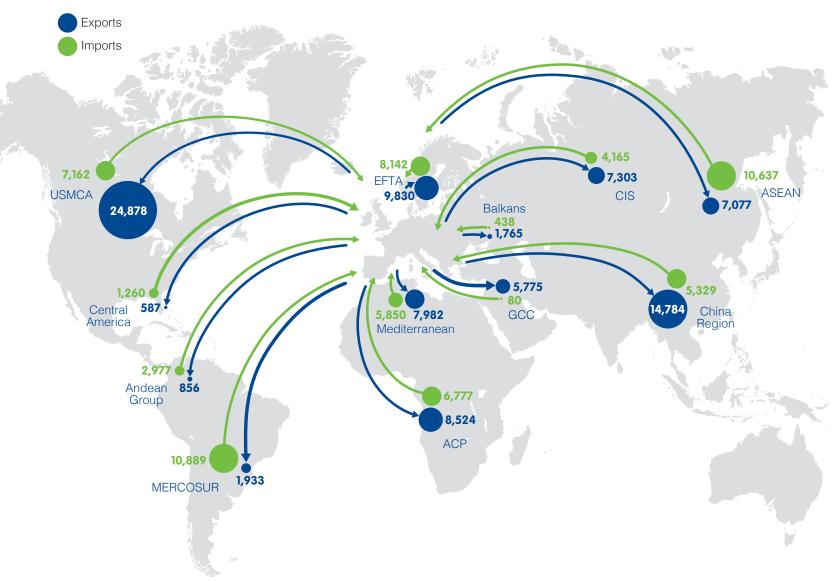


Evolution of extra and intra-EU exports (index, 2006=100)



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

EU food and drink trade flows with key regions (2018, € million)



Top EU trading partners

Export markets

	_	
	2018 € million	% change 2017-2018
United States	20,362	^ 2
China	10,033	V 6
Switzerland	6,025	1
Japan	5,489	▲3
Russia	4,734	▲3
Norway	3,424	▼ 2
Hong Kong	3,414	▼ 8
Canada	3,321	^ 5
Australia	3,204	^ 5
Korea	2,713	▲ 1

Import origins

	2018 € million	% change 2017-2018
Brazil	5,593	^ 2
United States	5,311	^ 2
China	5,140	▲3
Switzerland	4,437	▼ 2
Argentina	4,431	▼ 11
Indonesia	3,319	▼ 15
Turkey	2,799	▶0
Thailand	2,563	▶0
Norway	2,414	4 3
India	2,250	▼ 16

Trade figures by sector

External trade success backed by strong EU food and drink sectors



50%

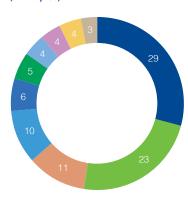
Combined export market share of the drinks, meat and dairy sectors

60%

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

- Top 3 best performing exports by sector: spirits, mineral waters and soft drinks, bakery and farinaceous products.
- Top 3 best performing imports by sector: food preparations, beer and animal feeds.
- The combined exports of the EU drinks, meat, and dairy sectors totalled €55.2 billion in 2018. The "various food products" category which includes goods like chocolate, biscuits, confectionery, and food preparations generated exports worth €25.5 billion.

Share of sectors in EU food and drink exports (2018, %)



- Drinks
- Various food products
- Meat products
- Dairy products
- Processed fruits and vegetables
- Oils and fats
- Bakery and farinaceous products
- Fish products
- Animal feeds
- Grain mill and starch products

Source: Eurostat (Comext)

Exports and imports by sector

	Exports			Imports			
	2018 € million		nange 7-2018	2018 € million		change 17-2018	
Drinks	31,637		3	6,211		5	
of which: spirits	11,342		6	1,712		4	
wine	11,572		2	2,672		2	
beer	3,311	-3		640			16
mineral waters and soft drinks	3,952		6	1,132		8	
Various food products	25,515		2	11,373	-4		
of which: chocolate and confectionery	6,435		0	3,159	-2		
food preparations	4,766		4	55			21
processed tea and coffee	2,252	-1		2,098	-5		
Meat products	12,509	-5		6,832		2	
Dairy products	11,075	-3		749		4	
Processed fruits and vegetables	6,766		4	8,731	-3		
Oils and fats	5,635	-3		16,202	-6		
Bakery and farinaceous products	4,824		5	838		3	
Fish products	4,230		4	19,673		1	
Animal feeds	4,184	-3		1,411		10)
Grain mill and starch products	3,526	-8		2,024	-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 spirits are the EU's top exports.
- Most of the top 10 EU exports registered positive growth in 2018, except for food preparations, animal feeds, pet foods, pork meat, and beer.
- During the 2017-2018 period, exports of spirits as well as bread, pastries and biscuits performed best, followed by infant food and wine.
- On the import side, the most noticeable developments include the double-digit decrease in palm oil and prepared and preserved fruits and nuts.

Top 10 EU food and drink exports and imports by destination and origin (2018)

Exports	

	€ million	% change 2017-2018	Top 3 destinations
Wine	11,571	2	US, Switzerland, China
Spirits	11,342	6	US, Singapore, China
Infant food and other preparations	6,764	3	China, Hong Kong, Saudi Arabia
Food preparations, not specified	5,862	0	US, Russia, Switzerland
Animal feeds, pet foods	5,302	-2	Russia, Norway, US
Pork meat fresh, chilled and frozen	4,785	-6	Japan, China, Korea
Cheese	4,019	1	US, Japan, Switzerland
Bread, pastries and biscuits	3,989	6	US, Switzerland, Norway
Chocolate	3,988	1	US, Russia, Switzerland
Beer	3,277	-3	China, Canada, Russia

m	n	റ	rte	d

	€ million	% change 2017-2018	Top 3 origins
Fish fillets	5,246	0	China, Norway, Iceland
Palm oil	4,185	-14	Indonesia, Malaysia, Papua New Guinea
Prepared and preserved fish	3,188	5	Ecuador, Morocco, Mauritius
Wine	2,670	2	Chile, Australia, US
Fruit and vegetable juices	2,200	-2	Brazil, Turkey, Argentina
Frozen fish	2,145	-3 💻	Norway, Russia, US
Food preparations, not specified	2,021	6	US, Switzerland, China
Prepared and preserved fruits and nuts	1,754	-10	Turkey, US, China
Spirits	1,712	4	US, Russia, Mexico
Bovine meat fresh, chilled and frozen	1,682	-1 ■	Brazil, Argentina, Uruguay

EU market share



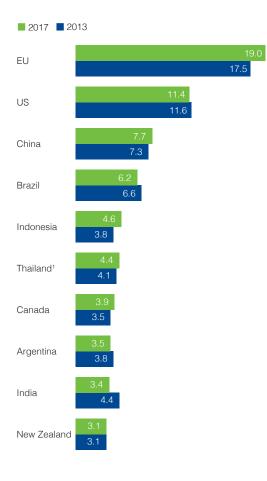
Number 1 exporter and number 2 importer of food and drinks in the world

19%
EU share of global food and drink exports

12.6%
EU share of global food and drink imports

- In 2017, global exports of food and drinks increased by 2% compared to the previous year.
- Over the 2013-2017 period, the EU share of global exports has improved from 17.5% to 19%.
- The recent performance of EU products imported by selected third countries was mostly positive, particularly in China (+8.6%) and Korea (+4.7%). The EU share in Russian food and drink imports has picked up from a low in 2015.

Share of global food and drink exports (%)



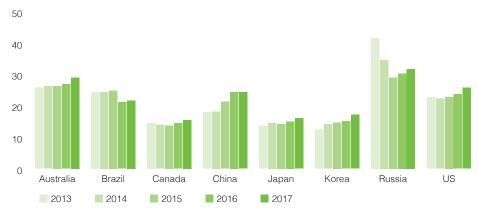
¹ Estimate, based on 2016 and 2018 data Source: UN COMTRADE

Top 10 exporters and importers of food and drinks (2017, \$ billion)

		Exports
EU	1	123
US	2	74
China	3	50
Brazil	4	40
Indonesia	5	30
Thailand ¹	6	29
Canada	7	25
Argentina	8	23
India	9	22
New Zealand	10	20
R.o.W.		215

		Imports
US	1	97
EU	2	78
China	3	51
Japan	4	44
Canada	5	25
Korea	6	19
Hong Kong	7	19
Russia	8	17
Mexico	9	16
India	10	16
R.o.W.		244

Share of EU products in total food and drink imports of selected countries (2013-2017, %)



Sustainability

Achieving the United Nations Sustainable Development Goals

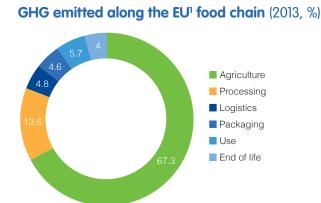


9.7 billion
Global population in 2050

50%
Increase in global food production by 20501

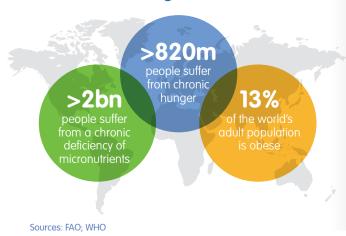
- The production and processing phases account for more than three quarters of food related GHG emissions.
- Addressing hunger, malnutrition and overweight is key to meet the goals of the 2030 Agenda for Sustainable Development.
- Population and income growth will continue to drive food demand.
 Meeting the additional demand will depend on the availability and productivity of resources.





Source: Joint Research Centre

Global social challenges















Food waste in the EU



Source: European Commission

Meeting global demand for food by 2050²



Source: FAO

Innovation and consumer trends



Innovation key to greater consumer choice

Pleasure

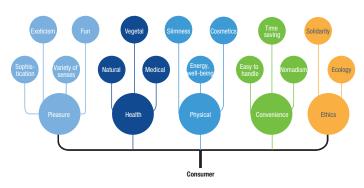
Leading driver of food innovation in Europe

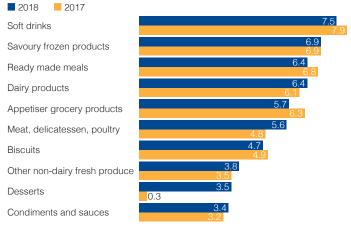
#1

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, although declining, remained the leading driver of food innovation in Europe, with a 47.8% share in 2018.
- Health continued to gain ground in 2018 to reach 33.7%, but ethics became the most dynamic driver of food innovation in Europe in terms of growth, thanks to the sharp increase of ecological concerns.
- Soft drinks were the world leaders in innovation in 2018, just ahead of savoury frozen products. Ready-made meals remained at third place.

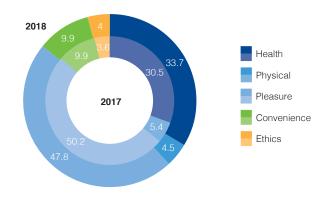
Food innovation trends





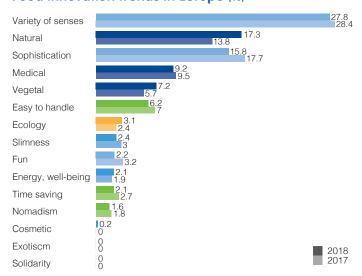
The world's 10 most innovative food sectors (%)

Drivers of innovation in Europe (%)



Source: World Innovation Panorama by ProtéinesXTC Copyright © ProtéinesXTC

Food innovation trends in Europe (%)



Global trends in R&D

Sustained levels of R&D investment



0.23%

EU¹ R&D private investment intensity

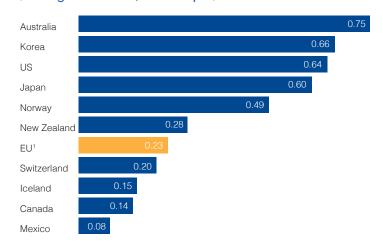
- Out of the world's top 2,500 companies for R&D private investment, 60 operate in the food and drink industry. Together, these companies invested €8 billion in R&D in 2017/18, €2.9 billion of which were invested by 16 food and drink companies based in the EU.
- These 16 EU companies are located in the United Kingdom (5), the Netherlands (3), France, Ireland and Germany (2), Belgium and Denmark (1).
- The EU¹ food and drink industry² has a lower R&D investment intensity when compared with several food and drink industries worldwide.
- Across EU Member States¹, R&D investment intensity varies from 0.54% to 0.01%.

R&D private investment of food and drink companies listed in the world's top 2,500 companies by R&D (2017/18)

	R&D investment (€ billion)	R&D investment (% of total)	Number of companies
EU	2.9	36.1	16
Switzerland	1.9	23.1	2
Japan	1.6	20.4	19
US	1.1	14	12
China	0.2	3	6
New Zealand	0.1	1.4	1
South Korea	0.1	1.1	2
Others	0.1	0.9	2
TOTAL	8	100	60

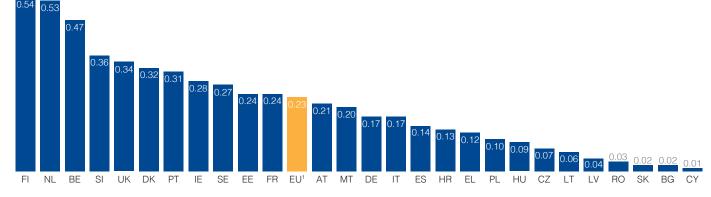
Source: Joint Research Centre

R&D private investment of the food and drink industry² (average 2014-2016, % of output)



Sources: Eurostat (BERD, National Accounts); OECD (STAN)

R&D private investment of the food and drink industry² by Member State (average 2014-2016, % of output)



Source: Eurostat (BERD, National Accounts)

¹ Based on available data

² Including tobacco

Key food and drink companies



Ranking of agri-food companies by global agri-food sales¹

Nestlé CH 79.21 ✓ multi-product Pepsico, Inc. US 54.57 ✓ beverages, snacks Archer Daniels Midland Company US 54.27 ✓ multi-product JBS BE 46.10 ✓ meat, diairy JBS BR 42.96 ✓ multi-product JBS US 38.23 ✓ multi-product JYSON Foods US 38.23 ✓ meat Mars US 39.53 - meat Mars US 29.54 ✓ prepared foods, confectionery & snacks, pet food Mars US 26.69 ✓ beverages Danone FR 24.65 ✓ ber Kraft-Heinz US 22.17 ✓ multi-product Mondelez International US 21.00 - multi-product WH Group NULW 20.23 ✓ multi-product WH Group NULW 20.23	Name	Headquarters	Sales (€ billion) ²	Operations in the EU ³	Main sectors
PepsiCo, Inc. US 54.57 ✓ beverages, snacks Archer Daniels Midland Company US 54.27 ✓ multi-product AB InBev BE 46.10 ✓ beer UBB BR 42.36 ✓ meat, dairy Blunge US 38.23 ✓ multi-product Tyson Foods US 39.63 - meat Mars US 29.54 ✓ beeverages Danone FR 24.65 ✓ deiry, water, beby & medical nutrition Heineken NL 22.47 ✓ beer Kraftlelinz US 21.89 ✓ confectionery, snacks, dairy Williproduct WILL 20.23 ✓ multi-product Will Group NL/UK 20.23 ✓ meat Lactalis FR 18.50 ✓ dairy Will Group JP 16.92 ✓ (alcoholic) beverages and foods Seneral Millis UK	Cargill	US	99.20	✓	multi-product
Archer Daniels Midland Company US 54.27 ✓ multi-product AB InBev BE 46.10 ✓ beer JBS BR 42.36 ✓ mett, dairy Bunge US 38.23 ✓ multi-product Tyson Foods US 35.63 - meat Mars US 29.54 ✓ prepared foods, confectionery & snacks, pet food The Coca-Cola Company US 26.89 ✓ beverages Dance FR 24.65 ✓ dairy, water, baby & medical nutrition Helieken NL 22.47 ✓ multi-product Kraft-leinz US 21.89 ✓ confectionery, snacks, dairy CHS US 21.89 ✓ multi-product WH Group NL/UK 20.23 ✓ multi-product WH Group CN 19.08 ✓ dairy Suntory JP 16.92 ✓ (alcoholic) beverages and foods Asahi G	Nestlé	СН	79.21	✓	multi-product
AB InBev BE BE 46.10	PepsiCo, Inc.	US	54.57	✓	beverages, snacks
BBS 42.36 / meat, dairy Bunge US 38.23 / multi-product Tyson Foods US 33.63 - meat Mars US 29.54 / beverages Danone FR 24.65 / dairy, water, baby & medical nutrition Heineken NL 22.47 / beer KrattHeinz US 21.89 / multi-product Mondelez International US 21.89 / multi-product WH Group NL/UK 20.23 / multi-product WH Group CN 19.08 / meat Lactalis FR 18.50 / dairy Suntory JP 16.92 / dairy Suntory JP 16.92 / daicoholic beverages and foods Asahi Group JP 16.22 / daicoholic beverages and foods General Millis US 14.70 / <t< td=""><td>Archer Daniels Midland Company</td><td>US</td><td>54.27</td><td>✓</td><td>multi-product</td></t<>	Archer Daniels Midland Company	US	54.27	✓	multi-product
Bunge US 38.23 Y multi-product Tyson Foods US 33.63 - meat Mars US 29.54 Y prepared foods, confectionery & snacks, pet food The Coca-Cola Company US 26.69 Y beverages Dance FR 24.65 Y dairy, water, baby & medical nutrition Heineken NL 22.47 Y beer KraftHeinz US 21.89 Y confectionery, snacks, dairy CHS US 21.89 Y confectionery, snacks, dairy CHS US 21.00 - multi-product Unilever NL/UK 20.23 Y meat Lactalis FR 18.50 Y dairy Suntory JP 16.92 Y (alcoholic) beverages and foods Sahi Group JP 16.22 Y (alcoholic) beverages and foods General Mills US 14.70 Y prepared foods	AB InBev	BE	46.10	✓	beer
Tyson Foods US 33.63 - meat Mars US 29.54 / prepared foods, confectionery & snacks, pet food The Coca-Cola Company US 26.89 / beverages Danone FR 24.65 / dairy, water, baby & medical nutrition Heineken NL 22.47 / multi-product KraftHeinz US 21.89 / confectionery, snacks, dairy CHS US 21.00 - multi-product Unilever NL/UK 20.23 / meat Lactalis FR 18.50 / dairy Suntory JP 16.92 / (alcoholic) beverages and foods Sashi Group JP 16.22 / (alcoholic) beverages and foods Diageo UK 14.59 / alcoholic beverages and foods Grupo Binbo MX 12.67 / bakery Fonterra NZ 12.18 / bakery	JBS	BR	42.36	✓	meat, dairy
Mars US 29.54 7 prepared foods, confectionery & snacks, pet food The Coca-Cola Company US 26.89 7 beverages Danone FR 24.65 7 dairy, water, baby & medical nutrition Heineken NL 22.47 7 beer KraftHeinz US 22.17 7 multi-product Mondelez International US 21.89 7 confectionery, snacks, dairy CHS US 21.00 - multi-product WH Group NL/UK 20.23 7 meat Valuation FR 18.50 7 dairy Suntory JP 16.92 7 (alcoholic) beverages and foods Asahi Group JP 16.92 7 (alcoholic) beverages and foods General Mills US 14.70 7 prepared foods Diageo UK 14.59 7 alcoholic beverages Grupo Bimbo MX 12.67 7 bakery	Bunge	US	38.23	✓	multi-product
The Coca-Cola Company US 26.89 ✓ beverages Danone FR 24.65 ✓ dairy, water, baby & medical nutrition Heineken NL 22.47 ✓ beer KraftHeinz US 22.17 ✓ multi-product Mondelez International US 21.89 ✓ confectionery, snacks, dairy CHS US 21.00 - multi-product Unliever NL/UK 20.23 ✓ meat Lactalis FR 18.50 ✓ dairy Suntory JP 16.92 ✓ (alcoholic) beverages and foods Asahi Group JP 16.22 ✓ (alcoholic) beverages and foods General Mills US 14.70 ✓ prepared foods Diageo UK 14.59 ✓ bakery Fonterra NZ 12.18 ✓ dairy Kirin Holdings JP 12.05 - dairy	Tyson Foods	US	33.63	-	meat
Danone FR 24.65 ✓ dairy, water, baby & medical nutrition Heineken NL 22.47 ✓ beer KraftHeinz US 22.17 ✓ multi-product Mondelez International US 21.89 ✓ confectionery, snacks, dairy CHS US 21.00 - multi-product Unliever NL/UK 20.23 ✓ multi-product WH Group CN 19.08 ✓ meat Lactalis FR 18.50 ✓ dairy Suntory JP 16.92 ✓ (alcoholic) beverages and foods Asahi Group JP 16.22 ✓ (alcoholic) beverages and foods General Mills US 14.70 ✓ prepared foods Diageo UK 14.59 ✓ alcoholic beverages Grupo Bimbo MX 12.67 ✓ bakery Fonterra NZ 12.18 ✓ dairy Kirin Holdings <	Mars	US	29.54	✓	prepared foods, confectionery & snacks, pet food
Heineken NL 22.47	The Coca-Cola Company	US	26.89	✓	beverages
KraftHeinzUS22.17✓multi-productMondelez InternationalUS21.89✓confectionery, snacks, dairyCHSUS21.00-multi-productUnileverNL/UK20.23✓multi-productWH GroupCN19.08✓meatLactalisFR18.50✓dairySuntoryJP16.92✓(alcoholic) beverages and foodsAsahi GroupJP16.22✓(alcoholic) beverages and foodsGeneral MillsUS14.70✓prepared foodsDiageoUK14.59✓alcoholic beveragesGrupo BimboMX12.67✓bakeryFonterraNZ12.18✓dairyKirin HoldingsJP12.05-alcoholic and non-alcoholic beverages	Danone	FR	24.65	✓	dairy, water, baby & medical nutrition
Mondelez International US 21.89 ✓ CHS US 21.00 - multi-product Multi-prod	Heineken	NL	22.47	✓	beer
CHS US 21.00 - multi-product Unilever NL/UK 20.23	KraftHeinz	US	22.17	✓	multi-product
UnileverNL/UK20.23✓multi-productWH GroupCN19.08✓meatLactalisFR18.50✓dairySuntoryJP16.92✓(alcoholic) beverages and foodsAsahi GroupJP16.22✓(alcoholic) beverages and foodsGeneral MillsUS14.70✓prepared foodsDiageoUK14.59✓alcoholic beveragesGrupo BimboMX12.67✓bakeryFonterraNZ12.18✓dairyKirin HoldingsJP12.05-alcoholic and non-alcoholic beverages	Mondelez International	US	21.89	✓	confectionery, snacks, dairy
WH Group CN 19.08 Lactalis FR 18.50 V dairy Suntory JP 16.92 Asahi Group General Mills US 14.70 Jugeo UK 14.59 Grupo Bimbo MX 12.67 Fonterra NZ 12.18 V meat dairy (alcoholic) beverages and foods (alcoholic) beverages (alcoholic beverages) (alcoholic beverages) (alcoholic beverages)	CHS	US	21.00	-	multi-product
Lactalis FR 18.50 ✓ dairy Suntory JP 16.92 ✓ (alcoholic) beverages and foods Asahi Group JP 16.22 ✓ (alcoholic) beverages and foods General Mills US 14.70 ✓ prepared foods Diageo UK 14.59 ✓ alcoholic beverages Grupo Bimbo MX 12.67 ✓ bakery Fonterra NZ 12.18 ✓ dairy Kirin Holdings JP 12.05 - alcoholic and non-alcoholic beverages	Unilever	NL/UK	20.23	✓	multi-product
Suntory JP 16.92 / (alcoholic) beverages and foods (alcoholic) beverages (alcoholic) bevera	WH Group	CN	19.08	✓	meat
Asahi Group JP 16.22 General Mills US 14.70 Jeneral Mills Diageo UK 14.59 MX 12.67 Fonterra NZ 12.18 Jeneral Mills Jeneral Mi	Lactalis	FR	18.50	✓	dairy
General Mills US 14.70 ✓ prepared foods Diageo UK 14.59 ✓ alcoholic beverages Grupo Bimbo MX 12.67 ✓ bakery Fonterra NZ 12.18 ✓ dairy Kirin Holdings JP 12.05 - alcoholic and non-alcoholic beverages	Suntory	JP	16.92	✓	(alcoholic) beverages and foods
DiageoUK14.59✓alcoholic beveragesGrupo BimboMX12.67✓bakeryFonterraNZ12.18✓dairyKirin HoldingsJP12.05-alcoholic and non-alcoholic beverages	Asahi Group	JP	16.22	✓	(alcoholic) beverages and foods
Grupo Bimbo MX 12.67 ✓ bakery Fonterra NZ 12.18 ✓ dairy Kirin Holdings JP 12.05 - alcoholic and non-alcoholic beverages	General Mills	US	14.70	✓	prepared foods
Fonterra NZ 12.18 ✓ dairy Kirin Holdings JP 12.05 - alcoholic and non-alcoholic beverages	Diageo	UK	14.59	✓	alcoholic beverages
Kirin Holdings JP 12.05 - alcoholic and non-alcoholic beverages	Grupo Bimbo	MX	12.67	✓	bakery
· · · · · · · · · · · · · · · · · · ·	Fonterra	NZ	12.18	✓	dairy
FrieslandCampina NL 11.55 ✓ dairy	Kirin Holdings	JP	12.05	-	alcoholic and non-alcoholic beverages
	FrieslandCampina	NL	11.55	✓	dairy

Name	Headquarters	Sales (€ billion) ²	Operations in the EU ³	Main sectors
Kellogg Company	US	11.43	✓	prepared foods, snacks, cereals
Ferrero	IT	10.70	✓	confectionery
Arla Foods	DK	10.43	✓	dairy
Marfrig Group	BR	9.65	✓	meat
NH Foods	JP	9.59	-	meat, processed foods, fish products, dairy
DSM	NL	9.27	✓	multi-product
Pilgrim's Pride	US	9.23	✓	meat
China Mengniu	CN	8.82	-	dairy
Carlsberg	DK	8.39	✓	beer
ConAgra Brands	US	8.31	-	prepared foods
Meiji Holdings	JP	8.21	-	dairy, chocolate
Danish Crown	DK	8.18	✓	meat
BRF	BR	8.05	✓	meat
Hormel Foods	US	8.02	-	meat, grocery products, refrigerated and specialty foods
Yamazaki Baking	JP	7.58	-	bread, confectionery, snacks
Associated British Foods	UK	7.50	✓	sugar, starch, prepared foods
Kerry Group	ΙΕ	6.61	✓	multi-product
Hershey Company	US	6.58	-	chocolate, confectionery
Dean Foods Company	US	6.55	-	dairy
Oetker Group	DE	6.46	✓	multi-product
McCain	CA	6.27	✓	frozen potato products, prepared foods
Südzucker	DE	6.10	✓	sugar, multi-product
J.M. Smucker Co.	US	5.24	-	spreads & convenience foods, coffee
DuPont	US	5.23	✓	nutrition & biosciences

¹ Based on the most recent complete fiscal year

² Figures have been converted to Euro with ECB bilateral annual exchange rates series, but only figures in the original currency are relevant

 $^{^{\}scriptscriptstyle 3}$ Operations in the EU refer to the presence of processing plants in one or more Member States

Glossary

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.

Abbreviation of world regions

ACP

Africa, 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

Balkans

Albania, Bosnia-Herzegovina, Kosovo, Former Yugoslav Republic of Macedonia, Montenegro and Serbia

Central America

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

China region

China, Hong Kong, Macao and Taiwan

CIS (Commonwealth of Independent States)

Armenia, Azerbaijan, Belarus, Kazakhstan, Kyrgyz Republic, Moldova, Russia, Tajikistan, Turkmenistan, Ukraine and Uzbekistan

EFTA (European Free Trade Area)

Iceland, Liechtenstein, Norway and Switzerland

EU

EU refers to EU28, unless otherwise specified

GCC (Gulf Cooperation Council)

Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and the United Arab Emirates

Mediterranean region

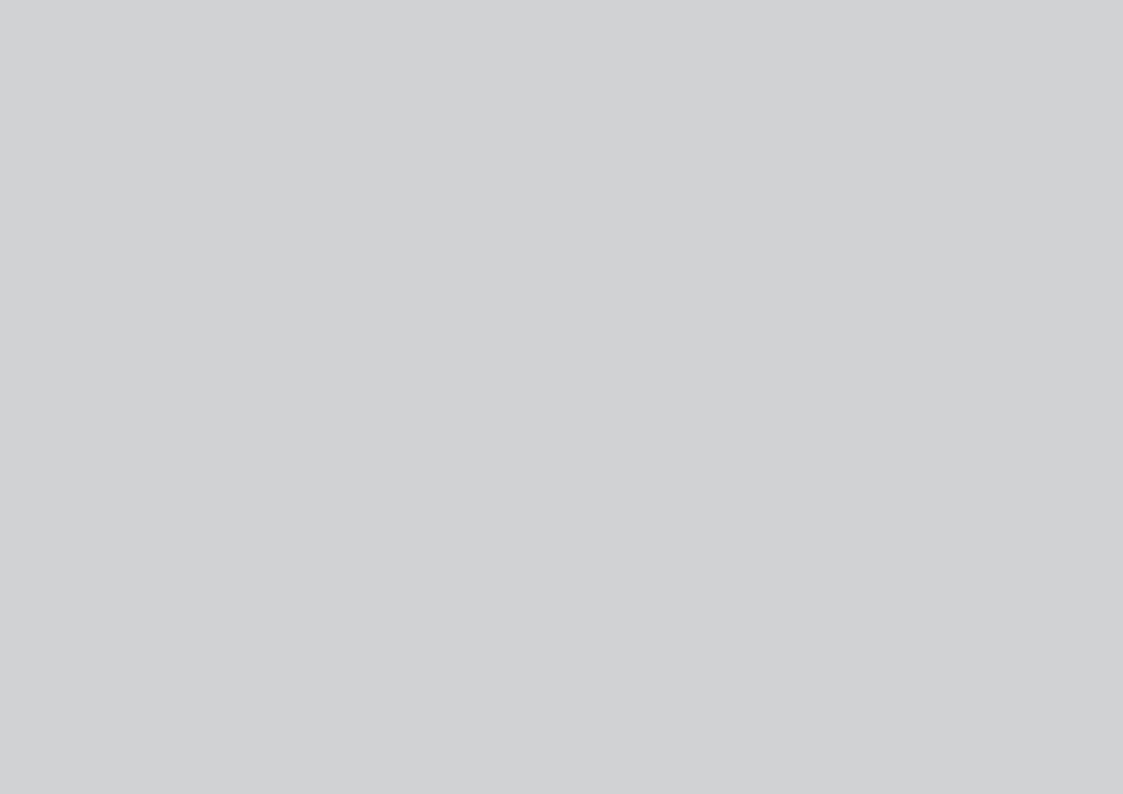
Algeria, Egypt, Israel, Jordan, Lebanon, Libya, Morocco, Palestine, Syria, Tunisia and Turkey

Mercosur

Argentina, Brazil, Paraguay and Uruguay

USMCA countries

US, Mexico, and Canada



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