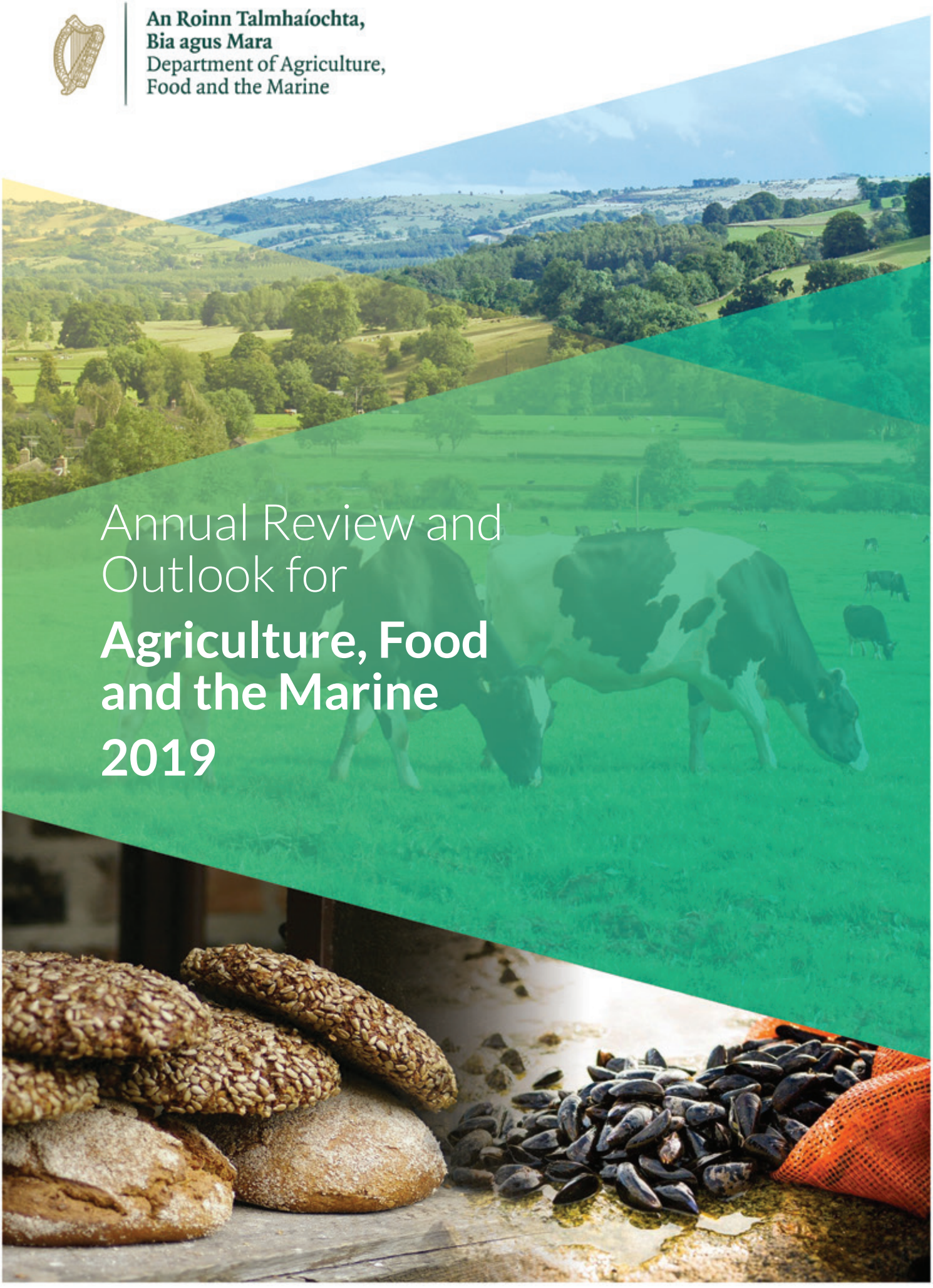
An Roinn Talmhaíochta,
Bia agus Mara
Department of Agriculture,
Food and the Marine



Annual Review and Outlook for

Agriculture, Food and the Marine

2019

An Roinn Talmhaíochta,
Bia agus Mara
Department of Agriculture,
Food and the Marine

Annual Review and Outlook for **Agriculture, Food and the Marine** 2019

Economics and Planning Division

Email Address:
EconomicsandPlanning@agriculture.gov.ie

Postal Address:
Economics and Planning Division
Floor 6 Centre, Agriculture House
Kildare Street
Dublin 2
DO2 WK12.

Foreword

by Minister Michael Creed

My Department's Annual Review and Outlook for Agriculture, Food and the Marine 2019 provides up to date information and statistical analysis on a wide variety of topics impacting the agri-food sector.

The agri-food sector is Ireland's most important indigenous industry, playing a vital role in Ireland's economy. Irish food is produced by thousands of farmers, fishermen and agri-food companies around the country. This locally produced food was exported to over 180 markets worldwide and was valued at €13.7 billion in 2018. This represents 10% of Irish merchandise exports. Additionally, this sector contributed 7.5% of GNI*in 2018. This supply chain, stretches from rural and coastal areas all across Ireland to distant markets in Asia and Africa. Food safety and environmental sustainability are both crucial to maintaining our existing markets and developing new market opportunities. Irish food is produced to the highest international standards of quality and food safety. Our food safety and traceability systems continue to be recognised as among the very best in the world.

The agri-food sector makes a significant contribution to employment. The sector employs approximately 173,000 people, representing 7.7% of total employment. Outside Dublin and mid-east region the agri-food sector provides between 10% and 14% of total employment highlighting the importance of the agri-food sector to the economy especially in rural and coastal areas.

The agri-food sector has to constantly evolve in response to major European and International policy developments such as CAP reform, international trade negotiations and now Brexit. While there will be a period of uncertainty in the coming years, I am confident that our shared vision for the sustainable development of the sector, as expressed in the Food Wise strategy, and the expansion of export markets, will enable us to effectively address these challenges. The focus for the year ahead is to continue to support the agri-food sector in continuing its vital contribution, economically, socially and environmentally, as preparations begin for an Agri-food Strategy to 2030.

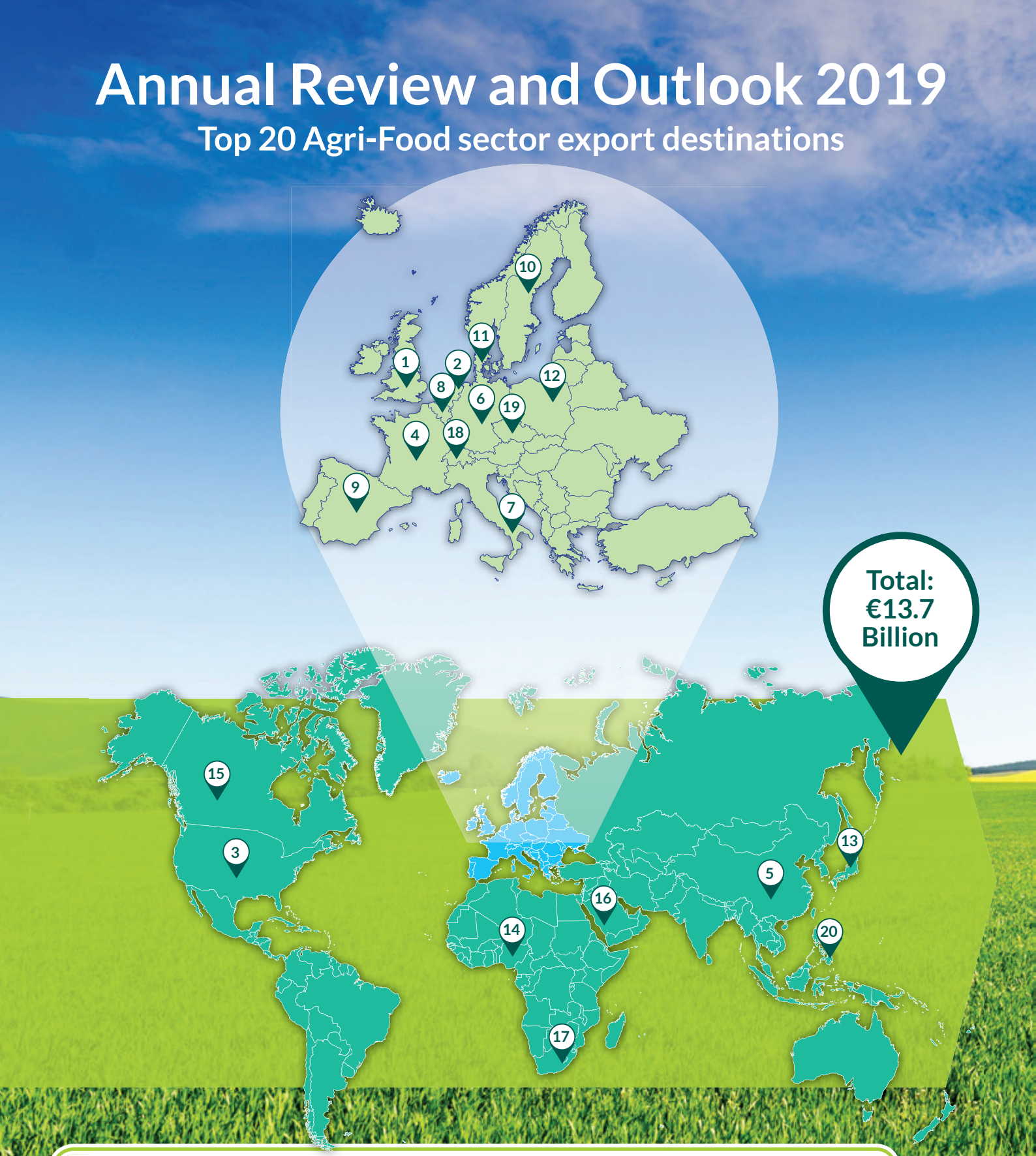
A strong evidence base is essential for policy formation. I am confident that the information and statistical analysis included in this year's Annual Review and Outlook will assist in policy analysis and debate in the sector over the next year.

Michael Creed T.D.
Minister for Agriculture, Food and the Marine

Contents

Annual Review and Outlook 2019

Top 20 Agri-Food sector export destinations



1 **UK** €5,551.6 million	5 **China** €794.3 million	9 **Spain** €289.5 million	13 **Japan** €114.8 million	17 **South Africa** €80.8 million
2 **Netherlands** €1,044.9 million	6 **Germany** €756.4 million	10 **Sweden** €152.8 million	14 **Nigeria** €110.9 million	18 **Switzerland** €66.7 million
3 **United States** €1,022.4 million	7 **Italy** €377 million	11 **Denmark** €148 million	15 **Canada** €108.2 million	19 **Czech Republic** €66.4 million
4 **France** €861.9 million	8 **Belgium** €290.5 million	12 **Poland** €114.5 million	16 **Saudi Arabia** €108 million	20 **Philippines** €61.2 million

* rounding in operation

Agri-food sector exports have **grown by 73%** since 2009 to approximately €13.7 billion, in 2018.

The sector employs approximately **173,000 people**, representing 7.7% of total employment.

The agri-food sector contributed **7.5% of GNI*** in 2018.

Payments to farmers totalled **€1.8 billion** including Single Farm Payment, Rural Development and Forestry Payments.

Average **family farm income (FFI)** for 2018 totalled **€23,333.**

51% of farm households **had an off-farm income** employment source in 2018.

Irish exports of agricultural products accounted for **10% of total merchandising** exports, and 11% of total imports in 2018.

The Food & Drink sector accounted for **39.5% of all export sales** by Irish-owned companies in 2017

The value of agricultural output at basic prices was **€8.65 billion** in 2018

Expenditure on intermediate consumption was **up 13%** in 2018, to **€6 billion.**

CHAPTER
1 Agri-Food Sector and the Economy

The volume of agri-food products exported continued to grow for the ninth year in a row,
up 3.7%
on 2017.

The number of enterprises recorded under the food production heading increased by
almost 45%
in 2016 on 2008 figures.

Food & Drink sector accounted for
36.2%
of the sales in Irish-owned industry in 2017.

1.1 Overview

The agri-food sector is Ireland's most important indigenous industry, playing a vital role in Ireland's economy. The agri- food sector makes a significant contribution to employment in rural and coastal areas in particular. In 2018 Irish food and drink was exported to over 180 markets worldwide. Exports of agri-food products in 2018 were valued at €13.7 billion. The agri-food sector contributed 7.5% of GNI*in 2018. The sector employs approximately 173,000 people, representing 7.7% of total employment.

The agri-food sector is export-orientated accounting for 10% of Irish merchandising exports in 2018. Agri-food exports have increased by 73% from €7.8 billion in 2009. The volume of agri-food products exported continued to grow for the ninth year in a row, up 3.7% on 2017.

However, the value of agri-food exports for 2018 was €13.7 billion, down slightly from a record €13.8 billion in 2017.

The agri-food sector includes primary production, (agriculture, fishing and forestry), food & beverages and the wood processing sector. It includes traditional food products such as beef, dairy and beverages; along with non-edible items such as animal foodstuffs, forestry, and animal hides and skins.

Table 1.1 *Main economic and fiscal variables, per cent change (unless stated)*

	2017	2018	2019 Forecast	2020 Forecast
Economic Activity				
Real GDP	8.1[1]	8.2[1]	3.9	3.3
Real GNP	5.1[1]	6.5[1]	3.7	3.1
Prices				
HICP	0.3	0.7	0.9	1.1
Core HICP (excludes food and energy sectors)	0	0.2	1.1	1.5
GDP deflator	-0.3	1.5	1.5	1.7
Balance of Payments				
Trade balance (per cent of GDP)	32.1	31.2	30.7	30.4
Current account (per cent of GDP)	12.5	9.1	8.4	8
Labour Market				
Total Employment ('000)	2,194	2,259	2,309	2,357
Employment	2.9	2.9	2.2	2.1
Unemployment (per cent)	6.7	5.7	5.4	5.2

Source: Department of Finance, Stability Programme Update, 2019

[1] Source: Central Statistics office, National Income and Expenditure 2018

Economic Outlook 2019

The Department of Finance's *Ireland Stability Programme* April 2019 states that the pace of economic growth in Ireland is set to moderate to a more sustainable rate, from the very strong rates recorded in recent years. The forecast is for headline GDP to increase by 3.9% this year, a projection which incorporates a modest downward revision relative to the Department's Autumn forecasts in order to reflect less favourable near-term prospects in key export markets. Modified domestic demand (MDD) – a more meaningful measure of underlying economic activity in Ireland – is set to expand by 4.0%. For next year, both GDP and MDD are projected to increase at a rate of 3.3%.

In the annual National Income and Expenditure results released by the CSO in July 2019, GDP is estimated to have grown by 8.2% in 2018, driven by a 10.4% increase in Exports of Goods and Services. GNP - a measure of economic activity that excludes the profits of multi-nationals - grew by 6.5% in the year. Personal Consumption of Goods and Services, an important indicator of domestic economic activity, grew by 3.4% in 2018.

Irish exports are forecast to grow by 5.2% this year while imports of goods and services are expected to grow by 5.9% this year, reflecting a slowdown in the main components of final demand.

Further gains in employment are in prospect this year, with the number in employment expected to increase by 50,000 (2.2%). Most of these are expected to be in fulltime employment.

Overall, GDP is forecast to increase by 3.9 % this year. Of this, modified domestic demand and modified net exports, are expected to contribute 2.2 and 1.7% points to overall GDP growth.

The projections above outlined in the Department of Finance's Ireland Stability Programme April 2019 are contingent upon a 'soft' exit of the UK from the EU. A no-deal would entail a severe disruption to Irish-UK bilateral trade. The most affected sectors include those in the broad agri-food sector, where WTO tariffs are particularly high. Research undertaken jointly by the Department of Finance and the ESRI shows that the impact of a disorderly exit would be to reduce the level of GDP by 5 percentage points (relative to baseline) over the longer term, with adverse implications for the labour market and the public finances.

Source: Department of Finance, Stability Programme Update, 2019 and Central Statistics office, National Income and Expenditure 2018

1.2 Agricultural economic outlook

The EU Agricultural Outlook for Markets and Income 2018 - 2030[1] advises of additional demands on agri-food producers along with opportunities for growth. The report states "*In the EU and beyond, the consumer and citizen will become more demanding towards food and its sourcing, its impact on the environment and climate change. For producers these evolving demands mean often higher production costs but also an opportunity to differentiate their products, adding value while reducing negative climatic and environmental impacts. Alternative production systems, such as local, organic or other types of certified production will further excel. At world level, both demand and supply will grow further, creating opportunities and pressures for EU imports and exports, depending on the product and target market.*"

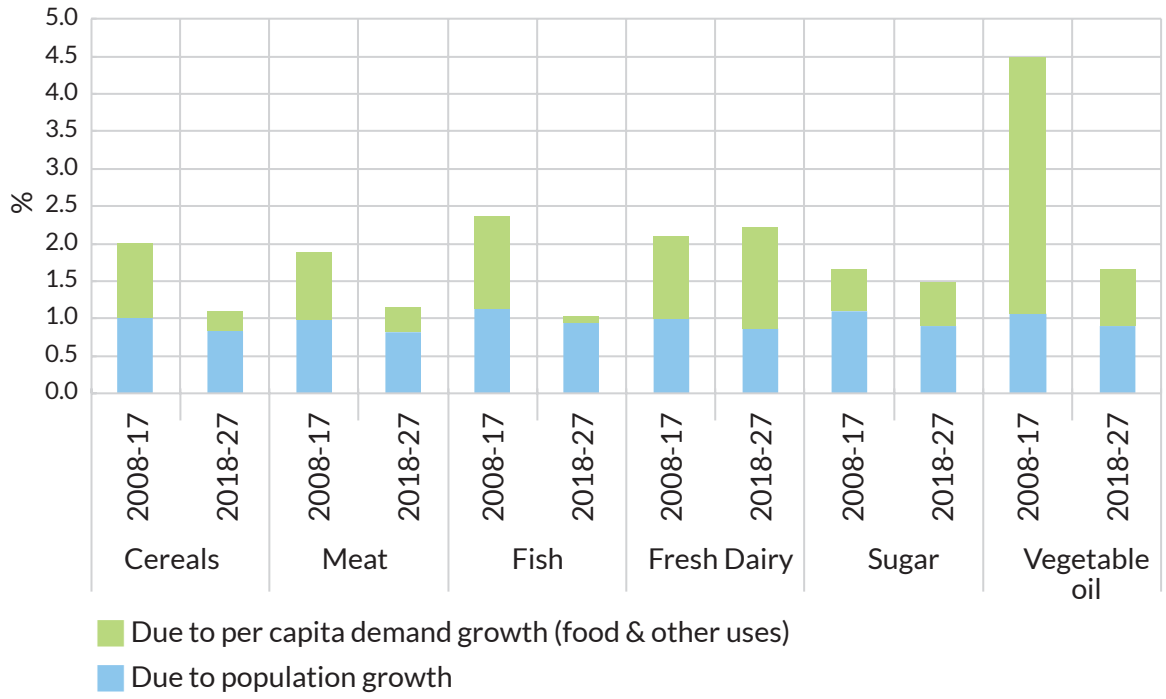
The report expects a trend towards reduced meat, bread and sugar consumption while it expects consumption of plant-based proteins to increase. It expects cereal prices to remain stable out to 2030 while protein rich crops will benefit from strong demand. Population growth in Africa and income growth will lead to higher consumption of dairy products which EU producers are well placed to take advantage of. EU meat consumption is declining according to the report although 90% of EU meat production will be consumed domestically. Beef prices are expected to fall over the next few years before stabilising towards 2030. Poultry is the only meat where this report sees growth with EU production expected to grow by about 4% between 2018 and 2030.

1 EC (2018) EU Agricultural Outlook for Markets and Income, 2018 – 2030. European Commission, DG Agriculture and Rural Development, Brussels.

The report projects a stabilisation of agricultural income per labour unit in real terms during the period as the increased value of production will be outweighed by a similar increase in production costs.

The OECD-FAO Agricultural Outlook 2018 – 2027[2] expects growth across most agri-food sectors across the next decade. The level of growth in most sectors will be less than the growth experienced over the previous decade apart from fresh dairy, which is expected to grow at just over 2% out to 2027. Growth in the fresh dairy sector will be significantly driven by population growth. Growth in cereals, meat and fish will be around 1%, while slightly higher levels of growth are expected for sugar and vegetable oil.

Figure 1.1. *Annual growth in demand for key commodity groups, 2008-17 and 2018-27*



Note: The population component is calculated assuming per capita demand remains constant at the level of the year preceding the decade, Growth rates refer to total demand (for food, feed and other uses)

Source: OECD/FAO 2018, 'OECD -FAO Agricultural Outlook, OECD Agriculture statistics

Along with the growth opportunities provided by a growing world population and a growing middle-class worldwide, other opportunities are provided by entering international trade deals. One such deal came into force on February 1st, 2019 namely the Economic Partnership Agreement (EPA) between EU and Japan, creating the world's biggest free trade area.

The trade deal slashes tariffs for 97% of EU exports to Japan and gives key EU food and drink exporters access to 127 million Japanese consumers. Among the measures in the EPA are the scrapping of Japanese duties on many cheeses such as Gouda and Cheddar. The EPA also allows the EU to increase its beef exports to Japan substantially, while on pork it enables duty-free trade in processed meat and almost duty-free trade for fresh meat. It also includes Japan on the EU list of Third Countries for raw milk, dairy products, eggs and egg products.

2 Agricultural Outlook 2018-2027, OECD Publishing, Paris/Food and Agriculture Organization of the United Nations, Rome.

However, concerns have been raised in relations to the European Commissioners for Trade and Agriculture free trade deal between the EU and Mercosur countries. The agreement will remove the majority of tariffs on EU exports to Mercosur, saving over €4 billion worth of duties per year. As part of the agreement the EU will liberalise 82% of import tariffs on the agri-food trade, while Mercosur will, gradually eliminate duties on 93% of tariff lines concerning EU exports, corresponding to 95% of export values.

However, of most concern from an Irish perspective, is the inclusion in the Agreement of a Beef Tariff Rate Quota (TRQ) of 99,000 tonnes. Ireland has made concerted efforts over the full twenty-year history of these negotiations, working closely with other Member State colleagues and engaging directly with the European Commission, in order to minimise the EU offer in terms of beef TRQ.

On the positive side, the Agreement offers opportunities for other agri-food sectors such as dairy and the drinks industry.

1.3 Contribution of the Agri-Food Sector to the Economy

Gross Value Added

The agri-food sector is Ireland's most important indigenous industry, playing a vital role in Ireland's economy. It is estimated that the agri-food sector which is classified as primary production (agriculture, fishing and forestry) along with food & beverages and the wood processing sector, accounted for approximately 4.9% of Gross Value Added at factor cost in 2018. This is the Gross Value Added at market prices less any indirect taxes plus any subsidies. The table below provides a further breakdown of these figures for 2018.

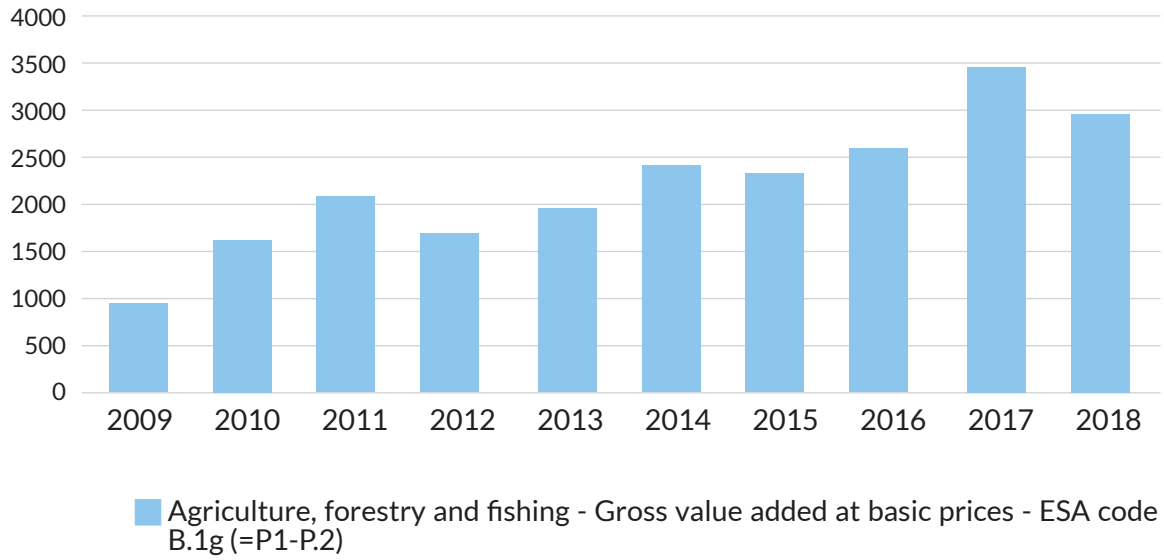
Table 1.2 *Contribution of the Agri Food Sector to GVA, 2018 (Estimate)*

2018	€m
Gross Value Added (GVA) at Factor Cost	€302,122
GVA in Primary Agriculture, Fisheries and Forestry at Factor Cost	€4,624
GVA in Food & Beverages Sector	€9,778
GVA in Wood Processing (estimate)	€328
Total	€14,729
GVA in Primary Sector as a % of GVA	1.5%
GVA in overall Agri-Food Sector as % of GVA	4.9%

Source: Central Statistics Office, National Income and Expenditure, 2018

The relative value of Gross Value Added by the agri-food sector has been gradually dropping since 2000 when it represented 7.8% of national Gross Value Added compared to 4.9% in 2018.

Figure 1.2. *Gross Value Added at Basic Prices by Sector of Origin and Gross National Income at Current Market Prices (Euro Million) by Item and Year*



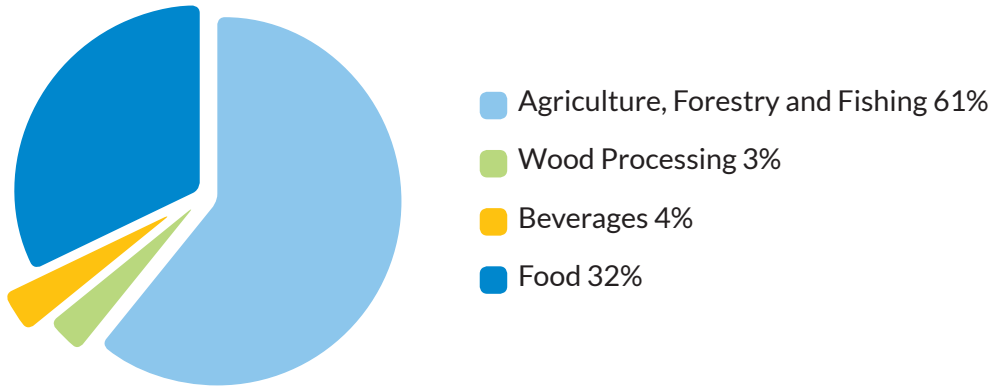
Source: Central Statistics Office, National Income and Expenditure, 2018

Modified GNI or GNI* is an indicator that was recommended by the Economic Statistics Review Group and is designed to exclude globalisation effects that are disproportionally impacting the measurement of the size of the Irish economy. In 2018 the agri-food sector accounted for 7.5% of GNI*.

Employment

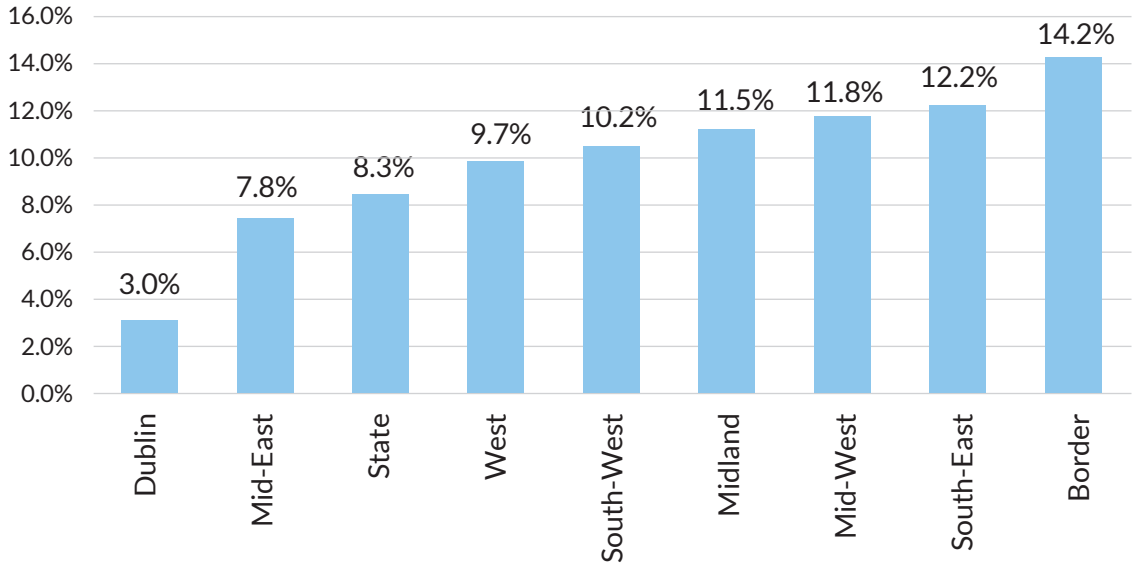
Employment in the agri-food sector accounts for an average of approximately 173,000 jobs in 2018 or 7.7% of the total employment. Agriculture, forestry and fishing accounts for around 109,000 while the food and beverages manufacturing sector employs close to 58,000 with wood and wood processing accounting for a further 6,000 jobs. While these numbers vary during the year due to seasonal factors the trend since the turn of the century has seen numbers employed dropping. Numbers employed in the agri-food sector have fallen from 187,000 in 2000 to 182,000 in 2008 and to 173,000 in 2018 and from 11% of total employment in 2000 to 7.7% in 2018. It's importance outside of Dublin is highlighted in Figure 1.4.

Figure 1.3 *Composition of Employment in the Agri-Food Sector, 2018*



Source: Central Statistics Office, Labour Force Survey, 2018

Figure 1.4 *Agri-food employment as % of total employment by region in 2016*



Source: Central Statistics Office, Census 2016

Total public expenditure by Department of Agriculture, Food and the Marine was just under €3 billion in 2018.

Table 1.3 *DAFM Expenditure 2018*

	€m
	2018 Outturn
EAGGF Guarantee direct expenditure	€1,229.00
Basic Payment/Direct Payment Scheme	€1,208.00
Intervention/Aid to Private Storage[1]	€19.50
Other Market Supports	€4.50
Other	-€3
Voted Expenditure (excluding Administration)	€1,309
Rural Development[2]	€575
Structural Measures[2]	€81
State Bodies	€247
Horse and Greyhound Fund	€80
Animal Health	€87
Research Quality and Certification	€28
Market Support Costs	€9
Forestry and Bio-Fuels	€95
Fisheries	€35
Food Aid / World Food Programme	€19
Brexit Response Loan Scheme	€25
Other	€28
Administration	€237
Total Voted Expenditure (including Administration)	€1,546
Total DAFM Expenditure	€2,775

Note: (1) This is the amount paid by DAFM on product purchased into intervention in the year. The cost of Intervention purchases is fully recouped from the EU through depreciation of stock value during the year of purchase and at the time of sale of the product.

Note: (2) EAFRD Rural Development measures and certain Structural Development measures are part financed by the EU and the Exchequer. These figures are total expenditure on these measures in the calendar year. Expenditure in 2018 comprises GLAS, REPS, AEOS, Locally-led Environmental Schemes, Early retirement, Areas of Natural Constraint, Organic Farming, Beef Data & Genomics programme (BDGP), TAMS, Knowledge Transfer and Animal Welfare Scheme for Sheep.

Source: Department of Agriculture, Food and the Marine

1.4 Agricultural Accounts in Ireland

According to the CSO's, Final Estimate on Output, Input and Income in Agriculture for 2018 the value of goods output at producer prices increased by €96.1 million (+1.2%) from over €8 billion to €8.2 billion.

While operating surplus was down about 17% in 2018, mainly due to adverse weather conditions throughout the year, the general trend over the past decade is of a small steady increase punctuated by decreases every few years. Net subsidies have remained relatively stable over the past decade and are the equivalent of 57% of operating surplus.

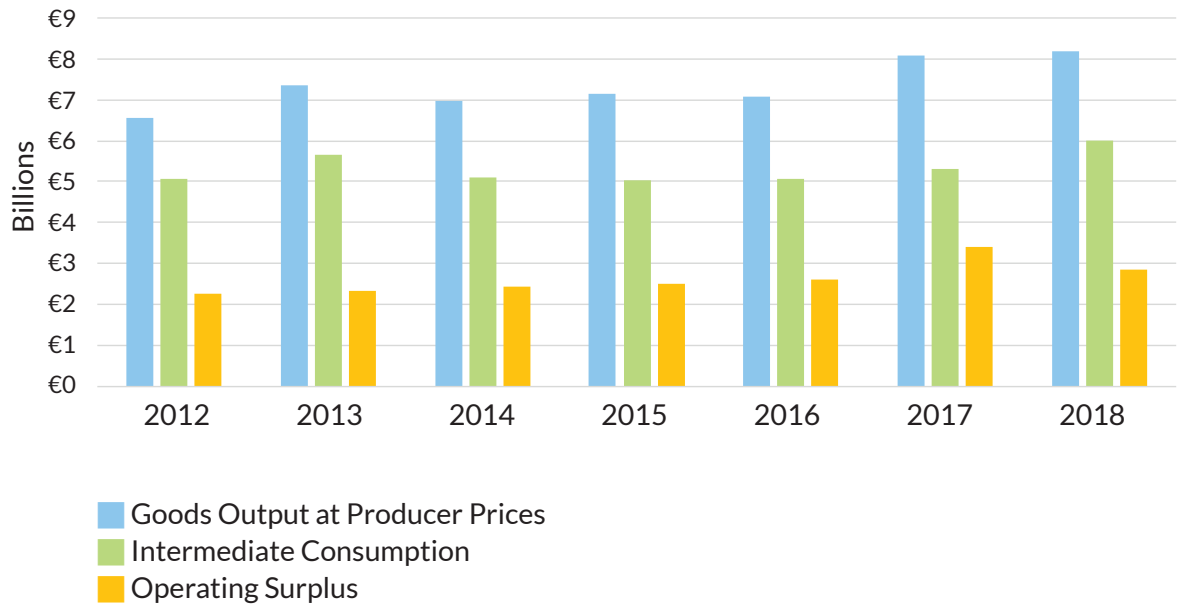
The main reason for this change was an increase of €690m (+13%) in intermediate consumption. The main items giving rise to this increase in intermediate consumption are feeding stuffs and fertilisers, which increased by €355.9m (+27%) and €69.1m (+13%) respectively.

Both the volume and price of fertilisers consumed by Irish farmers increased during 2018. A volume increase of 8.9% combined with a price increase resulted in an overall increase of 13.5% in expenditure on fertilisers. The cost of these fertilisers increased by €69.2 million to €582.1 million.

Expenditure on energy and lubricants increased by €33.8 million (+8.7%), increasing from €390.2 million in 2017 to €424.1 million in 2018.

Net subsidies which remained relatively stable over the past decade decreased from an average of 90% of operating surplus between 2008 and 2012 to 59% in 2018. With the operating surplus increasing over the years and the value of subsidies remaining stable the percentage contributed by subsidies to the operating surplus is decreasing slightly over the years.

Figure 1.5 *Trends in Operating Surplus, Goods Output and Intermediate Consumption, 2012 - 2018*



Source: Central Statistics Office, Output, Input & Income in Agriculture Final Estimates, 2018

Table 1.4 *Output, Input and Income in Agriculture, 2017– 2018*

	2017	2018	% Change 2017 - 2018
	Value €m	Value €m	
Goods Output at Producer Prices	€ 8,085.6	€ 8,181.8	1%
Contract Work	€ 379.7	€ 453.2	19%
Subsidies less Taxes on Products	€ 11.0	€ 13.9	26%
Agricultural Output at Basic Prices	€ 8,476.4	€ 8,648.8	2%
Intermediate Consumption	€ 5,311.0	€ 6,001.0	13%
Gross Value Added at Basic Prices	€ 3,165.4	€ 2,647.8	-16%
Fixed Capital Consumption	€ 848.5	€ 907.2	7%
Net Value Added at Basic Prices	€ 2,317.0	€ 1,740.6	-25%
Other Subsidies Less Taxes on Production	€ 1,633.9	€ 1,676.3	3%
Factor Income	€ 3,950.9	€ 3,416.9	-14%
Compensation of Employees	€ 525.6	€ 567.7	8%
Operating Surplus	€ 3,425.2	€ 2,849.2	-17%

Source: Central Statistics Office, Output, Input & Income in Agriculture Final Estimates, 2018

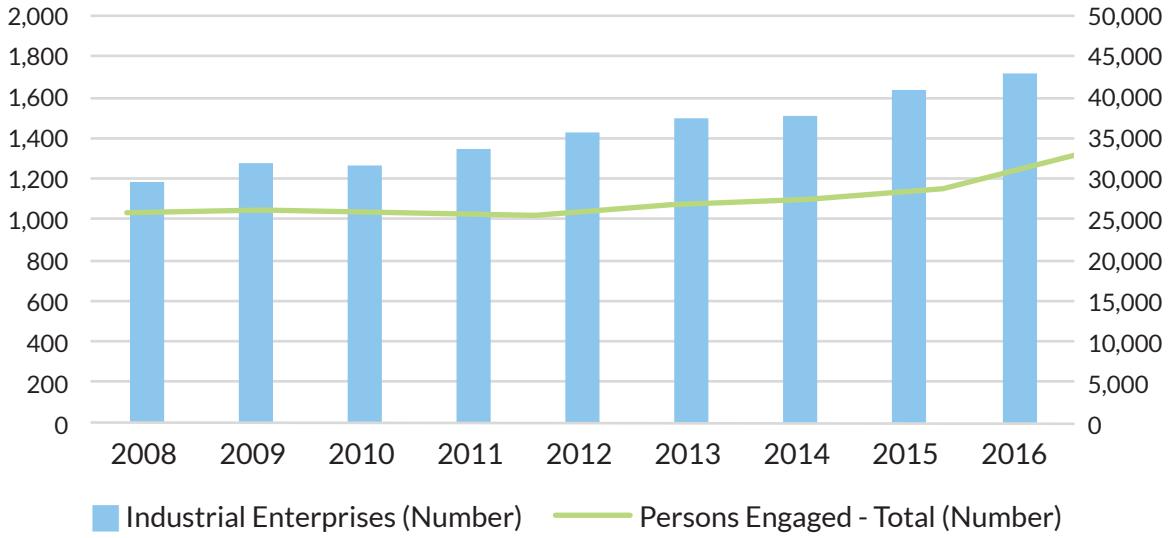
1.5 Food and the consumer

Food Sector enterprises

The most recent information available from the CSO Census of Industrial Production for the Food Sector is 2016. This census indicated total turnover in the Food and Beverages sector was €27 billion in 2016.

Between 2008–2016, the number of enterprises recorded under the food production heading increased by almost 45% from 1,181 to 1,715, while the number of persons employed in the sector (including proprietors and family workers) was over 47,000 in 2016, a 22% increase since 2008.

Figure 1.6 *Number of Food Sector Enterprises and Workers, 2008 - 2016*



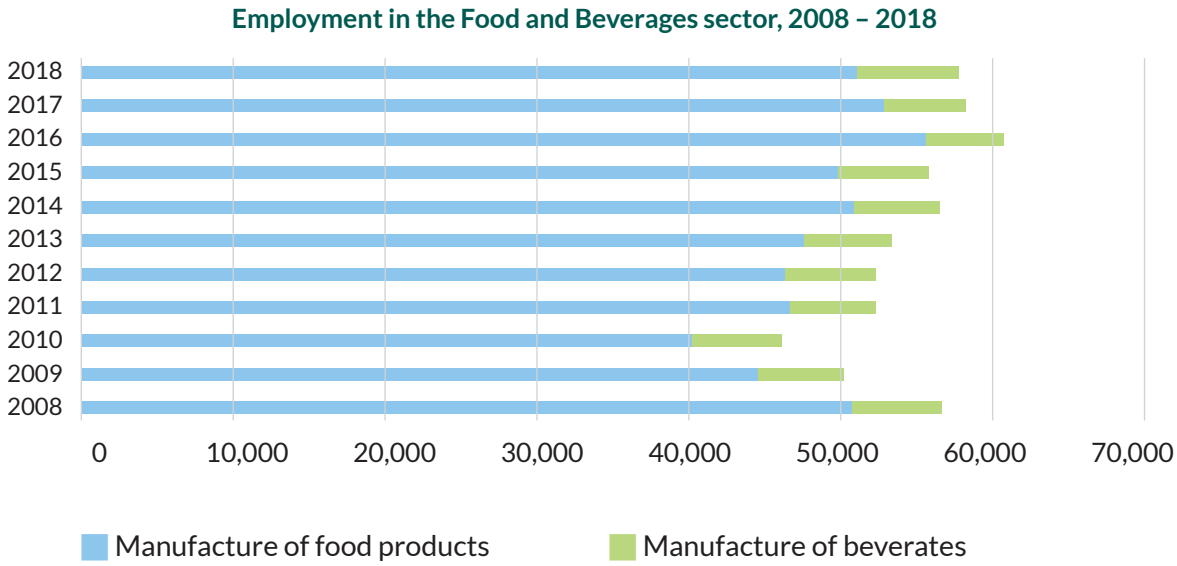
Source: Central Statistics Office, Census of Industrial Production, 2017

Employment in the Food and Beverages Sector

According to the CSO Labour Force Survey, employment in the Food and Beverages sector averaged 33% of agri-food sector workers in 2018, and 3% of all those in employment.

Food and Beverage manufacturing employment has increased by 2% between 2008, and 2018 from an average of 56,600 in 2008 to 57,700 in 2018.

Figure 1.7 *Employment in the Food and Beverages sector, 2008 – 2018*



Source: Central Statistics Office, Labour Force Survey, 2018

Contribution of the Food and Beverages Sector to the Irish Economy

The Annual Business Survey of Economic Impact (ABSEI) 2017 is a survey of approximately 4,200 client companies of Enterprise Ireland, IDA Ireland and Údarás na Gaeltachta employing ten or more employees in Ireland and comprises the Manufacturing and Information, Communication and Other Internationally Traded Services. This survey includes a number of Food and Beverage Manufacturers.

Key findings in this report include:

Total Value Added (Sales – (Total materials costs + Total services cost)) of Irish-owned companies for Food and Beverage manufacturers was €2,784 million in 2017, a 4% increase each year since 2000.

The Irish-owned Food and Drink sector's share of Irish services purchases has decreased from 91% in 2000 to 84% in 2017. (Absolute value was €1,318m).

The Irish-owned companies in the Food and Drink sector maintained the highest share of direct expenditure as a percentage of sales at 78% in 2017 down from 82% in 2000.

Irish raw materials at €8.3 billion accounted for 77.6% of the total materials spend in that sector. Of all the Irish raw materials purchases by Irish-owned firms, 71.2% related to the Food and Drink sector in 2017.

Food & Drink sector accounted for 36.2% of the sales in Irish-owned industry in 2017 and accounted for 26.2% of the employment.

Total sales and sales growth for the sector totalled over €15 billion in 2017 – an increase of 11.2% over 2016 and of 2.7% per annum increase over the 2000 figure of €9.6bn.

The Food & Drink sector accounted for 39.5% of all export sales by Irish-owned companies in 2017 and exports as a percentage of total sales increased from 48% in 2000 to 56% in 2017.

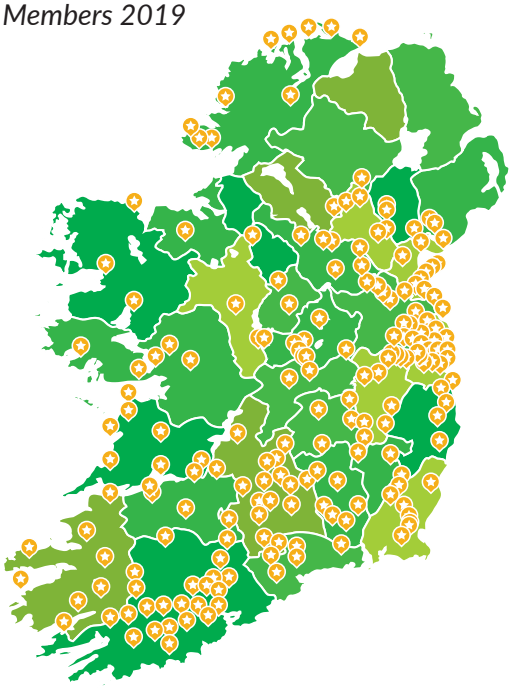
CASE STUDY

Origin Green

Origin Green is Ireland's food and drink sustainability programme. Origin Green enables Ireland's food industry to set and achieve measurable sustainability targets that respect the environment and serve local communities.

Participants in this programme range from farmers to foodservice operators. For farmers, participation in this programme involves independent farm audits and membership in Bord Bia's Sustainable Assurance Schemes and Quality Assurance Schemes. Key aspects covered in the audit include greenhouse gas emissions, biodiversity, water measures, energy efficiency, soil management, and socio-economic factors. Following each audit, the farmer receives notification of the results in a feedback report on the farm's performance, with reassessments every 18 months. This allows them to make informed decisions on improving the sustainability of their farms, while also improving their efficiency and farm viability.

Figure 1.8 *Origin Green Company Members 2019*



For food businesses, this entails signing up to the relevant Origin Green charter and passing the membership process. This is the first step to producing an independently verified sustainability plan. The Charter guides the development of a three-to-five year plan committing to sustainability improvements. All Origin Green sustainability plans are independently verified by a third-party agency, and monitored on an annual basis through progress reporting, which is also independently verified. There are currently 344 members of the Origin Green Programme.

As the world's population grows so does the need for food. This growth puts pressure on already limited natural resources such as soil and water. It is therefore vitally important that food is produced in a sustainable way, which protects natural resources. The world's population is estimated to increase by over a third by 2050, from the 2012 figure of 7 billion to over 9 billion people (United Nations Department of Economic and Social Affairs).

Ireland has many natural advantages when it comes to food production. Weather conditions are ideal for rearing livestock and growing numerous crop types. The Irish climate also supports a long, grass-growing season, 80 of the agricultural land is covered in grass. This grass-based system is more efficient and environmentally sustainable than intensive indoor animal feeding systems. This forms the basis for our largest indigenous industry, supporting 140,000 family farms and approximately 173,000 jobs.

Ireland's world-class meat, dairy, beverages and seafood are enjoyed far beyond our shores. In a generation, our food industry has evolved into a world-class, global player. Last year, Irish agri-food products were exported to over 180 countries and totalled 13.7 billion. This programme aims for Irish food and drink to become the first choice globally, with the goal of Ireland becoming a world leader in sustainably produced food and drink.

Source: Origin Green

Food Prices

The Central Statistics Office gathers and publishes a Consumer Price Index on a monthly basis. The index measures changes in the average level of prices (inclusive of all indirect taxes) paid for consumer goods. Approximately 51,000 prices are collected for a representative basket consisting of 615 item headings in a fixed panel of retail and service outlets throughout the country.

Goods represented in the survey include Meat, Dairy, Fish, Vegetable and Processed food products, along with alcoholic and non-alcoholic beverages.

The cost of food reduced by 2% between 2017 and 2018. 2018 was the 5th year in a row that food prices have reduced. Non-alcoholic beverages increased by 3% in 2018, making 2018 the 10th year in a row non-alcoholic beverages prices increased. Alcoholic Beverages increased by 1.4% in the period January 2018- December 2018.

Figure 1.9 *Annual average percentage change in Consumer Price Index, 2008 - 2018*

Source: Central Statistics Office, Consumer Price Index

Food and the EU

Food Price Monitoring Tool

The European Food Prices Monitoring Tool is a European Commission initiative to increase transparency in the food supply chain. Its aim is to encourage competition throughout the agro-food supply chain and improve its resilience to price volatility.

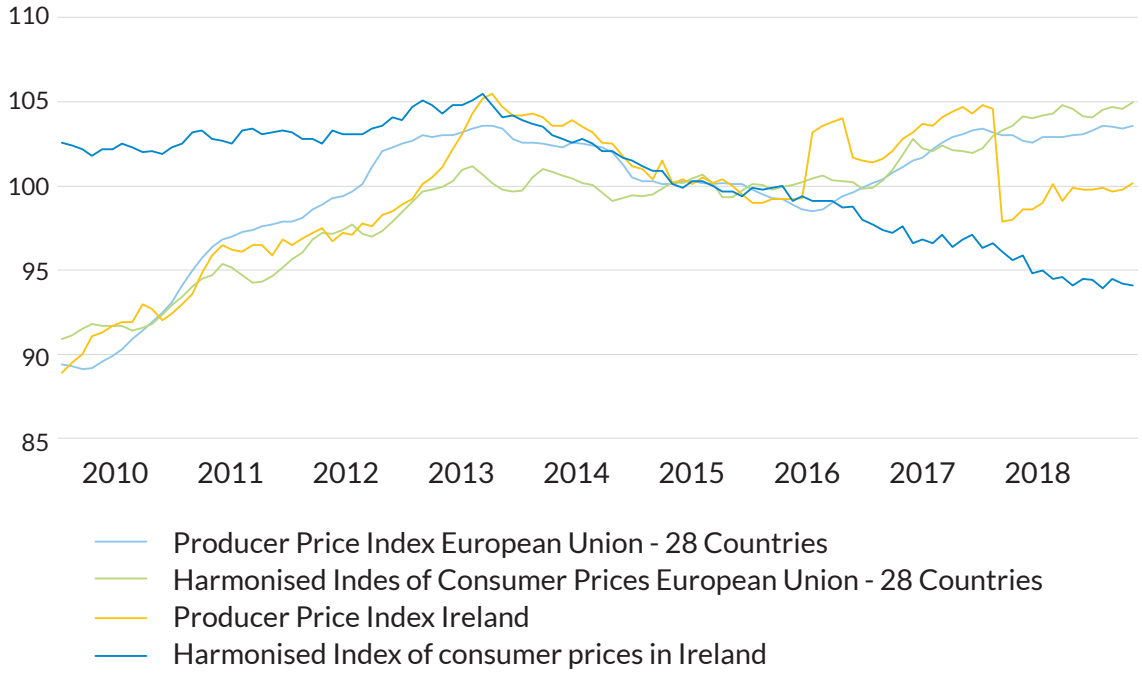
The Food Prices Monitoring Tool brings together data on price developments in the different parts of the food supply chain to compare changes in prices for:

- agricultural commodities
- food industry products and
- consumer goods.

The tool facilitates comparisons of price indices of goods at various stages of the food supply chain (e.g. grains, flour and bread). It is developed by Eurostat.

The European Food Prices Monitoring Tool comprises of price indices and the annual rates of price change.

Figure 1.10 *Comparison of EU and Irish prices, 2010 – 2018 (2015 = 100)*



Source: Eurostat, Food Price Monitoring Tool

CASE STUDY

Irish Whiskey

Ireland is the home of whiskey. In the 19th century Ireland was the global powerhouse of whiskey production, but by 1980 there were only two working distilleries left on the island of Ireland. While the 20th century was the 'lost century' for Irish whiskey, the 21st century is the century of recovery, and this is the decade of the Irish Whiskey renaissance. At the start of this decade, there were four working Irish whiskey distilleries. Summer 2019 will see at least 26 Irish whiskey distilleries in operation.

Global sales of Irish whiskey will have grown during this decade from less than 6 million cases (72 million bottles) in 2010 to over 12 million cases (144 million bottles) by 2020. 10.7 million cases were sold globally in 2018. Exports of Irish whiskey were valued at €654 million in 2018, more than twice the export value in 2013. 2018 also saw 923,000 visitors to Irish whiskey distilleries. Irish whiskey is sold in 140 markets around the world. However, the United States remains by far the largest market accounting for 43% of all sales (by volume). The rate of growth of Irish whiskey sales in the US is such that International Wine & Spirits Research (IWSR) data suggests Irish whiskey sales could overtake Scotch whisky sales in the US by the middle of the next decade – for the first time since before prohibition. The Irish whiskey industry is committed to promoting market diversification and a recent assessment by the Irish Whiskey Association indicates that over the next five years Central & Eastern Europe, Canada and Australia offer the strong volume growth prospects outside the US.

Irish Whiskey/Uisce Beatha Eireannach /Irish Whisky, is a protected Geographic Indication (GI) protected in the new Regulation (EU) 2019/787 (repealing Regulation 110/2008) on the definition, description, presentation and labelling of spirit drinks which came into effect on 17th May 2019. Irish whiskey can only be produced and matured (for a minimum of three years) on the island of Ireland in accordance with the approved technical file, which was registered by the EU Commission on 27th March 2019.

The legal protection which the GI status affords Irish whiskey is a key element in protecting it from counterfeiting or false advertising. In the context of the Free Trade Agreements (FTAs) being negotiated by the EU on Ireland's behalf, the securing of the recognition of GI status provides Irish whiskey with legal protection in those countries where FTAs have been successfully negotiated, such as Canada, Korea and Singapore.

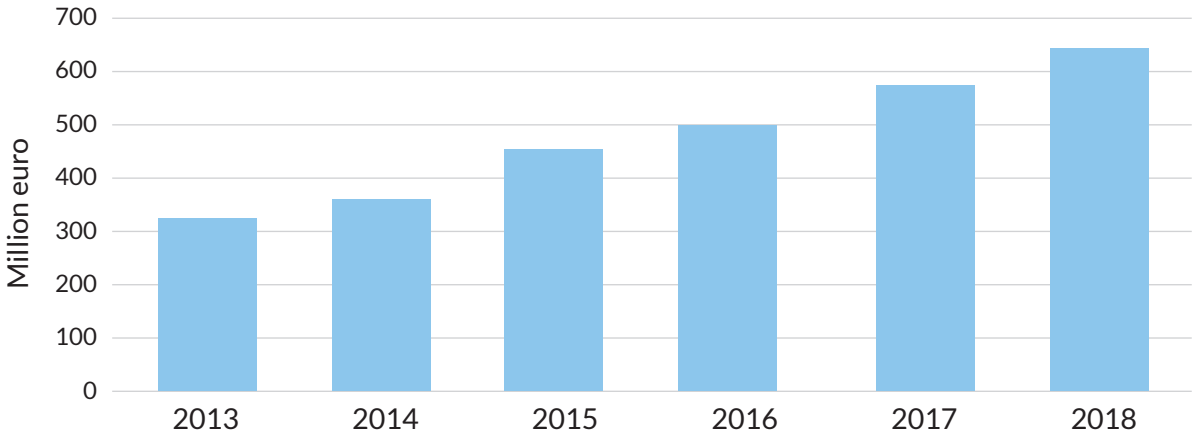
Key markets for the export of Irish whiskey are USA, Europe and Canada, with continued growth in emerging markets in Africa (up 15%), Australia and the South Pacific (up 35%), and Central and South America (up 42%).

Source: Central Statistics Office, Trade Statistics 2018

Food Industry Development Division DAFM

Irish Whiskey Association

Figure 1.11 *Value of Whiskey Exports 2013 -2018*



Source: Central Statistics Office, Trade Statistics 2018

Figure 1.12 *Irish Whiskey Distilleries 2018*

Source: Irish Whiskey Association, IBEC

1.6 Food Wise 2025

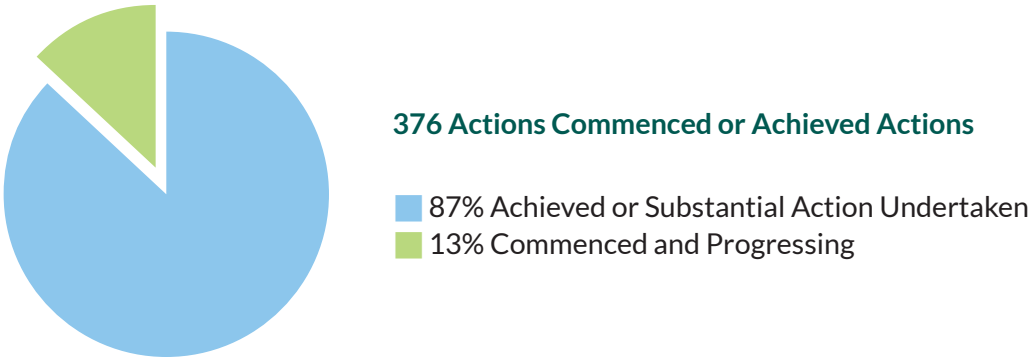
Food Wise 2025, the ten-year strategy for the agri-food sector, underlines the sector's unique and special position within the Irish economy. It identifies the opportunities and challenges facing the sector and provides an enabling strategy that will allow the sector to develop.

The sub-title of Food Wise is "Local Roots, Global Reach", reflecting the importance of gaining a deep understanding of what consumers, often in distant markets, really want, and communicating those messages back to Irish farmers and food companies. Equally important is to communicate key messages about what makes Irish food unique to the international market.

Food Wise 2025 identifies ambitious and challenging growth projections for the industry over the next ten years including: 85% increase in exports to €19bn; and the creation of 23,000 additional jobs all along the supply chain from producer level to high end value-added product development.

Food Wise includes over 400 actions spread across the five cross-cutting themes of environmental sustainability, market development, competitiveness, innovation and human capital, as well as specific recommendations for key sectors.

Figure 1.13 *Food Wise 2025 Update on Actions, 2018*



Source: Department of Agriculture, Food and the Marine

Implementation process

The Implementation Process for Food Wise is driven by the High Level Implementation Committee (HLIC), chaired by the Minister and with participation from Management Board members, other Government Departments and relevant State agencies. It ensures joined-up action by the Department and its state agencies and provides a platform to meet collectively with industry representatives. The HLIC also seeks to ensure that Food Wise implementation is a live and dynamic process.

To aid the HLIC, an Environmental Sustainability Subgroup and a Meat Implementation Group have been established to monitor and drive the sustainability and meat actions. The Environmental Sustainability Subgroup reports to the HLIC on a regular basis. The Meat Implementation Group reported to the HLIC in November 2018 and will report again in 2019 to update the Committee.

In 2019 of the 417 actions, 376 were due to commence or are ongoing actions. Of these 376 actions, 87% have been achieved or substantial action has been undertaken and a further 13% have commenced and are progressing. A detailed report on the status of all the ongoing actions is available on the Department's website in Steps to Success 2019.

Agri-Food Strategy 2030

Food Wise built on a successful lineage of ten year strategies for the agri-food sector going back to Agri-Food 2010 which was published in 2000. Preparations are now underway for the development of the next strategy. The Department has launched a public consultation to ascertain the views of all stakeholders on the direction of the sector to 2030 and what strategic actions are required to ensure it lives up to its potential, as well as seeking to address societal expectations. Subsequently, a national stakeholder consultation event is planned to discuss these issues in more detail. In parallel, a high level committee representative of the sector will be established by the Minister. The Committee will be tasked with developing the agri-food strategy to 2030, taking account of these consultations. It is anticipated this process will be complete and the new strategy launched in mid-2020.

Food Wise 2025 contained a vision of thriving primary producers and agri-food businesses at the heart of vibrant communities across the country, and had a strategy built upon five cross-cutting themes – environmental sustainability, human capital, competitiveness, market development and innovation. While these are likely to remain relevant in the next strategy, there are areas that require enhanced focus, such as environmental sustainability. In addition, other emerging themes, need to be considered and incorporated into any strategic foresight for the sector. In conjunction with issues such as reform of the CAP and Brexit, there is clearly much to consider and reflect on in devising an ambition and pathway for the future direction of the Irish agri-food sector.

CHAPTER 2

Farm Income and Structures

Aggregate farm income (operating surplus) decreased by **17%** to **€2,849** million in 2018.

The average farm size in the Teagasc National Farm Survey in 2018 was **43 hectares,** with average income per hectare coming in at €541

In 2018 average farm income for the 32% of farms classified as full-time was **€51,759** compared to **€10,141** for part-time farms.

2.1 Overview

This chapter analyses data from the Central Statistics Office (CSO) including the Farm Structure Survey 2016, Teagasc's National Farm Survey 2018 (NFS) and Eurostat to show developments in farm income both in Ireland and at EU level. In addition, the impact of off-farm income and direct payments is also examined. The viability of Irish farms in considered using NFS results and the support schemes for farmers that are administered by the Department of Employment Affairs and Social Protection. Investment and borrowings in the agri-food sector are also examined, as are the age profile of farms and the role of women in agriculture.

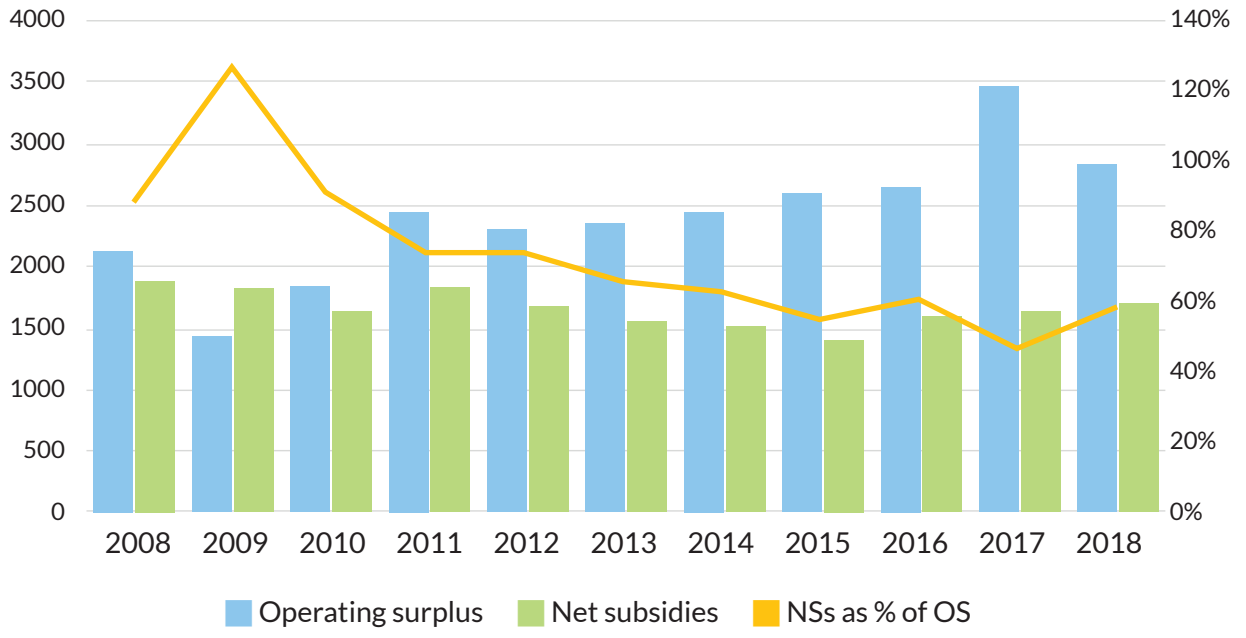
2.2 National Farm Income (Operating Surplus), 2018

CSO Output Input and Income in Agriculture statistics show that aggregate farm income or operating surplus has risen over the past decade from a low of €1.5 billion in 2009 to a high of €3.4 billion in 2017. However, aggregate farm income (operating surplus) decreased by 17% to €2,849 million in 2018. This follows an increase of 30% in 2017 vs 2016 figures. The overall value of goods output increased in 2018 by 1.2%, or €96 million, to €8,182 million. Intermediate consumption increased by 13% over 2017, to €6,001 million.

The foremost reason for this change was an increase of €690 million (+13%) in intermediate consumption. The main items giving rise to this increase in intermediate consumption are feeding stuffs and fertilisers, which increased by €355.9 million (+27%) and €69.1 million (+13%) respectively. This increase was driven by unusual weather in 2018, namely a cold wet spring and a hot dry summer.

Net subsidies, which remained relatively stable over the past decade, decreased from an average of 90% of operating surplus between 2008 and 2012 to 59% in 2018. With the operating surplus increasing over the years and the value of subsidies remaining stable, the percentage contributed by subsidies to the operating surplus is decreasing slightly.

Figure 2.1 *CSO Operating Surplus and Net Subsidies, 2008 - 2018*



Source: Central Statistics Office, Output, Input & Income in Agriculture Final Estimates 2018

Operating Surplus (OS)

Operating surplus is defined and calculated by the CSO by subtracting compensation of employees from farm income accruing from farm output. The figure is comprised of the operating surplus earned by farmers and that earned by agricultural contractors. It is an estimate of income before deductions for interest payments on borrowed capital, land annuities and rent paid by farmers to landowners for the use of their land. It does not include income from non-farming sources and may not be equated to household income.

The Economic Accounts for Agriculture (EAA) are EU wide accounts compiled by Eurostat.

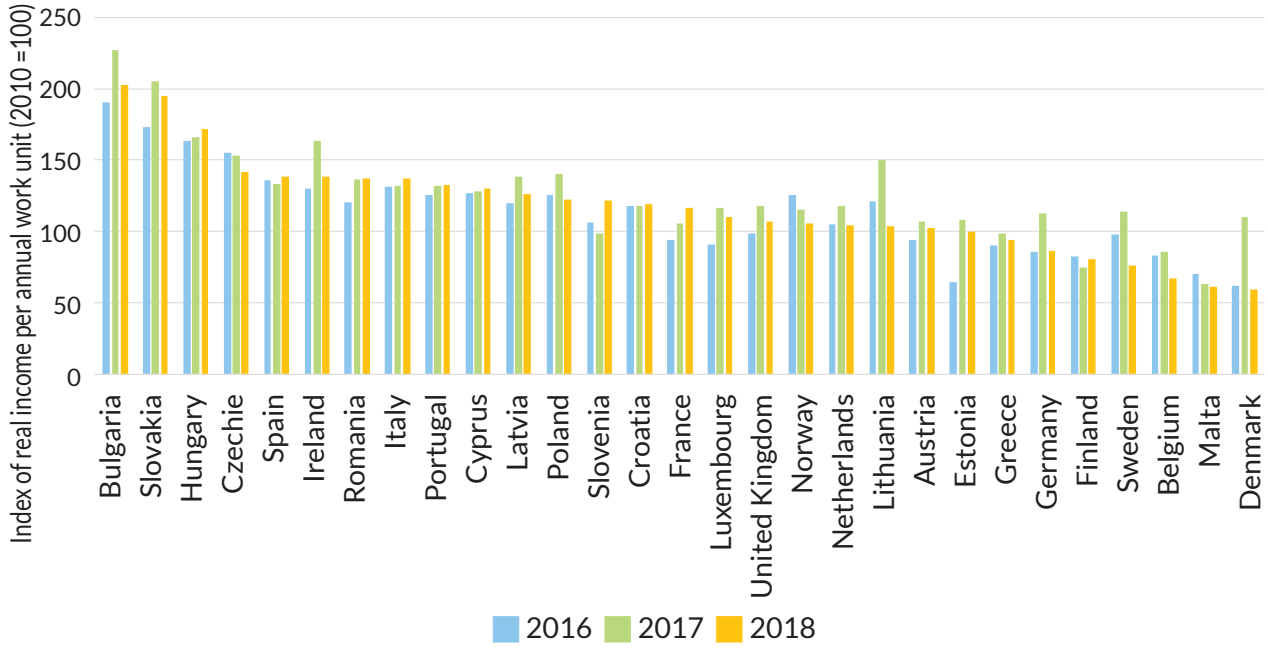
The EAA analyse the production processes of the agricultural sector and the primary income generated by these activities. The agricultural sector, as described in the EAA, corresponds to Division 01 in NACE Rev. 1 "Agriculture, hunting and related service activities".

The EAA measure the total output of the agricultural activity which includes:

- output sold (including trade in agricultural goods and services between agricultural units);
- changes in stocks;
- output for own final consumption and own-account gross-fixed capital formation;
- output produced for further processing by other agricultural producers;
- intra-unit consumption of livestock feed products.

Figure 2.2 shows the relative growth in income in agriculture per annual work unit in 2016, 2017 and 2018 relative to 2010 when the index for each country was set at 100. Real income per annual work unit has risen considerably in countries such as Bulgaria and Slovakia while income has fallen in Denmark and Malta in 2018 relative to 2010. However agricultural income in Denmark in 2017 was at 110 which is 10% above the 2010 income. In the case of Ireland income was highest in 2017 but has fallen back somewhat in 2018, although 2018 income is still above that of 2016.

Figure 2.2 *EAA - Index of the real income of factors in agriculture per annual work unit, 2015 - 2018*



Source: Eurostat - Economic accounts for Agriculture

2.3 Agricultural Price Index

The agricultural output price index measure trends in the price of agricultural produce sold by farmers. The agricultural input price index is designed to measure trends in the price of farm inputs purchased for current consumption. Both input and the output indices for 2018 are slightly lower than that of 2014. In respect of inputs, fertiliser costs have dropped by 13 points, with smaller drops in the input price for motor fuels and seeds, while the cost of veterinary expenses has risen.

Significant decreases in respect of milk (-14.5), and pigs (-12.9) have contributed to the reduction in the overall output price for the sector, however crops have recorded an increase of 19.3 points over the same period.

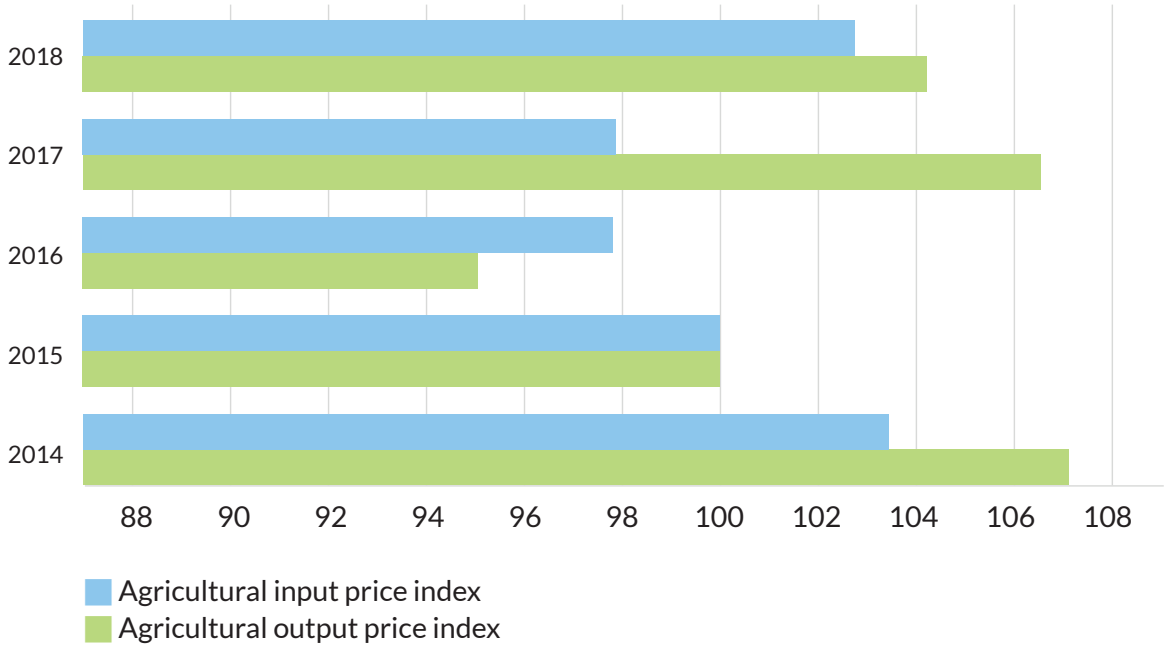
Table 2.1 *Agricultural Price Index Input Prices – 2016 to 2018*

Agricultural Product and Year (Base 2015=100)	2014	2015	2016	2017	2018
Agricultural input price index	103.6	100.0	97.9	98.2	102.7
Feeding Stuffs	107.8	100.0	100.0	100.6	107.2
Fertilisers	99.4	100.0	86.2	81.5	86.4
Seeds	104.2	100.0	98.5	98.5	98.2
Veterinary Expenses	99.2	100.0	101.9	102.1	105.3
Motor Fuels	117.4	100.0	90.1	98.3	108.0
Electricity	100.2	100.0	96.5	95.5	102.2
Agricultural output price index	106.8	100.0	95.1	106.5	104.3
Crop output	100.0	100.0	106.1	104.1	119.3
Cattle	90.4	100.0	93.0	94.7	93.4
Pigs	109.4	100.0	102.6	110.4	96.5
Sheep	98.8	100.0	99.9	99.7	105.1
Poultry	101.2	100.0	99.5	99.2	98.9
Milk	128.6	100.0	91.1	121.3	114.1

Source: Central Statistics Office, Agricultural Price Index, January 2019

The output price index for agriculture was 106.5 in 2017, up from 95.1 the previous year, and this was reflected in the increase in the operating surplus. However, while the agricultural output price in 2018 remained strong, the cost of agricultural inputs increased significantly, which was reflected in the reduction in operating surplus in that year.

Figure 2.3 *Agriculture Input & Output Prices, Yearly Analysis*



Source: Central Statistics Office, Agricultural Price Index, January 2019

2.4 National Farm Survey, 2018

The Teagasc National Farm Survey (NFS) has been conducted on an annual basis since 1972. The survey is operated as part of the Farm Accountancy Data Network (FADN) of the EU and fulfils Ireland's statutory obligation to provide data on farm output, costs and income to the European Commission. A random, nationally representative sample is selected annually in conjunction with the Central Statistics Office (CSO) to represent those farms with greater than €8,000 of Standard Output. Each farm is assigned a weighting factor so that the results of the survey are representative of the national population of farms. These results are based on a sample of 897 farms which represents 92,720 farms nationally.

Farms are assigned to six farm systems on the basis of farm gross output, as calculated on a standard output basis. Standard output measures are applied to each animal and crop output on the farm and only farms with a standard output of €8,000 or more, the equivalent of 4 dairy cows, 5 hectares of wheat or 11 suckler cows, are included in the sample. Farms are then classified as one of the six farm systems on the basis of the main outputs of the farm. Farms falling into the Pigs and Poultry System are not included in the survey, due to the inability to obtain a representative sample of these systems. Due to the small number of farms falling into the Mixed Livestock system these farms are not reported here. Farms below the €8,000 standard output threshold are not included in the annual survey sampling frame but data is collected on those through the Teagasc Small Farms Survey, the most recent of which was conducted in 2015.

Teagasc Methodology update:

A change in the methodology utilised by Teagasc has resulted in the publishing of updated 2017 Population Weights and Standard Output Values.

This change in methodology results from the structural change that has occurred on farms since the previous Farm Structure Surveys (FSS) (2013). The 2016 CSO FSS estimated the farming population falling within the sampling frame of the Teagasc NFS to be 92,720. In response to this change Teagasc has reweighted the 2017 NFS data.

Additionally, output price inflation has also led to an increase in the number of farms represented by the Teagasc NFS, with a larger share of the total farm population meeting the €8,000 standard output threshold for coverage within the survey.

As a result of these changes, the 2017 income estimates have been revised. These revisions have the largest absolute impact on the average income estimate for Cattle Rearing (reducing the previously published income estimate for 2017 by about €1,900) and for the average income estimate for Dairy (increasing the previously published income estimate for 2017 by about €2,700).

National Farm Survey Results, 2018

The results for 2018 issued in July 2019 shows that the average family farm income (FFI) for 2018 was €23,333, a decrease of 22% from the record high in 2017. The adverse weather conditions in 2018 with a late cold spring and long hot dry summer resulted in increased feed and fertiliser usage pushing up costs on many farms and reducing output. However, this average FFI conceals differences across the various farm types.

Family Farm Income per Farm (FFI)

FFI is defined and calculated by Teagasc by deducting all farm costs (direct and overhead) from the value of farm gross output. Unpaid family labour is not included as a cost. FFI therefore represents the financial reward to all members of the family, who work on the farm, for their labour, management and investment. It does not include income from non-farming sources and thus may not be equated to household income.

Table 2.2 *Headline results from National Farm Survey*

	Dairying	Cattle Rearing	Cattle Other	Sheep	Tillage	All Farms
% of farms represented	**35%**	**18%**	**24%**	**14%**	**7%**	**100%**
Direct Payments	21,022	13,098	16,226	18,980	22,451	17,244
FFI	61,446	8,311	14,560	13,297	40,650	23,333
DPs as % of FFI	**34%**	**158%**	**111%**	**143%**	**55%**	**74%**

Source: Teagasc, National Farm Survey 2018

Family Farm Income by System

Family Farm Income (FFI), the return from farming for farm family labour, land and capital, is the principal measure used in the Teagasc National Farm Survey. Average FFI conceals differences across the various farm types.

Average dairy farm income decreased by 31% to €61,446 in 2018. This decrease was driven by the very difficult weather conditions resulting in increased use of feed and fertiliser. The decline in Dairy FFI was driven mainly by a 43% increase in concentrate feed expenditure.

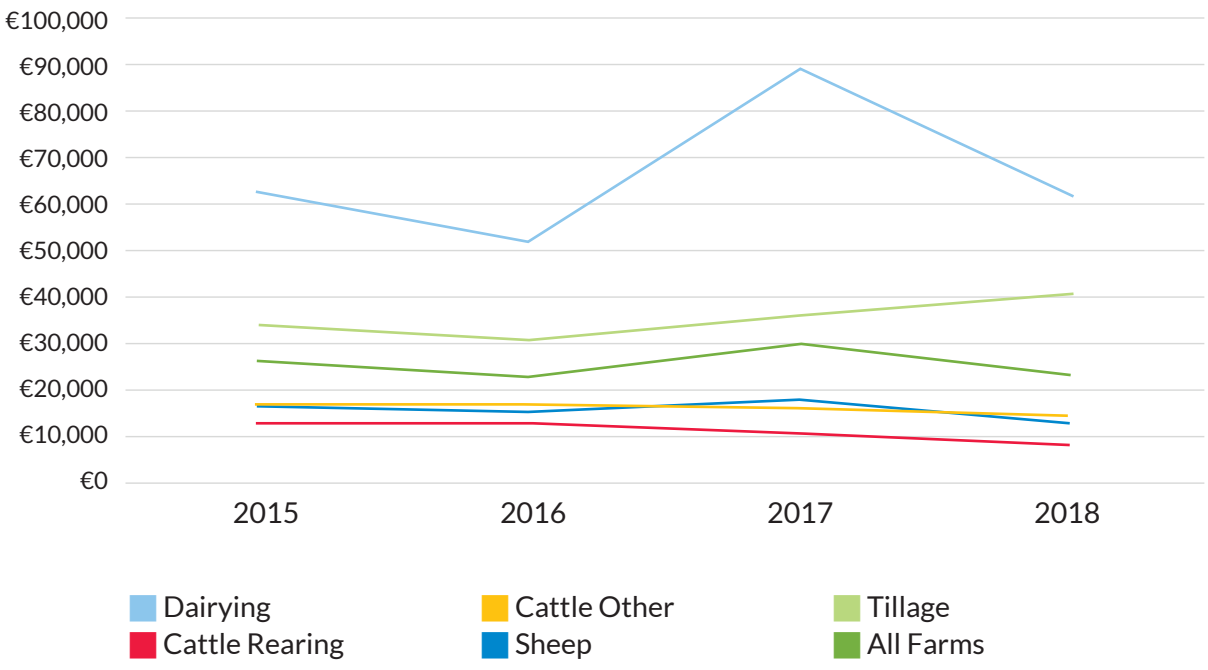
Cattle rearing farms had an average income of €8,311, a 22% decrease on 2017. The decline in output and a slight increase in costs were the key drivers of this decrease. Likewise for Cattle Other farms, which saw the average income decrease by 10% to €14,560. Sheep farmers were also impacted by the weather conditions with average income on sheep farms dropping to €13,297, a decrease of 23% on 2017.

Tillage farms had an average income of €40,650, which was an 13% increase on 2017. Tillage FFI increased despite a 10 percent increase in overall production costs. Gross output rose by a slightly larger magnitude. However, the situation on individual Tillage farms varied greatly. It was a year of two halves with spring crops particularly negatively affected, due to late planting and very dry weather conditions over the summer.

Family farm income varies considerably by farm system. The large variations illustrated in Figure 2.4 below are driven by differences in farm size and profitability and production costs. Dairy farms are consistently the most profitable farms. However, it should be noted that almost all dairy farms are classified as full-time farms, with farms requiring 0.75 of a standard labour input being defined as full-time and those requiring less as part time. Most cattle farms and the majority of sheep farms are classified as part time in terms of labour input requirements, even though in many cases the farmers may not have off-farm employment.

Source: Teagasc, National Farm Survey 2018

Figure 2.4 *Family Farm income by system, 2015-2018*



Source: Teagasc, National Farm Survey 2018

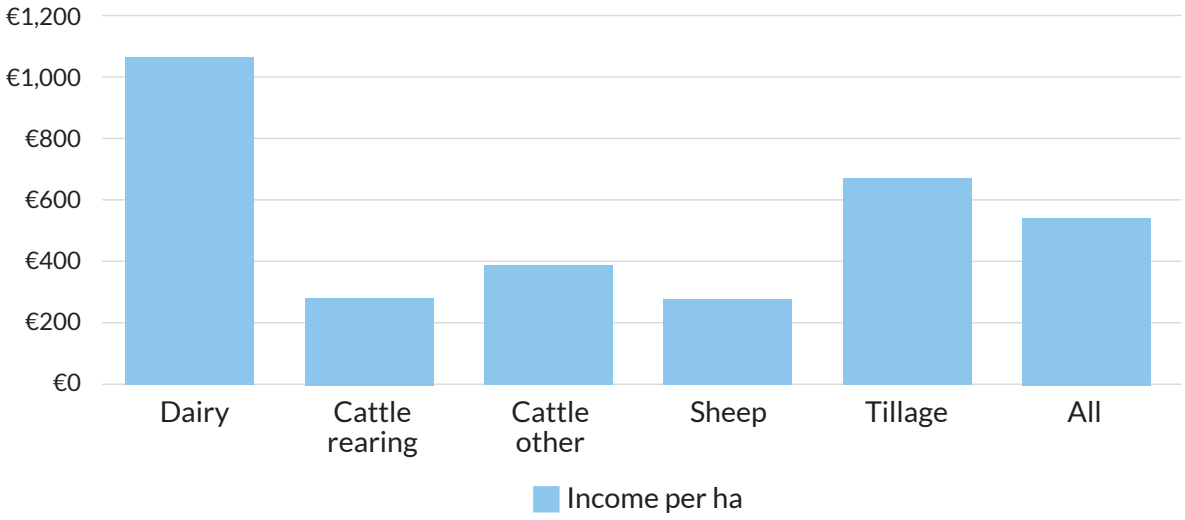
Also drawing on the 2018 NFS data, table 2.2 shows that direct payments averaged €17,244 per farm in 2018, accounting for 74% of family farm income. Again, there are noticeable differences between farm types; estimates for dairy farms show that the direct payments account for only 34% of income, while cattle and sheep farms are very reliant on direct payments and would be operating at an economic loss without them.

Family Farm Income by Farm Type per Hectare

Family farm income is significantly higher on dairy farms than on any other farm type, even when farm size is taken into account. Similarly, when distinguishing between full-time and part-time farms in terms of labour input, dairy farms again produce higher family farm income per hectare.

The average farm size in 2018 was 43 hectares, with average income per hectare coming in at €541; this is down from €692 in 2017. The average dairy farm was 59 hectares in size and had an average FFI of €1,047 per hectare. Tillage had the second highest economic return per hectare at €675, an increase of €75 on 2017 figures. In 2018, the average income per hectare was lowest on Cattle Rearing farms, at €270. Average FFI per hectare on Cattle Other farms was €391 while the equivalent figure on sheep farms was €276, down from €369 in 2017.

Figure 2.5 *Family Farm Income per Hectare, 2018*



Source: Teagasc, National Farm Survey 2018

Full and Part Time Farms, 2018

A comparison of financial data for full-time and part-time farms, drawn from the results of the 2018 National Farm Survey is highlighted in Table 2.3. In 2018 average farm income for the 32% of farms classified as full-time was €51,759 compared to €10,141 for part-time farms. Full-time farms are often the larger more viable farms with average utilisable agricultural area (U.A.A) of 70.3 hectares compared to 30.5 hectares for part-time farms. Almost half of the full-time farms are dairying while the majority of part-time farms are Cattle Rearing or Cattle Other farms.

The 68% of farms classified as part-time were particularly reliant on Subsidies and direct payments, averaging €12,650 to cover production costs. Without these direct payments, many part-time farms would be operating at an economic loss.

Table 2.3 *Main results from National Farm Survey for Full-time and Part-time farms, 2018*

System	Dairying	Cattle Rearing	Cattle Other	Sheep	Tillage	All Sizes
Full-time						
% of total farms	15.2	2.4	5.4	4.5	2.6	31.7
U.A.A	62.4	57.9	72.3	73.2	110.5	70.3
= Family Farm Income	€66,230	€21,100	€30,671	€26,550	€79,234	€51,759
Subsidies and Direct Payments	€22,344	€26,045	€30,500	€31,361	€39,985	€27,143
DP as % of FFI	34%	123%	99%	118%	50%	52%
Part-time						
% of total farms	2.1	25.3	24.9	10.8	4.7	68.3
U.A.A	31.8	28.1	29.5	37.6	32.4	30.5
= Family Farm Income	€27,130	€7,050	€11,029	€7,721	€19,330	€10,141
Subsidies and Direct Payments	€11,545	€11,822	€13,097	€13,770	€12,762	€12,650
DP as % of FFI	43%	168%	119%	178%	66%	125%

Source: Teagasc, National Farm Survey 2018

Off farm Employment Income, 2018

Just over half (51%) of farm households had an off-farm income employment source in 2018, a slight increase on 2017. Dairy farm households were slightly more likely to have an off-farm income, within the household, with the proportion of farm spouses employed off-farm generally higher. This may reflect the younger demography of these households. The higher age profile of non-dairy households is reflected in the fact that, on average, they were more than twice as likely to be in receipt of pensions.

The proportion of farm households where the spouse was employed off-farm remained unchanged at 33%, with the same proportion of farmers employed off-farm.

The levels of off-farm employment differs by system, with cattle farmers more likely to work off-farm. 42% of Cattle Other farmers had an off-farm job in 2018; the equivalent figure on Cattle Rearing farms was 39%. A lower proportion of Sheep and Tillage farmers worked off farm (32% & 33%), whereas only 12% of Dairy farmers were employed off-farm. The incidence of off-farm employment varies across regions and reflects the dominant type of farming there.

More than 40% of farmers in the West worked off-farm in 2018, compared to about 25% in the Southern regions, where farmers were less likely to be employed off farm due to the predominance of dairy farming there.

Figure 2.6 *Estimate of Off-Farm employment income of the Farm Holder, 2018*

Source: Teagasc, analysis using National Farm Survey 2018 data

2.5 Farm Viability Analysis, 2018

While farm income is a useful measure, it does not account for the economic viability of the farm business nor does it make any allowance for the role of income earned outside of the farm in ensuring the sustainability of farm households. To help address this issue the NFS also provides a viability profile of its farms broken into three categories.

Viable

A farm is defined as economically viable if the farm income can remunerate family labour at the minimum agricultural wage, and provide a 5% return on the capital invested in non-land assets.

Sustainable

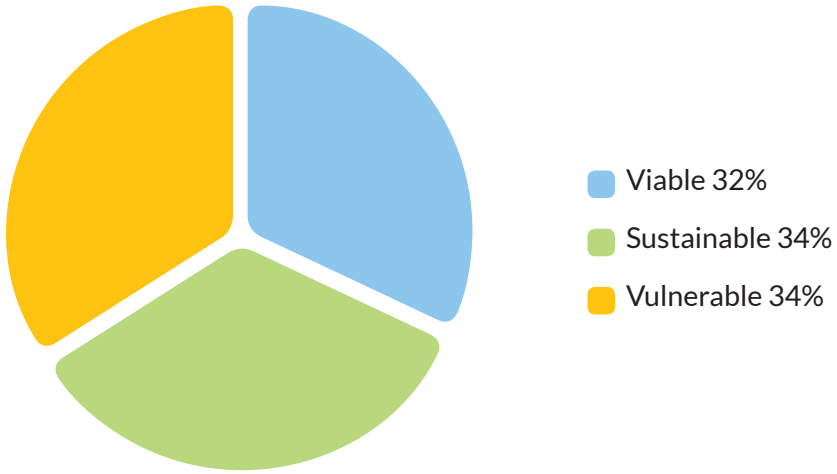
If the farm business is not viable, the household is still considered sustainable if the farmer or spouse has an off-farm income.

Vulnerable

A farm is considered to be economically vulnerable if the farm business is not viable and if neither the farmer nor spouse works off the farm.

Teagasc's National Farm Survey results found that 32% of Irish farms that were represented in the survey were classified as viable in 2018, down from 43% in 2017, with a further 34% classified as sustainable mainly due to off-farm income, while the remaining 34% were deemed to be economically vulnerable. The decrease in the percentage of farms classified as viable in 2018 relative to 2017 is reflective of the drop in average FFI in 2018 compared to 2017.

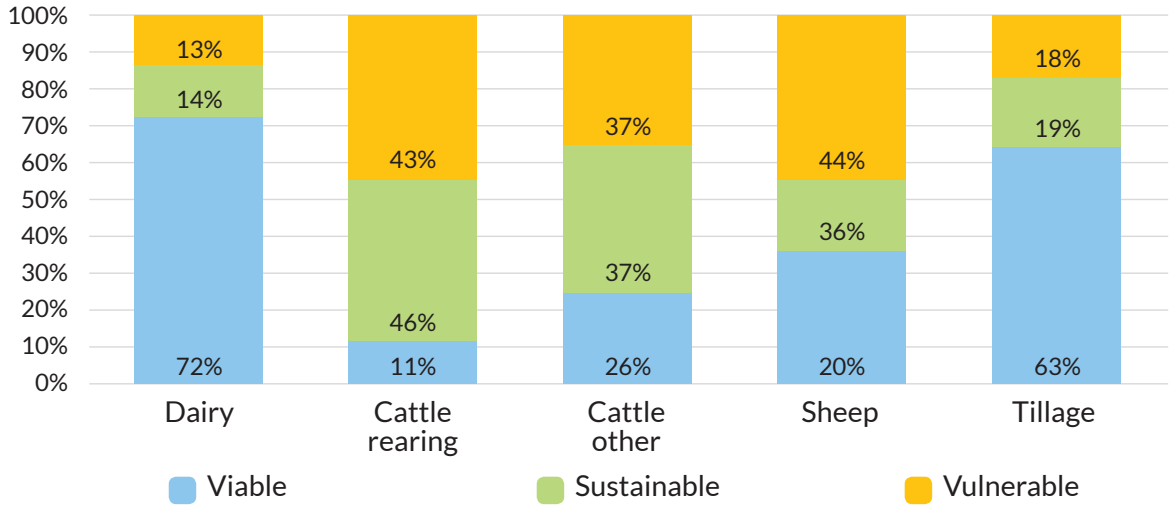
Figure 2.7 *Viability of National Farm Survey Farms, 2018*



Source: Teagasc, National Farm Survey 2018

The viability of farming varies quite considerably by farm system. In 2018, 72% of dairy farms were considered economically viable, in comparison to "Cattle Other" which had 26% of farms classified as economically viable and a further 37% classified as sustainable. The results of the Teagasc NFS indicate that there are about 30,000 viable farms comprising of approximately 12,000 dairy farms, 3,000 cattle farms, and 7,500 cattle other farms, 3,000 sheep farms and 4,500 tillage farms.

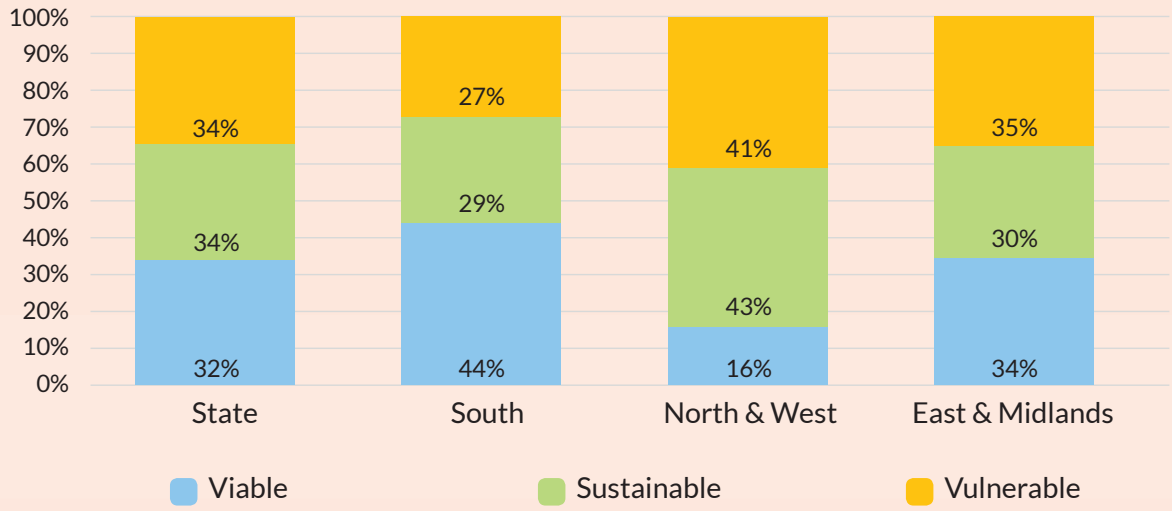
Figure 2.8 *Viability of National Farm Survey Farms by Sector, 2018*



Source: Teagasc, National Farm Survey 2018

The South is the most economically viable region and contains the highest proportion of viable farms at 44%. The Northern and Western region at 41% have the highest proportion of vulnerable farms. The North and West region also has the largest proportion of sustainable farms at 43%. In general, these farms are sustainable due to the presence of an off-farm income source highlighting the importance of off-farm employment in the region.

Figure 2.9 *Viability of National Farm Survey Farms by Region, 2018*



Source: Teagasc, National Farm Survey 2018

2.6 Direct Payments

Total payments made to farmers were estimated to be approximatly €1.8 billion in 2018. This figure includes subsidies (defined by Eurostat) used by the Central Statistics Office in calculating operating surplus in agriculture (section 2.2), such as Basic Payments Scheme, Areas of Natural Constraint, GLAS and disease compensation payments. It also includes payments such as Forestry Premia, and the Targeted Agricultural Modernisation Scheme, which are not counted as direct payments by the Central Statistics Office.

Table 2.4 *Distribution of BPS, Greening and Young farmers scheme by region, 2018*

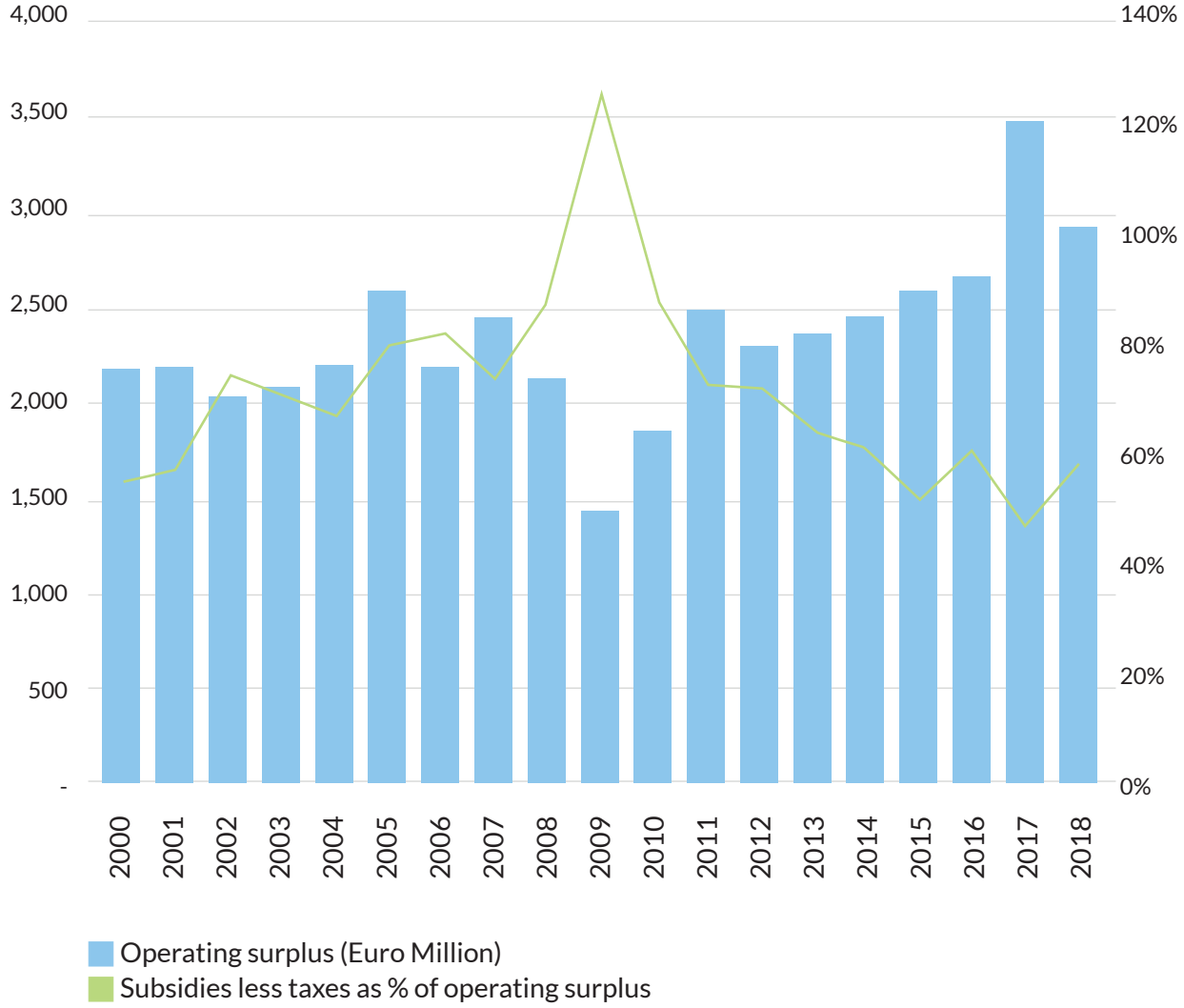
County	BPS amount	Greening amount	Young farmers scheme amount	Total applications paid	Total amount paid
CARLOW	€15,062,149	€6,610,363	€278,103	1,599	€21,950,615
CAVAN	€23,342,705	€10,228,325	€749,677	4,712	€34,320,707
CLARE	€31,766,803	€13,923,816	€826,418	5,940	€46,517,037
CORK	€103,824,265	€45,573,177	€2,511,992	12,757	€151,909,435
DONEGAL	€39,477,358	€17,309,687	€794,315	8,306	€57,581,360
DUBLIN	€6,076,670	€2,664,942	€81,328	621	€8,822,940
GALWAY	€57,315,218	€25,116,288	€1,751,339	11,773	€84,182,845
KERRY	€45,316,141	€19,867,958	€1,168,431	7,581	€66,352,530
KILDARE	€19,977,798	€8,767,756	€332,668	2,039	€29,078,222
KILKENNY	€32,964,647	€14,479,919	€841,015	3,327	€48,285,581
LAOIS	€24,676,202	€10,828,514	€677,573	2,891	€36,182,289
LEITRIM	€14,004,253	€6,135,279	€469,372	3,368	€20,608,905
LIMERICK	€33,355,994	€14,632,121	€868,208	4,993	€48,856,322
LONGFORD	€12,683,060	€5,558,189	€316,814	2,320	€18,558,063
LOUTH	€12,323,955	€5,411,159	€207,868	1,476	€17,942,982
MAYO	€48,620,918	€21,294,950	€1,673,511	11,287	€71,589,379
MEATH	€34,168,322	€14,993,339	€578,340	3,733	€49,740,001
MONAGHAN	€18,669,352	€8,175,947	€406,109	3,959	€27,251,408
OFFALY	€22,702,493	€9,956,370	€626,692	2,968	€33,285,555
ROSCOMMON	€27,315,307	€11,966,223	€736,020	5,594	€40,017,550
SLIGO	€16,956,703	€7,436,182	€430,381	3,866	€24,823,266
TIPPERARY	€61,934,620	€27,181,440	€1,235,875	6,779	€90,351,934
WATERFORD	€24,447,103	€10,719,269	€629,719	2,364	€35,796,091
WESTMEATH	€21,460,829	€9,412,667	€408,498	2,958	€31,281,994
WEXFORD	€37,618,701	€16,511,765	€871,933	3,981	€55,002,400
WICKLOW	€19,074,923	€8,373,625	€377,569	2,101	€27,826,117
Total	**€805,136,489**	**€353,129,270**	**€19,849,769**	**123,293**	**€1,178,115,528**

Source: Department of Agriculture, Food and the Marine

Direct payments (subsidies less taxes) have generally accounted for about 70% of aggregate farm income since the turn of the century but, due to recent increases in farm income, this has dropped to an average of just 56% over the past five years. These direct payments have remained relatively stable since 2005, so as aggregate farm income increases, as in 2017, the relative importance of direct payments reduces. They provide a basic income for farm enterprises and are of particular significance on cattle and sheep farms where they represent up to 100% or more of family farm income.

Figure 2.10 shows aggregate farm income or operating surplus and subsidies less taxes as a percentage of aggregate farm income. It clearly illustrates the importance of subsidies in a year such as 2009 when aggregate farm income fell by 27%.

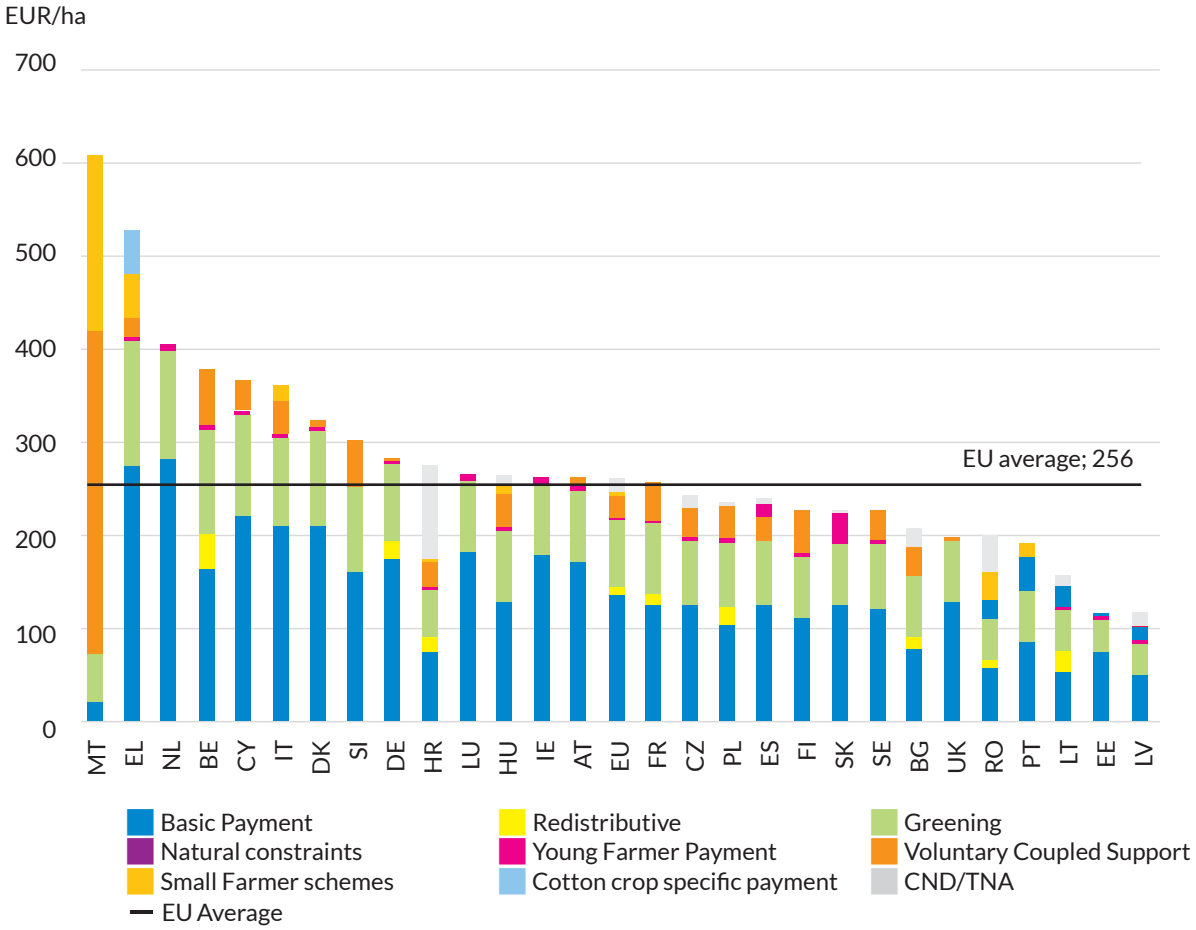
Figure 2.10 *Aggregate farm income and subsidies since 2000*



Source: Central Statistics Office, Output, Input & Income in Agriculture Final Estimates 2018

In 2015, the average direct payment granted per hectare of area declared by farmers amounted to €256 per hectare in the EU. This average direct payment per hectare ranges from €115 per hectare in Lativa to €610 per hectare in Malta. Direct payments per hectare to Irish farmers are just slightly above the EU average of €256. It comprises the basic payment and greening payment along with the young farmer payment.

Figure 2.11 *EU Direct Payments Per Hectare by Member State - 2015*



Source: European Commission, Report on the implementation of direct payments 2015

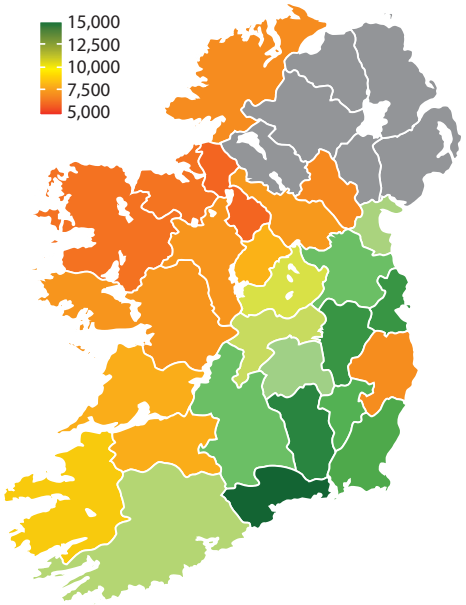
Basic Payment Scheme

The Basic Payment Scheme (BPS) and related Greening payment accounts for around 70% of all direct payments to farmers. In 2018 around 123,000 farmers received these payments with the average payment around €9,500. There is significant variation in the value of payment dependent on county, with the average payment in Leitrim, Mayo, Sligo, Monaghan, Donegal and Wicklow between €6,000 and €7,000, in contrast to an average payment in Dublin, Kildare, Kilkenny and Waterford of between €14,000 and €15,000.

BPS and Greening payments totalled €1.2 billion in 2018. The other significant payments were through Areas of Natural Constraint, some €230 million and GLAS payments amounting to €230 million.

Forestry Premia are also a significant income source for many farmers with about €70 million paid to over 13,000 farmers each year.

Figure 2.12 *Average BPS and Greening Payment by County, 2018*



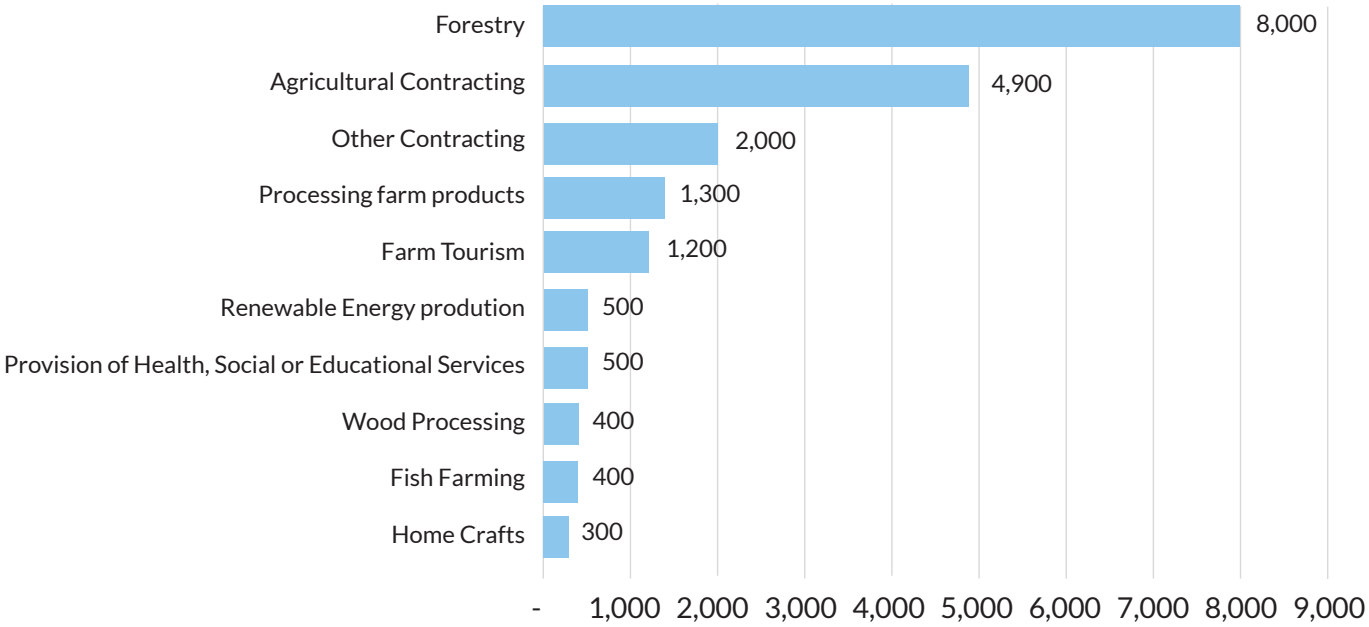
Source: Department of Agriculture, Food and the Marine

Non-Agricultural Activities

The CSO's 2016 Farm Structure Survey found that over 16,400 farms reported that they had undertaken activity on the farm to supplement their income from traditional farming. Some 8,000 farms engaged in forestry and some 5,000 farms in agricultural contracting.

Of the farms engaged in forestry, 4,600 were in the Southern and Eastern region and 3,400 in the Border, Midland and Western region.

Figure 2.13 *Farms engaged in gainful non-Agricultural Activity*



Source: Central Statistics Office's Farm Structure Survey 2016

2.7 Farm Numbers and Size

The CSO's Farm Structure Survey (FSS) 2016 is the first since 2013 and provides a useful insight into farm numbers and farm demographic data which is unavailable from other sources. Table 2.5 below shows the total number and average farms size.

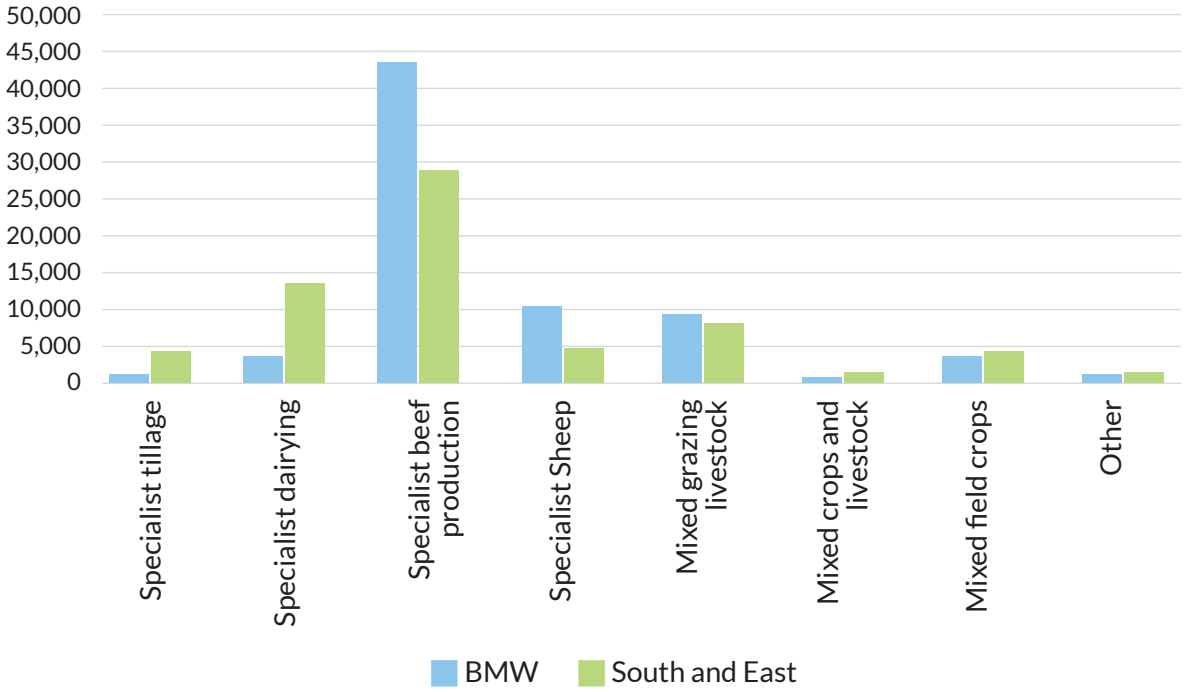
In 2016 there were 137,500 farms in Ireland. A little more than half of these were located in the Border, Midland and Western region. The average farm size in the state was 32.4 hectares. Farms located in the Southern and Eastern region were larger than those in the Border, Midland and West, with an average farm size of 38.3 hectares compared to 27.1 hectares.

Table 2.5 *Number and Size of Farms, 2016*

	State	Border, Midland & West	Southern & Eastern
Number of farms (000s)	137.5	72.5	65
Utilised agriculture area excluding commonage (000s hectares)	4,458.8	1,965.2	2,490.7
Average farm Size (hectares)	32.4	27.1	38.3
Average Standard Output	€45,945	€28,874	€64,992

Source: Central Statistics Office, Farm Structure Survey 2016

Figure 2.14 *Number of farms by category and region, 2016*



Source: Central Statistics Office's Farm Structure Survey 2016

Specialist Beef production continued to be the most common farm type, accounting for over half of all farms in 2016 (78,300). Over two thirds of Specialist Sheep farms were in the BMW region (68.2%), while the SE Region contained almost 80% of Specialist Tillage farms (78.7%) and Specialist Dairying farms (78.3%). Specialist Beef production was more common in the BMW region, where it accounted for almost six in ten of all farms (58.7%). In contrast under half (41.3%) of farms in the SE region were engaged in Specialist Beef production.

Organic production

According to Eurostat the share of utilised agricultural area (UAA) in Ireland allocated to organic farming in 2016 was 76,700 hectares or 1.7% of total UAA. This ranked Ireland among the bottom three countries in the EU along with Romania and Malta in terms of land allocated to organic production. Austria in comparison has 21% of its UAA devoted to organic production, followed by Sweden and Estonia at 18%.

2.8 Age Profile of Farmers

According to the FSS 2016, more than half of farm holders were aged 55 or over. Farm holders over 65 years made up 30% of all farm holders, while 25% are in the 55 to 64 years age group. In 2013 the over 65 age group comprised 27% of all farmers. The number of young farmers under 35 years old was 5.4% in 2016, down slightly on the 2013 figure of 5.9%. This indicates an aging farm holder population with less young farmers.

In comparison to Ireland, 2018 Eurostat data on the age profile of farm holders in the EU 28 countries shows that 32% of all EU farm holders are over 65. However, the age profile of farm holders varies widely between EU countries. In Portugal 52% of farm holders are over 65 years while in Germany this age group accounts for only 8% of farm holders.

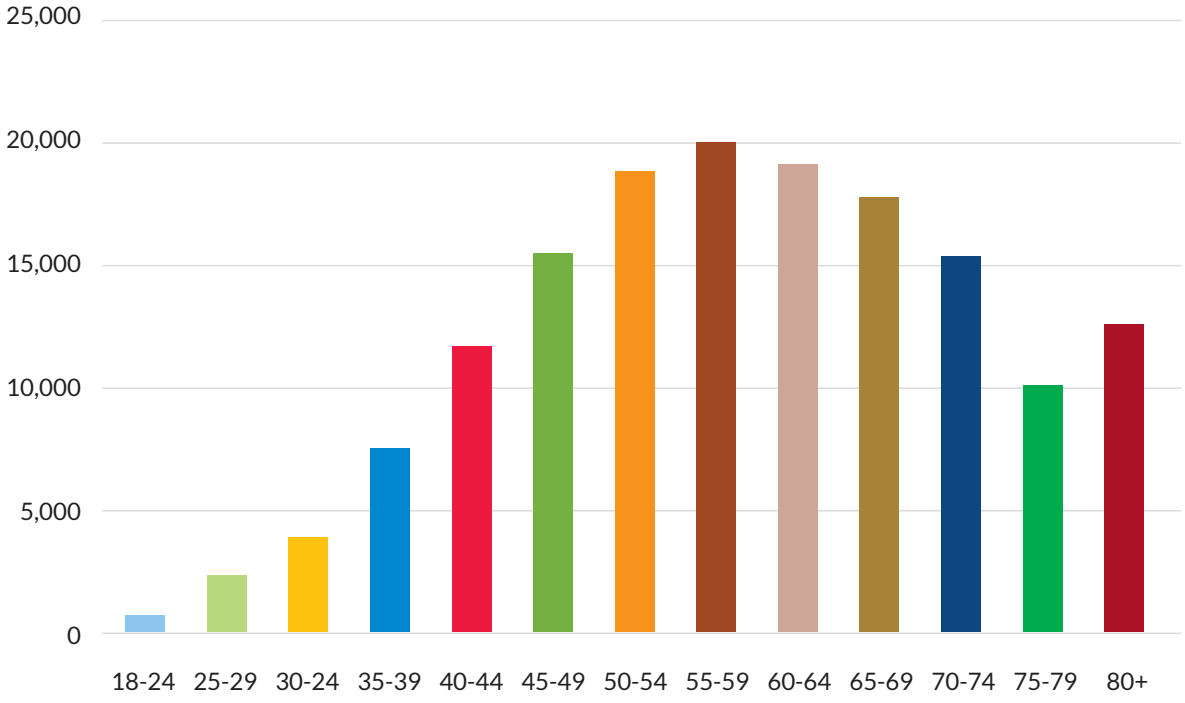
Table 2.6 *Number of Farms[1] by Age of Farm Holder, 2013 - 2016*

	2013		2016	
	Number	%	Number	%
	000s		000s	
< 35	8,200	5.9%	7,400	5.4%
35-44	22,800	16.4%	21,400	15.6%
45-54	34,800	25.0%	32,500	23.7%
55-64	35,600	25.6%	34,700	25.3%
>65	37,700	27.1%	41,200	30.0%
Total	139,100	100%	137,200	100%

[1] Family Farms only therefore lower total figure as Family farms account for 99.7% of all farms.

Source: Central Statistics Office, Farm Structures Survey 2013 , Central Statistics Office, Farm Structure Survey 2016

Figure 2.15 *Age profile of Department of Agriculture, Food and the Marine clients, 2018*



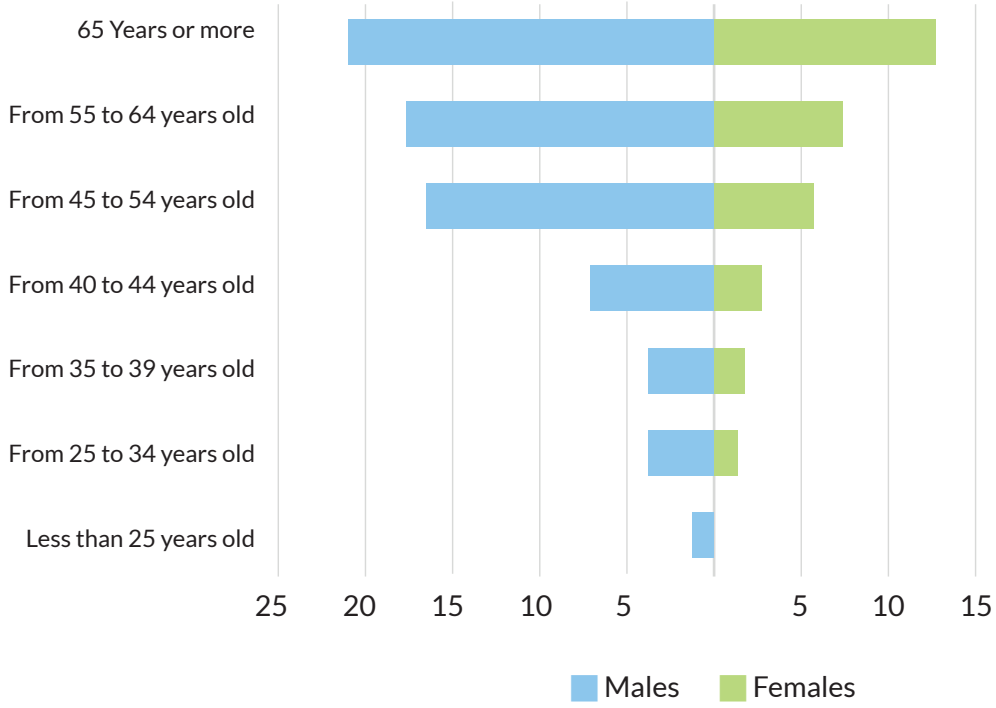
Source: Department of Agriculture, Food and the Marine

The age profile of farmers can be further assessed using data from an exercise undertaken on the Department's Customer Client System. In total, 155,953 farmers (each in receipt of a basic payment) were captured in this analysis and results indicate that the largest cohort of farmers in receipt of payments are in the 55 – 59 age bracket. The proportion of farmers under 35 has increased by 8% between 2015 – 2018 accounting for just under 10% of farmers. It should be noted that this analysis excludes farms with herd numbers in joint names, many of which include a young trained farmer.

2.9 Young Farmers

While the Common Agricultural Policy defines a young farmer as a person below 40 years of age, Eurostat traditionally records the age as 35 years. Based on Eurostat data the share of total farm managers accounted for by young farmers in Ireland fell from 10.7% in 2005 (of which 9.8% men, 0.9% women) to 6.1% in 2016 (5.6% men, 0.5% women).

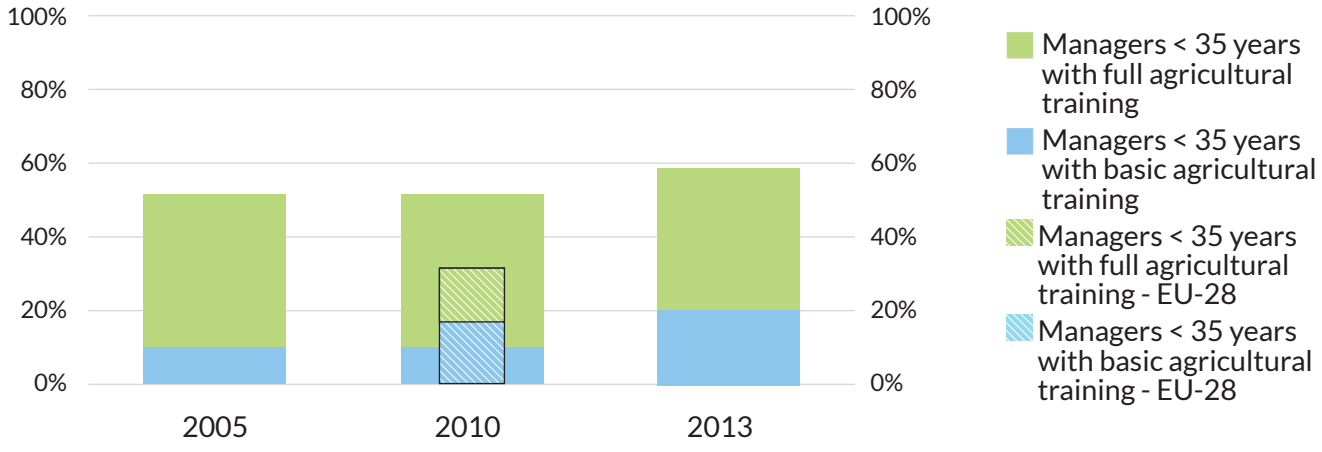
Figure 2.16 *Age Classes of farm managers, by gender, EU-28, 2016 (% of all farm managers)*



Source: EUROSTAT, Farm indicators

In 2013 37% of young Irish farmers had full agricultural training and a further 21% had basic training. According to EUROSTAT in 2010 the number of young Irish farmers with full training was more than double the EU-28 average, indicating a good level confidence among young Irish farm managers.

Figure 2.17 *Agricultural Training for Young Farm Managers in Ireland and EU-28*



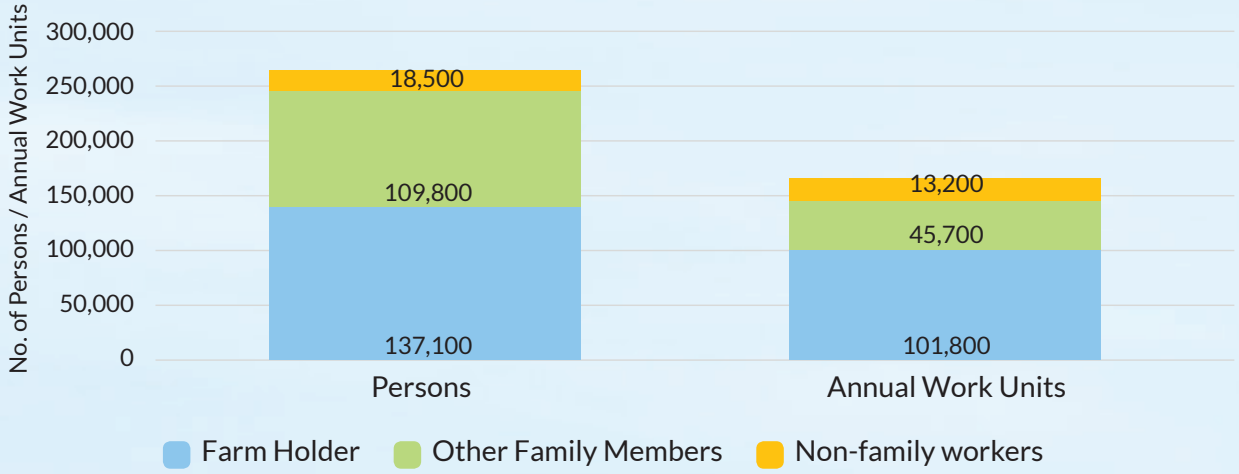
Source: DG AGRI – EUROSTAT

2.10 Labour Input in Agriculture

The FSS 2016 found that total labour input on Irish farms was calculated as 160,700 annual work units, of which 52% was provided by the farm holders, 41% by other family members and 7% by non-family members. This work was carried out by 137,100 farm holders and 109,800 family members along with 18,500 regular non-family workers.

27% of regular family workers were female, which is in contrast to the 12% who are farm holders or in receipt of farm payments.

Figure 2.18 *Labour Input in Agriculture, 2016*



Source: Central Statistics Office, Farm Structure Survey 2016

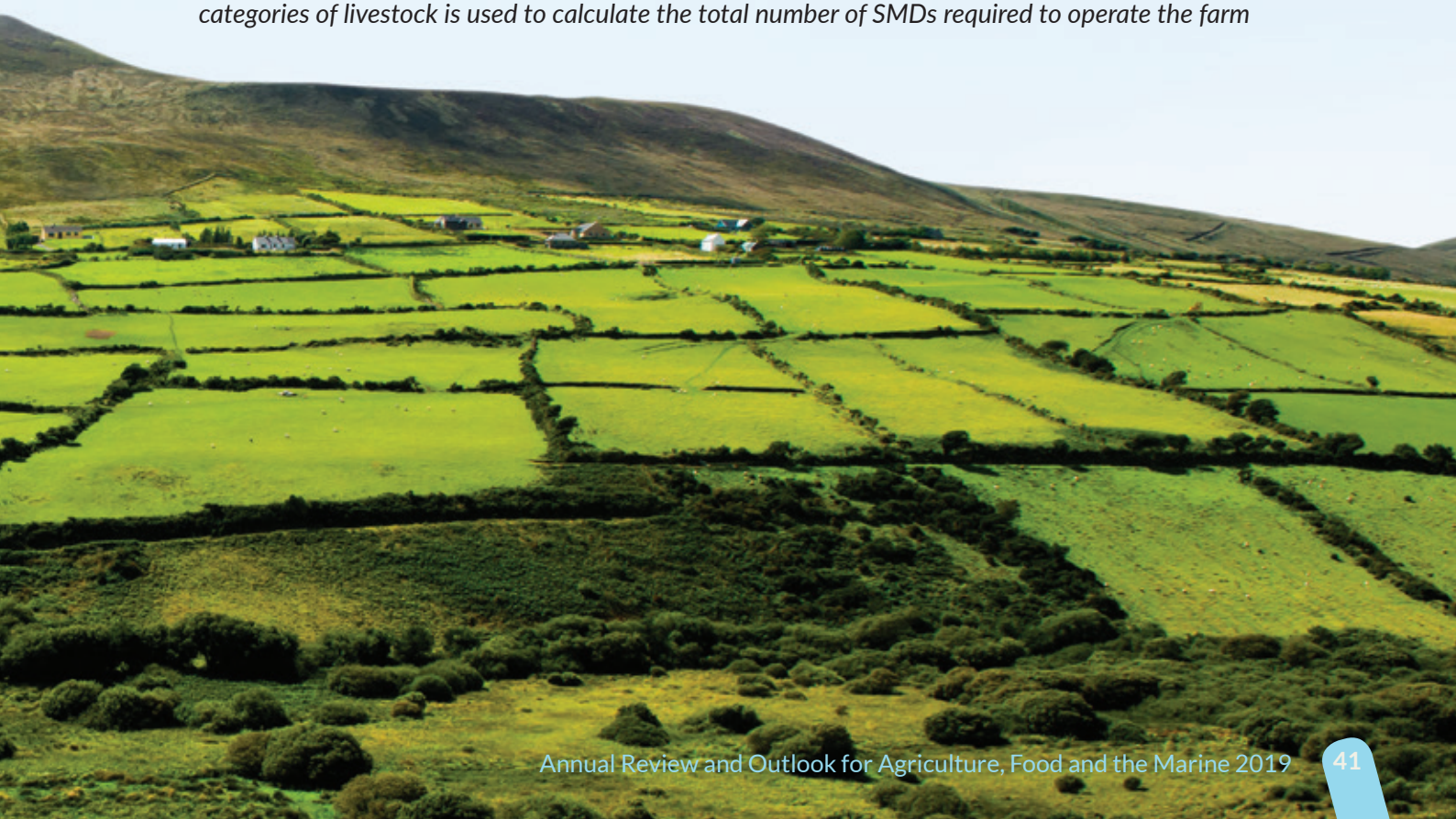
Table 2.7 *Comparison of Actual Labour* versus Estimated Labour Requirement (Standard Man Days**), 2018 preliminary Results*

	Dairy	Cattle Rearing	Cattle Other	Sheep	Tillage	Mixed Livestock	All Systems
All farms							
Total actual labour units	1.62	0.94	0.94	1.09	1.13	1.86	1.11
SMD labour units	2.01	0.42	0.52	0.67	0.89	2.01	0.74
Total actual labour as % SMD	81%	222%	180%	163%	126%	93%	149%
Full-time farms							
Total actual labour units	1.68	1.14	1.42	1.46	1.66	2.05	1.37
SMD labour units	2.22	1.00	1.42	1.29	1.76	2.33	1.59
Total actual labour as % SMD	76%	114%	100%	113%	94%	88%	87%
Part-time farms							
Total actual labour units	1.13	0.92	0.84	0.95	0.82	0.89	0.86
SMD labour units	0.41	0.37	0.33	0.42	0.40	0.32	0.35
Total actual labour as % SMD	277%	251%	257%	226%	206%	279%	246%

Source: Teagasc, analysis using National Farm Survey 2018 preliminary data.

**Actual labour unit is defined as 1,800 hours or more worked on a farm by a person over 18 years*

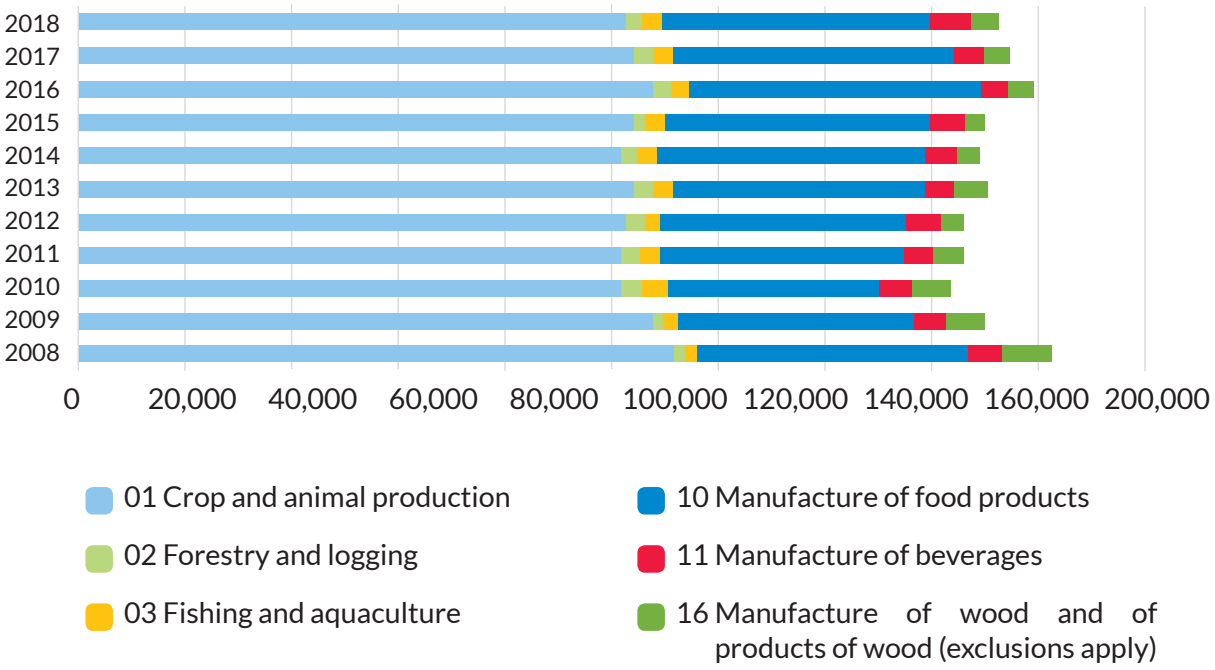
***Standard Man Days (SMD) Labour Unit eight hours of work supplied by a person over 18 years of age. The number of SMD required per hectare for the different crops and per head for various categories of livestock is used to calculate the total number of SMDs required to operate the farm*



2.11 Employment

Employment in the agri-food sector accounts for an average of 173,000 jobs in 2018 or 7.7% of the total employment in Ireland. Agriculture, forestry and fishing accounts for around 109,000 while the food and beverages sector employs close to 58,000 with wood and wood processing accounting for a further 6,000 jobs. While these numbers vary during the year due to seasonal factors the trend since the turn of the century has seen numbers employed dropping.

Figure 2.19 *Employment in the Agri-Food Sectors 2008 to 2018*



Source Central Statistics Office, Labour Force Survey 2019

The fall in numbers employed have mainly been in agriculture, forestry and fishing as there are similar numbers employed in the food and beverages sector in 2018 compared to 2000. Employment in the wood and wood processing sector fell from almost 10,000 in 2000 to 4,200 in 2015 but has increased again to 6,000 in 2018.

According to Bord Iascaigh Mhara there were 14,359 people employed in the seafood business around our coast in 2018, both direct and indirect employment. Estimates of employment in the forestry sector by The Irish Forestry and Forest Products Association (IFFPA) are 12,000 jobs.

While the overall level of employment is just less than 8% nationwide, the level of employment in the regions outside Dublin is much greater. In 2016 overall employment levels in the agri-food sector were 8.3% across the state but, in the Border region agri-food employment accounted for 14.2% of overall employment. Only in the Dublin and Mid-East regions did the level of agri-food sector employment drop below the national average.

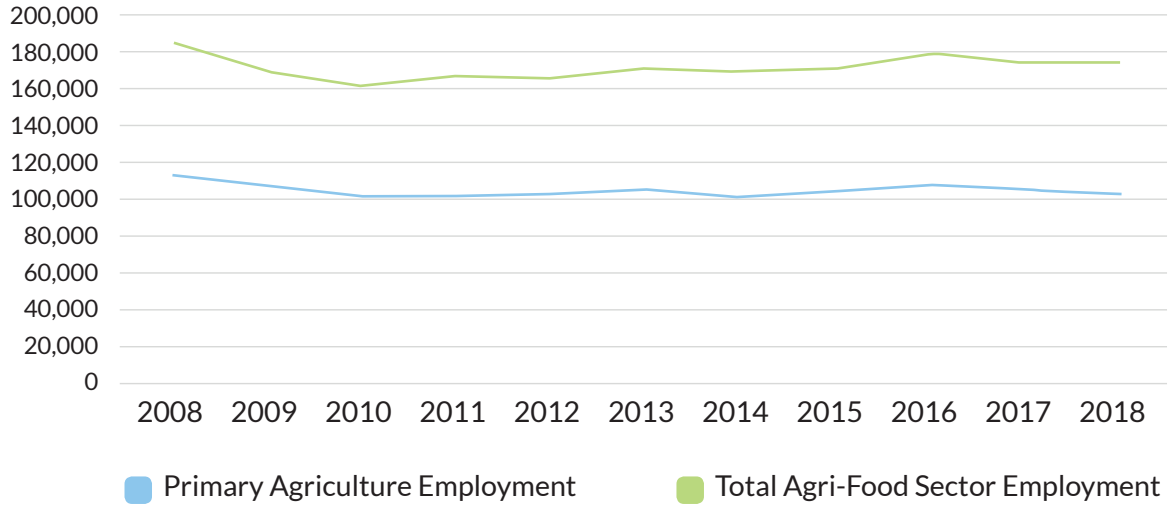
In the other six regions of the state the agri-food sector accounted for 9.7% to 14.2% of total employment highlighting the importance of the agri-food sector to the regions outside the capital and surrounding areas.

Table 2.8 *Agri-food Employment, 2018*

	2018	% of Total
All persons in employment ('000)	**2,259**	**100.00%**
of which		
Agri- food sector ('000)	173	7.7%
Agriculture, forestry & fishing ('000)	109	4.8%

Source: Central Statistics Office, Labour Force Survey 2018

Figure 2.20 *Agri-food sector Employment, 2008-2018*



The Labour Force Survey (LFS) is a large-scale, nationwide survey of households in Ireland. It is designed to produce quarterly labour force estimates that include the official measure of employment and unemployment in the state (ILO basis). The survey began in January 2016 and replaced the Quarterly National Household Survey (QNHS) in Q3 2017.

Source: Central Statistics Office, Labour Force Survey 2018

2.12 Land Prices and Land Mobility

Society of Chartered Surveyors Ireland/Teagasc Land Market Review & Outlook 2018

The annual Society of Chartered Surveyors Ireland/Teagasc Land Market Review & Outlook provides an in-depth analysis of key agricultural farmland market trends in 2018 and provides an outlook for 2019. The average national price per acre for agricultural land without a residential holding was €9,554 per acre (€23,608 per ha).

This figure varies considerably on a provincial basis.

Connaught/Ulster

Average value per acre for agricultural land without a residential holding in Connaught increased by 46% for parcels less than 50 acres to €7,016, parcels between 50 to 100 acres increased by 57% to €6,575 and areas over 100 acres category increased by 67% to €6,205.

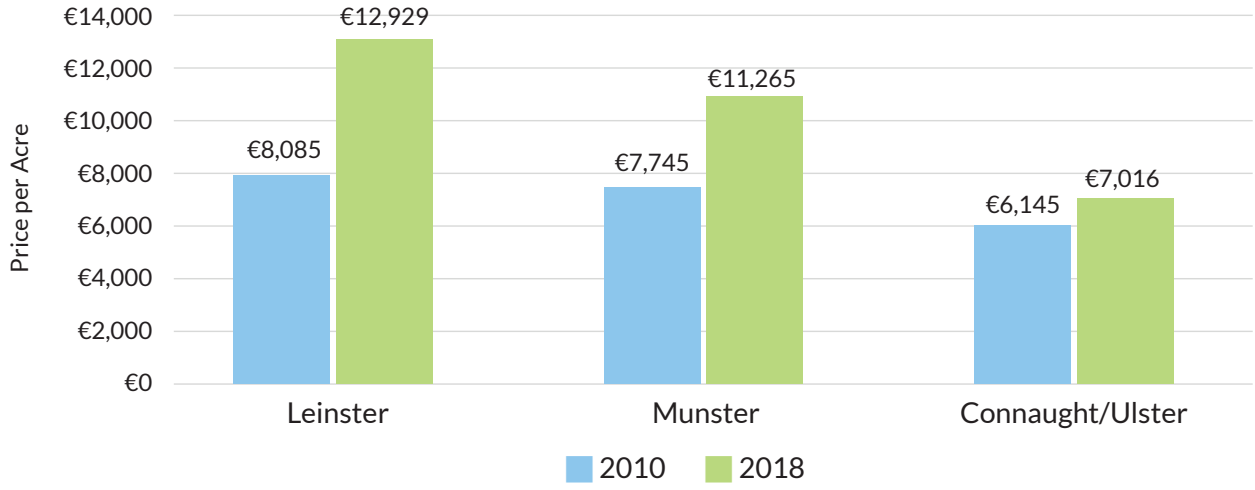
Munster

In Munster, the average price per acre for agricultural land with and without a residential holding appeared to have stabilised in 2018 from its 2017 level. Stabilisation was also the case for land without a residential holding, values in 2018 were about 4% above those of 2017, for smaller parcels of less than 50 acres, which increased to €11,265. Land parcels between 50 to 100 acres were valued at €10,143 in 2018 while areas over 100 acres were valued at €10,457.

Leinster (Excl. Dublin)

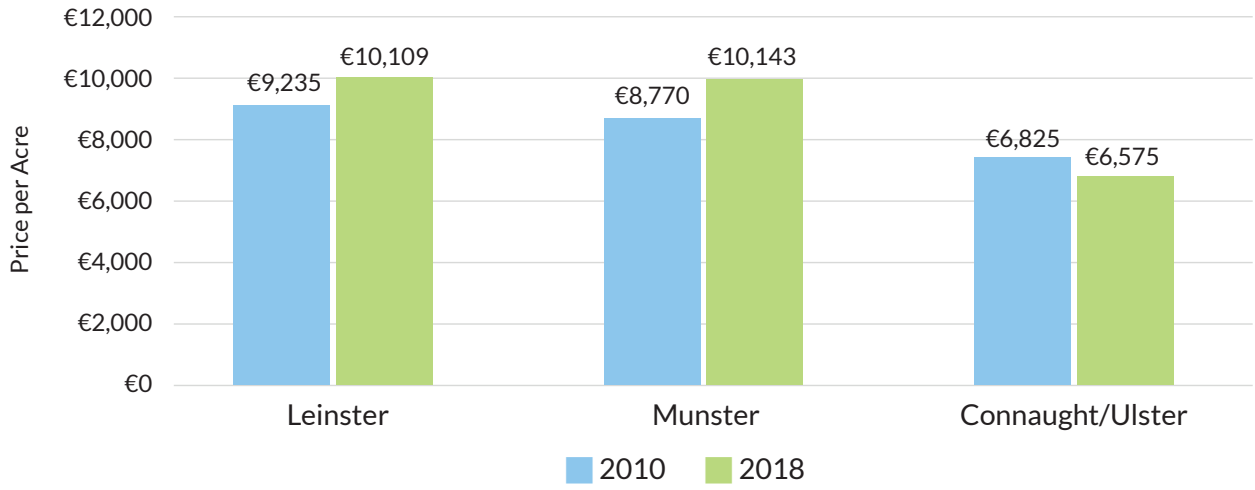
Year-on-year land values also stabilized in Leinster, (excluding Dublin) with negligible changes of no more than 4% in any size group for both land with and without a residential holding. Smaller parcels of land less than 50 acres were valued at €12,929. Land parcels between 50 to 100 acres were valued at €10,109 in 2018 while areas over 100 acres were valued at €9,411

Figure 2.21 *Average price per acre of agricultural land (areas up to 50 acres), without entitlements or a residence, 2010 v 2018*



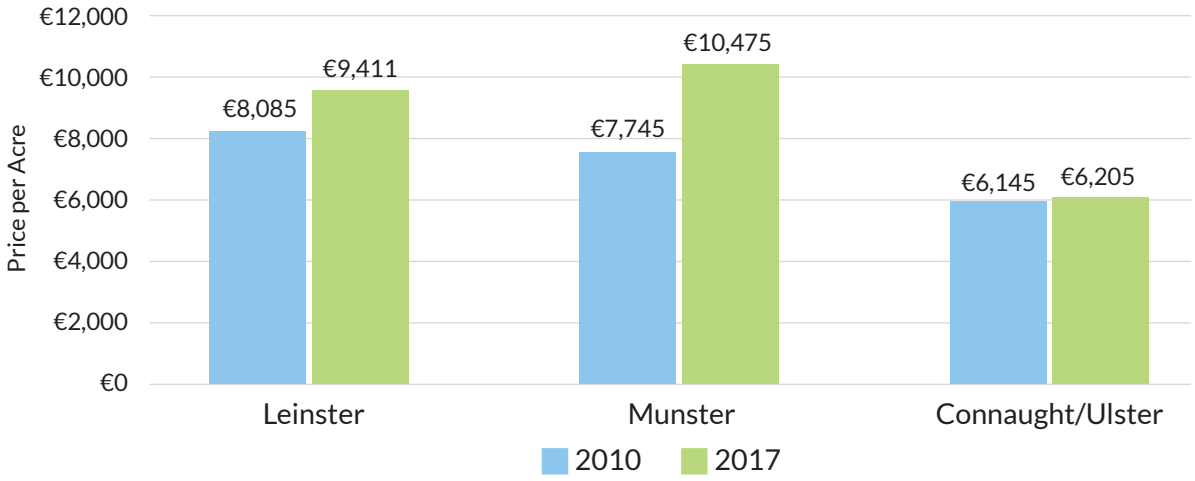
Source: Society of Chartered Surveyors Ireland/Teagasc Land Market Review and Outlook 2019

Figure 2.22 *Average Price per acre of agricultural land (areas between 50-100 acres), without entitlements or a residence, 2010 v 2018*



Source: Society of Chartered Surveyors Ireland/Teagasc Land Market Review and Outlook 2019

Figure 2.23 *Average price per acre of agricultural land (areas over 100 acres), without entitlements or a residence, 2010 v 2018*



Source: Society of Chartered Surveyors Ireland/Teagasc Land Market Review and Outlook 2019

Irish Farmers Journal Land Price Report 2018

The latest Irish Farmers Journal Land Price Report, published in March 2019 indicated that the average price for land in Ireland remained relatively stable at €9,072 an acre in 2018 down from €9,088 in 2017.

Over 33% of land sales nationally were attributed to beef farmers, with dairy farmers involved in 23% of land sales. Business people were also active in the land market with 17% of land transactions attributed to them. Business people paid an average price of just over €12,000 per acre, purchasing 8,000 acres in 2018.

The report also states that since 2015, the market for forestry land has become more competitive with some counties, particularly in the west of Ireland, noting a greater percentage of sales to forestry companies. For this reason, the price paid for forestry land is also increasing. The demand for forestry as an investment remains high with the average price for forestry land at just over €4,900 per acre.

Nationally, the average value of agricultural land in 2018 was €9,072 per acre (€22,417 per hectare). This figure varies considerably on a provincial basis, with Munster reporting an average per acre value of €9,880 (€24,413), Leinster reporting €10,754 per acre (€26,573) while Connaught reported €6,087 (€15,040) and Ulster reported €7,656 per acre (€18,918).

Land prices are based on several key factors including quality of the land, size of the land parcel, whether there are entitlements attached or, if there is a residence on the land parcel. In 2018, Dublin saw the highest price in Ireland, at almost €21,983 per acre, followed by Kildare at €13,621 per acre. At the other end of the scale, the lowest average price by county was in Leitrim at €5,222 per acre followed by Mayo at €5,598 per acre.

Supply of land

The amount of land brought to the market last year fell 11% to 70,246 acres compared with 78,350 acres in 2017.

In total, 31,687 acres were sold last year, down 6.4% from the 33,864 acres sold in 2017, an overall success rate of 45%.

A total of 1,662 land parcels were offered to the market, up from 1,536 farms/land parcels in 2017.

Leasing and rental data

The Central Statistics Office Farm Structures Survey 2016 indicates that almost 47,000 farms had land rented -in, with 5,700 farms 100% rented. Of those farms that include rented land, 53% were involved in specialist beef production and 20% in specialist dairying. Farms with a standard output of €100,000+ were responsible for renting 22% of the farms.

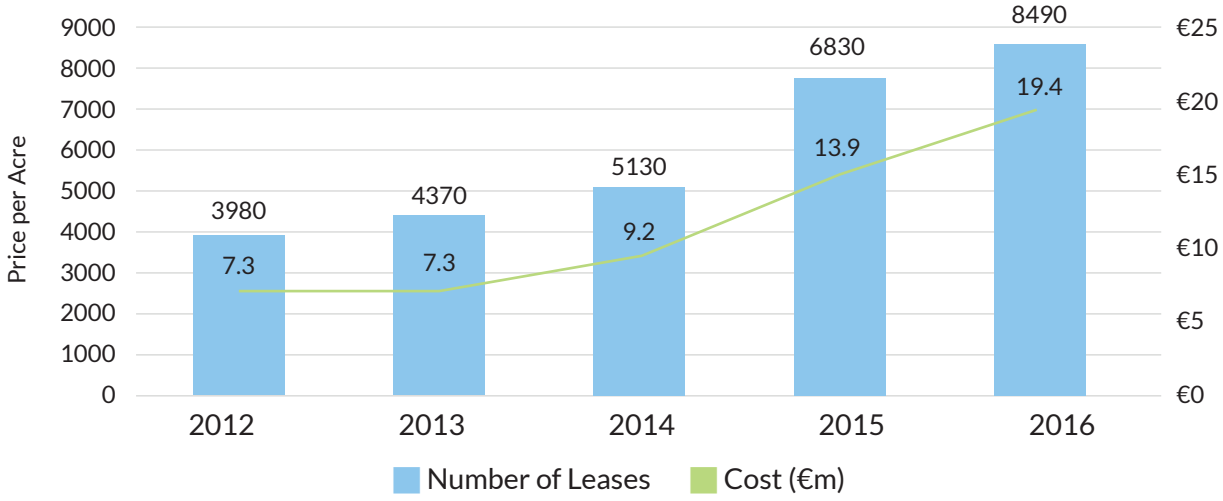
Land Mobility & Long-term leasing

A key policy objective of the Agri-taxation Review 2014 was to increase the mobility and the productive use of land. It recommended the retention and enhancement of the income tax relief for long-term leasing, which allows progressive farmers to enlarge their farm holdings and increase productivity. It also:

- Allows young farmers and new entrants to the sector gain access to land by providing a cheaper means of long term access to land, as opposed to the relatively high cost of ownership.
- Provides security of tenure and the certainty required to encourage lessees to maintain and make an investment in improving land.
- Is especially important in accessing bank credit as financial institutions generally match loan terms to lease duration and longer duration means more manageable repayments.
- Provides a route to retirement for older farmers, assisting in generation renewal.

Over recent years, as a result of the changes brought about by the Review, there has been a significant shift from the short-term renting (conacre) system to long-term leasing. The main official source of data in this regard is from Revenue income tax returns, which show a doubling of long-term leases from 2012 to 2016.

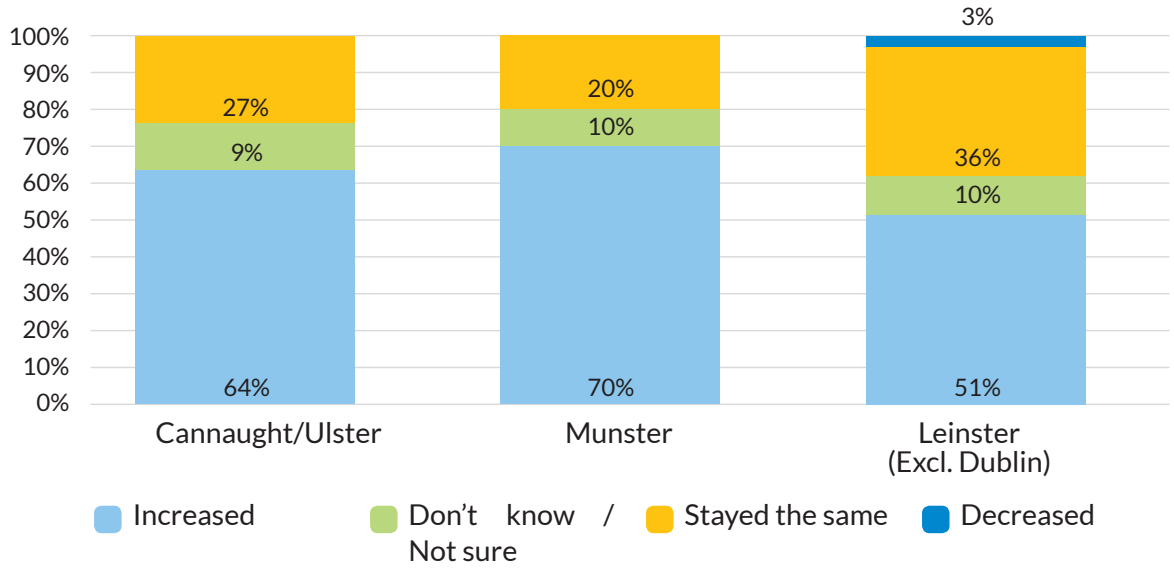
Figure 2.24 *Change in number and value of long term leases, 2012 to 2016*



Source: Revenue, The Farming Sector in Ireland A Profile from Revenue Data Statistics Update 2018

The change in demand for long term leases in 2018 relative to 2017 is shown in Figure 2.25.

Figure 2.25 *Change in demand for long term leases, 2018 V's 2017, by Region*

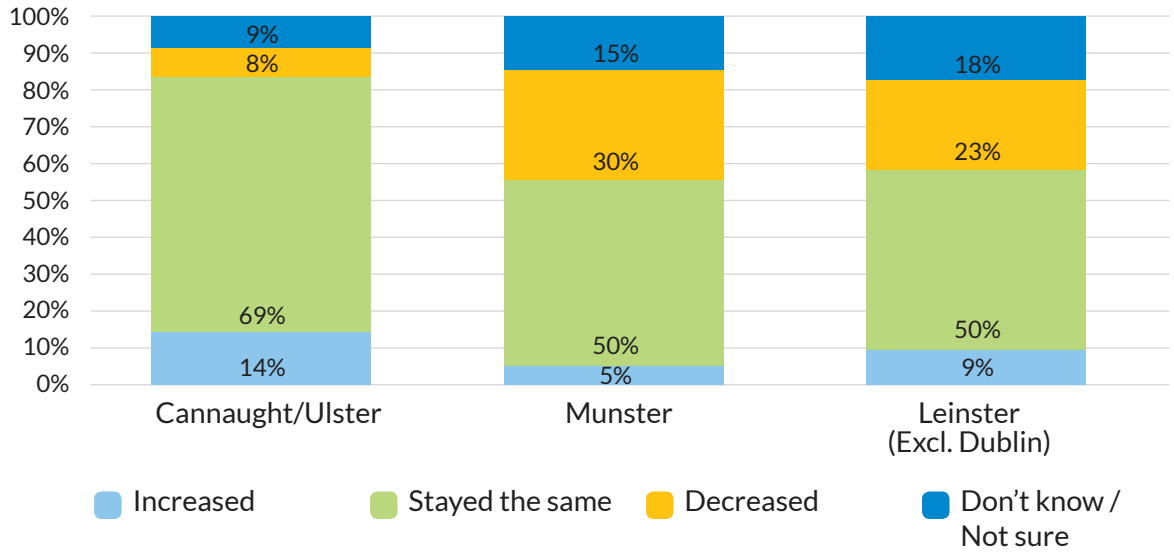


Source: Society of Chartered Surveyors Ireland/Teagasc Land Market Review and Outlook 2019

Conacre & long-term leases

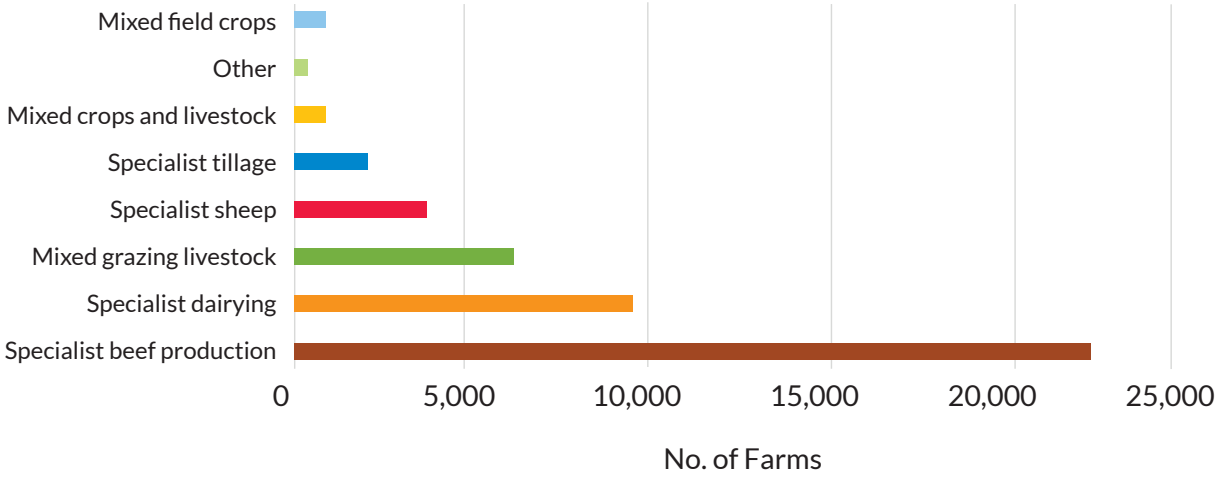
A variety of factors affect the quantity of land rented as Conacre, (a short rental of less than twelve months duration). Farmers may wish to rent some extra land to obtain extra grazing, or for tillage. Their expectations in relation to cattle and crops will affect their desire to do this. Natural factors such as the weather may also come into play. Farmers may wish to rent land to provide fodder in a year of shortage or provide grazing for cattle they wish to keep to expand a herd or to sell later than planned.

Figure 2.26 *Change in Conacre letting in 2018 V's 2017, by Region*



Source: Society of Chartered Surveyors Ireland/Teagasc Land Market Review and Outlook 2019

Figure 2.27 *Number of farms with rented land, 2016*



Source: Central Statistics Office, Farm Structure Survey, 2016

2.13 Investments, Borrowings and Interest

Expenditure

Total expenditure by Department of Agriculture, Food and the Marine was over €3 billion in 2018. Payments to farmers totalled almost €1.8 billion including Basic Payment Scheme, Rural Development and Forestry Payments.

Table 2.9 *Expenditure on Irish Agriculture, 2018*

(Period 1 January to 31 December 2018)	€m
EAGGF Guarantee direct expenditure	1,222
Voted Expenditure (excluding Administration)	1,546
Administration	237
Total Voted Expenditure	1,783
Total DAFM Expenditure	**3,005**

Source: Department of Agriculture, Food & the Marine

Investments

Gross fixed capital formation or capital investment in agriculture decreased by 7% in 2017, reflecting market sentiment arising from lower commodity prices and uncertainty over Brexit. However, the period 2012 to 2016 has seen relatively stable levels of investment since the significant decrease in the period 2009/10, which can attributed to the financial crisis and the conclusion of the Farm Waste Management Scheme at the end of 2008.

Table 2.10 *Gross Fixed Capital Formation 2009-2017 (€million) current prices*

Year	Farm Buildings	Land Improvements	Transport Equipment	Ag. Machinery + Equipment	Other Equipment	Breeding Stock	Total	Variance versus previous year
2009	€244	€40	€118	€179	€27	-€44	€563	
2010	€155	€47	€111	€156	€18	-€55	€432	-23%
2011	€194	€60	€95	€202	€20	€19	€589	36%
2012	€161	€36	€104	€313	€23	€83	€720	22%
2013	€189	€42	€109	€353	€40	-€20	€713	-1%
2014	€208	€47	€113	€375	€41	€1	€784	10%
2015	€225	€50	€125	€386	€34	€128	€948	21%
2016	€227	€51	€113	€380	€24	€35	€829	-13%
2017	€229	€51	€106	€334	€26	€21	€767	-7%

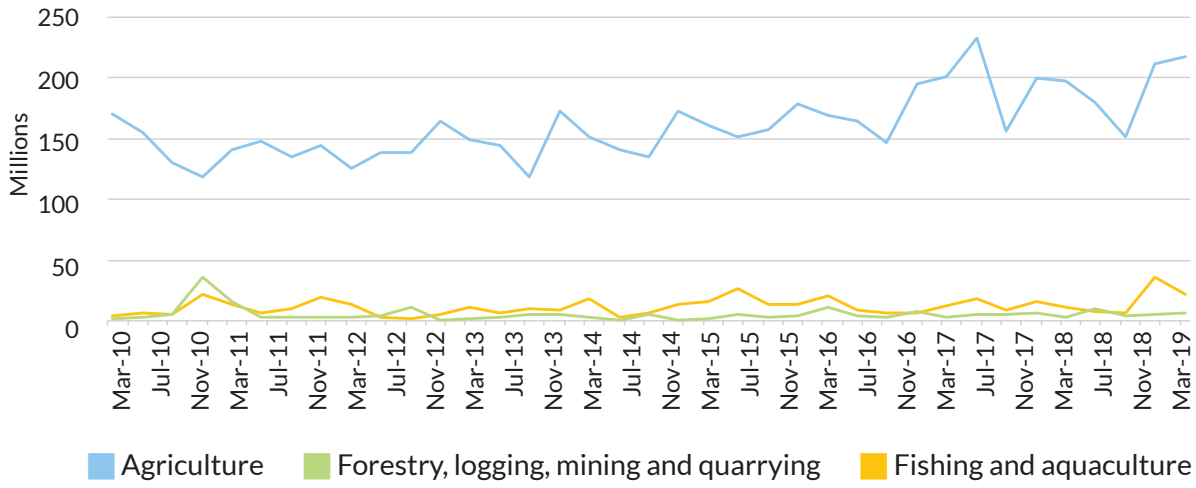
Source: Central statistics office

Borrowings

Central Bank data shows that credit advanced to Primary Industries namely (i) agriculture, (ii) forestry, logging, mining and quarrying and (iii) fishing and aquaculture sectors in 2018 was €840 million which is similar to 2017, and approximately €100 million greater per annum than during 2015 and 2016. Further analysis shows that new lending to primary agriculture accounts for 90% of this total, forestry, logging, mining and quarrying accounts for 3% and fishing and aquaculture 7%.

Despite this increase in lending, the credit outstanding at the end of 2018 is €3.5 billion, down from €4.7 billion at the end of 2010 and down from a peak of €6.4 billion in September 2008. This is indicative of the deleveraging that has been occurring in the wider economy over roughly the same period where repayments have outstripped new lending. Primary Agriculture accounts for 15% of the €23.5 billion outstanding debt held by Irish SMEs, or 23% when Financial Intermediation and Property Related Activities are excluded.

Figure 2.28 *New borrowings by Agriculture, Forestry and Fisheries SMEs, 2010 - March 2019*



Source: Central Bank of Ireland, Trends in SME and Large Enterprise Credit and Deposits Q1 2019

Investment

Despite difficult conditions, gross new investment on Irish farms increased by 8% in 2018, totalling almost €941 million nationally.

Investment on Dairy farms accounted for more than half of total investment in 2018, at an average of €31,714 per farm. This figure is up 19% on 2017. Investment on Tillage farms increased by over 34% on average, to €11,499. Investment on Cattle Other farms also increased significantly in 2018, up 21% to €5,774. A reduction in investment on Cattle Rearing and Sheep was seen in 2018, with investment down 19% and 32% to €3,913 and €4,270 respectively.

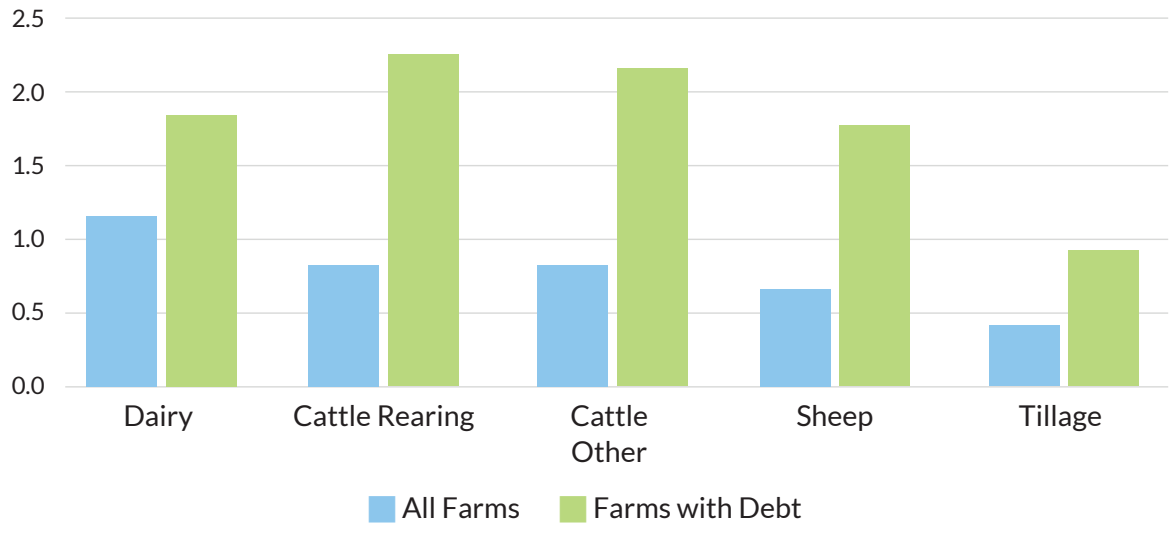
Table 2.11 *Percentage of Farms with Borrowings and Average Debt, 2018*

	Farms with Borrowings (%)	Average Debt (farms with debt)
Dairy	61%	€121,453
Cattle Rearing	30%	€24,882
Cattle Other	34%	€36,842
Sheep	23%	€38,657
Tillage	34%	€55,142
All	36%	€61,546

Source: Teagasc, National Farm Survey 2018

Figure 2.29 presents the debt to income ratio for all farms by farm system (including those without debt) alongside those with debt. Although less than one-third of cattle farms reported having debt in 2018, the debt to income ratio of those with borrowings is relatively high at 2.3. Dairy farms average debt to income ratio was lower at 1.8. The figure on Sheep and Tillage farms was 1.8 and 0.95 respectively.

Figure 2.29 *Debt to Income Ratios for all Farms and those with Debt 2018*



Source: Teagasc, National Farm Survey 2018

Despite difficult conditions, gross new investment on Irish farms increased by 8% in 2019, totalling almost €941 million nationally.

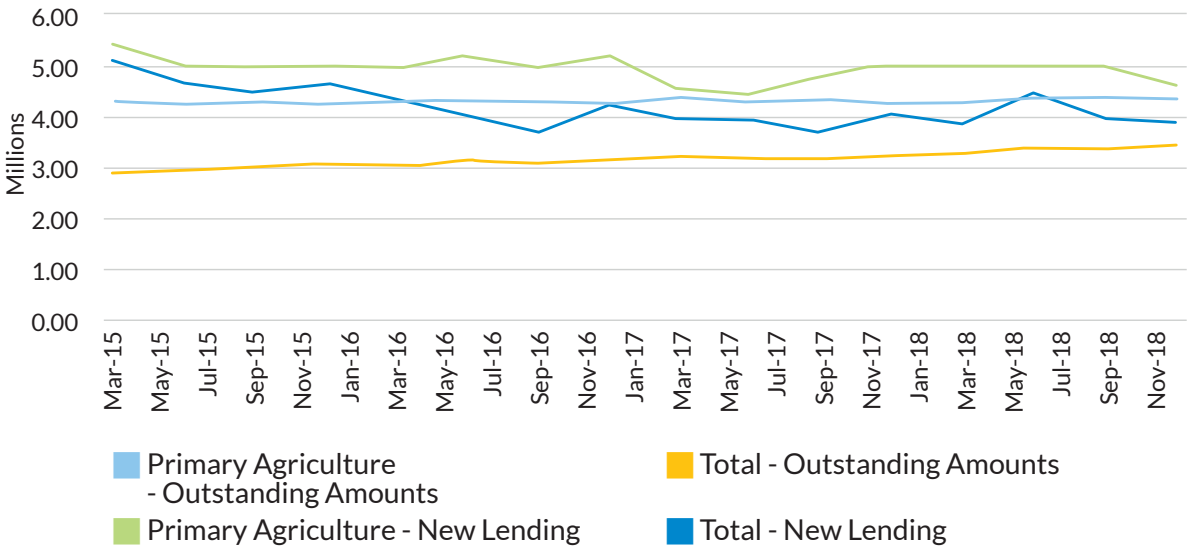
Interest Rates

Interest rates for the sector show a slight increase on 2017 and are higher than the average across all SME sectors. Central Bank figures show:

- The average rate on outstanding amounts in the sector at the end of 2018 was 4.38% (against 4.33% for 2017) while the average for all SMEs were 3.40%: a difference of 0.98%.
- The average rate for new lending in the sector at the end of 2018 was 4.96%.

Some of the difference may be attributable to the profile of the loans, as loans to the agriculture sector tend to be lower in value and higher in volume with fixed costs therefore spread over smaller amounts.

Figure 2.30 *Interest Rates in Primary Agriculture*



Source: Central Bank of Ireland, Business Credit and Deposits 2018

Interest Rates – In comparison to other EU countries

The Central Bank of Ireland's SME Market Report 2018 indicates that interest rates in Ireland are substantially above Euro area averages. The interest rate for Non-financial Corporation (NFC) loans of less than €0.5m is 5.2% as of March, twice that of EA1 countries and EA2 countries, where the comparable interest rates is currently 2.6%.

As of Q1 2018, a positive annual credit growth rate of 3% was recorded for primary industries, whereas negative growth was reported for Manufacturing (-6.4%) Construction (-9%) and Wholesale, Retail, Trade & Repairs (-5.1%)

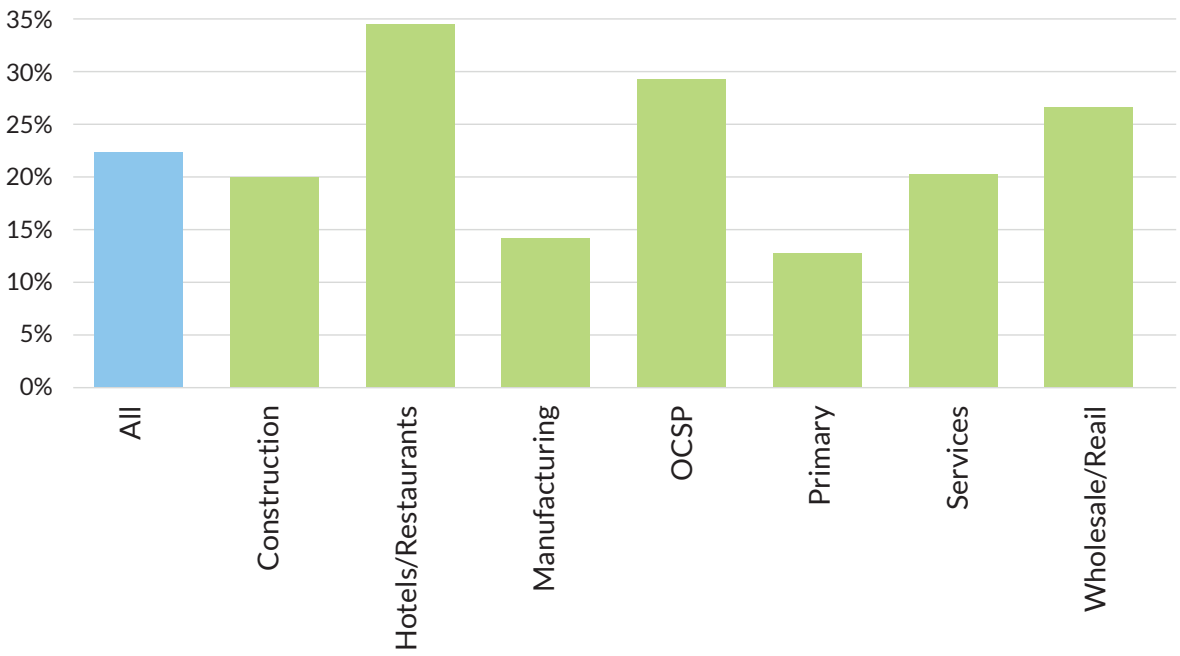
The Department of Finance's SME Credit Demand Survey covering April to September 2017, records that 23% of SMEs applied for bank finance, an increase from the low of 20% recorded in the previous survey. Demand for finance is most common among Medium firms and lowest among Micro firms.

Note: The Central Bank compares Ireland to two groups of countries: EA1 which comprises Austria, Belgium, Germany, Finland, the Netherlands, and France and EA2 which is formed by Portugal, Italy, Spain and Greece.

Non-performing loans

Central Bank figures show that at December 2017 the default rate for SMEs was 22.6%. The primary industries sector dominated by agriculture has the lowest share of outstanding balances in default (12.9%)

Figure 2.31 *SME Default Rates by Sector, December 2018*



Source: Central Bank of Ireland, SME Market Report 2018

Future Growth Loan Scheme

The Scheme was developed by the Department of Agriculture, food and the Marine and the Department of Business, Enterprise and Innovation, in partnership with the Department of Finance, the SBCI and the European Investment Fund (EIF). It will be delivered through participating finance providers and make up to €300 million of investment loans available to eligible Irish businesses, including farmers and the agri-food & seafood sectors.

The loans are competitively priced with an initial maximum loan interest rate of 4.5% for loans less than €250,000. The loans are for terms of 8-10 years and unsecured up to €500,000. This type of innovative finance, which has been previously unavailable in the Irish market, will support strategic long-term investment in a post-Brexit environment.

A minimum loan amount of €100,000 applies up to a maximum of €3,000,000 per applicant. Considering the needs of Irish farmers a specific minimum of €50,000 applies to them.

Loan eligibility applications for the Future Growth Loan Scheme may be made through the Strategic Banking Corporation of Ireland's (SBCI) website. On approval, SBCI will assign an eligibility reference number. This reference number along with the loan application may then be provided to a participating lender.

Brexit Loan Scheme

The €300 million Brexit Loan Scheme was developed by the Department of Agriculture, Food & the Marine in cooperation with the Department of Business, Enterprise and Innovation (DBEI) and the Strategic Banking Corporation of Ireland (SBCI) to provide working capital support to enable eligible Irish businesses to implement the necessary changes to address the challenges

posed by Brexit. The Scheme opened for applications on 28th March 2018 and it will remain open until 31st March 2020.

It provides for loans of €25,000 to €1,500,000 per eligible enterprise at a maximum interest rate of 4%, ranging from 1 year to 3 years, with unsecured loans up to €500,000. The loans can be used for future working capital requirements or to fund innovation, change or adaptation of the business to mitigate the impact of Brexit.

Applications for eligibility assessment must be made to the SBCI who, on approval, assign an eligibility reference number. This reference number along with the loan application may then be provided to a participating lender.

SBCI: Agri Cashflow Support Loan Scheme

The Agriculture Cash Flow Support Loan Scheme, developed in cooperation with the Strategic Banking Corporation of Ireland (SBCI) provided low-cost flexible working capital finance to farmers to address the impact of the change in the sterling exchange rate and lower commodity prices in some agriculture sectors in 2016 and 2017. The scheme made €150 million available to farmers at interest rates of 2.95%.

Distributed and administered through AIB, Bank of Ireland and Ulster Bank, the Scheme provided farmers with a low cost, flexible source of working capital and allowing them to pay down more expensive forms of short-term debt, ensuring the ongoing financial sustainability of viable farming enterprises.

DAFM's contribution of €25 million included €11 million from the EU's 'exceptional adjustment aid for milk and other livestock farmers' and €14 million in national funding. SBCI used the €25 million of funding provided by DAFM to leverage the total amount of €150 million and, along with the European Investment Fund's 'COSME' (the EU programme for the Competitiveness of Enterprises and SMEs), is providing the guarantee required to underpin the loan's flexibility and lower the cost of the loans.

Progress on the Agriculture Cashflow Support Loan Scheme

The provisional final drawdown for the Scheme is that there were 4,246 applications totalling €144,903,656, with an average loan size of €34,127 and an average loan period of 41 months.

Source: Department of Agriculture, Food and the Marine

Table 2.12 *Summary of loans by Sector (Provisional Estimate)*

Sector	Totals	% of funds	No. of Loans	Average Loan size
Dairy	€65,269,217	38.5%	1638	€39,846
Beef	€57,172,691	47.5%	2015	€28,387
Sheep	€3,138,400	3.5%	146	€21,500
Pigs	€2,065,000	0.4%	23	€89,782
Tillage	€9,077,465	4.5%	185	€48,803
Horticulture	€1,098,500	0.2%	12	€84,500
Other	€7,082,383	5%	227	€31,200
Total	**€144,903,656**	**100%**	**4,246**	**€34,127**

Source: Department of Agriculture, Food and the Marine

2.14 Women in Agriculture

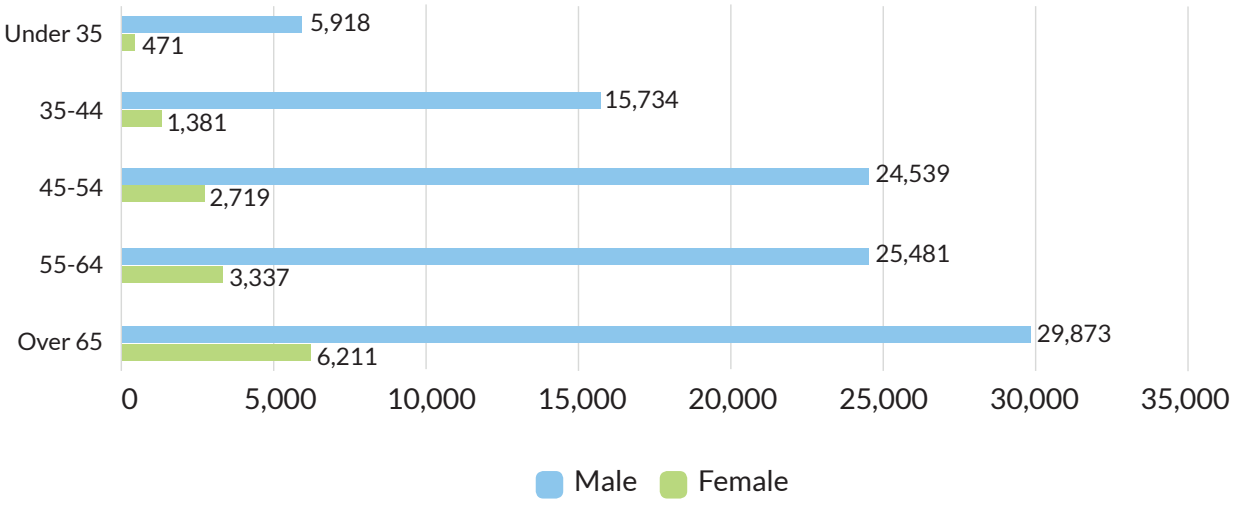
Women in Agriculture Ireland

The CSO Labour Force Survey (LFS) (CSO, Labour Force Survey, 2018) shows that in 2018, 16.4% of workers in the agriculture, forestry and fishing sector were female. The trend since 2000 is increasing slightly, with the proportion rising from an average of 14.2% between 2000 to 2009 to 16.2% over the period 2010 to 2018. While the proportion of females in the agri-food labour force is low, it compares favourably against the construction sector (5.5%), although is below that in the Industrial sector (28.5%). In an EU context, an average of 28% of farm managers are female.

The Teagasc 'Education in Vision' report highlights that while 51% of recipients of all QQI further education awards were female, about 11% of the 14,588 QQI further education awards made for Teagasc programmes in the period 2012-2016, were to female graduates. The report points out that female participation in agricultural higher education is observed to be greater, in the range of 40%, for some university degree programmes. By contrast, female participation in veterinary education in Ireland is much higher and can range from 70% to 80%. The Teagasc report refers to a research by the Scottish Government on Women in farming and the agriculture sector, which highlights that "women themselves often view [agricultural] training groups and programmes as being for men and [that they] feel 'unwelcome and conspicuous in this space'". The report concludes that "the cultural norm of sons inheriting farms is very resistant to change". The report also points out that research on female participation in agricultural education and farming careers suggests key influencers include: mothers, schools, and overall perceptions of farming as a career.

According to the Department's client database only 12% of the 115,664 farmers in 2015 were women and they were slightly older than their male counterparts, with an average age of 62 compared to 57 for men. 44% (6,211) of female farm owners are over 65 years with 31% of these over 80 years of age, which may suggest that they received the farm when they were widowed. In comparison only 29% of total male farmers are over 65.

Figure 2.32 *Farms in receipt of Basic Payment Scheme payments by Gender, 2015*



Source: Department of Agriculture, Food and the Marine

Women in Agriculture in EU 28

According to Eurostat's, Agriculture, forestry and fishery statistics 2018 publication, 28% of farmers in the EU 28 were women in 2016, increasing from 26% in 2005. Almost 9% of this cohort were classified as a young farmer under the age of 40 years. Gender imbalance among farmers is particularly strong in the Netherlands where only 5% of farmers was female in 2016. Female farmers were also particularly uncommon in Malta at 6%, Denmark at 8% and Germany at 10%. There was a closer gender balance in Latvia and Lithuania where 45% of farmers were female.

ACORNS (Accelerating the Creation of Rural Nascent Start-ups)

The report of the Commission for the Economic Development of Rural Areas (CEDRA) contained a recommendation that a Rural Innovation and Development Fund should be developed to support "innovative, small scale pilot initiatives that explore the diverse range of potential identified through the CEDRA process". At the time, national research also highlighted that female entrepreneurship rates were half that of their male counterparts.

To improve these gender statistics, and to encourage a stronger level of enterprise development in rural areas, the Department established the ACORNS programme under its Rural Innovation and Development Fund.

ACORNS provide early stage rural female entrepreneurs with the knowledge, support and networking opportunities to advance the development of their businesses. Over 200 female entrepreneurs have taken part in ACORNS in the four cycles between 2015 and 2018. 147 participants were involved in the most recent cycle of ACORNS, including 95 previous participants who continue to be supported through the ACORNS Community. Past participants have testified to the difference this programme has made both to themselves and to their businesses with increased sales, exports and job creation, in addition to the valuable connections they have made through broadening their support network. The progress of the 45 participants who completed the fourth year of the programme in 2019 is as follows:

- Combined turnover for participants is €2.3m – an increase of 43% over the six-month cycle;
- Thirteen participants became exporters for the first time;
- 19 additional part-time employees were hired during the cycle, with 26 companies planning to hire additional staff by the end of 2019.
- 86% said ACORNS brought about practical change within their business; 95% felt nearer to achieving their ambitions and 100% would recommend participating in ACORNS to others.

ACORNS is based on a clear understanding that entrepreneurs learn best from each other and the initiative is focused on peer support and collaborative learning. Participants take part in interactive round table sessions facilitated by other female entrepreneurs who have successfully started and grown businesses in rural Ireland. Acting in a voluntary capacity, these 'Lead Entrepreneurs' share their insights and experience with the group, offering their support to the participants to examine and address the issues and challenges they face in progressing their businesses.

CASE STUDY

Lisa Larkin - Durrow Mills

As a mother of four young children and graduate of UCD Agricultural Science, Lisa Larkin was always on the lookout for healthy and nutritious food. This passion and interest led her to discover sprouted grains, which are considered healthier because the sprouting returns the whole grain to a plant state, allowing the body to digest it more easily.

As sprouted flour was only available to buy from the USA, Lisa, who was commuting from Kilbeggan, Co Westmeath to a job as a clinical scientist in Dublin, decided to make the flour herself.

It took her 18 months to perfect the recipe and in March 2016, she launched Durrow Mills, becoming the first person in Ireland to produce sprouted flour.

Lisa sprouts high-protein wheat grain and then mills it herself in a stone ground mill. She produces a range of organic sprouted grain flours, including wheat, rye, buckwheat, amaranth and a new baker's all-purpose mix. The award winning Durrow Mills' Organic Sprouted Fine Milled Wheat Flour won Chef's Choice at the Blas na hEireann Irish food awards and is proving to be very popular.

In addition, she started a small bakery in September 2018, with the help of a talented baker, to supply the midlands region. The bakery specialises in organic sprouted sourdoughs using Durrow Mills flours, and also allows testing of batches and R&D of new flours, while gaining customer feedback at the same time.

Getting a new business off the ground has its challenges and Lisa credits ACORNS for helping her drive the business forward. Now in its fourth year ACORNS, a peer-based initiative focused on early stage female entrepreneurs in rural Ireland, is supported by the Department of Agriculture, Food and the Marine. Lisa has been an active participant in ACORNS since the pilot.

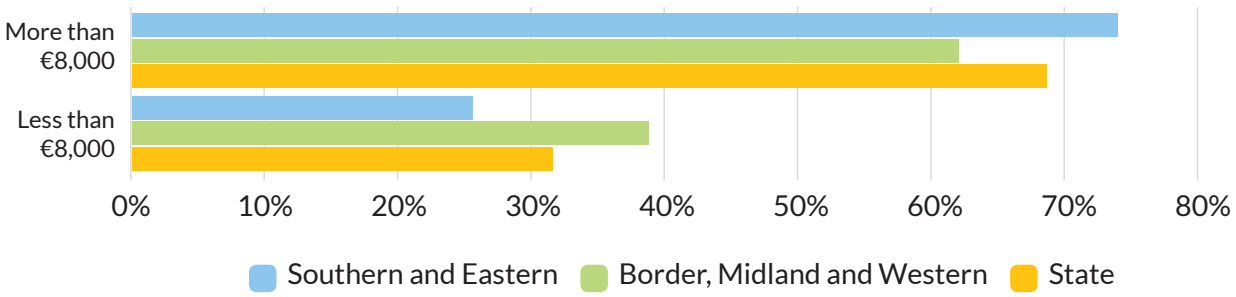
By engaging with other women in business, she was able to bounce ideas and problems off them and create milestones for the company. Durrow Mills flours and products, which are stone milled fresh to order, are available online and in over 65 stores nationwide as well as being supplied as bulk orders for bakeries and food manufacturers. The company has started to export this year and is working with a number of companies in the UK, France and Spain.

2.15 Small Farms

According to the CSO Farm Structures Survey 2016, of the 137,500 farms in Ireland, three out of every ten farms (43,600 farms) had a standard output of less than €8,000 and 23,000 (17%) had a standard output of less than €4,000.

In terms of geographical spread, over 27,000 (38% of total farms in the region) farms in the Border, Midland and Western region had a standard output of less than €8,000, compared to 16,400 in the Southern and Eastern region.

Figure 2.33 *Percentage of farms with a standard output of less than €8,000, 2016.*



Source: Central Statistics Office, Farm Structure Survey 2016

Profile of Small Farms

According to the Teagasc Small Farm Survey 2015, small farms are classified as those with a standard output of less €8,000 per annum, the equivalent of 6 dairy cows, 6 hectares of wheat or 14 suckler cows.

Findings of this survey include:

- Three quarters of small farms recording an income of less than €5,000 per annum.
- 61% of small farms are classified as cattle farms.
- Depending on the Farm System, the share of direct payments varied between 173% and 219% of total income of small farms.
- 32% of operators were aged 65 years or older in 2015, compared to 25% of larger farmers.
- 88% of respondents in 2015 reported having an off-farm income source, in terms of either an off-farm job, pension or social welfare payment.

Table 2.13 indicates that the average family farm income on small farms in 2015 was €2,917, or about 20% of the average income on larger cattle and sheep farms. The value of direct payments on small farms was €5,474, which was almost double the family farm income, while on the larger cattle and sheep farms, direct payments almost equalled the family farm income.

Table 2.13 *Average Family Farm Income on Cattle and Sheep Farms, Small Farm Survey 2015*

	Larger Farms	Small Farms
Gross Output	€46,235	€11,351
(of which direct payments)	€15,217	€5,474
Total Costs	€31,265	€8,434
(of which direct costs)	€15,112	€3,304
(of which overheads)	€16,153	€5,131
Family Farm Income	**€14,970**	**€2,917**

Source: Teagasc, Small Farm Survey 2015

CHAPTER 3

Agricultural Commodities and Inputs

3.1 Overview

Each year the Central Statistics Office (CSO) release three sets of estimates called Output, Input and Income in Agriculture. The first of these three estimates are released in early December of the relevant year which is an early estimate based on partial information, the second in March of the following year and the Final Estimate in June based of data for the full year. The Final Estimate of Output, Input and Income in Agriculture for 2018 was released in late June 2019.

The Output, Input and Income in Agriculture estimates the value of output at producer prices of livestock, livestock products such as milk and the output vale of crops for the year. It also estimates the value of intermediate consumption or inputs which is all goods and services used as inputs in the production process, excluding fixed assets but including expenditure on contract work and forage plants, even if consumed within the same holding.

The CSO calculates the gross value added at basic prices, which is the difference between the output at basic prices and intermediate consumption. It is a measure of gross income before depreciation, subsidies less taxes on production and compensation of employees.

According to the CSO's Final Estimate of Output, Input and Income in Agriculture, gross value added at basic prices in 2018 was approximately €2.6 billion, a 16% decrease on 2017 figures but a 12% increase on 2016 figures. Gross output at producer prices totalled €8.2 billion, with input (intermediate consumption) costs of €6 billion.

Milk produced in 2018 had a value of €2.6 billion representing 31% of gross output at producer prices, down in value by 1.5% on 2017 despite production being up by 4.4%. Cattle production was responsible for 28% of gross output. The estimated value of cattle decreased by 4% in 2018 to approximately €2.3 billion. The highest percentage increase in value across commodities was in respect of Barley which increased by 31% from €150 million to €197 million between 2017 and 2018. Overall goods output at producer prices increased by 1.2% in 2018, mostly due to increase in the output value of crops such as forage plants and barley.

Intermediate consumption costs recorded a 13% increase between 2017 and 2018. This was as a result of the cold wet spring and dry hot summer, which resulted in increased use of animal feed, forage plants and fertilisers. Costs increased from €5.3 billion to €6 billion with animal feed, forage plants and fertilisers responsible for most of the increase in intermediate consumption.

Table 3.1 *Estimated Output, Input and Income in Agriculture, 2018*

	Value	% Change 2018 over 2017			Share of Output / Inputs
	€m	Value	Volume	Price	%
Gross output at producer prices	€ 8,181.8	1.2	-0.1	0.8	100%
Cattle and Calves	€ 2,261.1	-4.3	-3.1	-1.4	28%
Pigs	€ 458.6	-11.3	1.3	-12.5	6%
Sheep and Lambs	€ 253.2	-3.7	-8.8	5.1	3%
Poultry	€ 167.8	2.9	3.7	-0.9	2%
Milk	€ 2,555.4	-1.5	4.6	-6.4	31%
Cereals	€ 288.4	21.6	-11.8	38.0	4%
Potatoes	€ 139.3	10.1	-25.8	38.3	2%
Fresh Vegetables and Fruit	€ 274.2	-0.6	n/a	n/a	3%
Forage Plants	€ 1,307.8	18.3	-0.6	19.6	16%
Other	€ 476.1	7.9	n/a	n/a	6%
Intermediate Consumption (Inputs)	€ 6,001.0	13.0	5.6	7.3	100%
Animal Feed	€ 1,680.3	26.9	19.8	6.2	28%
Fertilisers	€ 582.1	13.5	8.9	4.5	10%
Energy and Lubricants	€ 424.1	8.7	-0.2	8.9	7%
Maintenance and Repairs	€ 474.0	0.1	-2.2	2.2	8%
Forage Plants	€ 1,299.4	17.9	-1.0	19.6	22%
Contract Work	€ 453.2	19.4	15.4	3.4	8%
Others	€ 1,087.9	-3.6	n/a	n/a	18%
Gross value added at basic prices	€ 2647.8	-16.4	-9.6	-11.1	n/a

Source: Central Statistics Office, Final Estimates on Output, Input and Income in Agriculture

Stock

Table 3.2 *Estimated Value (€m) and Volume[1] (000s) of Stock Changes on Farms 2017/2018*

	2017		2018	
	Value	Volume	Value	Volume
Cattle	60.5	60.2	-31.6	-80.1
Sheep	-1.3	-11.8	-23.7	-238.3
Pigs	5.8	88.5	-3.2	-44.2
Poultry	0.0	0.0	0.0	0.0
Crops	13.9	96.8	-0.7	13.3
Total	n/a	233.7	n/a	-349.3

[1] Volume of Livestock is in heads (000s), volume of crops is in tonnes (000s)

Source: Central Statistics Office, Final Estimates on Output, Input and Income in Agriculture

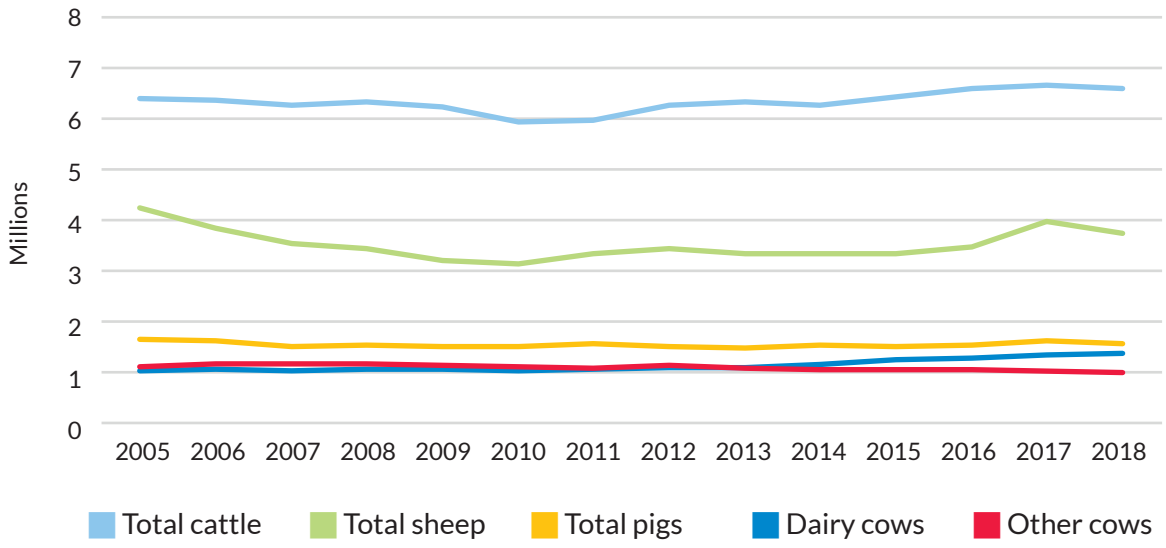
Analysis into the long-term trends of herd numbers has indicated relative stability in Ireland's national herds during the period 2005 – 2018. The CSO's December Livestock survey results indicates a slight fall in livestock numbers between the period December 2017 and December 2018. Total cattle numbers dropped slightly in 2018 but remain 11% higher than in 2010.

Sheep numbers which were almost at 4.3 million in 2005 dropped down to almost 3.1 million in 2010 before rising to almost 4 million in 2017. In 2018 sheep numbers fell by 6% to 3.7 million.

Pig numbers have remained relatively stable over the past 20 years at between 1.5 and 1.6 million.

Dairy cow numbers have risen by 26% since 2013 from 1.1 million to 1.3 million, primarily due to the removal of milk quotas, while other cow numbers have fallen by 9% over the same period from 1.1 million to 982,300.

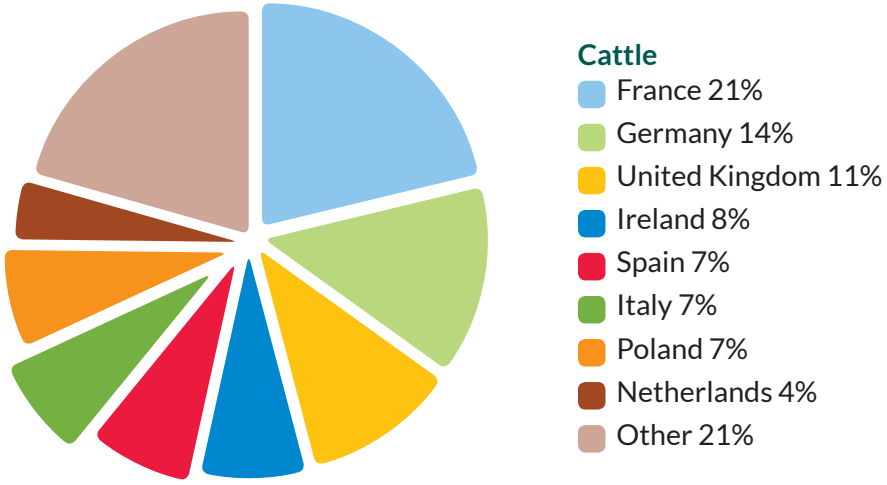
Figure 3.1 *Total Cattle, Dairy Cows, Other Cows, Sheep and Pig Livestock numbers, 2005 – 2018*



Source: Central Statistics Office, Livestock Survey December 2018

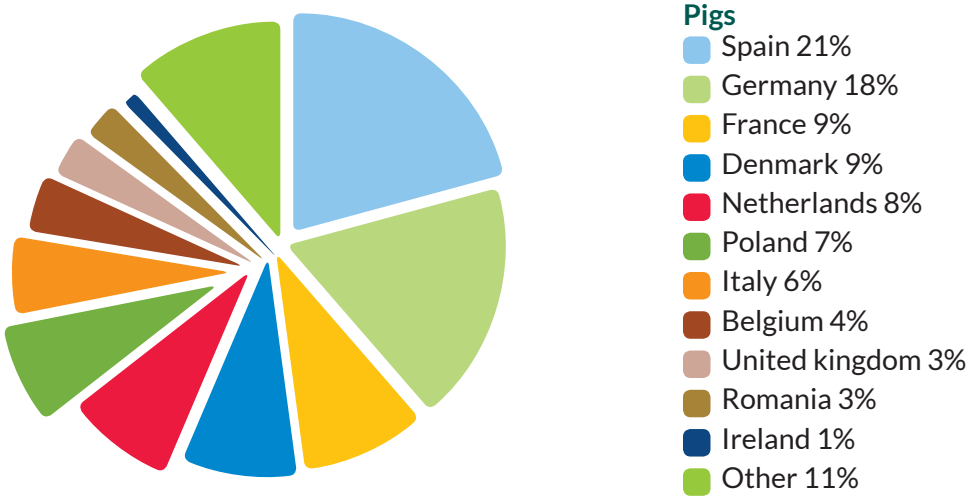
Ireland's cattle herd was the 4th largest in the EU in 2018, behind France, Germany and the United Kingdom, representing 8% of the total European Union's bovine livestock.

Figure 3.2 *Comparison of Irish and EU Cattle livestock numbers, 2018*



Source: Eurostat, Livestock Production

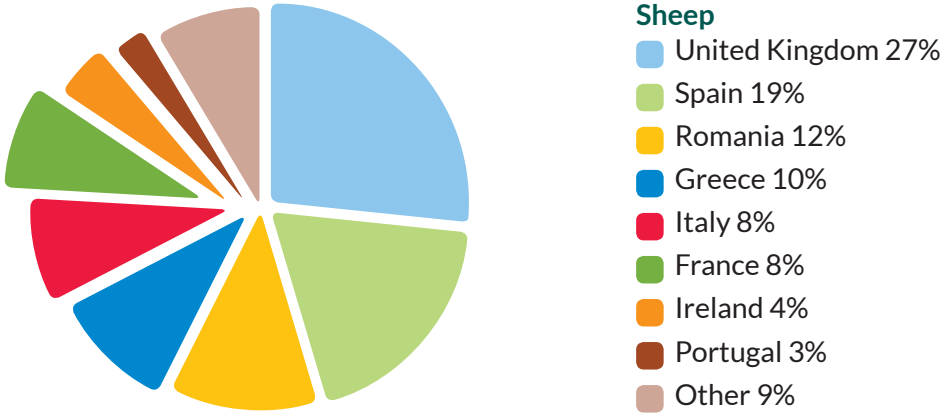
Figure 3.3 *Comparison of Irish and EU Pig livestock numbers, 2018*



Source: Eurostat, Livestock Production

Ireland's pig herd represent just over 1% of total EU stock, with the top five countries under this heading accounting for 64% of pig stock.

Figure 3.4 *Comparison of Irish and EU Sheep livestock numbers, 2018*



Source: Eurostat, Livestock Production

Ireland's sheep herd of 3.7 million represents 4% of the total EU sheep stock. The United Kingdom has the most sheep in the EU with 22.5 million sheep representing 27% of EU sheep stock.

Terms of Trade

The agricultural input price index increased by 4.6% in 2018 compared with 2017. The agricultural output price index was down 2.0% over the same period. Thus, the resulting terms of trade index decreased by 6.4% in 2018.

Table 3.3 *Terms of Trade, 2014 – 2018 Base 2015 = 100*

	2014	2015	2016	2017	2018	Change 2017/2018
Output	106.8	100.0	95.1	106.5	104.3	-2.0%
Input	103.6	100.0	97.9	98.2	102.7	4.6%
Terms of Trade	103.1	100.0	97.2	108.4	101.5	-6.4%

Source: Central Statistics Office, Agricultural Price Indices 2018

3.2 Dairy

Milk production in 2018 reached
7,585 billion
litres, an increase of 4.4% compared to 2017.

In 2018, Ireland exported dairy products to approximately
140 countries
with a value of
€4.6 billion.

Irish butter exports exceeded
€1 billion
in 2018, a 22% increase on 2017 value.

General Market Situation Ireland and EU 2018

The recovery in dairy markets which began in 2017 continued into 2018. Strong global demand for dairy products underpinned a stable performance by the Irish dairy sector. Whilst there remain continuing long-term challenges of price volatility, market turbulence and the requirement of balancing product supply with demand, the overall performance of the Irish dairy sector in 2018 was strong in the context of competitive international markets.

In 2018, Ireland exported dairy products to approximately 140 countries with a value of almost €4.6 billion. CSO figures for 2018 indicate a +4.4% volume growth and -2% value decline compared to the same period in 2017. In 2018 Kerrygold, the brand owned by Irish dairy farmers, exceeded €1 billion annual retail value – the first Irish food brand to reach this milestone. Kerrygold is the No. 2 butter brand in the US and the No. 1 butter brand in Germany.

Although the ongoing Russian Ban on agricultural imports and the threat of global price volatility remain, the OECD-FAO Agricultural Outlook 2019 – 2028[1] expects growth in the fresh dairy sector will be significantly driven by population growth over the next decade.

The key EU market development in 2018 was the sale of approximately 357,00 tonnes of Skimmed Milk Powder (SMP) from EU intervention stocks, which had been overhanging the EU SMP market for the last few years. This will allow the SMP price to evolve on a more market-driven basis in 2019.

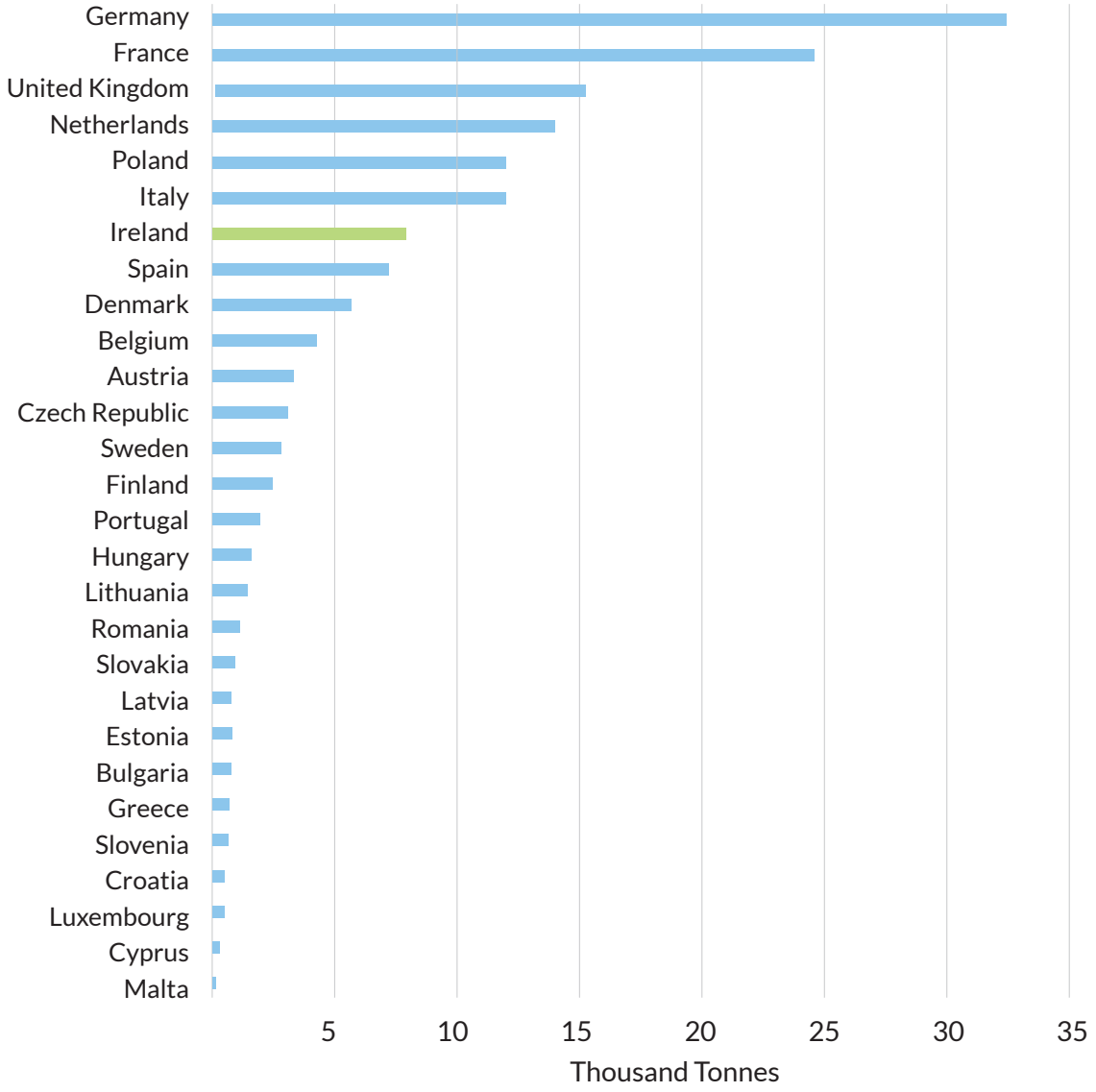
1 OECD-FAO Agricultural Outlook 2019-2028 OECD Publishing, Paris/Food and Agriculture Organization of the United Nations, Rome.

The European Council has implemented a further temporary change to the automatic buying-in ceiling for SMP, reducing it to zero again for the 2019 window (01 March – 31 September). Buying-in may continue, but on a tender basis, with due justification and agreed at relevant Management Committee meetings, namely the Common Organisation of the Agricultural Markets (CMO).

Production

Notwithstanding some unprecedented extreme weather events in 2018, the output of the Irish dairy herd continued to increase. Production in 2018 reached approximately 7.6 billion litres, an increase of 4.4% compared to 2017. Favourable grazing conditions in the last quarter of 2018 contributed to a surge in milk supplies to Irish processors with supply in December 2018 up by 26% compared to December 2017. Irish milk production represented approximately 5% of total EU milk production in 2018.

Figure 3.5 *EU Milk intake by creameries and pasteurisers, 2018*



Source CSO Milk Statistics February 2019

2018 saw an increase in the production of certain commodities such as cheese, butter and skimmed milk powder. Table 3.4 highlights overall trends versus 2009, and 2018.

Table 3.4 *Production of Dairy products (000 Tonnes), 2009 – 2018*

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Change 2018 Vs 2009	Change 2018 vs 2017
Cheese	162.6	171.8	179.9	185.5	182.8	188.4	207.1	205	196.2	224.1	38%	14%
Butter	120.3	135.1	145.9	145	152.1	166.4	187.5	198.7	223.7	237.8	98%	6%
Skimmed Milk Powder	74.7	60.3	66.5	52.3	49.5	70.6	99.1	117.7	119.8	133.8	79%	12%

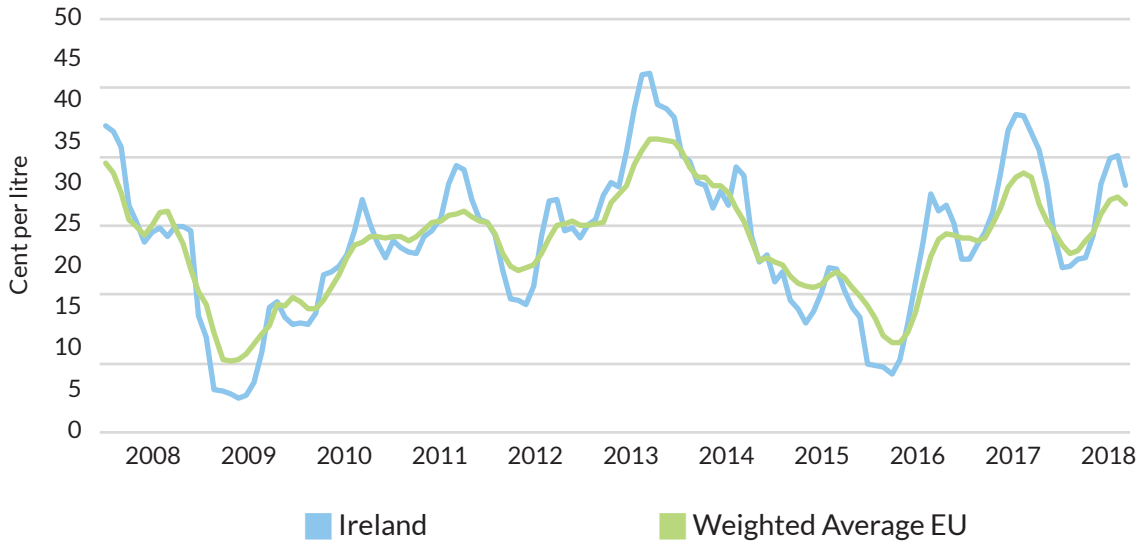
Source: Central Statistics Office, Production of Dairy products, 2018

Prices

The average price paid to farmers during 2018 was €35.04/100Kg (36c/l). This was down 3.8% from an average of €36.42/100Kg (37.5c/l) in 2017. However, this was still significantly higher than the lows experienced in 2016 of €28.10/100Kg (29c/l).

In 2018, EU Commission figures show that the average EU raw milk price reached more than €34/100kg (35c/l), 2% below 2017 but 2% above the 2013-2017 average.

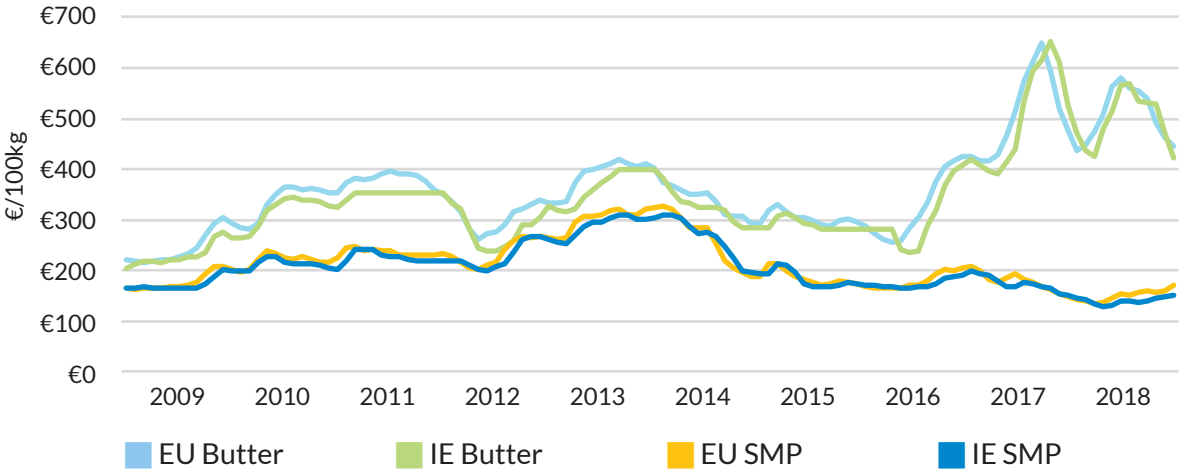
Figure 3.6 *Raw Milk Prices Ireland and the EU, 2008 – 2018 (Prices cent per litre)*



Source: EU Commission, Milk Market Observatory (adjusted to cent per litre)

At EU level, SMP prices were 16% higher at December 2018 when compared with December 2017 figures. However, the average price in 2018 was 16% below the 2017 average price, which highlights the volatility of milk and milk product prices.

Figure 3.7 *Dairy Commodity Prices EU, 2009 – 2018 (Prices € per 100kg)*



Source: EU Commission, Milk Market Observatory

Ireland Outlook 2020 – 2021

Global opportunities for growth in butter, cheese and yogurt remain positive and are being driven largely by innovation in new flavours, product varieties, portion sizes and pack formats to meet changing consumer demands. Increased focus on health issues will be a critical factor for the future.

The continued strong birth rates signals potential for milk and dairy products, as does increased life expectancy. Also, the general increased focus on health and wellbeing and the link with diet is driving consumers to take a greater interest in healthy eating and a desire for natural foods, particularly amongst the younger generation.

The Teagasc Situation and Outlook for Irish agriculture states that global milk production has slowed considerably in 2019 due to adverse weather conditions in the southern hemisphere. International demand for dairy products is mixed with butter demand weakening while Skimmed Milk Powder demand has improved. While farm milk prices are down slightly on 2018, input costs in 2019 should be lower due to more favourable weather conditions for grass growth pointing to improved income on dairy farms in 2019.

Irish dairy exports should be able to build on their continued growth into international markets in the short to medium term, with the potential to increase the volume and value of exports to the 140 countries worldwide to which Irish dairy produce is exported.

EU Outlook 2020 – 2021

In 2019, the development of the EU milk price equivalent is expected to be driven by an increase in Skimmed Milk Powder price but that will be mitigated by the weakened butter price, which has dropped below €4,000 per tonne.

Sustained demand for EU dairy products, lower supply in the main EU competitions, favourable weather conditions and price environment are likely to favour EU production growth.

In the medium term, demand is expected to continue to grow for high added-value dairy products for which Europe has a clear competitive advantage. The EU Short-Term Outlook expects export volumes to grow by approximately 4% this year.

3.3 Cattle

In value terms over
93% of beef
products were exported to countries within the EU and 7% exported to Third Country markets.

Ireland is the
5th largest
net exporter of beef in the world.

In 2018 a total of
1,802,473
head of cattle were slaughtered in Department-approved plants, which represented a 3.6% increase on 2017 figures.

General Market Situation Ireland and EU 2018

Beef worth over €2.4 billion or 530,000 tonnes was exported in 2018, an increase in value of 1% on the previous year. This made Ireland the 5th largest net exporter of beef in the world. According to the Central Statistics Office (CSO), the national cattle herd was approximately 6.6 million head in December 2018, a slight decrease of 1.2% compared to the 2017 figure. At the end of December 2018 there were just over 950,000 suckler cows recorded.

In value terms over 93% of beef products were exported to countries within the EU and 7% exported to Third Country markets. In terms of volume, 87% of beef products were exported to countries within the EU and 13% exported to Third Country markets. In 2018 the Department secured access to a number of beef markets worldwide namely China in April, Qatar in July and Kuwait in November. The opening of these markets to Irish beef is a significant achievement in terms of market diversification. Ireland was the first EU country to gain access to the Chinese beef market.

Irish slaughter volumes have increased over the last three years. Slaughter reached 1.8 million head in 2018, which was a 3.6% increase on 2017 figures. Live exports in 2018 reached over 247,000 head of cattle, an increase of 30% on 2017 figures. The majority of live bovine exports during 2018 were within the EU, with Spain receiving the largest numbers at 88,607 head followed by the Netherlands at 62,076 head. The single largest third country destination was

Turkey with a total of 12,870 head exported during 2018. While the number of cattle exported was up, the value of these exports was down by 8% reflecting the fact that more calves were exported in 2018. Looking at the wider EU market, total EU production increased by 1.8% in 2018 with consumption increasing by 2.1%. EU exports of beef decreased by 7% compared to record levels in 2017. Meanwhile, imports in 2018 increased by 9% on 2017.

Output value of Cattle

The Output value of the cattle sector in 2018 was € 2,261.10 million, a decrease of 4% on the previous year.

Table 3.5: *Output Value[1] (€m) and Numbers (000's) of Cattle and Calves, 2017/2018*

	2017		2018	
	Value	Number	Value	Number
Live Exports	101.03	189	92.54	247
Export Slaughtering's +Other	2,195.28	1,852	2,193.54	1,896
Levies	16.57		17.40	
Total Disposals	2,312.88	2,040	2,303.48	2,143
Imports	11.25	12	10.74	11
Changes in Stocks	60.49	60	-31.64	-80
Total	2,362.13	2,089	2,261.10	2,051

[1] Values shown are after deductions for transport costs

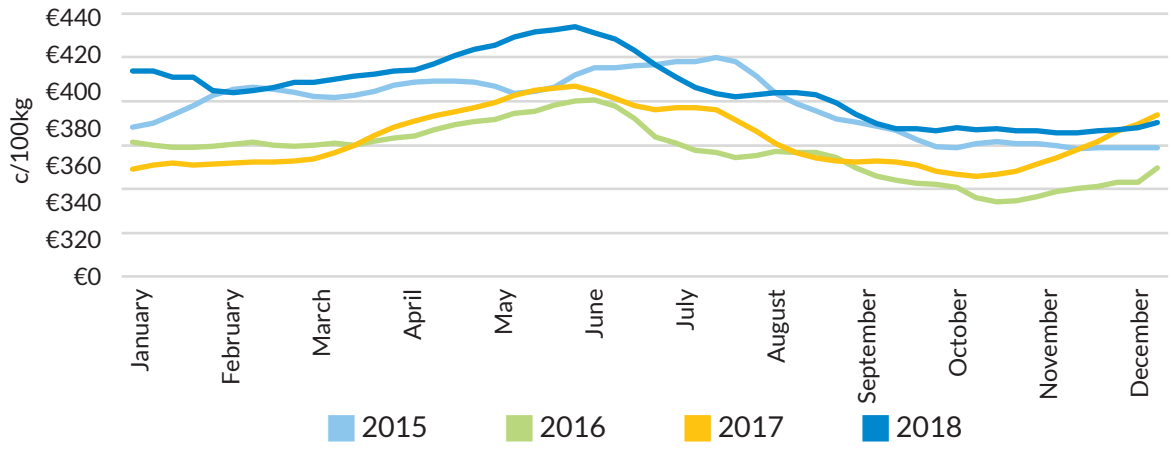
Source: Central Statistics Office, Final Estimates on Output, Input and Income in Agriculture

Prices

Prices for cattle in meat plants in 2018 were higher for the first half of the year compared to the previous three years. For the second half of the year prices came under pressure and finished the year below the 2017 price. The average price for R3 Steers in 2018 was €4.05/kg with a high price of €4.34/kg recorded during early June. The average 2018 R3 Steer price was about 5% above the average for the last three years.

The increased numbers of animals slaughtered in 2018 contributed to price challenges. Additionally, the impact of increased Irish production was heightened by a general increase in supply across the EU due to increased EU production, increased imports and decreased exports. High input costs, with feed costs in late 2018 in the region of 30% above the same period in 2017, further impacted on margins negatively.

Figure 3.8 *Deadweight Steer (R3) Prices, 2015 – 2018 (€ per 100 kg) incl VAT*



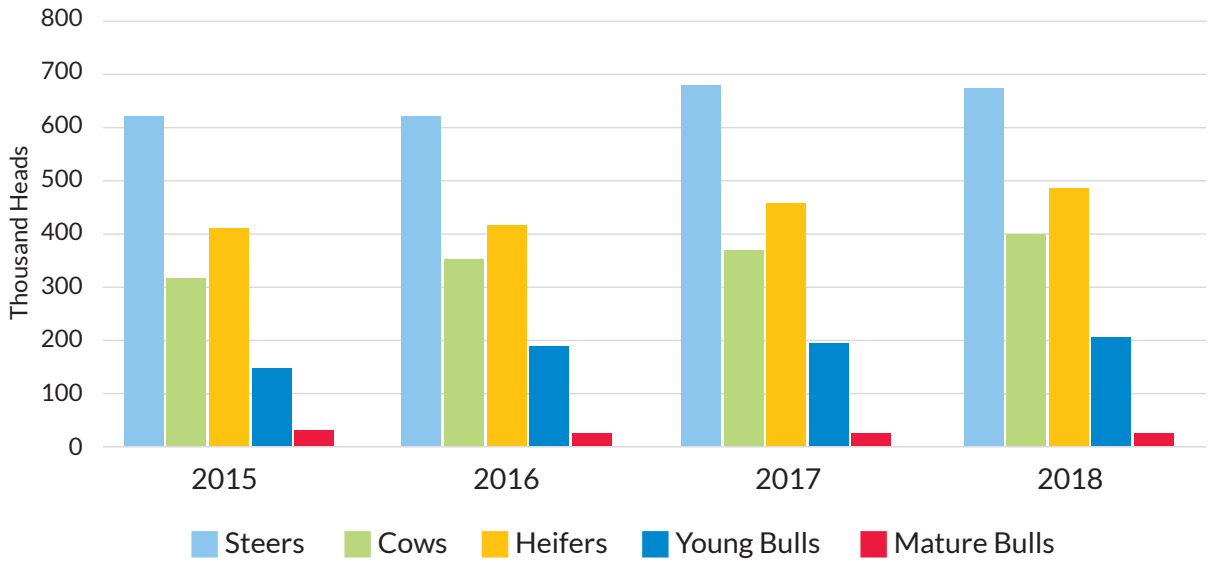
Source: Department of Agriculture, Food and the Marine

Slaugherings

In 2018 a total of 1,802,473 head of cattle were slaughtered in Department approved plants, which represented a 3.6% increase on 2017 figures. 2018 slaughter volume was 5.8% higher than the five-year average across all categories.

From 2010 – 2018 there has been a reduction of 10.8% in suckler numbers. A considerable amount of this overall decrease occurred in Waterford, Tipperary, Kilkenny and Cork, where dairy expansion has been most prevalent.

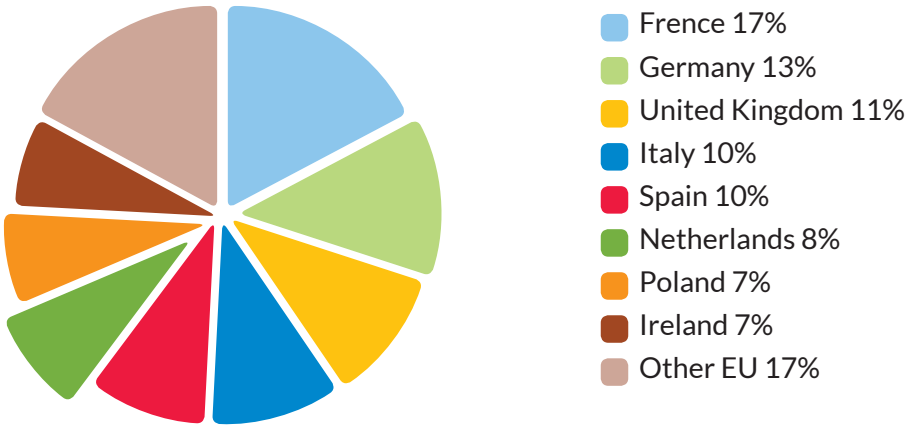
Figure 3.9 *Cattle Slaughterings at Meat Export Premises, 2015 - 2018*



Source: Department of Agriculture, Food and the Marine

Irish bovine slaughtering accounted for approximately 7% of total EU slaughtering in 2018. The top 5 countries, France, Germany, the United Kingdom, Italy and Spain accounted for 60% of total EU slaughtering in 2018.

Figure 3.10 *Bovine Slaughterings by EU Country, 2018*



Source: Eurostat, Slaughtering in Slaughterhouses Annual Data

Environmental Support schemes

The Beef Data and Genomics Scheme (BDGP), which targets production and environmental efficiency, is the core support to the suckler sector. Funding of €300m is available over the current Rural Development Programme (RDP) to approximately 25,000 participants in the scheme. Over €47 million was paid to farmers participating in the scheme in 2018. Funding of €20 million for the Beef Environmental Efficiency Pilot (BEEP) was announced as part of the 2019 budget. This is a targeted support for suckler farmers and is specifically aimed at further improving the economic and environmental efficiency of beef production. This is done by measuring the weaning efficiency of suckler cows. Participating farmers will receive detailed feedback on the performance of individual animals and this will allow them to identify the most productive cows in their herd.

Challenges:

Brexit uncertainty continues to present challenges for the sector, as do supply side pressures at national and EU level and the potential impact of ongoing trade negotiations.

Strengthening all links in the supply chain remains a challenge for the sector; Beef Producer Organisations are a potential mechanism to address this.

Increased diversification of markets remains a priority. Ireland is a significant net exporter of beef and needs to grow and develop new markets, particularly as a hedge against the threats posed by Brexit, with almost 50% of Irish beef exports going to the UK market.

The Department continues to prioritise efforts to gain access to new third country markets and to deepen existing markets for live exports.

Ireland Outlook 2020 – 2021

Prices in first half of 2019 are down 3% to 4% relative to the first half of 2018 and are expected to remain below the levels experienced in earlier years. Prices are set to continue to reduce over the medium term as supply remains high but margins are expected to recover slightly due to reduced pressure on inputs. (Teagasc Outlook 2019).

The particular challenges faced by Ireland as a major exporter of beef with a high degree of dependency on the UK market must be acknowledged. The potential impact of international trade deals as well as negative global trade developments are also factors affecting the domestic market.

EU Outlook 2020 – 2021

Forecasts for 2019 predict a decline in both production, by 1.1%, and consumption, by 1.9%. Whilst the volume of EU exports is forecast to increase by 15% in 2019, the volume of imports is forecast to decrease by 2% following an increase in imports of 9.5% in 2018. Despite the increase expected in EU beef exports steer and heifer prices are expected to remain below 2018 prices.

Prices are set to continue to reduce over the medium term as global supply re-adjusts. A contraction of supply is expected over the longer term which will stabilise prices, this is in the context of increased competition globally due to increased output from the US, Brazil and Argentina in particular.

CASE STUDY

Meat Market Access to Kuwait & Qatar

In October 2018, an agreement was reached with the Public Authority for Food and Nutrition (PAFN) of Kuwait making Irish beef, sheepmeat and poultry eligible for export to the country. Negotiations had been on-going for a number of years facilitated through Chief Veterinary Officer correspondence and through diplomatic meetings in the Gulf region with officials in Kuwait.

Speaking at the time of the market opening, the Minister for Agriculture, Food and Marine, Michael Creed T.D stated that the "agreement follows on from bilateral negotiations between my Department and Kuwait, with the ongoing assistance of the Irish Embassy in Abu Dhabi, including our Agricultural Attaché in the Gulf Region who is based in the Embassy."

The post of agricultural attaché in the Irish Embassy in the United Arab Emirates (UAE) was first created by the Department of Agriculture, Food and Marine in 2016. Its remit included various countries in the Gulf region. The Irish Embassy in Abu Dhabi, UAE, is also accredited to Kuwait and Qatar. A successful Trade Mission to Saudi Arabia and the UAE was also held in February 2017.

The Minister also added that "The opening of this new market is a reflection of the confidence held by the Kuwaiti authorities in the high standards of food safety and the rigorous controls in Ireland. It marks another important step in the development of Ireland's agri-food links with Kuwait and with the whole Gulf region."

Ireland previously hosted a week long discovery visit for Kuwaiti officials in March 2018. This visit was led by Sustainable Food Systems Ireland (SFSI), with input from the Department of Agriculture, Food and the Marine and the agricultural attaché and significantly assisted the negotiations.

The opening of the Kuwaiti market follows on from the announcement in July that Ireland had gained access for the export of beef, sheepmeat and poultry to Qatar.

Irish agri-food exports to Kuwait amounted to almost €17 million in 2018 of which around 92% is accounted for by dairy exports. Irish agri-food exports to Qatar amounted to over €7 million in 2018 of which around 71% is accounted for by dairy exports. However, there is potential for the growth in meat exports to the region also. According to some market research estimates the Qatari meat market is expected to become a million tonne market by 2020.

Market development is one of the key themes of the Food Wise 2025 Strategy and all of the stakeholders will continue to work closely to increase the number of markets for Irish agri-food exports worldwide.

3.4 Sheep and Lambs

Sheepmeat export values were up 2% to **€315 million**.

Slaughtering increased by 1% in 2018 to around **3 million head**.

The national average price in 2018 was **€453.12/ 100kg**.

General Market Situation Ireland and EU 2018

Sheepmeat worth €315 million or 60,000 tonnes was exported in 2018, an increase in value of 2% on the previous year. According to the Central Statistics Office (CSO), the national sheep herd was approximately 3.7 million head in December 2018, a decrease of 6% compared to the 2017 figure but 20% higher than in 2010.

Slaughtering increased by 1% in 2018 to around 3 million head. Almost 60,000 tonnes of sheepmeat was exported in 2018.

Almost 90% of Sheepmeat products was exported to countries within the EU in 2018. France is the main market for sheepmeat, with some 30% of sheepmeat exports while almost 20% goes to the United Kingdom. In July 2018 DAFM gained access to the Qatari market for sheepmeat, while later in the year access was granted to the Kuwaiti market.

EU consumption, production and prices have been relatively stable in 2018. Production across the EU reduced by 1% in 2018 because of lower lambing rates contributed to by adverse weather conditions.

The output value of the Sheep and Lamb sector in 2018 was €253.2million, a 4% decrease on 2017 output figures.

Table 3.6 *Output Value[1] (€m) and Numbers (000's) of Sheep and Lambs, 2017/2018*

	2017		2018	
	Value €m	Number 000's	Value €m	Number 000's
Live Exports	3.36	35	2.05	21
Export Slaughterings + Other from 2013	307.43	3,184	325.74	3,224
Other Slaughterings				
Total Disposals	310.79	3,219	327.79	3,245
Imports	46.51	493	50.93	520
Changes in Stocks	-1.34	-12	-23.67	-238
Total	262.93	2,714	253.19	2,487

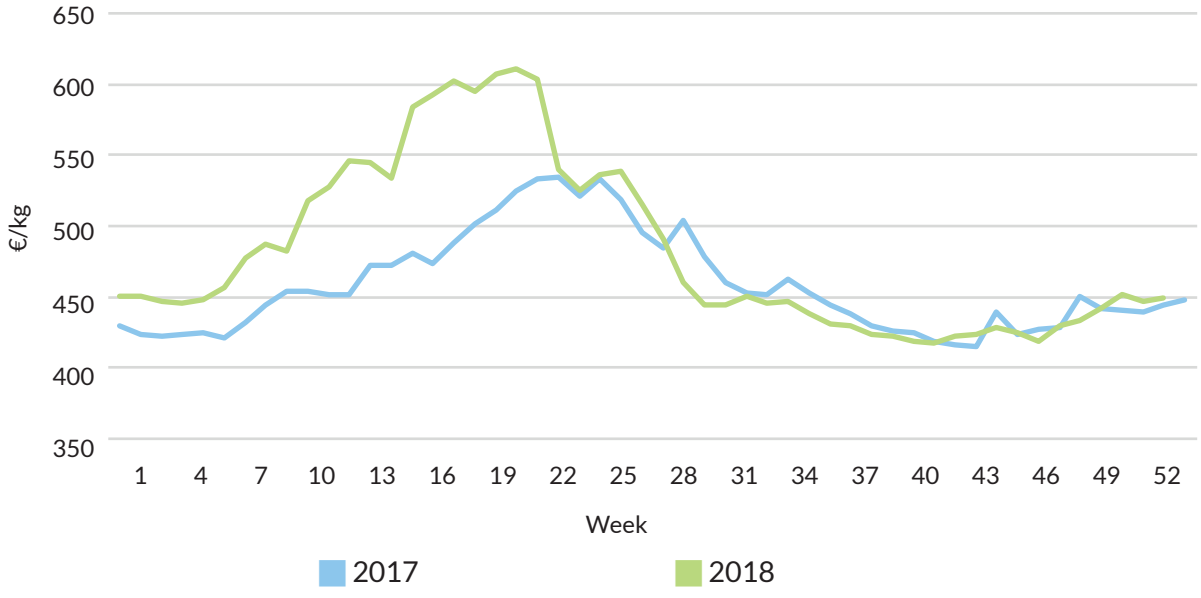
[1] Values shown are after deductions for transport costs

Source: Central Statistics Office, Final Estimates on Output, Input and Income in Agriculture

Prices

The national average price in 2018 was €453.12/100kg which was a 1.1% increase on the previous year.

Figure 3.11 *Average Sheepmeat Prices, 2017 -2018 (€ per 100 kg)*

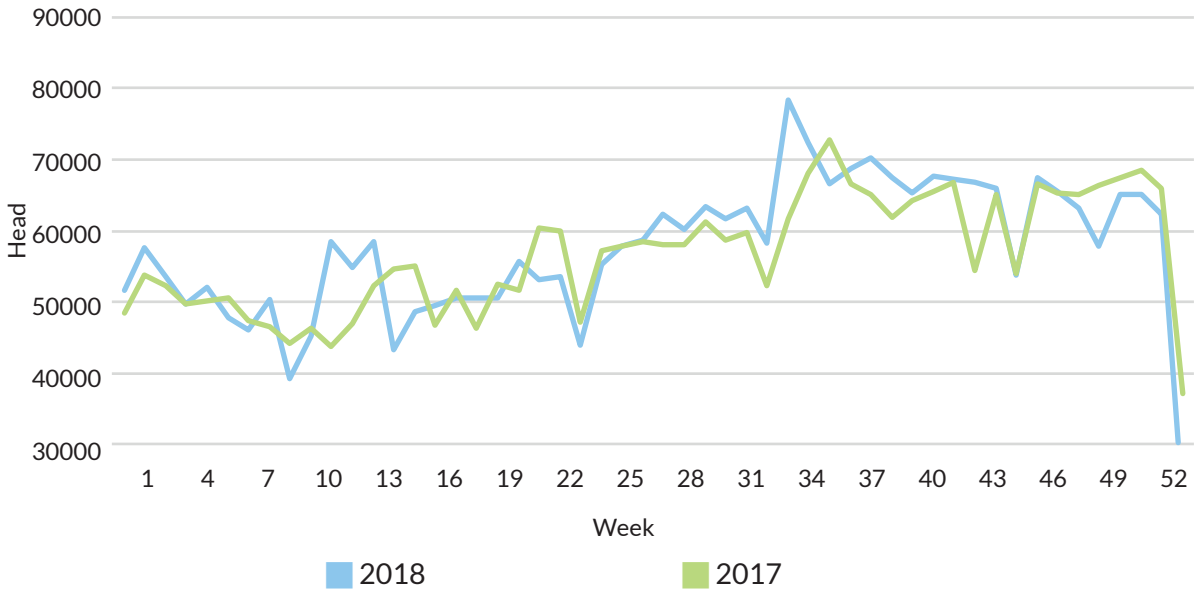


Source: Department of Agriculture, Food and the Marine

Slaughterings

Slaughtering increased by 1% in 2018 on the previous year to just under 3 million head.

Figure 3.12 *Weekly Sheep Slaughterings, 2017 -2018*



Source: Department of Agriculture, Food and the Marine

Sheep Welfare Scheme

The Sheep Welfare Scheme aims to make a positive contribution to Irish flock welfare. The Scheme requires the flockowner to undertake and complete two measurable and verifiable prescribed welfare actions and provides support of €10 per ewe to farmers with breeding ewe flocks. The scheme is renewable annually and will run for a 4-year period up to 2020. In the 2018/2019 scheme year, €18 million is due to be paid to just under 19,000 participants, with advanced payments of €15.14 million.

Challenges:

EU sheepmeat consumption is forecast to decline in 2019 and this is having a negative effect on prices. The weaker pound sterling since the Brexit referendum continues to support the competitiveness of UK lamb exports to other EU markets. However, dependent on the outcome of Brexit, opportunities may arise within the EU for Irish sheepmeat exports to grow.

Increased diversification of markets remains a priority, with China and Japan key priorities in terms of securing access.

Ireland Outlook for 2020-2021

According to Teagasc forecasts, consumption is expected to decline within the EU with a knock-on effect for slaughter prices in Ireland. Production to remain stable in the medium term.

In 2019, lower feed expenditure due to a return to more normal weather will reduce expenditure on sheep farms. Weak sterling due to Brexit will put pressure on Irish sheepmeat prices.

Lower EU imports of sheepmeat from New Zealand and tighter global supplies for sheep meat may present opportunities for Ireland in 2019.

EU Outlook for 2020-2021

In the short term Sheep meat production is expected to continue to fall across the EU in 2019 (-1%), following a decline in flocks and fewer lamb births amid adverse weather conditions in 2018. According to the EU Commission Short-Term Outlook for EU Agricultural Markets report, prices were higher in 2018 due to low meat availability and are expected to remain higher in 2019 due to a further supply reduction.

In the case of sheep and goat meat, improved returns for producers and sustained domestic demand means that production is projected to recover and increase during 2020 - 2021. It is projected to reach 950,000 tonnes in 2030, compared to 903,000 tonnes in 2018. EU price is expected to stabilise at a higher level than between 2010-2017.

3.5 Pigmeat

According to the CSO Livestock Survey December 2018, the number of breeding pigs was **down 4.8%**, while non-breeding pig numbers were **down 2.5%**

Approximately **3.4 million pigs** were slaughtered in export-approved plants during 2018.

Exports of pigmeat increased by **4%** to reach a value of approximately **€828 million** in 2018.

General Market Situation Ireland and EU 2018

Latest statistics from the CSO Livestock Survey (December 2018) indicate that the number of pigs dropped by 2.7% during 2018 to 1.57 million pigs. The number of breeding pigs was down 4.8% at 143,000, while non-breeding pig numbers were down by 2.5% to 1,429,200 in the same period.

Irish pigmeat exports, at approximately €828m, were 4% higher in 2018 than 2017. Ireland's largest export market by far was the UK, accounting for roughly 57% (worth €470m) of the total, followed by China, at 9%. Trade to other international third-party markets reached €117m, or 14% of total export value (source: CSO). The rest of the EU accounted for 19% of export totals.

The spread of African Swine Fever (ASF) throughout Europe and Asia has caused upheaval on an international scale. The spread of the disease, which poses no threat to human health, throughout China has led to major culls and a subsequent decline in domestic production. It can be expected that in the second half of 2019 this will lead to increased import demand in China, providing opportunities for pigmeat exports.

Feed prices rose slightly on an annual basis, with the composite feed price coming in at €303 per tonne, compared to €288 for 2017.

ASF outbreaks in Europe raised the possibility of trade disruption and herd losses, especially in Eastern and Central Europe, with the breeding herd in Romania particularly affected. In addition, the EU pigmeat sector felt the negative effects of the drought that prevailed across Northern Europe during the summer months of 2018, which led to significantly lower yields and higher feed costs for pig producers.

In Ireland the output value of the Pig sector was €458.6million in 2018, an increase of 11% on the previous year.

Table 3.7 *Output Value[1] (€m) and Numbers (000s) of Pigs 2017/2018*

	2017		2018	
	Value €m	Number 000's	Value €m	Number 000's
Live Exports	58.17	456	53.06	475
Export Slaughterings	454.14	3,355	410.23	3,447
Total disposals	512.31	3,811	463.29	3,921
Imports	1.38	11	1.56	14
Changes in stock	5.82	89	-3.18	-44
Total	516.75	3,888	458.55	3,863

[1] Values shown are after deductions for transport costs

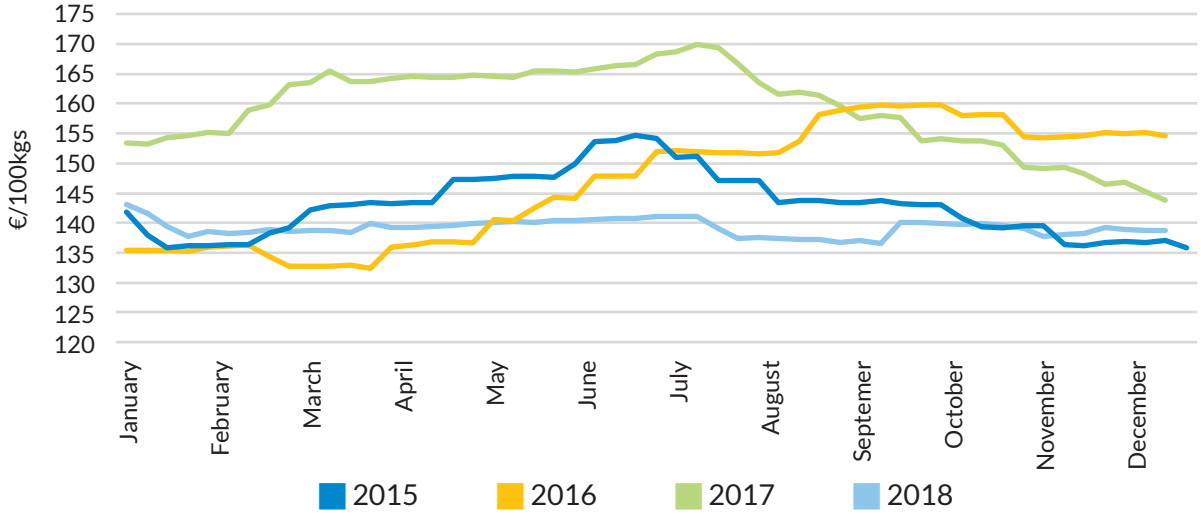
Source: Central Statistics Office, Final Estimates on Output, Input and Income in Agriculture

Pigmeat Prices

Pig prices were lower throughout 2018 than in recent years. The average price over the course of the year stood at €1.39/kg, a drop of 13% compared to the average over 2017. Price volatility was almost absent over the course of the year, with little to none of the usual seasonal variation. A high of €1.43/kg was reached in week one with a low of €1.36/kg in week 38.

EU prices were comparatively volatile, averaging at €1.42/kg. A high of €1.64/kg in October contrasted with a low of €1.34/kg in December.

Figure 3.13 *Grade E Pigmeat Prices, 2015 – 2018 (Price € per 100kg)*



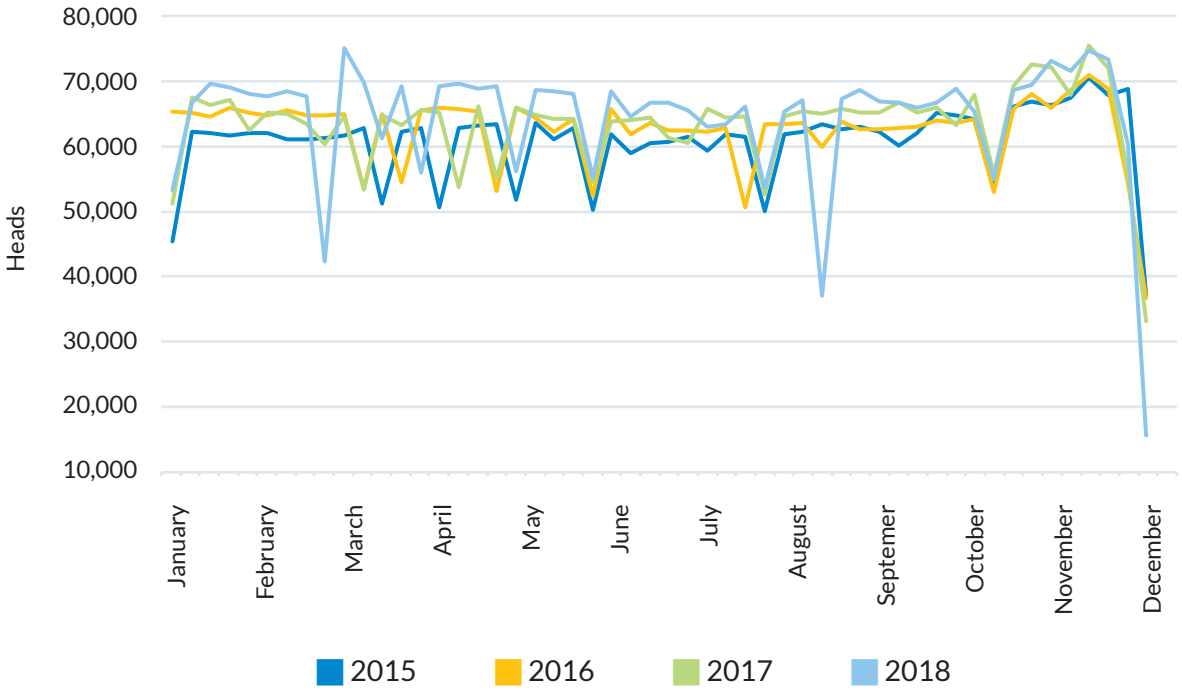
Source: Department of Agriculture, Food and the Marine

Slaughterings

Approximately 3.4 million pigs were slaughtered in export-approved plants during 2018. This equates to an increase of around 3% compared to 2017. Approximately 93,000 sows are included in this 2018 figure, a 2% increase from 2017.

The export of live pigs rose by 4% to reach 475,000 last year, continuing the upward trend of 2017. The vast majority of these pigs are exported to Northern Ireland.

Figure 3.14 *Pigmeat Slaughtering, 2015 – 2018*



Source: Department of Agriculture, Food and the Marine

Targeted Agricultural Modernisation Scheme II (TAMS II)

The TAMS II Scheme assists farmers to purchase new equipment for the upgrading of pig units on their farms, thereby supporting farmers' compliance with animal welfare legislative requirements which lay down minimum standards for the protection of pigs. TAMS II measures (under the 2014-2020 RDP) continued to provide grants for capital investment to assist pig producers to develop their businesses.

Challenges:

Along with animal health issues and economic viability, Brexit and ASF are the biggest challenges to the Irish pigmeat sector. Stakeholders continue to work together, in particular through the Pig Implementation Stakeholder Group, to develop new approaches to health issues in the national herd. Ireland's island status has also helped to ensure that ASF is not as significant a threat as it is on the continent, though continued vigilance is of course vital in this regard.

Ireland Outlook for 2020 – 2021

The ongoing uncertainty around Brexit will continue to impact on Irish pigmeat produce destined for the UK market. In the second half of 2019, Chinese imports are expected to increase compared to 2018, potentially providing opportunities for exporting slaughter plants. However, much will depend on the continuing ASF situation both within China and across the EU, international trade relations and competition from peer exporting nations. Expanding access into new markets such as Mexico and further penetration of lucrative markets such as Japan and South Korea will be the primary goals for Irish exporters this year. Prices can be expected to show a higher average than 2018, on the back of increased exports to China later in the year. These and other factors such as farm viability, global market share and a stable animal health situation will determine sectoral prosperity in the years to come.

EU Outlook for 2020 – 2021

ASF is already present in continental Europe, and if it was to spread to medium or large exporters such as Germany and Denmark, a very negative set of trading conditions will emerge for EU exporters. However, if individual exporting countries remain ASF free, they could take advantage of increased imports demands from China.

Overall, supplies are expected to stabilise, but prices may continue to come under pressure. However, the outlook is difficult to predict at present. If Chinese demand for EU pork rises, the immediate outlook on prices and production would change. On the other hand if further ASF outbreaks occur in the EU, trade flows could be considerable disrupted.

3.6 Poultry

Irish production levels were
up by 3.3%
in 2018, with
98.6 million birds
slaughtered in export approved plants

The value of Irish poultry exports in 2018
increased by 7%
to approximately €300 million

EU poultry production is estimated to have increased by roughly
4.7%
last year

General Market Situation Ireland and EU 2018

Irish poultry production hit record levels in 2018, up 3.3% on 2017 levels with 98.6 million birds slaughtered in export approved plants in Ireland last year. Retail sales of fresh and chilled poultry increased by a similar amount.

The value of Irish poultry exports in 2018 increased by 7% to approximately €300 million compared to €278 million in 2017, with the United Kingdom accounting for almost 79%, or €237m of this figure. France is the next largest EU market, accounting for exports totalling just under €10m, followed closely by Finland and the Netherlands. However, at just under €30m, South Africa holds the second largest share of Irish poultry export value, a 10% increase from 2017.

Source: Central Statistics Office

EU poultry production is estimated to have increased by roughly 4.7% last year, with Eastern and Central European producers seeing the largest increases and more modest increases among Western European nations. Imports into the EU increased slightly compared to 2017, as restrictions on Brazilian imports were largely balanced out by increases in imports from Thailand and Ukraine.

Source: EU Commission

In 2018 the output value of the poultry sector in Ireland was €167.8million, a 3% increase on the previous year.

Table 3.8 *Output Value (€m) and Volume of Poultry (000) 2017/2018*

	2017		2018	
	Value	Number	Value	Number
Poultry	163.1	89	167.8	92

Source: Central Statistics Office, Final Estimates on Output, Input and Income in Agriculture

Poultry Prices

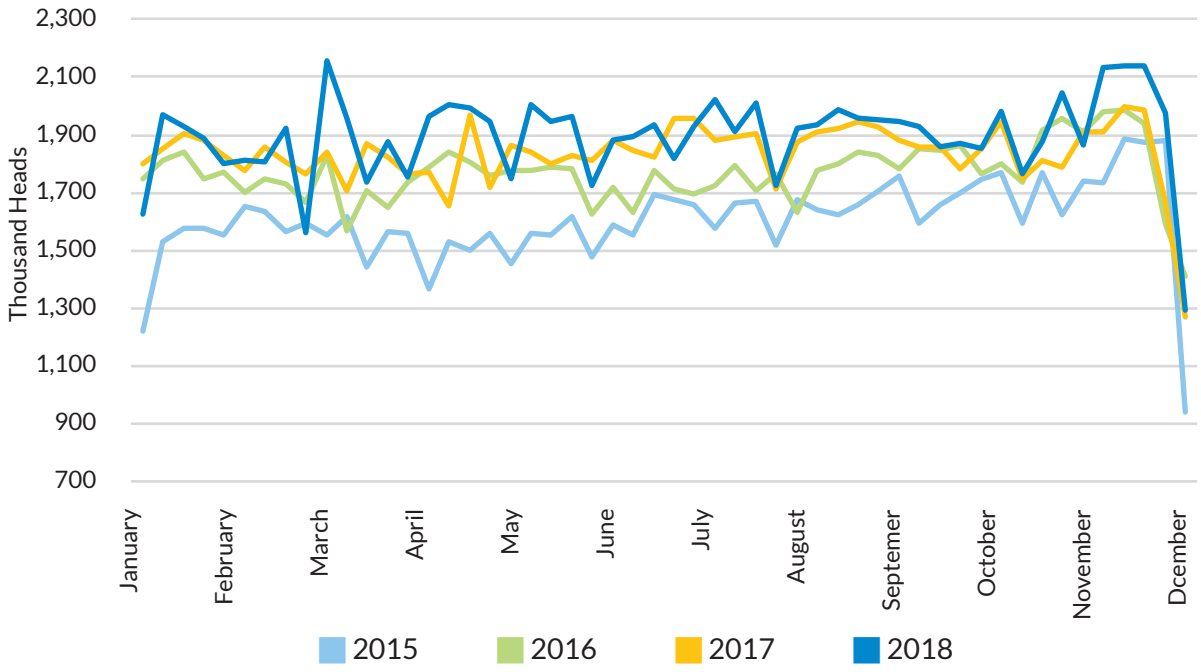
Prices remained steady throughout 2018. Poultry is normally reared under contract to processors, for a pre-agreed price, and therefore poultry producers are not typically subject to the same price fluctuations as other farmers.

Slaughterings

Irish production levels hit record levels in 2018, with 98.6 million birds slaughtered in export-approved plants, approximately 91 million of which were chickens. Production for 2018 increased by over 3.3% compared to 2017, with most of the increase evident in broiler and duck production.

Source: Department of Agriculture, Food and the Marine

Figure 3.15 *Poultry Slaughtering, 2015 – 2018*



Source: Department of Agriculture, Food and the Marine

Targeted Agricultural Modernisation Scheme II (TAMS II)

Similar to the TAMS II Scheme for pigs, the poultry version of the scheme is to assist farmers purchase new equipment for the upgrading of poultry units on their farms. This supports farmers' compliance with animal welfare legislative requirements, which lay down minimum standards for the protection of chickens kept for meat production (broiler chickens) and for the protection of laying hens.

The TAMS II scheme also facilitates energy efficient measures to improve competitiveness and contribute to the improvement of agricultural incomes, as well as making it more environmentally sustainable.

Challenges:

Broadly speaking, 2019 is expected to be a positive year for the Irish poultry sector. However, the threat of trade disruption arising from Brexit cannot be ignored. Apart from the possibility of a decline in exports to Britain, its status as a 'land bridge' for exports onwards to the continent means it acts as a vital artery for trade to European destinations. Avian influenza remains a danger as well, though the sector's continued vigilance is to be welcomed on this count.

Ireland Outlook for 2020 – 2021

As in other meat sectors, global trade conditions will be crucial in determining the outlook for the Irish poultry sector in the near future. In addition to the challenges caused by Brexit, opportunities may arise should EU restriction on imports from Brazil continue or expand. The continued expansion of market access is a major strategic priority. Developments such as the EU-Japan free trade agreement could lead to new opportunities and looking to South East Asia, access for Irish poultry formed a key part of discussions on recent trade missions to Malaysia and Indonesia. Slaughter levels are expected to exceed the 100m birds mark this year, a record total.

EU Outlook for 2020 - 2021

Restrictions that have seen 20 Brazilian plants removed from the EU approved list will benefit domestic producers, and thus the outlook for the EU industry as a whole is broadly positive. A positive market balance with ongoing strong demand and tight supply can be expected in 2019.

In the medium term, global import demand for poultry meat is expected to remain strong. It is predicted to grow for the next decade at the same rate as over the previous 10 years (2.3% per year). EU exports are expected to continue rising, by an average of 1.4% a year over the same period.

3.7 Cereals and Cereal Preparations

The total cereal area harvested in 2018 was **261,000ha**

Ireland accounts for **approximately 1%** of EU cereal production.

The level of Oilseed Rape increased by **over 5%** in 2018 from 10,100 to **10,600** hectares.

General Market Situation Ireland and EU 2018

Ireland

The 2018 growing season was challenging. A cold and wet spring, which resulted in delayed sowings, was followed by a summer drought. This resulted in below average yields of all crops. Harvesting conditions were excellent as were sowing conditions for winter cereal crops in autumn/winter 2018.

The cereals sector is a major contributor of high-quality grain to the feed industry, provides grain for the food and drinks industry and is a key source of seed production. The overall production of cereals for the country was estimated at 1.9 million tonnes for 2018, down 22% from 2.4 million tonnes in 2017 and significantly below the five-year rolling average.

The total area under cereal crops in 2018 was 261,000ha, representing a fall of 10,700ha or 3.9% from 2017. Due to the long wet winter and late spring, yields of all cereals were below average as late planting and the summer drought impacted all yields significantly.

The value of straw increased significantly in 2018. Lower than normal yields combined with the overall reduced area planted increased demand, with a resultant rise of between 50-100% in price

The area of winter wheat, barley and oats harvested in 2018 decreased by 10%, 11% and 29% respectively due to planting conditions in late 2017. The levels of spring wheat and oats planted in 2018 fell below the level of 2017, with deceases of 3,200 hectares and 2,400 hectares respectively. However levels of spring barley planted increased by 12% over 2017 levels to 127,400 hectares.

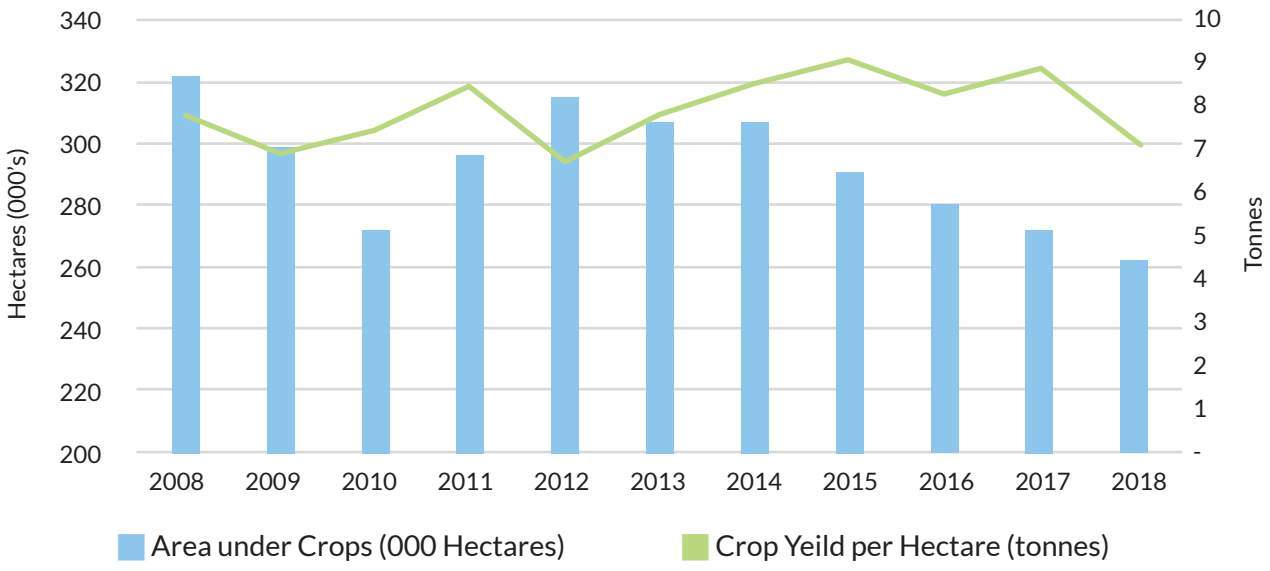
Table 3.9 *Area of Cereals 2018*

Description	June 2017	June 2018	Change 2017 - 2018	
	' 000 hectares			%
Winter wheat	60.3	54.4	-5.9	-9.7
Spring wheat	6.8	3.6	-3.2	-47.5
Winter oats	14.4	10.2	-4.2	-29.3
Spring oats	10.0	7.6	-2.4	-24.3
Winter barley	65.0	57.9	-7.2	-11.0
Spring barley	115.2	127.4	12.2	10.6
Beans and peas	13.7	8.5	-5.2	-38.0
Oilseed rape	10.1	10.6	0.5	5.0

Source - Central Statistics Office, Area, Yield and Production of Crops 2018

Elsewhere, the level of Oilseed Rape increased by 5% to 10,600 hectares. The area under beans and peas dropped due to the late spring from 13,700 hectares in 2017 to 8,500 in 2018, a decrease of 38%.

Figure 3.16 *Area under Crops, and Yield per Hectare – Total Wheat, Barley and Oats, 2008 – 2018*



Source: Central Statistics Office, Area, Yield and Production of Crops

Overall production of the three main cereals (wheat, oats and barley) fell by 230,000 tonnes to 1,402,200 tonnes in 2018. This was due to combined decreases in all three main cereals, including a decrease of 81,700 tonnes in the production of spring barley.

Table 3.10 *Output Value (€m) and Volume of Cereals (000 tonnes) 2017/2018*

	2017		2018	
	Value	Volume	Value	Volume
Barley	150.1	1,042.5	197.2	960.8
Wheat	65.9	437.5	69.6	339.6
Oats	21.3	152.9	21.6	101.7
Total Cereals	237.2	1,632.8	288.4	1,402.2

Source: Central Statistics Office, Final Estimates on Output, Input and Income in Agriculture

EU

Ireland accounts for approximately 1% of EU cereal production. However, grain prices in Ireland are affected by global market price shifts and particularly events such as last summer's drought.

Forecast for the production of cereals in the EU for 2018/19 is down on the comparable figures for 2017/18 at 288.7 million tonnes or just under 5.4% year on year.

Among the eight principal Member State producers (FR, DE, PL, IT, UK, ES, RO and HU) representing around 80% of the EU production, Poland and Germany are the most affected by a decrease of around 16% year on year while only Spain is expected to recover by 45%.

Year to year, the most affected cereal at EU level is soft wheat down by around 13 million tonnes or 9%.

As regards the EU 2018/19 trade, the total current flow of imports exceeds the total flow of exports, which is not traditional. This situation is the consequence of both the huge increase of maize imports and the decrease of wheat exports brought about from the drought period, which negatively impacted the 2018 harvest.

World

Prices are currently broadly stable. After successive bumper harvests, global total grains (wheat and coarse grains) stocks rose to a record level at the end of 2016/17. However, with output falling short of demand, the most recent two seasons have seen an accelerating rate of stock drawdown, with the steepest decline for maize. Projections for total grains over the coming years point to a further tightening of world supply and demand.

Projected production for 2018/19 is 2,121 million tonnes with consumption being projected at 2,174 million tonnes.

Grain production during 2019/20 is expected to recover by 50 million tonnes to 2,171 million tonnes, mainly linked with larger wheat output in the EU. In parallel, world consumption is forecast to increase further and reach a new record level of 2,204 million tonnes, including 723 million tonnes for food, 985 million tonnes for feed and 375 million tonnes for industrial use.

Total global grain production in 2017/18 of 2,103 million tonnes was 2% down on the previous year. Consumption reached a new high of 2,106 million tonnes, up 1% year on year. For the fifth consecutive year global wheat production increased, up 2% year on year. Global maize production decreased 4% from the previous year whilst global barley production was down 2%.

Projected production for 2018/19 is 2,121 million tonnes with consumption being projected at 2,174 million tonnes.

Feed Grain Prices

In 2018 the average prices in Ireland for feed Barley was €197 per tonne. The average price for feed Wheat was €196 per tonne. Both EU and world cereal prices increased in 2018 partly due to drought conditions across the EU which had a significant negative affect on cereal production

Table 3.11 *Agricultural Commodity Prices December 2018*

Commodity	EU		World	
	Monthly Average € per tonne	Annual change	Monthly Average € per tonne	Annual change
Soft Wheat	203.6	28.8%	214.3	11.3%
Durum Wheat	216.7	-5.5%	191.1	26.8%
Maize	179.7	18%	147.1	12.6%
Barley	204.6	34.9%	208.4	23.6%

Source: European Commission - Commodity Price Dashboard No 79 – December 2018 edition

3.8 Horticulture and Potatoes

Weather impacted
on production costs and output in 2018.

Potato plantings declined by approximately 10% with the **cold and wet spring** impacting and delaying plantings in 2018.

There was continued investment within the horticulture sector, **€4.9m in grant aid** was paid in 2018.

General Market Situation Ireland 2018

Growing conditions in Ireland for horticultural crops were difficult in 2018, due to a late cold and wet spring and drought conditions during the summer months. Input costs increased due to the need for irrigation. Many growers negotiated price increases with retailers to cover the increased costs experienced in 2018. Yields for many crops were back as a result in 2018. Market demand in Ireland for produce remained steady across each sub sector. The sector saw strong investment in 2017 with €4.9m paid under the Commercial Horticulture Grant Aid Scheme, which supported investments totalling €12m. Investment in smaller sectors was evident with growth in the sprouted seed and hop production due to demand in the health food and brewing industry.

Mushrooms

2018 saw further consolidation of growers' numbers with the ending of phase II compost production However in spite of this contraction the industry has managed to maintain output value through innovation in added value and premium products.

The UK remains an important export market for Irish mushrooms with 90% of production exported to the UK. Brexit and currency fluctuation are ongoing challenges for the industry. The UK market continues to be highly competitive, but the Industry has benefited from its long-term supply relationships built with its UK retail customers where some price increases

in recognition of exchange rate fluctuations were achieved by the industry. This has helped defend grower margins and provided some stability.

The prospects for the industry in 2019 will be challenging and dominated by ongoing uncertainty over Brexit including the impact of currency fluctuations on grower margins. Despite these challenges the industry continues to be resilient and through the implementation of LEAN processes and technologies continues to strive for productivity gains that will help insulate them from market challenges and cost increases.

Fruit and Vegetables

Protected Crop

Production value and volume in general maintained across the protected crop sector. However increased production costs were experienced in 2018 due to the extreme weather where additional fuel and energy was required to irrigate and chill crops post-harvest. Market and consumer demand for salads remained strong throughout the year.

Field Vegetables

2018 was a challenging year for field vegetable production with weather impacting on plantings and yields. The cold and wet spring impacted and delayed planting, with some early sown plantings missed. The extreme hot weather over the summer months had an effect on production costs where input costs increased substantially. Additional fuel and labour costs was required to irrigate growing crops in attempt to maintain yield and quality and additional energy was required to chill crops post-harvest. Production in 2018 was also impacted where expected yields were not attained. However, most growers negotiated price increases with retailers to cover the increased costs experienced in 2018.

Soft Fruit and Top Fruit

The extreme warm weather did impact on soft and top fruit production with lower yields experienced in 2018. Market demand continues to grow, and the sector has shown strong plans for expansion. The impact of storm Emma in 2018 on the soft fruit sector did temper growth in 2018. The Commercial Horticulture Grant aid scheme has provided much needed support for growers to assist upgrading of facilities to protect against weather events.

Nursery Stock

The nursery sector continued to see improvement in 2018 and there is continued optimism within the sector. A recovery in the landscape sector is a result of increased economic activity from construction and improving consumer sentiment is seeing an increased willingness by consumers to spend money on amenity plants and landscaping once again. Sales of amenity plants and bedding were generally good in 2018.

Storm Emma, which brought significant falls of snow in late February and early March 2018, had a substantial impact on this industry with structural and crop damage experienced by some growers. The Commercial Horticulture Grant aid scheme has provided much needed support for growers to assist upgrading of facilities to protect against weather events. Brexit is a concern for the future but at the moment this sector has not experienced any major impact. Prospects for 2019 are good with increasing demand from domestic and export markets.

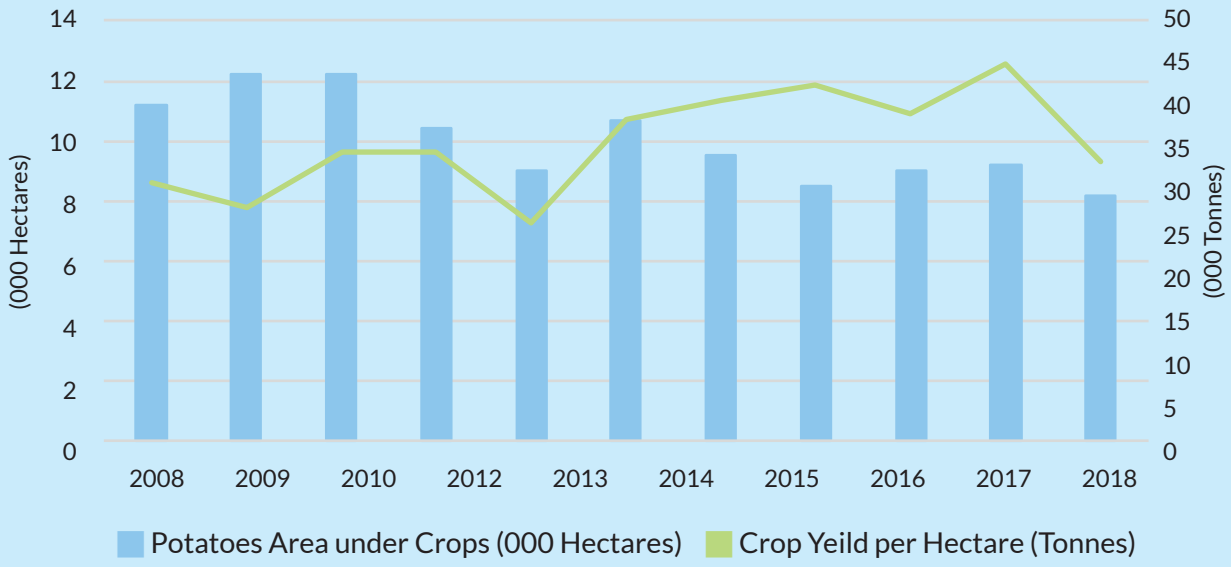
Potato sector

Potato plantings declined by about 10% with the cold and wet spring impacting and delaying plantings in 2018. Growing conditions were extremely challenging with crops badly impacted by drought conditions. A severe lack of rain did impact crop growth during the crucial bulking phase, with yields back as a result. The yield of potatoes decreased by 26.1% from 44.9 tonnes per hectare in 2017 to 33.2 tonnes per hectare in 2018.

The variety "Rooster" continues to maintain its position of being by far the most dominant variety planted by Irish growers in 2018.

Production costs and output were impacted negatively by drought in 2018 with overall production output back approximately 35%. As a result, prices were up significantly in 2018.

Figure 3.17 *Area under Crops, and Yield per Hectare – Potatoes, 2008 – 2018*



Source: Crops and Livestock Survey June Final Results, 2018

Investment Aid for the Development of the Commercial Horticulture Sector

The Scheme of Investment Aid for the Development of the Commercial Horticulture Sector grant aids capital investments in specialised plant and equipment in the horticulture sector. The scheme's objectives are to: promote the diversification of on-farm activities; improve the quality of products; facilitate environmentally friendly practices and improve working conditions. €4.9 million in grant aid was paid out in 2018.

Challenges

- Structural damage as a result of storm damage in early 2018 has impacted on certain sectors and did temper growth in 2018.
- Brexit, currency fluctuations and labour shortages continue to be of concern.

3.9 Intermediate Consumption

Expenditure on intermediate consumption was

up 13%

in 2018, to

€6,001 million

Expenditure on feeding stuffs increased by

€355.9 million

(+26.9%)

to

€1,680.3 million

Expenditure on energy and lubricants increased by

€33.8 million (+8.7%),

increasing from €390.2 million in 2017 to €424.1 million in 2018.

General Market Situation Ireland 2018

Intermediate consumption expenditure in agriculture increased by 13% in 2018, from €5,311 million to €6,001 million. This was as a result of the cold wet spring and dry hot summer, which resulted in increased use of animal feed, forage plants and fertilisers. Expenditure on feedingstuffs increased by 27%, from €1,324.40 million in 2017 to €1,680.30 million in 2018. Expenditure on feedingstuffs accounted for just over one-quarter (28%) of total intermediate consumption in the agriculture sector.

Expenditure on fertilisers increased by 13% in 2018 to €582 million while maintenance and repairs remained at 2017 levels, while expenditure on forage plants increased by €197.5m or 18.9%.

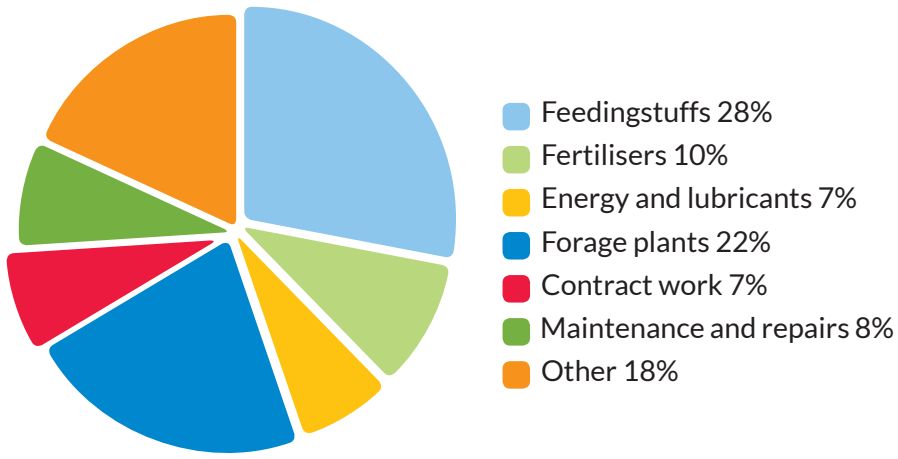
Table 3.12 *Expenditure on Intermediate Consumption in Agriculture 2016-2018*

Year	2016	2017	2018
	Value €m	Value €m	Value €m
Feedingstuffs	1,228.7	1,324.4	1,680.3
Forage plants	1,046.3	1,101.9	1,299.4
Fertilisers	510.8	513.0	582.1
Maintenance and repairs	451.4	473.5	474.0
Contract work	371.6	379.7	453.2
Energy and lubricants	377.6	390.2	424.1
Other items of intermediate consumption	1,097.4	1,128.2	1,087.9
Total Intermediate consumption	5,083.9	5,311	6,001

Source: Central Statistics Office, Final Estimates on Output, Input and Income in Agriculture

Price indices for agricultural inputs in 2018 increased by 5% in 2018 compared 2017. The overall price Indices (Base 2015=100) of feedingstuffs increased by 7% in 2018. The volume of compound feedingstuffs produced in 2018 increased by 20% from 4,899,362 tonnes to 5,885,428 tonnes.

Figure 3.18 *Intermediate Consumption, Percentage share of select items, 2018*



Source: Central Statistics Office, Final Estimates on Output, Input and Income in Agriculture

Price Indices for Agricultural Inputs

Preliminary estimates of the agricultural price indices for 2018 show a 4.6% increase in input prices from 2017 levels while output prices are estimated to decrease by 2.0%.

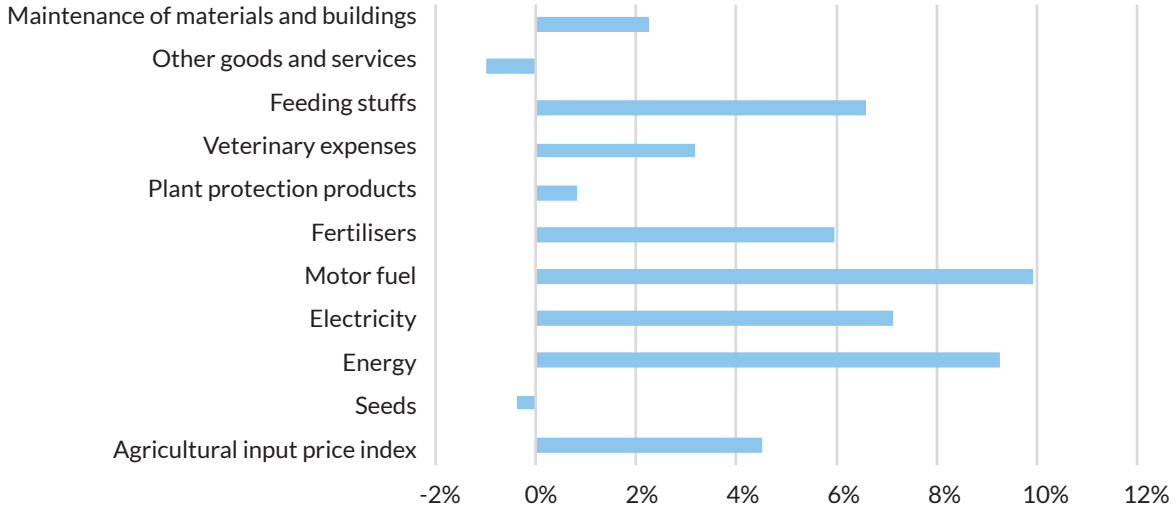
The projected increase in the input price index of 4.6% is due mainly to an increase in energy (8.9%), fertilisers (6.0%) and feeding stuffs (6.6%). The projected decrease in the output price index of 2.0% is due mainly to decreases in pigs (12.6%) and milk (6.0%).

Table 3.13 *Price Indices for Agricultural Inputs 2016-2018*

Year	2016	2017	2018
Input Prices	-3.50%	-0.70%	4.60%
Feedingstuffs	-1.60%	-1.50%	6.60%
Including			
Straight	-4.40%	2.30%	11.20%
Cattle	0.40%	-2.40%	6.50%
Pig	-2.70%	-1.00%	9.50%
Poultry	-3.70%	-1.20%	2.60%
Fertilisers	-14.90%	-5.69%	6.00%
including			
Straight	-18.20%	-5.50%	7.90%
NPK	-13.20%	-6.20%	5.60%
PK	-5.30%	-7.30%	1%

Source: Central Statistics Office, Agricultural Price Index

Figure 3.19 *Changes in Price Indices for Agricultural Products, 2017 – 2018*



Source: Central Statistics Office, Agricultural Price Index

Animal Feedingstuffs

The volume of compound feedingstuffs produced in 2018 increased by 20% to 5.9 million tonnes, compared to 4.9 million tonnes produced in 2017. The overall cost of feedingstuffs increased by 27%, from €1.3 billion in 2017 to €1.7 billion in 2018. CSO data indicates an overall increase in the price of feedingstuffs of 6.2% in 2018 while the volume of feedingstuffs increased by almost 20%.

The UK is a significant market for Irish feed, in value and volume terms, for both imports and exports. Trade in animal feed between Ireland and the UK showed a significant increase in the volume of feed imported from the UK to Ireland of 48% between 2015 and 2018 and an increase in value of 21% over the same period. The effects of Brexit on trade, particularly on imports of feed ingredients and materials, may take some time to be fully reflected throughout the Irish feed sector.

Table 3.14 *Compound Feedingstuffs Production 2016-2018*

Year	2016	2017	2018
Cattle	2,573,113	2,919,301	3,807,225
Pigs	669,316	692,677	712,581
Poultry	655,368	640,562	632,965
Sheep	202,790	202,719	247,882
Other	415,116	444,103	484,775
Total	4,515,703	4,899,362	5,885,428

Source: Department of Agriculture, Food and the Marine

Fertiliser and Ground Limestone

The sale of fertiliser and Lime in Ireland is regulated by both EU and Irish legislation. This legislation ensures that products are labelled accurately and meet minimum nutrient requirements. As part of the fertiliser and lime inspection programme for 2018 a total of 250 samples were taken at manufacturer's premises (186 fertiliser samples and 64 lime samples). 644 individual analyses were carried out for fertilisers which resulted in an out of tolerance of 3.9%. 253 individual lime analyses were carried with a result of 9.5% out of tolerance.

No new ground limestone quarries were licensed during 2018. There were a total of 45 active quarries in 2018.

Table 3.15 *Fertiliser production*

Year	2013/14	2014/15	2015/16	2016/17	2017/18
Nitrogen	1,365,762	1,359,511	1,377,754	1,510,972	1,670,799
(tonnes)	(-6%)	(-0.46%)	(+1.34%)	(+9.6%)	(+10.6%)
Phosphorous	778,409	798,303	805,600	899,337	1,005,689
(tonnes)	(-6%)	(+2.56%)	(+0.9%)	(+11.6%)	(+11.8%)
Potassium	795,158	807,175	815,204	911,933	1,019,805
(tonnes)	(-5%)	(+1.5%)	(+1%)	(+11.87%)	(+11.8%)
TOTAL	1,402,878	1,395,399	1,411,913	1,552,809	1,714,729
(tonnes)	(-5.66%)	(-0.53%)	(+1.18%)	(+9.98%)	(+10.4%)

Source: Department of Agriculture, Food and the Marine

Ground limestone usage was up on the previous year by 38% to 1,020,502 tonnes. This follows a decrease in lime use in 2017.

Table 3.16 *Ground Limestone Sales 2015-2018*

Year	2015	2016	2017	2018
Ground Limestone sales tonnes	893,730	967,281	737,118	1,020,502
% change	10%	8.2%	-24%	38%

Ireland Outlook for 2020 – 2021

The continued gradual upward trend in both consumption and prices is anticipated to continue based on current and projected growth patterns.

CHAPTER
4

Forestry

In
2018
there was
23,000
private forest owners.

Broadleaf planting accounted for
27%
of the
4,025 hectares
planted in 2018.

Ireland's forests have removed an average of **3.8 million tonnes** of carbon dioxide equivalent per year from the atmosphere over the period **2007** to **2016**.

4.1 Overview

The area of forest is estimated to be 770,020 hectares (ha) or 11.0% of the total land area of Ireland (National Forest Inventory 2017). Forest cover is estimated to be at its highest level in over 350 years. Of the total forest area, nearly 391,358 ha or 50.8% is in public ownership, mainly Coillte. The forest estate is comprised of three quarters conifers and one quarter broadleaves. Nearly half of the stocked forest area is less than 20 years of age. The promotion of afforestation and the mobilisation of private timber resources continues to be key objectives of the Department of Agriculture, Food and the Marine.

Source: Department of Agriculture, Food & the Marine Forest Statistics

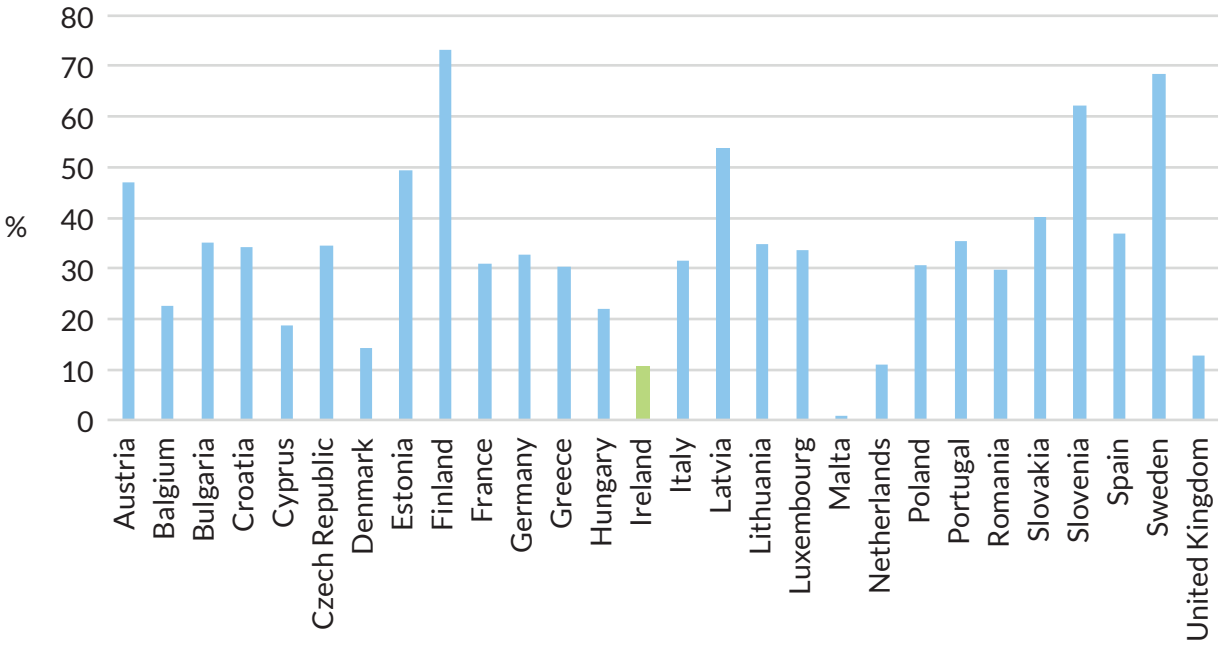
4.2 General Forestry Situation in Ireland and EU, 2018

Ireland

The third National Forest Inventory, completed in 2017, has shown that the national forest estate is still expanding and has now reached 11% of the total land area. This compares to a European (EU-28) average of 34%. The total forest area has increased from 697,842 hectares (ha) in 2006 to 770,020 ha in 2017.

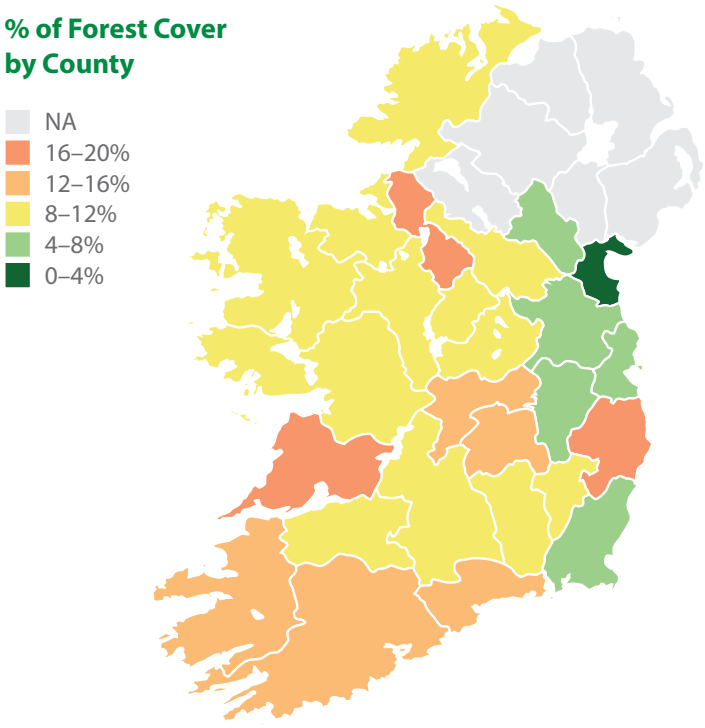
Source: Ireland's National Forest Inventory 2017 Department of Agriculture, Food and the Marine and State of Europe's Forests 2015 Report published by Forest Europe

Figure 4.1 *Forest cover as % of total land area in the EU-28, 2015*



Source: Forest Europe/UNECE/FAO

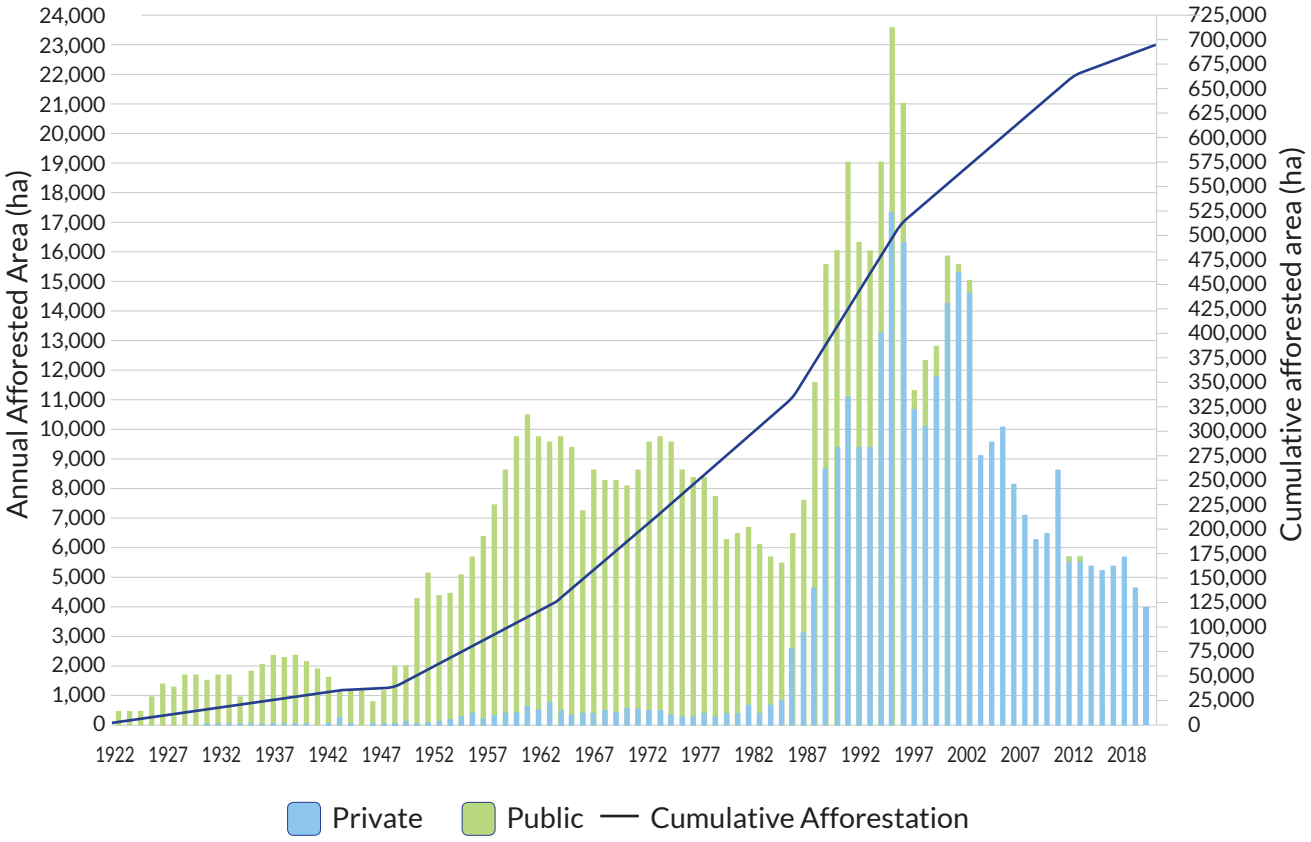
Figure 4.2 *Heat map of forest cover by county*



Source: Department of Agriculture, Food and the Marine

Long-term afforestation trends, including the change from state-led to private-led grant-aided afforestation in the 1980s and 1990s, are shown in Figure 4.2. Private afforestation came to the fore in the mid-1980s following the introduction of a grant and, particularly, an annual premium scheme for afforestation. Total afforestation figures for the years 2015 – 2018 show that overall planting is some 17% less than the cumulative target for these years. Enhancements were made by the Department to the Forestry Programme in 2018 following its Mid-Term Review, to address this trend.

Figure 4.3 *Annual state and private afforestation 1922-2018*



Source: Forest Statistics Ireland 2019, Department of Agriculture, Food & the Marine

With 11% of the total land area in Ireland under forestry, support schemes are provided by the Department to assist in the management of the current forest estate. The Forest Road Scheme continues to provide an important support for timber mobilisation with grants paid in 2018 in respect of the construction of 72 kilometres of new forest roads.

While overall planting levels in 2018 were lower than forecast, interest in planting native woodlands is increasing steadily year on year with payments issued in 2018 in relation to the new planting of 374 hectares of native woodlands, an increase of 38% compared to 2017. Overall broadleaf planting, which includes the planting of native woodlands, has increased, as a percentage of total planting, from 21% in 2017 to 27% in 2018. The increase follows the introduction of a number of enhancements to the current Forestry Programme (2014-2020) arising from the Mid-Term Review of the Programme. These changes to the Programme, which were introduced in early 2018, targeted broadleaf afforestation in particular and included increased grant and premium rates for relevant planting categories. Additional measures such as support for deer tree shelters, continuous cover forestry and the second thinning of broadleaf forests were developed in 2018, and introduced in early 2019.

Improved grant and premium rates for Agro-forestry and Forestry for Fibre options were also introduced in 2018 arising from the Mid-Term Review, as it is considered that these new

planting categories may encourage farmers to consider forestry as a possible option on their farms to complement other farming activities.

Following a successful pilot scheme in 2017, a Forestry Knowledge Transfer Group (KTG) Scheme was launched by Andrew Doyle T.D., Minister of State at the Department with responsibility for forestry, in August 2018. The KTG module in 2018, which comprised of 33 groups totalling 605 participants, focussed on timber mobilisation and biomass.

The mobilisation of timber from privately owned forest is required to ensure a supply of timber to the wood processing sector. Many thousands of hectares of private woodland are approaching the stage of first, and subsequent thinnings, resulting in a sharp increase in supply of logs from this source in the near future. As the level of timber becoming available from private resource increases, the lack of forest certification is likely to become a barrier to wood mobilisation. There is a limit to the amount of uncertified material which the saw and panel mills may use in their products. The supply of timber from private forests is now close to exceeding this limit of 30%.

Forest certification is a voluntary process used by forestry owners to reassure consumers that the wood and wood products they buy comes from sustainably managed forests. Certification independently assesses forest management planning and practices against a sustainable forestry management standard. Barriers to forest certification for private forest owners include the cost and complexity of achieving this accreditation. In order to address these barriers, in 2018 the Department established, two certification groups for private forest owners where costs can be shared. A template for certification was also launched in 2018 to help navigate the complexities of the certification process. As a result of these initiatives, there are early signs that the forest industry is beginning to put measures in place to roll out certification to private forest owners.

EU:

At EU level, the State of Europe's Forests 2015 Report states forest area amounts to 215 million hectares in Europe, accounting for 33% of total land area. In comparison to other regions in the world, only South America has a higher percentage of forest cover (49%) than Europe. 45% of European forests are predominantly coniferous, 36% are predominantly broadleaved, and the rest are mixed, while around 80% of the forest area is available for wood supply. The report adds that forest area has continuously increased since 1990, and the rate of increase is fairly stable at the European level and within the regions that are analysed in the report. The forest area is expanding according to the defined targets in the countries with low

forest cover. Policies on forest carbon and carbon balance have gradually shifted from a focus on sequestration capacity to a more integrated approach to sustainable forest management. The emphasis is on the full chain of sequestration, the production of wood and wood products, and especially on renewable bioenergy. As a result of climate change impacts, other important aspects are the adaptation of forests to these changes and the capacity of forests to mitigate climate change.

4.3 Trade

According to Woodflow and forest-based biomass energy use on the island of Ireland (2017), part of the COFORD Connects series of information notes, in 2017:

- Roundwood harvest (including firewood) in the Republic of Ireland in 2017 was 3.54 million cubic metres (m^3), the highest since records began.
- Coillte is still the largest supplier of roundwood. Total harvested in the Coillte estate was approximately 2,714,000 m^3, over 75% of the harvest. This percentage figure will reduce significantly as more private timber becomes available.
- Strong demand experienced for wood fibre across all product assortments as detailed below:-
  - 1,049,000 m^3 of sawnwood softwood
  - 135,000 m^3 of roundwood stakes
  - 836,000 m^3 of wood based panels
- 42% of the roundwood available for use in the Republic of Ireland was used for energy purposes. The majority of this material was used within the forest products sector which includes production of heat to dry timber prior to sale
- Output from the forest based biomass energy sector grew by 12% over 2016 to 1.78 million m^3
- 239,000 m3 of firewood was used in the Republic of Ireland to a value of €35 million which provides a good market for forest thinnings
- Over 85% of the output from the panel board sector in Ireland as well as 85% of Irish sawmills output of construction timber is exported

Source: Department of Agriculture, Food and the Marine, 2018, Woodflow and forest-based biomass energy use on the island of Ireland (2017)

Table 4.1 *Roundwood available for processing 2013- 2017*

Item	2013	2014	2015	2016	2017
	000 m^3 Overbark				
Commercial softwood					
Imports less exports	49	68	40	-16	-65
Coillte	2,474	2,434	2,377	2,600	2,613
Private sector	328	447	646	518	676
Commercial hardwood					
Imports less exports	1	0	0	0	0
Coillte	-2	6	3	5	7
Private sector	1	0	0	1	11
TOTAL	**2,853**	**2,955**	**3,066**	**3,108**	**3,242**

Source: Council for Forest Research and Development (COFORD)

Table 4.2 *Sources of softwood fibre 2013-2017*

Fibre source	2013	2014	2015	2016	2017
	000 m³ Overbark Round Wood Equivalent				
Roundwood	2,851	2,949	3,063	3,102	3,224
Sawmill residues	897	925	949	1,007	1,142
Wood-based panel residues[1]	110	114	114	115	124
Residue imports	108	49	47	144	144
Harvest residues	30	60	60	60	60
Post-consumer recovered wood (PCRW)	250	300	300	300	300
TOTAL	**4,246**	**4,397**	**4,533**	**4,728**	**4,994**

Source: Council for Forest Research and Development (COFORD)

[1] Includes bark (from the debarking lines at MEDITE & SMARTPLY and sawdust from the sanding of wood-based panels.

Table 4.3 *Uses of softwood fibre 2013- 2017*

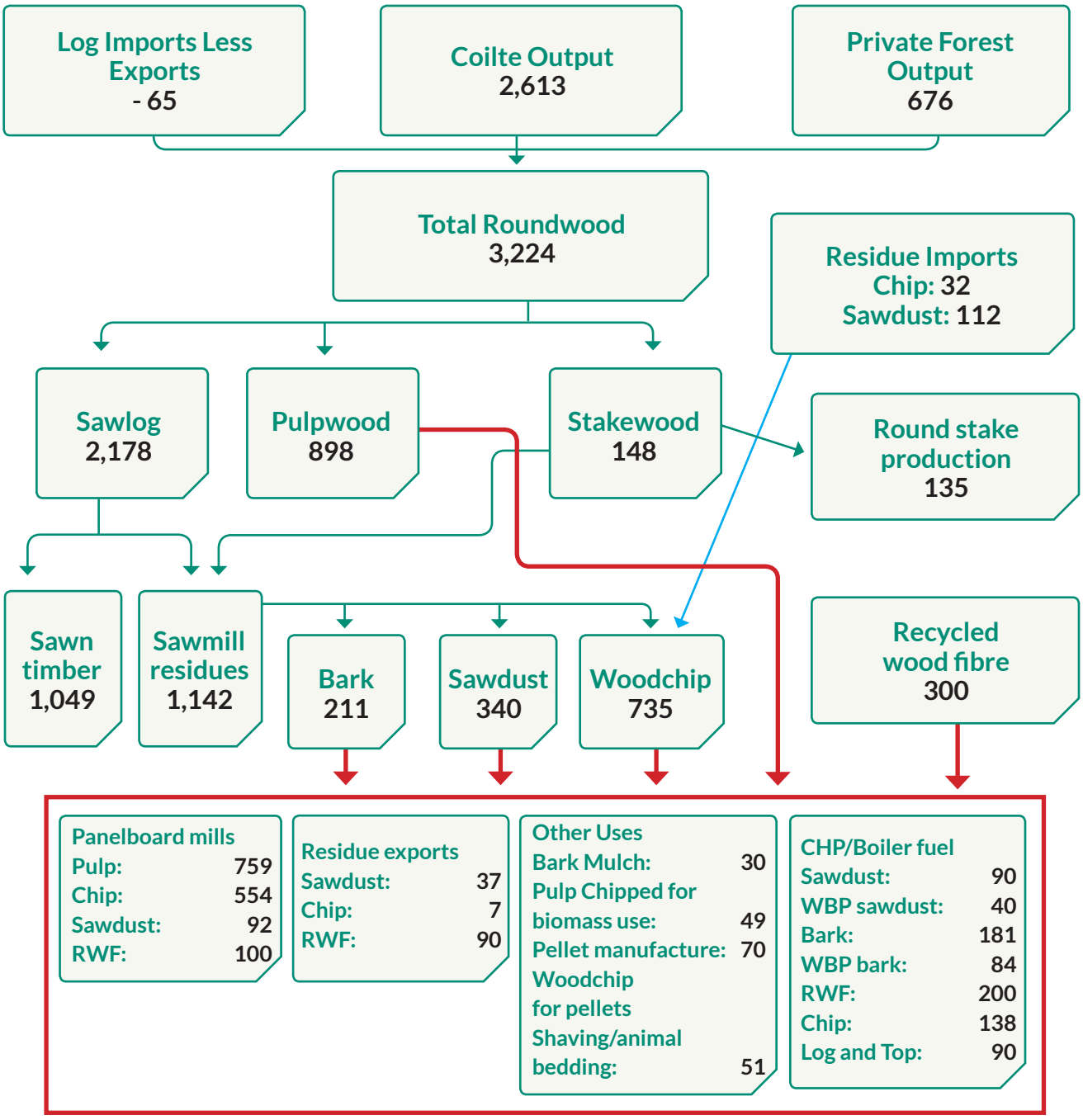
Fibre use	2013	2014	2015	2016	2017
	000 m³ Overbark Round Wood Equivalent				
Sawmilling	1,710	1,815	1,867	1,977	2,178
Round stake	117	147	169	164	148
Wood-based panels	1,407	1,377	1,370	1,395	1,505
Wood for energy use by the power generation and forest products sector[2]	704	760	796	844	883
Other uses					
Horticultural bark mulch	50	40	30	30	30
Wood chip for heating[3]	100	100	114	117	49
Export of forest product residues	88	88	36	44	44
Pellet manufacture	70	70	151	106	106
Other uses including shavings and animal bedding				51	51
TOTAL	**4,246**	**4,397**	**4,533**	**4,728**	**4,994**

[2] Wood biomass is used by the forest products sector for process drying, heating and for the generation of electricity (s including the use of wood biomass for co-firing by Bord na Móna at Edenderry).

[3] Primarily used for the production of space or production heat.

Source: Council for Forest Research and Development (COFORD)

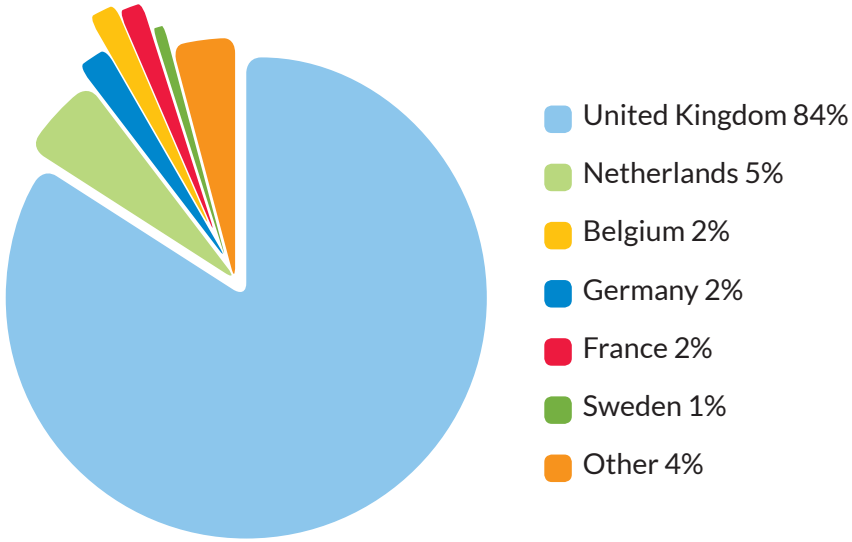
Figure 4.4 *Woodflow for the Republic of Ireland in 2017 (000 m³) [overbark]*



Source: Council for Forest Research and Development (COFORD)

In 2018, according to the Central Statistics Office, Forestry products were exported to over 45 countries worldwide. Exports of Forestry products increased for the 3rd year in a row, with forestry exports reaching a high of nearly €430 million in 2018, a 12% increase in value terms on 2017 and an increase of 2% in volume terms. The top 5 destinations for Forestry products were, the United Kingdom, the Netherlands, Belgium, France and Germany. In 2018, 84% of Irish forestry exports were exported to the United Kingdom. Forestry imports increased by 7% (€21 million) on 2017 figures to €315 million.

Figure 4.5 *Top export destinations for Forestry exports in 2018*

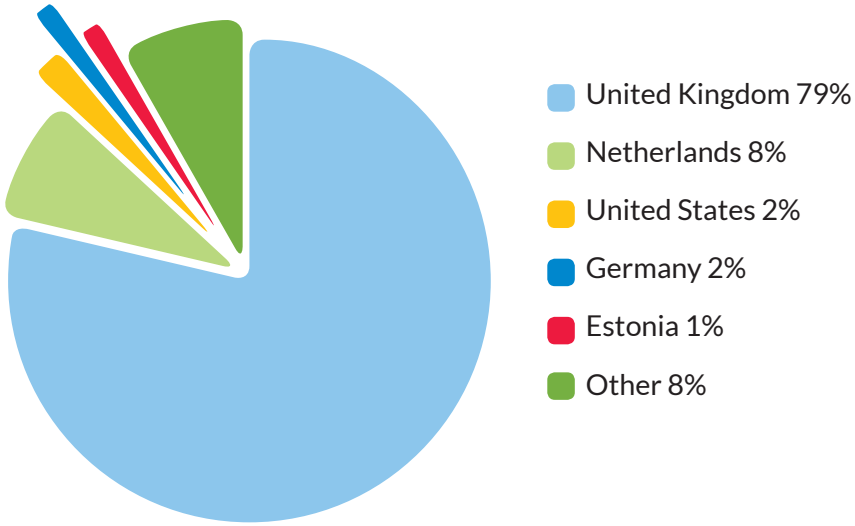


Source: Central Statistics Office, Trade Statistics 2018

In 2018 as part of a wider exercise in relation to trade, the Department of Agriculture, Food and the Marine, undertook an exercise examining the way in which we classify Agri-food sector products. The exercise was undertaken to provide an up to date and detailed statistical representation of Ireland's Agri-food sector. This resulted in the creation of two new Agri-food sector categories; Wood Based Produce, and Fruit & Vegetable Based Produce bringing the total number of agri-food categories to 26. These new categories were created to provide more delineation between primary and secondary agri-food products and to better represent industry.

Exports of Wood Based Produce totalled €51 million in 2018, a 2% increase in value on 2017 figures and a 161% increase on 2009. Irelands top 5 export destinations for Wood Based Produce in 2019 were; the United Kingdom, the Netherlands, the United States, Germany and Estonia. Ireland's top 5 export destinations accounted for 92% of total Wood Based Produce exports. Imports of wood based products totalled almost €210 million with 24% coming from the United Kingdom, 18% coming from the United States and 15% from China.

Figure 4.6 *Top export destinations for Wood Based Products exports in 2018*



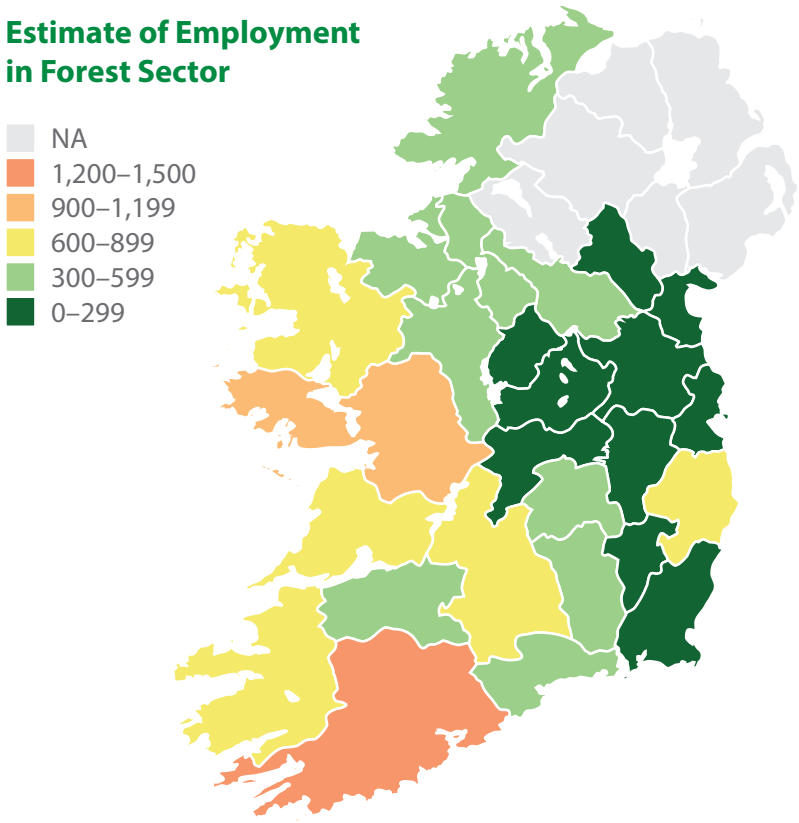
Source: Central Statistics Office, Trade Statistics 2018

4.4 Financial Supports 2018

There are approximately 23,000 private forest owners. The average cumulative area afforested by individual forest owners for grant aided private plantations from 1980 – 2018 totalled 12.2 hectares (ha)

The Department of Agriculture, Food and the Marine promotes afforestation as a viable land use for landowners through the provision of planting grants and payment of annual premiums. In 2018, €92.8 million of capital expenditure was invested in forestry development, 93% of which went towards afforestation grants and premiums. An additional €6.4 million was spent on other forestry support schemes for forestry and woodland reconstitution and development projects.

Figure 4.7 *Estimate of Employment in the Forest Sector by County*



Source: Annual Forest Sector Statistics 2019, Department of Agriculture, Food & the Marine

Table 4.4 *Annual capital expenditure on forestry schemes 2011 – 2018*

	Total Expenditure €m	Total Afforestation Programme €m	Forestry Support Schemes €m
2012	108.2	101.6	6.6
2013	106.5	100.8	5.7
2014	108.1	102.5	5.6
2015	102.7	98.7	4
2016	102.2	98	4.2
2017	99.6	93.6	5.9
2018	92.8	86.4	6.4

Source: Forest Statistics Ireland 2019, Department of Agriculture, Food & the Marine

4.5 Forestry Health & Afforestation Programme

Forest Health

The Forestry Inspectorate of the Department has regulatory responsibility for implementing the forestry aspects of the EU Plant Health Directive, Council Directive 2000/29/EC. This directive details the protective measures against the introduction of organisms harmful to plants or plant products and against their spread within the community. The Forest Service implements the provisions of the Directive relating to timber, wood packaging material (pallets, crates etc) and surveys the national forest estate for quarantine pests and diseases. The Inspectorate is also responsible for implementing Council Directive 1999/105/EC on the marketing of forest reproductive material. Forest reproductive material is a collective term to describe seeds, plants and cuttings, which are important for forestry purposes. The aim of the legislation is to ensure that forest reproductive material is from approved suitable sources and is clearly labelled and identified throughout the entire process from tree seed collection to processing, storage, forest nursery production and delivery to the final forest user.

Ireland's forest health status overall is relatively good. Ireland does not have the range of forest pests and diseases that are endemic on the Continent and further afield. This is largely as a consequence of the implementation of the requirements of the Plant Health Directive and our island status.

However, a number of outbreaks of harmful organisms to trees and forests have been identified in recent years.

Both *Hymenoscyphus fraxineus* (Ash Dieback disease) and *Phytophthora ramorum* disease outbreaks in Japanese larch continue to be monitored by the Department. Following the confirmation of the presence of *Dothistroma septosporum* (Dothistroma Needle Blight [DNB]) in early September 2016, surveys have been undertaken by the Department for DNB presence within pine forests.

Samples taken by the Department of Agriculture, Food and the Marine Forest Health Inspectors in early 2018 were analyzed and laboratory results confirmed the presence of Lecanosticta acicola on mountain pine (Pinus mugo) and adjacent Scots pine (P. sylvestris) trees at an arboretum in Co. Wexford. L. acicola (formerly Mycosphaerella dearnessii), is the causal agent of Brown Spot Needle Blight (BSNB) on pine species.

The Department of Agriculture, Food and the Marine is monitoring developments, following the recent finding in the wider environment of the eight-toothed spruce bark beetle Ips typographus in Kent in England. As the presence of the pest in England increases the level of risk of its introduction into Ireland, the Department will carry out additional risk based surveys in Ireland to provide added assurance that the pest is not present or introduced.

The Forestry Inspectorate has been centrally involved in the development of DAFM's new Plant Health Strategy, incorporating the 'Don't Risk' It campaign launched at Bloom 2018. The Plant Health Strategy has been identified as a priority action in DAFM's statement of Strategy 2016-2019.

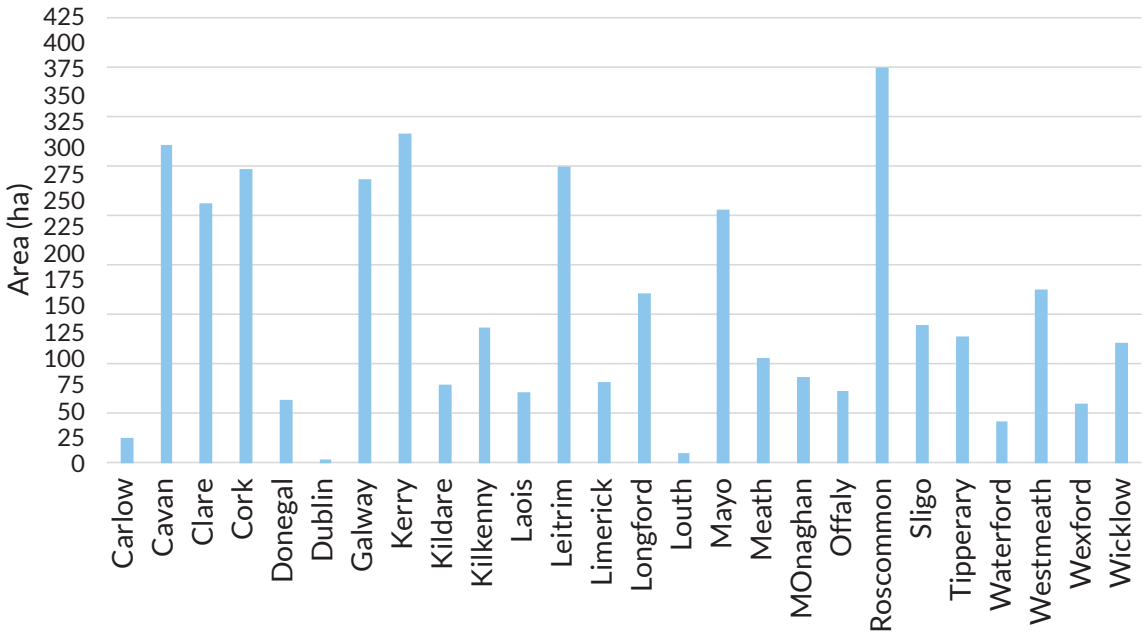
Afforestation

Payments were made by the Department in 2018 in relation to the afforestation of 4,025 hectares of land. As previously mentioned, overall broadleaf planting, which includes the planting of native woodlands, accounted for 27% of this figure, up from 21% in 2017. Counties Roscommon, Kerry and Cavan had the highest levels of afforestation during 2018, with between 300 and 400 hectares afforested in each county.

Chapter **FOUR**

Ireland's forest health status overall is relatively good. Ireland does not have the range of forest pests and diseases that are endemic on the Continent and further afield.

Figure 4.8 *Afforestation by County in 2018*



Source: Forest Statistics Ireland 2019, Department of Agriculture, Food & the Marine

4.6 Highlights

Woodland Environmental Fund (WEF)

The Department introduced the Woodland Environmental Fund (WEF) in 2018 to further support the planting of native woodlands. This new initiative provides an opportunity for businesses to partner with the Government and Irish landowners to get behind the national effort to plant an additional 5 million native trees during the remaining two years of the programme. The WEF ties in with the Department's existing Afforestation Scheme which covers 100% of the cost of establishing native woodlands and also pays an annual premium to the landowner of up to €680 per hectare payable each year for 15 years (this equates to a potential payment by the Department of up to €16,420 per hectare of native woodland over the duration of the contract). The WEF involves an additional top up of €1,000 per hectare by the business as a once-off payment for farmers and other private landowners. Businesses taking part in the WEF are able to demonstrate their corporate social responsibilities by funding projects that are good for the environment and society as a whole. The response to this initiative amongst the business community has been very positive and a number of businesses have already begun the process of committing funds to this scheme.

Three new Biodiversity Schemes launched by the Department

Three new measures to support biodiversity of Irish forests were introduced by the Department in January 2019, arising from the Mid-Term Review of the Forestry Programme undertaken in 2017 and completed in 2018. These were:

- The introduction of tree guards and deer fencing grants as part of a new "Forest Fencing and Tree Shelter Scheme" to reduce the risk of deer damage for existing broadleaf forests;
- Inclusion of a new continuous cover forestry measure as part of the Woodland Improvement Scheme which will generate more diverse habitats for wildlife by

creating forests with a more varied age structure. The objectives of the measures are inter alia to enhance environmental benefits of existing coniferous forests by opening up the canopy and creating new habitats for wildlife, to create an uneven canopy structure with the aim of producing high quality, high value logs and to promote a more suitable management option in sensitive sites.

- Grant aid to carry out a second thinning intervention for broadleaf forests to stimulate investment in the improvement, protection and development of young broadleaf forests for a range of functions, including the improvement of the quality of hardwoods being produced thereby increasing the value of the broadleaf forest for the owner, to encourage healthy tree growth and for landscape and biodiversity enhancement.

Promotion of Forestry

The Department continues to promote forestry as a viable land use option and highlights the many benefits derived from forestry. A Forestry Promotions Working Group was established in 2018, consisting of representatives from the Department, Teagasc and the forestry sector to provide a forum within which to put forward ideas on how to develop and promote the forestry sector in Ireland.

In January 2019 the Department advertised, in national newspapers, for proposals to help promote forestry. This call for proposals consisted of three focus areas, namely:

To increase public awareness of the social and health benefits of forestry; encouraging people to use the forest resource for their enjoyment and well-being;

To help achieve planting levels as set out in the Forestry Programme 2014-2020 and in particular to help achieve a broadleaf planting target of 30%;

To promote timber mobilisation amongst private forest owners through more active forest management and encourage owners to develop multifunctional uses of their resource;

The Call resulted in the submission of a wide range of innovative proposals of which 15 were approved. Letters of offer issued in early April 2019 to the 15 successful applicants, with funding of €830,000 for the two years 2019 and 2020.

Establishment of Forestry Appeals Committee

The Forestry Appeals Committee (FAC) was established in 2018. The FAC acts as an appeals body for applicants or third parties who are dissatisfied with decisions made by the Department regarding licences for afforestation, tree felling, forest road works and aerial fertilisation. The FAC is independent of the Department and is based in the Agriculture Appeals Office in Portlaoise.

4.7 Challenges

11% of Ireland's land area is currently forested, ensuring a consistent supply to the timber processing sector while providing climate change benefits. In order to maintain the climate change benefits of Irish forests the current national afforestation programme needs to be continued, with increased levels of afforestation over the next two decades. The Forestry Scheme is voluntary for all landowners, with planting decisions subject to a range of factors, including economic outcome of planting, environmental designations, availability of other land

use options and soil quality. Afforestation is currently being promoted as a viable land use option for landowners which may complement other farming enterprises. The Department has applied increases in certain grants and premiums available under the Afforestation Scheme to encourage new planting. A Forestry Programme Implementation Group was also established in May 2018. This group, which represents the forestry sector, State organisations and environmental NGOs, was set up to monitor the implementation of the Forestry Programme. The purpose of the group is to:

- Monitor the progress on implementation of the various measures and schemes under the programme;
- Identify issues in relation to delivery of targets and discuss how these issues can be resolved; and
- Provide a forum for direct engagement between all of the various stakeholders.

The expansion of the forest estate must be compatible with environmental sustainability and must be undertaken in a planned manner that ensures that only appropriate afforestation takes place in accordance with the principles of sustainable forest management (SFM) which balances the economic, environmental and social aspects. Forest certification is a voluntary process used by forestry owners to reassure consumers that the wood and wood products they buy comes from sustainably managed forests. Certification independently assesses forest management planning and practices against a sustainable forestry management standard. According to the COFORD Wood Mobilisation Group Report (2015), few (estimated to be less than 6,000 ha in total) privately owned forests are certified under the FSC or the PEFC in Ireland. The Department launched two initiatives in 2018 (the establishment, on a pilot basis, of two certification groups for private forest owners, and a template for certification) to assist forest owners in this regard.

4.8 Main Threats to the Forestry Industry in 2018-2020

Concerns have been expressed about the extent to which conifers have been planted, over the years, under afforestation schemes. The most recent National Forest Inventory (2017) found that the conifer species are the most dominant species present in the national forest estate, representing 71.2% of the stocked forest area. Broadleaved species accounted for 28.7%. The share of broadleaf species having increased by 3% between 2013 and 2017. It is necessary to ensure a sustainable level of future timber supply for the wood processing and wood energy sectors, while species choice not only has to take account of the implications of climate change but also needs to be aligned with future market requirements and carbon sequestration capacity. While the Department is promoting the planting of broadleaves, the choice of species mix may be determined by landowners on the basis of soil quality and length of crop cycle.

It is considered that the extreme weather conditions experienced in 2018, with severe snowfalls in March and drought in early Summer, impacted on planting decisions and forests generally. Typically, mature trees and trees in forest situations are capable of dealing with periodic drought due to deeper rooting systems and shading and protection of soil from the effects of evaporation. As recently planted trees are more likely to undergo moisture stress than mature trees, many sites with recently planted trees were impacted during the drought conditions of summer 2018. The risk of forest fires peaks in spring, particularly in forests established on formerly unenclosed land, with a preponderance of purple moor grass and heather vegetation. The significant drought event in June and July 2018, however, facilitated high fire risk conditions across much of Ireland for an extended period.

4.9 Brexit

The Irish timber industry is uniquely exposed to Brexit, with over 80% of our exported forestry and wood-based products going to the United Kingdom. Future growth within the industry is seen as highly dependent on ongoing access to the UK market. Over 85% of the output from the panel board sector in Ireland as well as 85% of Irish sawmills output of construction timber is exported. In 2018, Ireland exported some €360 million of forestry products to the United Kingdom representing 84% of all forestry products exported. An additional €40 million of wood based products were also exported to the United Kingdom representing almost 80% of total wood based product exports.

In the event that the United Kingdom exits the European Union without a withdrawal agreement in place tariffs are unlikely to be a problem for Irish sawn timber being exported to the United Kingdom as this product category is zero-rated by the World Trade Organisation (WTO). However, a WTO tariff rate of 7% applies to particle board, oriented strand board (OSB) and similar board products and coupled with potential currency fluctuations this could have a significant impact on the competitiveness of Irish timber products in the United Kingdom market. Transport costs are also a competitiveness issue for Irish saw mills and other timber product manufacturers. Any new logistical costs, for example from delays encountered with new Customs checks to enter the United Kingdom, could impact on the competitiveness of all Irish timber products in that market.

Other potential impacts from Brexit on the sector relate to three main areas: import controls, export certification, ISPM No. 15 and wood packing material.

In terms of import controls, the importation and movement of certain wood and wood products within European Union from non-EU (3rd Countries) is regulated under Council Directive 2000/29/EC, commonly called the Plant Health Directive. This Directive sets out the phytosanitary (plant health) requirements in order to prevent the introduction and spread of organisms harmful to plant and forest health.

Again, in the event that the United Kingdom exits the European Union without a withdrawal agreement in place the introduction of certain forestry plants, wood and wood products from the United Kingdom into the EU (including Ireland) will be regulated under the Directive in the same manner as for other 3rd Countries. Amongst other things this will require importers to obtain Official Certification of any regulated commodity in the United Kingdom prior to its export to the European Union. Advance notification of any imports to Ireland will need to be made to the Department. Departmental inspection of regulated consignments will also need to be performed, prior to their release from Customs' control.

Similarly, in terms of the export of wood and wood products from Ireland to the United Kingdom, in the absence of a relevant deal, wood and wood products will be regulated by United Kingdom's own national phytosanitary legislation and rules. Irish exporters may potentially be required to obtain Official Certification of United Kingdom regulated commodities in Ireland from the Department prior to export to the United Kingdom and to provide advance notification to United Kingdom authorities of exports of regulated commodities, both in the case of exports to Great Britain and to Northern Ireland.

In terms of ISPM No. 15 and wood packing material. ISPM No. 15 is an international phytosanitary (plant health) measure developed by the International Plant Protection Convention (IPPC) that sets down standards for the phytosanitary treatment and marking of Wood Packaging Material (WPM). WPM is a term used to describe pallets, crates, dunnage etc. used in international trade for the transport of goods of all kinds. The aim of ISPM No.15

is to prevent the international movement and spread of disease and insects harmful to the health of plants, trees forests or ecosystems. ISPM No. 15 does not currently apply to Ireland-United Kingdom trade. However, if the United Kingdom leaves the European Union without a deal addressing this matter, ISPM No.15 will apply to European Union - United Kingdom trade to goods of all kinds.

Source: Department of Agriculture, Food and the Marine, 2017 Ireland's National Forest Inventory 2017 – Main Findings

IBEC / Irish Forest and Forest Products Association (IFFPA) 2017 position paper on Brexit

4.10 Forests and Climate Change

Afforestation has played an important role in Ireland's climate change mitigation in recent decades. Forests remove and store carbon dioxide from the atmosphere. The use of wood ensures that carbon is stored for a long period of time and substitutes materials with higher embodied energy and emissions. Climate change presents challenges and risks to forests. It is important that adaptation options are considered to improve resilience. Climate change will have impacts resulting from increased levels of atmospheric CO2, changes in air and soil temperatures, changes in rainfall patterns and extreme events such as wind. Ireland's first Statutory National Adaptation Framework (NAF) was published in 2018 which outlines the national strategy to reduce the vulnerability and negative effects of climate change. The NAF was developed under the Climate Action and Low Carbon Development Act 2015. An agricultural, forestry and seafood plan will be further developed in 2019.

The national forest estate is an important and expanding carbon sink at approximately 312 million tonnes. Based on the National Forest Inventory, Ireland's forests have removed an average of 3.8 million tonnes of carbon dioxide equivalent per year from the atmosphere over the period 2007 to 2016. In addition carbon is also stored in harvested wood products. In the

context of climate change and the growing bioeconomy it is important that the use of wood and associated products continues to increase.

Within the United Nations Economics Commission for Europe (UNECE) region, wood energy is the principal source of renewable energy. Most of this demand is concentrated in the European Union, driven in part by the EU 2020 renewable energy targets. In 2016, over 1.78 million tonnes of forest based biomass was used for energy purposes in Ireland; this helped to avoid an estimated 990,000 tonnes of CO2 from fossil fuel use.

See chapter 8 for more information on climate change and the environment.

Source: Department of Agriculture, Food and the Marine, 2017 Ireland's National Forest Inventory 2017 – Main Findings

4.11 Ireland & EU Outlook for 2020 - 2021

Outlook Ireland

Irish forests continue to supply increasing amounts of wood for the sawmill, panel board mill and the wood energy market. Significant increases in potential timber supply are forecast over the medium term to 2025 which will exclusively come from private forests. It is estimated that there will be a doubling of round wood output on an all-Ireland basis from approximately 4 million m^3 in 2018 to 7.86 million m^3 by 2035.

In 2018, exports of forest products from the Republic of Ireland were over €429 million, an increase of 12% on 2017. Wood Based Products accounted for over €51 million, a 2% increase on 2017 figures. World global demand for timber products continues to increase. The Irish sawmilling sector is well placed to process this increased production in supply with the majority of products exported to markets in the UK and further afield. This increased production will require increased mobilisation of timber and increased forest road construction. The levels of independent forest certification within the private forest estate must increase if the forecasted timber supply is to access existing markets both home and abroad. Initiatives by DAFM provide targeted funding to encourage forest certification and recently increased grant rates will facilitate forest road construction and mobilisation of timber. DAFM funding for the preparation of forest management plans encourage forest owners to plan and continue sustainable management practices. With over 23,000 individual forest owners with forest holdings averaging just 8.7 hectares, cooperative approaches such as road building, knowledge transfer and timber producer groups will prove important. Other significant challenges include Brexit and the need to maintain access to UK markets where in excess of 84% of forestry products are exported.

At the international level, DAFM also continues to participate in Forest Europe which is the platform for pan-European forest policy development and implementation. Efforts by Forest Europe members to re-engage in negotiation of a Legally Binding Instrument on Forests in Europe continue and may extend into 2020/2021.

During 2018, two key EU Regulations were adopted, the Effort Sharing Regulation and the Land Use and Forestry Regulation, which set climate change targets for the 2021-2030 period. These Regulations address the specificities of accounting emissions and removals from land use and provide recognition of land based mitigation measures in line with the Paris Agreement. This will result in forests and other lands playing an important role in Ireland's emission reduction targets and will require continued efforts to expand forest cover and to protect the existing forest estate.

Outlook EU

At EU level, Member States continue to tackle a range of issues such as illegal logging, deforestation and forest degradation through two core instruments under the guise of the Forest Law Enforcement, Governance and Trade (FLEGT) Action Plan. These are the EU Timber Regulation (EUTR) which prohibits the first placement of illegal timber on the EU market and which requires all operators to apply robust due diligence systems to ensure the legality of timber and timber products placed on the EU market. Similarly, the FLEGT Regulation aims to ensure timber legality through voluntary partnership agreements (VPAs) with developing countries, in this case as a border control measure. Timber imports to the EU from Indonesia now require FLEGT VPA licensing as an EU border control measure. The EU continues its VPA work with other Third Countries with a view to beginning FLEGT VPA licensing.

DAFM continues to participate at international level and remains active in global forest policy development at both the United Nations Forum on Forests (UNFF) and at the UN Food and Agriculture Organisation's Committee on Forestry (COFO). Among the core themes of importance considered at these fora are issues relating to inter alia global implementation of sustainable forest management, halting deforestation and forest degradation, monitoring, assessment and reporting, means of implementation and progress towards achieving forest related sustainable development goals under Agenda 2030 and under the UN Strategic Plan for Forests.

CASE STUDY

Development of the walkway around the Upper Vartry Reservoir Roundwood

Coordinator – Kevin Collins
Collaborating Institutions – Purser Tarleton Russell
Grant Award – €133,000
Duration – 12 years

Forestry can assist in delivering on a number of the United Nations Sustainable Development Goals (SDG) including:

SDG No.	
3. Good health and well being	Forests provide the ideal 'venue' for outdoor recreation, with a beneficial impact regarding physical health and mental well-being.
15. Life on land	New native woodlands provide a semi-natural environment that provides a home for a wide range of plants and animals, including woodland specialists, woodland generalists and 'ruderals' (or opportunists). They can be used strategically to augment existing ancient woodland and to create linkage throughout the landscape between other semi-natural habitats, including rivers, species-rich grasslands and upland heaths.

The NeighbourWood Scheme, operated by the Department, is aimed at realising the recreational and wider social benefits woodlands and forests can provide. The NeighbourWood Scheme

is designed to help community groups, in cooperation with local authorities, to develop opportunities for recreation while creating and developing woodlands for the benefit of current and future generations. The Scheme is also designed to provide outdoor classrooms for teachers to show children the important contribution forests make to society in terms of social, economic and environmental benefits.

Funding from the Department of Agriculture, Food and the Marine was provided under the NeighbourWood Scheme for a project undertaken by the Roundwood and District Community Council (RDCC), which is outlined below.

The project to enhance and further develop the recreational benefits of existing woodland around the Upper Vartry Reservoir Roundwood was undertaken by the RDCC and co-funded by the Department of Agriculture, Food and the Marine, the Department of Rural and Community Development, Irish Public Bodies (IPB) together with Wicklow County Council. It was formally opened by An Taoiseach, Leo Varadkar T.D., and Andrew Doyle T.D., Minister of State at the Department of Agriculture, Food and the Marine with responsibility for forestry, on 9 June 2018.

The Roundwood Neighbourwood Project itself has brought the existing woodland to a better standard for recreational use through surfacing trails, putting in place informative signage and carrying out maintenance programmes once dead trees and undergrowth have been cleared. The project will also raise awareness of the woods as an important natural heritage and landscape amenity area for residents and visitors. The woodland structure has been improved through light selective thinning to facilitate development of regeneration (both natural and planted) enhancing its ecological function. This successful work has opened the woodland to a variety of user groups such as local people exercising both themselves and their dogs on a daily basis, families as access is now safer and there is a myriad of paths for children to explore, other walking groups (particularly active retirement groups), visitors (as the scenery in the area is fabulous with great views of the Sugarloaf and Scarr), local clubs such as the athletic club who use the tracks for training, the local soccer club whose pitch adjoins the woodland and birdwatchers and, of course, those interested in the history of the Vartry Reservoir.

CHAPTER 5

Marine

Over **14,000** people employed in the wider Seafood sector

305 Aqua-licence determinations were made in 2018

Ireland's **Clean Oceans Initiative** was launched in 2019

5.1 Overview

As an Island nation fishing has always been economically and socially important to Ireland. The natural, clean water around Ireland's 7,500km of coastline has provided exceptionally good seafood for thousands of years and it is important to protect this resource for future generations.

The seas around Ireland (ICES Sub Areas VII[1] and V1[2]) contain some of the most productive and biologically diverse areas in EU waters. Most of the fisheries stocks within these areas come under the remit of the Common Fisheries Policy (CFP). The most recent Common Fisheries Policy, which is reviewed every 10 years, came into force on the 1st January 2014. This policy aims to ensure that fishing and aquaculture are environmentally, economically and socially sustainable.

1 The sea around Rockall, Northwest Coast of Scotland and Northern Ireland.
2 The Irish sea and the sea West of Ireland, Porcupine Bank, Eastern and Western English Channel, Bristol Channel, Celtic sea and the east and west division of the sea to southwest of Ireland.

5.2 General Fisheries Situation in 2018

Ireland:

The value of Irish seafood exports in 2018 was estimated to be in the region of €578m, a 6% decline on the record value attained in 2017. Challenges were found across the sector and particularly so in salmon where both fresh or chilled and frozen salmon export values declined by around 44%, these declines were a result of limits on production volume.

EU:

The main EU markets, France, Spain, Italy, the United Kingdom and the Netherlands account for approximately 59% (€340m) of total exports by value.

International:

The International market accounted for approximately 30% (€172 million) of total exports in 2018. Exports to the three main Asian markets (China, Republic of Korea and Japan) increased by an estimated 19% in value terms in 2018 compared to 2017. These markets accounted for 14% (€82 million) of total seafood export values. The wider South East Asian markets (China, Republic of Korea, Japan, Taiwan, Vietnam, Singapore, Malaysia and Thailand) accounted for over 15% (€87m) of total export values in 2018.

Source: Central Statistics Office, Trade Statistics 2018

Figure 5.1 *Worldwide Fish exports, 2009-2018*

Source: Central Statistics Office, Trade Statistics 2018

5.3 Seafood Exports

Trade:

In the pelagic sector, where the main commercial pelagic species caught by Irish vessels include mackerel, herring, horse mackerel and blue whiting, a reduction of 20% in Ireland's total allowable catch for mackerel had a direct impact on the volumes exported in 2018. However, prices and demand for Irish mackerel were strong particularly in Asia where there was a shortage of stocks. The best performing pelagic markets in 2018 were in Asia and in Europe. Demand for Irish mackerel in China increased by around 10% in value during 2018.

The African markets performed well earlier in the year but struggled to match the new price levels resulting in an annual reduction in both value and volume of about 6%. Core markets in Europe also saw a decline in export values and volumes of less than 10%. Spain remains our main market for whitefish followed by the UK and France. The Irish whitefish total allowable catch remained relatively stable in 2018 compared to 2017.

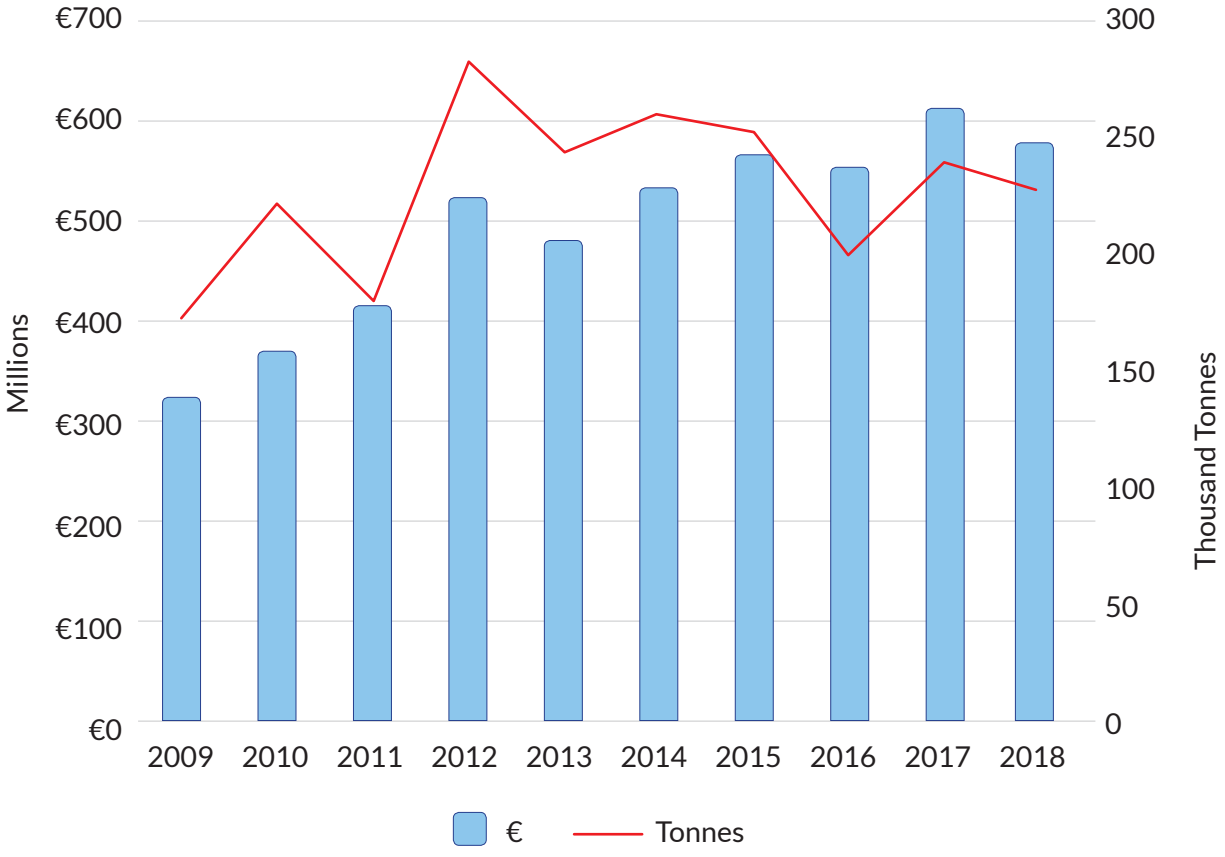
Export values of Irish shellfish were extremely strong throughout 2018 as demand continued across many export markets.

The Irish oyster sector had another good year with export values increasing by 8% despite volumes dropping by about 2%. Exports of oysters to China continue to drive the majority of the value gains with exports to China increasing by 76%.

In 2018, salmon export values dropped by 30% despite a small increase in price. The volume of fresh or chilled Atlantic salmon exported in 2018 reduced by 46%. Total salmon exports fell from just over 12,000 tonnes in 2017 to nearly 8,600 tonnes in 2018.

The French market continued to dominate Irish salmon exports, accounting for almost half of the total value in 2018 despite decreasing in value by one third.

Figure 5.2 *Value of Seafood exports, 2009-2018*



Source: Central Statistics Office, Trade Statistics 2018

CASE STUDY

Brown Crab Certification for the Chinese market

In 2015, the Sea Fisheries Protection Authority (SFPA), a public body under the aegis of the Department of Agriculture, Food and the Marine, was formally notified by the Chinese General Administration of Quality, Supervision, Inspection and Quarantine) (AQSIQ), the government organisation that conducts import controls in China, that they had discovered that a number of consignments of live brown crabs (Cancer pagurus) exported from Ireland were shown to contain the heavy metal cadmium at levels exceeding the Chinese limitation standard.

This led to an in depth series of communications and discussions with the Chinese authorities, supported by Irish Embassy staff in Beijing, to help resolve the issue. As a result of differences between the cadmium testing approach outlined in European legislation and the testing approach in place in the Chinese system and the biological variability of accumulation of cadmium in certain tissues in crab, a suitable technical solution was required. During this time the SFPA was unable to certify any consignments of live crab to China.

As part of these ongoing negotiations with the AQSIQ, the SFPA hosted a 4 person AQSIQ audit team for eight days in May 2016. The purpose of the visit of this delegation team was to inspect Ireland's system of food safety official controls applicable to edible aquatic animals. The majority of the trip focused on our system of official controls on live brown crab (Cancer pagurus) in particular heavy metal analysis of crab.

The audit included the following visits:

- A trip to the SFPA Headquarters in Clonakilty for introductions and opening meetings which were followed by a visit to the BIM Seafood Development Centre.
- A trip to Galway to visit the Public Analyst Laboratory where samples of various foodstuffs are analysed for different contaminant.
- A visit to the Marine Institute (MI) laboratory facilities where information was provided on various testing programmes carried out in the Institute.
- A visit to a live crab holding facility in Sligo supervised by the SFPA.
- A visit to a live crab holding facility in Donegal supervised by the SFPA which included a trip to sea to observe operations on a crab fishing vessel.
- The trip was concluded with a closing meeting in Dublin to discuss initial findings of the Chinese audit team. This also included a presentation provided by Bord Bia on the Origin Green programme.

This was followed by a reciprocal visit of SFPA and Marine Institute staff to the AQSIQ offices in Beijing to discuss the final stages of a solution. These on-going negotiations and communications resulted in a technical agreement, endorsed Diplomatically by the Minister for Agriculture, Food and the Marine, Michael Creed T.D. at a meeting with his Chinese counterpart in April 2017 which permitted the resumption of SFPA-certified trade flows of live crab to China. The essence of the agreement was that a new format health certificate for the export of 'Live Aquatic Animals to China' was agreed for use in the export of live crab. Changes to the new certificate were the result of the significant dialogue with AQSIQ importing authority in China to resolve the issue of Cadmium-related certification.

When the market re-opened for exports of live crab in 2017 a total of 512 consignments were exported to China that year. As of the end of November 2018 approximately 790 consignments of live brown crab have been exported to China.

Source: Department of Agriculture, Food and the Marine

5.4 Brexit

Ireland has, by working closely with stakeholders and other concerned EU Member States ensured, that Irish and EU fisheries concerns are high on the EU agenda and that fisheries has not been isolated in the overall Brexit negotiations. The negotiation guidelines for the future relationship between the UK and the EU States "In the overall context of the FTA (Free Trade Agreement), existing reciprocal access to fishing waters and resources should be maintained;" while Article 125 of the transitional arrangement provides that the Common Fisheries Policy will continue to apply in full to the UK including maintaining existing reciprocal access to waters and resources. Ireland has also been a leading force in the European preparations for a Disorderly Brexit and mitigating the potential impacts this would have on the 8 member states whose fisheries would be most affected in this scenario. As a result, the EU has announced measures to protect fisheries in the event of the UK leaving without a deal. These outcomes fully reflect Ireland's position and the focus now will be to continue to work to ensure the best possible outcome for the Seafood sector.

5.5 Common Fisheries Policy

Common Fisheries Policy:

The most recent Common Fisheries Policy came into force on 1 January 2014 and will remain in place until the next review which is scheduled for completion by the end of 2022. The overarching goal of this policy is to ensure that fishing and aquaculture are environmentally, economically and socially sustainable thus resulting in a competitive and viable Seafood sector for all.

A main objective of the Common Fisheries Policy is to allow for the rebuilding of fish stocks in European waters over time which will support the viability of the Irish fishing industry through long term management of stocks, reducing and eliminating discards and rebuilding stocks to Maximum Sustainable Yield (MSY).

Some of the key features of the current Common Fisheries Policy are:

Regionalisation – The reform has changed the way in which the Common Fisheries Policy is managed, giving EU Countries with mutual interests greater control at national and regional level. The North West Waters Regional Group of Member States (Ireland, Belgium, France, UK, Netherlands and Spain) meet regularly, to agree discard plans and other fisheries measures in consultation with the relevant stakeholders. Ireland chaired this regional group for the first half of 2018, playing a lead role in developing discard plans and other measures in order to ensure that the discard ban was fully implemented across all Total Allowable Catch (TAC) species in 2019.

Maximum Sustainable Yield (MSY) - MSY levels allow the fishing industry to take the highest amount of fish from the sea while keeping fish stocks healthy. The responsible catch limits proposed by the European Commission in the Atlantic, the North Sea and the Baltic Sea has seen over exploitation decline drastically over the last number of years.

Fishing opportunities negotiated at the December 2018 Agriculture and Fisheries Council were negotiated and fixed in line with this objective. This objective will bring 59 stocks for which data are available to MSY levels in 2019, as opposed to five stocks in 2009. The Minister for Agriculture, Food and the Marine, secured 193,613 tonnes of quotas worth €260 million for Irish fishermen for 2019.

Multi-Annual Fisheries Plan – The aim of multi-annual fisheries plans is to restore and maintain fish stocks at sustainable levels while ensuring the social and economic viability for fishermen operating in certain regions. They also contain measures to implement the landing obligation, technical measures as well as safeguards for remedial action where needed.

To date five multi-annual plans (MAPs) have been proposed by the European Commission in line with the Common Fisheries Policy, the Baltic Sea MAP, North Sea MAP, Adriatic Sea MAP, the Western Mediterranean MAP and the Western Waters Multi- Annual Plan (MAP). In March 2018, the European Commission proposed the Western Waters multiannual plan for management of fisheries in Western Waters. This plan concerns the fleets of Ireland, Belgium, Germany, France, Spain, Portugal and the UK in the Atlantic Ocean. Negotiations resulted in a provisional political agreement between the Council, the Commission and the European Parliament. This plan is on schedule to come into full effect in 2019.

The plan covers demersal fish stocks, i.e. fish that live and feed at the bottom of the seabed. These species bring a significant income to the fisheries sector. For these stocks, the multi-annual plan will enable Regional Advisory Committees to recommend measures tailored to their particular fisheries, thus underpinning continued sustainability. For other stocks, the plan will support recovery to ensure that even more stocks will be sustainably fished in the coming years.

Phased ending of discards – The discard ban or landing obligation, which is a key element of the Common Fisheries Policy, is being phased in over a number of years and aims to be fully implemented by 2019. The objective of the landing obligation is to eliminate the wasteful and unsustainable practice of discarding. The phasing-in-period gave fishermen time to adjust and implement changes that will allow for the avoidance of non-target species.

The landing obligation is implemented through discard plans developed through joint recommendations which have been agreed by groups of Member States from the same region or sea basin. Since October 2014 the European Commission has adopted several discard plans in the waters of interest to Irish fishermen in preparation of the implementation of the landing obligation.

The North West Waters Regional Group of Member States, which is in place to manage fisheries at a regional level under the Common Fisheries Policy, meets regularly to agree discard plans and other fisheries measures in consultation with the relevant stakeholders. The group also discussed various implementation issues for the landing obligation and also agreed to the inclusion of additional measures to support the phasing in of the landing obligation by the target date of January 2019.

It is expected that over time, the landing obligation will lead to an improvement in the state of the stocks of importance to Ireland and will result in increased fishing opportunities for the Irish fishing industry.

5.6 Fish Quota Management

The management arrangements for quotas differ from species to species and are determined by the Minister for Agriculture, Food and the Marine following regular formal consultation with Industry representatives. A key objective of whitefish quota management is the avoidance of very early closure of fisheries through rapid exhaustion of quota. This is important because our whitefish fisheries are mixed and an early closure may lead to discarding of fish and would undermine the effective implementation of the landing obligation which prohibits discarding of fish at sea.

There are 8 principal managed pelagic stocks (Mackerel, Celtic Sea Herring, North West Herring, Atlanto-Scandian Herring, Horse Mackerel, Blue Whiting, Boarfish and Albacore Tuna) and the particular management of each is further subdivided between various sectors of the fleet. The fishing of pelagic species is generally confined to the spring and the autumn. Since 1 January 2015 pelagic stocks have been subject to the landing obligation.

To align the principles of the landing obligation to Ireland's quota management system, the Minister for Agriculture, Food and the Marine at the request of, and with the assistance of, Industry representatives developed and put in place a conservation measure (a Pilot Quota Balancing Policy for Pelagic Stocks) in December 2017. The Quota Balancing system is a management, conservation and rational exploitation measure to aid matching catch limit to actual catch to support landing obligation requirements. Work on a pilot policy for Quota Balancing demersal stocks is also underway with a view to implementation during the year.

The landing obligation as provided for under Regulation (EC) No.1380/2013, Article 15 (CFP) relates to conservation. Quota balancing means that a balancing adjustment when a catch allocation to a vessel is exceeded will be made from future allocations of fishing opportunities and will operate independently of any action being considered or taken by the control authorities.

5.7 The Irish Fishing Fleet

The Irish fishing fleet can be broken down into five categories:

Specific

This category covers vessels permitted to fish for bivalve mollusc and aquaculture species. There were 153 vessels registered under this category at year end 2018.

Polyvalent

Polyvalent vessels totalling 1,721 made up the majority of the Irish fishing fleet (approximately 90%) in 2018. These vessels are multi-purpose and include both smaller inshore vessels and medium or large offshore vessels used to land whitefish, pelagic fish and bivalve molluscs.

Beam Trawler Segment

This category contained 10 vessels dedicated to beam trawling, a simple trawling method used predominantly in Irish inshore waters (except in the southeast), where it is used to catch flatfish such as sole and plaice.

Refrigerated Seawater (RSW) Pelagic Segment

This segment contained 23 vessels engaged predominantly in fishing for pelagic species (primarily herring, mackerel, horse mackerel and blue whiting).

Aquaculture Segment:

The 98 vessels in this category must be exclusively used in the management; development and servicing of aquaculture areas and can collect mussel seed subject to an authorisation for that purpose under section 13 of the Sea-Fisheries and Maritime Jurisdiction Act 2006, as part of a service to aquaculture installations.

Table 5.1 *The Irish Fishing Fleet 31 December 2018*

Irish Fishing Fleet 31 December 2018			
Segment	**Number of vessels**	**Gross Tonnes**	**Kilowatts (kW)**
Polyvalent	1,721	32,230	115,879
Pelagic	23	24,834	47,109
Beam Trawl	10	1,085	2,715
Specific	153	2,280	12,401
Total	1,907	60,429	178,104
Aquaculture	98	3,485	10,455

Source: Licensing Authority for Sea Fishing Boad

5.8 Employment

With over 14,000 direct and indirect jobs across fisheries, aquaculture, processing and ancillary sectors, the seafood industry plays a vital role in the sustainable economic viability of many coastal communities across Ireland.

Table 5.2 *Employment in the Seafood Industry, 2017 and 2018*

	2017			2018		
	Full Time	**Part Time**	**Total**	**Full Time**	**Part Time**	**Total**
Fisheries	2,620	741	3,361	2,603	628	3,231
Aquaculture	1,014	898	1,912	1,064	861	1,925
Processing	3,097	901	3,998	2,904	988	3,892
Ancillary			5,367			5,311
Total			**14,638**			**14,359**

Source: Bord Iascaigh Mhara

5.9 Aquaculture Licensing

In December 2016 an independent Aquaculture Licensing Review Group was appointed by the Minister for Agriculture, Food and the Marine to review the process of licensing for aquaculture and its associated legal framework. The report of the Licensing Review Group was submitted to the Minister in May 2017.

The Review Group carried out a detailed investigation of the existing aquaculture licensing process, undertook comprehensive stakeholder consultation and examined comparative national and international consent systems to determine best practice for managing a complex licensing process in a transparent, environmentally appropriate and legally robust manner.

Since receiving the Report of the Review Group, the Department has engaged in detailed consideration of the recommendations set out in the Report with a view to their implementation, having regard to the legislative, environmental, technical and public interest issues that arise. The Department has also engaged closely with industry representatives and relevant State Agencies.

The core recommendation of the Licensing Review Group was to eliminate the Aquaculture Licensing backlog. In response the Department has undertaken a two year project to eliminate the shellfish licensing backlog. 305 licence determinations were achieved in 2018 and the Department is committed to achieving a further 300 licence determinations in 2019. This will effectively eliminate the shellfish licensing backlog as an issue affecting the aquaculture industry. The elimination of the shellfish licensing backlog will be significant for the industry and will provide the solid footing for the industry long demanded by industry representatives.

In relation to finfish aquaculture a focused modular approach towards addressing the backlog in finfish licensing will be accelerated. The processing of applications for finfish licences in the marine environment is significantly more complex than the situation in relation to shellfish aquaculture, due to the requirement for operators to produce Environmental Impact Statements and for the Department and relevant Agencies to analyse these reports in detail. The Department must then produce an Environmental Impact Assessment (EIA) in relation to each application.

At the end of 2018 Appropriate Assessments had been received by the Department in respect of twenty nine bays – Ballymacoda Bay, Ballyness Bay, Bannow Bay, Ballycotton Bay, Blacksod / Broadhaven, Castlemaine Harbour, Clew Bay, Donegal Bay, Drumcliff Bay/Cummeen Harbour, Dundalk Bay, Dungarvan Harbour, Galway Bay, Gweedore Bay, Kenmare Bay, Kilkieran Bay, Lough Swilly, Loughros Beg Bay / Slieve Tooey / Tormor Is., Mannin Bay / Slyne Head, Mulroy Bay, River Barrow and River Nore, Roaringwater Bay, Rutland Island and Sound, Shannon Estuary, Sheephaven Bay, Tralee Bay Complex, Trawbreaga Bay, Valentia Harbour/Portmagee Channel, West of Ardara / Maas Road and Wexford Harbour. These Appropriate Assessments fulfil the requirement under the EU Birds and Habitats Directives to adequately assess the impact of aquaculture licensing in 'Natura 2000' areas.

The elimination of the shellfish licensing backlog will be significant for the industry and will provide the solid footing for the industry long demanded by industry representatives.

5.10 Developing Sustainable Inshore Fisheries

Developing Sustainable Inshore Fisheries

The National Inshore Fisheries Forum (NIFF) met on three occasions during 2018 to discuss and develop proposals concerning inshore fisheries and their interactions with Natura 2000 sites. The NIFF is supported by a network of six Regional Inshore Fisheries Forums (RIFFs), which involve representation from inshore fisheries and other marine stakeholders. A dedicated website provides information on the work of the Forums: www.inshoreforums.ie.

Through the year, the NIFF was engaged in developing a strategy specific to the inshore sector, the first time an industry-led body has undertaken this task. An inclusive approach was taken to identify key issues and priorities for the sector, with a Steering Group made up of industry and State partners, including representatives of the NIFF. The process included a dedicated workshop as well as a public consultation. The strategy was launched in 2019.

The Minister for Agriculture, Food and the Marine approved an industry-proposed increase of the Minimum Conservation Reference Size for landings of North Irish Sea razor clam by Irish sea-fishing boats. The measure increased this minimum conservation size from 100mm to 125mm, following discussions with the National Inshore Fisheries Forum on the results of a public consultation on the proposal earlier in the year. A public consultation was also held on another industry-led management proposal that would see an increase to the minimum conservation size for landings of brown crab.

Management of the all-island mussel seed fishery continued in 2018, with the autumn fishing season commencing in September. The Marine Stewardship Council (MSC) issued continued certification for the fishery in July 2018 following a reassessment of the fishery completed by SAI Global. The certification, which is valid for five years, says the fishery has been found to comply with the MSC requirements and is well-managed and sustainable. This follows a previous conditional certification received in 2013.

Implementation of Natura 2000 Directives

Natura 2000 is an EU network of core breeding and resting sites for rare and threatened species, and some rare natural habitat types which are protected in their own right. The Marine Institute (the state agency responsible for marine research, technology development and innovation in Ireland) previously prepared a risk assessment of sea-fisheries interactions with Natura 2000 protected species and habitats along the South and West coasts of Ireland. It expects to complete a similar assessment for protected bird species in 2019. These assessments are being made under Article 6.2 of the European Union's Habitats Directive. A similar risk assessment was completed by the Institute in 2013 for fishing activities in Natura 2000 sites in the Irish Sea (East coast). The Institute also prepared a schedule for addressing the risks identified based on the type of fishery and the nature of the risk posed. Working with the National and Regional Inshore Fisheries Forums, the Government has commenced actions to address risks posed by sea-fisheries activities on a priority basis.

An appropriate assessment of the mussel seed fishery in the Irish Sea was concluded in 2018, with the Minister adopting the modified fisheries Natura plan and issuing a fisheries Natura declaration for the fishery.

5.11 Highlights

The 2019 fishing opportunities or TACs (Total Allowable Catches) secured for Ireland at the December 2018 Agriculture and Fisheries Council amounts to 193,619 tonnes of quotas worth €260 million for Irish fishermen.

5.12 Ireland and EU Outlook for 2020 - 2021

While there are significant challenges ahead for the Irish and EU seafood sector in the coming years this industry offers great potential for expansion. According to Bord Iascaigh Mhara, Ireland's Seafood Development Agency, the economic fundamentals of the sector are robust and point to long term sustainability and growth with key species such as organic salmon, mackerel, brown crab and Dublin bay prawns all growing in demand in our key markets.

Over the next decade, fish consumption is projected to grow by 42 million tonnes per annum, 30 kilos per person, according to the Food and Agriculture Organisation as the world population is set to reach 8 billion by 2025.

The Common Fisheries Policy stipulates that fishing will be progressively managed at the Maximum Sustainable Yield (MSY) levels by 2020 at the latest and this will allow the EU fishing industry to take the highest amount of fish from the sea while keeping fish stocks healthy and drastically reducing over exploitation.

CASE STUDY

Clean Oceans Initiative

Ireland's Clean Oceans Initiative was launched in 2019 by the Minister for Agriculture, Food and the Marine, Michael Creed T.D. The "Clean Oceans Initiative" sets the target for 100% of Irish trawlers to recover plastic waste from the oceans on every fishing trip. This initiative aims to have the participation of the entire Irish trawl fishing fleet in the scheme by 31st December 2019.

It is Minister Creed's ambition to have all Irish trawlers at every pier and every port actively participating in Ireland's first co-ordinated initiative on land and at sea to collect, reduce and reuse marine litter and clean up our marine environment. Building on the very successful Fishing for Litter campaign the Minister has challenged Bord Iascaigh Mhara to work with the fishing industry to ensure participation of 100% of Irish trawlers in the Clean Oceans Initiative by the end of 2019. Bord Iascaigh Mhara will report quarterly on the progress being made to meet that target.

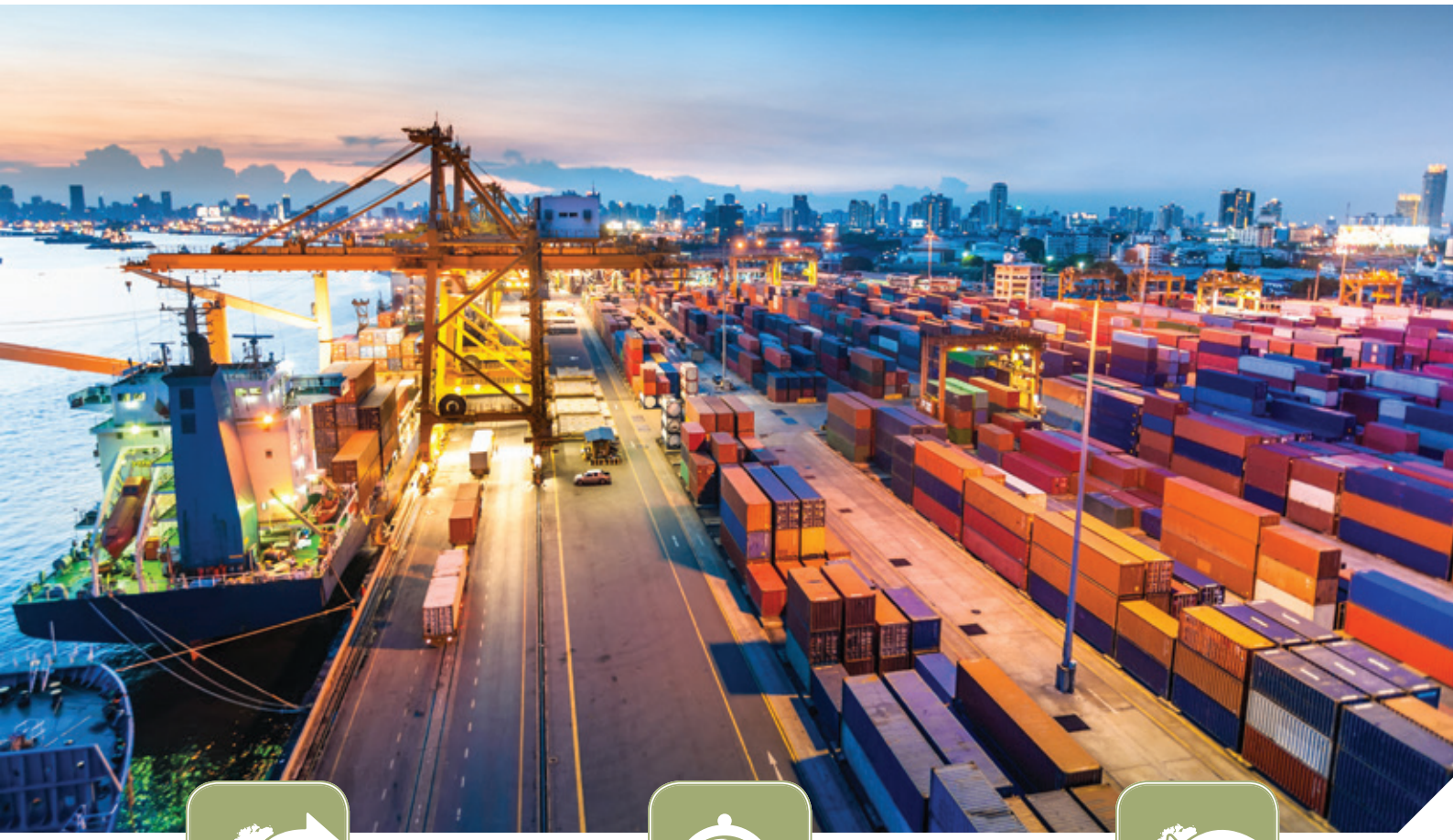
Funding has been made available under Ireland's European Maritime and Fisheries Fund (EMFF) to support the new "Clean Oceans Initiative" to provide on-board storage facilities and on-shore infrastructure for environmentally friendly disposal of all plastics, waste, ghost fishing gear, etc. recovered at sea. The on-shore infrastructure will also be available to fishermen and aquaculture operators to dispose of unwanted fishing gear and other items with a plastics content.

In addition to the "Clean Oceans Initiative", Minister Creed has asked Bord Iascaigh Mhara to assemble a collaborative team representative of all stakeholders to focus on solutions for marine litter prevention and removal. The team will include fishermen and fish farmers, net makers, harbour authorities, fish processors, community groups, Fisheries Local Action Groups (FLAGs), academics and NGOs. He has also asked Bord Iascaigh Mhara to include a broader outreach to the wider coastal community, of which the seafood community are a vital and intrinsic part and to report progress by the end of 2019 with proposals for further innovative solutions for the prevention and removal of marine litter.

Contamination in the marine environment is not a new phenomenon and up to 80% of marine debris is made up of plastics. Total World production of plastics reached 335 million metric tons in 2016. Plastics do not biodegrade, they photo-degrade, breaking up from recognisable items of all sizes and shapes into tiny particulates. The risks posed to marine wildlife by waste plastics has motivated research to assess the extent of the problem. Remedial actions are now necessary to promote all possible measures to prevent plastics from entering our marine environment and to remove as much plastics from the marine environment as possible.

CHAPTER 6

Agri-Food sector trade



Agri-food sector exports have grown by 73% since 2009 to approximately **€13.7 billion**, in 2018.

The Prepared Consumer Foods sector accounted for over **€2.6 billion** in agri-food sector exports in 2018.

The agri-food sector accounted for **11%** of Ireland's total imports in 2018.

6.1 Overview

Irish food is produced by thousands of farmers, fishermen and agri-food companies around the country, and this locally produced food is exported to over 180 countries around the world, with agri-food exports totalling approximately €13.7 billion in 2018. This supply chain, stretching from rural and coastal areas all across Ireland to distant markets in Asia and Africa underlines the sector's pivotal role as a driver of the Irish economy.

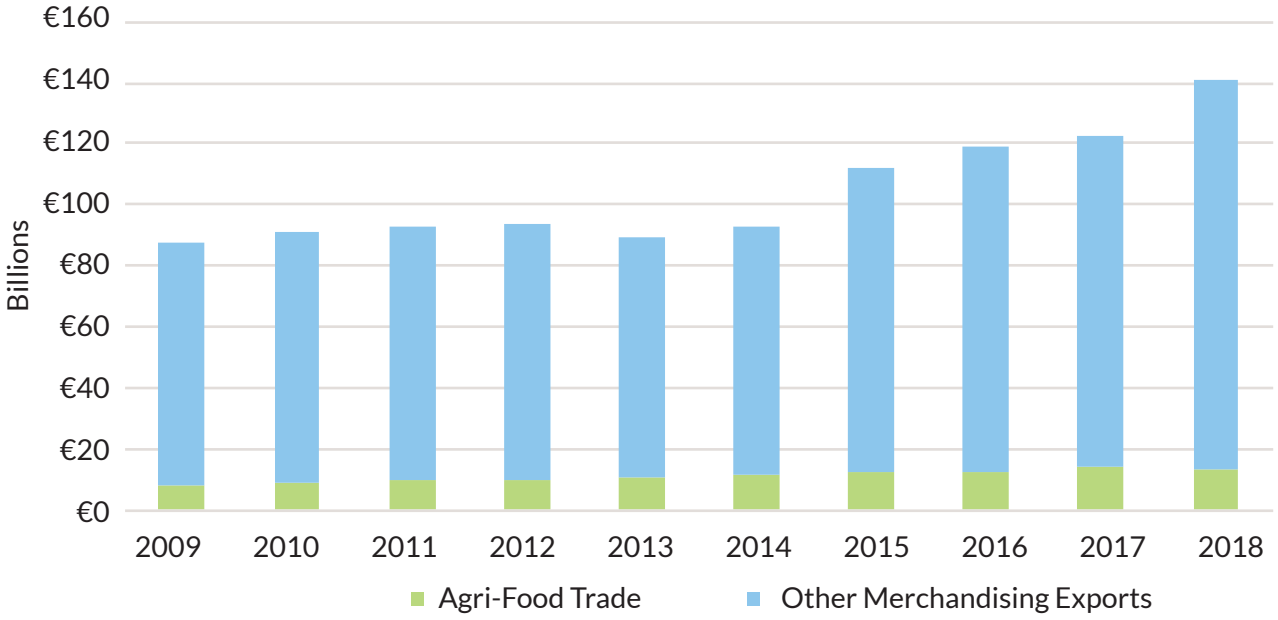
The volume of agri-food products exported in 2018 continued to grow for the ninth year in a row, up 4% on 2017. The value of agri-food exports for 2018 was approximately €13.7 billion

down slightly from a record €13.8 billion in 2017. The slight reduction in value of 1% in 2018 was due to a combination of factors such as global price volatility and currency fluctuations.

Ireland is an open economy which exports the vast majority of its agricultural products. Irish exports of agricultural products accounted for 10% of total merchandising exports. During the period 2009 to 2018, agri-food sector exports grew by €5.8 billion, from €7.8 billion to approximately €13.7 billion, an increase of 73%.

Global exports of all goods for 2018 was over €140 billion by value, a 15% increase on 2017, and 61% since 2009. Merchandising imports totalled over €90 billion, increasing by 10% from the previous year.

Figure 6.1 *Merchandising exports by value, 2009 - 2018*



Source: Central Statistics Office, Trade Statistics 2018

This chapter examines agri-food sector exports worldwide, in terms of both traditional agri-food and prepared consumer food products. Further information on trade can be found in the Department of Agriculture, Food and the Marine Trade Factsheet on the Department's website.

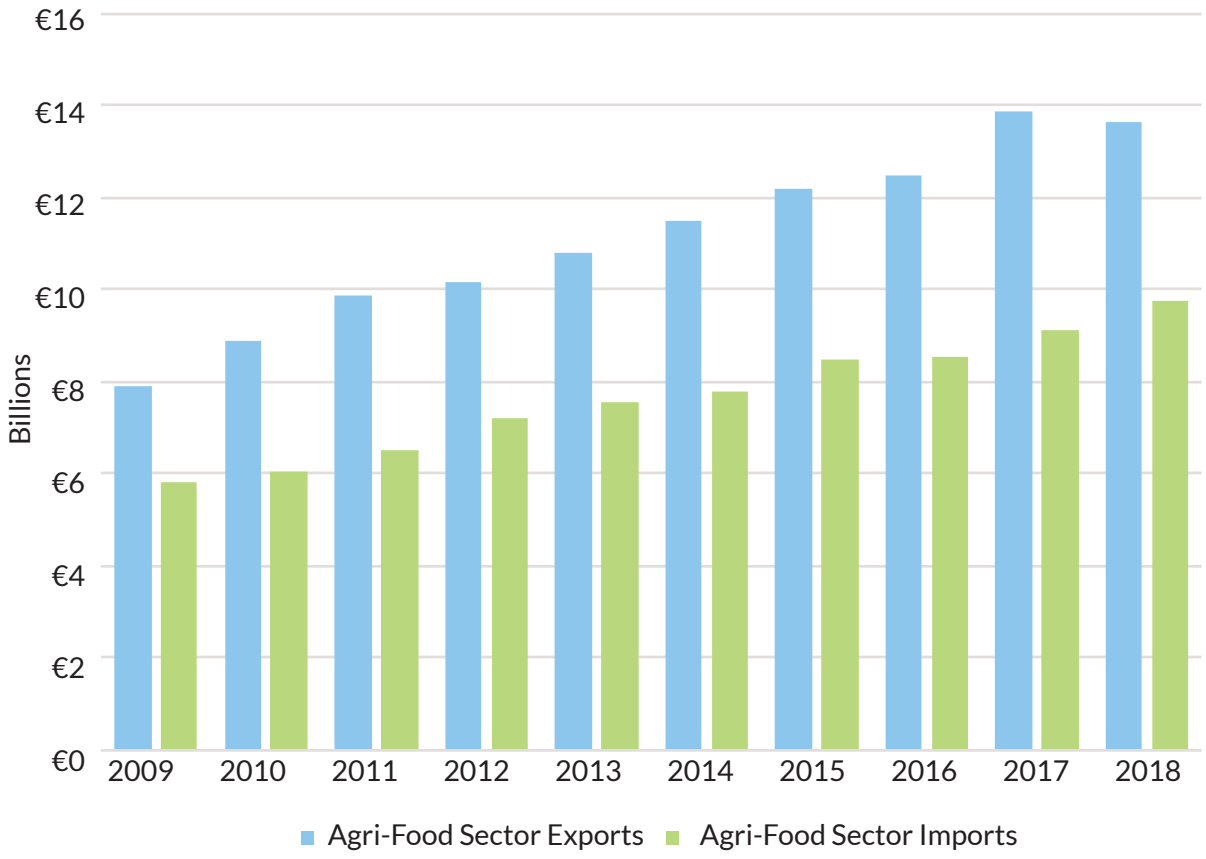
Source: Department of Agriculture, Food & the Marine Factsheet

6.2 Agri-food sector trade

Agri-food sector trade is broken down into 26 categories identified and agreed by Department of Agriculture, Food and the Marine and the Central Statistics Office. Products and Raw Goods are categorised using combined nomenclature (CN) codes, a European harmonised system used to classify goods for customs and trade reasons. These categories include non-edible Agri-food items such as Forestry and Animal Hides and Skins (not included as part of Bord Bia trade statistics), along with traditional Food and Beverage products. In 2018 the Department undertook a review of how Agri-food sector products are classified. This resulted in the addition of a number of CN codes and the creation of two new Agri-food sector categories; Wood Based Produce and Fruit & Vegetable Based Produce. Waste paper which was traditionally included under forestry products was excluded from the Agri-food sector in the revised CN codes.

Agri-food exports reached approximately €13.7 billion in 2018, a slight decrease of 1% on 2017 but an increase of 73% since 2009. Imports of agri-food sector products totalled €9.7 billion in 2018, increasing by 68% from €5.8 billion in 2009. There was a trade surplus of €3.9 billion in 2018.

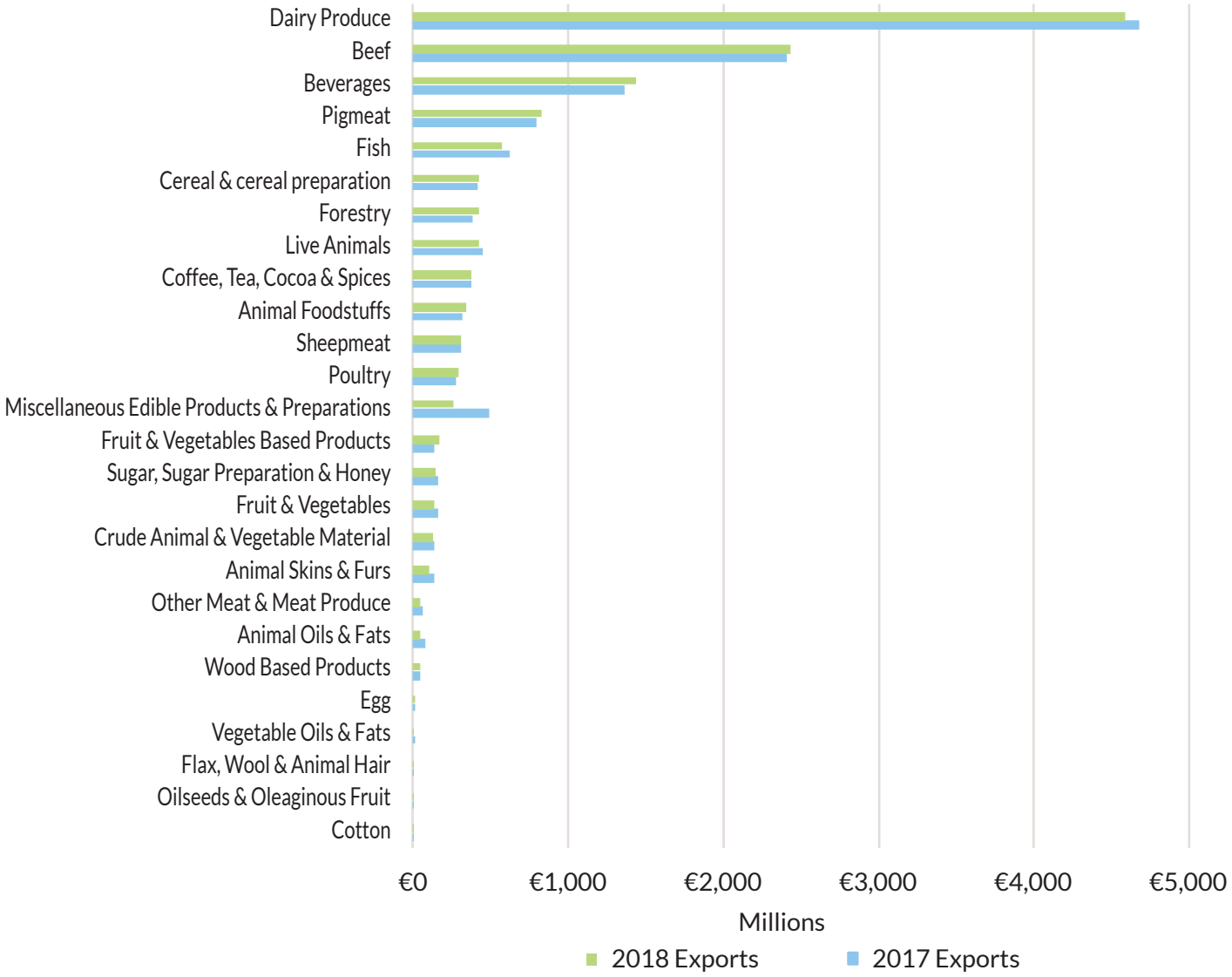
Figure 6.2 *Agri-food trade, 2009 – 2018*



Source: Central Statistics Office, Trade Statistics 2018

In value terms our top five export categories were Dairy, Beef, Beverages, Pigmeat and Fish. Dairy exports were valued at approximately €4.6 billion in 2018 a slight decrease of 2% on 2017 figures, Beef exports increased by €30 million. Beverage exports increased by €73 million or 5% on 2017 figures, Pigmeat exports increased by €34 million and Seafood exports decreased by 6% on 2018 figures.

Figure 6.3 *Change in value of agri-food sector exports, 2017 – 2018*



Source: Central Statistics Office, Trade Statistics 2018

Between 2017 and 2018, agri-food sector exports increased in value across 13 of the 26 agri-food categories. Overall agri-food exports by volume increased by 4% between 2017 and 2018, including an increase of 70% in exports of Sugar, Sugar Preparations and Honey, a 20% increase in Fruit and Vegetable based products exports, a 12% increase in the weight of Live Animal exports, and 5% in the volume of exports of Dairy Produce.

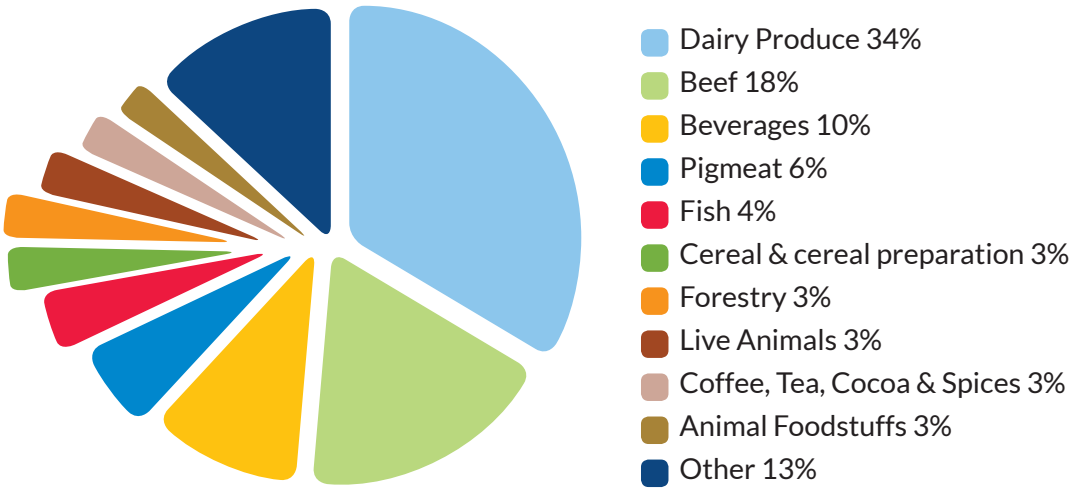
Table 6.1 *Value and volume of agri-food exports by category, 2017 - 2018*

	2017 Exports		2018 Exports		% Change 2018 vs 2017	
Category	€ 000	Tonnes	€ 000	Tonnes	€ 000	Tonnes
Dairy Produce	€4,673,230	1,365,941	€4,586,285	1,437,205	-2%	5%
Beef	€2,402,516	547,153	€2,433,131	534,339	1%	-2%
Beverages	€1,363,533	825,555	€1,437,335	867,000	5%	5%
Pigmeat	€793,698	277,324	€828,527	285,012	4%	3%
Fish	€617,532	241,425	€578,189	226,359	-6%	-6%
Cereal & cereal preparation	€419,423	412,155	€431,492	401,511	3%	-3%
Forestry	€384,154	1,318,879	€429,438	1,339,152	12%	2%
Live Animals	€448,252	74,651	€428,341	83,519	-4%	12%
Coffee, Tea, Cocoa & Spices	€374,030	64,464	€382,973	66,149	2%	3%
Animal Foodstuffs	€319,792	607,139	€344,888	648,697	8%	7%
Sheepmeat	€310,053	62,435	€314,860	59,806	2%	-4%
Poultry	€278,291	136,846	€299,148	134,595	7%	-2%
Miscellaneous Edible Products & Preparations	€492,175	93,660	€262,106	96,853	-47%	3%
Fruit & Vegetables Based Products	€137,712	97,260	€175,738	117,114	28%	20%
Sugar, Sugar Preparation & Honey	€157,625	80,464	€145,943	136,984	-7%	70%
Fruit & Vegetables	€162,978	75,219	€144,667	68,315	-11%	-9%
Crude Animal & Vegetable Material	€139,384	102,498	€130,116	122,077	-7%	19%
Animal Skins & Furs	€138,297	92,297	€107,717	90,120	-22%	-2%
Other Meat & Meat Produce	€59,627	81,235	€54,523	71,606	-9%	-12%
Animal Oils & Fats	€79,341	106,713	€53,667	94,416	-32%	-12%
Wood Based Products	€50,109	68,506	€51,285	92,229	2%	35%
Egg	€16,386	6,234	€15,021	6,733	-8%	8%
Vegetable Oils & Fats	€12,023	18,098	€11,764	18,827	-2%	4%
Flax, Wool & Animal Hair	€7,525	5,440	€9,404	6,801	25%	25%
Oilseeds & Oleaginous Fruit	€8,178	9,235	€8,302	10,682	2%	16%
Cotton	€13	36	€7	23	-46%	-36%
Grand Total	€13,845,876	6,770,863	€13,664,870	7,016,123	-1%	4%

Source: Central Statistics Office, Trade Statistics 2018

The top five agri-food categories by value, namely diary, beef, beverages, pigmeat and fish, accounted for 72% of total agri-food sector exports in 2018, totalling nearly €9.9 billion.

Figure 6.4 *Agri-food sector exports by type – 2018*



Source: Central Statistics Office, Trade Statistics 2018

CASE STUDY

Beverages

Irish Beverage products are exported to over 150 countries worldwide. Exports for this sector were valued at over €1.4 billion in 2018, an increase of 5% on the previous year. Between 2009 and 2018, this category grew in value by 42% (+€427 million), from just over €1 billion to over €1.4 billion. Ireland currently has a €551 million trade surplus in respect of Beverages, importing €885 million in products in 2018, a 2% increase on 2017 figures.

The 10 top export destinations by value for Beverages in 2018 were, the United States, the United Kingdom, Canada, Germany, France, Latvia, Spain, Australia, Czech Republic and the Netherlands. Ireland's main Beverage export is Whiskey. Whiskey makes up 45% of Irelands overall Beverage exports and is worth nearly €654 million.

Irelands largest export destination is the United States. In 2018 exports to the United States totalled over €613 Million euro, a 7% increase on 2017 figures. Whiskey was Irelands top export commodity to the USA, making up 63% of total Irish Beverage exports to the region. Exports of Beverages to the United Kingdom decreased by 3% on 2017 figures from €294 million in 2017 to €287 million in 2018. This 3% reduction was largely due to a 19% reduction in exports of water containing added sugar or other sweetening material, which was mitigated slightly by a 20% increase in exports of Whiskey and a 19% increase in the export of Spirits and distilled alcoholic beverages.

The 5 top import destinations for Beverages in 2018 was the United Kingdom, France, the Netherlands, Chile and Germany, accounted for 74% of Ireland's total Beverage imports.

Wine of fresh grapes is Ireland's top beverage import; imports totalled €251 million in 2018, accounting for 28% of total Beverage imports.

Source: Central Statistics Office, Trade Statistics 2018

6.3 Agri-Food sector exports by top 20 destinations, 2018

Agri-Food sector exports by top 20 destinations, 2018

In 2018 Irish Agri-Food goods were exported to over 180 countries worldwide, with enhanced market opportunities, opening for Beef in China, Qatar and Kuwait during 2018.

The United Kingdom remained our largest trading partner in 2018 with 41% (€5.6 billion) of total exports by value in 2018, a 3% increase on 2017 figures. The Netherlands was our second largest export destination with United States in third place both importing over €1 billion of Irish Agri-food products in 2018.

1 **UK** €5,551.6 million	6 **Germany** €756.4 million	11 **Denmark** €148 million	16 **Saudi Arabia** €108 million
2 **Netherlands** €1,044.9 million	7 **Italy** €377 million	12 **Poland** €114.5 million	17 **South Africa** €80.8 million
3 **United States** €1,022.4 million	8 **Belgium** €290.5 million	13 **Japan** €114.8 million	18 **Switzerland** €66.7 million
4 **France** €861.9 million	9 **Spain** €289.5 million	14 **Nigeria** €110.9 million	19 **Czech Republic** €66.4 million
5 **China** €794.3 million	10 **Sweden** €152.8 million	15 **Canada** €108.2 million	20 **Philippines** €61.2 million

Total: €13.7 Billion

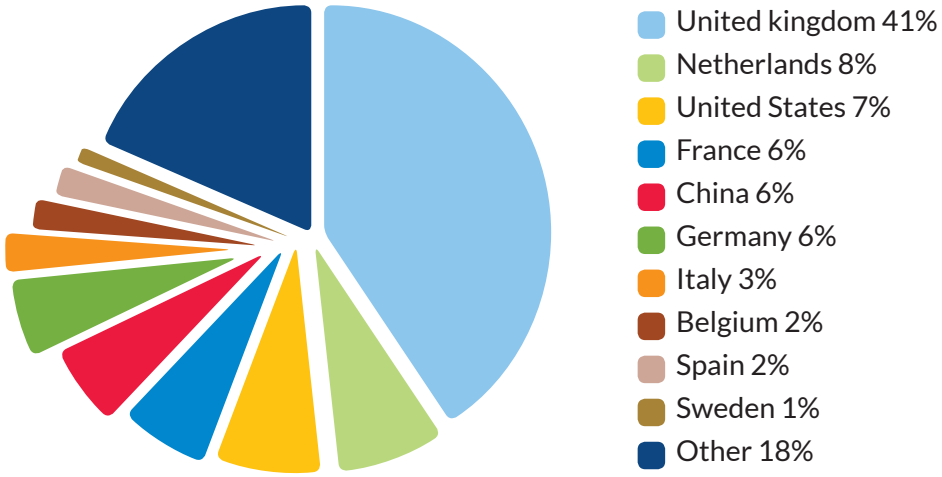
*Rounding in operation

Source: Central Statistics Office, Trade Statistics 2018

Trade among the top 20 destinations reached €12.2 billion in 2018.

The highest increase was recorded in Japan where exports increased by 21% to €114.8 million.

Figure 6.5 *Top 10 Agri food destinations 2018*



Source : Central Statistics Office, Trade Statistics 2018

Table 6.2 *Value and Tonnage of Agri-food exports by top 25 destinations, 2017-2018*

Country	Rank 2017	Rank 2018	Rank Change	Jan-Dec 2017 € 000	Jan-Dec 2017 Tonnes	Jan-Dec 2018 € 000	Jan-Dec 2018 Tonnes
United Kingdom	1	1		€5,384,346	4,300,241	€5,551,636	4,300,241
Netherlands	4	2		€933,160	407,380	€1,044,931	420,962
United States	2	3		€1,132,054	193,098	€1,022,445	190,926
France	5	4		€890,190	273,489	€861,912	271,947
China	3	5		€954,292	221,233	€794,321	229,412
Germany	6	6		€771,614	224,224	€756,361	217,608
Italy	7	7		€375,353	127,939	€377,093	113,242
Belgium	8	8		€304,036	96,812	€290,531	97,482
Spain	9	9		€284,457	63,373	€289,493	72,987
Sweden	11	10		€167,675	50,929	€152,782	45,603
Denmark	13	11		€142,966	68,450	€148,056	65,734
Poland	10	12		€173,292	58,360	€144,538	48,867
Japan	16	13		€95,103	36,222	€114,807	45,804
Nigeria	14	14		€132,260	92,868	€110,975	90,455
Canada	15	15		€106,887	28,048	€108,201	27,172
Saudi Arabia	12	16		€152,329	31,027	€108,049	23,110
South Africa	18	17		€83,334	47,221	€80,789	50,909
Switzerland	24	18		€66,856	9,626	€66,654	9,802
Czech Republic	25	19		€ 60,857	16,116	€ 66,420	17,333
Philippines	19	20		€83,009	43,320	€61,231	41,524
Australia	17	21		€84,135	22,314	€58,820	25,322
United Arab Emirates	16	22		€78,283	29,815	€56,987	21,198
Latvia	30	23		€41,328	8,459	€55,864	22,436
Turkey	21	24		€75,860	23,143	€55,639	17,071
Malaysia	32	25		€37,468	16,755	€54,545	32,927
Total Top 25				**€12,611,144**	**6,490,462**	**€12,433,080**	**6,500,074**

Source: Central Statistics Office, Trade Statistics 2018

6.4 Key markets for Irish Exports

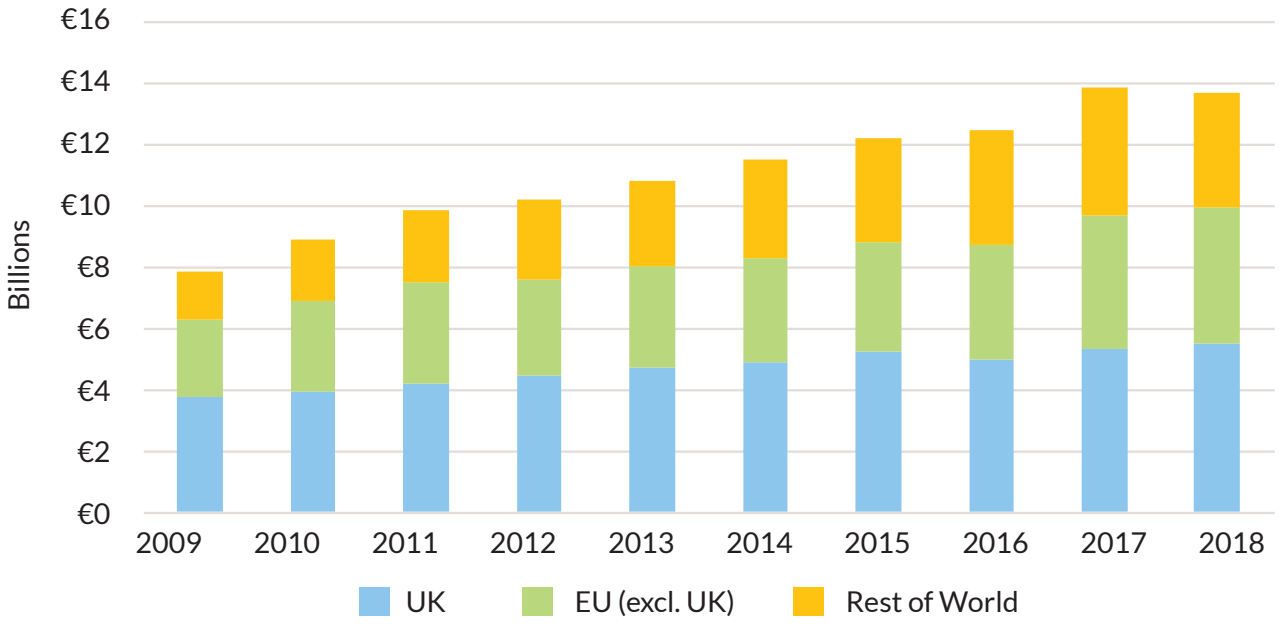
Irish agri-food products were exported to over 180 countries in 2018. The UK remains our largest trading partner with 41% (€5.6 billion) of agri-food products exported to this destination. Other EU countries accounted for 32% (€4.4 billion) of agri-food exports in 2018 and the Rest of the World accounted for 27% (€3.7 billion).

United Kingdom

The United Kingdom (Great Britain & Northern Ireland) remains Ireland's largest trading partner with 41 % of total agri-food sector goods and 68% of Prepared Consumer Food (PCF) products exported to the UK in 2018.

In 2018 total agri-food exports to the UK were €5.6 billion while imports totalled €4.5 billion, giving Ireland a trade surplus with the United Kingdom of approximately €1.1 billion.

Figure 6.6 *United Kingdom as part of total worldwide trade, 2009 - 2018*



Source: Central Statistics Office, Trade Statistics, 2018

Table 6.3 *Agri-food exports to the United Kingdom by type, 2018*

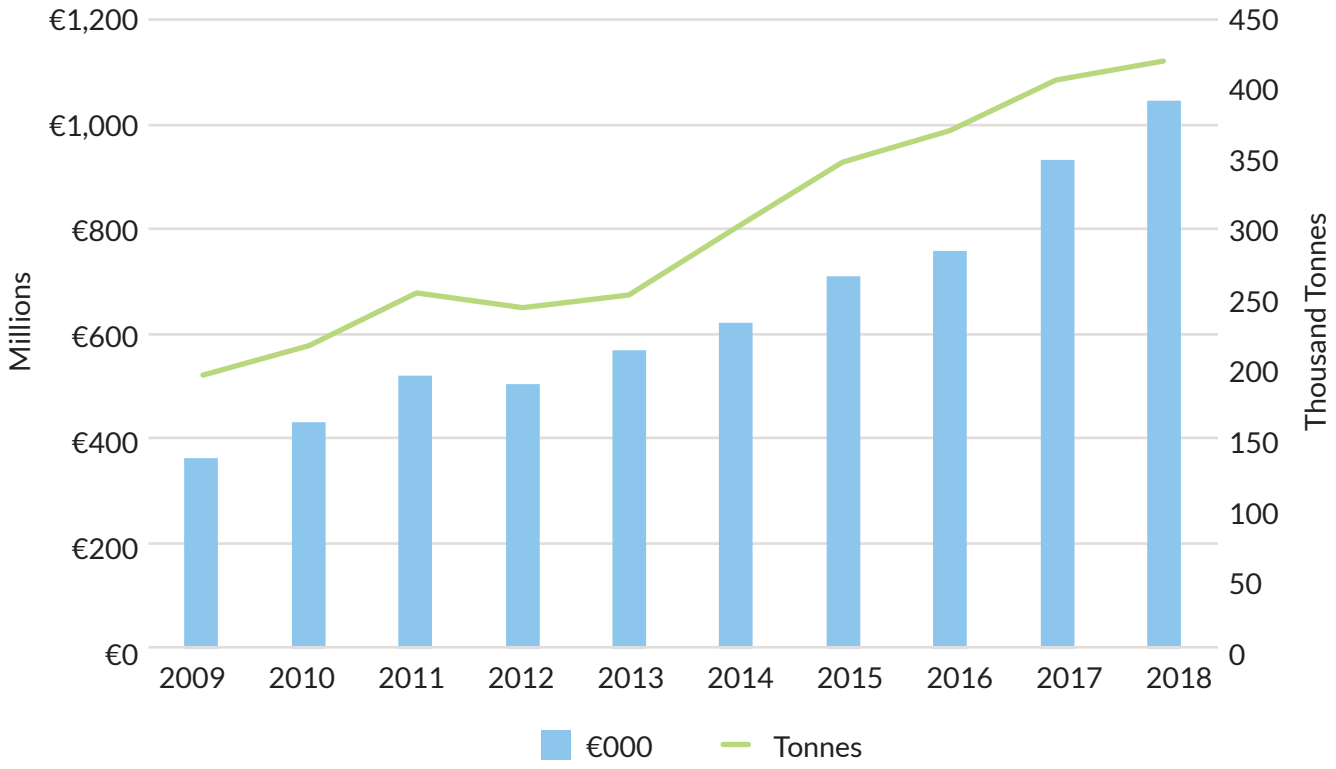
Industry	United Kingdom € 000		Great Britain € 000		Northern Ireland € 000	
	Exports	Imports	Exports	Imports	Exports	Imports
Animal Foodstuffs	€237,924	€313,183	€160,972	€194,310	€76,952	€118,873
Animal Oils & Fats	€13,583	€11,988	€13,383	€6,906	€200	€5,083
Animal Skins & Furs	€26,658	€541	€24,442	€541	€2,216	€0
Beef	€1,204,788	€120,904	€1,090,860	€107,521	€113,928	€13,383
Beverages	€287,255	€407,390	€211,156	€317,855	€76,099	€89,535
Cereal & cereal preparation	€397,493	€702,492	€312,845	€625,367	€84,648	€77,125
Coffee, Tea, Cocoa & Spices	€265,383	€323,021	€248,456	€314,313	€16,927	€8,708
Cotton	€5	€34	€5	€25	€0	€9
Crude Animal & Vegetable Material	€32,773	€67,507	€27,296	€60,045	€5,477	€7,461
Dairy Produce	€1,021,644	€631,579	€908,003	€371,025	€113,641	€260,554
Egg	€8,859	€12,320	€6,683	€8,000	€2,177	€4,320
Fish	€45,609	€179,273	€37,674	€165,144	€7,935	€14,129
Flax, Wool & Animal Hair	€6,922	€5,889	€6,880	€5,573	€42	€316
Forestry	€361,091	€97,799	€275,492	€69,224	€85,599	€28,575
Fruit & Vegetables	€140,410	€198,545	€111,830	€181,469	€28,579	€17,076
Fruit & Vegetables Based Products	€111,923	€253,970	€97,486	€224,496	€14,437	€29,473
Live Animals	€322,532	€180,041	€242,941	€171,785	€79,592	€8,256
Miscellaneous Edible Products & Preparations	€147,356	€327,911	€131,722	€320,427	€15,634	€7,484
Oilseeds & Oleaginous Fruit	€5,755	€15,494	€3,720	€9,354	€2,035	€6,140
Other Meat & Meat Produce	€41,102	€9,911	€36,679	€9,052	€4,423	€858
Pigmeat	€470,527	€160,705	€427,465	€152,970	€43,063	€7,735
Poultry	€237,032	€169,304	€207,544	€154,992	€29,488	€14,312
Sheepmeat	€57,842	€25,994	€57,162	€25,747	€680	€247
Sugar, Sugar Preparation & Honey	€55,760	€146,783	€48,977	€138,851	€6,783	€7,932
Vegetable Oils & Fats	€11,069	€51,092	€3,038	€35,658	€8,030	€15,434
Wood Based Products	€40,343	€50,548	€29,784	€36,956	€10,559	€13,591
Grand Total	**€5,551,636**	**€4,464,216**	**€4,722,494**	**€3,707,605**	**€829,142**	**€756,610**

Source: Central Statistics Office, Trade Statistics, 2018

Netherlands

In 2018 the Netherlands became Ireland's second largest market in terms of total agri-food exports, moving from fourth position 2017. The Netherlands accounted for over €1 billion in exports in 2018, an increase of 12% from 2017 and 189% since 2009.

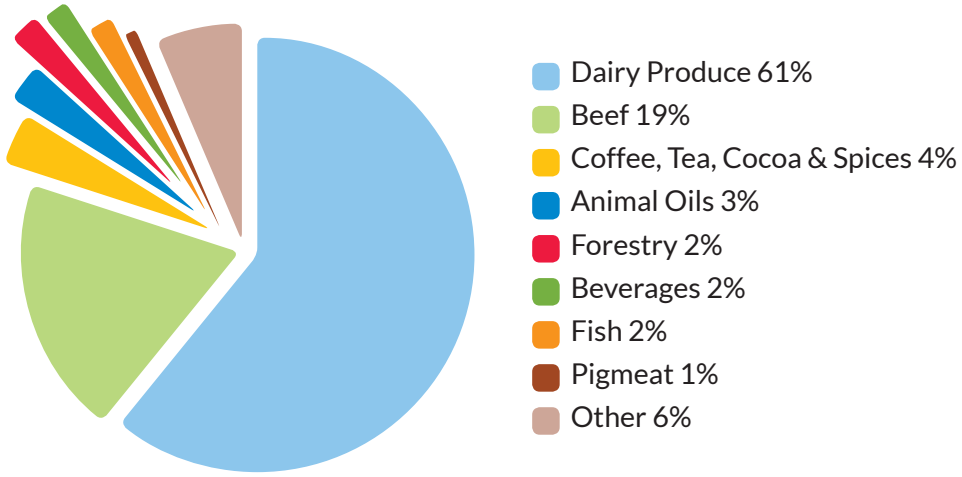
Figure 6.7 *Value of Agri- Food exports to the Netherlands by year, 2009-2018*



Source: Central Statistics Office, Trade Statistics 2018

The top two agri-food categories exported to the Netherlands in 2018 were Dairy produce and Beef which accounted for 80% of total exports to the Netherlands. Dairy exports to the Netherlands totalled €635 million in 2018 of which almost 50% was attributable to Butter. Beef exports were valued at €200 million with fresh or chilled bovine boneless meat accounting for over 75% of beef exports.

Figure 6.8 *Agri-Food exports to the Netherlands by type, 2018*

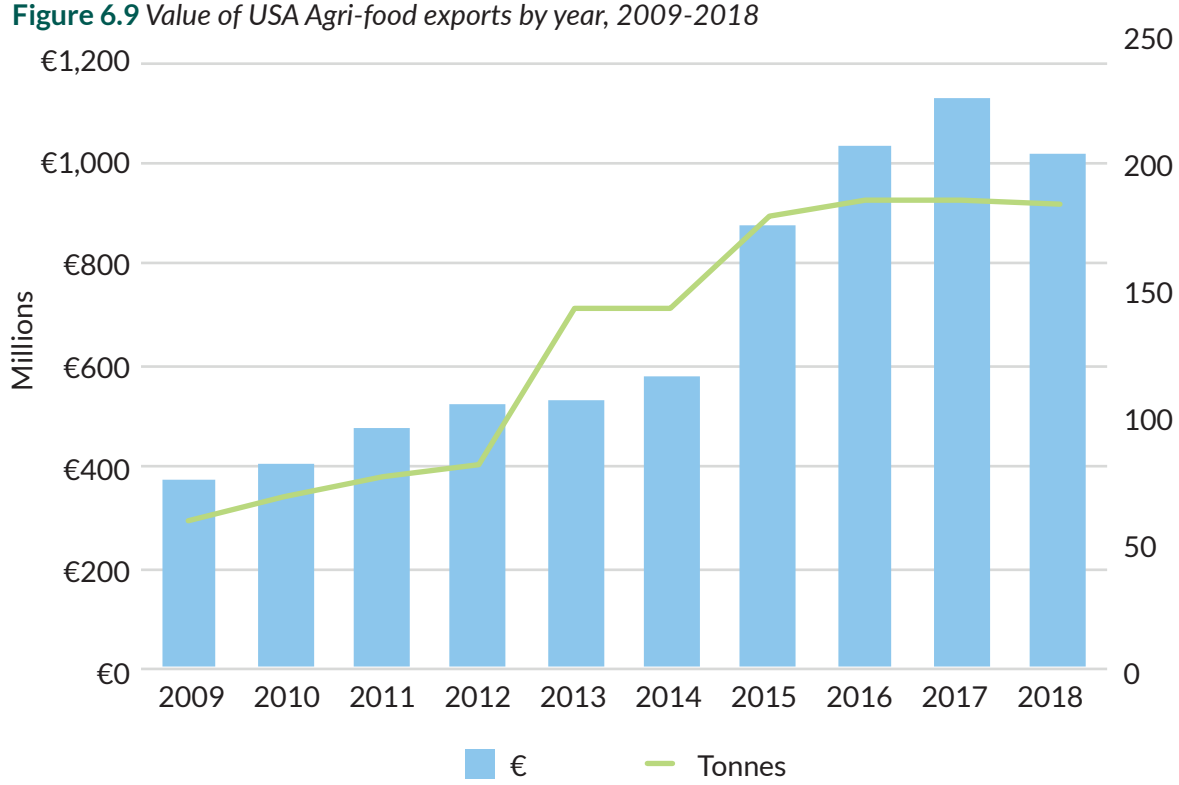


Source: Central Statistics Office, Trade Statistics 2018

United States

In 2018 the United States was ranked as Ireland's third largest market in terms of total agri-food exports, dropping one spot from second position in 2017. Total Agri-food exports to the United States have increased by 175% since 2009. In 2018 exports to the United States totalled over €1 billion, a decrease of 10% on 2017, but a 17% increase on 2015.

Figure 6.9 *Value of USA Agri-food exports by year, 2009-2018*

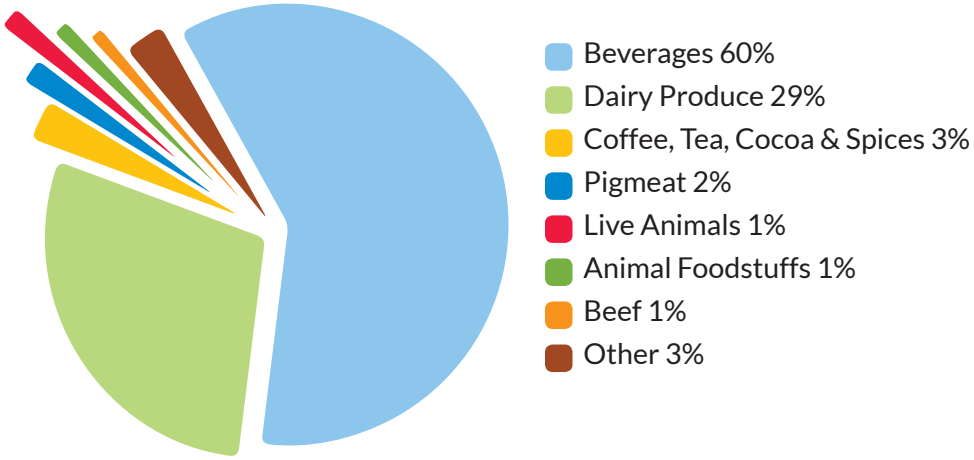


Source: Central Statistics Office, Trade Statistics 2018

The top 2 agri-food categories for export to the US are Beverages and Dairy Produce accounting for 89% of total agri-food exports to the US.

In 2018 Beverage exports totalled nearly €615 million, an increase of 7% on 2017 figures. Whiskey accounted for €384 million worth of exports in 2018 and made up 63% of total beverage exports to the United States. Whiskey exports are growing strongly and since 2012 exports to the US have tripled. Natural butter is the main dairy export worth almost €160 million in 2018.

Figure 6.10 *Agri-Food exports to the United States by type, 2018*



Source: Central Statistics Office, Trade Statistics 2018

CASE STUDY

Japan – An expanding market

Japan is an island country located in the Pacific Ocean, located off the eastern coast of the Asian continent, close to China, Republic of Korea, the Philippines, North Korea, Taiwan and Russia.

In 2017, Japan's world trade (trade in goods, nominal export value) increased by 10.5% to €15.24 trillion (JETRO estimate) compared with the previous year and saw positive growth for the first time in three years. The trade volume also increased by 4.5%. The value and volume of world trade showed its highest level of growth since 2011.

In 2017, Japans exports amounted to $625 billion, up 8.2%, while imports also increased by 10.5% to $602 billion from the previous year. This growth trend resulted in a trade surplus of $20.6 billion in 2017. In 2017 Japan had a Human Development Index of 0.909 and Gini coefficient (disposable income, post taxes and transfers) of 0.339 in 2015.

In 2018 the EU and Japan finalised their negotiations on a new trade agreement. This agreement enables European companies access Japan's large market and cements Europe's leadership role in establishing global trade rules. It also provides a strong guarantee in the protection of EU standards and values.

Irish exports to Japan totalled €114.8 million in 2018, an increase of 21% or €19.7 million since last year, and an increase of 871% since 2009. Pigmeat, Dairy Produce, Fish and Beverages were the top four agri-food exports to Japan in 2018 and accounted for 91% of total exports to the region. Pigmeat was our largest export accounting for over €41 million worth of exports or 36% of total agri-food exports to the country. The largest commodity exported to Japan was cheddar cheese accounting for 32% of total Agri-food exports to this growing market.

Irish imports from Japan totalled nearly €2 million in 2018, a decrease of 1% since 2017, but represent an increase of 9% since 2009. Our top 5 Imports from Japan according to the CSO are, Live animals, Miscellaneous Edible Products & Preparations; Sugar, Sugar Preparation & Honey; Beverages and Animal Foodstuffs which accounted for 90% of total imports from the region.

Figure 6.11 *Percentage of exports to Japan by sector 2018.*

Source: Central Statistics Office, Trade Statistics 2018

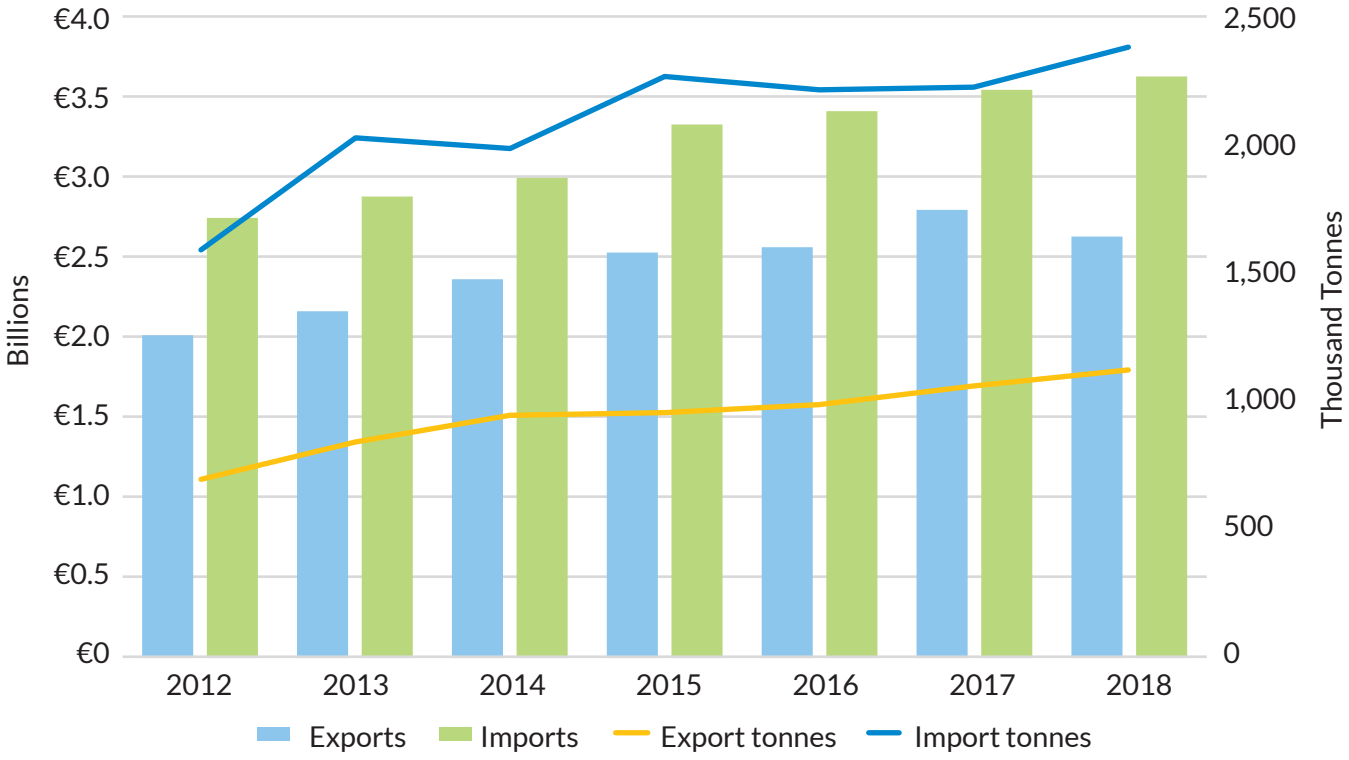
Source:
Japan External Trade Organisation (2018) Available from: JETRO
Central Statistics Office, Trade Statistics 2018
United Nations Development Programme (2017) Available from: 2018 Human Development Report".
OECD (2019) Income Distribution and Poverty: by country – INEQUALITY. Available from: OECD
OECD (2019) Japan Economic Snapshot. Available from: OECD

6.5 Prepared Consumer Foods

Prepared Consumer Foods (PCF) are value added food and beverage products, which sell both domestically and internationally to retail, food service or other food companies. These goods are categorised into 15 areas identified and agreed by industry stakeholders, Department of Agriculture, Food and the Marine and the Central Statistics Office.

The Prepared Consumer Foods sector accounted for over €2.6 billion in agri-food sector exports in 2018, and €3.6 billion in imports. This resulted in a trade deficit of just over €994 million. Between the period 2012 – 2018 prepared consumer food exports increased by 30% from €2 billion to over €2.6 billion.

Figure 6.12 *PCF Exports & Imports, 2012-2018*



Source: Central Statistics Office, Trade Statistics 2018

While overall exports of Irish Prepared Consumer Foods decreased by 6% between 2017 and 2018 variances are evident depending on the category exported. The highest increase (by percentage) recorded relates to 'Pizza/Quiche' products which increased from €20 million to €118 million during this period.

Meat preparations which includes sausages, cooked meats, and fresh and frozen prepared shellfish reached a record high in 2018 of over €1 billion, which represents a 7% increase on 2017 figures. Meat preparations made up 39% of total exports in 2019. The largest decrease was seen in the Other Food Preparation category, with a 51% decrease on 2017 figures.

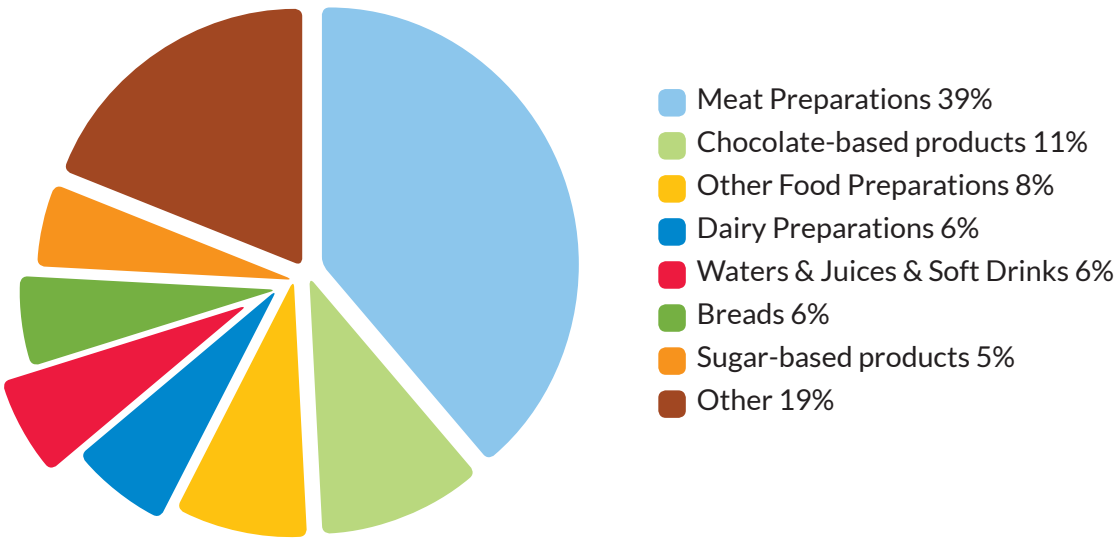
The top five Prepared Consumer Food categories Meat preparations, chocolate-based products, other food preparations, dairy preparations and waters, juices & soft drinks, accounted for 70% of total exports by value in 2018.

Table 6.4 *Prepared Consumer Food Exports by type, 2017-2018*

	2017		2018		% Change	
Category	Exports	Tonnes	Exports	Tonnes	€	Tonnes
Meat Preparations	€951,122	254,224	€1,016,543	253,062	7%	0%
Chocolate-based products	€257,111	52,080	€272,235	57,316	6%	10%
Other Food Preparations	€446,877	75,593	€218,801	80,062	-51%	6%
Dairy Preparations	€188,047	44,820	€166,238	40,605	-12%	-9%
Waters & Juices & Soft Drinks	€178,014	190,925	€165,147	194,338	-7%	2%
Breads	€207,080	126,521	€148,647	94,628	-28%	-25%
Sugar-based products	€148,421	67,155	€136,527	121,426	-8%	81%
Extracts, Sauces, Soups	€132,331	18,635	€129,894	17,342	-2%	-7%
Pizza/Quiche	€20,029	5,828	€117,613	59,263	487%	917%
Fruit & Vegetable based	€65,012	31,041	€79,506	37,131	22%	20%
Cereal based Products	€71,214	138,980	€73,863	125,432	4%	-10%
Fruit-based bakery	€91,079	40,143	€46,881	20,227	-49%	-50%
Frozen Confectionery	€17,695	7,879	€20,084	8,426	13%	7%
Biscuits	€10,467	3,781	€18,677	5,743	78%	52%
Savoury Snacks etc	€9,470	1,645	€9,857	1,382	4%	-16%
Grand Total	**€2,793,968**	**1,059,249**	**€2,620,513**	**1,116,384**	**-6%**	**5%**

Source: Central Statistics Office, Trade Statistics 2018

Figure 6.13 *Prepared Consumer Food exports by type, 2018*



Source: Central Statistics Office, Trade Statistics 2018

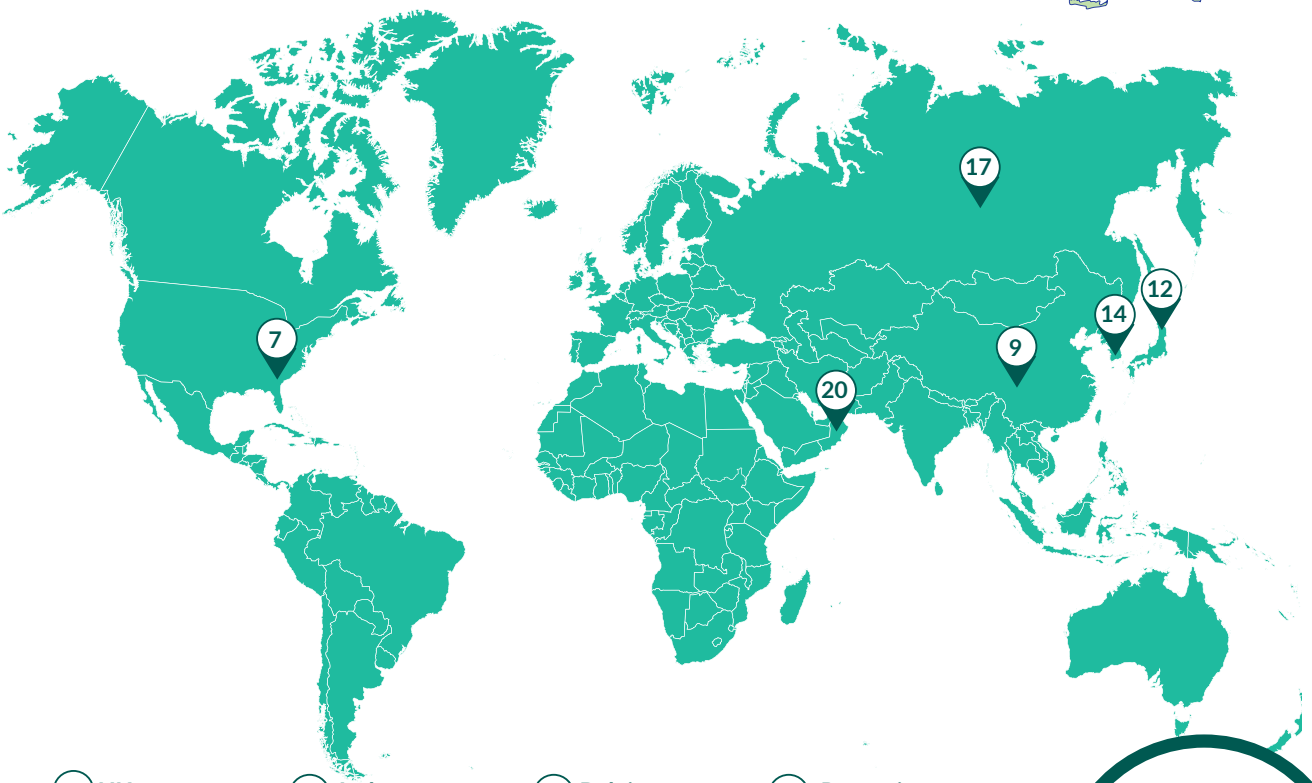
While the majority of PCF products were exported to the United Kingdom in 2018 (68%), other significant markets for Prepared Consumer Foods included France, the Netherlands, Spain, Germany, Italy and the United States.

Prepared Consumer Food by top 20 destinations, 2018

Trade among the Top 20 destinations accounted for 96% of total Prepared Consumer Food exports in 2018.

PCF exports to Japan increased by 126% on 2017 figures.

Large increases in export values were also seen to Romania (+107%), Hungary (+107%), China (+48%) and Denmark (+30%) on 2017 figures.



1 **UK** €1,781.1 million

2 **France** €143.8 million

3 **Netherlands** €87.2 million

4 **Spain** €80.5 million

5 **Germany** €78.9 million

6 **Italy** €69.4million

7 **United States** €51.9 million

8 **Denmark** €33.9 million

9 **China** €32.1 million

10 **Sweden** €27.5 million

11 **Belgium** €26.9 million

12 **Japan** €17.5 million

13 **Portugal** €16.3 million

14 **South Korea** €13.9 million

15 **Poland** €12.5 million

16 **Romania** €12 million

17 **Russia** €10.3 million

18 **Finland** €9.2 million

19 **Czech Republic** €8.7 million

20 **United Arab Emirates** €8.3 million

Total: €2.62 billion

* Rounding in operation

Source: Central Statistics Office, Trade Statistics 2018

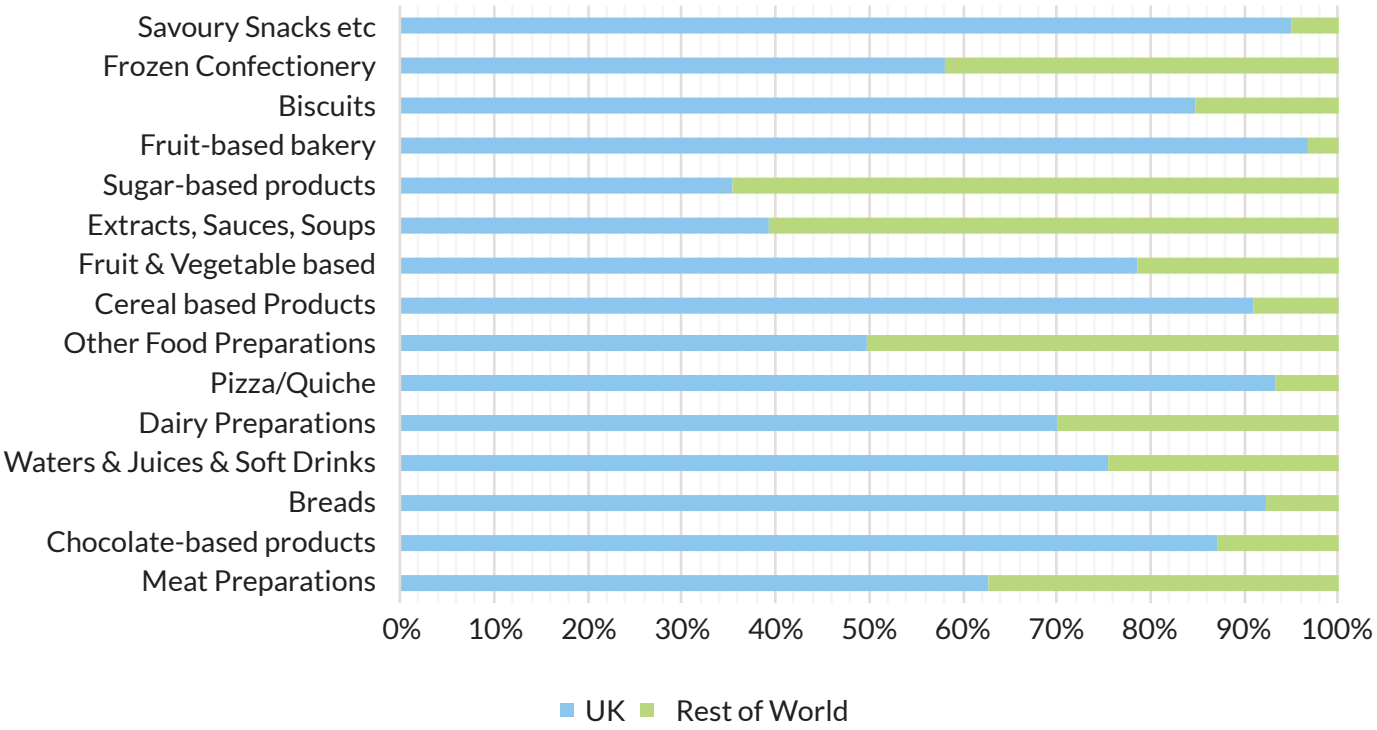
Table 6.5 *Value and tonnage of PCF exports by Top 20 destinations, 2017-2018*

				Jan-Dec 2017		Jan-Dec 2018	
Country	Rank 2017	Rank 2018	Rank Change	€ 000	Tonnes	€ 000	Tonnes
United Kingdom	1	1		€1,728,883	908,562	€1,781,147	963,476
France	3	2		€160,097	27,847	€143,776	23,014
Netherlands	4	3		€89,287	14,447	€87,184	13,167
Spain	6	4		€69,014	8,480	€80,493	8,927
Germany	5	5		€81,396	15,285	€78,855	15,673
Italy	7	6		€58,879	7,234	€69,371	6,444
United States	2	7		€303,616	18,007	€51,966	16,031
Denmark	10	8		€26,184	11,232	€33,975	13,482
China	11	9		€21,689	2,885	€32,105	4,281
Sweden	9	10		€25,041	4,298	€27,551	5,095
Belgium	8	11		€46,104	6,425	€26,949	3,557
Japan	19	12		€7,757	2,911	€17,541	7,058
Portugal	14	13		€13,936	3,215	€16,335	2,343
South Korea	12	14		€18,763	1,783	€13,879	1,368
Poland	13	15		€16,672	4,460	€12,541	2,426
Romania	23	16		€5,821	513	€12,039	974
Russia	15	17		€11,416	414	€10,338	1,128
Finland	20	18		€7,751	1,245	€9,159	1,417
Czech Republic	17	19		€7,845	948	€8,729	930
United Arab Emirates	18	20		€7,765	1,459	€8,266	1,756
Total Top 20				**€2,707,916**	**1,041,650**	**€2,522,199**	**1,092,547**

Source: Central Statistics Office, Trade Statistics 2018

While Prepared Consumer Foods (PCF) exports to the United Kingdom accounted for 68% of total PCF exports, 97% of total fruit-based bakery, 95% of savoury snacks and 92% of bread under the PCF heading were exported to the UK. Figure 6.7 provides a detailed analysis of each category by percentage exported to the UK in 2018.

Figure 6.14 *Prepared Consumer Food exports by type and destination, 2018*



Source: Central Statistics Office, Trade Statistics 2018

Meat Preparations remains the highest valued category under this heading increasing by 2% in 2018 to €636 million and accounting for just over 36% of total PCF exports to the UK

Table 6.6 *Prepared Consumer Food Exports to the United Kingdom by category, 2018*

	2018					
	United Kingdom € 000		Great Britain € 000		Northern Ireland € 000	
Industry	Exports	Imports	Exports	Imports	Exports	Imports
Biscuits	€16,122	€98,907	€14,322	€96,359	€1,800	€2,548
Breads	€137,312	€107,014	€117,652	€104,955	€19,661	€2,059
Cereal based Products	€68,228	€258,013	€37,577	€228,821	€30,651	€29,191
Chocolate-based products	€236,826	€212,542	€224,222	€205,928	€12,604	€6,614
Dairy Preparations	€116,631	€79,655	€112,523	€77,975	€4,109	€1,680
Extracts, Sauces, Soups	€51,031	€204,353	€41,080	€198,088	€9,951	€6,265
Frozen Confectionery	€11,647	€58,735	€9,511	€58,135	€2,136	€600
Fruit & Vegetable based	€62,652	€221,548	€48,628	€193,916	€14,024	€27,633
Fruit-based bakery	€45,325	€34,990	€43,722	€31,193	€1,603	€3,796
Meat Preparations	€636,899	€293,769	€585,595	€277,591	€51,304	€16,179
Other Food Preparations	€108,835	€157,155	€93,137	€150,601	€15,699	€6,554
Pizza/Quiche	€110,846	€40,769	€106,497	€36,909	€4,350	€3,860
Savoury Snacks etc	€9,345	€44,975	€5,985	€40,955	€3,360	€4,020
Sugar-based products	€48,409	€102,689	€42,548	€94,899	€5,861	€7,790
Waters & Juices & Soft Drinks	€124,514	€227,731	€112,231	€214,413	€12,283	€13,318
Grand Total	**€1,784,622**	**€2,142,845**	**€1,595,230**	**€2,010,738**	**€189,396**	**€132,107**

CASE STUDY

Chocolate-Based Products

Irish Chocolate-based products are exported to approximately 90 countries worldwide. Exports of this prepared consumer food were valued at over €272 million in 2018, an increase of 6% on the previous year. Between 2012 and 2018, this category grew by €66 million, a 32% increase in value. The 10 top export destinations by value for Chocolate-based products in 2018 were; the United Kingdom, the United States, Canada, the United Arab Emirates, Germany, the Netherlands, India, Saudi Arabia, Belgium and Singapore. Ireland's largest export destination is the UK. In 2018 exports to the United Kingdom totalled nearly €237 Million, a 7% increase on 2017 figures. Exports to Canada, Germany and the Netherlands also increased substantially in 2018, with exports increasing by 45%, 15% and 15% respectively.

The largest export under this category is; 'Chocolate and other preparations containing cocoa, in blocks, slabs or bars of <= 2 kg (excl. filled and with added cereal, fruit or nuts)'. This commodity is valued at almost €102 million. 2018 represents its second consecutive year of growth, with exports increasing by 5% on 2017 figures. This commodity represents 37% of the sectors exports.

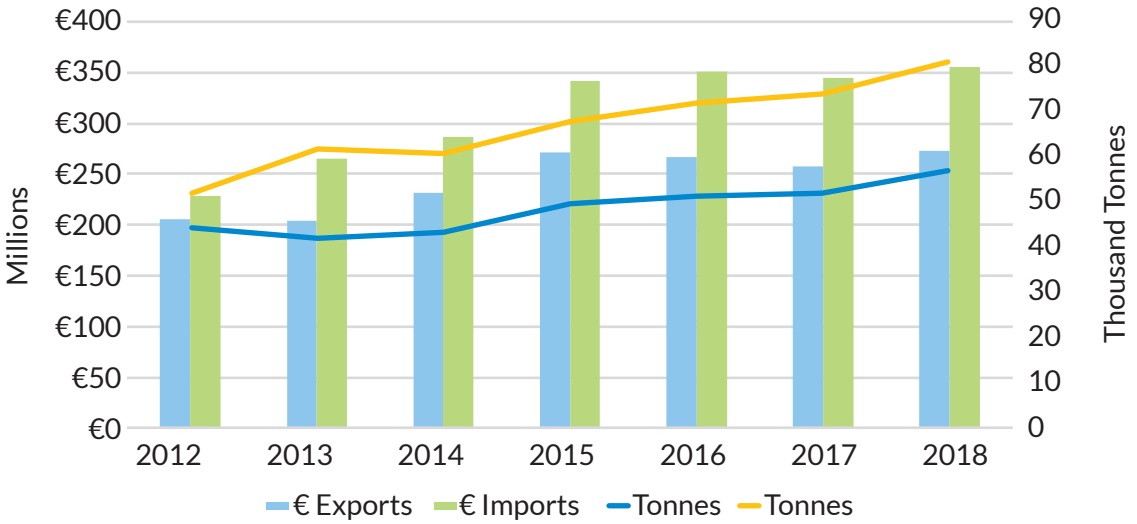
'Chocolate and other preparations containing cocoa, in blocks, slabs or bars of <= 2 kg (excl. filled and with added cereal, fruit or nuts)' makes up 43% of the sectors exports to the United Kingdom and is the sectors largest export to that country. This was followed by 'Preparations containing cocoa, in containers or immediate packings of <= 2 kg' and 'Chocolate and other preparations containing cocoa, in blocks, slabs or bars of <= 2 kg'. These 3 exports total 70% of the chocolate-based products exported to the United Kingdom.

Imports of chocolate-based products reached a high of almost €356 million in 2018. Ireland's largest import under this heading was 'Preparations containing cocoa, in containers or immediate packings of <= 2 kg'. Imports of this commodity totalled over €99 million in 2018 and represents 28% of total chocolate-based products imports.

The 10 top import destinations by value for Chocolate-based products in 2018 were the United Kingdom, Germany, Poland, Belgium, France, the Ivory Coast, the Netherlands, Italy, Croatia and Switzerland. In 2018 imports from the United Kingdom totalled approximately €212 Million euro, a 3% increase on 2017 figures.

Source: Central Statistics Office, Trade Statistics 2018

Figure 6.15 *Exports of Chocolate-Based Products by Value and Volume, 2012 – 2018*



Source: Central Statistics Office, Trade Statistics 2018

6.6 Agri- Food Sector Imports

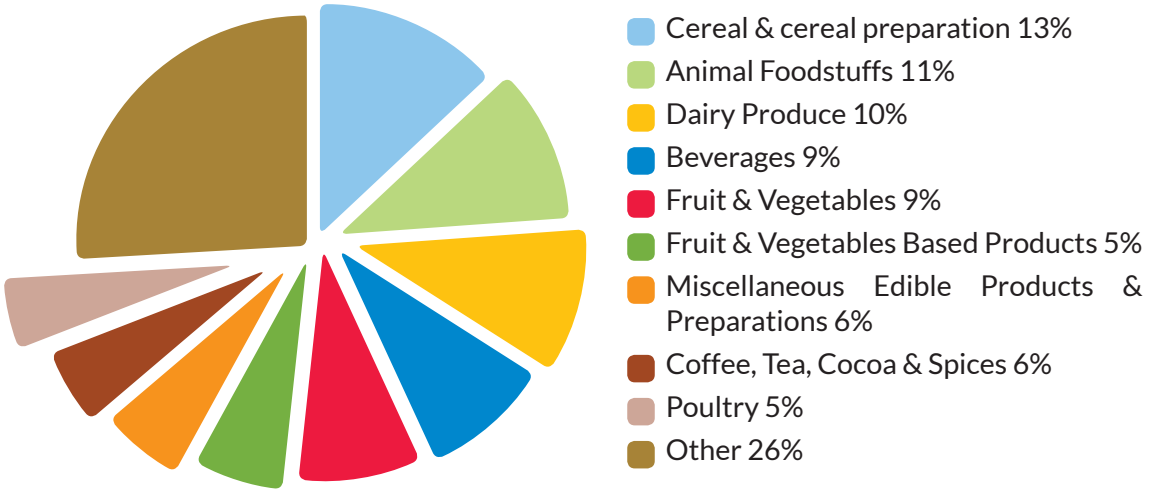
The agri-food sector accounted for 11% of Ireland's total imports in 2018. Between the period 2009 – 2018 agri-food imports increased by 68% from €5.8 billion to over €9.7 billion. Agri-food imports totalled over €9.7 billion in 2018, an increase of 7% on 2017, while volume of goods imported increased by 20% according to the CSO.

In value terms the highest increases between 2017 and 2018 were:

- Animal Foodstuffs, which increased by €280 million to over €1 billion
- Cereal & Cereal Preparation imports increased by €164 million to almost €1.3 billion
- Dairy Produce imports increased by €77 million to almost €1 billion

The top five agri-food categories by value accounted for 52% of total agri-food sector imports in 2018 totalling over €5 billion.

Figure 6.16 *Agri-food Imports by category, 2018*



Source: Central Statistics Office, Trade Statistics 2018

Table 6.7 *Value and volume of agri-food imports by category, 2017 - 2018*

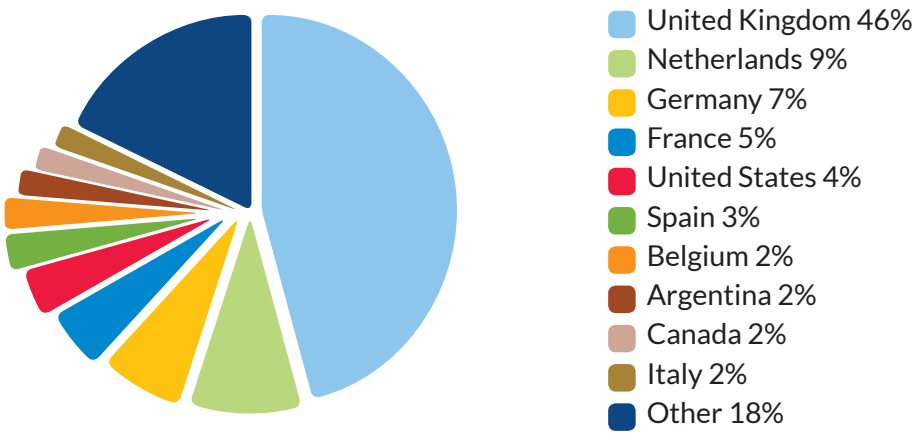
	2017		2018			
	Imports		Imports		% Change	% Change
Category	€ 000	Tonnes	€ 000	Tonnes	€ 000	Tonnes
Animal Foodstuffs	€779,205	3,056,665	€1,058,368	4,039,215	36%	32%
Animal Oils & Fats	€18,437	18,731	€16,419	16,025	-11%	-14%
Animal Skins & Furs	€2,813	318	€2,065	72	-27%	-77%
Beef	€120,877	33,729	€134,816	65,675	12%	95%
Beverages	€868,953	853,044	€885,618	876,044	2%	3%
Cereal & cereal preparation	€1,104,737	2,322,698	€1,268,133	3,121,344	15%	34%
Coffee, Tea, Cocoa & Spices	€595,810	119,274	€612,337	129,010	3%	8%
Cotton	€749	211	€832	233	11%	11%
Crude Animal & Vegetable Material	€211,962	177,333	€220,406	193,402	4%	9%
Dairy Produce	€915,003	983,944	€991,464	1,083,573	8%	10%
Egg	€16,485	8,989	€18,994	10,276	15%	14%
Fish	€294,883	75,349	€290,982	76,224	-1%	1%
Flax, Wool & Animal Hair	€17,538	2,875	€22,865	3,087	30%	7%
Forestry	€293,924	745,681	€315,075	721,443	7%	-3%
Fruit & Vegetables	€796,781	700,856	€838,685	765,175	5%	9%
Fruit & Vegetables Based Products	€484,160	347,779	€519,280	367,802	7%	6%
Live Animals	€303,878	4,899	€252,692	3,640	-17%	-26%
Miscellaneous Edible Products & Preparations	€564,203	209,432	€564,266	223,479	0%	7%
Oilseeds & Oleaginous Fruit	€32,783	85,902	€29,814	70,586	-9%	-18%
Other Meat & Meat Produce	€36,520	13,838	€34,581	12,753	-5%	-8%
Pigmeat	€343,776	108,765	€343,647	140,617	0%	29%
Poultry	€456,599	129,667	€484,850	135,453	6%	4%
Sheepmeat	€25,586	5,060	€28,221	5,335	10%	5%
Sugar, Sugar Preparation & Honey	€371,608	456,741	€355,798	530,694	-4%	16%
Vegetable Oils & Fats	€241,480	266,784	€250,733	311,245	4%	17%
Wood Based Products	€209,555	138,927	€209,421	130,441	0%	-6%
Grand Total	€9,108,306	10,867,490	€9,750,360	13,032,843	7%	20%

Source: Central Statistics Office, Trade Statistics 2018

6.7 Agri- Food Sector Import destinations

In 2018, agri-food goods were imported into Ireland from over 180 countries worldwide. Ireland's top five import destinations were the United Kingdom, the Netherlands, Germany, France and the United States, which accounted for 71% of Ireland's total imports for the year.

Figure 6.17 *Top 10 Agri-Food Import destinations 2018*



Source: Central Statistics Office, Trade Statistics 2018

Table 6.8 *Value and volume of agri-food imports by top 20 destinations, 2017 – 2018*

	2017		2018			
	Imports		Imports		% Change	% Change
Country	€ 000	Tonnes	€ 000	Tonnes	€ 000	Tonnes
United Kingdom	€4,277,053	4,322,171	€4,464,216	4,856,508	4%	12%
Netherlands	€886,906	655,311	€896,495	710,945	1%	8%
Germany	€642,672	386,942	€665,164	511,185	3%	32%
France	€433,624	590,548	€482,747	710,776	11%	20%
United States	€323,486	872,970	€383,819	1,071,514	19%	23%
Spain	€265,451	207,133	€290,820	252,244	10%	22%
Belgium	€255,789	274,468	€254,180	230,489	-1%	-16%
Argentina	€181,912	688,694	€205,865	735,815	13%	7%
Canada	€100,327	459,743	€190,129	957,521	90%	108%
Italy	€176,516	86,101	€186,646	135,519	6%	57%
Poland	€162,322	130,476	€171,524	123,752	6%	-5%
Brazil	€128,568	305,759	€133,812	365,854	4%	20%
Denmark	€121,783	122,198	€132,556	151,499	9%	24%
China	€94,032	55,691	€97,710	54,848	4%	-2%
Sweden	€53,100	98,175	€72,007	129,157	36%	32%
Austria	€47,303	30,609	€68,799	39,968	45%	31%
Chile	€64,729	24,210	€67,948	26,196	5%	8%
Malaysia	€51,203	64,114	€60,501	120,104	18%	87%
Thailand	€54,983	22,558	€57,939	21,921	5%	-3%
South Africa	€45,795	37,971	€54,080	44,983	18%	18%
Total Top 20	€8,367,555	9,435,844	€8,936,958	11,250,797	7%	19%

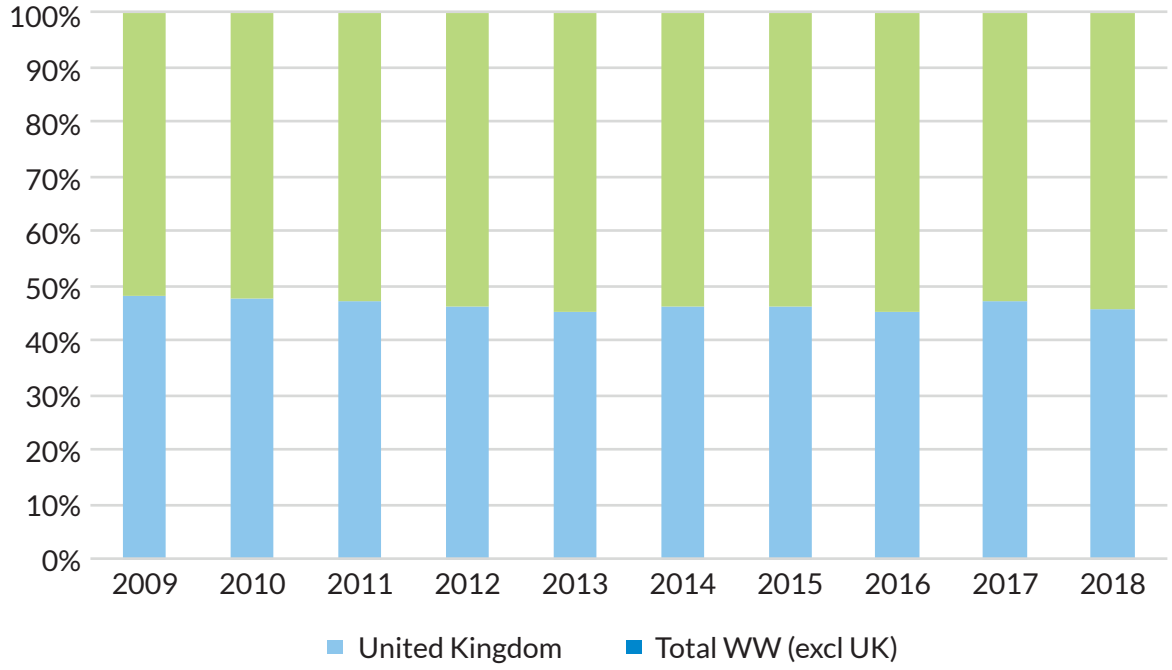
Source: Central Statistics Office, Trade Statistics 2018

6.8 Key Import Markets for Ireland

The United Kingdom (Great Britain & Northern Ireland) remains Ireland's largest import partner with almost 46% of total agri-food sector goods and 59% of Prepared Consumer Food (PCF) products imported into Ireland from the UK in 2018.

In 2018, total agri-food imports from the United Kingdom totalled almost €4.5 billion.

Figure 6.18 *United Kingdom as % of total worldwide Imports, 2009 – 2018*



Source: Central Statistics Office, Trade Statistics 2018

6.9 Prepared Consumer Food Imports

Prepared Consumer Food imports totalled €3.6 billion in 2018, a 2% increase on the previous year, and a 32% increase since 2012.

In value terms, the highest increases between 2017 and 2018 were:

- Breads increased by €54 million
- Water & Juices & Soft Drinks by €41 million
- Extracts, Sauces, Soups by €28 million

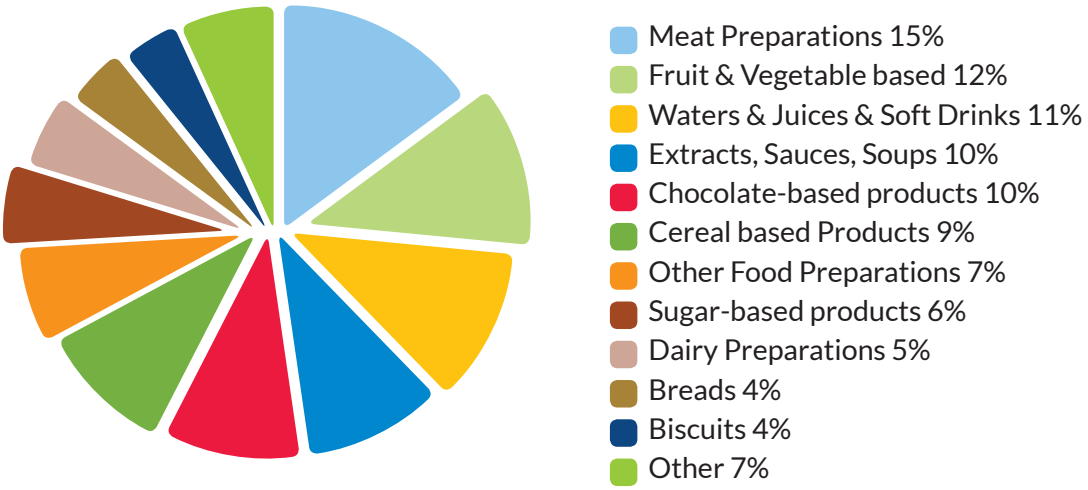
Table 6.9 *Value and volume of Prepared Consumer Food imports by category, 2017 – 2018*

	2017		2018			
	Imports		Imports		% Change	% Change
Category	€ 000	Tonnes	€ 000	Tonnes	€ 000	Tonnes
Biscuits	€ 137,657	64,006	€ 143,411	53,133	4%	-17%
Breads	€ 97,149	61,883	€ 150,741	108,294	55%	75%
Cereal based Products	€ 332,249	394,980	€ 347,881	414,868	5%	5%
Chocolate-based products	€ 344,562	74,159	€ 355,714	81,103	3%	9%
Dairy Preparations	€ 204,107	95,679	€ 191,549	93,407	-6%	-2%
Extracts, Sauces, Soups	€ 333,020	109,809	€ 361,111	121,713	8%	11%
Frozen Confectionery	€ 66,501	28,865	€ 69,211	33,767	4%	17%
Fruit & Vegetable based	€ 410,680	292,515	€ 421,242	304,922	3%	4%
Fruit-based bakery	€ 80,183	23,105	€ 57,213	17,147	-29%	-26%
Meat Preparations	€ 533,942	135,309	€ 537,574	132,405	1%	-2%
Other Food Preparations	€ 259,634	104,058	€ 249,234	109,307	-4%	5%
Pizza/Quiche	€ 115,710	43,719	€ 69,881	25,268	-40%	-42%
Savoury Snacks etc	€ 44,254	13,735	€ 50,145	14,782	13%	8%
Sugar-based products	€ 215,935	307,433	€ 205,468	363,089	-5%	18%
Waters & Juices & Soft Drinks	€ 364,249	469,028	€ 404,908	502,439	11%	7%
Grand Total	€ 3,539,832	2,218,284	€ 3,615,284	2,375,643	2%	7%

Source: Central Statistics Office, Trade Statistics 2018

The top five Prepared Consumer Food categories accounted for 58% of total PCF imports in 2018 and totalled just over €2 billion.

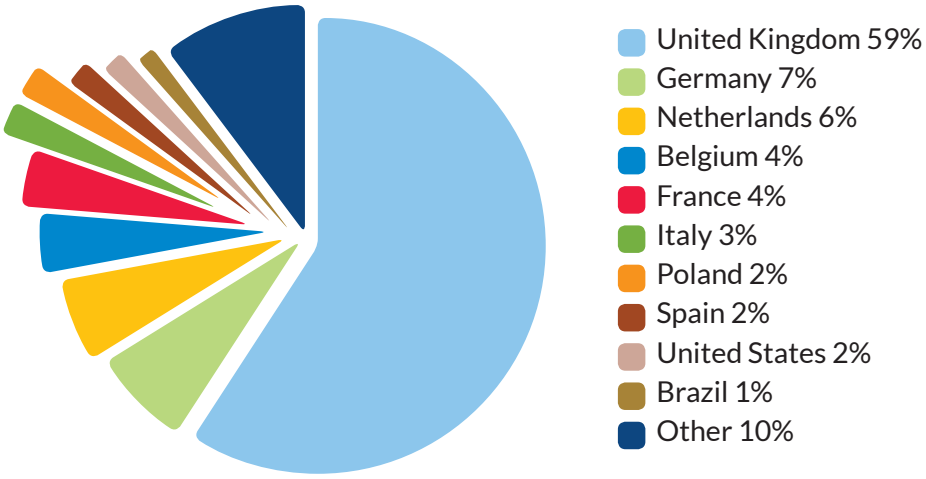
Figure 6.19 *Prepared Consumer Food Imports by type, 2018*



Source: Central Statistics Office, Trade Statistics 2018

Ireland's largest trading partner for Prepared Consumer Food Imports is the United Kingdom with 59% of PCF imports totalling over €2.1 billion in imports coming from the UK in 2018. Other significant trading partners include Germany, the Netherlands, Belgium and France.

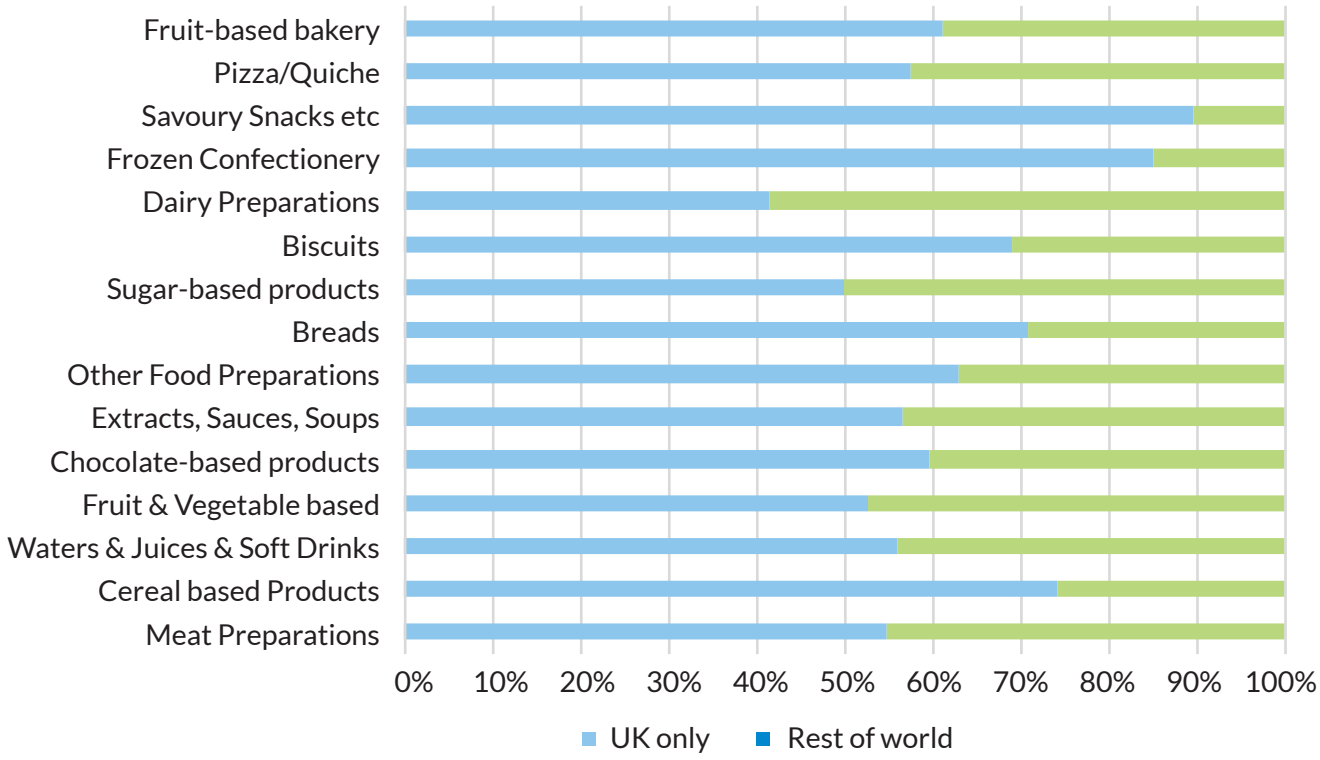
Figure 6.20 *Prepared Consumer Food Imports by Country of origin, 2018*



Source: Central Statistics Office, Trade Statistics 2018

While Prepared Consumer Foods (PCF) imports from the United Kingdom accounted for 59% of total PCF imports, 90% of total Savoury Snacks and 85% of Frozen Confectionery under the PCF heading were imported from the UK. Figure 6.21 provides a detailed analysis of each category by percentage imported from the UK in 2018.

Figure 6.21 *Prepared Consumer Food Imports by Country of origin, 2018*



Source: Central Statistics Office, Trade Statistics 2018

CHAPTER 7

EU and International Policy

The total CAP budget (EAGF and EAFRD) for the EU 27 will be

€365 billion

over the 7 year period, 2021-2027.

The EU - Japan Economic Partnership Agreement (EPA) came into force (EIF) on

1st February, 2019

The East and Southeast Asia region is expected to see per capita income grow by

60%-100%

by 2028.

7.1 Overview

The EU and International Agricultural Policy Chapter offers an overview of international factors which effect Irish Agriculture. This will cover the influence of EU agricultural policy on Irish agricultural development and also on the impact that Brexit would have Irish Agriculture. In addition, this chapter will incorporate data generated by the Organisation for Economic Cooperation and Development (OECD), which benchmarks the level of EU agricultural supports against other international markets and will provide updates on international trade developments, including trade negotiations at the World Trade Organisation.

7.2 Brexit

The Agri-food sector is of critical importance to the Irish economy. Its regional spread means that it underpins the socio-economic development of rural areas in particular. The Agri-food sector employed 173,000 people, representing 7.7% of total employment in 2018. There are ambitious plans to further grow the sector under the Food Wise 2025 strategy, which would see the creation of 23,000 direct and indirect jobs and a growth in the value of exports of 85% by 2025.

The decision of UK voters to leave the EU poses enormous challenges for the Irish agri-food and fisheries sectors. This challenge has been confirmed by a number of credible studies, including those by the ESRI, Department of Finance and Copenhagen Economics.

The UK is Ireland's largest export destination for agri-food products with the Central Statistics Office trade statistics valuing trade at approximately €5.6 billion in 2018; while Ireland is the UK's largest export destination of agri-food products with a value of €4.5 billion.

Work continued in 2018 to address the effects that Brexit will bring. The EU/UK negotiated Withdrawal Agreement and Political Declaration were both approved by the EU 27 in November 2018, having already been approved by the UK cabinet and Prime Minister. The Agreement and the Declaration were then subject to ratification of both the European Parliament and the UK Parliament.

While the UK Parliament was initially due to vote on the documents last December, serious divisions among MPs has meant that the Agreement was not ratified by the due date of March 29th 2019. Following discussions with the EU27, an extension of the due date was granted. All indications are that the EU parliament will ratify the Agreement if ratified by the UK parliament.

Notwithstanding UK requests for amendments to the Withdrawal Agreement, particularly to the backstop proposal on ensuring no hard border on the Island of Ireland, Heads of States were united in their confirmation that they stand by the agreement and that it is not open for renegotiation. The EU 27 did, however, confirm that is the backstop were to be triggered, it would apply temporarily, unless and until it is superseded by a subsequent agreement that ensures that a hard border is avoided.

In the short-term sterling volatility continues to impact businesses that have a significant trading relationship with the UK. The medium to longer- term threats from Brexit could include the introduction of tariffs on trade between the EU and the UK and divergences in regulations and standards between both countries. The Brexit challenges continue to be addressed through budgetary measures covering Competitiveness and Market/ Product Diversification. In Budget 2018, a new (joint DAFM / DEBI) Brexit Loan Scheme was announced, which makes up to €300 million of working capital finance available to SMEs, with at least 40% of which being made available to food businesses. A further series of dedicated measures were also announced in Budget 2018, including supports for Bord Bia (Market prioritisation initiative) and Teagasc (new National Food Innovation Hub), and capital investment in the food industry.

Budget 2019, announced in October 2018, introduced a €78m Brexit package for farmers, fishermen, food SMEs and for Brexit preparedness costs. The package includes €23m in additional support to Areas of Natural Constraint recipients; €20m to applicants for a new Beef Environmental Efficiency Programme; and €1m in supports for the horticulture sector. A sum of €27m was allocated for capital funding for the food industry; and €7m for additional staff and ICT requirements for increased import controls at ports and airports. The "Future Growth Loan Scheme" will bring up to €300 million of loans to the market and will support

strategic long-term capital investment in a post-Brexit environment by SMEs, farmers and the seafood sector.

In order to apprise Key Member States of Ireland's concern on the impact of Brexit on the agri-food and fisheries sectors, Minister Creed continued his engagement with EU counterparts in 2018. During the year he met with his counterparts from various members of the EU 27. The purposes of these engagements was to build alliances and assess the degree to which member states would support Irelands efforts to have the agri-food and fisheries impacts of Brexit specifically and adequately taken account of in the future relationship negotiations.

Minister for Agriculture, Food and the Marine, Michael Creed T.D has regularly met with Commissioner Hogan and Commissioner Vella (DG Mare) to discuss the potential impacts a disorderly Brexit would have on the Irish agri-food and fisheries sectors. Minister Creed stressed the need for the Commission to be ready to deploy a range of measures to mitigate the potential impacts on farmers and processors. Commissioner Hogan has confirmed the EU's readiness to respond and support Ireland in such circumstances, as evidenced by Minister Creed's announcement of the Beef Exceptional Aid Measure (BEAM) in July. This measure will be funded by a combination of EU exceptional aid and exchequer support, provided in light of the difficult circumstances that Irish beef farmers have been facing as a result of market volatility and uncertainty arising out of Brexit.

Minister Creed has also met UK Secretary of State Michael Gove on two occasions during the year to discuss Brexit.

Minister Creed has continued his engagements with agri-food sector stakeholders, through meetings of the Brexit Stakeholders Consultative Committee and attendance at events organised by the various representative bodies. These engagements afforded him the opportunity to keep the sector fully informed of developments while at the same time address their concerns and listen to recommendations, which are in turn, being fed into the 'whole-of-government' approach to the negotiations.

Outlook

While it is difficult to determine what final position the UK parliament will adopt on the Withdrawal Agreement, the situation is that if it is not ratified, both sets of negotiators will immediately commence the process of drawing up the future trading relationship agreement based on the Joint Political Declaration.

The Department will however, as part of the whole-of-government approach, continue its preparedness for a 'no deal' Brexit by focusing on the enhanced infrastructural requirements for Dublin Port, Rosslare Port and Dublin Airport; by front loading 2019 recruitment planning; and accessing the required additional IT hardware and software in order to implement EU sanitary and phytosanitary (SPS) import controls on imports of agri-food products from the UK.

The Department will carry out the necessary import controls fulfilling its legal obligations in this regard as efficiently as possible,while also ensuring the minimum possible disruption to trading arrangements.

On reducing Ireland's exposure to the UK market, Minister Creed will continue to work with the industry to increase the sector's global footprint across the world.

Minister Creed will continue to engage with Commissioner Hogan and Commissioner Vella to monitor developments in 2019 so that adequate supports are available for the agri-food and fisheries sectors in the event of a no deal Brexit.

7.3 EU Agriculture Policy

Overview

Bulgaria and Austria shared the role of the President of the Council of the European Union in 2018- Bulgaria from January to June and Austria from July to December. The key item discussed by Member states, including Ireland, throughout 2018 was the new legislative proposals for the next CAP 2021-2027. The Commission proposal on unfair trading practices, focusing in particular on farmers' position in the supply chain, also featured strongly during 2018. The ongoing market situation across the various agricultural sectors was discussed on a regular basis. Discussions also continued on a number of legislative proposals including, the Spirit Drinks regulation, official controls and plant health. Ireland also submitted a fourth amendment to its 2014-2020 Rural Development Programme in 2018.

The European Commission published its proposals on the CAP post 2020 on the 1st of June 2018. Negotiations on the draft legislative proposals commenced under the Bulgaria Presidency and continued under the Austrian Presidency. The Austrian presidency outlined an intensive programme of Working Party meetings to discuss specific aspects of the CAP proposals for the duration of its Presidency.

CAP Post 2020

The Future of Food and Farming

The communication from the Commission on 'The Future of Food and Farming', which was released in November 2017, continued to be discussed at EU level and the shape of the future of the CAP post 2020 intensified under the Bulgarian Presidency. The Communication proposed a simpler CAP, with significantly more flexibility for Member States, and a sharper focus on objectives and results, particularly in the environmental area. The communication acknowledges the solid performance of the CAP since 1962 but recognised that further work can be done in certain areas.

DAFM Consultation

The Department of Agriculture Food and the Marine launched an eight week public consultation on the future of CAP post 2020 from 26 January to 23 March 2018. As part of this process a total of six public meetings were held in various locations around the country in February 2018.

The Department received 164 written responses to the public consultation process, the majority of which were from farmers and farming organisations. The need for a strong CAP budget was a common theme in the responses received.

Following on from publication of the Commission legislative proposals on the CAP post 2020 on 1 June 2018, the Minister for Agriculture, Food and the Marine hosted a seminar on the new CAP proposals for interested stakeholders, including farm bodies, state agencies and the environmental pillar on 4 July 2018. The outcome from the public consultation process and the stakeholder conference is feeding into the Departments analysis and policy response to the proposals.

Common Agricultural Policy 2021-2027

The legislative proposals for the next CAP 2021-27 were presented on 1 June 2018 by Commissioner Hogan. The existing four CAP Regulations (1305/2013, 1306/2013, 1307/2013 and 1308/2013) are being replaced by three new Regulations. The Direct Payments Regulation (1307/2013) and the Rural Development Regulation (1305/2013 are being consolidated in one Regulation which establishes rules on the CAP strategic plans to be drawn up by Member States. The proposed Horizontal Regulation on the Financing, Management and Monitoring of the CAP maintains the two pillar structure, however, and is

adapted to address the requirements of the new delivery model and reflects the increased flexibility and subsidiarity for Member States in implementing the CAP. The third and final regulation is an amending regulation, amending the current Common Organisation of the Markets (CMO) Regulation (1308/2013).

The new CAP proposals contain the so called 'new delivery model', which requires Member States to include all interventions carried out under Pillar I and Pillar II in their CAP Strategic Plan. It shifts the focus from a compliance-based model to a performance-based model. There is a comprehensive set of indicators which the Commission will use to assess progress towards targets set during the approval process of the CAP Strategic Plan.

The proposals outline a greater environmental ambition for the agriculture sector. This is particularly the case with regard to environmental standards where enhanced requirements have increased the number of Statutory Management Requirements (SMR) from 13 to 16, including the addition of requirements in respect of obligations under the Water Framework Directive. The number of Good Agricultural Environmental Conditions (GAEC) is increasing from 7 to 10.

The new CAP will also contain mandatory eco-schemes for the climate and the environment, financed from Pillar 1 payments and voluntary agri-environmental climate measure (AECMs) under Pillar II of the new CAP.

Member States will be afforded greater flexibility when it comes to designing interventions, which must achieve the common EU objective. Within agreed parameters, Member States can design their interventions in such a way so that they meet their own specific environmental needs and considerations.

The nine key objectives of the CAP will be the basis upon which the future CAP Strategic Plans will be built and will be the cornerstone of a more results-oriented policy. The objectives are to:-

1. support viable farm income and resilience across the Union to enhance food security;
2. enhance market orientation and increase competitiveness, including greater focus on research, technology and digitalisation;
3. improve the farmers' position in the value chain;
4. contribute to climate change mitigation and adaptation, as well as sustainable energy;
5. foster sustainable development and efficient management of natural resources such as water, soil and air;
6. contribute to the protection of biodiversity, enhance ecosystem services and preserve habitats and landscapes;
7. attract young farmers and facilitate business development in rural areas;
8. promote employment, growth, social inclusion and local development in rural areas, including bio-economy and sustainable forestry;
9. improve the response of EU agriculture to societal demands on food and health, including safe, nutritious and sustainable food, food waste, as well as animal welfare.

The CAP legislative proposals are under ongoing consideration at EU level. The Austrian Presidency outlined an intensive programme of Working Party meetings to discuss specific aspects of the new CAP proposals for the duration of their Presidency. The proposals were discussed at 25 Working Group meetings, 7 Special Committee of Agriculture meetings, and at each of the Agri-Fish Councils during their Presidency.

The Austrian Presidency issued three sets of revised texts – two relating to the CAP Strategic Plan Regulation and one relating to the Horizontal Regulation (financing, management and monitoring) – during their tenure. They presented a final progress report in December, setting out the work done on each of the proposals and the current state of play. The progress report also sets out where the Council stands with its examination of the texts. The revised texts form a good basis for continuing discussions in 2019 under the incoming Romanian Presidency.

MFF

The CAP draft legislative proposals come against the background of the proposals for the next Multi-annual Financial Framework (MFF) 2021-2027, which were published in May 2018.

The proposals outline an overall 5% cut to the CAP budget, representing a 3.9% cut to Pillar I (EAGF/Direct Payments) and a 15% cut to Pillar II (EAFRD/Rural Development).

The total CAP budget (EAGF and EAFRD) for the EU 27 will be €365 billion over the 7 year period. Pillar 1 (EAGF/direct payments) will account for approximately €286 billon with Pillar 2 (EAFRD/rural development) accounting for approximately €78.8 billion. The CAP share of the EU budget will reduce from 37.6% to a 28.5% share of the post 2020 MFF.

The proposal is made up of a number of different components:

- A 3.9% cut in direct payment envelopes for all Member States
- Further external convergence commencing in 2022 for some Member States. If a Member States payments are less than 90% of the EU average, their allocations will increase to close 50% of the gap to 90% of the EU average in financial year 2027. Allocations will increase in 6 equal steps starting in year 2022.

- Higher cuts of 15% in Pillar II/rural development supports and a reduction in the EU rate of co-financing of approximately 10%.

Other Financial Support
In addition to the CAP budget €10 billion of the Horizon Europe programme has been provided to support research and innovation in food, agriculture, rural development and bio-economy.

7.4 EU Developments

Rural Development Programme

The fourth amendment to the 2014-2020 Rural Development Programme (RDP) was approved by the Commission in July, 2018.

The fourth amendment provided for:

- changes to the Measure 1 description to remove references to the Burren Training;
- changes to the LEADER Food Initiatives to clarify eligibility criteria;
- changes to the Performance Framework to reflect more recent information; and
- changes to the ANC payment rates and the Financial Plan to increase annual funding to the ANC scheme by €25 million.

Market situation

The market situation across the various agricultural sectors continued to be monitored during 2018. The early part of 2018 saw the Commission adopt a strategy for reducing the overhang of Skimmed Milk Powder stocks in public intervention with the introduction of an amendment to Implementing Regulation 2016/2080 "as regards the periods for the submission tenders". This resulted in effectively doubling the frequency of tenders (previously 1 event per month) for sale of product in intervention. The amendment provided for "two partial invitations to tender per month", except for September which had just one tender that month.

Unfair Trading Practices

The Unfair Trading Practices (UTP) proposal aims at reducing the occurrence of this practice in the food supply chain by introducing a minimum common standard of protection across the EU that consists of a short list of specific prohibited UTPs in relation to suppliers, including a farmer that is a small and medium-sized SME to a buyer that is not an SME.

Trilogue discussions on the proposal commenced with the European Parliament in October 2018. At the sixth trilogue on 19 December 2018, the European Parliament and the Council reached an agreement ad referendum on the compromise text. However, the final text remains to be agreed between the EU Institutions and further work on this dossier will continue under the Romanian Presidency in 2019.

Spirit Drinks

In 2018 consideration continued of the proposal for a Regulation of the European Parliament and of the Council on the definition, presentation and labeling of spirit drinks, the use of the names of spirit drinks in the presentation and labeling of other foodstuffs and the protection of geographical indications for spirit drinks.

Trilogue discussions commenced with the European Parliament. The Presidency was given a revised mandate for the third trilogue meeting in November 2018, following which, the European Parliament and the Council reached an agreement ad *referendum* on a compromise text.

The proposed agreement will now go back to the ENVI Committee of the European Parliament for approval and is due to be considered further in 2019.

Bio-Economy

The EU Bio economy Strategy was updated in October 2018 and presented to representatives from Member States at an event entitled "Sustainable & Circular Bio-Economy, the European way". The conference focused on the need to have a sustainable and circular Bio-Economy to enhance the transition in a changed EU policy context and towards a new environmental, social and economic reality.

Forestry Sector

Council conclusions with a view to the participation of the European Union and its Member States in the 13th Session of the United Nations Forum on Forests (UNFF 13) were adopted in April 2018. These conclusions included statements on Sustainable Development Goals, addressing deforestation and forest degradation, promoting Sustainable Forest Management, combating illegal logging, striving towards a circular economy and the crucial role of monitoring, assessment and reporting.

The Effort Sharing Regulation *(EU) 2018/842* was adopted on 14 May 2018 and sets the emission reduction targets and trajectories for EU Member States to meet an overall goal of reducing emissions by 40% in 2030 compared to 1990, spread across the Emission Trading Scheme (ETS) and non-ETS sectors, including agriculture. Ireland's non-ETS goal is to reduce emissions by 30% compared to 2005 levels. Under Article 7, Member States have access to a flexibility to use net removals from the Land Use, Land Use Change and Forestry (LULUCF) Regulation to meet their goals. This places the forest sector, and afforestation in particular, in a vital role regarding national emission reduction targets.

The Land Use, Land Use Change and Forestry (LULUCF) Regulation *(EU) 2018/841* was adopted on 19 June 2018. This Regulation lays out the accounting rules for changes in greenhouse gases in forests and other land uses in relation to their contribution to emission reduction targets.

In December 2018, the Department of Agriculture, Food and the Marine submitted to the European Commission a draft of the Forest Reference Level (FRL) and National Forest Accounting Plan (NFAP) under Article 8 of "Regulation (EU) 2018/841 of the European Parliament and of the Council of 30 May 2018 on the inclusion of greenhouse gas emissions and removals from land use, land use change and forestry in the 2030 climate and energy framework, and amending Regulation (EU) No 525/2013 and Decision No 529/2013/EU", commonly referred to as the LULUCF Regulation. The FRL represents a projection for the period 2021-2025 of emissions and removals from managed forests in Ireland against which greenhouse gas changes will be accounted. The FRL and NFAP will undergo a review process in 2019.

In December 2018, the 'Forest Europe' pan-European Ministerial Conference on the Protection of Forests in Europe hosted formal discussions on the proposed Legally Binding Agreement on Forests in Europe. These discussions aimed to facilitate the resumption of negotiations and resulted in a Draft Ministerial Decision which has been circulated to the responsible Ministers for consideration and endorsement.

Rural Development

Income stabilisation tool: while the support linked to the general income stabilisation tool will continue to be triggered when the farmer's income drops by more than 30% of his/her average annual income, the threshold for the new sector specific tool will be 20%. Similarly support for insurance contracts which cover for, among others, losses caused by adverse climatic events, will become available when more than 20% of the average annual production of the farmer is destroyed.

Financial instruments: several changes are made to the rules to be respected by financial instruments to promote their use and harmonise them with other EU Structural and Investment Funds.

Direct Payments

Active farmer: the distinction between active and non-active farmers becomes optional, thereby allowing those member states where it resulted in excessive administrative burden, to discontinue it.

Permanent grassland: current rules are modified so as to provide greater flexibility for member states in implementing the requirement.

Reduction of payments: the agreement confirms the possibility for member states to review their decisions on the reduction of direct payments on an annual basis.

Greening: areas farmed with plant varieties such as silvergrass (miscanthus) and silphion (silphium perfoliotum), as well as land left fallow for melliferous plants will also be considered as ecological focus.

Young farmers: payments for young farmers will be granted for five years from the submission date, as long as the submission was made within five years from the setting up of the farm. In addition, member states may increase young farmers' payments in the first pillar up to 50% within the existing ceilings.

Voluntary coupled support: member states will be able to review their decision annually.

Common market organisation

Value sharing: the possibility to collectively negotiate value-sharing terms in contracts will be extended to sectors other than sugar and will be voluntary.

Producer organisation (POs): institutions decided to stick to the status quo concerning the voluntary recognition of POs, the requirement by which their economic activity must be genuine, and the derogation foreseen for the milk sector. The proposal to add a new category of organisations ("bargaining organisations") was not retained.

POs and competition rules: some POs' prerogatives such as planning production, optimising production costs, placing on the market and negotiating contracts for the supply of agricultural products on behalf of members (already existing in sectors such as olive oil, beef and arable crops) will be extended to all sectors with a view to improving the position of farmers in the supply chain. In light of such extension, it was also decided to add to the article on producer organisations some safeguards to guarantee that competition is not excluded.

Fruit and vegetables' operational programmes, wine and import quotas: the agreed rules provide for a simplification and technical improvements in these fields.

Crisis management: the proposal for a voluntary production reduction scheme in times of crisis was not retained, thereby postponing the debate on the subject to the upcoming review of the CAP post 2020

Horizontal regulation

Crisis reserve: while no changes were made to the current rules, the Commission undertook in a statement to review the operation of the reserve in the context of the preparations for the next multiannual financial framework with a view to allowing an efficient and timely intervention in times of market crisis.

50/50 rule: the proposal to eliminate the so-called "50/50 rule" was not retained. Member states and the EU budget will keep sharing equally the financial consequences of sums lost as a result of irregularities and not recovered within a reasonable period.

Financial discipline: the existing procedure ensuring that the expenditure under the provisions of the CAP does not exceed the limits specified in the EU budget, was simplified and will be managed by the Commission alone.

7.5 International Trade and Policy Developments

Organisation for Economic Cooperation and Development (OECD)

The OECD Committee for Agriculture provides a forum for senior policy officials to share experiences and improve mutual understanding of agriculture, trade and agri-environmental policies, and to enhance policy performance and effectiveness at both the domestic and the international levels. The Committee produces two annual flagship publications: the OECD-FAO Agricultural Outlook and the Agricultural Policy Monitoring and Evaluation report.

DAFM represents Ireland at the Committee for Agriculture and Committee for Fisheries, and their subsidiary working parties and networks, including the Working Party on Agricultural Policies and Markets, the Joint Working Party on Agriculture and Trade, the Joint Working Party on Agriculture and the Environment, the Farm Level Analysis Network, the Food Chain Analysis Network, and other ad-hoc groups and committees that are formed to address specific topics.

OECD FAO Agricultural Outlook 2019 – 2028

Background:

The OECD-FAO Agricultural Outlook 2018-2028 brings together the commodity, policy and country expertise of both organisations and input from collaborating member countries to provide a consensus assessment of the ten-year prospects for agricultural and fish commodity markets at national, regional and global levels.

Macroeconomic Outlook:

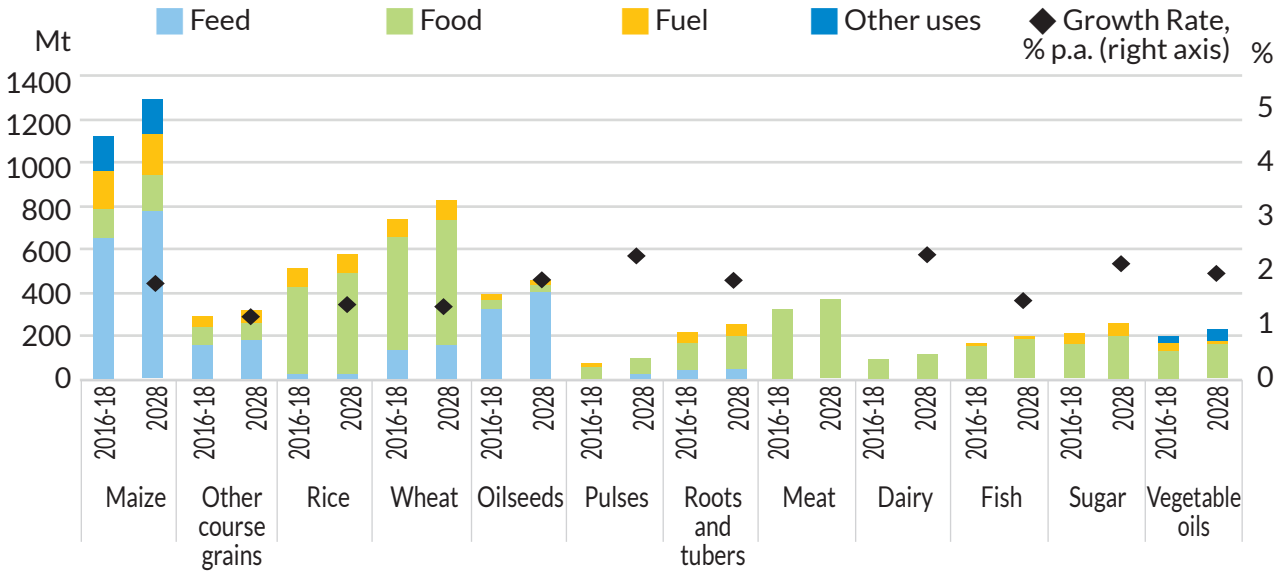
The Outlook assumes policies will remain as they are during the projection period. The decision of the United Kingdom to leave the European Union is not included in the projections as the terms of departure have not yet been determined.

For the coming decade, economic growth of 1.9% per annum is expected for OECD countries, broadly the same pace as over the last decade (1.7% p.a.). Growth is projected to slow for China but accelerate in India compared with the past decade.

Consumption:

Demand for agricultural commodities will grow by 15% over the coming decade due to a rising affluent global population. Economic growth assumptions are uncertain due to a view pointing to an overall economic slowdown. The demand is driven by a set of common factors, such as population dynamics, disposable income, prices and consumer references.

Figure 7.1 *Global use of major commodities*



Note: Feed use of oilseeds refers to the oilseed equivalent of the protein meal component of crushed oilseeds; the oil obtained from crushing oilseeds is accounted for in 'vegetable oils;

Dairy refers to all dairy products in milk solid equivalent units; 'sugar biofuel use refers to sugarcane converted into sugar equivalent units

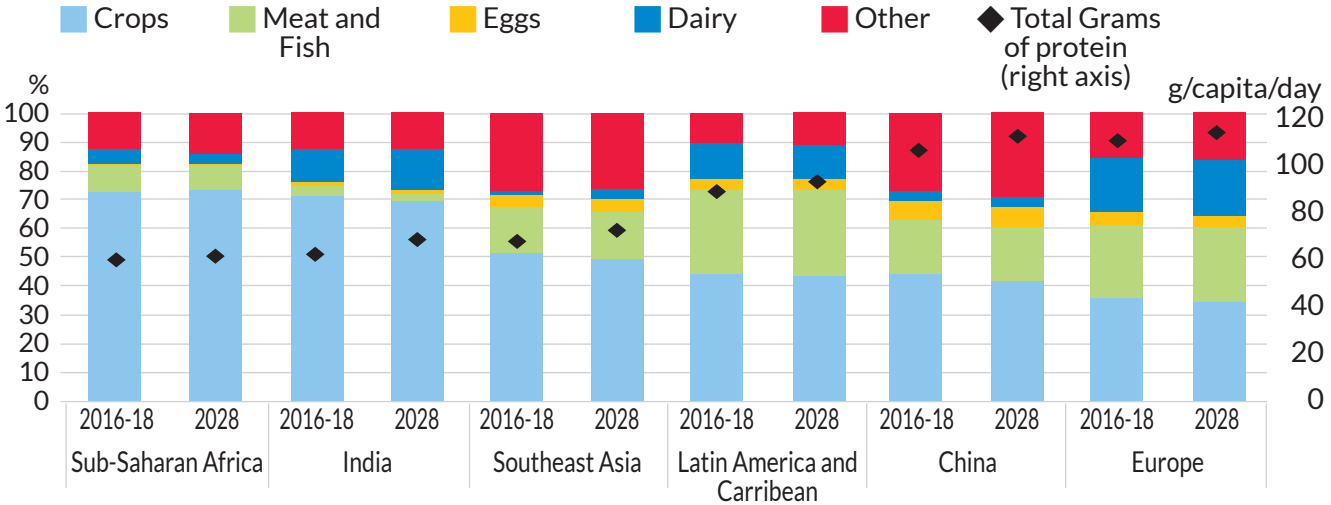
Source: OECD.FAO (2019) 'OECD -FAO Agricultural Outlook'

Food has been the primary use for most edible commodities, however feed and fuel uses have made significant gains in recent decades.

Total food use is predicted to increase by 1.2% for cereals and 1.7% for animal products. Demand for higher value products is projected to grow faster than for staples based on a combination of per capita use and population growth.

Consumption of dairy products is projected to expand by 20Mt (milk solids equivalent) over the medium term while meat and fish consumption is expected to increase by 40 Mt and 25 Mt respectively by 2028 with much of this attributed to India.

Figure 7.2 *Contribution of protein sources to total daily per capita availability*

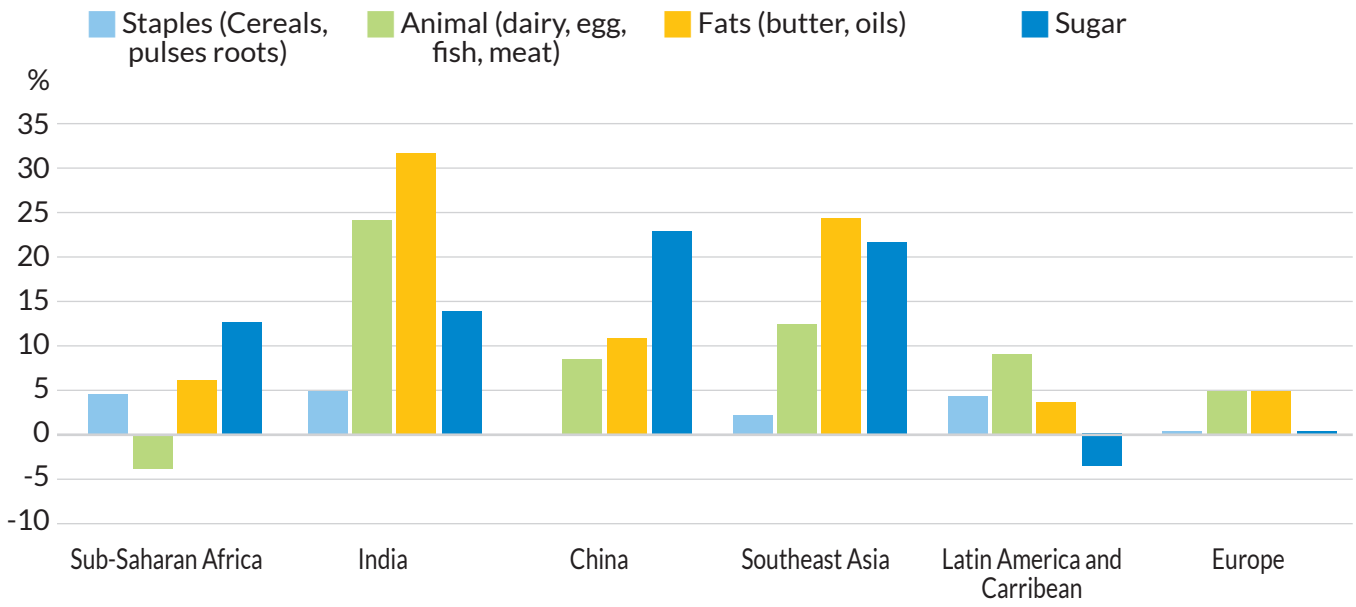


Note: Bars refer to the share of the food group in total daily per capita protein intake (left axis); Dots represent the total quantity daily per capita protein intake (right axis); Crops include arable food crops (cereals, edible oilseeds, pulses, roots and tubers, sugar)

Source: OECD.FAO (2019) 'OECD -FAO Agricultural Outlook'

For meat and dairy products, the impact of population dynamics is lower as income and individual preferences play a greater role. In Asia, population growth is responsible for about 60% of the additional consumption of meat. Meat consumption in Africa is expected to expand by only 25%, despite population growth rate of 30% over the coming decade. Consumers in low-income countries will continue to obtain roughly 70% of total calories and protein from staple foods, while only 20% of protein will come from animal sources. People in higher income countries will still consume around 40% of calories as staple foods and obtain over half of their protein from animal sources.

Figure 7.3 *% change in food group in daily per capita calorie availability 2016- 2018*



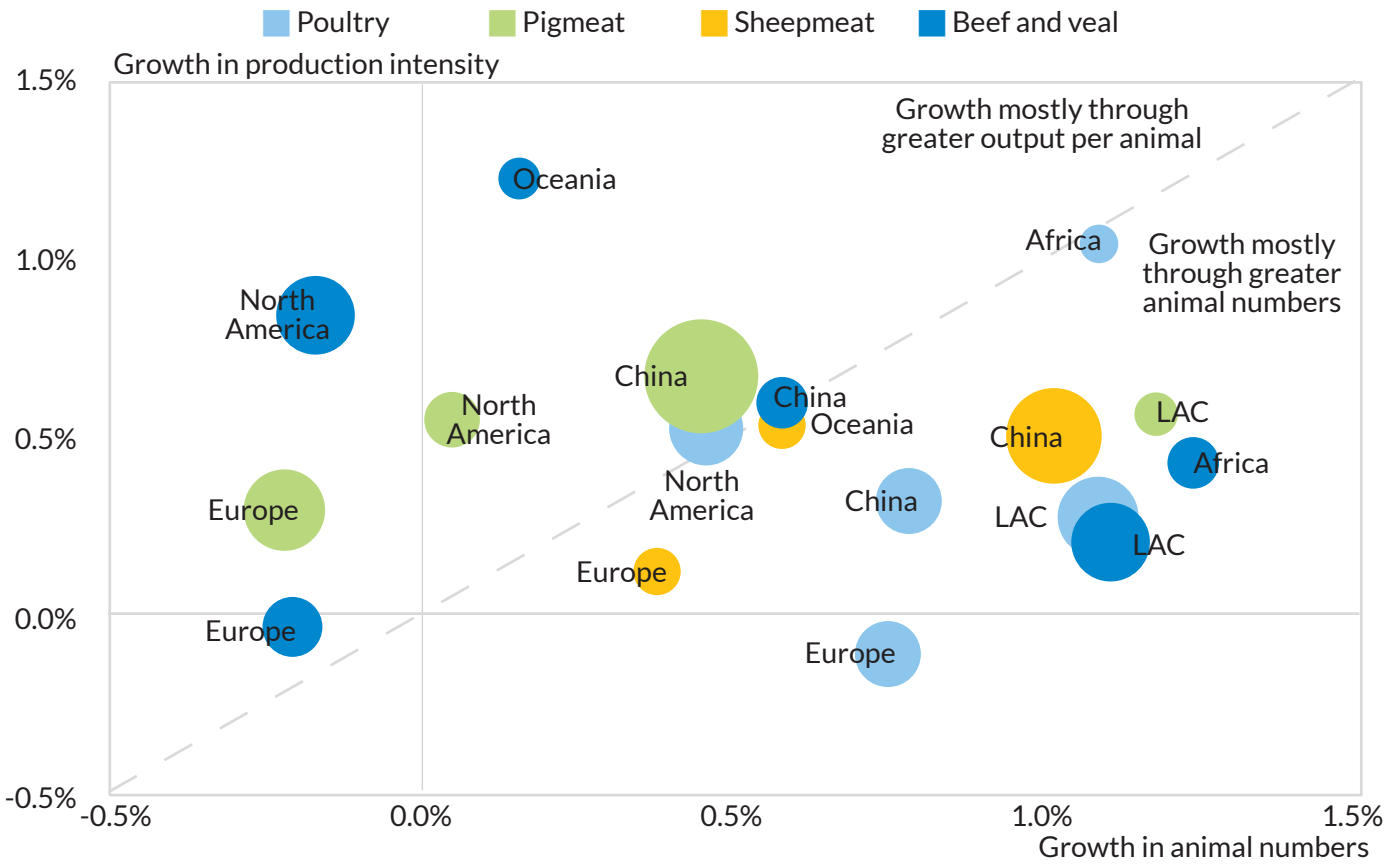
Source: OECD.FAO (2019) 'OECD -FAO Agricultural Outlook'

The East and Southeast Asia region is expected to see per capita income grow by 60%-100% by 2028. This will result in a greater demand for meat, with consumption rising by 5kg/ capita in China and 4kg/ capita in Southeast Asia over the medium term. This increase will be predominantly in poultry and pork meat. The United States will see a small increase of 2% in consumption which will be significant in terms of total consumption. Fresh dairy product consumption in Pakistan will increase by over 18% to an average of 274 kg/capita which will represent over 30% of daily protein while in an increase in India will account for 15% of total protein intake. Countries such as Canada and Australia will see a decrease in beef and veal consumption mainly due to health concerns, however this will in turn promote consumption of poultry meat. Biodiesel demand is expected to rise in regions such as Indonesia while a 4% decrease is expected to occur in the European Union.

Production:

Global agricultural production is estimated to increase by 14%. Global crop production is said to increase by 384 Mt for cereal, mostly due to yield improvements. Livestock production is predicted to expand by nearly 15% which can be attributed to adaption of more intensive production systems influenced by animal breeding and improvement in management practices. Globally, growth in livestock production will be based on declining pasture land but an increase in use of animal feed. Poultry meat is expected to increase by 20 Mt which will account for over half the expected meat production increase over the next 10 years, with China and Latin America accounting for nearly 40% of production.

Figure 7.4 *Source of meat production growth by region.*



Note: Production intensity is defined as total annual output divided by the number of animals at the end of the calendar year. The size of each bubble is proportional to the regions share of global production of each meta type in 2028. Regions accounting for less than 5% are not shown. One outlier (sheep meat in Africa) is not shown.

Source: OECD.FAO (2019) 'OECD -FAO Agricultural Outlook'

Latin America and the United States is expected to be responsible for over half the increase of global beef and veal production accounting for 4.5 Mt of a total global prediction of 9 Mt. Pig meat production is estimated to increase by 11 Mt by 2028 with expansion largely taking place in China, accounting for 42% of growth. Due to recent out breaks of African swine fever this will push production to larger more productive systems.

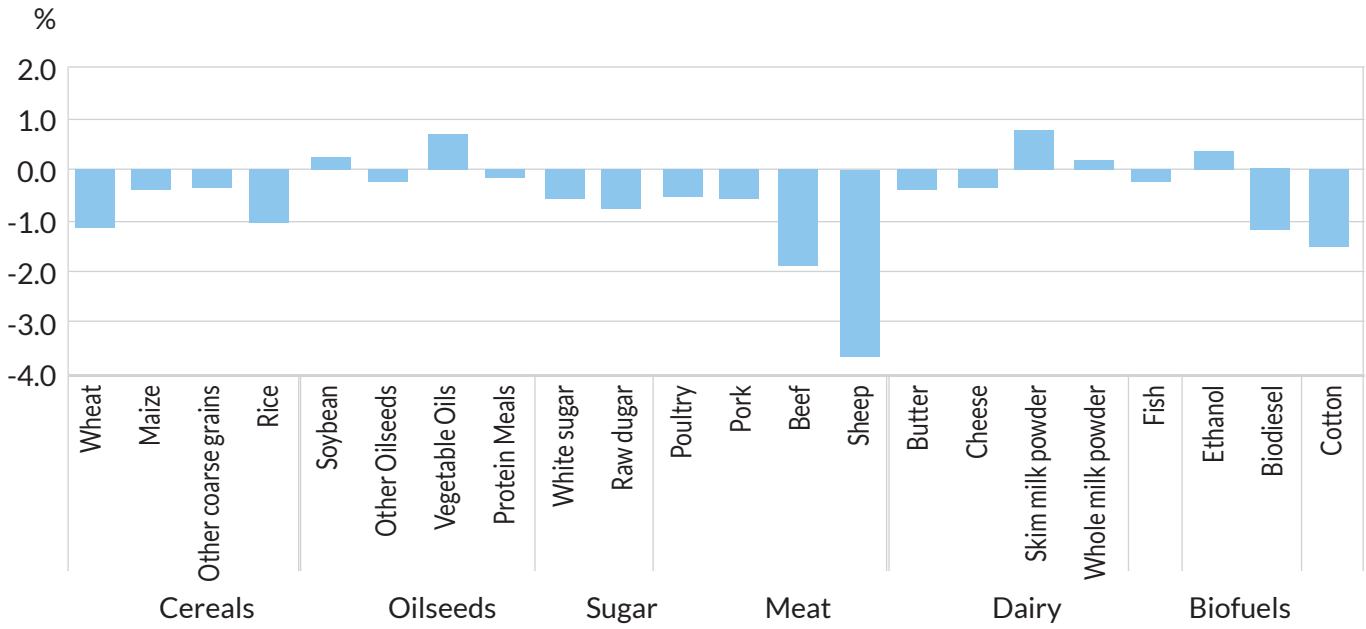
Dairy production is expected to be the fastest growing livestock sector due to strong demand for fresh dairy products in Asian countries but also with higher value products such as cheese and butter. This growth will be due to improvements in milk yields through better feeding practices and developments in genetics.

GHG emissions from agriculture are estimated to account for 24% of total global emissions. Over the next 10 years, if no changes to policy are made this is expected to increase by 0.5% p.a. in direct GHG emissions (compared with 0.7% p.a. over the last decade). This is lower than the growth in agricultural production, indicating a declining carbon intensity as productivity increases. Over half of the increase is predicted to come from cattle and over 85% of the increase is projected to come from Africa and Asia due to increases in livestock production and pastoral systems.

Prices:

Several years of strong supplies have reduced the international prices of most agricultural commodities, with cereal, beef and sheepmeat prices showing short-term rebounds. For nearly all commodities covered in the Outlook, real prices are projected to remain at or below current levels over the coming decade, as productivity improvements continue to outpace demand growth.

Figure 7.5 *Average annual real price change for agricultural commodities, 2018-2087*



Source: OECD.FAO (2019) 'OECD -FAO Agricultural Outlook'

Trade:

Over the next decade, agricultural trade will grow at a lower rate while Chinese import growth slows. Latin America and the Caribbean are expected to increase exports with North American exports to be muted. Europe has moved from being a net importer to a net exporter partly due to a static population and constant per capita consumption.

EU Mercosur

On Friday 28 June 2019, the European Commissioners for Trade and Agriculture announced that Agreement in Principle had been reached on a free trade deal between the EU and Mercosur countries.

The agreement will remove the majority of tariffs on EU exports to Mercosur, saving over €4 billion worth of duties per year. As part of the agreement the EU will liberalise 82% of import tariffs on the agri-food trade, while Mercosur will, gradually eliminate duties on 93% of tariff lines concerning EU exports, corresponding to 95% of export values.

However, of most concern from an Irish perspective, is the inclusion in the Agreement of a Beef Tariff Rate Quota (TRQ) of 99,000 tonnes. This comes at a time when the beef sector has had a period of sustained low prices and is facing significant uncertainty due to Brexit. Ireland has made concerted efforts over the full twenty-year history of these negotiations, working closely with other Member State colleagues and engaging directly with the European Commission, in order to minimise the EU offer in terms of beef TRQ. Evidence of these efforts appears to have been reflected in the final offer when compared to the original Mercosur requests. However, disappointment with the final beef TRQ offer in the political agreement announced prevails.

The Commission will make available a fund of €1 billion to assist farmers in the event of severe market disturbance. The package will be available to the agriculture sector exclusively and will be funded under measures available under the CMO Regulation. This is the first time that a support package of this nature has been made available in the context of a free trade agreement.

On the positive side, the Agreement offers opportunities for other agri-food sectors such as dairy and the drinks industry. The Agreement also protects European Geographical Indications including Irish Whiskey and Irish Cream Liquor protecting them from imitation.

The agreement also includes a bilateral safeguard mechanism. It allows the EU and Mercosur to impose temporary measures to regulate imports in the event of an unexpected and significant increase in imports, which causes, or threatens to cause, serious injury to their domestic industry.

The Agreement sets the highest standards for food safety and consumer protection. The chapter on trade and sustainable development includes provisions on labour rights and environmental protection, including a commitment to effectively implement the Paris Climate Agreement. EU food safety, animal and plants health standards are non-negotiable. All imported agri-food product must comply with the EU's stringent food safety standards. This means that no hormone beef or non-authorised GMO products will enter the EU market. The EU's food safety and health standards shall apply to all products sold and consumed in the EU whether produced domestically or imported. The EU-Mercosur trade agreement fully upholds this principle. The agreement also includes the precautionary principle and the right of parties to adopt or maintain precautionary measures to protect human, animal and plant health, even in cases where the relevant scientific evidence is insufficient.

The Department of Agriculture, Food and the Marine will remain vigilant as the process moves to its next phase, the legal scrubbing and translation phase, which is expected to take up to 2 years. The Government will assess the impact of the agreement in principle on the Irish economy and on the agri-food sector generally, including potential Brexit scenarios. The Department will reflect on the appropriate next steps in light of this analysis, which will

influence our future engagement with like-minded Member State colleagues to diminish the potential impact of the agreement. In tandem, we will ensure that the provisions on food safety standards, climate change and sustainability are legally watertight to ensure a level playing field in both consumer protection and environmental standards are provided for both our farmers and consumers.

The Agreement will then be put before the European Trade Council for ratification by Qualified Majority Vote, and then the European Parliament. Some elements of the deal will require ratification in national parliaments. Should the agreement pass all these hurdles, it will be brought in on a phased basis over a further 6 years.

Russian Ban on EU Products

There are essentially two bans in place. The Russian Federation imposed a temporary ban on importation of pigs, pork and reproductive material certified from the EU after 26 January 2014 in response to the discovery of two cases of African Swine Fever in wild boar in Lithuania. Efforts to make progress in lifting this ban are continuing.

A more general ban on the importation of agri-food products was imposed by the Russian Federation in August 2014 on countries (including the EU) which had adopted sanctions against Russia in the context of the situation in Ukraine. Although partially lifted (since 1 June 2016) in respect of imports of beef, poultry and vegetables intended for use in baby food manufacturing, the overall ban remains in place until 31 December 2019.

Transatlantic Trade and Investment Partnership (TTIP)

The TTIP talks are on hold. A joint EU-US statement on progress to date issued on 17 January 2017, after which and it was expected that the negotiations would recommence. However, there has been no indication of these talks resuming.

Comprehensive Economic Trade Agreement (CETA)

Following a process of legal review, the agreement was signed on 30 October 2016. On 15 February 2017, the European Parliament gave its consent for CETA and on 21 September 2017 the agreement provisionally entered into force. Therefore, most of the agreement now applies and the agreement will enter into force fully and definitely when all EU MS parliaments have ratified the agreement.

The outcome is a satisfactory one; although increased access to the EU market was granted for Canadian beef, greater access to the Canadian market for EU beef and dairy products (notably cheese) was secured.

EU-Japan

The EU-Japan negotiations for a Free Trade Agreement were launched in March 2013 and finalised on 8 December 2017. The EU and Japan signed both agreements at a summit on 11 July 2018 in Brussels with the agreement coming into force (EIF) on 1st February, 2019.

The Economic Partnership Agreement (EPA) represents a major boost for the EU agri-food sector, with considerable additional market access provided for in relation to beef, pigmeat and dairy (cheeses) products. As such, it presents a significant opportunity to grow Irish beef exports in particular. Over 200 Geographical Indications (GIs) are protected under the deal with major gains for wine, spirits, cheese, beef and pork exporters.

EU-Vietnam

In July 2015 the Commission announced a provisional agreement with Vietnam covering the full dismantling of 99%-plus of tariffs over 7 years for EU and 10 years for Vietnam. On

1 February 2017, the preliminary text of the Agreement was published on DG Trade's website.

The Investment Protection Agreement has been agreed and both the IPA and FTA have passed the legal scrubbing stage. They are currently being translated. To speed up the ratification process, the English texts have been sent to the EU parliament for them to consider while the translation is completed.

EU Singapore

Negotiations for an EU-Singapore FTA were launched in March 2010. They were completed on 17 October 2014 and the FTA entered the legal review phase. However, the approval process by the Council of Ministers and the European Parliament was put on hold pending the outcome of proceedings in the European Court of Justice on whether the Commission had the necessary competence to sign and conclude the agreement alone, or whether the participation of Member States was necessary in respect of certain aspects (mixed competence).

On 16 May 2017, the European Court of Justice ruled that the Singapore agreement could not be ratified at EU level without the approval of all Member States. It added that any trade deal that includes an out-of-court dispute settlement system would require ratification by the EU's 38 national or regional parliaments.

After considering this ruling the European Commission is now going to change the architecture of future FTAs by splitting them into two categories, investment and trade. An example of this is the new FTA negotiations with Australia and New Zealand, which will not have any provisions pertaining to investments.

EU-Mexico

On 21 April 2018, the EU and Mexico reached an 'agreement in principle' on the trade part of a modernised EU-Mexico Global Agreement (updating the 2000 Agreement). The agreement appears to provide for very significant access to the Mexican market for EU agri-food products, particularly for dairy, pigmeat and poultry.

The texts are currently undergoing legal review (legal scrubbing).

From an EU perspective, significant market access improvements were agreed for core exports of cheese and dairy products to Mexico. There will be a considerable improvement of market access conditions for EU's exports for pork and poultry.

EU –Australia/ New Zealand

The development of Free Trade Agreements between the EU and Australia / New Zealand is at an early stage. In June 2016, the Commission completed an external study and public consultation. Scoping papers in respect of each negotiation were subsequently completed and included a reference to the need to give due consideration to the particular sensitivities that each side may have, such as for certain agricultural goods, "including through the use of long dismantling periods, tariff rate quotas or any other specific treatment agreed by both sides".

On 22 May 2017 the Council authorised the Commission to open trade negotiations, with New Zealand Trade Minister David Parker and EU Trade Commissioner Cecilia Malmström formally starting talks on a trade agreement in Wellington on 21 June. The launch of these talks followed agreement on 18 June 2018 to commence negotiations with Australia.

Two rounds of negotiations have taken place with Australia and three rounds with New Zealand, with the most recent rounds taking place in Australia on 19 of November 2018 and in New Zealand on 18 of October 2018. While both negotiations are at an early stage, the rounds have proceeded well and in a high degree of coherence. The objective is to conclude by end of 2019.

A further round of negotiations with Australia will take place in the week of 25 March 2019 in Australia, while the next round with New Zealand is still to be announced.

EU-Indonesia

The Council gave the Commission the green light to start negotiations for an FTA with Indonesia on 18 July 2016. The last round took place on 11 March 2019 in Brussels.

7.6 Introduction to OECD Support estimates

Globally, agricultural policies are implemented in different ways and to different extents between countries. In order to measure and compare the extent of those policies, the OECD has developed agriculture support indicators that, despite their diversity, express policy measures with numbers in a comparable way across time and between countries.

The OECD define agricultural support as the annual monetary value of gross transfers to agriculture from consumers and taxpayers, arising from governments' policies that support agriculture, regardless of their objectives and their economic impacts.

Three key indicators are produced:

- *The Percentage Producer Support Estimate (%PSE)* represents policy transfers to agricultural producers, measured at the farm gate and expressed as a share of gross farm receipts. Transfers included in the PSE are composed of market price support, budgetary payments and the cost of revenue foregone by the government and other economic agents. The PSE represents transfers to producers *individually*. These transfers require that an individual farmer takes actions to produce goods or services, to use factors of production, or to be defined as an eligible farming enterprise or farmer, to receive the transfer.
- *The Percentage Consumer Support Estimate (%CSE)* measures by how much domestic farm gate prices are inflated by agriculture policy at farm gate level. It captures the value of transfers to consumers and is almost always negative because transfers from consumers due to market price support policies outweigh any consumption subsidies from taxpayers that might be provided to consumers.
- *The Percentage Total Support Estimate indicator (%TSE)* represents the total of policy transfers to the agricultural sector expressed as a share of GDP. TSE transfers consist of transfers to agricultural producers (measured by the PSE), consumers (measured by the CSE) and support to general services to agricultural sector (measured by the GSSE).

Producer Support Estimate (PSE)

From the selection of countries chosen, the OECD (Total) clearly has the largest PSE in absolute terms, more than €202 billion in 2017. When expressed as a percentage of gross farm receipts, Japan has the highest PSE, at almost 47% in 2017. While not included in the data shown here, Norway, Switzerland, Iceland and Korea tend to have the highest PSE (50-60%) when expressed as a percentage of gross farm receipts. In contrast, the EU's PSE, 19%, is substantially lower, although slightly above the OECD average of 17.7%. Not surprisingly, New Zealand has the lowest level of support, whether expressed in absolute terms or as a percentage of farm receipts.

Table 7.1 *Producer Support Estimate for a selection of countries and regions, 2015-2017*

Country	2015		2016		2017	
	€ million	% of Gross Farm Receipts	€ million	% of Gross Farm Receipts	€ million	% of Gross Farm Receipts
Brazil	3,427	2.6	5,379	3.9	3,657	2.4
China	206,076	16.6	199,763	16.2	187,033	15.5
EU 28	85,573	19.2	88,152	20.1	88,376	19.1
Japan	29,719	41.3	38,350	45.9	37,592	46.9
New Zealand	74	0.6	147	0.9	144	0.9
USA	33,702	9.3	32,954	9.6	29,996	8.6
OECD (Total)	200,708	17.6	208,898	18.6	202,693	17.7

Source: OECD (2017), "Producer and Consumer Support Estimates", OECD Agriculture statistics (database).

Consumer Support Estimate (CSE)

The CSE of selected countries shows that China has the largest implicit tax on consumers in absolute terms, but when expressed as a percentage of consumption expenditure at farmgate, Japan comes out highest, at -41% in 2017. The EU has a lower CSE percentage than the OECD average, thus indicating that policies are less harmful to consumers. In contrast, the US has a high positive net-support to consumers and this is reflective of the significant domestic food assistance programmes in place there.

Table 7.2 *Consumer Support Estimate for a selection of countries and regions, 2015-2017*

Country	2015		2016		2017	
	€ million	% of Consumption Expenditure *	€ million	% of Consumption Expenditure *	€ million	% of Consumption Expenditure *
Brazil	705	0.84	-1,418	-1.55	-338	-0.38
China	-145636	-12.16	-139,965	-11.64	-128398	-10.66
EU 28	-16340	-4.55	-15,343	-4.41	-14416	-3.96
Japan	-35657	-36.84	-46,844	-40.70	-46081	-41.60
New Zealand	-47	-1.91	-113	-4.44	-114	-4.30
USA	31845	13.90	31,693	15.39	29230	13.45
OECD (Total)	-58168	-6.80	-66,906	-7.98	-66729	-7.78

Source: OECD (2017), "Producer and Consumer Support Estimates", OECD Agriculture statistics (database).

Total Support Estimate (TSE)

Total support relative to the size of countries' economies varies considerably across OECD countries. For the data selected, China has the highest TSE as a percentage of GDP at 2.0%. At the other extreme, New Zealand has the lowest absolute and relative TSE. In almost all countries, policy transfers to individual producers dominate total support, accounting for approximately 72% of the total support provided to the agricultural sector in 2015-17.

Table 7.3 *Total Support Estimate for a selection of countries and regions 2015-2017*

	2015		2016		2017	
Country	€ million	% of GDP	€ million	% of GDP	€ million	% of GDP
Brazil	6,238	0.38	8,283	0.51	6,786	0.37
China	246,929	2.50	233,889	2.31	220,994	2.04
EU 28	97,752	0.66	99,115	0.66	99,201	0.65
Japan	36,894	0.93	46,815	1.05	45,964	1.06
New Zealand	410	0.26	489	0.29	495	0.27
USA	83,665	0.51	83,928	0.50	80,581	0.47
OECD (Total)	280,872	0.67	290,472	0.67	283,188	0.64

Source: OECD (2017), "Producer and Consumer Support Estimates", OECD Agriculture statistics (database).

The full data series, charts, tables and analysis can be found on the OECD website: http://www.oecd.org/tad/agricultural-policies/producerandconsumersupportestimatesdatabase.htm

The OECD provide a comprehensive analysis of these indicators in its annual 'Agricultural Policy Monitoring and Evaluation' publication, which can be found here: http://www.oecd.org/tad/agricultural-policies/monitoring-and-evaluation.htm

For the purposes of this report, a selection of data has been extracted from the OECD database in order to consider the three indicators in detail.

Publications

The OECD publish a large number of reports and analyses covering many different aspects of agriculture, food and fisheries, including:

- OECD Agriculture and Fisheries Home page: http://www.oecd.org/agriculture/
- OECD-FAO Agricultural Outlook: http://www.agri-outlook.org/
- OECD Agricultural Policy Monitoring and Evaluation: http://www.oecd.org/tad/agricultural-policies/monitoring-and-evaluation.htm

CASE STUDY

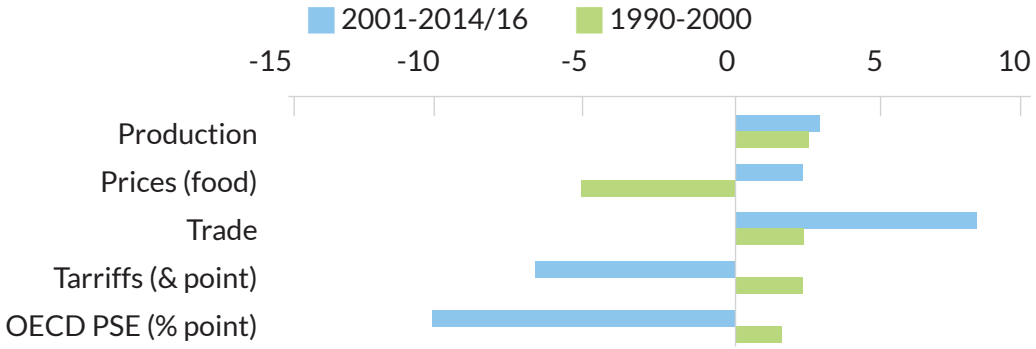
The changing landscape of agricultural markets and trade: prospects for future reforms: A synthesis report

OECD Trade and Agriculture

The OECD recently published a synthesis report of a study entitled 'The Changing Landscape of Agricultural Markets and Trade: Prospects for Future Reforms'. Growth in agro-food trade has grown globally which also coincides with a greater integration of the world's agro-food system due to the emergence of global value chains (GVCs)[1]. The paper considers how these developments in agricultural markets and trade have changed the benefits to countries from reforming trade and agricultural support policies. Some of the key findings and conclusions from this study include:

- The way in which food and agricultural outputs are produced is increasingly global (see figure 7.6 below). Previously agro-food sectors mainly produced for domestic consumption or export directly to the consumer. However, agricultural and food processing chains are now on a global level.

Figure 7.6 *Developments in agricultural markets and policies since 2001*



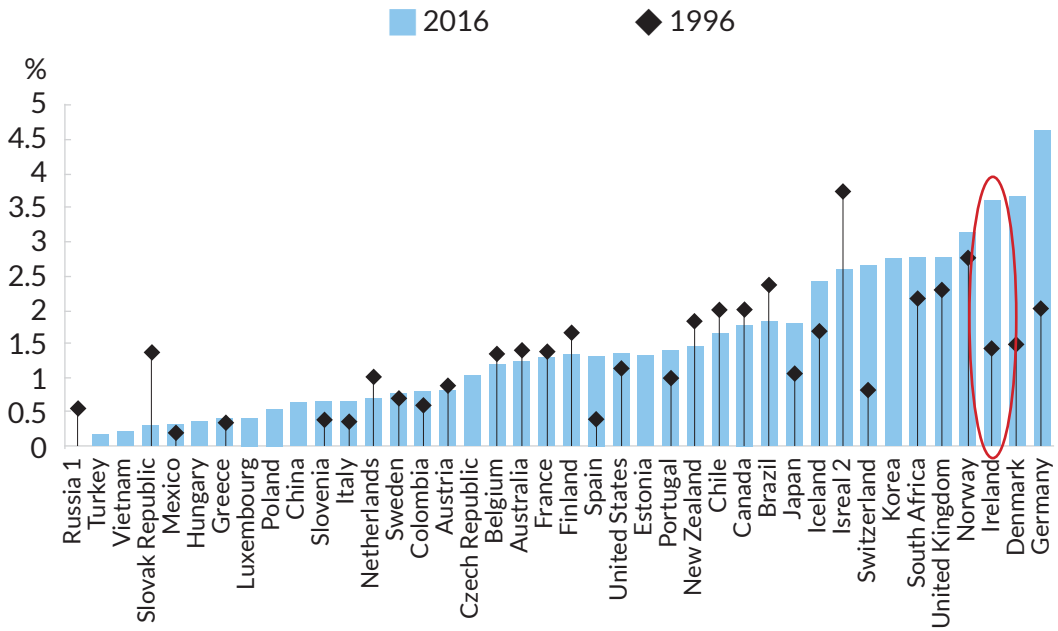
Updated from OECD (2016), Evolving Agricultural Policies and Markets: Implications for Multilateral Trade Reform, OECD Publishing, Paris. http://dx.doi.org/10.1787/9789264264991-en

[1] Agricultural value chains represent the full range of activities that firms undertake to bring an agro-food product to final consumers. The traditional view of international agro-food trade is that agro-food sectors in each country largely produce for domestic consumption or export directly to the final consumer. However, reforms to trade and domestic support policies, and technological progress, have facilitated the geographical fragmentation of production processes across the globe according to the comparative advantage of the locations. The fact that these activities are increasingly spread over several countries explains why the agro-food value chain is regarded as "global".

- Patterns of trade in agro-food products have changed significantly since 2001. Developing and emerging countries are growing in importance as major agro-food exporters and importers, in particular Brazil, the Russian Federation, India, Indonesia, the People's Republic of China and South Africa.
- Agricultural and food sectors that participate in GVCs (by sourcing from and selling into GVCs) have experienced higher growth in domestic value added and add more value to their exports than sectors with lower levels of participation. This is because those sectors benefit from additional opportunities to access new markets and are more competitive as a result of access to more efficiently produced (and potentially higher quality) imported inputs.

- Trade policies and other measures that act as barriers to imports directly reduce the competitiveness of a country's own agro-food exports by increasing the cost of inputs. Globally, around 24% of agro-food export value comes from foreign factors that are first imported, such as services (e.g., transport, finance and communication services) and industrial inputs (e.g., machinery and fertiliser). As a result, reducing barriers to trade in goods and services is important if countries want to enhance the domestic value added generated by their agro-food sectors.
- Agricultural support that promotes productivity growth can increase domestic returns from trade and agriculture's productivity performance underpins the international competitiveness of the agro-food sector.
- In particular, it was observed that investments that build the capacities of the agricultural sector increase participation in GVCs and domestic value added created. This includes transport infrastructure, education and agricultural research and development (R&D). Figure 7.7 shows Irelands relatively positive ranking internationally in terms of public R&D intensity of agricultural sciences, as well as the substantial increase in intensity between 1996 and 2016.

Figure 7.7 *Public R&D intensity of agricultural sciences, 1996 & 2016*



Source: OECD (2017), OECD statistics [Research and Development, OECD National Accounts], and ASTI (2017) for Brazil, Chile, China, Colombia, South Africa, Viet Nam.

- The report describes how reforms in multilateral trade increase production, trade and incomes and that these effects are larger when more countries participate.
- Preferential trade agreements offer a way forward to progress co-operation on trade-related regulatory issues that influence the gains from agro-food trade and the functioning of GVCs, particularly if enhanced cooperation can be extended to countries outside the agreement, or if its membership can be widened.

CHAPTER
8

The Environment and Rural Development

There are now
over 300
farmers working towards the **conservation and sustainable management of habitats** and species in the Burren.

A total of
23
European Innovation Partnerships projects have been awarded through two **'Open Calls'** with a total budget **€24 million**.

The Protecting Farmland Pollinators were awarded
€1,194,697
as part of the European Innovation Partnerships under the Rural Development Programme.

8.1 Overview

Over the course of 2018 the environmental goals of the agriculture and forestry sectors, were progressed to ensure that they become part of Ireland's safe and sustainable low carbon future. This goal can be achieved by incorporating the sectors into Ireland's implementation policy, which arises from directives, international commitments and national environmental legislation.

8.2 National Climate Change Strategy

The National Policy Position on Climate Action and Low Carbon Development provides a high-level policy direction for the adoption and implementation of mitigation and adaptation policies. This aids in ensuring that the State achieves the transition to a low-carbon, climate-resilient and environmentally sustainable economy in the period to 2050.

Climate change is adversely impacting productivity and has the potential to impact the safety of our food production systems. Irish research by Dwyer[1] in 2012 illustrates that Ireland's climate is changing in line with global patterns. The Climate Action and Low Carbon Development Act, 2015 provides the statutory basis for the national transition objective laid out in Irelands National Policy position. In order to pursue and achieve the national transition objective, the Minister for Communications, Climate Action and Environment must make and submit to Government a series of successive National Mitigation Plans (NMPs) and National Adaptation Frameworks (NAFs).

Ireland's first statutory National Adaptation Framework (NAF) was published by the Department for Communications, Climate Action and Environment (DCCAE) in January 2018. The NAF sets out the national strategy to reduce the country's vulnerability to the negative effects of climate change. It identifies the twelve key sectors that are required to prepare sectoral adaptation plans. The Department of Agriculture, Food and the Marine is responsible for three of the key sectors identified – Agriculture, Forestry and Seafood.

The first National Mitigation Plan was published in July 2017. Chapter six of the Plan sets out the mitigation measures for the agriculture, forestry and land use sectors.

In November 2018 DCCAE commenced preparations of a new All of Government Climate Plan, with the aim of making Ireland a leader in responding to climate change. The Department of Agriculture, Food and the Marine has been actively engaging in this process.

The Joint Oireachtas Committee (JOC) on Climate Action was established in July 2018 to consider the third report and recommendations of the Citizens' Assembly entitled How the State can make Ireland a Leader in tackling Climate Change. The Committee held a number of public sessions between September 2018 and January 2019 with expert witnesses from both the public and private sectors, civil society organisations were also used to inform its work. The Department, led by the Secretary General, met the Committee in November 2018. The Committee Report was published at the end of March 2019.

An annual sectoral mitigation and adaptation transition statement for the agriculture sector was presented to each House of the Oireachtas during 2018.

Outlook:

The Department of Agriculture, Food and the Marine is in the process of developing its first statutory adaptation plan for the Agriculture, Forestry and Seafood sectors which must be submitted to Government in September 2019.

The National Mitigation Plans measures the actions that are being updated as part of the All of Government Climate Action Plan. The Department of Agriculture, Food and the Marine is actively contributing to the development of that Plan.

The Department is currently reviewing the Report of the JOC on Climate Action in relation to the Agri-Sector recommendations.

The Department of Agriculture, Food and the Marine is also in the process of developing a roadmap ("Ag-Climatise") to ensure the future development of the Agriculture sector and that land use including the Forestry sector will be built upon environmental sustainability and contribute fairly to Ireland's climate, air and energy targets.

1 The Status of Ireland's Climate, 2012: Compiled by Ned Dwyer.

8.3 Bio energy

Irish policy on bioenergy is framed by EU legislation. Three key pieces of EU legislation in the Clean Energy for All Europeans package (a key component of the climate and energy framework), were published in the EU Official Journal and entered into force on 24 December 2018. The revised Renewable Energy Directive (RED II) established a binding EU target of at least 32% of total energy needs to be generated by renewables by 2030, a review for increasing this figure is to take place in 2023. RED II sets out very strict sustainability criteria for the biomass to be used for energy purposes. The revised Energy Efficiency Directive sets a 2030 target of 32.5%, also with a possible upward revision in 2023. The new Governance Regulation (EU) 2018/1999 includes a requirement for Member States to draw up integrated National Energy and Climate Plans for the period 2021 to 2030, and to provide an outline on how these targets can be achieved.

Ireland's draft National Energy and Climate Plan, prepared by DCCAE, was submitted to the European Commission in December 2018. This draft plan recognises the important contribution that bioenergy will play in Ireland's energy transition, in particular for renewable heat.

The Agriculture sector has a key role to play in the supply of sustainably sourced bioenergy feedstocks needed to meet a projected growing demand as our energy system decarbonises. These range from biomass in the form of wood products such as forest thinnings and wood fuel, Animal By Products (ABP)or other agri-food by-products such as straw, slurries, and processing waste, e.g. whey from cheese-making. Other sources of biomass include energy crops or grass silage.

The production of indigenous biomass has a crucial role to play in helping Ireland meet renewable energy targets. As such, there has been significant improvement in grant and premium rates for the Forestry for Fibre scheme adopted as part of the Forestry Programme mid-term review.

The first phase of the Support Scheme for Renewable Heat (SSRH) for the installations of heat pumps, opened for applications in September 2018. The second phase of the scheme, an operational support for biomass boilers and anaerobic digestion heating systems opened in June 2019.

Additionally, the Department of Agriculture, Food and the Marine supports the improvement of energy efficiency and the adoption of renewable Heat technologies at farm level in the form of various TAMS supports such as new dairy equipment which is more energy efficient than older technology, biomass boilers under the Pig and Poultry Investment Scheme (PPIS) and the Young Farmer Capital Investment Scheme (YFCIS). Air-source heat pumps are currently supported under PPIS and YFCIS schemes and they may be used as part of a water heater under the Dairy Equipment Scheme. Grant aid is also available under PPIS and YFCIS schemes for solar panels used for electricity production (photovoltaic) and water heating that are permanently erected to buildings used for pig, poultry and egg production.

Teagasc and the Sustainable Energy Authority of Ireland (SEAI) have also rolled out a pilot dairy energy efficiency scheme. This scheme aided the installation of variable speed drives and benefitted between 50 and 80 farmers.

Outlook:

The Department of Agriculture, Food and the Marine will continue working closely with DCCAE to explore opportunities for encouraging the sustainable use of farm manures, agri residues and forest-based biomass that can displace fossil fuels and energy intensive materials.

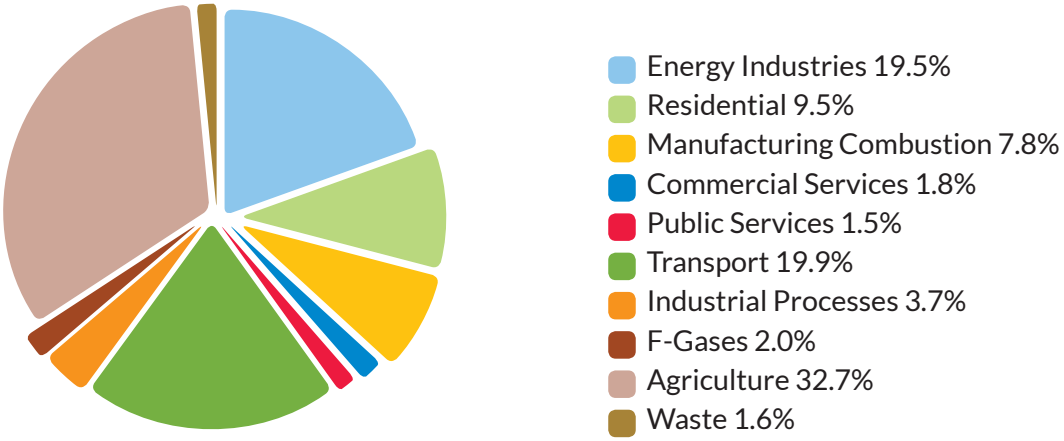
SEAI with Teagasc Energy Efficiency in Dairy Sector re-opened the pilot energy efficiency scheme early in 2019.

The next tranche of TAMS includes new energy grant measures – support for Solar PV will be available across all schemes and all lighting funded under the schemes will be required to be LED lighting.

8.4 Greenhouse Gas Emissions

Agriculture remains the single largest contributor to overall greenhouse gas emissions (GHG) in Ireland accounting for 32.7% of the total, in 2017 (according to EPA provisional estimates for GHG emissions published in November 2018). This is uniquely high in a European context where the average is 10%; although our emissions intensity per unit of output is among the lowest in EU. Our absolute agricultural GHG emissions rank 8th across EU, contributing approx. 4.4% of EU agricultural emissions. France, Germany and the UK contribute 43% of EU agricultural emissions.

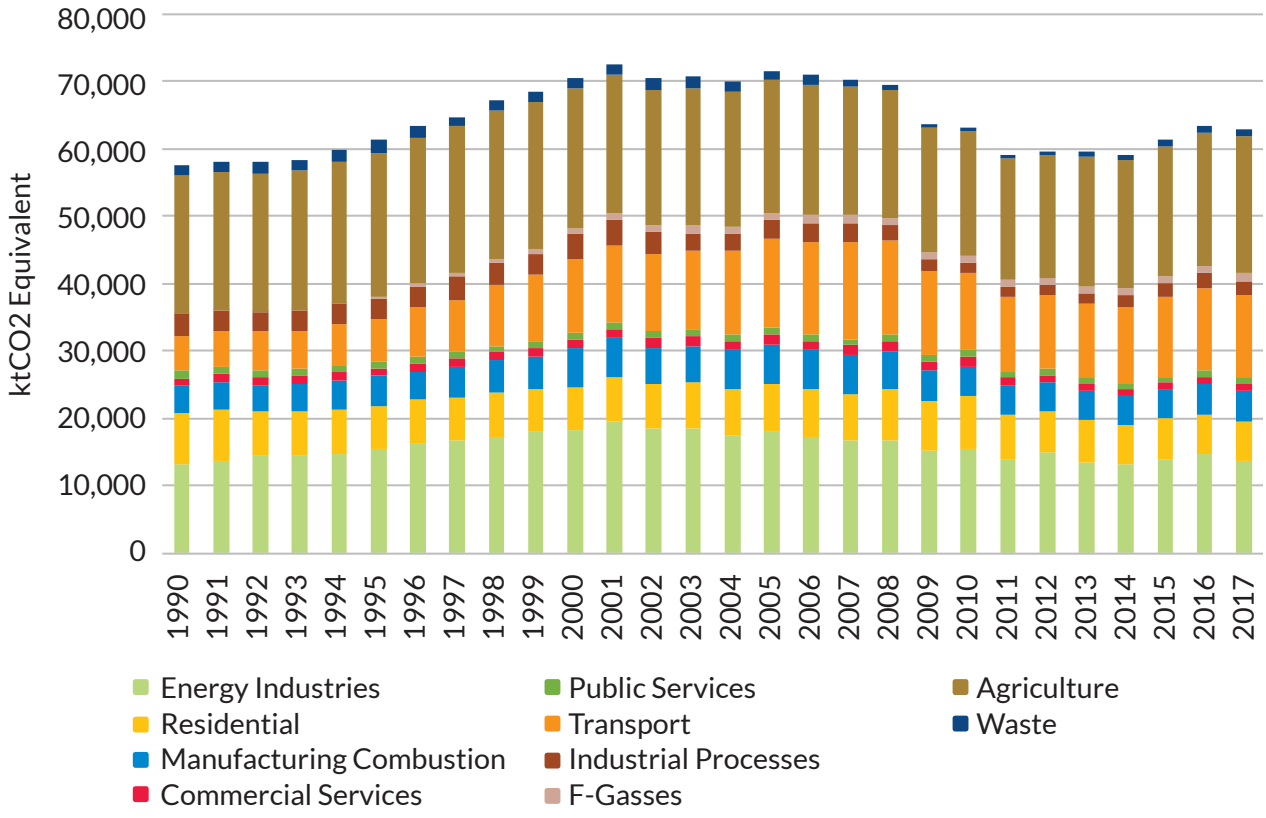
Figure 8.1 *Irelands Greenhouse gas emissions, 2019*



Source: Environmental Protection Agency Final GHG emissions (2017)

Emissions from Agriculture increased by 2.9% or 0.57 Mt CO2eq in 2017 but remain 0.7% below their 1990 levels, although increasing now for 5 out of the last 6 years, 2012, 2013, 2015, 2016 and 2017. The most significant drivers for this increase in 2017 were the higher dairy cow numbers (+3.7%) with an increase in milk production of 9.2%. This brings the increase in dairy cow numbers to approx. 33% over the last 8 years (2010 – 2017) with a corresponding 40% increase in milk production. Nitrogen fertiliser use increased by 8.8% in 2017. This reflects the removal of the milk quota in 2015 and growing global demand for dairy products. Total fossil fuel consumption in Agriculture/Forestry/Fishing activities increased by 5.2% in 2017.

Figure 8.2 *Ireland's Greenhouse Gas Emissions by sector 1990-2017*



Source: Environmental Protection Agency Final GHG emissions (2017)

Table 8.1 *Agriculture related Greenhouse Gas emissions, as measured by the EPA (excl. CO2 from agricultural combustion activities) and Agricultural Ammonia (NH3) emissions.*

Year	GHG (mt CO_{2e})	NH3 (kt NH_3)
Base year 1990-GHG / 2000-NH3	19.62	109.48
2005	18.84	110.49
2014	18.37	106.91
2015	18.61	109.41
2016	19.10	114.93
2017	19.65	117.38

Source: Environmental Protection Agency Final GHG emissions (2017)

8.5 Greenhouse Gas Emission Targets

Under the 2009 Effort Sharing Decision, Ireland was assigned an emission reduction target of 20% below 2005 levels by 2020, relative to an EU average of 10%. Further EU legislation known as the Effort Sharing Regulation (ESR) entered into force in 2018 and provides a binding annual GHG emissions target for Ireland of 30% below the 2005 level by 2030; this is equivalent to the EU average target. Additionally, the new ESR contains a number of flexibilities allowing Ireland the potential to use up to a cap equivalent to 5.6% of 2005 emissions (2.7 Mt CO2eq per annum) from LULUCF (Land use, Land-Use Change, and Forestry) in order to meet its emission reduction requirements, based on a combined contribution of net afforestation cropland and grassland management activities. While the flexibility with LULUCF is a significant benefit, the target remains a significant challenge for Ireland due to our growing population and growing economy. This challenge is further compounded by the high proportion of agricultural emissions arising from livestock activities, the limited availability of cost effective mitigation options, and opportunities to expand milk production following the abolition of milk quotas in the EU.

Outlook:

The EPA estimate that in terms of compliance with the EU's Effort Sharing Decision 2020 targets, Ireland's non-ETS emissions are projected to be 0% and 1% below 2005 levels in 2020 under the With Existing Measures and With Additional Measures, scenarios, respectively. This compares to the target of 20% below 2005 levels by 2020

(Source: Greenhouse Gas Emissions Projections 2017-2035).

However it is noted in the EPA report that emissions projections did not include the impact of new climate mitigation policies and measures that formed part of Ireland's National Mitigation Plan, and that going forward emission projections will include the additional impact of the implementation of these measures and policies.

8.6 The Clean Air Strategy: The Gothenburg Protocol and NEC Directives

Ireland is party to the Convention on Long Range Transboundary Air Pollution (CLRTAP) under which certain transboundary air pollutants including ammonia are controlled. As a member of the EU, implementation of the Gothenburg protocol (a daughter protocol of the CLRTAP) is achieved through limits set out in the National Emissions Ceilings Directive 2001/81/EC (NECD). The NECD controls a range of emissions in the air which include sulphur dioxide (SO2), nitrous oxides (NOx), fine particulate matter (PM2.5), volatile organic carbon (VOC) and ammonia (NH3). Member States must implement measures to ensure that air quality standards are met.

The Clean Air Strategy for Ireland is lead by DCCAE and provides an opportunity to address air pollution in Ireland. As a member state Ireland must comply with the National Emissions Ceilings Directive (NECD) which encompasses the Gothenburg targets and within this, ammonia emissions must be reduced by 1% below 2005 levels by 2020 and 5% below 2005 levels from 2030 onwards. Under the National Emissions Ceiling Directive (NECD), Ireland has had a mandatory ceiling for ammonia since 2010 which was exceeded for the first time in 2016.

Failure to bring agriculture ammonia emissions back in line with national ceilings will result in the imposition of significant fines and negative reputation impact to Ireland's sustainability credentials.

Trends in ammonia emissions:

Agricultural ammonia emissions reached a peak in 1998 and declined to a low in 2011, due to a decline in the ruminant livestock population and reduced use of nitrogen fertiliser. However, since then with the anticipation and removal of milk quotas in 2015, ammonia emissions have been on an upward trend. Dairy and non-dairy bovines comprise the bulk of agricultural ammonia, with these emissions arising principally from animal housing and storage and the landspreading of manures. The ammonia projections going forward to 2035 show that increased dairy cow numbers will be a driver of the increased emissions due to their high nitrogen excretion value relative to other livestock. While sources of fertiliser emissions have fluctuated in recent years (e.g., changing portion of urea and overall amount); there has been a significant decline since the peak in the late 1990s, due to a combination of reduced fertiliser use arising from our Nitrates Action Programme (NAP) and uptake of agri environment schemes.

The most recent ammonia emission results from 2016 show that, agricultural activities account for over 98% of the national ammonia (NH3) emissions.

The Department of Agriculture, Food and the Marine continues to engage with DCCAE in relation to the development of Ireland's Clean Air Strategy as a nationally coordinated strategy to implement the EU NECD 2016. The NECD entered into force on 31 December 2016 and Ireland transposed it into national legislation on the 29th June, S.I. No. 232 of 2018 (European Union (National Emission Ceiling) Regulations 2018. The directive requires Member states to submit by 1st April 2019, a National Air Pollution Control Programme (NAPCP), which DAFM is collaborating closely with DCCAE to develop to ensure agriculture issues are fairly reflected.

Table 8.2 *National Emissions Ceilings (NEC) Directive*

Ammonia (NH3) reduction compared with 2005	1% for any year from 2020 to 2029
	5% for any year from 2030

Source: Department of Agriculture, Food & the Marine

Outlook:

Achieving the ammonia reduction targets of 1% and 5% by 2020 and 2030 will represent a challenge for Irish farming. The Department of Agriculture, Food and the Marine is currently exploring various cost effective abatement options with a view to limit the extent of non compliance with ammonia emission reduction targets.

Furthermore, the Department of Agriculture, Food and the Marine is leading on the preparation of a Code of Good Agricultural Practice for Reducing Ammonia Emissions, to raise awareness of options for farmers. It is a requirement for every Member state to make this code available to all farmers and to submit it as part of the response to addressing the NECD and Gothenburg protocol. This code will ensure coherence with Ireland's Nitrates Action Programme and will further encourage improvements in nitrogen use efficiency. A

draft code of good practice has been prepared and gone for consultation.

Continued support of the Department of Agriculture, Food and the Marine research stimulus funds in ammonia research is essential in improving our emissions reporting and emissions factors; in particular our emissions factors for manure storage and housing.

There is a need to enhance Ireland's ammonia monitoring network to assess the effectiveness of abatement measures on localised areas and target ecosystems. Sufficient evidence is required that shows that critical loads and levels are not exceeded especially in localised pressure areas and better planning and use of targeted measures will help to achieve this.

8.7 International

At meeting of the United Nations Framework Convention on Climate Change (UNFCCC) Subsidiary Body for Scientific and Technical Advice (SBSTA) under the Conference of the Parties (COP) - in Bonn in November 2017 a decision on agriculture was made for first time in 6 years, recognising the role of agriculture in tackling climate change and achieving the ambitions of the Paris Climate Agreement was reached. In particular noting:

- Improved soil carbon, soil health and soil fertility under grassland and cropland as well as integrated systems, including water management;
- Improved nutrient use and manure management towards sustainable and resilient agricultural systems;
- Improved livestock management systems.

The first workshop of this agenda was successfully held in COP 24 Katowice in December 2018 with positive and constructive engagement by all parties. Furthermore, Ireland collaborated with international partners on agricultural issues which resulted in a series of side events organised in partnership with New Zealand at COP24 which the Minister for Agriculture, Food and Marine, Michael Creed T.D. attended.

Ireland was a founding member of the Global Research Alliance (GRA) on Agricultural Greenhouse Gases which was launched in December 2009. The Alliance is focused on coordinating research, development and extension of technologies and practices that will help deliver ways to grow more food and to develop more climate-resilient food systems without growing greenhouse gas emissions.

The seventh meeting of the GRA Governing Council took place in August 2017 in Tsukuba, Japan. Following the meeting, an international symposium on Agricultural Greenhouse Gas Mitigation was held, jointly hosted by the Japan International Research Centre for Agricultural Sciences (JIRCAS) and the National Agriculture and Food Research Organisation (NARO).

Outlook:

DAFM will continue to participate as part of the EU AFOLU engagement in international meetings of the UNFCCC to ensure the role of agriculture and land use in contributing to the Paris Agreement is better understood.

DAFM will continue to participate in research and relevant international groups and collaborate closely with EPA in research calls of relevance to sustainable intensification and sustainable land use.

Following two years of work, IPCC experts signed off and published a special report on climate change, agriculture and food security in August 2019.

8.8 Biodiversity & Nitrates

Nitrates and Water Protection

The Good Agricultural Practice for Protection of Waters (GAP) Regulations, otherwise known as the Nitrates Regulations, gives legal effect to the Nitrates Directive and to the Nitrates Action Programme (NAP).

Member States are required to review their NAP at least every four years. Ireland's NAP was reviewed in 2010 and 2013 and the third review took place in 2017, with a full public consultation. Ireland agreed with the European Commission in October 2017 the fourth NAP for the period 2018 -2021. The new NAP builds on the significant progress made under the previous NAPs by addressing pathways for nutrient losses, soil fertility problems and targeting improved implementation of the regulations. Further information on the fourth NAP is available in the Nitrates Explanatory Handbook.

The Nitrates Directive requires that farmers comply with a stocking rate limit of 170kgs of nitrogen per hectare per year. This is the equivalent of two dairy cows per hectare. The Department of Agriculture, Food and the Marine provides farmers with detailed nitrogen and phosphorus statements on holdings. Nitrogen and Phosphorus statements are available online on the Department's website to all farmers (registered users).

A renewal of our nitrates derogation for the period 2018-2021 was approved by the EU Nitrates Committee in December 2017. The derogation allows intensive farms to maintain higher stocking rates subject to certain conditions. Derogation is justified on the grounds that the vast majority of Ireland's agricultural area is grassland, and that this grassland has a long growing season.

Agricultural Catchments Programme

The primary function of Agricultural Catchments Programme (ACP) is the evaluation of the effectiveness of the measures contained in Ireland's NAP. The programme is operated by Teagasc and funded by the Department of Agriculture, Food and the Marine. Ireland's agriculture and food landscape has evolved rapidly during the life of the project. The ACP is constantly reviewed to take account of the changing policy environment.

The ACP works in partnership with over 300 farmers in six intensively farmed catchments and this farmer engagement, which is built on the relationships of the advisers with their farmer clients, facilitates the research elements of the programme. The research work is carried out according to a single experimental design which is implemented rigorously in each catchment. A range of biophysical and socio-economic parameters are used to evaluate the impact of the NAP measures and the derogation implemented by farmers under the Nitrates Directive. The outcome of this research provides a valuable insight into the processes that determine the impact of agricultural activity on water quality in these catchments.

ACP research shows substantial changes in nutrient management on farms. The proportion of fields with excess soil Phosphorus (P) has declined in four out of the five catchments. Fields with very low or low P have increased indicating an overall decline in soil P levels thus reducing risk of P loss to water – this reflects national trends. However, soil type and geology can override soil P index as a predictor of P loss risk, therefore, a 'one size fits all' approach that does not take account of soil type may not adequately address P loss risk mitigation. Climate pressures can override both source and soil type - excessively wet years and wet pulses following dry periods have become more common patterns during the ACP monitoring period.

Overall, evidence from the ACP indicates that the provision of technical advice to farmers on the management of nutrient applications is the area with the greatest potential to improve outcomes for water quality on Irish farms. This should deliver increased efficiencies for the farmer while reducing risk of nutrient loss to water.

The new Nitrates Action Programme builds on the significant progress made under the previous NAPs by addressing pathways for nutrient losses and soil fertility problems.

The Agricultural Sustainability Support & Advisory Programme (ASSAP)

The Agricultural Sustainability Support & Advisory Programme (ASSAP) is an innovative collaborative initiative supported by the Departement of Agriculture, Food and the Marine, the Department of Housing, Planning and Local Government (DHPLG) and industry to achieve farmer behavioural change for the protection of water in order to meet Water Framework Directive objectives and will run until 2021.

It is a whole of Government, whole of sector approach to provide direct advice to farmers in 190 areas-for-action for the protection and improvement of water quality. 30 sustainability advisors are assigned to this programme, 20 provided by the Government and 10 by the Dairy Co-ops. These 30 advisors are working within a unified partnership structure which encompasses Teagasc, the Co-ops and Local Authorities Water Protection Office LAWPRO.

The programme draws on the experience and resources of key sectoral and industry stakeholders including the two Departments, Local Authorities, Dairy Co-ops, Teagasc, Bord Bia and the farm organisations.

This is a new approach to achieving improvements in water quality and supports the goals of the Food Wise 2025 strategy, facilitating increased productivity hand-in-hand with a more sustainable sector. This will be achieved by advisors working with farmers, focusing on improved nutrient management with more targeted use of fertiliser, better farmyard practice and appropriate measures for identified critical source areas. Over time more widespread sustainability approaches developed by Teasasc will be implemented focusing on climate change and biodiversity.

Biodiversity

As part of the Nitrates, Biodiversity and Engineering Division the biodiversity section plays an active role in development of biodiversity policy for agriculture and in the regulation of relevant environmental legislation such as the Environmental Impact Assessment Regulations. The biodiversity section works closely with other departments and a number of multi-agency working groups and steering committees dealing with a wide range of issues regarding the conservation of biodiversity.

Across DAFM Biodiversity is supported through a variety of schemes and programmes at national and local scale.

The Green, Low-Carbon, Agri-Environment Scheme (GLAS)

The Green Low Carbon Agri-environment Scheme pays farmers to promote biodiversity, protect water quality, and to help combat climate change on their farms. GLAS was launched in 2015 and supports around 50,000 farmers to manage lands of conservation value. The scheme includes priority actions targeted at vulnerable habitats and commonage, threatened farmland species, and also measures which will have wider biodiversity benefits. To mid-2019 a total of €580 million has been issued in GLAS payments.

In March 2018 the Baseline Analysis of Actions under GLAS report was published as part of the independent evaluation process. This report is based on field survey to provide a baseline from which to measure the success of GLAS actions in the following years. The baseline findings show that overall the quality of the work carried out under GLAS actions was to the desired prescription and implementation of actions e.g. Low Input Permanent Pasture, Traditional Hay Meadow and Farmland Habitat (Private Natura) was good. The findings from the year two survey are at the draft stage and due to be published in 2019.

The Burren Programme

The Burren Programme began in 2016 and builds on the progress of previous farming for conservation projects. A two-tier approach, with payments for actions and payments for results, delivers agricultural results and environmental benefits. There are now over 300 farmers working towards the conservation and sustainable management of habitats and species in the Burren.

European Innovation Partnerships (EIPs)

European Innovation Partnership projects are being rolled out by the Department under Ireland's Rural Development Programme 2014-2020. Ireland's EIP programme is amongst the most ambitious of any EU member state. These projects have a common approach of being locally-designed and led, and providing local flexibility in responding to the particular environmental challenges in different areas. Farmers, with scientists, are encouraged to use sustainable farming practices and devise innovative solutions to local environmental and other challenges, from the bottom-up. Many of these projects will pilot Results Based Payments Schemes as part of their project design, further advancing Ireland's progress in this area in preparation for the next CAP.

Two large EIP Schemes focus on areas already agreed with the EU Commission – the Hen Harrier and the Freshwater Pearl Mussel. A budget of some €35 million has been allocated for these schemes over the full period of the Rural Development Programme (RDP).

The Hen Harrier Project launched in 2017 is based on priorities identified nationally and focuses specifically on farmers managing habitats in the six Hen Harrier Special Protection Areas (SPAs) with the aim of testing new approaches towards conservation of the bird, building a new relationship with farmers and improving the socio-economics in these areas. The Hen Harrier Programme signed up 629 farmers to the innovative Agri-environmental payments scheme in 2018 and this number is due to double over 2019.

The Freshwater Pearl Mussel Programme (PMP) was launched in March 2019. This new scheme will be open to farmers in eight selected catchments for PMP in Ireland, with special emphasis on restoring the hydromorphology of the species' aquatic habitat while also improving the quality of semi-natural terrestrial and wetland habitats.

A total of 23 EIP projects have now been awarded through the process of two 'Open Calls' with a total budget €24 million. The majority of these open call projects awarded to date focus on priority 4 (a) of the RDP, 'restoring, preserving and enhancing biodiversity' and address a wide range of habitats and species from uplands, peatlands and grasslands to pollinators and the Curlew.

Pollinators

In response to the current threat to our pollinators and the importance of their role for agriculture, DAFM has taken a proactive approach to supporting policy development and increasing awareness. The Biodiversity section is currently involved in policy development, working towards the next CAP and agri-environmental schemes and exploring potential measures and actions for pollinators.

The Nitrates, Biodiversity and Engineering division continues to support the All Ireland Pollinator Plan as a member of the steering committee with annual funding of €15,000.

To mark World Bee Day, Monday 20th of May 2019, the Department of Agriculture, Food and the Marine pollinators Network hosted an Education and Information Seminar event with internal and external expert speakers, including Dr. Úna Fitzpatirck of the National Biodiversity Data Centre and the All-Ireland-Pollinator-Plan.

As part of the EIP funding stream under the Rural Development Programme, DAFM awarded €1,194,697 to the Protecting Farmland Pollinators EIP. This project began in 2019 and is led by the National Biodiversity Data Centre. The project aims to develop a flexible mechanism that encourages all farmers to make their whole-farm more pollinator friendly in a way that is measurable and will not impact productivity.

8.9 Rural Development

The Irish Rural Development Programme (RDP) for the period 2014 to 2020 was formally adopted by the EU Commission in May 2015. It contains a suite of measures which address all farming sectors and support community-led local development through the LEADER measure. The Programme is co-funded by the European Agricultural Fund for Rural Development (EAFRD) and the national exchequer. EU support for the RDP through the EAFRD will amount to €2.19 billion over the duration of the Programme and will be supplemented by exchequer funding to bring the total support available under the RDP to approximately €4.1 billion. A breakdown of budget allocations by RDP measure is provided in Table 8.3.

At the end of January 2019, Ireland had spent 60% of its EAFRD allocation (excluding a performance reserve sum for the achievement of certain milestones available after 2019). This drawdown was the second highest rate of cumulative expenditure for the current programming period and well above the 39% average figure for all Member States.

The RDP has been amended six times since its initial approval. The first amendment to the RDP covering, among other things, a new tillage investment support scheme, a new biodiversity scheme for the Burren region and changes to specifications for the Green Low-Carbon, Agri-Environment Scheme (GLAS), was approved by the European Commission in June 2016.

A second amendment to the RDP, introducing new schemes (the Sheep Welfare Scheme, European Innovation Partnerships and support for Beef Producer Organisations) and further

modifications to GLAS specifications was approved by the European Commission in January 2017.

The third RDP amendment, approved by the EU Commission in October 2017, was purely technical in nature and concerned some strands of capital investments under the Targeted Agricultural Modernisation Scheme (TAMS) the Sheep Welfare Scheme, an indicator for High Nature Value farmland and support under the Technical Assistance budget.

The fourth amendment, approved by the Commission in August 2018, included changes to the Measure 1 description regarding training for the Burren scheme, changes to the LEADER Food Initiative to clarify eligibility criteria, changes to the RDP Performance Framework to reflect more recent information and changes to payment rates for Areas of Natural Constraint (ANC) and the Financial Plan to increase annual funding to the ANC scheme by €25 million.

The fifth amendment, approved by the Commission in October 2018, amended two GLAS actions to address fodder shortages owing to exceptional weather conditions.

The sixth amendment which introduced new Areas of Natural Constraints (ANC) designations based on bio-physical criteria under Measure 13, was approved by the Commission in February 2019. In addition, the scheme allocation was significantly increased for 2019 and 2020 bringing the overall Measure 13 budget to €1,491 million.

Table 8.3 *EAFRD and national funding for the 2014 -2020 Rural Development Programme*

Measure	€ millions
Measure 1 – Knowledge transfer and information actions	€126
Measure 2 – Advisory services, farm management and farm relief services	€8
Measure 4 – Investments in physical assets	€425
Measure 7 – Basic services and village renewal in rural areas	€6
Measure 10 – Agri-environment-climate	€1,531
Measure 11 – Organic farming	€56
Measure 12 – Natura 2000 payments	€73
Measure 13 – Payments to areas facing natural or other specific constraints	€1,491*
Measure 14 – Animal welfare	€100
Measure 16 – Co-operation	€62
Measure 19 – Support for LEADER local development	€250
Measure 20 – Technical assistance	€8
Measure 113 – Early Retirement Scheme (Transitional)	€9
Total	€4,145

*Includes increased funding of €121 million for the ANC scheme.

Source: Department of Agriculture, Food & the Marine

Table 8.4 *2014-2020 Expenditure Calendar Year 2014 to 2018 inclusive*

Measure	Public Figure (Thousands)	EAFRD Figure (Thousands)
M01 Knowledge Transfer and Information Actions	€57,393	€30,418
M02 Advisory Services	€1,130	€599
M04 Investments	€129,162	€69,175
M07 Trad Farm Buildings	€2,314	€1,226
M10 Agri-Environment-Climate	€1,015,173	€600,382
M11 Organic Farming	€23,332	€12,366
M12 Natura 2000 and Water Framework Directive Payments	€44,557	€31,006
M13 Payments to Areas Facing Natural or Other Specific Constraints	€993,462	€526,535
M14 - Sheep Welfare	€16,750	€8,878
M16 Co-operation	€4,673	€2,562
M19 LEADER	€36,079	€22,665
M20 Technical Assistance	€3,260	€1,728
M97 Early Retirement	€7,487	€3,968
Total Expenditure	**€2,334,772**	**€1,311,509**
Additional National Financing		
M14 2017- Sheep Welfare National Financing Additional	€16,750	-
M13 2017 Payments to Areas Facing Natural or Other Specific Constraints (Additional National Financing)	€49,067	-
Total Spend	€2,400,589	€1,311,509

Transitional funding arrangements are the norm for scheme expenditure spanning two RDP programming periods. Transitional funding is included in the above table for Measures 4, 10, 12 and 13. Measure 12 is programmed exclusively to provide for ongoing Natura 2000 commitments under the 2007-2013 RDP. In addition, the current RDP financial plan also includes transitional funding allocated to a discontinued measure (i.e. the Early Retirement Scheme) in the 2007-2013 Programme.

Further information on each of the thirteen measures operational in the current programming period is included in this chapter.

Measure 1 – Knowledge Transfer and information actions (€126m)

Knowledge transfer (KT) discussion groups are farmer meetings facilitated by qualified agricultural advisors for the purpose of sharing information and best practice across the beef, sheep, dairy, equine, poultry and tillage sectors. Approximately 18,600 participants enrolled in around, 1,100 groups facilitated by some 460 advisors, are currently active in the scheme.

Under this measure, farmers in the Beef Data and Genomics Programme (BDGP) and the GLAS scheme are trained by DAFM-approved advisors in order to optimise the effectiveness of scheme implementation. BDGP training was completed by the end of 2018 and only a very small minority of scheme participants have yet to attend the GLAS training which is continuing in 2019.

Measure 2 – Advisory Services (€8m)

Continuous Professional Development (CPD) for Agricultural Advisors aims to enhance the knowledge base of agricultural advisors by ensuring that they are familiar with the latest techniques and regulatory requirements. A variety of CPD courses have been funded under this measure, the most recent being training for advisors on advanced facilitation skills. The provision of further CPD training will be considered in response to stakeholders requests.

Animal Health and Welfare Training provides training to private veterinary practitioners (PVPs) to enable them provide on-farm advice on animal health and welfare. Animal Health Ireland is responsible for setting up and organising the provision of specialist advice to farmers by trained PVPs. The diseases falling within the remit of the service include Bovine Viral Diarrhoea, Johne's Disease, Infectious Bovine Rhinotracheitis and mastitis in dairy herds as well as animal and public health issues in the pig and poultry sectors. Over 3,300 herd reviews have been completed under the scheme as of May 2019

A scheme (worth €0.3m) funding the provision of start-up advice to prospective Producer Organisations of active beef suppliers is operational since 2018 but its potential remains unrealised with no drawdown to date.

Measure 4 – Investments in Physical Assets (€425m)

The *Targeted Agricultural Modernisation Schemes (TAMS II)* provides grants to farmers to stimulate capital investments, infrastructure, facilities and equipment which will promote increased competitiveness and sustainability in relevant sectors. Almost 20,000 approvals were issued to scheme applicants and over €128 million paid to farmers by May 2019.

Seven broad categories of investment are supported under the scheme:

- Young Farmers Capital Investment Scheme;
- Dairy Equipment Scheme;
- Organic Capital Investment Scheme;
- Animal Welfare, Safety and Nutrient Storage Scheme;
- Low Emission Slurry Spreading;
- Pig and Poultry Investment Scheme; and
- Tillage Capital Investment Scheme.

Support under this measure is also provided for Non-Productive Investments made under the GLAS. As these non-productive investments are part of the GLAS tier 3 list of actions, they form part of GLAS applications.

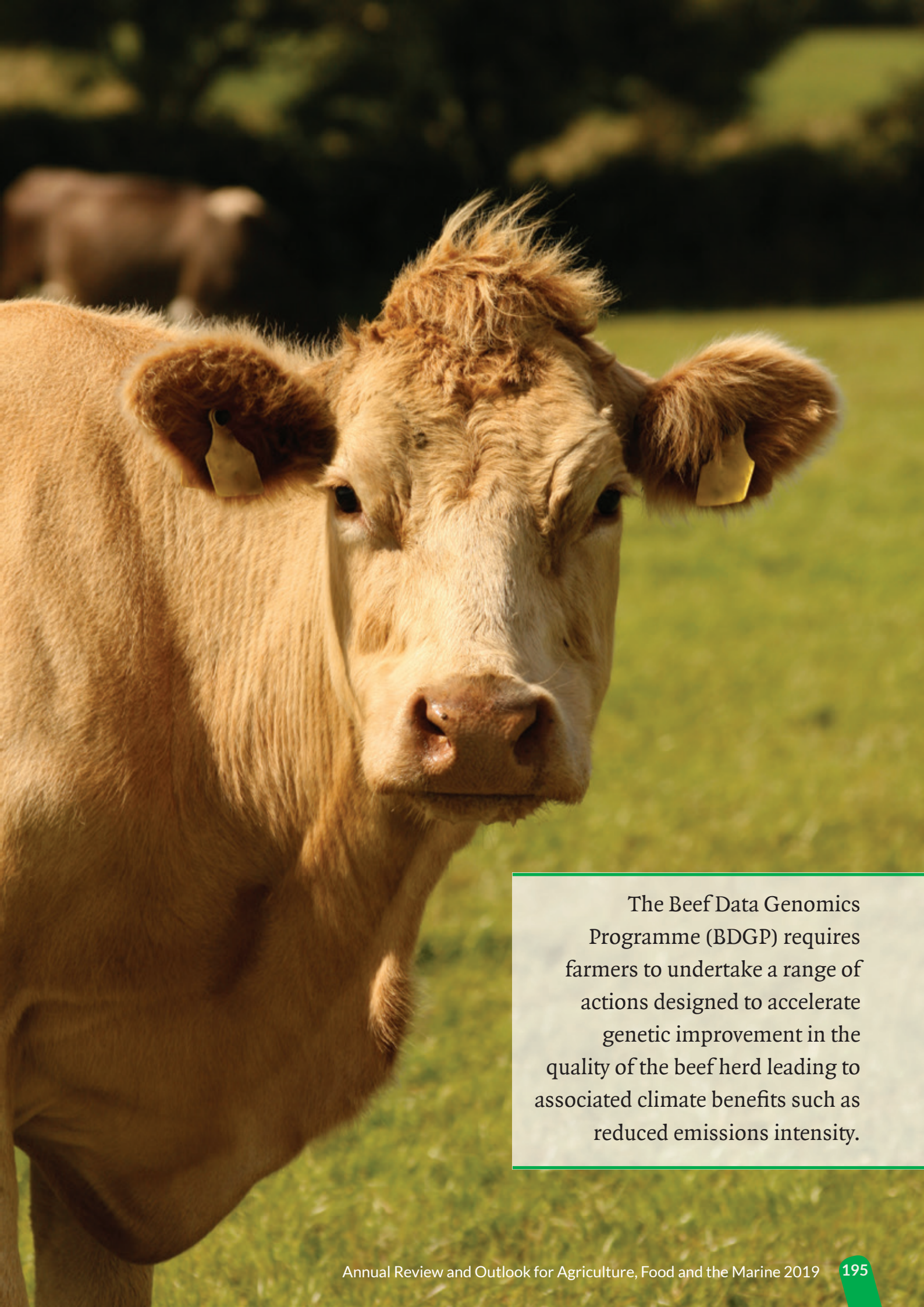
Measure 7 – Rural Services and Renewal (€6m)

The objective of the GLAS Traditional Farm Buildings is to ensure that traditional farm buildings and other related structures contributing to the character of the landscape, and of significant heritage value, are conserved for agricultural use. Participation in GLAS is a prime eligibility condition for this scheme. Available grants range from €4,000 to €25,000 and can cover up to 75% of the cost of works.

Applications are invited at regular intervals throughout the programming period ending in December 2020. The scheme is administered by the Heritage Council on behalf of the Department and a total of 164 projects have been supported by the scheme from its inception to April 2019.

Measure 10 – Agri-environment-climate (€1,531m)

The *Green Low-Carbon, Agri-Environment Scheme (GLAS)* has a three-tier structure designed to produce environmental benefits in the areas of climate change, water quality and the preservation of priority habitats and species. There are currently some 49,000 farmers active in the scheme. By 10 May 2019, total GLAS payments to eligible applicants exceeded €581 million.



The Beef Data Genomics Programme (BDGP) requires farmers to undertake a range of actions designed to accelerate genetic improvement in the quality of the beef herd leading to associated climate benefits such as reduced emissions intensity.

The *Beef Data Genomics Programme (BDGP)* requires farmers to undertake a range of actions designed to accelerate genetic improvement in the quality of the beef herd leading to associated climate benefits such as reduced emissions intensity. Central to this approach is the establishment and maintenance of a large-scale data collection system from commercial suckler cow herds. Collated data feeds into a genomics based breeding index which ranks the efficiency of animals according to a star-based system. Overall, the scheme will assist farmers in selecting more efficient suckler cow and bull replacements. Around 25,500 farmers are currently participating in the scheme. By 10 May 2019, almost 23,400 farmers had received €42 million in respect of BDGP payments for the 2018 scheme year.

The *Burren Programme*, which is an expansion of an earlier conservation scheme previously funded outside the RDP, has 328 participants at present. Participants receive a performance-related payment for the management of species-rich grasslands and associated grazed habitats. They can also be reimbursed a proportion of the costs of capital investments (e.g. feeding and water equipment) which improve the environmental dividend delivered by the holding.

Measure 11 – Organic Farming (€56m)

The *Organic Farming Scheme (OFS)* encourages farmers to convert from conventional farming by applying organic methods and maintaining them after the initial conversion period. Its overall objective is to deliver enhanced environmental and animal welfare benefits and to encourage producers to respond to market demand for organically produced food. The total number of active organic farmers being funded under the RDP is around 1,500, including 87 farmers still under contract from the previous Programme at the end of April 2019.

While the OFS has met all targets for the present programming period in terms of intake and area, a Strategic Review of the sector was carried out to assess the justification for reopening the OFS looking to best economic and environmental outcomes. Consequently, the scheme was reopened in December 2018, for a limited period, focusing on areas that have a supply deficit and where market demand is growing such as organic horticulture, tillage and dairy. Successful applicants will be offered contracts to December 2023 based on the outcome of the ranking and selection process.

Measure 12 – Natura 2000 payments (€73m)

This measure is not part of the current Programme because Natura areas are targeted under Measure 10. It is programmed exclusively to provide for ongoing commitments from the previous programming period. Total scheme expenditure at the end of 2018 amounted to €44.6 million.

Measure 13 – Areas facing natural constraint (€1,491m)

The *Area of Natural Constraints (ANC)* measure is based on the previous Less Favoured Areas Scheme and the Disadvantaged Areas Scheme. It compensates farmers for income foregone and additional costs linked to the disadvantage of the area concerned. A separate category of support is available for island farmers in recognition of the specific constraints on production faced by farmers in those areas.

Under EU regulation, Less Favoured / Disadvantaged Areas (with the exception of the islands) are to be replaced by newly designated Areas of Natural Constraints from 2019 with eligible areas being designated using a set list of bio-physical criteria such as slope, soil texture, soil rooting depth, soil moisture and drainage. The review of the areas and the fine-tuning process allowed under the EU rules was concluded in 2018 and submitted to the EU Commission for approval. Approval was received in February 2019.

The outcome of the review project can be summarised as follows. The vast majority of land that was eligible under the existing scheme will remain eligible under the new approach. Some 700 townlands, which were previously eligible are ineligible under the new designation.

Farmers who are negatively affected by the change will receive a degressive phasing out payment in 2019 and 2020. Over 2,000 newly designated townlands are now eligible for a scheme payment with farmers in those additional areas eligible to receive a payment for the first time in 2019.

Measure 14 – Animal Welfare Scheme (€100m)

The *Sheep Welfare Scheme* is aimed at improving the Irish sheep production system. Sheep farmers with breeding ewes can apply for support based on two actions they choose to undertake from a menu of options appropriate to their flock type (i.e. hill or lowland).

The scheme was launched in December 2016 and almost 20,200 farmers were paid €17.7 million for their participation in the scheme during 2018. Farmers are paid on the number of eligible breeding ewes owned subject to the fulfilment of all scheme criteria.

Measure 16 – Co-operation (€62m)

European Innovation Partnerships (EIPs) aim to create greater linkages between research and on-farm implementation. There are currently 23 projects approved for support under this measure: 12 from the first call for proposals launched in December 2016 and 9 from the second call for proposals launched in August 2017 together with 2 projects prioritising the conservation of endangered species in core areas. The various types of locally-led and general EIP projects are detailed in a brochure published on the Department's website and are outlined in the following paragraphs.

Locally-led schemes for the conservation of the Hen Harrier and the Freshwater Pearl Mussel are included under the EIP framework. Winning teams have been selected and contracts signed for both projects. A total budget of €35 million is available for these schemes during the lifetime of the current Programme.

Other locally-led schemes follow a 'bottom-up' approach. On the basis of open calls for proposals, certain projects are selected and shortlisted for funding – initially for the development of detailed project plans and then shortlisted again for full project support. Although administered using the same process, there are two distinct streams of EIP projects. The first stream, with 3 approved projects, focuses on themes such as farm viability, economic performance, sustainable forest management and innovative technologies. The second stream, with 18 approved projects, focuses on challenges related to environmental, biodiversity and climate change issues.

Collaborative Farming grants are intended to address some of the structural, economic, and social challenges facing Irish agriculture such as a lack of land availability, small average farm size, work/life balance, development of the knowledge base and intergenerational transfer. All new registered farm partnerships are eligible to receive a contribution of up to 50% towards the legal, accounting and advisory costs involved in setting up the partnership, subject to a maximum grant of €2,500. At the end of April 2019, a total of €1.34 million had been paid to support the formation of over 1,000 registered farm partnerships under the first 6 tranches of the scheme.

Measure 19 – LEADER (€250m)

LEADER supports actions in rural areas targeted at addressing local needs under the broad themes of economic development, social inclusion and rural environment. Local communities direct where this funding is provided through the formation of, and participation in, Local Action Groups (LAGs), and the design and implementation of Local Development Strategies (LDS). LAGs have been selected in all 28 sub-regional areas and funding agreements signed with all groups.

A LEADER Forum was hosted for stakeholders in May 2017 to explore areas where operational requirements could be improved and simplified. In response to suggestions from the Forum,

the Department of Rural and Community Development is implementing 31 actions to improve measure delivery with the majority of these already implemented and bearing fruit.

The level of LEADER project activity has increased significantly over the last year which has given rise to a continued rise in project approvals. Currently over 1,900 projects have been approved for funding of approximately €66 million. There are also another 432 projects going through the application process seeking funding of over €26 million.

Measure 20 – Technical Assistance (€8m)

The main items of expenditure relate to payments for the running of the National Rural Network, the administration of the Burren Programme, several evaluation studies (e.g. a longitudinal study of the GLAS) and other ancillary costs.

Measure 113 – Early Retirement Scheme (€9m)

Outstanding commitments on unexpired scheme contracts from the previous programming period are being funded from the current RDP. Cumulative expenditure on this measure was €7.6 million at the end of April 2019.

8.10 Rural Innovation and Development Fund

The report of the Commission for the Economic Development of Rural Areas (CEDRA) suggested that there was significant economic potential in rural areas and recommended a number of actions by government departments to support the long term development of rural Ireland. The Department of Agriculture, Food and the Marine established the Rural Development and Innovation Fund (RIDF) to address some of the issues in the report. The RIDF supports proposals that promote and develop projects which stimulate and energise the rural economy and communities by the facilitation of locally run economic operations, the development of a strong sense of community involvement and purpose, and by the injection of capital into the local community.

Since 2015, the fund has been utilised for a variety of initiatives including support for Rural Female Entrepreneurs, Agri Food related tourism initiatives and Social Farming services. Since 2017, funding has also been provided for proposals in the area of Food Waste Reduction.

In 2018, funding of €1.5m was used to support the following:

- **Rural Female Entrepreneurs**
  To continue the implementation of the **Rural Female Entrepreneurs** initiative through the "ACORNS" training programme, which is now in its fourth year. The programme is aimed at providing early stage female entrepreneurs living in rural Ireland with the knowledge, support and networking opportunities to develop and grow sustainable businesses, increase employment and to make a real contribution to their local communities. The 'ACORNS' programme has provided peer support and learning for 50 plus women with start-up businesses in rural areas each year. Based on a belief that entrepreneurs learn best from each other, the ACORNS initiative is centered around interactive round table sessions that are facilitated by female entrepreneurs, known as 'Lead Entrepreneurs', who have started and successfully grown businesses in rural Ireland. ACORNS was awarded runner up in the Investing in Entrepreneurial Skills category at the European Enterprise Promotion Awards 2018.

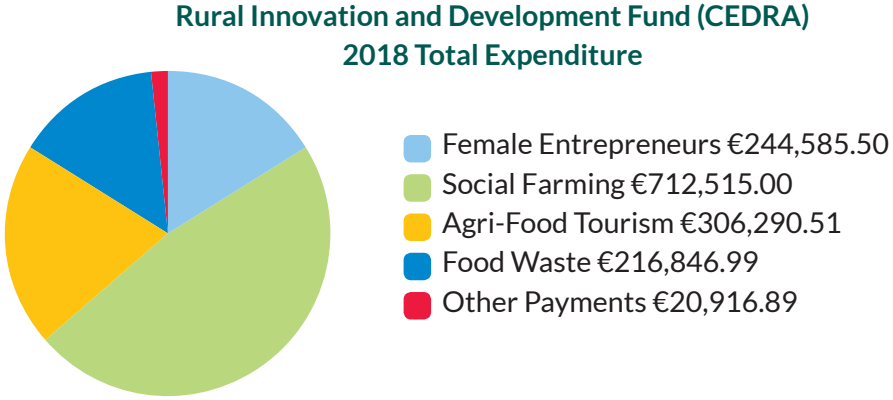
- **Social Farming**
  In the area of **social farming**, 2018 has seen the continuation of funding for the design, development and implementation of the national Social Farming Network as well as support towards a number of model social farms across Ireland. The intention is to encourage and generate national benefits for disadvantaged groups and to support farm diversification in the rural community. Social farming involves offering on a voluntary basis, farming and horticultural participation in a farming environment as a choice to people who avail of a range of therapeutic day support services. These operations are run in a number of settings ranging from working family farms, local community initiatives through to more institutional frameworks.

- **Agri-Food Tourism**
  Funding provided in 2018 in the **agri-food tourism** area has helped support the development of the food network across a number of rural areas. Agri-food tourism broadly is the practice of offering an activity or activities in rural areas to visit areas of well-known agricultural produce and to sample and taste the local or regional cuisine or specialties. Agri-food tourism includes a wide variety of activities that involve the links between agriculture and the food produced at the local or regional level. It may involve staying on farm or touring food trails and events, participation in agricultural endeavours or buying produce direct from a farm or market. Agri-food tourism also encompasses local food, farmer and artisan market schemes that support and are paired with local and seasonal food producers and artisan crafts.

- **Food Waste Reduction**
  Ireland generates over 1 million tonnes of food waste each year. Of this, over 300,000 tonnes come from commercial businesses and over 400,000 tonnes is generated by the industrial food producing sector. The potential for supporting activities that relate to the promotion and/or development of innovative **food waste reduction** techniques and link with environmental sustainability actions of the Department's sectoral strategy Food Wise 2025 was explored. In 2018, funding was provided for a number of projects to identify, target and address what is a rapidly growing issue in Ireland and globally.

The RIDF has been maintained at €1.5m for 2019 and it is hoped that this allocation will ensure that it is possible to provide continued support for the existing themes, all of which have long term sustainable benefits.

Figure 8.3 *RIDF funding for 2018*



CASE STUDY

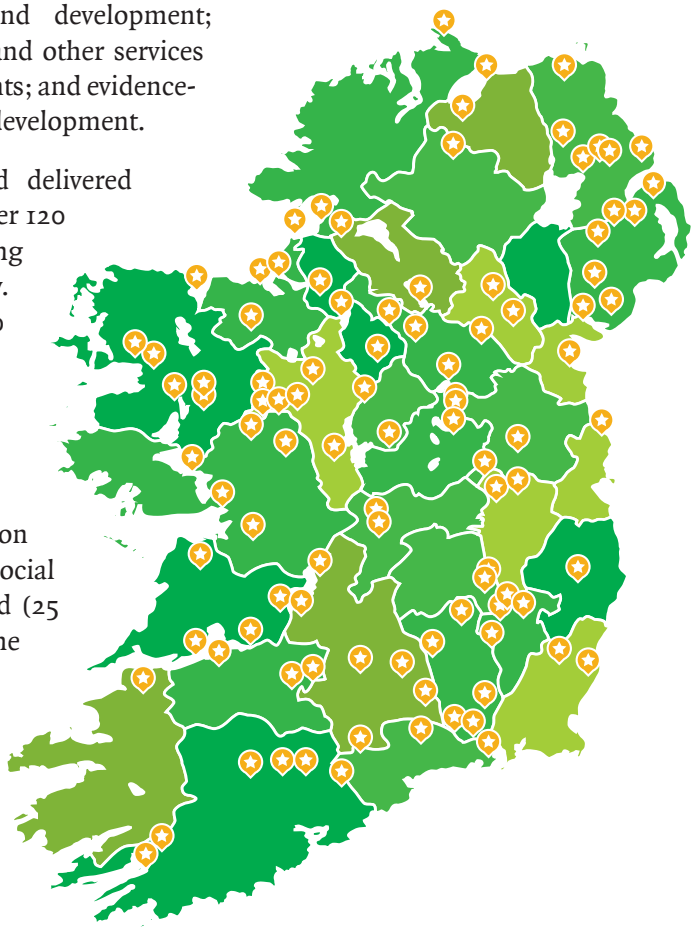
Leitrim Development Company

Project Manager –	*Brian Smyth, Leitrim Development Company, Drumshanbo, Co. Leitrim*
Coordinator –	*Helen Doherty*
Social Farming Policy Worker –	*Dr Aisling Moroney*
Collaborating Institutions –	*The School of Agriculture and Food Science, University College Dublin (UCD) and Regional collaborators South West Mayo Development Company CLG; West Limerick Resources CLG; Waterford LEADER Partnership CLG;*
Funding provided by DAFM in 2018:	*€340,000 Network Project, €120,000 Model Project*

Social Farming Ireland, the National Social Farming Office based in Drumshanbo, Co. Leitrim is managed by Leitrim Development Company and is funded by the Department of Agriculture, Food and the Marine. It supports the national development of a Social Farming Network and an Evidence-based Research Project in collaboration with other Local Development Companies, namely West Limerick Resources CLG, South West Mayo Development Company CLG, Waterford Leadership Partnership CLG and Leitrim Integrated Development Company CLG.

Social Farming Ireland provides a wide range of services and initiatives which support the development of social farming nationally, including: dissemination of information on social farming; farmer recruitment, training and development; working with health, social care and other services to activate social farming placements; and evidence-based research activity and policy development.

Figure 8.4 *Social Farms Ireland*



In 2017, Social Farming Ireland delivered almost 1,700 placement days to over 120 participants on 28 farms spanning 11 counties across the country. In 2018, there were over 2,600 placement days for almost 300 participants across 22 counties. There are currently almost 60 active, trained social farmers and a further 60 who have received training and are at various stages on the journey to becoming active social farmers. Most counties in Ireland (25 out of 26) now have at least one Social Farming Ireland trained social farmer and development work is ongoing to increase the choice of farms available to meet demand from services. (Source: Social Farming Ireland - Social Farming and Mental

Health Services) Participants came from a range of sectors including Intellectual Disability, Mental Health Services, Garda Youth Diversion Programmes and a range of services working with long term unemployed, Refugee and Asylum Seeker Programmes, Foroige and the Simon Community. Each social farm delivered placements to between one and four participants for one day a week for a minimum of 8 – 12 weeks.

The ongoing funding for the Social Farming Network project during 2018 provided continuity and stability to Leitrim Development Company for the development of a sustainable network for social farming in Ireland. This maintained support is central to upholding the operation of the project especially given the commitment from farmers and service providers in the development and roll-out of this initiative in rural communities throughout Ireland.

Map includes active farms, some farms expected to commence early in 2019 and other farms trained and ready to host participants but where participants are in the process of being identified. Each Regional hub is working on relationships with service providers and others to achieve placements on all farms. (Source LDC progress report December 2018)

Statistical Annex

Output, Input and Income in Agriculture, 2016 – 2018

Description	Estimated Value (at current prices)		€m
	2016	2017	2018
Livestock (incl. stock changes)	**3,439.8**	**3,592.3**	**3,447.0**
Cattle	2,288.9	2,362.1	2,261.1
Pigs	465.2	516.7	458.6
Sheep	255.7	262.9	253.2
Horses	270.5	287.4	306.4
Poultry	159.5	163.1	167.8
Livestock products	**1,857.8**	**2,668.7**	**2,644.6**
Milk	1,790.8	2,594.1	2,555.4
Other products	67.0	74.6	89.2
Crops (incl. stock changes)	**1,767.4**	**1,824.6**	**2,090.2**
Barley	146.9	150.1	197.2
Wheat	63.1	65.9	69.6
Oats	20.8	21.3	21.6
Potatoes	**136.0**	**126.5**	**139.3**
Mushrooms	121.7	118.2	117.1
Other fresh vegetables	106.3	103.4	109.1
Fresh fruit	**51.1**	**54.4**	**47.9**
Other crops	72.1	79.2	80.5
Forage plants	**1,049.4**	**1,105.7**	**1,307.8**
Goods output at producer prices	**7,065.0**	**8,085.6**	**8,181.8**
Contract work	371.6	379.7	453.2
Subsidies on products	55.9	60.5	65.1
Taxes on products	48.7	49.5	51.2
Agricultural output at basic prices	**7,443.8**	**8,476.4**	**8,648.8**
Intermediate consumption	**5,083.9**	**5,311.0**	**6,001.0**
Feedingstuffs	1,228.7	1,324.4	1,680.3
Fertilisers	510.8	513.0	582.1
FISIM[1]	156.3	163.3	123.0
Seeds	70.2	67.4	74.2
Energy and lubricants	377.6	390.2	424.1
Maintenance and repairs	451.4	473.5	474.0
Other Goods and services	512.0	517.7	514.9
Crop protection products	68.8	82.6	73.3
Veterinary expenses	289.9	297.1	302.4
Forage plants	1,046.3	1,101.9	1,299.4
Contract work	371.6	379.7	453.2
Gross value added at basic prices	2,359.9	3,165.4	2,647.8
Fixed capital consumption	812.5	848.5	907.2
Machinery, equipment, etc.	423.7	436.8	459.8
Farm buildings	388.8	411.7	447.4
Net value added at basic prices	1,547.4	2,317.0	1,740.6
Other subsidies less taxes on production	1,593.7	1,633.9	1,676.3

Description	Estimated Value (at current prices)		€m
	2016	2017	2018
Factor income	3,141.1	3,950.9	3,416.9
Compensation of employees	513.1	525.6	567.7
Operating surplus	2,628.0	3,425.2	2,849.2
Interest less FISIM	56.6	53.4	61.0
Land rental	237.6	239.8	278.5
Entrepreneurial income	2,333.8	3,132.0	2,509.8

[1] FISIM : Financial Intermediation Services Indirectly Measured.

Source: Central Statistics Office, Output, Input & Income in Agriculture Final Estimates, 2018

Estimated Direct Payments to Farmers (National and EU) during Calendar Year 2018

	Estimated 2018 Total Expenditure
	€ Millions
SCHEME	
Basic Payment Scheme	1,209.000
Areas of Natural Constraint	228.666
Sheep Welfare Scheme	17.650
Beef Data & Genomics Programme	47.451
Burren Programme	1.002
Hen Harrier Scheme	1.154
Knowledge Transfer Scheme	21.665
Disease Eradication Schemes	18.086
BSE Scheme (slaughter of herds)	0.124
Scrapie Eradication Programme	0.028
Forestry	
Forestry Premia	68.089
Bioenergy	0.000
Rural Environment Protection Scheme	0.101
AEOS	7.445
Organics	10.499
GLAS	228.349
Total	**1,837.644**
Total Without Forestry	**1,769.555**

Source: Department of Agriculture, Food and the Marine.

EU-funded expenditure managed by the Department of Agriculture, Food and the Marine

	2017	2018
	€m	€m
EAGF		
Direct Payment/Single Payment Scheme	1,190	1,208
Intervention/Aid to Private Storage**	19.5	3
Other market supports	26	4.5
Other	-4	-3
Co-funded receipts (measures co-funded by EU) - a Agriculture		
EAFRD Rural Development Programmes	169	387
Veterinary fund	11	10
Other co-financing receipts	2	1
Fisheries		
EMFF and EFF Fisheries Programme*	23	16
Total	1,419	1,643

Only the EU co-funding on these programmes is shown in this table.
*EMFF advance funding of €8.6m received are not receipted to A&A
** €17.5 million was as a result of depreciation of skimmed milk powder in stock
Source: Department of Agriculture, Food and the Marine.

Vote – Expenditure on Agriculture, Food and the Marine, 2017-2018

Description	2017	2018
	€000s	€000s
Administration	**223,461**	**237,464**
Salaries Wages and Allowances	162,511	172,550
Travel and Subsistence	7,762	8,624
Incidental Expenses	5,010	5,102
Postal and Telecommunications	4,023	4,713
Office Machinery	30,681	33,599
Office Premises Expenses	5,862	5,972
Consultancy Services	365	129
Supplementary Measures to Protect the Financial Interests of the EU	759	567
Laboratory Equipment	6,488	6,208
Food Safety, Animal Health & Welfare and Plant Health	**80,177**	**86,962**
Bovine Tuberculosis and Brucellosis Eradication	32,570	36,656
BSE	912	1,112
Meat Inspection Service	20,477	21,091
Fallen Animals Scheme	6,705	8,290
Animal Welfare	3,437	3,590
National Beef Assurance Scheme/Animal Identification Movement	5,394	5,448
Other	10,682	10,775
Farmer Payments Scheme	**659,037**	**752,469**
Rural Environment Protection Scheme (REPS)	92	-19
Agri-Environment Option Scheme (AEOS)	16,199	7,445
Green Low-Carbon Agri-Environment Scheme (GLAS)	195,583	231,978
Locally Led Agri-Environment Schemes	1,794	4,159
Organic farming Scheme	8,225	10,499
Traditional Farm Buildings	752	836
Other Agri Envi Initiatives	1823	1962
Less favoured Areas Scheme/Areas of Natural Constraints Scheme	205,298	228,666
Land Mobility/Early Retirement Scheme	2,504	830
Targeted Agricultural Modernisation Schemes (TAMS)	31,296	66,751
Beef Data and Genomics Programme	47,137	47,451
Knowledge Transfer	13,784	21,665
Animal Welfare Scheme for Sheep	15,851	17,650
Forestry	101,574	94,509
Development of Commercial Horticulture	4,833	4,913
Development of Organic Sector	938	846
Clearance of Accounts	3,272	612
IACS	4,943	6,775
Short-Term FEOGA Financing	179	166
Market Volatility National Top-Up	11	2
Agriculture Cash Flow Support Loan	1	1
Other	2,948	4,772
Agri-Food Policy, Development and Trade	**317,769**	**350,709**

Description	2017	2018
	€000s	€000s
Research and Training	15,724	21,334
Development of Agriculture and Food	7,089	8,587
School Milk Scheme	726	252
Teagasc	128,130	133,082
Bord Bia	40,775	40,383
Food Aid Donations - World Food Programme	14,000	19,000
Horse and Greyhound Racing Fund	80,000	80,000
Beef and Lamb Quality Assurance Scheme	6,145	6,414
Sheep Technology Adoption Programme	633	499
CEDRA Rural Innovation and development Fund	1,394	1,501
Brexit Response Loan	9,000	25,000
Other	14,153	14,657
Seafood Programme	107,310	118,571
Fisheries	27,686	35,195
Marine Institute	31,332	32,239
Bord Iascaigh Mhara	33,462	31,134
Sea Fisheries Protection Authority	10,731	10,302
Haulbowline Remediation	4,099	9,701
Total Gross Expenditure	1,387,754	1,546,175
Appropriations in Aid	-258,906	-471,781
Recoupment of Salaries	-378	-556
Forfeited Deposits and Securities	-179	-9
Refunds Vets Fees	-18,666	-19,804
Receipts from Vetinary Inspection Fees for Live Export	-633	-666
Receipts from Dairy Inspection Fees	-7,263	-7,405
Receipts from Sale of Vaccines, Livestock, etc.	-693	-671
Receipts from Seed Testing	-3,117	-3,155
Receipts from Farmer Contribution toward the Cost of Eradicating Bovine Disease	-6,945	-7,508
Land Commission Receipts	-360	-285
Other Receipts	-2,204	-2,807
Market Intervention	-1,050	-1,239
Receipts for Intervention Stock Losses	-1038	-880
EAFRD Receipts	-169,091	-387,280
Veterinary Fund	-10,959	-10,274
Other Guarantee Receipts (Agriculture)	-1,187	-36
Other Guarantee Receipts (EAFG Fisheries)	0	0
Fines, Forfeitures for Sea Fishery Offences	-87	-7
Foreshore Acts/State Property Act Receipts	-166	-151
EU Receipts for Fisheries Conservation etc.	0	0
Aquaculture Licence Fees	-876	-592
EU Receipts for EMFF	-16,725	-13,595
European Fisheries Fund Receipts	-5,917	-2,641
Sustainable Food Systems Ireland	-26	-75
Pension levy	-11,346	-12,145
Net Expenditure	1,128,848	1,074,394

Source: Department of Agriculture, Food and the Marine.

Payments to Farmers by DAFM by county,2018[1]

County Name	Total Recipients	Average Payment	Total Paid
CAVAN	5,138	€12,295	€63,169,330
DONEGAL	8,992	€11,769	€105,826,426
MONAGHAN	4,237	€10,665	€45,185,871
ULSTER	18,367	€11,661	€214,181,627
CARLOW	2,067	€20,644	€42,670,208
DUBLIN	1,106	€14,579	€16,124,828
KILDARE	2,461	€16,361	€40,264,587
KILKENNY	3,656	€18,059	€66,023,562
LAOIS	2,925	€16,074	€47,016,369
LONGFORD	2,661	€13,181	€35,074,068
LOUTH	1,637	€15,530	€25,421,835
MEATH	3,891	€15,962	€62,108,613
OFFALY	3,064	€15,267	€46,777,951
WESTMEATH	3,571	€14,739	€52,632,369
WEXFORD	4,736	€17,060	€80,796,686
WICKLOW	2,280	€17,988	€41,011,527
LEINSTER	34,055	€16,324	€555,922,603
ROSCOMMON	5,857	€12,360	€72,393,108
SLIGO	4,344	€11,116	€48,288,105
GALWAY	13,131	€12,380	€162,567,328
LEITRIM	3,819	€12,248	€46,776,235
MAYO	12,023	€11,129	€133,808,795
CONNAUGHT	39,174	€11,840	€463,833,571
CLARE	6,673	€13,657	€91,133,474
CORK	14,509	€15,465	€224,375,673
KERRY	8,540	€14,245	€121,648,766
LIMERICK	5,611	€13,512	€75,814,157
TIPPERARY	7,649	€17,436	€133,367,815
WATERFORD	2,611	€18,645	€48,681,317
MUNSTER	45,593	€15,244	€695,021,202
State	137,189	€14,061	€1,928,959,002

[1] Includes direct payments to farmers as well as capital and other grants. Includes both EU and exchequer related payments.

Source: Department of Agriculture, Food and the Marine

*While every effort has been made to ensure the accuracy of the data contained in this publication, in view of the volume of statistical data, some errors may occur. Where these anomalies are identified, the Department will liaise to amend as required.

Acknowledgement

Economics and Planning Division wish to thank all who contributed to the Annual Review and Outlook 2019, with thanks in particular to Teagasc and the Central Statistics Office.