



# Food Sectoral Overview

Galway City and County Economic and Industrial Baseline Study

# **FOOD SECTORAL OVERVIEW**

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# Our Approach<sup>1</sup>

Our approach in undertaking this overview of the food sector was to take a global and national perspective before focusing on the regional and local level. One of the main limitations we faced preparing this sector review is the lack of quality and reliable data at the local level. The framing of the global and national level overviews against publicly available local data provides a basis and context to consider the future of the in Galway City and County.

FOOD SECTORAL OVERVIEW

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# **Executive Summary Overview of the Food Sector**

#### **Global Overview**

- Global food retail sales are approximately \$4 trillion annually and are expected to reach \$5.3 trillion by 2017.
- Supermarkets and hypermarkets account for half of all annual food sales.
- Food retailing accounts for nearly 40% of all global retail sales.
- The top 15 global supermarket companies account for over 30% of world supermarket sales.
- Fresh food and agriculture produce accounts for 52.6% of the \$4 trillion and packaged foods accounts for 47.4%.
- Milk and rice are the most important food commodities with their productivity value in international dollars being \$187bn and \$186bn respectively, followed by meats, beef, pork and chicken.
- The top 10 food and drink manufacturers in the world have a combined revenue of \$438.7 billion and employ almost 1.3 million people.
- 13% of household spending in the US was on food, compared to 23% for households in Asia, 11.5% in Britain and 16 % in Ireland.
- The global market for organic produce in 2012 was nearly €64 billion with a total of 1.9 million organic producers with approximately 80% of these producers being located in developing countries.
- The global organic market in North America is expected to grow at a compound annual growth rate (CAGR) of 12% up to 2015 while Europe is also expected to grow at 12% owning the largest market share, valued at \$28 billion.
- There is a combined total of 37.5 million hectares of organic farmland as of 2012, which is an increase of 200,000 hectares from 2011.
- The traceability and ingredient origin of products influence the purchasing decision making of today's consumers.
- Although health and welfare are driving consumer spending habits, the global fast food industry is valued at \$551 billion with an annual growth rate of 3.5%, employing 12,880.
- China is on track to becoming the largest food and grocery market in the world by 2018, with 32% of the global share of food and grocery retailing.
- An estimated 1.3 billion tonnes of food is wasted annually or 30% of global food production which is enough food to feed 2 billion people.

 The top three key changes in the business structure of global food manufacturers are the addition of new products and services, improving operational efficiency of manufacturers and expansion into emerging markets.

#### **National Overview**

- The food and drink industry of Ireland generates a turnover of almost €24 billion, contributing to 230,000 jobs.
- The speciality food sector was valued at approximately €615 million in 2012 with about 350 producers employing more than 3,000 people.
- The value of food and drink exports in Ireland is valued at approximately €10 billion, representing a 40% increase since 2009 with revenues €3 billion higher.
- Ireland's most valuable food exports are meat and meat preparations valued at €1.6 billion and €901 million in dairy products and bird's eggs.
- For the Irish food sector, 42% of food and drink exports, worth €4.1 billion, go to the UK.
- Exports to other EU markets increased by 11% in 2013 valued at €3.2 billion with Germany, France and the Netherlands recording double digit growth.
- Irish households are spending €6,812 annually on food, accounting for 16% of their spending.
- The production of artisan food in Ireland accounts for approximately €500 million per year, by 300 producers.
- Some 1.3% of Irish land is farmed organically while the E.U. average is 5.4%.
- €2.38 billion is spent annually on fast food which is 38% of the Irish 'eating out' budget. In contrast only €687 million is spent in full service restaurants annually accounting for 11% of Irish people's 'eating out' budget.
- Surplus food or 'food waste' costs the Irish economy €4 billion annually.

# **Regional and Local Overview**

- The City and County have a variety of Farmers markets, food festivals, and other food promotion activities to benefit companies working in the food sector in Galway.
- There are 30 market locations in Galway City and County where food is being sold.
- The Growing Galway Food project identified 320 small food producers and 332 small food buyers.

- 53% of food producers employ between 1 and 2 people including the founder/owner.
- 40% of food producers ran their production from home.
- 70% of Galway food buyers surveyed by Growing Galway Food actively source local produce.
- There are 3,762 food and drink processing jobs based in the western region.
- Growing Galway Food a new initiative aimed at developing the food sector in Galway.
- First state backed organic farm is located in Athenry 110 hectares.
- 19 Galway County farmers markets and 4 in Galway City.
- 356 restaurants are located in Galway city, the third highest concentration after Dublin and Cork.
- Galway has Failte Ireland nominated food ambassadors.
- 16 food festivals are held in Galway City and County annually.
- In conjunction with Bord Bia, training programmes, grants and the development of a strong infrastructure and food culture within Galway supports the development and success of new food producers.
- 12 nominations for Ireland's best artisan food and greengrocers came from Galway in 2014

# **Global Overview of the Food Sector**

#### **Global Overview**

#### Introduction

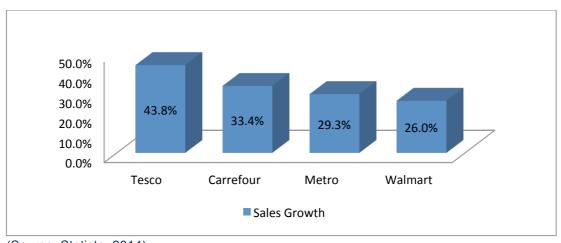
The global food and beverage sector comprises of farming, food production, distribution, retail and catering. Accelerated economic growth and a rise in the global population have influenced the increase in global food consumption (Pegasus, 2013). Global food retail sales are approximately \$4 trillion annually and are expected to reach \$5.3 trillion by 2017. Supermarkets and hypermarkets account for half of all food annual sales. Food retailing accounts for nearly 40% of all global retail sales (FAO, 2009). The top 15 global supermarket companies account for over 30% of world supermarket sales (USDA, 2012).

# 1 Global Analysis

#### 1.1 Market Size

Fresh food and agriculture produce accounts for 52.6% of the \$4 trillion and packaged foods accounts for 47.4%. Like other subsectors within the retail industry, the profits of the retail food sector are generated by a select amount of multinational supermarkets and hypermarkets, which account for half of annual sales. Figure 1 illustrates the projected sales growth for 2015 of the top four global food retailers.

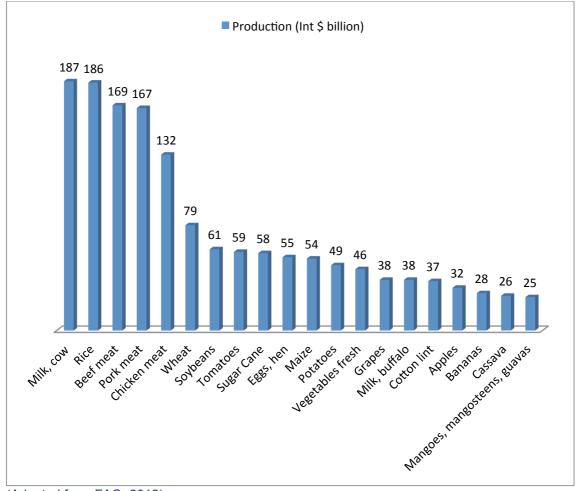




(Source: Statista, 2014).

Figure 2 represents the 20 most important food commodities and their productivity value in international dollars. Milk and rice are of the highest value, followed by the three meats, beef, pork and chicken (FAO, 2012).

Figure 2: Top Production – World, 2012



(Adapted from FAO, 2012)

The top 10 food and drink manufacturers in the world have a combined revenue of \$438.7 billion and employ almost 1.3 million people (Marketwatch, 2014). These corporations' product offerings and distributions channels influence diets and eating habits (see Table 1).

Table 1: Top 10 Global food manufacturers

	Revenue	Profits	Employees
Nestlé S.A	\$103.5bn	\$11.2bn	333,000
Unilever Group	\$68.5bn	\$6.7bn	174,381
PepsiCo Inc.	\$66.4bn	\$6.7bn	274,000
The Coca-Cola Co.	\$46.9bn	\$8.6bn	130,600
Mondelez International Inc.	\$35.3bn	\$3.9bn	107,000
Mars Inc.	\$33bn	N/A	60,000
Group Danone	\$29.3bn	\$2bn	104,642
Associated British Foods plc	\$21.1bn	\$837m	112,652
General Mills	\$19.9bn	\$1.8bn	43,000
Kellog Co.	\$14.8bn	\$1.8bn	30,277

(Adapted from Marketwatch, 2014)

#### 1.2 Household Spending

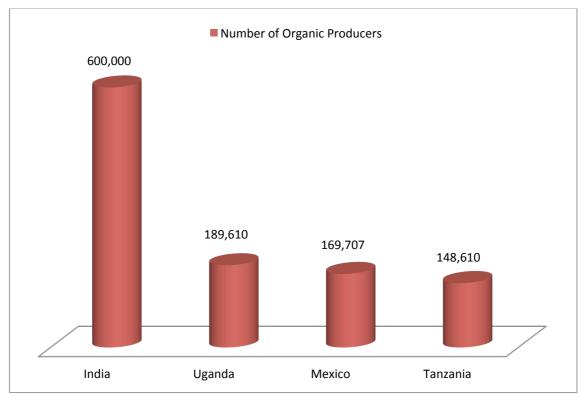
In 2012 in the United States, households spent \$6,599 on food, which is 2.2% more than 2011. Some \$3,921 was spent on food for the home while \$2,678 was spent on dining out. This figure accounted for 13% of a households spending, ranking third behind housing and transportation. Households in Asia, in comparison, rank food first accounting for 23% of a households spending, followed by education and housing (Plunkett Research, 2014). The average British household spends £2953 on food a year which is 11.5% of their total spending ranking third after housing, fuel and power, transport and recreation and culture (Office of National Statistics UK, 2012).

#### 1.3 Global Organic Market

The global market for organic produce in 2012 was nearly €64 billion with a total of 1.9 million organic producers. Approximately 80% of these producers are located in developing countries. Figure 3 illustrates the four biggest organic food producing countries (FIBL, 2014). There is a huge demand in particular in Germany for organic produce (Department of Agriculture, Food and the Marine, 2013). The global organic market is expected to grow to US\$104.7 billion in 2015. North America is expected to grow at a compound annual growth rate (CAGR) of 12% up to 2015 while Europe is also expected to grow at 12% owning the largest market share, valued at \$28 billion (Transparency, 2014). This growing market is driven by increasing health

concerns, increasing awareness of organic benefits, increased organic farming and the wider variety of organic products (Transparency, 2014).

Figure 3:
Countries with the Most Organic Producers



(Adapted from FIBL, 2014)

There is a combined total of 37.5 million hectares of organic farmland as of 2012, which is an increase of 200,000 hectares from 2011. India has the largest number of organic producers. Table 2 illustrates which continents have the most organic producers. The Oceania continent has the most organic farmland with 32%, followed by Europe with 30% of the farmland. The countries with the most organic farmland are Australia with 12 million hectares, Argentina with 3.6 million and then the United States with 2.2 million hectares (FIBL, 2014).

Table 2: Regions with Organic Farmland

Region	Agricultural Land (ha m)	Other Areas * (ha m)
Africa	1.1	9.6
Asia	3.2	6.9
Europe	11.2	10.7
Latin America	6.8	2.9
Northern America	3.0	0.05
Oceania	12.2	

(FIBL, 2014).

#### 1.4 Consumer Trends

Consumers today, due to an era of mass communication through the internet and social media, can more efficiently communicate, lobby and share information (foodnews, 2014). The traceability and ingredient origin of products influence the purchasing decision making of today's consumers. Companies launching new products featuring the word 'origin' have increased 45% from 2012 to 2013 in order to market their food product. Due to numerous negative headlines across the world, quality is a growing consumer trend and there is a need to regain consumer trust. Similar to 'origin'; 'natural' terminology remains a strong marketable keyword alongside 'healthy'. Three quarters of Europeans associate 'natural' with 'healthy' (Food Marketing & Technology, 2014). It is estimated in the US that a fifth of all meal occasions are snacks, with the healthy snacks market experiencing a 6.4% annual sales growth. It is predicted that this trend will continue to grow.

Health and welfare continue to drive consumer spending habits. As the consumer becomes more insightful they are increasingly searching for niche products that appeal to their individual needs. Whether it is balanced nutrition for the elderly or sports solutions for the sports enthusiast it creates opportunity for food innovators to pitch new ideas (Food Marketing & Technology, 2014). There is a particular consumer response to products that enhance immunity and give energy such as energy drinks and slow energy release foods.

Although health and welfare are driving consumer spending habits, the global fast food industry is valued at \$551 billion with an annual growth rate of 3.5%, employing 12,880 (IBISworld, 2014). The growth is due to low barriers to entry, response to consumer preferences, improvement of the global economy and the rising international expansion of US-based fast

<sup>\* (</sup>Wild collection, bee keeping, aquaculture, forests, grazed and non-agricultural land)

food chains. Although the industry is approaching saturation in some developed countries there is still a substantial growth potential in emerging economies including Asia, Russia, South America and India (Angelis, 2013).

#### 1.5 Key Markets

The emerging Chinese market has changed from being a predominant manufacturer to a substantial consumer (foodnews, 2014). China is on track to becoming the largest food and grocery market in the world by 2018, with 32% of the global share of food and grocery retailing (freshplaza, 2014). The Gulf region import 80%-90% of their food with projected imports of US\$53.1 billion by 2020 (Bord Bia, 2013). The Indian food industry was valued at US\$135 billion in 2012 with a compound growth rate of 10%, predicting the value of the industry to reach US\$200 billion by 2015 (IBEF, 2014).

#### 1.6 Global Food Wastage

An estimated 1.3 billion tonnes of food is wasted annually or 30% of global food production. This is enough food to feed 2 billion people (eco-Business, 2014). There are also financial and environmental impacts due to the wastage of food. In developing countries food wastage occurs at the early stages of the food chain due to financial, managerial and technical constraints. In developed countries the food is wasted at a later stage in the food chain mostly due to customer behaviour (UNEP, 2014). Among wasted food, fruits and vegetables account for 45%, cereals account for 30%, fish and seafood for 30% and dairy products at 20% (Watrous, 2014). Innovative packaging solutions are key to waste reduction, in order to deal with the increase in single households. Single-serve packages can cater for single households, allowing for minimal waste.

#### 1.7 Global Food Manufacturers

The top three key changes in the business structure of global food manufacturers are the addition of new products and services, the improving operational efficiency of manufacturers and expansion into emerging markets. In 2013, 35% of food manufacturers worldwide expected to increase their workforce by 2%. The countries offering the highest growth potential for food manufacturers are the U.S, Singapore, Taiwan and Hong Kong (Culray, 2013).

#### 1.8 EU Policy Objectives

#### 1.8.1 Food Safety

The EU integrated approach to food safety aims to insure a high level of food safety, animal health, animal welfare and plant health within the European Union through coherent farm-to-table measures and adequate monitoring, while ensuring the effective functioning of the internal market.

To implement this approach, the following actions have been identified:

- Assure effective control systems and evaluate compliance with EU standards.
- Manage international relations with third world countries and international organisations.
- Manage relations with the European Food Safety Authority (EFSA) and ensure sciencebased risk management.

EU food safety policy establishes clear control standards as regards food and food product hygiene, animal health and welfare, plant health and preventing the risk of contamination from external substances, with specific rules on appropriate labelling for these foodstuffs and food products. EU food safety principles, in line with the integrated approach 'From the Farm to the Fork,' specifically include transparency, risk analysis and prevention, the protection of consumer interests and the free circulation of safe and high-quality products within the internal market and with third countries. The European Food Safety Authority (EFSA) gives independent scientific advice to the European Commission on all matters directly or indirectly related to food safety.

#### 1.8.2 Food Sustainability

The Europe 2020 Strategy - A resource-efficient Europe calls for an increase in resource efficiency, to: "...find new ways to reduce inputs, minimise waste, improve management of resource stocks, change consumption patterns, optimise production processes, management and business methods, and improve logistics."

The areas of action that the European Commission have identified, through public consultation in 2013, around the issue of sustainable food are the following:

- Better technical knowledge on the environmental impacts of food
- Stimulating sustainable food production
- · Promoting sustainable food consumption
- · Reducing food waste and losses

 Improving food policy coherence (European Commission, 2013)

In April 2014, representatives from across Europe's food chain and the NGO community published the declaration 'Actions towards a more sustainable European food chain', encouraging EU policy makers to support a more cohesive approach to safeguarding the sustainability of food systems for future generations (Stakeholder Dialogue Group on Food Sustainability, 2014).

# **National Overview of the Food Sector**

#### **National Overview**

#### Introduction

The food and drink industry of Ireland generates a turnover of almost €24 billion. This sector contributes to 230,000 jobs (IBEC, 2014). The food industry of Ireland has begun to grow after the economic downturn, with a 5% increase in the number food businesses being established within the last five years, accounting for 46,000 businesses (FSAI, 2014).

The speciality food sector was valued at approximately €615 million in 2012 with about 350 producers employing more than 3,000 people (CEDRA, 2014). CEDRA (Commission for the Economic Development of Rural Areas) suggests that increasing the share of the national food grocery and foodservice markets accounted for by speciality food from 3% to 6% would result in the circulation of over €2 billion in the local economy. Growth prospects for this sector are positive, driven by increased consumer interest in the provenance of food, environmental concerns, health and a desire to support the local economy.

# 2 National Analysis

#### 2.1 Exports

The value of food and drink exports in Ireland is valued at approximately €10 billion, representing a 40% increase since 2009 with revenues €3 billion higher (Bord Bia, 2014). An export target of €12 billion has been set for 2020. Two thirds of Ireland's exports are by domestic companies. The UK accounts for 42% of these exports, 32% to the rest of Europe and 26% to third world countries (IBEC, 2014). Figure 4 illustrates the Irish food exports between January to June 2013 and January to June 2014. Ireland's most valuable food exports are meat and meat preparations valued at €1.6 billion and €901 million in dairy products and bird's eggs (CSO, 2014). This accounts for 80% of dairy and beef production. Over 70 retail chains across Europe stock Irish beef with Ireland being the UK's largest supplier (IBEC, 2014). An estimated 80%-90% of food consumed in the Middle East is imported. The Irish food and drink industry is set to double its exports to the Middle East by 2020, exceeding €500 million (Bord Bia, 2013).

134 Live Animals 109 1587 Meat & Meat Preparation 1427 901 Dairy Products & Eggs 275 Fish, Crustaceans, Mollucs 260 166 Cereals & Preparation 125 Fruit & Veg 121 Sugars, Honey & Preparation 190 Coffee, Tea, Cocoa, Spices 200 119 **Animal Food** 130 451 **Beverages** 0 200 400 600 800 1000 1200 1400 1600

Figure 4: Irish Foods Exports, 2013-2014

(Adapted from CSO, 2014)

With respect to key imports figure 5 in comparison shows the Irish food imports between January to June 2013 and January to June 2014. As can be seen from the graph, fruit and veg, cereals and animal food are the largest imports into Ireland (CSO, 2014). The biggest increase between the first six months of 2013 and 2014 were dairy products and eggs, while the largest decrease in food imports was in animal food, followed by cereals and preparation.

Jan-Jun 2014 (€mil)

■ Jan-Jun 2013 (€mil)

**Irish Food Imports** ■ Jan-Jun 2013 (€mil) Jan-Jun 2014 (€mil) 515485 528 537 516 386416 406 393 310324 301 Fruit & Vess Honey & Sugar Shires
Coffee Tea Cocca, Shires 200<sub>179</sub> 193 201 108115 5266 Animalfood Benerages

Figure 5: Irish Food Imports, 2013-2014

(Adapted from CSO, 2014).

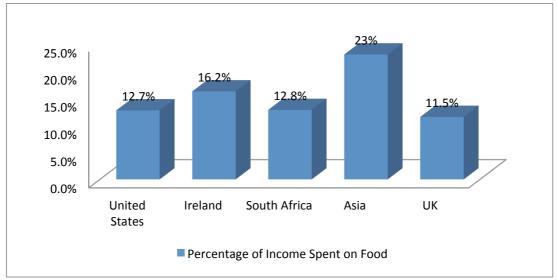
#### 2.2 Key Markets

For the Irish food sector, 42% of food and drink exports, worth €4.1 billion, go to the UK. Exports to other EU markets increased by 11% in 2013 valued at €3.2 billion with Germany, France and the Netherlands recording double digit growth. Trade to international markets exceeded €2.6 billion with China growing by more than 40%, with values reaching €390 million in 2013 making it Ireland's sixth largest market, driven by pork and dairy exports (Bord Bia, 2014).

#### 2.3 Household Spending

In 2010 Irish households were spending €6,826 annually on food, accounting for 16.2% of their spending. This accounts for 1.9% reduction in food spending from 2005 (CSO, 2010). Figure 6 illustrates the average Irish household spending, compared to Asia, U.S. and the U.K.

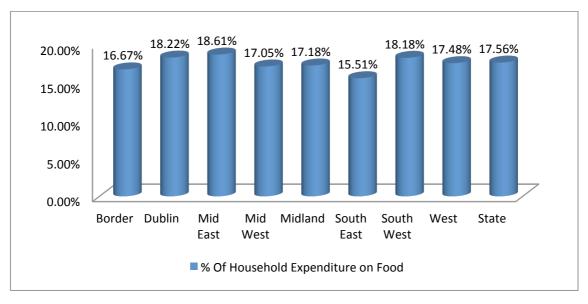
Figure 6:
The Percentage of Spending on Food



(Adapted from CSO, 2010; U.S. Bureau of Labor Statistics, 2012; Statistics South Africa, 2011; Plunkett Research, 2014)

From the CSO's Household Budget Survey 2009/10 (the most recent data available), it was found that the west region's household expenditure on food was in line with the state average. Dublin and the mid-east regions spent the most on food, with the south east region spending by far the least amount on food on average (See Figure 7 and Table 3).

Figure 7: Household Budget Survey 2009/2010



(CSO Household Budget Survey, 2010)

**Table 3:**Breakdown of Household Expenditure by Region 2009/2010

Item Description	Border	Dublin	Mid East	Mid West	Midland	South East	South West	West	State
Total food	124.61	136.21	139.16	127.48	128.43	115.94	135.95	130.70	131.28
Total drink & tobacco	37.66	45.60	35.14	42.13	33.72	31.18	41.19	36.31	39.48
Total clothing & footwear	34.61	46.28	43.24	40.26	33.94	29.72	42.22	37.69	40.11
Total fuel & light	38.62	33.45	36.15	34.35	36.31	35.62	34.96	36.47	35.35
Total housing (incl. rent & mortgage)	126.96	192.61	169.86	117.64	122.17	113.79	130.05	125.99	147.73
Total household non- durable goods	15.14	16.77	17.53	17.29	16.68	15.51	16.25	17.18	16.49
Total household durable goods	25.56	33.47	33.65	29.77	26.64	28.25	28.75	29.00	30.06
Total transport	121.49	114.30	134.80	107.81	109.68	100.55	121.31	116.43	116.31
Total miscellaneous goods, services and other expenditure	223.02	302.94	282.08	244.27	197.12	211.57	254.44	209.15	253.81
Total household expenditure	747.67	921.63	891.60	761.01	704.69	682.13	805.11	738.91	810.61

(CSO Household Budget Survey, 2010)

#### 2.4 Artisan Food

The production of artisan food in Ireland accounts for approximately €500 million per year, by 300 producers. Some 50 of these producers are farmhouse cheese producers. Holland, in comparison, has over 100 cheese producers identifying the potential growth within the market (Teagasc, 2014). The growth and development of the farmer's markets in Ireland generates an annual turnover in excess of €10 million. Seven out of ten Irish consumers are consciously buying food in order to support the local economy. 69% of customers stated that the use of the words 'Irish' and 'local' are influencing factors when purchasing food (Bord Bia: Just ask 2013 campaign survey).

#### 2.5 National Organic Market

Some 1.3% of Irish land is farmed organically while the E.U. average is 5.4%. The government has set a target of 5%. Over 58,000 hectares is farmed organically in Ireland by 1,721 registered farmers. The organic market in Ireland is valued at €98 million which is up from €63 million in 2004, while the E.U. market has quadrupled since then to a value of €20 billion (Organic Farming, 2014). Ireland imports up to 70% of its organic commodities, signifying the scope for expanding the domestic organic market (WDC, 2014).

#### 2.6 National Food Trends

A new wave of restaurants branding themselves as Irish restaurants are opening nationwide, emphasising a culinary confidence within Ireland. Craft and farmhouse butters are becoming a popular trend as well as craft beers. The popularity of 'nose-to-tail cooking' is increasing within restaurants, driven by the demand for more economical and less wasteful cooking methods (Fáilte Ireland, 2014). Seaweed sales in Ireland are becoming more popular with Ireland's seaweed sector generating €18 million annually (BIM, 2014).

Fast food is still a growing trend in Ireland. According to a recent Bord Bia study, some €2.38 billion is spent annually which is 38% of the Irish 'eating out' budget. In contrast only €687 million is spent in full service restaurants annually accounting for 11% of Irish people's 'eating out' budget. This is driven by the expansion of foreign chains as well as the use of mobile technology used for ordering online (Murphy, 2014).

#### 2.7 National Food Wastage

Surplus food or 'food waste' costs the Irish economy €4 billion annually. This occurs at all levels of the food chain, from farmers to households to restaurants to retailers. A quarter of a million tonnes of this wastage come directly from manufacturers and groceries. Food banks in Ireland are too small to deal with this surplus of food making for a serious gap in the infrastructure (Bia Food Initiative, 2014). Irish restaurants waste nearly 64,000 tonnes of food a year accounting for losses of €125 million, with an average waste per restaurant at 4.5 tonnes, costing €8,840 per year (McGuire, 2011).

#### 2.8 National Policy Objectives

#### 2.8.1 Food Safety

The Department of Agriculture, Food and the Marine employs over 2,000 people in the areas of food safety and quality control. The Food Safety Authority of Ireland (FSAI) looks to ensure the highest standards of food safety, consumer protection and animal and plant health, with the FSAI's primary focus to assist the food industry to achieve good hygiene standards and comply with the law, and ensuring that companies' production does not impact on greenhouse gas emissions, water quality, biodiversity or fish stocks. The Minister for the DAFM recently announced increases in the expenditure budget for food safety and animal health and welfare with a provision of some €82 million overall, including €35 million for TB & Brucellosis eradication, to meet standards to maintain and enhance Ireland's international reputation for the quality of its products (Department of Agriculture, Food and the Marine, 2015).

#### 2.8.2 Food Sustainability

Food Sustainability is a priority area for the Government, as it is at an EU and global level. The focus is on sustainable, competitive and efficient agri- & marine food production and processing which includes: land-use optimisation, forestry and non-food crops; wild fish harvesting and aquaculture; and the manufacture of safe, value added and innovative foods. The Department for Agriculture, Food and the Marine launched in November 2011, two Industry led strategic research agenda's in relation to food sustainability: Stimulating Sustainable Agricultural Production through Research and Innovation (SSAPRI) and Food Research Ireland (FRI). The department is looking to develop stronger linkages and collaborations between research institutes and industry organisations, such as Food for Health Ireland, so that the activities of research institutions are grounded in the downstream requirements of a competitive food

industry. An example of this is the recently announced Teagasc - UCC Strategic Alliance in Food Research.

The Origin Green Sustainability Charter developed by Bord Bia is an ongoing voluntary programme that seeks to demonstrate the commitment of Irish food and drink manufacturers, both large and small, to operate in the most sustainable manner possible. This initiative offers a structure that allows individual companies to communicate key sustainability issues, set targets and regularly report progress in achieving short, medium and long term goals. In 2013, 60% of food and drink exports were supplied by companies who are verified members of Origin Green (Department of Agriculture, Food and the Marine, 2014).

# Regional and Local Overview of the Food Sector

# **Regional and Local Overview**

#### Introduction

The food sector of Galway is a thriving industry. The City and County have a variety of Farmers' markets, food festivals, and other food promotion activities to benefit companies working in the food sector in Galway. There are 30 market locations in Galway City and County where food is being sold. The Growing Galway Food project identified 320 small food producers and 332 small food buyers. The results of the online survey undertaken by the Growing Galway Food project show that almost 70% of the buyers surveyed, actively source local produce. There are 3,762 food and drink processing jobs based in the western region (Galway, Mayo and Roscommon).

# 3 Regional and Local Analysis

#### 3.1 Galway Producers and Buyers Survey

In January 2014, Growing Galway Food invited small food producers as well as retail and hospitality food buyers to participate in an online survey of food producers and buyers in Galway as part of its aims to develop a county wide strategy for food in Galway. Some of the main findings of this survey are presented below.

Findings from Growing Galway Food Survey of Food Producers:

- Of the 215 food producers contacted, the survey received a response rate of 38.6% (n=83), with the respondents spread widely throughout the county.
- 53% employ between 1 and 2 people (including themselves), with a further 34% employing between 3 and 10 people.
- Almost half of the companies that responded were in business for more than 5 years (48.8%)
- 43.2% produced their product in their own purpose built premise, and 40.7% ran their production from home.
- 32.5% of respondents sell their product to customers in Galway only, with only 25% selling nationwide and 11.3% having an international customer base.
- 48.1% are registered with Slow Food Galway, 38.9% with Bord Bia, 37% with Galway CEB Food Network, and 54.9% registered on 'Made In Galway' directory.

Findings from Growing Galway Food Survey of Food Buyers:

- Of the 210 food buyers contacted, the survey received a response rate of 21% (n=44), with half of the respondents situated in the city. Food buyer respondents include hospitality, catering, restaurants, specialty retailers, local Supervalus, but not large retail chains.
- 59.5% of respondents worked in the hospitality sector, 19% were food providers and 14.3% retailers.
- 81.3% buy direct from local food producers, but this accounts for only 10.9% of their food spend
- 68.2% actively source food producers based in Galway

#### 3.2 Growing Galway Food

Growing Galway Food is a new initiative aimed at developing the food sector of Galway. It proposes to foster cooperation and cohesion amongst food producers and to develop the relationship with food producers and retailers (IHF, 2014). The initiative is funded by Galway Rural Development Company, Forum Connemara, Comhair na nOileán and Galway County Council and is the first county and city wide initiative for the small food production sector. In October 2014, Growing Galway Food released an Information Pack, a user friendly up to date point of reference for new and existing food producers. It includes information and contacts in the areas of the support agencies, legislative agencies, new product development, packaging and equipment suppliers, routes to market, food safety training providers, as well as kitchen facilities available for rent. It includes a list of Farmers' Markets that take place in County Galway and a listing of Annual Festivals and food related events.

#### 3.3 Supporting Enterprise

Due to the high density of multinationals in Galway, the potential for new start-up businesses is substantial. The LEO in collaboration with Enterprise Ireland has been providing exposure and opportunities for start-up food producers through the promotion of showcase events such as Galway Food Festival. In conjunction with Bord Bia, training programmes, grants and the development of a strong infrastructure and food culture within Galway supports the development and success of new food producers (Galway Food Festival, 2015). Guidance was provided with regards to the registering of a new food business, food product development, food safety, labelling regulations, traceability, the food recall process and dealing with inspections (FSAI, 2014).

#### 3.4 Artisan Food

Several nominations for Ireland's best artisan food and greengrocers come from Galway. Table 4 shows the Galway nominations, highlighting the popularity of this niche market in Galway.

**Table 4:**Galway's Nominations for Best Artisan Food and Greengrocers, 2014

Best Artisan Food & Greengrocer	Town
Centra Dublin Road	Tuam
Colleran's Galway	Galway City
Deacy's	Galway City
Decobake Galway	Eglington Street
Ernie's (fruit, veg and fish shop)	Galway City
McCambridge's of Galway	Galway City
Molloy's Pantry	Galway City
Mortons of Galway	Salthill
Seamus Kelly Butchers	Clifden
Sheridans Cheesemongers Galway	Galway
Standun	Spiddal
The Connemara Hamper	Clifden

(Adpated from Select Stores, 2014).

#### 3.5 Organic Food, Galway

The Galway market trades in organic food, Saturdays, Sundays and Bank holidays. Table 5 offers a list of farmers markets in Galway, and table 5 displays some of the organic food producers that trade at this market.

**Table 5:**Organic Food Producers Galway Market

Food Stall	Description
Coolfin Organic Bakery	Organic Irish Breads
The Gourmet Offensive	Organic Falafel
The Happy Loaf, Moyglass Bakery	Organic sourdough, rye & spelt
Yummy Crepes	Organic crepes
Sheridans Cheesemongers	Organic fruit & veg

(Adapted from galwaymarket, 2014).

The first State-backed organic farm in Athenry, Co. Galway is 110 hectares and demonstrates that organic farming can succeed across all farm enterprises, including beef, sheep, dairying, poultry and tillage. Beef production at the organic farm has been most profitable, delivery incomes 50% higher than traditional farming due to the lower levels of production costs. The farm is currently being modified into a research facility for organic farming (Department of Agriculture, Food and the Marin, 2015; High Beam, 2015).

#### 3.6 Galway County and City Food Markets

There are 19 food markets in operation in Galway County (see Table 6). Three of these have successfully met the criteria for the Code of Good Practice for Farmers' Markets. They include the Kinvara Farmers Market, the Moycullen Market and the Roundstone Country Market (Bord Bia, 2014) (see Table 6).

**Table 6:**Galway County Farmers Markets

Farmers Market	Location
Ballinasloe Farmers Market	Croffy's Centre, Main Street, Ballinasloe
Ballinasloe Country Market	Town Hall Theatre
Clifden Farmers Market	The Square, Clifden
Kinvara Farmers Market	The Square Kinvara
Loughrea Market	Barrack StreetLoughrea
Mountbellew Local Food Market	Mountbellew
Moycullen Market	An Fuaran (opp. The Forge Pub)Moycullen
Oranmore Producers Market	Behind Church, Oranmore
Roundstone Country Market	Roundstone, Connemara
The Village Market	Supermacs Oughterard
Ballyconneely Country Market	Ballyconneely
Margadh an Spideal	Spideal
Athenry Local Market	Athenry
Portumna Country Market	Portumna
Adrahan Farmers Market	Adrahan
Headford Farmers Market	Keady's Carpark, The Square, Headford
Monivea Village Market	Monivea Green
Tuam Market Place	Tuam Shopping Centre Plaza
Claregalway Family Indoor Market	Claregalway Corporate Park

(Adapted from Bord Bia, 2014; MAST, 2015).

Galway City hosts four markets (see Table 7). The Galway Farmers Market, located in Church Lane in the centre of Galway city has been trading for centuries. It comprises of hundreds of stalls varying in foods from around the world. The Christmas Market opens annually from 14<sup>th</sup> December until 24<sup>th</sup> December selling a variety of homemade foodstuffs.

Table 7: Galway City Farmers Markets

Farmers Market	Location
Galway Farmers Market	Beside St Nicholas Church, Galway
Indoor Food & Craft Fair	St. Mary's Hall, The Claddagh, Galway
Roscam Indoor & Outdoor Market	Castlegar Sports Hall, Roscam
Flea Style Market Factory Galway	36 Upper Abbeygate Street, Galway
(Adapted from Bord Bia 2014)	

#### 3.7 Galway Restaurants

Galway city has a huge choice of restaurants. According to recent data there are approximately 356 restaurants in Galway city (see Figure 8). Kilkenny, in comparison has 134 while Sligo has 93. It is possible to eat a wide variety of cuisines including Spanish, French, Italian, Mexican, Asian and vegetarian. Some of the most popular restaurants include 'Aniar Restaurant' which is Galway's only Michelin starred restaurant, 'Kai Café and Restaurant' which supplies organic food sourced from local producers, 'White Cables' serving traditional Irish dishes and 'Park House Restaurant' centrally located in Galway's Eyre Square (Galway Tourism, 2015).

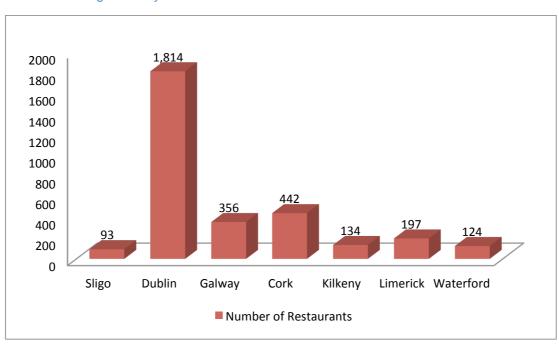


Figure 8: Household Budget Survey 2009/2010

(Adapted from Tripadvisor, 2015).

### 3.8 Galway Food Trails and Tours

The Connemara Food Trail promotes Connemara Hill lamb, Galway Bay oysters, Connemara salmon, freshly baked scones as well as popularising Connemara's scenery. The trail promotes signature dishes such as Connemara Lamb Stew and Renvyle House Connemara Mussel Pie (Discover Ireland, 2011).

During the Galway Food Festival a Food Trail is offered which promotes taste offerings in select restaurants and bars at very competitive prices (Galway Food Festival, 2015b). Food Tours including seaside foraging at Silverstrand Beach, food tours to Inishmore, a food tour of South

Galway as well as the Galway Hooker Brewery tour prove to be popular events during the festival.

#### 3.9 Galway's Food Ambassadors

Food Ambassadors are selected for their resounding passion and belief in Irish food and for actively influencing and shaping the future of Irish cuisine and food tourism in their region. They represent a diverse group from food service businesses and are members of the wider food tourism community. They demonstrate commitment to implement change and have a strong interest in developing food tourism agenda locally. They must have a food business operation in business for a minimum of two years, a capacity to lead and make decision, a membership of food and tourism organisations and have received accolades and awards.

Fáilte Ireland has nominated many Food Ambassadors from the Galway area. JP McMahon, the proprietor of the Michelin star rated 'Aniar'; Jacinta Dalton, a lecturer at the College of Tourism and Arts at the Galway Mayo Institute of Technology and Fergus O'Halloran, General Manager of Galway hotel 'The Twelve' are among some of Galways' Food Ambassadors (Fáilte Ireland, 2014).

#### 3.10 Local Enterprise Office, Galway

In order to enhance Galway's food sector the Local Enterprise Office (LEO) supports, promotes and networks with small food businesses in Galway. The LEO by establishing and maintaining networking opportunities for food businesses has presented a mechanism to help entrepreneurs and start-up businesses with peer to peer learning and sharing their experiences. The Networks enable individuals and enterprises to communicate issues of common concern, redress isolation issues and provide a forum for advice and on-going support. The Networks are intended to foster entrepreneurship and to develop the capability of start-up and small businesses in Galway city and county. Such networking sessions have included: Communicating on a Shoestring - for the Small food Business, Bord Bia and Supports, Discussion around opportunities in the sector and Distribution - challenges and opportunities (Local Enterprise Office, 2014).

The LEO is also involved in the establishment of other networking events that have a participation fee. 'Meetwest' for example was a two-day national business networking forum designed to connect people, create opportunities and promote business in the West. It caters for companies across all sectors including agri-food and beverage industry of micro-enterprises,

small and medium-sized companies as well as large companies and multinationals (Meetwest, 2015).

The LEO also holds free Small Food Business Start-Up Seminars in Galway. These seminars are designed to inform small food businesses and start-ups details of legislation regarding food hygiene and safety, available resources from FSAI, labelling requirements, product recall handling and setting up a food management system (Local Enterprise Office, 2014b).

The LEO, in order to promote online trading has launched an initiative to incentivise SMEs to start investing in online trading. The vision is to reduce the number of online purchases being made in overseas markets. The initiative come in the form of a grant of €2,500 or up to 50% of the cost to spent on developing an online presence (In-tuition, 2014)

#### 3.11 Galway Brand

Galway County Council in collaboration with Galway Rural Development, Teagasc, Bord Bia, the Irish Organic Growers Association and Udaras na Gaeltachta are working to boost Galway's food sector. One such initiative is the development and promotion of the Galway brand. Galway is already becoming marked as a good-food destination with its range of indigenous artisan food producers and restaurants as well as its numerous food related festivals (Galway 2040, 2015). The development of an extensive database of local food producers will further help with the development of Galway's food sector by reducing entry barriers for small producers and enhancing development plans. Table 8 displays a list of some of the food festivals organised in the county.

Table 8: Galway Food Festivals

Food Festival	Month	Website
Galway Food Festival	April	http://galwayfoodfestival.com/
Connemara Muscle Festival	May	https://www.facebook.com/bia.bofinne
Galway Sea Festival	May/June	www.galwayseafestival.com
Galway County Show	June	Galway County Show
Athenry Festival of Food  – BiaLover	June	www.Bialover.ie
Galway Garden Festival at Claregalway Castle	July	http://www.galwaygardenfestival.com/
Athenry Agricultural Show and Home Industries		www.athenryagrishow.com
Traidphicnic	July	An Spideal

Claregalway Agricultural Show	August	www.claregalwayagriculturalshow.ie
Leenane Autumnal Festival	September	www.leenane-festival.com
Clarenbridge Oyster Festival	September	www.clarenbridge.com
Galway International Oyster Festival	September	www.galwayoysterfest.com
Bia Bo finne, Inis Boffin	October	www.biaboffine.ie https://www.facebook.com/bia.bofinne
Ballinasloe International October Fair and Festival	October	www.ballinasloe.com
Annual Food & Craft Fair at the Black Box	December	Contact the Local Enterprise Office www.localenterprise.ie/Galway
Galway Christmas Market	Dec	http://galwaychristmasmarket.ie/

(Adapted from GRD, 2013).

#### 3.12 Food Wastage

Galway and the Connaught region are considered the worst offenders regarding out-of-home food waste (McGuire, 2011). A reduction in the amount of food wastage, however, was implemented in University Hospital Galway, through the use of new food containers, improved staff collaboration, recording of unserved meals and the reduction of automatically provided condiments. This has provided the hospital with 4.9 tonnes less food wastage which is a 6% food wastage reduction (Greenhealthcare, 2013). A recent pilot programme with participating families from North Galway have succeeded in reducing their food wastage by 60%, giving a projected annual saving of 1.3 tonnes of food valued at €3,500 (LAPN, 2014).

#### 3.13 The Future of Galway's Food Sector

Large-scale farms are predicted to produce food for direct selling to supermarkets in the most efficient and environmentally friendly way. The development of the 'Galway brand' will allow sales to international niche markets. Small-scale farms on the other hand are forecasted to produce high value added niche products, engaging in small-scale processing of milk, meat, cereals, fruit and vegetables marketed directly to consumers via farmers markets, hotels, restaurants, B&Bs and local stores. Energy crops and wind farms are predicated to increase as well as an increase in collaboration between tourism and farming (Galway 2040, 2014).

#### 4 References

Angelis, A.D. (2013) 'Global fast food restaurant industry to increase by 4.2% per year through 2018'. In: ukfinance.yahoo. Available from https://uk.finance.yahoo.com/news/global-fast-food-restaurant-industry-000000514.html [accessed 5 October 2014].

Bia Food Initiative (2014) 'Matching surplus with scarcity'. In: *Biafoodbank*. Available from <a href="http://www.biafoodbank.ie/index.php?option=com\_content&view=article&id=104:irish-times-24th-oct-2014-delivering-food-industry-excess-to-where-it-s-most-needed&catid=33:latest-news&Itemid=101 [accessed 19 March 2015].

BIM (2014) 'Developing seaweed farming to produce a high-value product'. In: bim. Available from http://www.bim.ie/our-work/projects/developingirishseaweedfarmingforhighvalueproducts/ [accessed 5 October 2014].

Bord Bia (2013) 'Ireland to double food exports to Middle East by 2020, Bord Bia'. In: bordbia. Available from

http://www.bordbia.ie/corporate/press/2013/pages/IrelandtoDoubleFoodExportstoMiddleEastby2 020.aspx [accessed 4 October 2014].

Bord Bia (2014) 'Irish food and drink exports approach €10 billion for the first time'. In: bordbia. Available from

http://www.bordbia.ie/corporate/press/pages/ExportPerformanceProspects2014.aspx [accessed

Bord Bia (2014) 'Farmers Markets Listing'. In: *Bord Bia*. Available from <a href="http://www.bordbia.ie/consumer/aboutfood/farmersmarkets/pages/default.aspx">http://www.bordbia.ie/consumer/aboutfood/farmersmarkets/pages/default.aspx</a> [accessed 19 March 2015].

Commission for the Economic Development of Rural Areas (2014) 'Energising Ireland's Rural Economy' Available from http://www.agresearch.teagasc.ie/rerc/CEDRA/CEDRA\_Report.pdf [accessed 30 January 2015].

CSO (2010) 'Household Budget Survey 2009-2010'. In: *cso.* Available from <a href="http://www.cso.ie/en/media/csoie/releasespublications/documents/housing/2010/0910first.pdf">http://www.cso.ie/en/media/csoie/releasespublications/documents/housing/2010/0910first.pdf</a> [accessed 19 March 2015].

CSO (2014) 'Goods Exports and Imports'. In: cso. Available from http://www.cso.ie/en/releasesandpublications/er/gei/goodsexportsandimportsjune2014/#.VFlgi8t ya00 [accessed 30 October 2014]. Culrav (2013) 'Global Food Industry: Market Analysis, Size, Share, Growth Drivers and Forecast Report 2013-2014'. In: culrav. Available from http://www.culrav.org/pr/global-food-industry-market-analysis-size-share-growth-drivers-and-forecast-report-2013-2014-available-at-researchmoz-us.php [accessed 5 October 2014].

Department of Agriculture, Food and the Marine (2013) 'Organic farming action plan'. In: *bordbia*. Available from

http://www.bordbia.ie/consumer/aboutfood/organicfood/ActionPlan/Organic%20Farming%20Action%20Plan.pdf [accessed 19 March 2015].

Department of Agriculture, Food and the Marine (2014) 'Coveney Announces Increased Budget Expenditure of €1.251 Billion in 2015' Press Release. Available from http://www.agriculture.gov.ie/media/migration/press/pressreleases/2014/october/PR147amende d.pdf [Accessed 30 January 2015]

Department of Agriculture, Food and the Marine (2014) 'Annual Report 2013' Available from http://www.agriculture.gov.ie/media/migration/publications/2014/AnnualReport2013121114.pdf [Accessed 30 January 2015]

Department of Agriculture, Food and the Marine (2015) 'Organic Farming Research at Teagasc'. In: *agriculture*. Available from <a href="http://www.agriculture.gov.ie/farmingsectors/organicfarming/research/teagasc/">http://www.agriculture.gov.ie/farmingsectors/organicfarming/research/teagasc/</a> [accessed 19 March 2015].

Discover Ireland (2011) 'Connemara Food Trail'. In. *discoverireland*. Available from <a href="http://www.discoverireland.ie/DI/media/DiscoverIreland/Places%20to%20Go/Connemara/PDFs/Connemara-Food-Trail-2011.pdf">http://www.discoverireland.ie/DI/media/DiscoverIreland/Places%20to%20Go/Connemara/PDFs/Connemara-Food-Trail-2011.pdf</a> [accessed 20 March 2015].

Eco-Business (2014) 'Thirty per cent of world's food wasted, new online platform seeks savings'. In: ecobusiness. Available from http://www.eco-business.com/news/thirty-cent-worlds-food-wasted-new-online-platform-seeks-savings/ [accessed 4 October 2014].

European Commission (2013) 'Public consultation on the 'sustainability of the food system' In: ec.europa. Available from http://ec.europa.eu/environment/eussd/pdf/food\_results.pdf [accessed 29 January 2015]

European Commission (2011) 'Europe 2020 Strategy - A resource-efficient Europe' In: ec.europa. Available from http://ec.europa.eu/resource-efficient-europe/pdf/resource\_efficient\_europe\_en.pdf [accessed on 29 January 2015]

Fáilte Ireland (2014) 'food trends'. In: Fáilte Ireland. Available from http://www.failteireland.ie/In-Your-Sector/Food-Tourism-in-Ireland/Food-trends-in-Ireland.aspx [accessed 5 October 2014].

FAO (2009) 'Food Retail'. In: FAO. Available from http://www.fao.org/fileadmin/user\_upload/tci/docs/AH4-Food%20Retail.pdf [accessed 29 October 2014].

FAO (2012) 'Food and Agriculture commodities production'. In: faostat. Available from http://faostat.fao.org/site/339/default.aspx [accessed 29 October 2014].

FIBL (2014) 'Growing Organic Agriculture Sector Explores its Future'. In: fibl. Available from http://www.fibl.org/en/media/media-archive/media-archive14/media-release14/article/growing-organic-agriculture-sector-explores-its-future.html [accessed 30 October 2014].

Foodnews (2014) 'Global Outlook 2014'. In: agra. Available from http://www.agra-net.com/content/agra/ips/pdf/Marketing-HTML-PDFs/fnoutlook2014\_web.pdf [accessed 30 October 2014].

FreshPlaza (2014) 'Global (food & grocery) retail market sales to reach US\$11 trillion by 2018 says new study'. In: freshplaza. Available from http://www.freshplaza.com/article/125588/Global-(food-and-grocery)-retail-market-sales-to-reach-US11-trillion-by-2018-says-new-study [accessed 5 October 2014].

FSAI (2014) 'Free small food business start-up seminar in Galway'. Fsai. Available from http://www.fsai.ie/news\_centre/press\_releases/business\_startup\_galway\_29042014.html [accessed 6 October 2014].

Galway2040 (2014) 'Agriculture & Food'. In: galway2014. Available from http://galway2040.ie/pillars/agriculture/ [accessed 4 October 2014].

Galway Food Fetival (2015) 'Local Food Producer'. In: *galwayfoodfestival*. Available from <a href="http://www.galwayfoodfestival.com/news">http://www.galwayfoodfestival.com/news</a> [accessed 19 March 2015].

Galway Food Festival (2015b). 'Taste Trail'. In: *galwayfoodfestival*. Available from <a href="http://www.galwayfoodfestival.com/programme/food-trail">http://www.galwayfoodfestival.com/programme/food-trail</a> [accessed 20 March 2015].

Galwaymarket (2014) 'Food Stalls'. In: galwaymarket. Available from http://www.galwaymarket.com/ [accessed 4 October 2014].

Greenhealthcare (2013) 'Case Study UHG: Food Waste Reduction Programme'. In: *Greenhealthcare*. Available from http://www.greenhealthcare.ie/wp-content/uploads/2014/05/Case-Study-Food-Waste-UHG-revised.pdf [accessed 5 October 2014].

Galway Tourism (2015). 'Top 5 restaurants'. In: *galwaytourism*. Available from <a href="http://www.galwaytourism.ie/ptop-5-restaurants.html">http://www.galwaytourism.ie/ptop-5-restaurants.html</a> [accessed 20 March 2015].

GRD (2013) 'Growing Galway Food Information Pack'. In: grd. Available from http://www.grd.ie/blog/growing-galway-food-information-pack [accessed 5 March 2015].

High Beam (2015) 'Farmers see how to get back to nature; Hundreds of farmers turned up to view the State-run organic farm in Athenry, Co Galway, reports Sen MacConnell'. In: *highbeam*. Available from <a href="http://www.highbeam.com/doc/1P2-24690283.html">http://www.highbeam.com/doc/1P2-24690283.html</a> [accessed 19 March 2015].

Ibec (2014) 'Sector Profile'. In: fdii. Available from http://www.fdii.ie/Sectors/FDII/FDII.nsf/vPages/Food\_Industry\_in\_Ireland~sector-profile?OpenDocument [accessed 30 October 2014].

IBEF (2014) 'Indian Food Industry'. In: ibef. Available from http://www.ibef.org/industry/indian-food-industry.aspx [accessed 4 October 2014].

Ibisworld (2014) 'Global Fast Food Restaurants: Market Research Report'. In: ibisworld. Available from http://www.ibisworld.com/industry/global/global-fast-food-restaurants.html [accessed 5 October 2014].

IHF (2014) 'Growing Galway Food'. In: ihf. Available from http://ihf.ie/content/growing-galway-food [accessed 3 October 2014].

In-tuition (2014) 'Local Enterprise Offices Offering Online Trading Vouchers'. In: *in-tuition*. Available from <a href="http://www.in-tuition.ie/local-enterprise-offices-offering-online-trading-vouchers/">http://www.in-tuition.ie/local-enterprise-offices-offering-online-trading-vouchers/</a> [accessed 21 March 2015].

LAPN (2014) 'Case Study – Foodwaste – Galway'. In: *localprevention*. Available from <a href="http://localprevention.ie/wp-content/uploads/2014/10/Milltown-Case-Study.pdf">http://localprevention.ie/wp-content/uploads/2014/10/Milltown-Case-Study.pdf</a> [accessed 19 March 2015].

Local Enterprise Office (2014). 'Networking: Craft, Food and Technology/I.T.'. In: *localenterpriseoffice*. Available from <a href="https://www.localenterprise.ie/Galway/Training-Events/Networks/">https://www.localenterprise.ie/Galway/Training-Events/Networks/</a> [accessed 21 March 2015].

Local Enterprise Office (2014b). 'Small Food Business Start-up Seminar, Galway'. In: *localenterpriseoffice*. Available from

https://www.fsai.ie/news\_centre/events/Small\_Food\_Business\_Start-Up Seminar Galway 28052014.html [accessed 21 March 2015].

Marketwatch (2014) '10 companies that control the world's food'. In: marketwatch. Available from http://www.marketwatch.com/story/10-companies-that-control-the-worlds-food-2014-09-01 [accessed 30 October 2014].

MAST (2015) 'MAST Market Listings – Galway'. In *mast*. Available from http://www.mast.ie/Galway.html [accessed 19 March 2015].

McGuire, K. (2011) 'Food waste: Prevention better than cure'. In: anygivenfood. Available from http://anygivenfood.com/food-waste-prevention-better-than-cure/ [accessed 5 October 2014].

Meetwest (2014) 'about meetwest'. In: meetwest. Available from http://meetwest.ie/ [accessed 3 October 2014].

Murphy, M. (2014) 'Bord Bia Study Shows Fast Food Dominates Irish Foodservice Market'. In: *FFT*. Available from <a href="http://fft.ie/index.php/3912/bord-bia-study-shows-fast-food-dominates-irish-foodservice-market/">http://fft.ie/index.php/3912/bord-bia-study-shows-fast-food-dominates-irish-foodservice-market/</a> [accessed 19 March 2015].

Office of National Statistics UK (2012) Living Costs and Food Survey. Available from http://www.ons.gov.uk/ons/dcp171766\_337457.pdf [accessed 30 January 2015]

Organic Farming (2014) 'Organic Farming: Newsletter'. In: teagasc. Available from http://www.teagasc.ie/publications/2014/3227/Organic\_Newsletter\_July\_2014.pdf [accessed 03 November 2014].

Pegasus (2013) 'Global Food Market'. In: Pegasus. Available from http://pegasusagritech.com/hydroponics/global-food-market/ [accessed 30 October 2014].

Plunkett Research (2014) 'Introduction to the food & beverage Industry'. In: plunkettresearch. Available from http://www.plunkettresearch.com/food-beverage-grocery-market-research/industry-trends [accessed 4 October 2014].

Select Stores (2014) 'Select Stores Dalkey Shortlisted The Irish Times Best Shops 2014'. In: selectstores. Available from <a href="http://www.selectstores.ie/2014/08/select-stores-dalkey-short-list-the-irish-times-best-shops-2014/">http://www.selectstores.ie/2014/08/select-stores-dalkey-short-list-the-irish-times-best-shops-2014/</a> [accessed 19 March 2015].

Stakeholder Dialogue Group on Food Sustainability (2014) 'Actions towards a more sustainable European food chain' Available from http://www.fooddrinkeurope.eu/uploads/press-releases\_documents/Declaration\_Sustainability\_of\_Food\_System.pdf [accessed 29 January 2015]

Statista (2014) 'Forecasted sales growth of the world's leading 4 food retailers between 2010 and 2015'. In: statista. Available from http://www.statista.com/statistics/240549/forecast-for-sales-growth-of-the-global-leading-food-retailers/ [accessed 29 October 2014].

Statistics South Africa (2011) 'Income and Expenditure of Households 2010/2011'. In: *beta2*. Available from <a href="http://beta2.statssa.gov.za/publications/P0100/P01002011.pdf">http://beta2.statssa.gov.za/publications/P0100/P01002011.pdf</a> [accessed 19 March 2015].

Teagasc (2014) 'Artisan Food: Artisan Food in Ireland'. In: teagasc. Available from http://www.teagasc.ie/ruraldev/artisan\_food/artisan\_food\_in\_ireland.asp [accessed 30 October 2014].

TheTwelveHotel (2014) 'Galway on the way to being Top Foodie Town in Ireland'. In: thetwelvehotel. Available from http://www.thetwelvehotel.ie/2014/5/2/Galway-on-the-way-to-being-Top-Foodie-Town-in-Ireland [accessed 6 October 2014].

Transparency (2014) 'Organic Food Market – Global Industry Size, Share, Trends, Analysis and Forecasts 2012 – 2018'. In: transparencymarketresearch. Available from http://www.transparencymarketresearch.com/organic-food-market.html [accessed 5 October 2014].

Tripadvisor (2015) 'Best restaurants in Galway, Ireland'. In: *tripadvisor*. Available from <a href="http://www.tripadvisor.ie/Restaurants-g186609-">http://www.tripadvisor.ie/Restaurants-g186609-</a>
<a href="Galway\_County\_Galway\_Western\_Ireland.html#EATERY\_OVERVIEW\_BOX">http://www.tripadvisor.ie/Restaurants-g186609-</a>
<a href="Galway\_County\_Galway\_Western\_Ireland.html#EATERY\_OVERVIEW\_BOX">Galway\_County\_Galway\_Western\_Ireland.html#EATERY\_OVERVIEW\_BOX</a> [accessed 20 March 2015].

UNEP (2014) 'Food waste facts'. In: unep. Available from http://www.unep.org/wed/2013/quickfacts/ [accessed 4 October 2014].

U.S. Bureau of Labor Statistics (2012) 'Consumer Expenditures in 2010: Lingering Effects of the Great Recession'. In: *bls.* Available from

http://www.bls.gov/opub/reports/cex/consumer\_expenditures2010.pdf [accessed 19 March 2015].

USDA (2012) 'Global food industry'. In: USDA. Available from http://www.ers.usda.gov/topics/international-markets-trade/global-food-markets/global-food-industry.aspx [accessed 28 October 2014].

Watrous, M. (2014) 'Ten Food Trends unveiled at I.F.T. 2014'. In: foodbusinessnews. Available from

http://www.foodbusinessnews.net/articles/news\_home/Consumer\_Trends/2014/06/Ten\_food\_trends\_unveiled\_at\_IF.aspx?ID=%7BC8BEEAF6-9CD1-401B-9A19-972D66B243C4%7D&cck=1 [accessed 6 October 2014].

WDC (2014) 'Organic Agri-Food'. In: wdc. Available from http://www.wdc.ie/regional-development/organics/ [accessed 03 November 2014].





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