

**Agri-Food: A Study for Cross-Border Co-Operation**  
September 2011

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# EXECUTIVE SUMMARY

InterTradelreland has commissioned a report on the agri-food sector, the objective of which is to identify new cooperative opportunities that can deliver mutually beneficial competitiveness gains to the industry in Ireland and Northern Ireland.

The report is published in the context of two major strategies for the industry published within the past eighteenth months.<sup>1</sup> *Food Harvest*, dealing with Ireland, outlines a vision of a sector which, by 2020, is acting intelligently to 'achieve a competitive critical mass in the international marketplace'. Targeting consumers in new markets, demonstrating innovation, and collaborating with competitors are all part of the way forward.<sup>2</sup> *Focus on Food*, dealing with Northern Ireland, outlines similar strategic themes for enriching the food industry, namely understanding and developing the market, fostering innovation, managing and improving the supply chain, and establishing an energy and waste theme.

The opening section provides a statistical review which demonstrates the scale, productivity and significance of the sector both within the island and on a broader international stage.

Sections two, three and four provide an analysis of the current economic environment, consumer trends, government support and international models of collaboration.

The main body of the report concludes, in sections five and six, with a detailed description of the proposed initiatives that have emerged from the study and a summary of these proposals.

## Agri-food as a key component of the economy

The agri-food sector is extremely important in both Ireland and Northern Ireland. With operations that span the supply chain, a high proportion of domestically sourced raw materials and a large export market, the sector is a key component of the overall economy. As a consequence, careful planning and support must be in place to ensure that it remains highly competitive in price, quality and service.

Official statistics demonstrate the economic significance of the sector: in Ireland (2009), the agri-food sector accounted for 4.1 per cent of Gross Value Added (GVA), 4.0 per cent of exports and 3.0 per cent of total employment;<sup>3</sup> in Northern Ireland (2009), the sector provided 3.0 per cent of GVA, 16.3 per cent of manufacturing exports and 6.6 per cent of total employment.<sup>4</sup>

An examination of exported goods from the sector indicates that Great Britain is the main export market for each jurisdiction (44 per cent from Ireland in 2010;<sup>5</sup> 58 per cent for Northern Ireland in 2008<sup>6</sup>), while cross-border trade in food and drink accounts for approximately a third of all cross-border trade and has increased steadily over recent years, with Northern Ireland generally in surplus.<sup>7</sup>

In addition to the direct contribution made by the sector to the economy, agri-food supports economic development by sourcing a large proportion of raw materials and services locally. In 2009, 67 per cent of input in Ireland was locally sourced, compared with 33 per cent for other manufacturing sectors.<sup>8</sup> This demonstrates the food and drinks industry's close links with the primary agriculture sector.

Furthermore, there is a high degree of indigenous ownership within agri-food, with companies considerably more dispersed than other sectors, and therefore in a good position to provide employment and further regional development in rural areas.

## Wider challenges and opportunities

On a global level, population growth, climate change, sustainability, biosecurity, the increasing demand for finite resources (water, oil), and the availability of biofuels, will potentially make the sector more vulnerable to market and price volatility.<sup>9</sup>

Within the sector, shifting consumer definitions of nutrition and dietary patterns, CAP reforms, changes in regulation and subsidies, and food security will possibly raise the cost base of the sector.<sup>10</sup>

<sup>1</sup> Department of Agriculture, Food and Fisheries (DAFF), *Food Harvest 2020: A Vision for Irish agri-food and fisheries* (July 2010); Industry Advisory Panel, *Focus on Food: A Partnership Strategy for the Food Industry in Northern Ireland* (May 2010).

<sup>2</sup> The forthcoming strategy for 2011-2013 from Enterprise Ireland includes a section on the development of the food industry which is aligned with Food Harvest.

<sup>3</sup> DAFF, *Fact Sheet on Irish Agriculture* (June 2011).

<sup>4</sup> Department of Agriculture and Rural Development (DARD), *Northern Ireland Agri-Food Sector, Key Statistics* (July 2011).

<sup>5</sup> Bord Bia, *Performance and Prospects 2010-2011* (2011).

<sup>6</sup> DARD Time Series Data (accessed 2010).

<sup>7</sup> InterTradelreland, *A Gravity Model Approach to Estimating the Expected Volume of North-South Trade* (2009).

<sup>8</sup> Forfás, *Annual Business Survey of Economic Impact 2009* (2010).

<sup>9</sup> Bord Bia, *The Future Landscape of Global Food and Drink* (2008).

<sup>10</sup> Food Strategy Implementation Partnership, *Vision 2020* (2006).

On a regional level, there is considerable room for development in demand and distribution, offering new opportunities for food and drink companies. These include a market for increasingly sophisticated ingredients, increasing opportunities for the foodservice division, the supply of own-brand goods to retailers and an increasing demand for artisan foods with the possibility of further development through food tourism initiatives.<sup>11</sup>

The increasing popularity of organic goods and farmers' markets in both Ireland and Northern Ireland demonstrate further opportunities available to small food producers who wish to find new routes to access consumers.

### Challenges posed by the current economic environment

The deterioration of the international economic environment in 2007 created a number of financial effects which have had an impact on agri-food exports from the island. The most notable challenges have included currency volatility, slower consumer spending and reduced access to credit. Exports from Ireland were initially adversely affected by the weakening of sterling against the euro.

However, a considerable proportion of the losses incurred by Ireland in 2009 were recouped in 2010, while the most recent figures for agri-food exports from Northern Ireland (2008) show an increase of 12 per cent. The weakening of sterling against the euro also presented Northern Ireland exporters with opportunities to sell in Eurozone markets.

One of the main challenges facing the sector is the uncertainty of world agricultural markets which makes planning difficult. For example agricultural commodity prices fell by 30 per cent in 2008 with further decreases in 2009, but then rose again in 2010.

While potentially damaging, such fluctuations also carry the possibility of new opportunities. According to recent reports, global demand for food is increasing in the medium to long-term.<sup>12</sup> There will also be implications for the sector if WTO trade negotiations open agriculture markets, especially if this involves reducing import tariffs and market supports as proposed.

Despite the potential for future growth, the industry faces more immediate challenges in areas such as financing and cash flow; government policy/regulations; retail and market pressures/consumer trends; and cost competitiveness.<sup>13</sup>

### Consumer and retail trends

In the current economic climate, consumers are feeling the pressure of tighter budgets and have become much more sensitive to price and value. When choosing between products, shoppers continue to place precedence on financial concerns over other influential factors, such as global warming.<sup>14</sup> This anxiety has affected consumer trends, but has also created opportunities in certain market areas where consumers feel they are getting good value for money.

Price awareness is apparent in the growing market share of discount brands and retailers in Ireland (8 per cent) and Northern Ireland (4.1 per cent), and consumers are opting for sales, promotions and retailers' own-brand labels. Despite cutbacks in the foodservice sector, sales of fast food remain strong due to cost competitiveness and the inclusion of healthier options.<sup>15</sup>

There is however, evidence of growing demands for speciality and premium foods, indicating that consumers are still willing to pay more when they feel higher prices are justified by high quality.<sup>16</sup>

The market for convenience food and prepared meals is also strong, but has become more sophisticated, driven by factors including: population changes; financial uncertainty; health and well-being; the desire for local, fresh produce; and the focus on reducing waste and energy consumption.

The desire for food that is produced locally is growing in Ireland and Northern Ireland,<sup>17</sup> However, the preference for buying local produce does not undermine the constant necessity to maintain and improve cost competitiveness and should not be used as an excuse for localised campaigns that may not be in the long-term interests of the industry as a whole.

### International models of collaborative practice

The report studies a range of internationally recognised food clusters and networks, both regional and cross-regional:

- **Wageningen Food Valley** - Netherlands;
- **Øresund Food Network** - Denmark/Sweden;
- **Food Cluster Initiative** – national clusters from approximately 31 EU countries and regions;
- **European Technology Platform, Food for Life** – all EU and some non-EU countries;
- **Baltic Sea Region Food Cluster** – Denmark, Sweden, Finland, Baltic Countries, Poland and Germany; and
- **FoodSpot** – Netherlands, Belgium and Germany.

Although consideration of these networks and clusters provide useful insight into the success of collaborative groups, it is evident that no singular model can be directly replicated as successful clusters must be founded upon the strengths and needs of their participating organisations or regions. However, the most successful collaborations focus heavily on R&D, innovation and technology transfer mechanisms.

### Cross-border development

Reports examining the agri-food sector have highlighted a number of problem areas which cross-border development would address.<sup>18</sup> The benefits of cross-border development would be particularly advantageous to SMEs, which make up a large proportion of the sector's companies in both jurisdictions. Benefits would include: targeted networking support; increased innovation through development of R&D and access to technology, support and knowledge; the development of food tourism; an improved regulatory environment; and the removal of barriers to trade created by the border.

### Broad range of government support agencies

The agri-food sector is supported by a range of agencies offering a variety of programmes and services. In Northern Ireland, the main agencies are Department of Agriculture and Rural Development (DARD), Agri Food and Biosciences Institute (AFBI) and Invest NI; and in Ireland, Enterprise Ireland, Bord Bia and Teagasc. InterTradelreland and SafeFood operate on a cross-border basis, focusing on trade and business development and food safety respectively.

A limited number of initiatives function on a cross-border basis. Invest NI (INI) and Enterprise Ireland (EI), who share market intelligence and Innovation Vouchers plan to develop collaborative programmes further.

A National Competitiveness Council (NCC) report on sectoral competitiveness<sup>19</sup> highlighted the considerable governmental support available in Ireland and stated that further cross-border collaboration would provide greater opportunities for food and drink businesses throughout the island.

<sup>11</sup> Department of Agriculture and Food, Agrivision 2015 (2004).

<sup>12</sup> 'World Food', *Financial Times* Special Report, 15 October 2010.

<sup>13</sup> Agri Aware, *The Irish Agri & Food Industry: Bigger, Brighter, Tougher* (September 2009).

<sup>14</sup> Bord Bia, *Feeling the Pinch* (2008).

<sup>15</sup> Information from Euromonitor International.

<sup>16</sup> Bord Bia, *Feeling the Pinch* (2008).

<sup>17</sup> Bord Bia, *Periscope Consumer Report* (2009).

<sup>18</sup> Irish Central Border Area Network (ICBAN), *Study of Food Sector in INTERREG Eligible Area* (2008); British-Irish Intergovernmental Council, *Study on the All-Island Economy* (2006).

<sup>19</sup> National Competitiveness Council, *Driving Export Growth* (2009).

## Proposed initiatives

Following consideration of the economic trends, sectoral pressures and opportunities for growth discussed above, an extensive list of proposals for cooperative action has been developed on the basis of potential to deliver mutual benefit to agri-food companies in Ireland and Northern Ireland.

These proposals are in line with governmental plans to develop a highly innovative agri-food sector with a competitive export market, as set out in *Food Harvest 2020* (Ireland) and *Focus on Food* (Northern Ireland).

They have been divided into the following categories: Innovation and R&D; Market Development; Cost Competitiveness; Food Safety; Energy and Waste; and Capability Development.

The proposed initiatives emerging from this research and summarised below, aim to foster cross-border cooperation in areas that can increase the competitiveness of the agri-food sector to mutual benefit.

Proposed Initiatives	
Innovation and R&D	
1.	Take steps to increase awareness and stimulate cross-border proposals under FP7, e.g. workshops and road shows to promote the programme and provide advice to potential applicants.
2.	Publicise roadmap of food sector research expertise and use to stimulate collaboration across the island in order to access EU funding streams.
3.	Designate centres of excellence to share capacities and technologies across institutions; use roadmap to help define.
4.	Consider cross-border application of future major inter-company/research institute R&D projects being supported by state agencies.
Marketing	
5.	Define and expand 'food island' strategy within EU rules; exploit healthy/pure/natural/safe image and sustainability advantages.
6.	Review scope for regional cross-border brands to exploit natural advantages and develop food tourism.
7.	Develop support systems for small artisan food producers on cross-border basis; benchmark learning to provide evidence-based interventions.
8.	Conduct research on consumer trends on island-wide basis where feasible.
9.	Deliver appropriate marketing support programmes from development agencies & industry bodies on a cooperative basis; include joint involvement in trade missions & access to overseas offices.

Food Safety	
10.	Strengthen cross-border collaboration in food safety – training & procedures, contingency planning & rehearsal, traceability and systems (e.g. food residue data base) etc.
11.	Develop risk-based sampling strategy with results sharing between millers and compounders, in liaison with regulatory authorities on linkages with statutory sampling.
12.	Extend Food & Feed Safety Advisory Forum to have an island-wide role.
13.	Investigate feasibility of food testing reference labs on island to reduce dependence on overseas labs.
Energy/Waste	
14.	Develop cross-border strategy to reduce agri-food carbon footprint.
15.	Map waste streams in key food industry subsectors and define initiatives to address.
16.	Implement best practice energy/waste/carbon footprint reduction company support programmes by agencies on a cooperative basis.
Cost Competitiveness	
17.	Support mechanisms to share capacity in key primary subsectors to achieve internationally competitive scale.
18.	Support SME collaboration in procurement, waste, energy, lab testing, logistics, HR, IT, etc; provide scale to encourage services to set up on island.
19.	Support the development of schemes to provide SME access to GB and other central markets through shared logistics, channel partners, 'piggy-back' with established suppliers, etc.
20.	Develop cross-border competitiveness/lean business support programme, building on EI & INI models.
Capability Development	
21.	Extend proposed EGFSN industry/agency/third level institute forum to address skills, training & development needs of food sector to have a cross-border remit.
22.	Continue the development of strategic leadership programme for CEOs/senior management open to suitable food companies from both jurisdictions (similar to EI's Leadership 4 Growth programme in IT sector).
23.	Investigate the development of a cross-border graduate placement programme (incorporate/extend INI Knowledge Transfer Partnership, EI Graduate Placement & IBEC Market Orientation Programme).
24.	Coordinate promotion of food as key industry in both jurisdictions to attract quality people from education.

Clearly, further work and discussion between relevant agencies and industry representatives is necessary to validate and prioritise each of the 24 proposals in terms of mutually effective outcomes. However, the promotional branding of food to exploit 'off-island' markets offers clear opportunities for branding cooperation and food promotion in non-competitive markets, and is an area for cooperative action that should be prioritised. The fundamental importance of R&D and innovation, particularly that which is industrially relevant, to sustained industrial competitiveness is acknowledged in the economic strategies of both jurisdictions and is another obvious priority for cooperation.

Furthermore, Food Safety is a critical issue for the industry and a matter which, as has been shown by the dioxins incident, easily transcends borders. Given the progress made to date on Food Safety and the benefits

flowing from this cooperation, Food Safety is another area that should be prioritised for further work and action development.

While Market Development, Innovation and Food Safety are three areas of strategic importance, an area of immediate concern for the industry and indeed for industry more generally across the island, is the rising cost of energy. Cooperative discussions to meet this shared challenge could lead to innovative, effective and efficient solutions for the sector.

# 1. ROLE OF AGRI-FOOD SECTOR IN NORTHERN IRELAND AND IRELAND

## 1.1 A major component of the economy in both jurisdictions

In Ireland and Northern Ireland, the agri-food sector occupies a unique position. It generates significant sales through the export market, operates across the supply chain by employing a high percentage of domestic raw materials and services, and is primarily indigenous.

**Table 1.1: Summary of the economic input of the agri-food sector<sup>20</sup>**

	Ireland	Northern Ireland
Share of overall economy	Agri-food and drink sector accounts for 4.1 per cent of GVA(2009), 4.1 per cent of exports (2010) and 3.1 per cent of total employment (2011). <sup>21</sup>	Agri-food and drink sector accounts for 3.0 per cent of GVA, 16.3 per cent of manufacturing exports and 6.6 per cent of total employment (2009). <sup>22</sup>
Output	Turnover of €22.2bn and gross output of almost €20bn, GVA €5.5bn (2009) – 16 per cent of industry. <sup>23</sup>	Turnover of £3.2bn (2009e), Northern Ireland's largest manufacturing sector. GVA of £550m (2009). <sup>24</sup>
Companies	Total 594 enterprises in 2009; 95 per cent SMEs with 60 per cent of employment. <sup>25</sup>	Total 470 companies in 2008; 97 per cent SMEs. <sup>26</sup>
Employment	50,000 employed directly and 60,000 indirectly with a total agri-food sector employment impact of 230,000 including farming (2008). <sup>27</sup>	26,000 in Agriculture, Forestry & Fishing, 19,147 in Food and Drink Processing <sup>28</sup> and 4,000 in Input Supply to Agriculture (2009).
Exports	Food and drink exports of €7.9bn in 2010; two thirds are indigenous exports. <sup>29</sup>	External (outside Northern Ireland) food and drink sales of £2.1bn in 2011. <sup>30</sup>

<sup>20</sup> Taken to comprise the Food & Drink processing industry (NACE C10)

<sup>21</sup> DARD, *Fact Sheet on Irish Agriculture* (June 2011)

<sup>22</sup> DARD, *Northern Ireland Agri-food Sector, Key Statistics* (July 2011)

<sup>23</sup> Central Statistics Office (CSO), *Census of Industrial Production 2008* (2010)

<sup>24</sup> DARD, *Size and Performance of NI Food and Drinks Processing Sector* (2010)

<sup>25</sup> CSO, *Census of Industrial Production 2008* (2010)

<sup>26</sup> Improve, *Labour Market Profile: Food & Drink Manufacturing Industry in Northern Ireland* (2009).

<sup>27</sup> Forfás, *Skill Requirements for Food & Beverage Sector* (2009).

<sup>28</sup> DARD, *Northern Ireland Agri-Food Sector, Key Statistics* (June 2010); DARD, *Size and Performance of the Food and Drink Processing Industry* (July 2010).

<sup>29</sup> Bord Bia, *Performance and Prospects 2010-2011* (2011).

<sup>30</sup> DARD, *Northern Ireland Agri-Food Sector, Key Statistics* (June 2011)



## 1.2 A high proportion of output is exported

The food and drink sector on the island depends heavily upon the export market: 66 per cent of total sales are in the form of exports in Ireland (2009) and 65 per cent as external sales in Northern Ireland (2009). The export propensity for individual product areas is illustrated in figure I and figure II.

## 1.3 Great Britain provides the main export market

Great Britain is the main export market for the agri-food sector in both jurisdictions, providing 36 per cent of export sales in Ireland and 60 per cent in Northern Ireland.

The UK accounted for 42 per cent of food and drink exports from Ireland in 2010, with sales totalling €3.4bn. This represents a 4 per cent increase when compared with 2009 and a considerable recoup of losses against 2008 levels.<sup>31</sup> Other EU markets provide 35 per cent of export sales, owing to the high demand for beef and dairy products and the attention given to the region by manufacturers of prepared foods.

Figure I: Export percentage by product group in Ireland

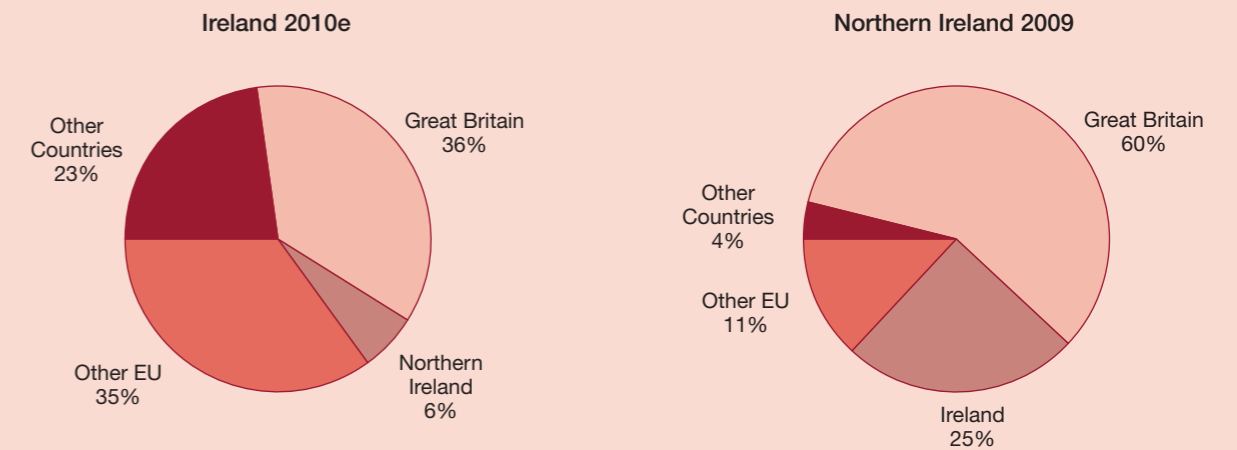


Figure II: External sales percentage by product group in Northern Ireland



Source: CSO Supply Balance Reports – Milk Products & Meat Products 2009 data; DARD Time Series (accessed April 2011)

Figure III: Food & drink sector exports value by destination<sup>34</sup>



Source: CSO Supply Balance Reports – Milk Products & Meat Products 2009 data; DARD Time Series (accessed April 2011)

Products exported to countries outside the EU (23 per cent) also rose in 2010 to €1.7bn in response to the demand for dairy and beverages in the global marketplace.<sup>32</sup>

Great Britain accounted for 58 per cent of external sales in Northern Ireland's food and drink sector in 2008.<sup>33</sup> Exports to other EU and non-EU countries from Northern Ireland, 11 per cent and 4 per cent respectively, tend to be lower than relevant export figures from Ireland. This difference can be attributed

to the local focus of the industry in Northern Ireland. After Great Britain, Ireland is Northern Ireland's largest export market.

## 1.4 Cross-border trade is high compared to other sectors

Food, beverages and tobacco account for approximately 33 per cent of cross-border manufacturing trade between Ireland and Northern Ireland.

Figure IV: Trends in cross-border cross-border trade (€bn)



Source: ITI analysis

<sup>32</sup> Bord Bia, *Performance and Prospects 2009-2010*, (2010).

<sup>33</sup> DARD Time Series Data.

<sup>34</sup> The Northern Ireland figures are 'External Sales' (i.e. outside Northern Ireland and include Great Britain).

<sup>31</sup> Bord Bia, *Performance and Prospects 2009-2010* (2010).

Figure V: Food, drink & tobacco cross-border trade by direction (€bn)



Source: ITI analysis

The value of cross-border trade in food, drink and tobacco increased steadily between 1995 and 2009 to €1.2bn, as demonstrated in figure IV.

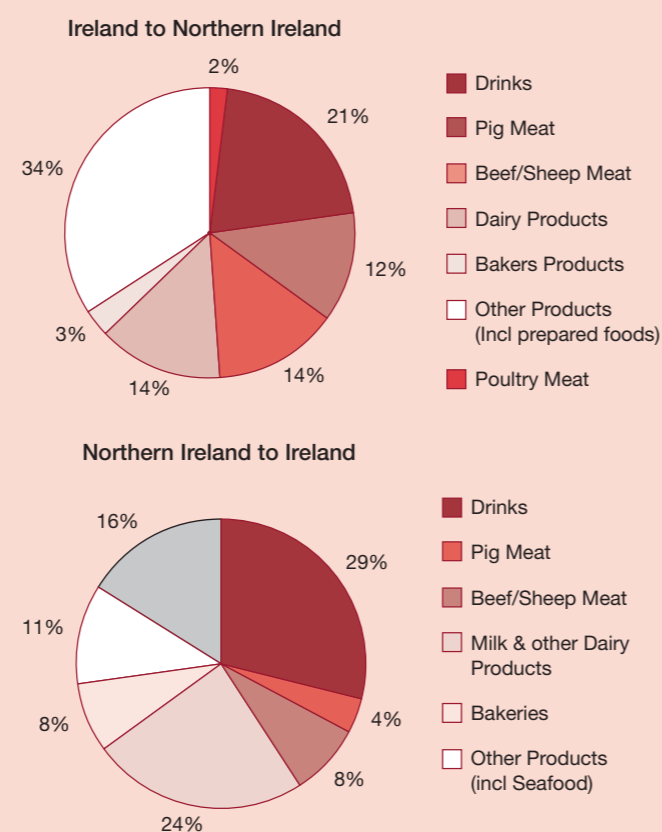
As products from the island may pass through a regional distribution centre in Great Britain before returning to Ireland or Northern Ireland, the data may be affected by the logistical structures of multiples and therefore the full extent of cross-border trade may be underestimated.

As figure V above illustrates, cross-border trade in food, drink and tobacco tends to be higher from Northern Ireland to Ireland.

Cross-border trade is strong in both directions for dairy products, 'Drinks' and 'Beef/Sheepmeat' (figure VI). Comparing the flow of trade for subsectors that represent varying products in each jurisdiction is less straightforward: in Ireland, 'other products' represents a significant proportion of trade at 39 per cent, including 'prepared foods'; in Northern Ireland, 'other foods' only accounts for 11 per cent of the cross-border trade, but refers to 'seafood and vegetables'. The trade in dairy and bakery products and poultry meat trade is stronger from North to South than vice versa.

There is also significant cross-border trade in live animals<sup>35</sup> as illustrated in Table 1.2.

Figure VI: Share of agri-food trade, 2009



Source: ITI analysis

Table 1.2: Cross-border movement of live animals 2009

Category	Ireland to Northern Ireland	Northern Ireland to Ireland
Cattle – direct slaughter	36,600	7,000
Cattle – breeding & production	46,700	4,000
Sheep – direct slaughter	41,000	252,000
Sheep – breeding & production	22,000	

### 1.5 Strong indirect contribution to the economy

The food and drinks industry purchases a high proportion of locally sourced services and raw materials – in 2009, 67 per cent of agri-food purchases in Ireland were made locally, as opposed to 33 per cent for all other manufacturing areas.<sup>36</sup> These figures reflect the industry's strong links with the primary agriculture sector.

The agri-food division also accounts for 39 per cent of the entire manufacturing industry's direct expenditure in the Irish economy.<sup>37</sup> The sector spends over €5bn on agricultural products from Ireland's farmers, and supplies the bulk of food and drink products consumed annually, worth approximately €11bn.<sup>38</sup>

### 1.6 A high degree of indigenous ownership and regional spread

The food and drinks sector has a high degree of indigenous ownership and is more dispersed than other sectors. Along with tourism, the food and drink sector often provides the main source of economic growth and employment in rural areas, and it plays a key role in regional development.<sup>39</sup>

In Ireland's food, drink and tobacco sector, indigenous enterprises account for 68 per cent of total sales, compared with 15 per cent in the rest of the manufacturing industry.<sup>40</sup> The sector is also regionally dispersed – only 14 per cent of the units are located in Dublin as opposed to 26 per cent for other manufacturing industries.<sup>41</sup> Likewise in Northern Ireland, five of the ten largest agri-food companies are locally owned.<sup>42</sup>

### 1.7 Subsector mix and performance variations

The key subsectors<sup>43</sup> have similar profiles in export value terms, as shown in figure VII, with:

- 'Dairy'/'Milk & Milk Products' at 29 per cent in Ireland and 21 per cent in Northern Ireland respectively; and
- 'Beef and Sheepmeat' at 21 per cent in Ireland and 23 per cent in Northern Ireland.

Otherwise 'Poultrymeat' is stronger in Northern Ireland (19 per cent of exports), while 'Prepared Consumer Foods' is stronger in Ireland (20 per cent of exports), and the 'Beverages'/'Drinks' subsector is stronger in Ireland (15 per cent) than in Northern Ireland (10 per cent).

<sup>35</sup> Information provided by DARD.

<sup>36</sup> Forfás, *Annual Business Survey of Economic Impact 2009* (2010).

<sup>37</sup> Payroll costs, Irish-sourced raw materials and services purchased in Ireland.

<sup>38</sup> Irish Business and Employers Confederation (IBEC)/Food and Drink Industry Ireland (FDII), *Closing the Gap: Competitiveness Indicators* (2009).

<sup>39</sup> National Competitiveness Council, *Sectoral Competitiveness Agenda* (2009).

<sup>40</sup> Forfás, *Annual Business Survey of Economic Impact 2009* (2010).

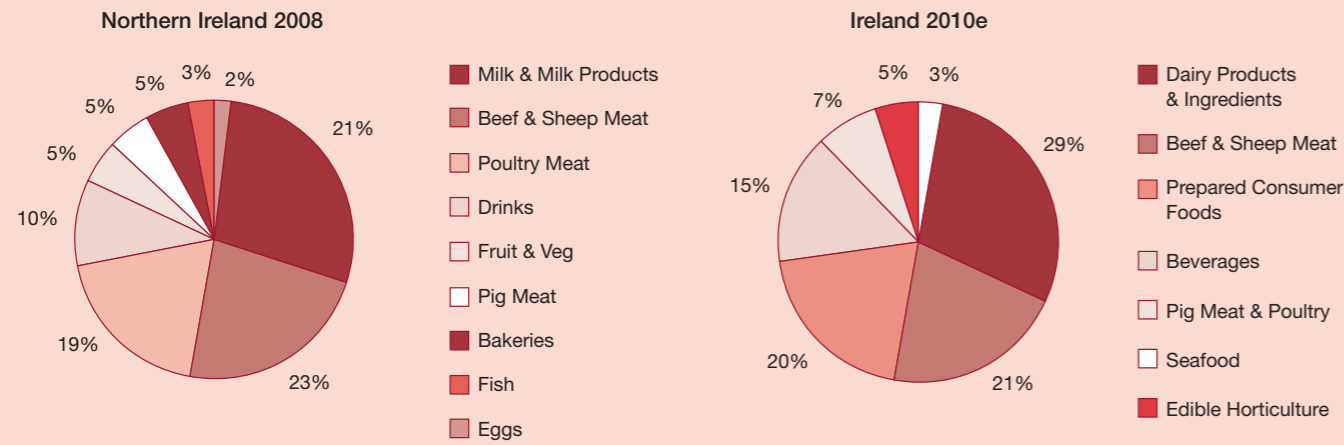
<sup>41</sup> DARD, *Barriers to Start Up and Growth of Innovative Food Processing Businesses* (2007).

<sup>42</sup> Department of Agriculture, Fisheries and Food (DAFF), *Annual Review and Outlook 2009-10* (2010).

<sup>43</sup> 'Live animals' and 'Animal by-products' (excluded for consistency) comprise 3% and 1% of Ireland and Northern Ireland totals respectively; 'Live animals' exports grew by 44% in Ireland in 2009 and 'Animal by-products' declined by 4% in Northern Ireland in 2008.



Figure VII: Export values by subsector



Source: Bord Bia (2011) & DARD (July 2010)

Exports from Ireland rose by 11 per cent in 2010 to €7.9bn having fallen 12 per cent in 2009.<sup>44</sup> Growth was recorded in all major subsectors:

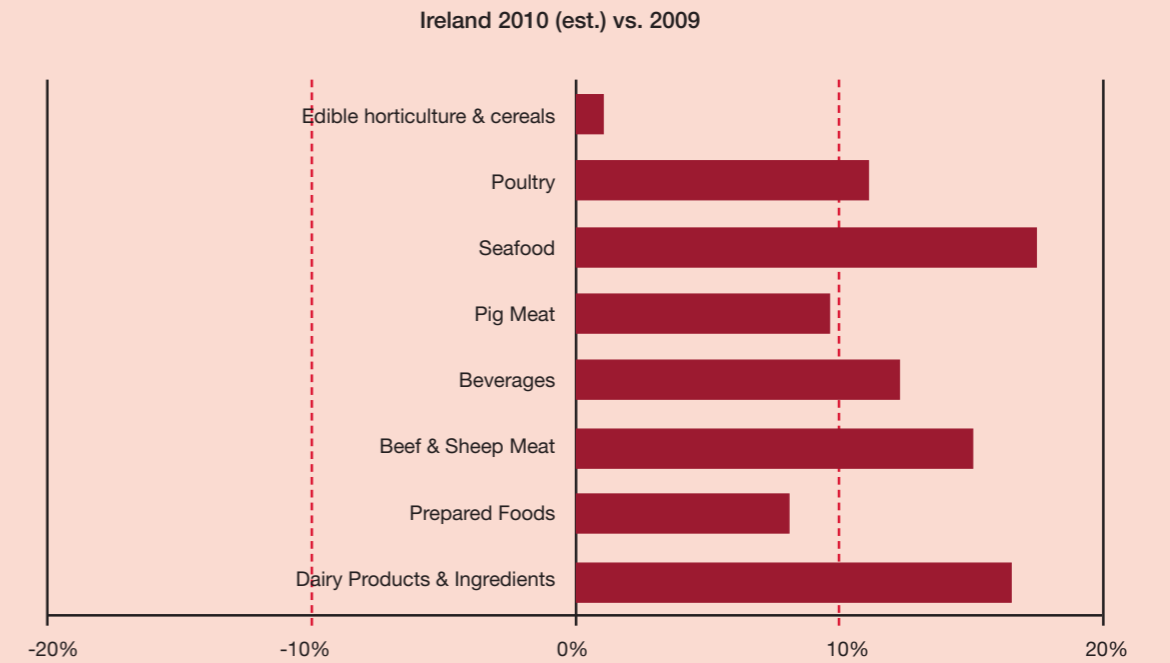
- Beef and sheep meat exports rose by 15 per cent - both volume and value increased over the year.
- Pigmear exports rose by 10 per cent in volume and value - due to the return of output negatively affected by the recall in late 2008.
- Poultry meat exports rose by 11 per cent covering almost all losses experienced in 2009 - the UK continues to account for almost 80 per cent of total exports but strong sales in the EU markets offset competition elsewhere.
- Dairy exports rose by 17 per cent - infant formula, cheese and butter proved to be the strongest products.
- Prepared food exports rose by 8 per cent - positive performances in ready meals, bakery products and sugar confectionery compensated for other weaker areas.

- Edible horticulture and cereal exports rose by 1 per cent - this followed very poor results in 2009 and was led mainly by sales of cereals, potatoes and mushrooms to the UK.

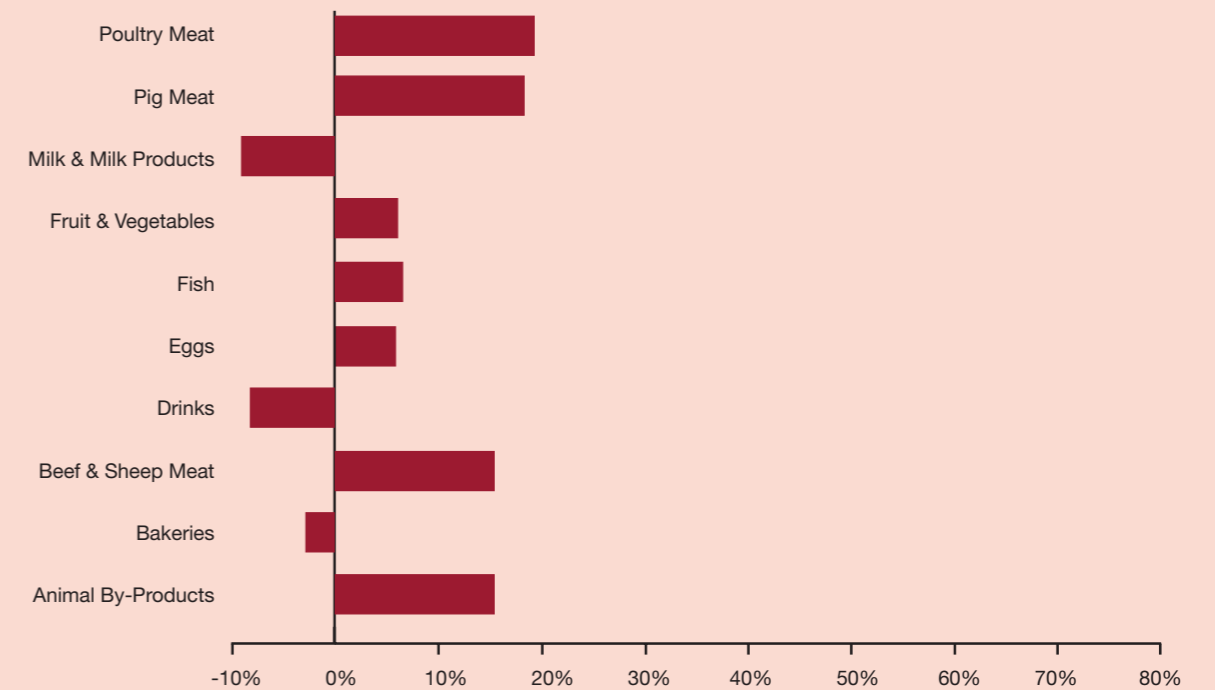
In Northern Ireland, external sales increased by 6 per cent to £2.4bn in 2009. There was growth in most subsectors:

- The exceptions were drinks exports, which fell by 6 per cent, milk and milk products rose by 8 per cent and bakery products fell by 1 per cent.
- Beef and sheepmeat exports rose by 14 per cent, pigmeat rose by 18 per cent, eggs rose by 6 per cent (following a 14 per cent increase in 2008) and fish rose by 7 per cent.
- Poultry meat exports increased by 19 per cent - this was the only subsector in Northern Ireland to experience a decline in exports in 2008.

Figure VIII: Increase/decrease (per cent) in exports by subsector



NI 2009 vs. 2008



Source: Bord Bia, Performance & Prospects 2009-2010/DARD NI Time Series data - External Sales.

<sup>44</sup> Bord Bia, Performance and Prospects 2009-2010 (2010). According to the January 2011 estimates from Bord Bia, a large proportion of the fall in exports experienced in 2009 appears to have been made up in 2010. Exports rose by 11 per cent to €7.9bn with growth across all major subsectors.

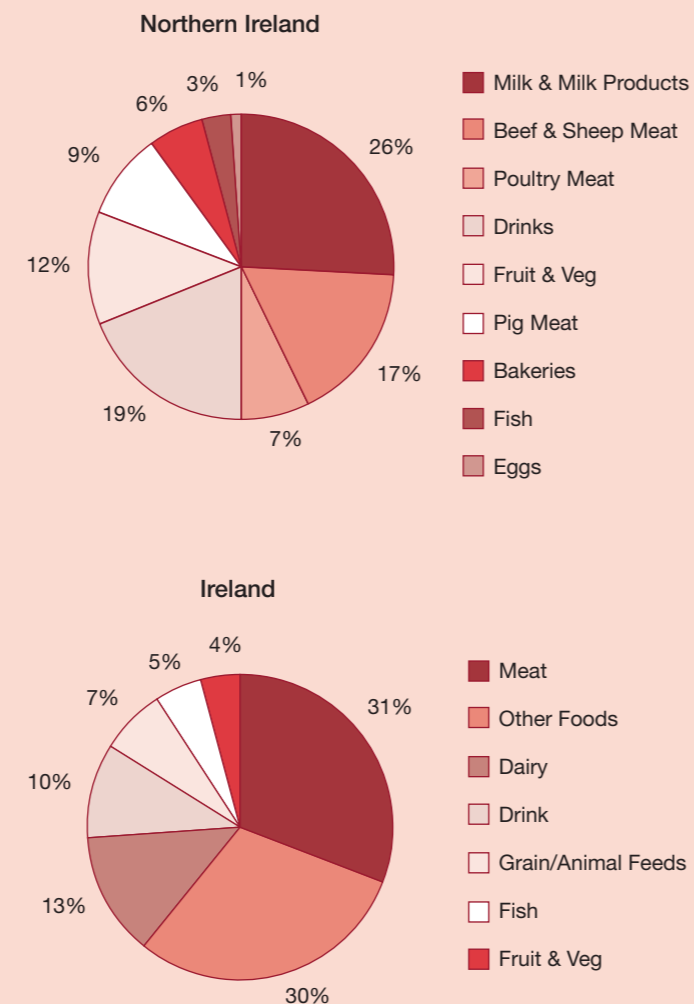
## 2. KEY ISSUES AND CHALLENGES

Employment in the meat, dairy and drinks subsectors follows a similar pattern of distribution as the export profiles, as illustrated in figure IX.

### 1.8 Conclusion

This section illustrates the key role played by the agri-food sector in both Ireland and Northern Ireland, with reference to export, cross-border trade and employment. Section two examines the challenges posed by the current economic climate and the opportunities that may emerge from the changes noted in consumer and retail trends.

Figure IX: Employment by sector (per cent)



Source: CSO Census of Industrial Production 2008 (est.)/DARD Time Series 2009 (est.)

### 2.1 The uncertain international economic environment

The international economic situation deteriorated in 2007, creating a less certain and more challenging global operating environment. The restricted credit conditions that followed widespread financial collapse continue to have considerable impact on investment decisions and affect SMEs in particular.

According to the International Monetary Fund (IMF), world economic growth slowed from 5 per cent in 2007 to recession in both 2008 and 2009. Activity across advanced economies contracted by 3.4 per cent in 2009 and predictions indicate only modest annual growth of 1.6 per cent is likely in 2011 and 2012.

One of the key issues for food and drink exporters is exchange rate volatility. In recent years, the value of sterling has dropped to a record low against the euro. While this exacerbated an already difficult operating environment for producers in Ireland, the fluctuation created new opportunities for producers in Northern Ireland.

Agricultural commodity prices declined in 2008, as indicated by the Food and Agriculture Organisation (FAO) Food Price Index which fell more than 30 per cent. The downturn can be attributed to factors such as the financial crisis, the halving of world crude oil prices and the appreciation of the dollar. However the recent price surges in food commodities and oil are evidence of the uncertainty which is now a dominant feature of world agricultural markets.

Pressure now exists for World Trade Organization (WTO) negotiations on international trade to recommence, and the availability of new agricultural markets would have considerable implications for Ireland and Northern Ireland. Other changes have been introduced by the 'Health Check of the Common Agricultural Policy', developed by EU agricultural ministers in 2008, which has increased milk quotas until 2015 and is replacing direct aid for farmers (Single Farm Payments) with a modulated financial scheme through the Rural Development Fund.

### 2.2 Consumer and retail trends

The new economic environment has led to significant changes in consumer behaviour. Shoppers are displaying increased sensitivity to price, which is reflected in the growing market share of discount retailers in Ireland (8 per cent) and Northern Ireland (4.1 per cent). Bord Bia research indicates that consumers feel the effects of a tighter personal budget, with economic worries taking precedence over non-financial issues such as global warming.<sup>45</sup>

This situation creates opportunity for discount brands emphasising value for money. At the same time, the Bord Bia research cited above also identifies significant market demand for speciality and premium foods, showing that there is a readiness to spend more if producers can demonstrate justification for higher prices.

Despite the slower economic environment, consumer purchasing and eating behaviour indicate continuing demand for convenience foods and prepared meals. However, there are also indications of increased levels of cooking from fresh produce and the preparing of packed lunches.

<sup>45</sup> Bord Bia, *Feeling the Pinch* (2008).

Familiar notions of 'convenience' are becoming more sophisticated. Key drivers of this change include:

- population growth, changing household/family structures and continuing affluence;
- the uncertainty of future economic growth;
- a desire for local, fresh produce;
- the continuing power of the retailer and growth of stores' own labels, countered by loyalty to brands;
- a stronger emphasis on waste reduction and demand for renewable energy sources;
- the rising rate of obesity;
- the rise of connoisseur consumers who prioritise convenience, health benefits, balance and well-being;
- ethical consumption and cultural or religious diversity; and
- an increased public awareness of animal welfare issues.

Expenditure in the foodservice sector has decreased as consumers cut back. However, fast food sales are performing well, assisted by competitive prices and the inclusion of healthy alternatives.<sup>46</sup>

At a European level, convenience remains a strong factor leading to demand for quick meal solutions and healthier foods.<sup>47</sup> Consumers are increasingly opting for the best value on offer by choosing private label brands and availing of sales or promotions. Price is important across all markets and Irish consumers place a premium on the quality of fresh food.

Buying locally sourced products is becoming more important for consumers in both Ireland and Northern Ireland. According to Bord Bia's latest consumer research report (PERIscope, 2009), 61 per cent of consumers in Ireland, and 63 per cent in Northern Ireland, say it is 'fairly' or 'very' important to buy local produce. This trend is linked with a desire for quality:

the percentage of respondents who agreed with the statement 'food produced locally results in higher quality products' increased in 2009 (from 2005) to 67 per cent for Ireland and 68 per cent for Northern Ireland. However, the preference for buying local produce does not undermine the constant necessity to maintain and improve cost competitiveness and should not be used as an excuse for localised campaigns that may not be in the long-term interests of the industry as a whole.

### 2.3 Local sectoral pressures

Food, drink and horticulture exporters face a challenging market environment owing to factors that include currency volatility, slower consumer spending and reduced access to credit. In 2009 the value of Irish food and drink exports declined by 12 per cent to €7.1bn, representing a return to 2005 levels. However, the situation improved in 2010 when Bord Bia recorded an 11 per cent rise to €7.9bn.<sup>48</sup>

Employment in Ireland's food, drink and tobacco industry, which is the largest indigenous sector, peaked in 2006 at 54,700. The numbers began to contract in 2007 and this trend has continued: the number of employees in the sector dropped by 13 per cent between 2006 and 2009, a loss of 7,300 jobs.<sup>49</sup>

By contrast, employment in Northern Ireland's food and drink processing sector has increased slightly by 4 per cent in recent years from 18,410 in 2006 to an estimated 19,200 in 2009.

The United Kingdom (UK) will continue to be a key market for local produce. In 2008, Bord Bia conducted a survey of Ireland's food and drink manufacturers who were asked to identify key market related challenges associated with doing business in the UK. The participants, by percentage, report having experienced draw backs in the following areas:

- difficulty in securing price increases (83 per cent of participants – a notable increase from 76 per cent in 2007 and 54 per cent in 2006);
- currency fluctuations (78 per cent);
- rising input costs (73 per cent);
- changing consumer purchasing behaviour, with a focus on value for money (65 per cent); and
- customers delaying payment or failing to pay (64 per cent).

Other economic pressures, while not exclusively restricted to the agri-food sector, are affecting company performance. These difficulties include reduced access to finance and extended credit periods, although discussions to improve credit availability through an export credit scheme may help, and the ongoing challenge to combat rising manufacture costs through actions such as consolidation (to achieve economies of scale) and more efficient supply chains.

At a local level, pressure within the sector arises from the scale of retail groups which can limit margins and encourage fierce competition among suppliers. Responses to this situation include producers investing in new channels to access the market and policy makers developing legal frameworks to ensure responsible trading practices.

### 2.4 Specific challenges for SMEs

A high proportion of agri-food companies in Ireland and Northern Ireland are SMEs. Research<sup>50</sup> undertaken on both sides of the border has indicated possible barriers to growth which companies of this size might experience, including:

- accessing facilities or support for New Product Development (NPD)
- a requirement for tailored solutions given their low capacity to absorb R&D, transparency, technology and management capability.

- problems may be encountered in finance, regulation, transparency, technology and management capability.

### 2.5 Cross-border development opportunities

In 2008 an Irish Central Border Area Network (ICBAN) report examined the agri-food industry at a cross-border level in the North-West region.<sup>51</sup> The report focused on the micro (fewer than 10 employees), small, niche and organic sectors, and declared the main issues to be: supply chain challenges; a need for greater levels of innovation; the need to harmonisation in health, hygiene and food safety; skills development in business, management capacity and food technology; and costs, particularly in relation to energy, waste and insurance. The report identified the following measures through which cross-border cooperation could be developed:

- more targeted networking support;
- the widening of models to encourage and develop innovation;
- an island-wide approach to food technology capacity and support arrangements;
- greater food tourism development, perhaps on a cross-border basis;
- sharing knowledge to overcome gaps in skills; and
- further examination of the current barriers to trade created by the border.

<sup>46</sup> Information from Euromonitor International.

<sup>47</sup> Bord Bia, *Continental PERIscope Study* (2008).

<sup>48</sup> Bord Bia, *Performance and Prospects 2009-2010* (2010) and Press Release, 12 January 2011 (see Bord Bia website).

<sup>49</sup> Expert Group on Future Skills Needs (EGFSN)/Forfás, *National Skills Bulletins 2007, 2010* (2007 and 2010).

<sup>50</sup> Bord Bia, *Barriers and Enablers of Growth for SMEs* (2007); DARD, *Barriers to Start Up and Growth of Innovative Food Processing Businesses* (2007); NISIP, *Agri-Food Horizon Panel Report – Creating the Climate for Growth* (2008).

<sup>51</sup> Irish Central Border Area Network, *Study of Food Sector in INTERREG Eligible Area* (2008).

# 3. GOVERNMENT SUPPORT STRUCTURES FOR THE AGRI-FOOD INDUSTRY

## 2.6 Challenges and opportunities

Recent reports in both jurisdictions<sup>52</sup> undertaken to examine the future of the food and drink sector identified the following challenges:

- fundamental global shifts in the availability of land for farming (under pressure from biofuels), water shortages, increasingly frequent episodes of 'freak weather', flooding, water purity, urbanisation, migration, and population growth;
- in the area of biosecurity episodes of Avian Flu and BSE, as well as the emerging threat of Bluetongue, highlight the need for greater vigilance and risk management;
- emerging pressure relating to carbon emissions, new regulatory directives and the price of energy all increasing the cost base within the sector;
- at a more local level, changes due to EU enlargement, CAP reform, food security measures and a drive towards health improvement through changes in food;
- the high level of waste in food (33 per cent of UK food purchases at a cost of £10bn per annum) is likely to spark a major debate about the way food is packaged, sold, stored at home, cooked and collected when it is thrown out.

The diverse nature of the market and development of new patterns of demand and distribution provide opportunities for food firms. In *Food Harvest 2020* these were summarised as the creation of sophisticated new consumer audiences in the rapidly growing countries such as Brazil or India, demanding new and diverse food solutions, and in the more mature US and EU markets consumers who will pay a premium for foods with clear sustainable, healthy and wellness attributes.

The *AgriVision 2015* report listed specific opportunity areas for the sector such as:

- an increasingly sophisticated ingredients sector providing market opportunities for innovative firms that can develop new, commercially applicable technologies;

- continuing growth and diversification in the 'eating out' division, providing an expanding range of opportunities in the food service market;
- niche opportunities for value-added, functional foods or specialised gourmet products;
- the maintenance of existing international brands that have been developed by the Irish food industry (the development of new international brands was deemed to be unlikely);
- supplying own brand products to retailers – while the rewards per unit are typically less, the resources needed and associated risks are also reduced, making it a practical option; and
- the market for artisan foods – this presents an opportunity for smaller Irish food businesses to move profitably up the value chain with spin-off benefits for rural tourism.

Farmers' markets continue to evolve – there were 150 on the island in 2008, including 10 in Northern Ireland. They provide alternative access to customers for small food producers, enabling them to deal directly with buyers and gain product feedback. Organic food sales in Ireland showed an increase of 16 per cent to €124m (RSP) in the year to July 2009.<sup>53</sup>

## 2.7 Conclusion

Section two of this report has demonstrated that the agri-food sector is a dynamic industry facing considerable change from within and beyond the island. The evidence presented above clearly illustrates that such change creates challenges and opportunities that are shared by the industry on both sides of the border, and therefore provides opportunities for a common response in areas that can be mutually beneficial in terms of both efficiency (cost) and effectiveness (impact).

In section three, the report sets out the current support structure available for the agri-food sector in Ireland and Northern Ireland.

<sup>52</sup> Department of Agriculture, *Food and Fisheries, Food Harvest 2020* (2010); DARD/Invest NI, *Focus on Food* (2010) taking up detail contained in Bord Bia, *The Future Landscape of Global Food & Drink* (2008) and NISIP, *Agri-Food Horizon Panel Report – Creating the Climate for Growth* (2008).

<sup>53</sup> Bord Bia website, [www.bordbia.ie](http://www.bordbia.ie).

Table 3.1 Key support agencies for the agri-food sector

Northern Ireland	Ireland	Cross-Border
Industry Advisory Panel (IAP)	Enterprise Ireland	InterTradeIreland
Invest NI	Bord Bia	Safefood
DARD	Teagasc	
Agri-Food and Biosciences Institute	County Enterprise Boards	
Local Enterprise Agencies		

## 3.1 Wide ranging support is provided by the various agencies

### Industry Advisory Panel (IAP)<sup>54</sup>

A new Industry Advisory Panel and an Interdepartmental Group were both established in May 2008. These groups have worked on a new vision for developing the industry, which was published in 2010 as *Focus on Food*.

### Invest NI Supports Business Development and Inward Investment

Invest NI aims to strengthen and grow the Northern Ireland economy by supporting business development, increasing exports, attracting inward investment and stimulating a culture of entrepreneurship and innovation.

It provides support programmes, advisory services and financial assistance. Invest NI Food Division coordinates the supports for the food sector through a mixture of tailored and general programmes.

### Department of Agriculture and Rural Development (DARD) promotes sustainable growth and development of the countryside

Support is available from DARD's Supply Chain Branch and the College of Food and Rural Enterprise (CAFRE) at the Loughry Campus.

Supply Chain Branch aims to assist agri-food stakeholders in the development of their supply chains by providing advice, facilitating improved communication and collaboration, coordinating support for group initiatives and enabling new business development.

<sup>54</sup> DARD, *Moving Forward – Updating the Development Strategy for the Northern Ireland Agri-food Industry* (2010).



CAFRE, Loughry Campus, provides support for technical training and services relating to technology transfer and innovation to the Northern Ireland food industry. Start-up and existing businesses can also access a Food Technology Centre, a Food Packaging Centre and the Food Business Incubation Centre, which has been designed to meet EU standards.

#### **Agri-Food and Biosciences Institute (AFBI) provides scientific research and services**

The AFBI is a leading provider of scientific research and services to government, non-governmental and commercial organisations. With facilities and scientific capability in agriculture, animal health, animal welfare, food, environment, biosciences and economics, AFBI conducts a range of projects for both the public and private sectors.

#### **Enterprise Ireland is responsible for business support**

Enterprise Ireland provides business support to firms within the food sector with ten or more employees. Enterprise Ireland aims to accelerate the development of world-class Irish companies through five key objectives:

- achieving export sales;
- investing in research and innovation;
- competing through productivity;
- starting up & scaling up; and
- driving regional enterprise.

#### **Bord Bia focuses on market development**

Bord Bia works in close collaboration with the industry to develop profitable sales and export markets for Irish food, drink and horticulture. This is achieved by facilitating long-term relationships between Irish companies and trade buyers and by delivering core services to both customers and businesses within the sector.

Bord Bia operates programmes to develop and foster contact between buyers and Irish companies, promoting 'Ireland' as a brand at international trade exhibitions and co-coordinating sales opportunities. Bord Bia has nine offices located strategically in key export markets.

#### **Teagasc provides research, advisory and training services**

Teagasc's mission is to support science-based innovation in the agri-food sector and the broader bio-economy. Teagasc has two National Food Technology Centres in Ireland:

- Moorepark Food Research Centre undertakes public scientific research and provides technological services to the food industry with emphasis on dairy, food ingredients and formulated foods and beverages; and
- Ashtown Food Research Centre provides research, consultancy and training to the food sector, to encourage product innovation and enhance food safety and quality.

#### **County Enterprise Boards support micro enterprises**

County Enterprise Boards support the micro enterprise sector in Ireland and provide support for business start-ups including grant aid, loan funds, training, management development and mentoring.

#### **InterTradelreland's main role is to improve competitiveness through North/South economic cooperation**

InterTradelreland's mission is to identify and realise opportunities to improve competitiveness, generate economic growth and create sustainable, quality jobs in both jurisdictions through increased levels of North/South trade and cooperation on innovation and business development opportunities. InterTradelreland's approach is to identify and eliminate the barriers to cross-

border trade and business development, both general and sectoral, by bringing these where appropriate to government policy makers, and/or pioneering relevant flexible and responsive programmes and services. Many businesses from the agri-food sector have availed of these services and supports.

#### **Safefood focuses on the promotion of food safety**

Delivering to an all-island audience, Safefood's area of expertise relates to:

- the promotion of food safety;
- research into food safety;
- the communication of food alerts;
- surveillance of food-borne diseases;
- the promotion of scientific cooperation and links between laboratories; and
- the development of cost-effective facilities for specialised laboratory testing.

### **3.2 Limited collaboration exists currently with plans to improve**

Certain initiatives are currently provided by development agencies on a cross-border basis: Enterprise Ireland and Invest NI Innovation Vouchers can be utilised across the island, and PERIScope studies have been funded jointly by Bord Bia and Invest NI. When all is taken into consideration, however, cross-border cooperation is limited.

Invest NI has developed a 'Memorandum of Understanding' with both Enterprise Ireland and Bord Bia to share mutually beneficial resources, such as market intelligence.<sup>55</sup> This agreement was set up in the context of the Northern Ireland Fit for Market report, and aims to deliver:

- development of a promotional strategy for Northern Irish agri-food;
- development of market intelligence for key target markets;
- a programme of focused market buyer introductions;
- training to enhance the capability of key personnel to interpret and exploit findings from the market intelligence programme; and
- the flow of information on market developments to producers with the aim of promoting a common understanding of market trends and opportunities.

There are plans to strengthen links between Enterprise Ireland, Invest NI and InterTradelreland in order to share and develop best practice, enhance the compatibility of services offered and explore opportunities for synergy. The aims include:

- collaboration on selected trade and innovation initiatives of mutual interest;
- collaboration in initiatives including cross border R&D and participation in EU consortia, with a focus on the Seventh EU Framework Programme; and
- collaboration with companies from across the island on selected overseas trade missions, organised by either Invest NI or Enterprise Ireland and where participants may avail of the overseas offices of each.

<sup>55</sup> Invest NI-Bord Bia, *Inter-Agency Agreement* (2006).



## 4. INTERNATIONAL MODELS OF COLLABORATIVE PRACTICE

### 3.3 Conclusion

There is significant support for the food and drinks sector within each jurisdiction. However, although many food companies participate in InterTradelreland's trade and innovation programmes, cross-border cooperation on support programme structures for the sector is limited.

A National Competitiveness Council (NCC) report highlighted the significant number of Government departments and agencies active in the food and drinks sector in Ireland.<sup>56</sup> The council emphasised that these agencies must coordinate their activities to provide a coherent strategy for the sector and declared that enhanced cross-border collaboration between the food and drink related agencies on the island may bring about greater opportunities.

Section four examines a number of international examples of collaborative practice within the sector. These clusters may act as models for furthering cross-border collaboration between Ireland and Northern Ireland.

This section looks briefly at international models of collaborative practice where combined operation takes place within a particular region between SMEs and large firms or between industry and academia. The examples are chosen from a range of countries with important agri-food industries that have set up cluster or network organisations comprising several stakeholders, such as R&D institutions, industry or development agencies.

Some of the key features of these clusters could be used as best practice examples for the island of Ireland.

The key characteristics of the national networks/clusters are illustrated through the examples of the Food Valley in Netherlands and Øresund Food Network in Denmark and Sweden.

### 4.1 National clusters/networks

Table 4.1 below lists some internationally recognised food clusters:

Netherlands	Food Valley
Denmark/Sweden	Øresund Food Network
Finland	Four Research/Science Parks
France	F <sup>2</sup> C Innovation
Germany	Food Industry Cluster Central Germany Health & Nutrition Network in Nordrhein-Westphalen Food-Processing Initiative e.V
Italy	Emilia-Romagna Food Cluster
United Kingdom	Food Network Wales Scotland Food & Drink The Food Network
Belgium	Flanders Food/Flandern Wagralim/Wallonia
Spain	Cartif/Technology Park in Castilla y Leon region

<sup>56</sup> National Competitiveness Council, *Driving Export Growth* (Dec 2009), p. 34 lists DEJI, DAFF, Department of Health and Children and Department of Communications, Energy and Natural Resources, as well as Enterprise Ireland, Bord Bia, Food Safety Authority of Ireland, Teagasc, Bord Iascaigh Mhara and Science Foundation Ireland.

### **Food Valley, Netherlands**

The agriculture and food sector is an important part of the Dutch economy, delivering 10 per cent of GNP, providing an income for 600,000 people and accounting for 20 per cent of exports. Wageningen Food Valley is one of the world's largest concentrations of food and process design firms with around 10,000 employees. Food & Nutrition is one of eight high-tech programmes in the Netherlands and food science is one of five focus areas at Food Valley. The others are life science, health, nutrition and agriculture.

The Netherlands aims to improve the competitive strength of the sector by accelerating and simplifying innovation processes through its Food & Nutrition Delta (FND) programme. This consists of two phases – the scientific Top Institute Food & Nutrition (TIFN) and FND Phase 2.

Top Institute Food & Nutrition focuses on fundamental, pre-competitive research with leading companies as partners. These partnerships will soon involve seven of the top 10 international companies. Research findings are shared - one partner can take out a patent to be licensed by the others. Results are anticipated within 5-10 years on the basis of industry relevance and scientific excellence. Partners initially contributed €0.5m per annum to take part; from 2011, there will be a focus on themes with partners contributing €150k per theme per annum.

TIFN is a continuation of the Wageningen Centre for Food Science, a successful collaboration between government and business. The initiative received €60m from government (the Ministry for Economic Affairs), €30m from industry and €30m from knowledge providers over four years. Governmental funding is now to reduce to 33 per cent with industry taking up the balance. TIFN has 15 employees including its back office.

The process is seen by partners to provide critical mass with €4m - €5m worth of programmes operating over 4 years, 50 per cent of which are funded by governmental bodies. Involvement allows partners to multiply the research assets invested in projects and deliver greater returns than they would achieve individually.

Food & Nutrition Delta (Phase 2) aims to make the Netherlands the leading food and nutrition region in Europe. This second phase deals with the application and commercialisation of research, mainly concerning SMEs. It only funds Dutch companies (or companies with an impact on the Dutch economy) but knowledge partners can be located outside the Netherlands. Results are expected within 1- 4 years as they are driven by business opportunities. Industry focuses on implementation of research and expects results within 1 year.

FND received €63.5m from the government between 2006 and 2010, comprising 40 per cent of the total. The Secretariat (the CEO and the secretary) was entirely funded by the Ministry in the first year; this is now down to 60 per cent with the balance to come from within the industry and relevant partners. Six industry specialist brokers are funded by the Ministry as well as back office services.

Applications are submitted to the back office (SenterNovem) and vetted by a committee of specialists - out of 19 applications received in 2009, eight were supported with 50 per cent of funding going to SMEs (50 per cent of the board members are from within the industry). FND helps applicants with grant submissions. An external mid-term assessment indicates 25 companies have been supported, creating 248 jobs and €126m extra turnover.

The Food Valley Secretariat operates as a one-stop-shop of innovation creating a powerful link to knowledge providers. It aims to be one of the top three food cluster organisations in Europe so as to attract people and companies of the highest calibre to the locale.

Originally regional in focus, having been established by Wageningen University, Food Valley now covers all of the Netherlands. It has 100 member companies - mainly SMEs – both from within the Netherlands and from the wider international stage. Members receive free reports from Food Valley and free access to the Innova marketing database.

Food Valley was set up in 2004; funding is reviewed every four years and is now extended to 2012 with a budget of €2m - €2.5m per annum. Fifty per cent of the cluster is funded by the EU (EFRO) with the balance provided by the Ministry of Economic Affairs, the province, municipalities, Wageningen University and Research Centre, and member companies (minimal).

Food Valley has seven – eight members of staff with support from Wageningen University, Syntens (Innova database) and the regional development agency of East Netherlands. Food Valley works closely with the regional development agency in dealing with potential investors.

### **Øresund Food Network , Denmark and Sweden**

Øresund Food Network (ØFN) is a Danish-Swedish partnership uniting research, business and public sector bodies within the food value chain. It is part of Øresund Science Region, established by Øresund University, focusing on collaboration within the food industry across Øresund - the strait separating Denmark and Sweden (the Øresund bridge opened in 2000).

Øresund is a comprehensive science region; several universities are located there, along with public sector organisations, the head offices of Danish and Swedish companies and multinational Nordic regional offices, all relating to the food industry. ØFN acts as a 'bridge-builder' between the Danish and Swedish sides with a small secretariat and offices located in Copenhagen and Lund. The network does not fund food innovation or R&D independently, as this funding is channelled through the national organisations.

The Strategy Plan 2009-2014 focuses on three research themes: food and health; production and sustainability; and gastronomy and sensation. It has four main activities: 1) project development and management, 2) workshops and conferences, 3) participation in European food cluster networks such as FINE and Baltfood, often in close cooperation with Food Valley, and 4) promotion of the region.

The Øresund Food Network's board of thirteen comprises: four from industry/industry organisations, five from public authorities/organisations, and four from research institutions.

The network had 78 members at the end of 2008: 22 from the research and education sector, 12 from public sector bodies, 18 from the food industry and 26 from other organisations.

The Danish and Swedish sides account for 60 per cent and 40 per cent of members respectively with six international members. It has a staff of eight and a budget of €610k per annum – of which 70 per cent is funded by projects, 20 per cent by Øresund University and 10 per cent through membership fees.

ØFN is primarily driven by research institutions and public authorities/support organisations. Only a limited number of large companies from the food industry participate, the majority of companies involved are SMEs. Few companies in either country have moved R&D or other functions into the food cluster and there has been limited foreign investment.

ØFN acts as a link between research, business and authorities in setting up joint projects. These projects are relatively small and often driven by the opportunity to obtain funds from EU Interreg and national/regional innovation programmes, and from development agencies.

As ØFN does not have access to large funds and only plays a marginal role in food-related R&D projects in Denmark and Sweden, its impact on cooperation between academia and industry is limited.

When comparing the Øresund Food Region to Food Valley, the Øresund cluster seems to be handicapped by two main factors:

- ØFN has a regional rather than national foundation.
- ØFN lacks the strong organisation for knowledge sharing between academia and industry that has been constructed in the Netherlands through the Top Institute Food & Nutrition and the Food & Nutrition Delta.

## 4.2 Cross-national clusters/networks

A number of food clusters/networks with a trans-national emphasis are outlined below:

### Food Cluster Initiative

The Food Cluster Initiative is supported by the EU 7th Framework Programme (FP7) and set up to promote diversity and excellence in food production and research in various European Regions. National clusters from approximately 31 European countries or regions participate. It is to some extent a continuation of FINE (Food Innovation Network Europe) which was supported by FP6 and officially finalised in 2008.

### European Technology Platform (ETP), Food for Life

The European Technology Platform's Food for Life involves all EU and a few non-EU European countries. It is supported by the EC to facilitate and promote innovation in the European agri-food industry. The ETP Food for Life 'Vision for 2020 and Beyond' was launched in 2005 and the focus is currently on developing a Strategic Research Agenda. UCD provides an Irish member to the board of the ETP and the AgriVision Food Research Committee is the Irish National Platform.

### Baltic Sea Region Food Cluster

This network was formed, with support from the EU Interreg IV B programme, to foster innovation and raise the food industry to a higher level. Members include industry representatives, R&D institutions and regional authorities. Participating organisations are from Denmark, Sweden, Finland, Baltic countries, Poland and Germany. The network is coordinated by the Lübeck Business Development Corporation, Germany.

### FoodSpot

This cross-national network was established in 2008 with partners from the Netherlands (Food Valley and Food Connection Point), Belgium (Flanders' Food) and Germany (Food-Processing Initiative). Members of the four founding partners automatically benefit from the activities of the FoodSpot collaborative platform. The objective is to connect regional and national strengths, knowledge and experience into a 'hotspot of innovation and cooperation'.<sup>57</sup> A key focus area is the development of innovative cross-border projects.

## 4.3 Learning Points

A number of learning points emerge from the review of international models of collaborative practice:

- All the networks emphasise the importance of R&D and innovation.
- The Dutch model aims to provide comprehensive support to the various stages of research from pre-commercial through application and development to implementation.
- The Øresund model mainly relates to promotion of resources that exist in the region.
- There appears to be limited value for both industry and academia in many large cross-national networks with the main beneficiaries being national food cluster organisations.
- Industry involvement and support needs to be established from the outset - TIFN gains this through a high financial commitment and the involvement of the board.
- There is a high level of SME involvement and hands-on support provided in FND, including help in writing applications.
- There needs to be a long-term perspective with the initial years of research being as much about building trust as delivering significant results.

- TIFN's move to research themes maximises the likelihood of research being commercially applicable.
- Success in pre-competitive research is dependent on openness and trust - confidentiality is more important in the development/application stage with smaller groups (two – three partners) best.
- Joint research at a pre-competitive stage is seen to allow companies to multiply their investment in research assets and achieve more than they could have achieved alone.
- Time input is essential in maximising the value of funds invested in terms of influencing and gaining knowledge from projects.
- Cooperation between regions/countries such as Ireland and Northern Ireland increases the possibilities of attracting EU Interreg funds.

## 4.4 Conclusion

No single existing model can simply be replicated in another jurisdiction; a successful cluster must build on indigenous strengths and address regional gaps. However, the survey of collaborative partnerships on a European level indicates that successful clusters or networks place considerable emphasis on R&D, innovation and technology transfer mechanisms and have strong industry buy in and relevance.

Section five examines a range of proposed initiatives that have emerged from the review of statistics and existing models undertaken in sections one to four.

<sup>57</sup> FoodSpot website [www.foodspot.eu](http://www.foodspot.eu), accessed 5 July 2011.

# 5. INITIATIVES PROPOSED

The main aim of this report is to set out clear proposals for cooperative actions that are capable of delivering mutual value to the agri-food sector in Ireland and Northern Ireland. The opportunity areas summarised in Table 5.1 cover the full agri-food supply chain, as well as regulation and capability issues.

The initiatives proposed have been checked to ensure that they are consistent with both governments' policies for the future of the agri-food sector as an export-led and innovation-intensive industry, as set out in *Food Harvest 2020* and *Focus on Food*.<sup>58</sup>

It is proposed that the initiatives are advanced on the basis of demonstrable levels of need and demand, and the ability to impact on export and innovation targets.

## 5.1 Innovation and R&D

Investment in innovation and R&D is critical to the survival and future growth of the agri-food industry. The strategic importance of innovation and R&D is highlighted in various reports and policy documents in Northern Ireland and Ireland. For example:

*'R&D that promotes innovation and business sophistication – including, at the regional level, technology transfer – is the most important long-term driver of productivity. This is essential for Northern Ireland to move up the value chain.'*

*R&D can play a major role in technology transfer because it allows companies to learn about leading technological advances and may raise the absorptive capacity of the firm.*

*These factors are critical for a region such as Northern Ireland, which traditionally underperforms in Innovation and R&D due to the small size of firms and poor industrial structure. Therefore a major strand of this Report is to make recommendations to significantly boost Innovation and R&D activity in Northern Ireland.'* (Independent Review of Economic Policy in Northern Ireland, September 2009)

*'The Committee believes that, given the role accorded to research and development by Irish Government policy that seeks to develop Ireland as a knowledge based economy, the dependence of Irish food industry competitiveness on basic and applied R&D must be recognised and financially supported in a similar fashion to the support given to other high-tech industries.'* (AgriVision 2015 report)

These extracts demonstrate that improved innovation and R&D is a central strategic priority of development agencies on both sides of the border. In recent years, there have been a number of initiatives and funding programmes which aim to stimulate greater innovation and higher levels of R&D investment.

## 5.2 R&D in the food sector

R&D investment within the food sector in Ireland between 2003 and 2008 by state agencies amounted to just over €200m, with €157m going to Public Research Organisations (PROs) and €44m awarded directly to the food industry.<sup>59</sup> Annual funding increased by 74 per cent over the period, and Enterprise Ireland and DAFF accounted for almost 75 per cent of the total. The bulk of the 2008 increase is accounted for by the Food for Health Ireland funding which will be outlined in more detail below.

**Table 5.1: Summary of initiatives**

Area	No. of Initiatives	Comments
Innovation and R&D	4	Establishment of centres of excellence and cross-border application of major inter-company initiatives.
Market Development	5	Food island sustainability theme, regional branding; cross-border market research and marketing support schemes.
Food Safety	4	Cooperation in food safety and animal health; feasibility review of food testing reference labs; shared company testing
Energy/Waste	3	All-island strategy to reduce carbon footprint through collaborative waste treatment and energy/waste reduction programmes.
Cost Competitiveness	4	Capacity sharing; SME shared services; large firm/SME cooperation; lean business programme.
Capability Development	4	All-island application of strategic leadership, graduate placement and other programmes; promotion of sector to education.

**Table 5.2: Food research investment in Ireland by state agencies (€m)<sup>60</sup>**

Funding Agency	2003	2004	2005	2006	2007	2008	TOTAL	%
Enterprise Ireland	9.2	7.6	9.4	9.9	14.2	23.6	73.9	36.7
DAFF	10.5	6.7	6.9	14.1	16.8	17.5	72.5	36.0
SFI	3.9	3.9	3.9	3.9	2.1	0.5	18.2	9.0
EU	5.0	5.0	5.0	5.0	5.0	5.0	30.0	15.0
Marine Institute	0	0	0	0	0	1.0	1.0	0.5
HRB	0.2	0.6	2.1	0	0	2.6	5.5	2.8
<b>TOTAL</b>	<b>22.8</b>	<b>23.8</b>	<b>27.3</b>	<b>32.9</b>	<b>38.1</b>	<b>50.2</b>	<b>201.1</b>	<b>100</b>

Source: Food Research Map, Enterprise Ireland, November 2008.

<sup>58</sup> Department of Agriculture, Food and Fisheries, *Food Harvest 2020: A Vision for Irish Agri-Food and Fisheries* (July 2010); Industry Advisory Panel, *Focus on Food: A Partnership Strategy for the Food Industry in Northern Ireland* (May 2010).

<sup>59</sup> Enterprise Ireland, *Food Research Map* (2008).

<sup>60</sup> Data reflects state agency support only.



As shown in table 5.3, 'Food, Drink & Tobacco' business expenditure on R&D (BERD) in Ireland more than doubled over the period 2003–2007 to €85.9m with an increased share of manufacturing and total business R&D.<sup>61</sup> In 2007, 'R&D Spend' represents 0.34 per cent of output, as opposed to the EU-15 average of 0.24 per cent in 2005.<sup>62</sup>

**Table 5.3: Food research investment in Ireland by business (€m)**

R&D Spend	2003	2005	2007
Total Business (BERD)	1075.6	1328.7	1603.2
Total Manufacturing	697.3	924.6	913.8
Food, Drink & Tobacco	42.3	63.7	85.9
FD & T % of BERD (%)	3.9	4.8	5.4
FD & T % of Manufacturing (%)	6.1	6.9	9.4

**Source:** Business Expenditure on R&D reports Forfás Apr 05 & Jan 07, and CSO/Forfás, Jul 09.

'Food, Drink & Tobacco' BERD in Northern Ireland peaked in 2005, declined between 2006 and 2008 before a strong rise in 2009 to £19.4m. This comprises 8 per cent of total BERD as opposed to 5.4 per cent in Ireland (2007) and represents 11.3 per cent of the manufacturing expenditure on R&D.

**Table 5.4 Food research investment in Northern Ireland by business (£m)**

R&D Spend	2003	2004	2005	2006	2007	2008	2009
Total Business (BERD)	121.3	124.3	142.6	155.4	185.1	183.9	242.5
Total Manufacturing	87.0	82.8	88.3	93.7	103.7	114.3	36.0
Food, Drink & Tobacco	13.4	11.5	15.5	15.2	14.7	14.3	19.4
FD & T % of BERD (%)	11.0	9.2	10.8	9.8	7.9	7.7	8.0
FD & T % of Manufacturing (%)	15.4	13.9	17.6	16.2	14.2	12.5	11.3

**Source:** DETI, Northern Ireland Research & Development Statistics 2009 (Dec 2010).

Programmes and funding are targeted at specific initiatives, companies and research institutions within each jurisdiction, with only limited cross-border research collaboration which is set out in table 5.5.

<sup>61</sup> Comparisons between 2005 and 2007 must be treated with caution due to survey methodology changes (Jul 2009 report).

<sup>62</sup> EU-15 refers to the number of member countries in the European Union prior to the accession of ten candidate countries on 1 May 2004; Food & Drinks Industry Ireland / IBEC, Closing the Gap: Competitiveness Indicators (2009).

**Table 5.5: Examples of North/South collaborative research projects**

Collaborative Programme	Research Projects
<p><i>Irish University Nutrition Alliance (IUNA)</i></p> <p>Brings together expertise of academic nutrition units in UCC, UU, TCD and UCD. IUNA is involved in a broad area of nutrition and food research.</p> <p>Each unit has its own active nutrition research programme where appropriate, collaborative research programmes are established.</p>	<ol style="list-style-type: none"> <li>1. Applied Nutrition &amp; Food Safety Research - national dietary surveys focusing on adults and teenagers.</li> <li>2. Metabolic, cellular and molecular nutrition research - under FHI, funded by DAFF - National Nutrition Phenotype Database being created.</li> <li>3. North/South Food Consumption Survey funded by DARD, FSAI, NI Centre for Diet &amp; Health and industry.</li> </ol>
<p><i>Joint Irish Nutrigenomics Organisation (JINGO)</i></p> <p>Four universities working together to create a National Nutrition Phenotype Database.</p>	<p>National Adult Nutrition Survey led by UCC.</p> <p>Department of Agriculture project by TCD and UU.</p> <p>Metabolic challenge study led by UCD.</p>
<p><i>Cross Border R&amp;D Funding Programme (DEL and SFI)</i></p> <p>The objective of the programme is to provide assistance to the Northern Ireland Universities to enable them to build additional and sustainable research capacity and capability that will contribute to the development of the 'All Island Research Infrastructure' through meaningful and appropriately targeted collaboration with leading research teams in Ireland. In December 2008, 12 successful projects were announced, three of which have a specific agri-food application.</p>	<ol style="list-style-type: none"> <li>1. Centre for Food: Assured, Safe and Traceable food (ASSET) QUB research centre working with DCU, UCD and Ashtown on harnessing scientific know-how for development opportunities for the agri-food sector.</li> <li>2. QUB collaboration with Institute for Public Health and UCC to look into diet, obesity and diabetes.</li> <li>3. UU nutrition and bone health research with TCD, UCD &amp; UCC (under IUNA).</li> </ol>
<p><i>Cross-border graduate veterinary public health programme</i></p> <p>Agreement between UCD &amp; UU for joint North/South Graduate Certificate in Veterinary Public Health.</p>	<p>Developed with DAFF &amp; DARD to meet continuing education needs of veterinarians involved in regulating food industry; to be jointly conferred by UCD &amp; UU and delivered on-line – first of its type in Europe.</p>
<p>Cross-border collaboration between researchers at Teagasc Crops Research Centre, Oak Park and AFBI in Belfast (funded by DAFF Stimulus Fund).</p>	
<p><i>North/South Postgraduate Scholarships</i></p>	<p>Provided by Universities Ireland &amp; CBI/IBEC JBC to students undertaking Masters or first year PhD programme in other jurisdiction.</p>
<p><i>Innovation Voucher</i></p>	<p>The objective of the Innovation Voucher initiative is to build links between Ireland's public knowledge providers and small businesses and create a cultural shift in the small business community's approach to innovation. The initiative, run by Enterprise Ireland and Invest NI, has opened up all of the knowledge providers across the island to small businesses.</p>
<p><i>Innova</i></p>	<p>Innova is an all-island collaborative R&amp;D programme, offered by InterTradelreland, which provides businesses with the opportunity to form a strategic cross-border R&amp;D partnerships to accelerate product development and improve competitiveness.</p>
<p><i>FUSION</i></p>	<p>InterTradelreland's FUSION programme is an all-island one which enables knowledge and technology transfer between business and academia to support innovation and increase capability.</p>



An extensive range of innovation and research facilities and competencies is available to the agri-food industry on the island. A key challenge for the state agencies and the industry is to leverage this capacity for competitive advantage. Improved interaction between research institutes and industry has the potential to improve the efficiency (cost) and effectiveness (impact) of Northern Ireland and Ireland's investment in R&D. A key component in this will be the creation of better awareness and understanding of the capacities and competencies that exist. Enterprise Ireland has taken preliminary steps to document the research capacity in Ireland with the publication of its *Food Research Map* in 2008. An all-island research mapping project is currently under way by the Irish Food & Health Research Alliance (IFHRA) called the *Research Roadmap in Food and Health* coordinated by Professor Kevin Cashman of UCC. (See Box 1 below)

#### Box 1

##### European Technology Platform 'Food for Life'

A major initiative is underway in Europe to map the optimal direction of research in food and health, bringing together academia, industry and funding agencies. IFHRA aims to complement this activity on the island of Ireland.

Phase 1 will audit research activity, infrastructure and skills among partners in 2009.

Phase 2 will integrate the results of the audit into an all-island position paper.

Phase 3 will outline the strategic choices to be made by funding agencies to ensure that food and health research on the island is internationally competitive.

The mapping of competencies and facilities will help improve awareness and should facilitate greater collaboration between the various public research organisations in Ireland and Northern Ireland.

However, stakeholder interviews and an analysis of the proportion of cross-border projects indicate that, while the concept of cross-border research and innovation collaboration is viewed positively, it is not a central focus of state funding. Achieving greater collaboration and integration within each individual jurisdiction is viewed as difficult to achieve, so there is an impression that an added cross-border dimension can only add to this complexity. The Matrix report on the Northern Ireland agri-food sector highlights the lack of integration. It states:

*'There is a lack of integration between scientific and exploitation capability that hinders the growth and sustainability of the Northern Ireland agri-food sector... there is limited collaboration between Northern Ireland food companies and research institutes with other regions that limit the impact of research and the benefit of knowledge transfer'* (Matrix Volume 4 Agri-food Horizon Panel Report).

The low number of joint applications for research funding to the EU's 7th Framework Programme (FP7)<sup>63</sup> - which favours multi-state initiatives - demonstrates how there is considerable scope for greater cross-border collaboration. In view of this, the two governments have recently declared that increasing initiatives should become a priority to be addressed by InterTradelreland.<sup>64</sup> This should build upon the MOU signed between Teagasc and AFBI and upon the work being undertaken by DARD and DAFF to achieve greater strategic cooperation in planning and funding research.

A good example of what is possible through EU-wide cooperation under FP7 is the current NetGrow programme which brings together partners to enhance the innovation activity of food SMEs through business networks.<sup>65</sup>

The difficulty in achieving industry-academic collaboration is evident in the lengthy process undertaken by Enterprise Ireland to facilitate one of the most extensive and exemplary achievements of innovation collaboration between dairy companies and research institutes - the €22.5m Food for Health Ireland initiative (see box 2).

#### Box 2

##### Food for Health Ireland

Food for Health Ireland (FHI) is a unique partnership between four major dairy processing companies (Glanbia, Kerry, Carbery and Dairygold) and four public research organisations (UCC, UCD, U of L and Moorepark). It aims to determine how milk ingredients can be extracted and used to deliver health benefits for consumers. Supported by Enterprise Ireland, FHI combines the expertise of the researchers involved to provide a pipeline for the development of new functional food ingredients and products.

FHI aims to maximise the health potential of 'bioactive ingredients' derived from milk, which will be tested for their impact on early infant development and their ability to reduce the risk of infection, heart disease and obesity.

FHI has two main research platforms: 'milk mining' deconstructs milk into fractions, which are delivered to 'health pillars' to be tested for bioactivity. These platforms are supported by programmes relating to process scale-up, food formulation, human intervention, consumer and regulatory affairs, and training/outreach.

FHI combines this research expertise with the marketing power of the industry partners to generate new collaborations, opportunities and successes on a national and international scale.

**Vision:** To improve health, well-being and quality of life through world class innovation in food

**Mission:** To build genuine, long-term industry-academic collaborations and networking, and to develop appropriate industry-focused world class capabilities and competencies so as to create profitable new business opportunities.

While FHI's mission can be seen as a template for greater industry-academic collaboration on the island, the initiative currently has no cross-border dimension and the achievement of that goal may involve a number of challenges. In an InterTradelreland report on cross-border technology transfer in 2006, respondents in universities indicated that sharing experience with colleagues in other universities through cooperation on projects was of significant benefit.<sup>66</sup> The critical factors that increased the likelihood of success were:

- **top-level support:** including strategy, priorities, direction, coordination, and culture;
- **process:** must be clear, simple, flexible, consistent across institution, and include budget issues;
- **staff:** including resources, clear roles, training, communication and networking;
- **engaging with industry:** marketing, promotion, identification/matching of industry requirements, networking and selling;
- **research:** necessary provisions include a strong base, centres of excellence, trained/informed academics, shared and contract research.

<sup>63</sup> The Seventh EU Framework Programme for Research and Technological Development (FP7) aims to strengthen the scientific and technological base of industry through international collaboration.

<sup>64</sup> See the communiqué from the November 2010 North/South Ministerial Council trade and business sectoral meeting: [http://www.northsouthministerialcouncil.org/index/publications/joint-communications/sectoral/jc\\_trade\\_and\\_business\\_development\\_jc\\_trade\\_and\\_business\\_jc\\_12\\_november\\_2010.htm](http://www.northsouthministerialcouncil.org/index/publications/joint-communications/sectoral/jc_trade_and_business_development_jc_trade_and_business_jc_12_november_2010.htm)

<sup>65</sup> The nine partners include Teagasc, Food Valley network (France) and the Skane Food Innovation Network (Sweden). For further details see [www.netgrow.eu](http://www.netgrow.eu)

<sup>66</sup> InterTradelreland, *All-Island Technology Transfer Feasibility Study* (2006).

As the FHI's initiative shows, despite some evidence of progress, cross-border collaboration is not yet a central focus of the state agencies. Instead, the primary endeavour of the agencies is to encourage collaboration between research institutions, and between industry and academia, within the respective jurisdictions.

The benefits of leveraging the collective innovation and R&D resources have thus not been fully realised. While the current collaboration will increase levels of trust over time, stimulation of cross-border industry/academic collaboration requires more support.

Consideration should therefore be given to extending future major collaborative projects, such as FHI, to an all-island basis.

As collaboration grows, the feasibility of creating island-wide centres of excellence should be examined. There is a wide range of R&D infrastructure available to the food sector in Ireland and Northern Ireland with some duplication and overlap of resources, and a lack of critical mass and scale to achieve world class standards. There is an opportunity to achieve greater specialisation and leveraging of resources and skills by designating and supporting a number of centres of excellence with an all-island remit. These centres would aim to:

- provide cutting-edge, world-class R&D infrastructure and capacity to support the food industry in the areas of innovation, NPD and productivity improvement to help it compete successfully and increase international food sales;
- provide more challenging research opportunities and better career paths for food scientists and technologists, thus attracting more people into the Irish food industry; and
- ensure an optimal return on investments made over a wider base, while availing of synergies.

A number of issues must be addressed, either by centres of excellence or independently, to facilitate greater collaboration:

- Funding rules may constrain collaboration - funding is aimed at local Irish or Northern Irish institutes with limited incentive for cross-border collaboration. Joint participation in EU funding programmes may provide funds for North/South collaboration with other EU and EFTA countries, e.g. Romania and Norway have been cited as evidence of this in a recent research project.
- Island-wide R&D strategies require the full engagement of government departments and funding agencies – such cooperation is not practiced widely at present.
- Research centres with permanent structures may lack the flexibility needed to react to changes in demand, as opposed to programmes designed to meet specific R&D needs whose ongoing operation is subject to performance review.
- Agreement must be reached over designating centres of excellence - political considerations may override scientific and commercial criteria with 'losers' resisting a loss of funding, status and jobs.

## Recommendations

1. Take steps to increase awareness and stimulate cross-border proposals under FP7, e.g. workshops and road shows to promote the programme and provide advice to potential applicants.
2. Publicise the IFHRA roadmap of food sector research expertise and use this to stimulate collaboration across the island so that EU funding streams can be accessed.

This can happen as soon as the road map is available, and plans to be implemented over a longer time period, such as two–three years, can also proceed.

3. Designate centres of excellence to share capacities and technologies across institutions; use the IFHRA roadmap to define a shared research agenda that identifies common priorities. Major inter-company/research institute projects should be reviewed for cooperative applications where this would be likely to improve the outcome. Initiatives, such as Food for Health in milk ingredients, could be considered here as a model for other sectors.
4. Agencies should look at funding structures and the possibility of promoting cross-border applications for future major inter-company/research institute R&D projects.

A final point worth making in regard to R&D, and in particular to centres of excellence, is the demand from industry to ensure that the R&D undertaken is specific and useful to the indigenous agri-food sector.

## 5.3 Market development

The agri-food sector on the island operates in an increasingly competitive marketplace and exporters face a challenging environment of subdued economic growth.

However, given the significance of export markets for the food and drinks sector, the growing global demand for food will provide new opportunities. Stronger overseas demand projected for 2010 and 2011 highlights the importance of exports to the sector's recovery.<sup>67</sup> While Great Britain will continue to be the main market for the sector in both jurisdictions, the Eurozone and US also represent important markets for Ireland and, to a lesser extent, Northern Ireland.<sup>68</sup> Opportunities also exist in the major emerging economies of China and India, although only the larger food companies on the island will be in a position to exploit them.

The growing scale of retail groups across Europe enhances their bargaining position which makes price increases difficult to achieve and puts pressure on suppliers in terms of marketing support. Revised operating processes by large retail groups can result in decisions about which product lines stocked are being taken off the island.

In addition, new overseas suppliers are emerging, often benefiting from lower input/manufacturing costs and economies of scale. Producers on the island will always suffer in terms of cost from scale and a peripheral location. Strategies are needed to counter these disadvantages.

Potential responses to these difficulties include greater product innovation and an extended export reach. Collaboration across the island also needs to be exploited in areas such as joint marketing and sales, market research and local interaction with retail chains.

When considering the scope for collaboration in promoting the sector internationally, several issues must be raised and overcome:

- EU state aid rules apply restrictions to promoting the country of origin on food products. Bord Bia previously used the brand 'Ireland – the Food Island' but 'Ireland' can no longer be used in promotions under the new EU rules (although this is allowed for export to England, Wales or Scotland).
- Northern Ireland and Ireland are competitors, with Great Britain a home market for Northern Ireland and an export market for Ireland. Northern Ireland can trade with Great Britain with no foreign-exchange risk, whereas Ireland cannot.

<sup>67</sup> Bord Bia, *Performance & Prospects 2009-2010* (2010).

<sup>68</sup> Invest NI, *Food Sector Profile, 2007* (2007).

- Northern Ireland suppliers may elect to be Irish or British depending on the market, eg Irish in German markets and British in Spanish markets.
- National and regional representative bodies encouraging 'local' purchasing such as the current National Dairy Council campaign promoting 'Republic of Ireland' milk does not sit well with Northern Ireland suppliers.
- Competing food brands on the island may cause confusion for consumers. At least four exist currently: *The Food Island* - Bord Bia and *Love Irish Food* (Ireland); *Good Food is in our Nature/ Taste of Ulster* (Northern Ireland); and *Good Food Ireland* (all-island).

Recommendations for collaboration in market development are described in further detail below. As an overview, these include:

- a 'food island'-type strategy seeking to link tourism with food production, where sustainability is high on the agenda;
- cross-border regional brands to exploit natural advantages and develop food tourism;
- support systems for small artisan food producers – sharing learning across the island;
- island-wide research on consumer trends – such as the current PERIscope research by Bord Bia; and
- island-wide marketing support – the extension of current programmes to cover the island.

#### 'Food island' strategy, linked to tourism

Country branding, when done to a high standard, can create strong and positive associations for consumers. For example, the '100 % Pure New Zealand' strategy helped boost exports as well as tourism and is frequently cited as a case study for international marketers. The brand extends to food also; people buy New Zealand meat as they associate the livestock with a 'clean' and pure environment.

#### Box 3

##### **New Zealand 100% Pure Campaign<sup>69</sup>**

New Zealanders have long known that their Unique Selling Point revolves around the concept of clean and green and the image is hugely important in terms of trade. In 1999, Tourism New Zealand (TNZ) launched a '100% Pure New Zealand' global campaign within key markets in trade and consumer events, advertising and marketing. It is now considered to be one of the 10 best nation brands in the world with its success attributed to a clear, compelling and consistently applied strategy. The term 'pure' sparked debate initially as it implied environmental purity with critics lamenting New Zealand's environmental record.

While the brand referred to the purity of the New Zealand experience rather than the narrow notion of natural purity, TNZ realised it was time to embrace the full implications of '100% Pure New Zealand'. The Tourism Strategy 2010 had already set ideals for sustainability and the Tourism Industry Association had pushed for the introduction of 'Green Globe 21', an international framework providing benchmarking and certification for businesses that could reduce their damaging effects on the environment.

Qualmark now has environmental good practice built into its nationwide accreditation scheme, as well as the 'Qualmark Green' criteria for businesses who wish to take their environmental sustainability that step further.

Canada's maple leaf brand is also used to increase global sales of Canadian food products – 45 per cent of which are exported. Recent market research showed that Canada has a positive image around the world: 'Our land is thought of as pristine, fresh and environmentally friendly; our food and agriculture products are considered safe, fresh, and natural.'<sup>70</sup>

The \$32m Canada Brand Advocacy Initiative will fund market analysis, advertising and research based on public opinion. It is the third program in Canada's strategy to improve the competitiveness of the country's agricultural sector through investments to reduce the cost of production, improve environmental sustainability and promote high value-chain innovation/adaptation.

The opportunity exists to exploit the island of Ireland's green reputation and island status, thereby promoting a healthy, pure/natural and safe image, while emphasising sustainability. Farming and food is a key strength and a recent Bord Bia study of Europe's leading retailers<sup>71</sup> recognised Ireland's natural advantages and heritage as a high-quality food producer. Ethical and environmental values provide opportunities for differentiation, with consumers seeking to reconcile their desire for a more sustainable lifestyle with their need to economise.

There is a strong case for developing a 'food island' strategy to be aimed at overseas markets where arguably there is little distinction between Ireland and Northern Ireland. The island approach is already employed by tourism, and adopting this strategy to promote the food sector is an appropriate and logical step. Tourism Ireland markets the island as a holiday destination overseas with support from both governments. Recent research by Tourism Ireland indicated that food comes third in a list of priorities for tourists, giving credence to the term 'food tourism'.

Bord Bia and Fáilte Ireland are currently drafting a food tourism strategy which seeks to build a sustainability framework around carbon footprint, water footprint, waste management, energy input, social fabric of rural community and biodiversity. Northern Ireland is also working on a greenhouse gas/carbon footprint strategy for agri-food and addressing water, waste and energy issues. These are important given that, from 2013, agri-food state aid rules are likely to focus even more on sustainability.

Developing a 'food island' strategy, using tourism as the platform, would require strong buy-in and collaboration on a North/South basis, across the relevant tourism and food agencies. This is a challenging proposition. However, Bord Bia and Invest Northern Ireland have already initiated discussions on the draft food tourism strategy and the possibility of a cross-border approach.

The proliferation of quality marks/sustainability programmes should not prevent the development of a strategy that is rooted in sustainability and uses the tourism platform. There are currently over 300 quality schemes in Europe which mainly target international trade. Food tourism offers the opportunity to compete on a different platform and to communicate broadly with consumers internationally.

Given the importance of maintaining and increasing exports in a context of cost disadvantage, the difficulties outlined above should be viewed as factors that must be overcome. A strong case thus exists for creating an all-island food tourism strategy within EU rules to exploit the island's healthy/pure/natural/safe image and high prospects for sustainability.

#### Cross-border regional brands

Opportunities also exist for cross-border regional brands to exploit natural advantages and develop food tourism locally, particularly as buying local food is gaining support across the world. Greenbox (see box 4) in the border area and Fuchsia in West Cork are examples of successful regional brands.

#### Box 4

##### **Greenbox**

Greenbox is a cross-border tourism development and marketing initiative established in 2004 by the Western Development Tourism Programme in conjunction with the Organic Centre, Rossinver, and covering Leitrim, West Cavan, Fermanagh, North Sligo, South Donegal and North-West Monaghan.

<sup>69</sup> See the report (*Pure As: 10 Years of 100 % Pure New Zealand, 2009*) and website [www.tourismnewzealand.com](http://www.tourismnewzealand.com)

<sup>70</sup> See the Brand Canada website ([www.brandcanada.agr.gc.ca](http://www.brandcanada.agr.gc.ca)).

<sup>71</sup> Bord Bia, *Performance and Prospects 2009-2010* (2010).



Ecotourism, defined as 'responsible travel to natural areas that conserves the environment and improves the well-being of local people', has been described as one of the fastest growing niche markets over the past 10 years.<sup>72</sup> Ecotourism initiatives include walking, cycling, canoeing, artistic and cultural activities, in addition to health and personal well-being programmes.

The Greenbox strategic plan sought to deliver an ecotourism destination - a defined region containing environmentally sustainable products, accommodation and attractions. The aim was to create a large-scale tourist attraction in the North West as a way to combat stagnating numbers of visitors to the area and increase the scale of industry.

The Greenbox work programme offers networking opportunities for product providers, the promotion of ecotourism businesses, the development of the EU Flower and Ecolabel standards and certification, an arena for marketing and communication, and exposure to key national and regional agencies. Apart from Skillnets, Greenbox's funding streams have now ceased; an application for EU Interreg IV funding is pending.

Greenbox has had a significant economic impact in its area. Almost devoid of tourism prior to Greenbox, the region now boasts a sustainable cluster of 61 ecotourism products and services with 80 jobs safeguarded or created.<sup>73</sup> The positive impact is also expanding beyond the immediate location of the project: in 2009, properties throughout Ireland were awarded the EU Flower certification by Greenbox, and there were study tours, to both Irish and international regions, wishing to learn from the experience of Greenbox.

The Greenbox initiative has been widely welcomed by those involved in tourism in the region, in particular by small-scale providers who find it difficult to access markets due to geographic location and the negative image of border areas in most tourism markets.

Regional brands are useful in expanding local markets and regional cross-border collaboration. Niche products and small specialist producers offer further opportunities for development in the agri-food tourism sector.

Food trails have been very successful in Scotland through the promotion of food tourism in specific regions and across product groups. The trails have created clusters of food producers and restaurants throughout the highlands and islands, including farm shops, farmers' markets, artisan producers, niche producers, restaurants and accommodation – all telling the story of local food to the tourist (see box 5).

#### Box 5

##### Scottish Food Trails

Food and drink trails are common in Scotland where food and drink producers and establishments are promoted alongside providers of accommodation and tourism activities.

EatScotland is a quality assurance scheme from VisitScotland who assess businesses in terms of quality, service and hygiene. The [eatscotland.com](http://eatscotland.com) website promotes positive aspects of food and drink in Scotland with the objectives of helping both residents and visitors find great places to eat, and raising the profile of Scottish food as an important part of tourism. Benefits to participants include participation in VisitScotland marketing and promotional publications, listing on the [eatscotland.com](http://eatscotland.com) website and use of the scheme logo.

#### Tourism trails featured on the website include:

**Scotland's Real Ale Trail** - visitors can tour 23 breweries across Scotland.

**Scotland's Food Trail Grampian** – includes hotels and country houses, cafes, visitor attractions and retail outlets, and food and drink producers across the Grampian region.

**Scottish Seafood Trail** – located on Scotland's west coast.

**Whisky Coast** – distilleries, accommodation and activities located on Scotland's west coast.

**Dumfries and Galloway Food Trail** – based around South West Scotland.

**Scottish Cheese Trail** – provides details on cheese producers throughout the country.

**Outer Hebrides Food Trail** – offers a selection of premium Hebridean fare.

**Isle of Arran Taste Trail** – information on local producers and restaurants serving quality assured food.

Taking account of the natural advantages that exist as a basis for developing a strategy to support existing and new businesses in food tourism, we recommend that research be carried out into the potential for cross-border regional brands/trails.

#### Support systems for small artisan food producers

Artisan producers are likely to see a growth in demand as consumers constantly seek new experiences and products.<sup>74</sup> Encouraging the sector will support agriculture, add value to the hospitality and tourist industries, and support the rural development agenda. Production of artisan foods will also, in a limited number of cases, present profitable opportunities to move up the value chain.<sup>75</sup>

The speciality food market is expected to grow over the next 10 years and niche branding will continue to be important. Growth in local farmers' markets will help the sector as these can act as natural incubation units for new speciality food companies. Bord Bia supports farmers' markets as a new route to market for speciality food producers in Ireland. Over 160 farmers' markets are now in existence throughout the island, including eight in Northern Ireland<sup>76</sup> where they have been slower to develop.

Typically products are limited to local/regional markets, although some have developed into viable mainstream offerings, for example Clonakilty black pudding. Early business for this product came from specialised butchers and delicatessens, but as demand grew it came to the attention of supermarket chains and restaurants which now account for a large part of the business and the company has begun to export.

Cross-border collaboration on support for small artisan food producers is a key opportunity area. This could involve benchmarking co-learning to provide evidence-based interventions, making better use of the farmers' market network and finding alternative channels (to multiples) willing to pay the premiums required.

Bord Bia and Invest NI regularly participate at food events and provide SME support. Similarly, DAFF has organised regional food events for smaller speciality producers, North and South, providing opportunities to network. These produced positive results indicating scope for a joint North/South initiative to bring together small companies in the food and drinks industry.

<sup>72</sup> The International Ecotourism Society, [www.ecotourism.org](http://www.ecotourism.org), accessed 5 July 2011.

<sup>73</sup> Greenbox Capital Development Programme - Final Evaluation (2008).

<sup>74</sup> Bord Bia, *Anticipating Tomorrow* (2008).

<sup>75</sup> DAFF, *Report of the 2015 AgriVision Committee* (2009).

<sup>76</sup> Information from Bord Bia website ([www.bordbia.ie](http://www.bordbia.ie)) and NITB website (<http://www.discovernorthernireland.com>).

The extension of the DAFF voluntary pilot standard - see box 6 – across the island should be explored.

#### Box 6

##### **DAFF – Good Practice Standard and Flag**

In May 2009, DAFF launched a Good Practice Standard and Flag for farmers' markets. The pilot standard, which is voluntary, is denoted by a flag which participating markets display. The basic requirement is that at least 50 per cent of produce comes from the county or surrounding counties.

The objective of the standard is to increase consumer confidence while giving producers a good route to market and the opportunity to deal directly with shoppers. A total of 26 farmers' markets in Ireland now use the flag to denote their adherence to the standard.

DAFF sees scope for collaboration in this area by sharing the code (with Northern Irish farmers' markets), sharing learning and sharing lost or forgotten skills in the production of artisan food.

Bord Bia's Taste Council represents the interests of the artisan and speciality food sector, and has members in both jurisdictions. Its mission is 'to empower and enable the Irish speciality food sector at a strategic level to maximise its current and potential contribution to Ireland's food and agri economy, society, culture and environment'<sup>77</sup>.

Invest NI promotes the Safe and Local Supplier Approval (SALSA) scheme to smaller producers. A joint venture between the main trade associations in the UK Food Chain, SALSA aims 'to create a supplier approval scheme with a strong local emphasis and with clear benefits for all its stakeholders'.<sup>78</sup> The scheme is supported by FSA and DEFRA, and operated throughout the UK by the Institute of Food Science and Technology.

The SALSA Standard reflects both the legal requirements of producers and the enhanced expectations of 'best practice' professional food buyers.

##### **Island-wide research on consumer trends**

Market development requires good market intelligence to help companies make informed decisions on all aspects of their marketing strategy – including product packaging, pricing strategy, marketing communications, target markets and distribution channels.

Currently it is difficult, particularly for SMEs, to access all-island market intelligence on consumer trends. There is little joint research carried out other than PERIscope (consumer research by Bord Bia which includes Northern Ireland). Statistics on the sector are not readily available on an island-wide basis and this has been cited as an issue, particularly by smaller companies with no in-house market research capability. Invest NI has reported a low take-up of consumer research findings in Northern Ireland, which may represent a capability issue.

There is scope to conduct research on consumer trends on an all-island basis. The DARD-sponsored Dunnhumby Initiative being conducted at the University of Ulster is an example of this. This analyses consumer trends based on club card points and passes on market analysis to SMEs through workshops.

##### **Island-wide marketing support**

There is scope for the expansion of existing programmes that provide marketing support, which aim to help companies concentrate their efforts in this area and facilitate networking.

Examples include training for food businesses in national account management and negotiation with retail multiples (Enterprise Ireland), and account management and tendering (Invest NI).

Opportunities also exist in international marketing through joint involvement in inward and outward trade missions, and access to overseas office networks.

## Recommendations

5. Define and expand a 'food island'-type strategy within EU rules to exploit the island's healthy/pure/natural/safe image and sustainability advantages.
6. Review scope for cross-border regional brands to exploit natural advantages and develop food tourism locally.
7. Develop support systems for small artisan food producers on an all-island basis.
8. Conduct research on consumer trends on an island-wide basis where feasible.
9. Deliver appropriate cooperative marketing support programmes from development agencies and industry bodies, including joint involvement in trade missions and shared access to overseas offices.

### 5.4 Food safety

Food safety and the related areas of animal health and feed safety are critically important for the food industry and an island-wide approach is logical in many areas. Recent food contamination issues, such as the dioxin scare, highlight the need for cooperation. There is scope for collaboration in relation to preventive action, traceability, data exchange and sharing, systems development, crisis management and mutual recognition of quality accreditations.

Three bodies deal with food safety on the island – Food Standards Agency office in Northern Ireland (FSA), Food Safety Authority of Ireland (FSAI) and the Food Safety Promotion Board (*safefood*). FSA and FSAI have an agreement setting out arrangements for cooperation in relation to food incidents, hazards and alerts; both FSA and FSAI have their own individual agreements with *safefood*. In addition:

- FSAI has service-level contracts in Ireland with HSE, DAFF and the Department of Communications, Marine and Natural Resources.
- FSA in Northern Ireland has similar service-level agreements in place with DARD, while District Council Environmental Health Officers work within a Framework Agreement and Food Law Code of Practice.

A substantial body of EU-based legislation underpins the food safety regulatory regime on the island.<sup>79</sup> These place responsibility for food safety and hygiene across the entire food chain on food and feed business operators. The overarching principle is that food and feed should not be placed on the market if it is unsafe.

In both jurisdictions, there is feeling that EU directives are applied more rigidly on the island than in other countries. The high degree of regulation is seen as a particular problem for SMEs.

EU regulations also established the European Food Safety Authority and provided the legal basis for the Rapid Alert System for Food and Feed (RASFF) coordinated by FSAI and FSA on the island.

A number of quality assurance schemes on the island seek to create consumer confidence in the quality and safety of food imports. These emerged mainly in response to developments in the EU/IOI food sector such as BSE, food-borne illnesses and contaminants, animal welfare and the environment. They aim to satisfy

<sup>77</sup> The Taste Council, *Strategic Master Plan* (2004).

<sup>78</sup> SALSA website [www.salsafood.co.uk](http://www.salsafood.co.uk), accessed 5 July 2011.

<sup>79</sup> *safefood*, *Where Does Our Food Come From* (July 2009).



the due diligence requirements of retailers in sourcing food and food products.

For meat products the following quality assurance schemes are in place:<sup>80</sup>

- Farm Quality Assurance Scheme;
- National Beef Assurance Scheme;
- Northern Ireland Beef and Lamb Farm Quality Assurance Scheme;
- Bord Bia Beef Quality Assurance Scheme;
- Northern Ireland Pig Quality Assurance Scheme;
- Bord Bia Pigmear Quality Assurance Scheme;
- Assured Chicken Production; and
- Bord Bia Chicken Quality Assurance Scheme.

Two quality assurance schemes for horticultural produce have been developed by Bord Bia with FSAI, DAF and industry representatives – the *Prepared Vegetables Standard* and the *Bord Bia Specification for Horticultural Producers*. In Northern Ireland, the *Assured Produce Scheme* applies to fruit, salads and vegetables.

While extended global supply chains increase the risk of problems from imported food, no confirmed outbreaks have been associated with food imported onto the island of Ireland.

Learning from the dioxin incident in Ireland (which occurred in December 2008) is important and reports prepared in each jurisdiction provide a good review of the systems in place. In this report we focus on cross-border aspects. In 2008, levels of dioxin that exceeded the regulatory limits were discovered in samples of Irish pork fat, necessitating a recall of all Irish pork and pork products. The incident was caused by contaminated feed which was delivered to farms on the island (10 pig and 38 beef farms in Ireland, and seven in Northern Ireland). A DAFF report on the event demonstrated that

the food chain is only as secure as its weakest link and to date the Irish taxpayer has paid over €100m in financial assistance for product withdrawals and animal slaughtering, which does not include the cost of contingency supplies to customers, lost business and the effects of damaged reputation.<sup>81</sup>

The report made a number of recommendations including the following:

- A Food & Feed Safety Advisory Forum involving both industry and regulators should be established by the FSAI, to meet two–three times a year to share information on emerging risks.
- The remit of FSAI should be extended to include animal feed.

A Northern Ireland report commissioned by the FSA highlighted unique facets of the environment in which the incident took place.<sup>82</sup> These included the following observations:

- The border between Ireland and Northern Ireland is the UK's only land border and yet the island as a whole must, in many ways, be considered as a single marketplace. This increases the complexity of gathering information rapidly and conducting risk assessments.
- The roles, responsibilities and remit of FSAI in Ireland and of the FSA in the UK differ significantly, as do those of other government departments, including DAFF, DARD and DEFRA. Lines of communication between the Irish and UK governments are thus less cohesive.

The report stated that it is important to recognise the unique nature of relationships and responses in UK/Ireland joint incidents. It recommended the development of shared procedures, contingencies and training to build better understanding and more coherent processes between teams, as well as greater engagement and cooperation in contingency planning and rehearsal for

crisis. The dioxin incident highlights that effective North/South collaboration in food safety works best when it takes place in a wider East/West context.

### Animal health

Animal health is the area most frequently cited in interviews as having scope for collaboration, whereby the geography of the island may be used to maximum effect. An example of this is the 'Fortress Ireland' approach which is used to prevent disease from entering the island. Ireland and Northern Ireland operate under the same EU legal framework and are working closely on the EU's proposals for a new animal health law. Trade in animals across the border, as highlighted in table 1.2, is critical to the success of both economies.

The agriculture departments in each jurisdiction already maintain an excellent close working relationship. Officials, particularly in the field of animal health and welfare, meet on a regular basis through the North/South Working Groups.

An all-island animal health and welfare strategy was agreed at a sectoral meeting of the North/South Ministerial Council in March 2010. The ultimate objective of the strategy is the free movement of animals on the island of Ireland. The strategy has the potential to deliver significant benefits to the agri-food sector on the island.

### Company testing

EU legislation stipulates that the sector must take samples of animal feed for analysis. However, different compounders regularly take samples from the same boatload and conduct similar tests without sharing results.

Agreement in principle has been reached between the grain trade associations<sup>83</sup> to develop a risk-based sampling strategy to ensure that the most appropriate array of tests is undertaken, gaps in analysis are

addressed and duplication is avoided. Results would be shared between participants, in liaison with regulatory authorities to meet statutory sampling requirements.

Such a system has operated in Belgium for several years with the participation of all millers and compounders. In Ireland and Northern Ireland, importers will also be involved. Checking everything that comes onto the island will create 'Fortress Ireland' and protect the entire food chain – the remaining risks to be targeted will have been generated within the island.<sup>84</sup>

### Food testing facilities

Screening and preliminary testing is currently carried out by local diagnostic laboratories, but the fingerprinting of microbes and chemical contaminants requires testing by specialist reference laboratories. Such reference laboratories are expensive to operate and high volumes of material must be processed if they are to be cost-effective and maintain levels of expertise.

The lack of reference laboratory facilities on the island for certain types of food and feed testing leaves it dependent on overseas laboratories, mainly in Great Britain.<sup>85</sup> This creates a risk of reduced service in the event of a food contamination incident involving many countries and could affect our reputation as a major food exporter. While use of a laboratory in Great Britain was not seen to cause delay in the DAFF report, dioxin testing has been carried out in Ireland by the State Laboratory since February 2009.

The main reference laboratories on the island for food safety testing are for salmonella testing at NUI Galway, ecoli 0157 testing at Cherry Orchard VTEC laboratory, and dioxin testing by the State Laboratory in Ireland since February 2009.

<sup>80</sup> safeFood, *Where Does Our Food Come From* (July 2009).

<sup>81</sup> DAFF, *Report of Inter-Agency Review Group on Dioxin Contamination Incident in Ireland* (December 2009).

<sup>82</sup> Review of FSA Incident Response Internal Processes and Procedures in relation to Dioxins in Meat Incident, *Steelhenge* (March 2009).

<sup>83</sup> Irish Grain and Feed Association and Northern Ireland Grain Trade Association.

<sup>84</sup> This idea of 'Fortress Ireland' is now being taken forward by safeFood through one of its Knowledge Network dealing with chemical residues which is facilitated by Professor Chris Elliott of Queen's University, Belfast.

<sup>85</sup> The Centre for Infections at Colindale, London, is the main external reference laboratory used in Ireland.

DAFF also carries out testing, mainly related to animal health, with Backweston - a National Reference Laboratory for animal health testing in Ireland. DARD makes use of the facilities of the Agri-Food Biosciences Institute (AFBI) in Northern Ireland for a range of animal health testing. DARD also uses the UK National Reference Laboratories located in Great Britain and the Public Analyst (Eurofins) who must legally be used for analyses of feed samples for enforcement purposes.

A feasibility study should be carried out on the merits of reference laboratory facilities being set up on the island in key areas that are not already covered. Links to British laboratories should be reinforced where a facility on the island is not justified.

## Recommendations

10. Strengthen cross-border collaboration in food safety – shared procedures and training, contingency planning and rehearsal, communication with consumers/PR about recalls, traceability, systems (for example, an all-island food residue database).
11. Develop a risk-based sampling strategy between compounders where results are shared, in liaison with regulatory authorities on statutory sampling.
12. Extend the DAFF Food & Feed Safety Advisory Forum to have an island-wide role.
13. Investigate the feasibility of food testing reference laboratories on the island to reduce dependence on overseas laboratories.

## 5.5 Energy/waste

In response to both economic and regulatory factors, the agri-food sector is increasingly coming under pressure to take measures regarding the conservation of energy and the treatment of waste.

The food and drink industry has been rated as one of the sectors consuming the largest amount of energy and generating the most carbon dioxide<sup>86</sup> and it is responsible for 40 per cent of ‘domestic sector’ emissions. Faced with this situation, the sector in both jurisdictions will need plans in place to improve energy efficiency. While the costs imposed have a significant impact on profitability, a recent report states that these issues, if addressed proactively, should enhance both the competitiveness and the sustainability of the sector by 2020.<sup>87</sup>

### Energy costs

Rising energy costs are squeezing the already tight processing margins in the food and drink sector. In 2008, when the cost of industrial electricity was compared in 27 EU countries, Ireland came fourth highest - 38 per cent above the average. Since then the relative cost competitiveness has improved to make Ireland sixth cheapest in the EU 15.<sup>88</sup> However, evidence from the InterTradelreland Business Monitor demonstrates that the rising cost of energy is the major challenge facing businesses on the island. While the sector is less energy intensive than others, electricity still comprises a significant proportion of controllable costs – with only 1.5 per cent of direct costs, it accounted for 17 per cent of profits in Ireland in 2004, and over 40 per cent of profits for 13 per cent of firms.<sup>89</sup>

The existence of an all-island, wholesale single electricity market and the closure of inefficient legacy plants should help reduce the costs of supply. Cooperation on energy is long-standing; both governments share an interest in more competitive energy markets, reduced energy costs and improved reliability of supply. This is set against the background of the EU’s single market for electricity and natural gas and the growing regionalisation of markets.

The Joint Steering Group in 2004<sup>90</sup> agreed the following short-to-medium-term action priorities:

- infrastructure;
- trading arrangements and investment;
- dominance and market power;
- sustainable development;
- legislation and administration; and
- retail market design.

The NCC Statement on Energy<sup>91</sup> set out a range of recommendations to reduce costs:

- Regulate to bring the differential in controllable, domestic (non-fuel) costs into line with costs in the main competitor countries.
- Review the market rules for a single electricity market, which have been in operation since November 2007.
- Review subsidies to electricity from renewable sources and peat in line with the IEA policy that such supports should be transitional. Consider the phasing out of peat plant subsidies given that Ireland is likely to have to close them to comply with EU legislation.
- Pass back to electricity consumers, through lower prices, the carbon windfall recovered from electricity generators.

### Waste costs

The cost of waste rose by 35 per cent in Ireland between 2004 and 2006, with a high dependence on landfill. Costs are higher in Ireland than comparator countries.<sup>92</sup> The most recent increase in the landfill levy will inflate this expense further as landfill charges in Ireland are already among the highest in Europe.<sup>93</sup> The NCC recommends<sup>94</sup> the following:

- Consideration should be given to measures that ensure alternative waste treatment options are competitive in terms of cost/service.

- Increases in the landfill levy should not be implemented until alternative cost-effective waste treatment options are operational; the incineration levy and cap should not be introduced until alternative facilities are established and landfill is reduced significantly.
- A decision on the future regulatory structure for the waste sector needs to be made, and roles and responsibilities of the State in regulating and managing the waste sector at national, regional, and local levels need to be clarified.
- Regional waste management plans should be coordinated at a national level to attract investment in waste infrastructure in a way that maximises potential economies of scale.

The Northern Ireland Waste Management Strategy<sup>95</sup> sets out six inter-dependent policy strands of Waste Prevention; Recycling & Recovery; Waste Planning; Data and Research; Legislation and Enforcement; and Learning and Communication.

### Regulation

The food and drinks sector is heavily regulated and, while this helps protect its reputation, it is important that regulation does not result in unnecessary costs. The degree of regulation is putting additional pressure on the sector with new EU legislation in many areas of waste management from by-product disposal to packaging – e.g. the Nutrients Directive which limits the spread of poultry litter on land, and the Packaging and Packaging Waste Directive which promotes re-use and recycling.

A DARD/DOE report on the simplification of regulation in Northern Ireland agriculture and food estimated that the 10 most burdensome regulatory areas cost the sector £51m per annum, and recommended measures and structures that could reduce this expense by £10m-£15m by 2013.<sup>96</sup>

<sup>86</sup> Sustainable Energy Authority of Ireland, *Energy in Industry* (2007).

<sup>87</sup> Institute for International and European Affairs, *From Food to Farm – Sustainability Programme for Irish Agri-food Industry* (December 2009).

<sup>88</sup> National Competitiveness Council, *Statement on Energy* (2009) and *Ireland’s Competitiveness Scorecard 2011* (2011).

<sup>89</sup> Sustainable Energy Authority of Ireland, *Energy in Industry* (2007).

<sup>90</sup> DETI(NI)/DCENR, *All-Island Energy Market, Development Framework* (2004).

<sup>91</sup> National Competitiveness Council, *NCC Statement on Energy* (2009).

<sup>92</sup> Forfás, *Waste Management in Ireland, Benchmarking Analysis and Policy Priorities* (2009).

<sup>93</sup> IBEC/FDII, *Closing the Gap: Competitiveness Indicators* (2009).

<sup>94</sup> National Competitiveness Council, *Ireland’s Competitiveness Challenge Creating a Better Future* (2010).

<sup>95</sup> Department of the Environment (NI), *Towards Resource Management, NI Waste Management Strategy 2006 – 2020* (2006).

<sup>96</sup> DARD/DOE, *Northern Ireland Agri-Food Better Regulation and Simplification Review* (April 2009).

These apply mainly to agriculture but recommendations relating to the use of IT, meat inspection, environmental permits, guidance/advice and structures would also benefit the food sector.<sup>97</sup>

The NCC recommends that relevant governmental departments, agencies and representative groups from the agri-food industry monitor the application of EU legislation elsewhere to ensure that the implementation here does not place unnecessary or excessive burdens on the sector.

### Waste planning

Given that both jurisdictions must make significant investment in waste infrastructure to comply with EU Directives, collaborative planning would be highly advantageous.

The Northern Ireland Waste Management Strategy defines the following new initiatives with the aim of encouraging industry to prevent waste:

- Waste prevention targets should be set through voluntary agreements – the Waste Prevention Forum is to set targets for all waste streams (60 per cent of commercial and industrial wastes should be recycled by 2020).
- DOE is to help professional bodies encourage their members to prevent waste, implement supply chain management and practice green procurement through guidance and training.
- DOE is to deliver awareness campaigns targeted at businesses to encourage action in waste prevention, resource efficiency and legal compliance.
- The implementation of Environmental Management Systems should result in better resource efficiency and increased awareness of waste prevention and recycling practices.

Many businesses producing commercial waste wish to recycle but the amount of waste they generate is too small to be of interest to commercial collectors. WRAP in Northern Ireland is currently funding a pilot for waste collection from SMEs, the results of which will be used to develop future strategies for dealing with this problem.

Substantial investment in waste infrastructure is required before the EU Landfill Directive can be met. In April 2005, DOE established a Waste Infrastructure Task Force to put in place the facilities that will enable Northern Ireland to meet its waste management targets for 2020. A Forfás report found that waste management infrastructure development in Ireland remains slow and that the absence of facilities for converting meat and bone meal into energy via incineration presents difficulties for industry.<sup>98</sup> A report on sectoral competitiveness from the NCC highlighted a range of infrastructures that are necessary if the food sector's waste management requirements are to be met, including thermal treatment and biological treatment.<sup>99</sup>

The Forfás report stated that regionally based waste planning hinders the delivery of cost-effective, commercially viable waste treatment as it tends to result in smaller facilities which do not maximise economies of scale and competition. The recommendation of national coordination would be more advantageous if applied on an all-island basis, given the extra scale provided and the high degree of cross-border ownership in key subsectors.

The use of waste products from food processing as an energy source addresses issues of both renewable energy and waste treatment, and helps to reduce costs. The scale of investment required generally merits inter-firm cooperation. However, there can be resistance to such initiatives.

A Northern Ireland proposal to build a bio-fuel plant to burn chicken litter and generate sustainable electricity is currently awaiting full planning approval and has incurred a number of objections.

### In-company initiatives

Businesses must continue to seek cost reductions through waste prevention and minimisation. The NCC report highlighted the need for SMEs to adopt more energy-conservation measures and for a unified approach in the delivery of advisory and support services to businesses regarding natural resources. An integrated approach across the island would aim to ensure best practice operates in initiatives dealing with energy efficiency, pollution prevention and resource conservation.

### Recommendations

14. Develop an island-wide strategy to reduce the agri-food carbon footprint.
15. Map waste streams in key food industry subsectors – e.g. in dairy: sludges, poultry litter, bone meal, etc. – and define initiatives to address problems. This can build on the waste mapping initiative in place in Northern Ireland.
16. Implement best practice for the reduction of energy, waste and carbon footprint through company support programmes provided by agencies on an island-wide basis.

The support measures would be reviewed to ensure a consistent approach across the island. At the minimum, measures promoted in one jurisdiction would be available to companies across all their operations on the island, subject to available funding.

### 5.6 Cost competitiveness

While the future of the industry will depend on innovation pushing companies up the value chain,

margin pressures in all sectors make it essential that costs are managed effectively without detriment to quality and service standards. The food companies that survive will have embraced lean manufacturing and other best practice models along the value chain.

### Macro factors

In the case of macro factors, such as currency, energy and labour costs, the sector is generally dependent on government-level responses. In Ireland, much of the loss of competitiveness has been recovered in the past two years, although more remains to be done.<sup>100</sup>

The strengthening of the euro against sterling – from 70c sterling (October 2007) to 86c (October 2011) – has created extremely difficult trading conditions for Irish firms exporting to the UK (43 per cent of the sector's exports) or those competing with UK firms in other markets. The NCC has made the point that a more strategic response is required given that the relationship is unlikely to change significantly in the short to medium term.<sup>101</sup> The currency swing has, however, created opportunities for Northern Irish firms exporting to Ireland and the Eurozone generally.

As noted above the food and drink sector is vulnerable to high energy costs – one of the largest input expenses in both jurisdictions. While the prices small countries pay for energy are heavily influenced by global commodity markets, the prices paid by producers differ due to supply arrangements and energy policies, which leaves room for action by both firms and governments.

Quarterly unit labour cost data from the OECD for 2010 suggest that Ireland's relative cost competitiveness has improved, driven by the industrial sector where quarterly unit labour costs were down 4.4 per cent in Ireland compared with an increase of 0.85 per cent in the Eurozone.<sup>102</sup> Labour costs in Northern Ireland in 2011 are 90 per cent of the UK average.<sup>103</sup>

<sup>97</sup> National Competitiveness Council, *Driving Export Growth: Statement on Sectoral Competitiveness* (December 2008).

<sup>98</sup> Forfás, *Waste Management in Ireland, Benchmarking Analysis and Policy Priorities* (2009).

<sup>99</sup> NCC, *Driving Export Growth: Statement on Sectoral Competitiveness* (December 2009).

<sup>100</sup> NCC, *Ireland's Competitiveness Scorecard 2011* (July 2011).

<sup>101</sup> NCC, *Ireland's Competitiveness Challenge Creating a Better Future* (January 2010).

<sup>102</sup> NCC, *Ireland's Competitiveness Scorecard 2011* (July 2011).

<sup>103</sup> DETI(NI), *Annual Survey of Hours and Earnings 2011* (Nov 2011).



Ireland's labour costs remained higher than the UK (and EU) average at the start of the same year.<sup>104</sup>

### Scale and sourcing factors

Competition among supermarkets is resulting in a fall in food and drink prices. In response to the growth in sales of discount grocery stores, Tesco Ireland increased the proportion of UK goods supplied in its Irish stores in an effort to offer lower cost options to consumers.<sup>105</sup>

To remain competitive, domestically and internationally, the sector must improve its efficiency. Development of scale to balance the increasing buyer power of multiples in local, UK and international markets is a priority.<sup>106</sup> Lack of scale is a key barrier facing food companies seeking to export, and concentration or collaboration is essential.

A number of reports have highlighted the fragmentation in key primary subsectors such as dairy and beef. This report supports mechanisms to share under-utilised processing capacity. Discussions that have been ongoing for some years tend to focus on action within each jurisdiction. Consideration should also be given to cross-border collaboration.

### SME collaboration

SMEs have potential for collaboration in areas such as logistics, maintenance, product development and R&D.

Collaboration in logistics could provide affordable market access - mainly to Great Britain but also within the island - for SMEs and larger firms dealing with uneconomic regional deliveries from central distribution.

The combination of loads to increase consignment sizes or create backloading opportunities, and the joint planning of transport operations by manufacturers, retailers and carriers, would reduce costs. To date there are relatively few successful collaborative initiatives in place.

Problems to be overcome include lack of trust, disagreement or uncertainty over sharing of benefits, and competition restrictions.<sup>107</sup>

InterTradelreland's Logistics XP initiative worked well for larger firms but was less successful in recruiting SMEs despite offering the potential to reduce supply chain costs by 5-10 per cent.<sup>108</sup>

Given the potential savings, we support the recommendation of the evaluation report that a collaborative initiative be revisited involving the transport industry, with lower costs and time inputs for participants. This would also consider other models such as 'piggy backing' or 'channel partners' which go beyond logistics per se into product listings and sales.

Cooperation can occur along a continuum of joint procurement, shared services, clusters/networks, joint ventures and mergers or acquisitions, all with varying degrees of commitment. Shared services models (in plant maintenance, waste management, laboratory, farm services, HR, IT etc) may also encourage support services to set up in Ireland.

It is proposed that consideration be given to the provision of support to cross-border SME clusters to help them avail of opportunities in the above areas.

<sup>104</sup> NCC, *Ireland's Competitiveness Scorecard 2011* (July 2011).

<sup>105</sup> Business Monitor International, *Ireland Food and Drink Report* (Quarter 1, 2009).

<sup>106</sup> NCC, *Driving Export Growth: Statement on Sectoral Competitiveness* (December 2008).

<sup>107</sup> InterTradelreland, *Freight Transport Report for the Island of Ireland* (2007).

<sup>108</sup> InterTradelreland, *LogisticsXP Programme for SMEs, Project Evaluation Review* (November 2007).

### Box 7

#### *Dittys and Gubbeen*

Robert Ditty is a second-generation artisan baker in a family business which has operated at Castledawson, Co. Derry, for over 50 years. He is committed to working with local ingredients and uses local artisan smoke houses as well as organic dairies and farmers to offer a range of specialty biscuits, pastries, breads and savoury foods. His traditional oatcakes are exported to major food stores in Ireland and the UK.

The Ferguson family at Gubbeen, Co. Cork, has farmed there for over five generations. Tom and Giana Ferguson have produced their own cheese there since 1979. In Spain, Giana's family made cheese from goats' milk on her father's mountain farm and living in France she came into contact with the great French cheeses. After marrying into the Irish farming family, she and Tom developed a range of cottage and fresh cheeses now enjoyed across Europe and America.

Collaboration between Dittys and Gubbeen resulted in the development of Gubbeen Cheese Oatcakes which received a Gold Taste Award from the Guild of Fine Food in 2008. Robert had been seeking to develop a cheese oatcake to extend the product range and sought an Irish cheese with the qualities of parmesan cheese. Smoked Gubbeen met his requirements and as a result he and Giana developed a cheese oatcake. The business relationship has now been in place since 2006.

Benefits to both parties include joint branding of the new product, increased PR and an increased market presence in Ireland and Northern Ireland. Barriers mainly relate to the impact of exchange rate fluctuations on costs.

Dittys see increasing opportunities in cross-border collaboration for food companies on the island with success depending on the products and the strength of the brands involved.

### Business Improvement Programmes

In-company initiatives to reduce cost focus on best practice approaches in lean business, six sigma and continuous improvement. Both Enterprise Ireland and Invest NI have support schemes for companies in these areas. Pilot projects by Enterprise Ireland in the food sector have delivered promising results and have led to the establishment of a three-tiered programme (Start, Plus and Transform).

Given that sharing experience with peers domestically and internationally is a key element of such programmes, we recommend that they be provided on an island-wide basis. This would also enable companies with operations in both jurisdictions to play a full role in such programmes.

### Port capacity and access

The food and drinks industry on the island is heavily dependent upon exports which mainly travel by road and sea to and through Great Britain. Cost-effective and reliable connections are thus very important.

A review of freight transport on the island in 2007<sup>109</sup> highlighted infrastructure deficiencies in both jurisdictions (borne out by a survey of enterprise from the NCC<sup>110</sup>) and set out investments that would be required in port capacity, port connectivity and the British land corridor to address this. Before the impact of the downturn on port capacity it was found that the port sectors on the island complement each other well - with a RoRo capacity surplus in Northern Ireland and a LoLo capacity surplus in Ireland.<sup>111</sup>

<sup>109</sup> InterTradelreland, *Freight Transport Report for the Island of Ireland* (2007).

<sup>110</sup> National Competitiveness Council, *Annual Competitiveness Review for 2007* (2007).

<sup>111</sup> Department of Transport, *Paper based on Report on Seaport Capacity for Unutilised Trade in Ireland October 2006*.



## Recommendations

17. Support mechanisms to share capacity in key primary subsectors (dairy and beef) to achieve internationally competitive scale.
18. Support/devise schemes to provide SME access to GB and other central markets at affordable cost through shared logistics, channel partners, 'piggy-backing', etc.
19. Support SME collaboration in procurement, waste, energy, laboratory, logistics, HR, IT, etc;
20. Develop all-island competitiveness improvement/lean business support programme, building on existing EI and INI models and programmes.

## 5.7 Capability development

Capability development is an essential component in improved competitiveness. The food and drink sector in both jurisdictions has high elements of male, operative and overseas national employment and a higher proportion with low or no qualifications. Increases are projected in technical and craft employment with a corresponding reduction in low-skills employment. The findings below are mainly based on skills reports from both jurisdictions.<sup>112</sup>

### Employment Profiles

Employment profiles are broadly similar in Northern Ireland and Ireland as shown on table 5.6 - while the definitions are comparable, titles are modified slightly in some cases.

**Table 5.6: Employment profile – food & drink sector**

	Ireland 2008		Northern Ireland 2008	
	('000)	%	('000)	%
Managers & Admin.	6.0	12%	2.3	12%
Professionals	2.0	4%	0.6	3%
Assoc., Prof. & Technical	2.0	4%	0.9	5%
Clerical & Secretarial	5.0	10%	1.5	8%
Craft & Related	6.0	12%	2.1	11%
Personal Service	1.0	2%	0.0	0%
Sales & Customer Service	3.0	6%	0.4	2%
Plant & Machine Ops.	20.0	39%	9.3	49%
Other ROI/Elementary NI	6.0	12%	1.9	10.0%
<b>Total</b>	<b>50.0</b>	<b>100%</b>	<b>18.9</b>	<b>100%</b>

**Source:** CSO Quarterly National Household Survey Q2 2010; DETINI Labour Force Survey Q4 2009

<sup>112</sup> For Ireland: EGFSN/Forfás, *Future Skills Requirements of the Food and Beverage Sector* (November 2009); for Northern Ireland: Improve, *Sector Skills Agreement - Food and Drink Manufacturing Sector* (April 2007) and Improve, *Labour Market Information Profile* (2009).

The Plant & Machinery Operative element is high in both cases – 39 per cent in Ireland and 49 per cent in Northern Ireland. While traditionally considered as low or semi-skilled, these occupations have become more complex with an increasing focus on quality, environmental and yield performance. Occupations requiring a formal qualification – Managers & Admin, Professionals and Associate/Professional/Technical – comprise 20 per cent of the total in each case.

The food and drink sector in both jurisdictions has a number of shared characteristics:

- A relatively high proportion of male employment at 70 per cent in each – as opposed to 56 per cent for all sectors in Ireland; the food & drink proportion of male employment is increasing against the national trend.
- A dependence on overseas nationals – in Ireland up from 13 per cent in 2005 to 27 per cent Q1 2009, and 25 per cent in Northern Ireland – as opposed to 16 per cent for all sectors in Ireland. The increase in Ireland is linked to high levels of employment and the sector being less attractive to locals. Subsectors such as meat and horticulture are heavily dependent on immigrant workers.
- A high proportion of employees with low or no qualifications – 62 per cent secondary education or lower in Ireland (as opposed to 51 per cent nationally) and 64 per cent in Northern Ireland with Level 2 or lower.<sup>113</sup> A total of 31 per cent in Northern Ireland and 17 per cent in Ireland have no qualifications (as opposed to 14 per cent in the UK).

All of these areas require action to ensure the sector has sufficient personnel with the appropriate skills. The sector must make itself more attractive and accessible to all sections of the population – particularly female, ethnic and younger people.

**Source:** CSO Quarterly National Household Survey Q2 2010; DETINI Labour Force Survey Q4 2009

<sup>113</sup> Level 2 UK NQF is broadly equivalent to Junior Certificate in Ireland.

### Skills mix

Both jurisdictions project increases in technical, supervisory and craft skills, and corresponding reductions in the proportion of low-skilled employees:

- The EGFSN report said the next 5-10 years will see a greater proportion of highly-skilled operatives, as well as supervisors and graduates with skills in areas of expertise that include lean manufacturing and supply chain management.
- The Sector Skills Council (SSC) report said that the quality and supply of technical (food scientists/technologists, engineers & electricians) and craft skills need to be increased.

### Capability requirements

The EGFSN report identified two key challenges for the food industry in Ireland:

1. Establish how to capitalise on the global demand opportunity through supply and production capability - for larger companies with ambition to export and diversify into new markets outside of Ireland and the UK.
2. Establish how to build the capability to develop relationships with retailers and food ingredients customers – for both large and small companies, who will be exposed to greater competition.

The EGFSN report identified skill issues in seven thematic areas (box 8) overleaf:

#### Box 8

**Internationalisation** is required in the context of market diversification and developing global supply chains. This factor is particularly relevant to companies in the dairy, beef and seafood subsectors.

**Innovation** is of critical importance to all sectors; there will be a focus on building skill levels in the absorption and transfer of new technology.

Development of the **operative & supervisory cohort** is necessary as all sectors move from an era of 'restricted work practices' to a workplace with high levels of employee mobility & cross-skilling.

**'Lean operations'** is relevant across all sectors and is being embraced by large dairy and prepared convenience foods companies in particular.

**Supply chain management** is a priority skill area for companies supplying the retail channel where customer service levels are continually measured, particularly in FMCG.

**Financial commercial acumen** requires non-finance functions to have a greater awareness and understanding of profitability, and the impact other functional groups may have upon it.

**Leadership** is a challenge for all sectors and companies of all sizes.

Key issues and gaps identified in the Northern Ireland SSC report are set in box 9.

#### Box 9

**Workforce of the future:** despite reduced employment, particularly in elementary occupations through technology change, replacements will be required in plant & machine operatives, skilled trades and managers.

**Problems in recruiting scientists and engineers:** the sector has difficulties in recruiting graduates due to the reducing level & quality of science teaching and a reflection of the image of the industry.

**Overseas nationals:** surveys show that overseas nationals are highly motivated and prepared to take on more responsible jobs; issues arise over language and workforce development.

**Changing market conditions:** the impact of retailer demands, more diverse consumer demand, global sourcing and tighter control of waste, energy and carbon emissions mean a more complex environment.

**Benefits of skills development:** formal training tends to be focused on legislative/regulatory needs rather than productivity, with a lot of informal on the job and non-accredited training, as reflected in the qualifications profile.

**Problems of time and space for training:** food sector employers on a 24/7 regime in an industry with tight margins may see release of staff for training as an unnecessary overhead.

**Limited planning/training planning:** while the sector has a good track record of business and training planning, performance deteriorates among smaller employers.

**Finding and identifying providers:** sources of training provision can be hard to identify with word of mouth often best.

**Qualifications regime:** employers and providers can be indifferent as to whether training leads to a qualification with training often primarily sought to meet employers' operational needs.

In endorsing the findings of the EGFSN report, the NCC<sup>114</sup> highlighted the need for skills in process efficiency, innovation and commercialisation, as well as multi-lingual skills and expertise in supply management and international trade. It recommended:<sup>115</sup>

- retaining funding for in-employment training, particularly for employees with low skills in low productivity or vulnerable sectors;
- targeting funding for training to identified needs, e.g. food sector diversification to new markets requires skills in languages and in international trade/regulatory policy; and
- utilising labour market interventions to drive productivity through skills development.

Opportunities also exist for island-wide training programmes and the sharing of facilities to ensure maximum return on resources. A strategic leadership programme for CEOs and senior management similar to Enterprise Ireland's successful Leadership 4 Growth programme for the IT sector (see box 10 below) is an example of this. Various agencies are currently exploring the construction of leadership development programmes for senior executives in food and other sectors. The Enterprise Ireland Food Leadership 4 Growth programme, based on the IT model, is open to companies from Northern Ireland.

#### Box 10

##### **Leadership 4 Growth Programme**

Leadership 4 Growth is a unique programme for CEOs of companies who have the ambition and potential to achieve significant scale in their chosen markets. It represents an important element of Enterprise Ireland's strategy to accelerate the development of world-class Irish companies by helping them build and enhance their leadership capabilities.

to enhance the impact of leadership on company growth. Leadership 4 Growth was developed by Enterprise Ireland in partnership with the Irish Software Association and is delivered by Stanford Graduate School of Business over three residential five-day modules on their campus in the US.

The programme is open to CEOs who are committed to leading their company to a strong international market position. It is a demanding programme, requiring considerable input from participants both during the three modules, in one-on-one coaching sessions and in the interim periods when the core concepts of the programme are implemented in their companies.

The modules are led by Stanford faculty members with experience in business strategy, business execution and leadership. Between modules, participants take part in a structured programme aimed at implementing their newly defined leadership goals.

The EGFSN report identified the need for greater inter-agency collaboration in identifying emerging issues and skill gaps, and providing solutions. While already happening to some extent - e.g. Global Teams (Enterprise Ireland & Bord Bia) and Enterprise Ireland co-ordination with Teagasc in relation to R&D commercialisation - a more joined-up approach across all state development agencies and with industry and third-level institutions is considered beneficial.

The report calls for the 'establishment of an inter-agency, third level institute and Industry forum to discuss and address the ongoing skills, training and development needs of the industry'. This report endorses this recommendation and proposes that the forum's remit be extended to achieve greater collaboration and cohesion across agencies on the island.

<sup>114</sup> National Competitiveness Council, *Driving Export Growth: Statement on Sectoral Competitiveness* (December 2008).

<sup>115</sup> National Competitiveness Council, *Ireland's Competitiveness Challenge Creating a Better Future* (January 2010).

# 6. SUMMARY AND CONCLUSIONS

## Recommendations

21. Extend the proposed EGFSN industry/agency/ third-level institute forum to address skills, training & development needs in the food sector to have an all-island remit.
22. Continue the development of strategic leadership programme for CEOs/senior management open to suitable food companies from both jurisdictions (similar to Enterprise Ireland's Leadership 4 Growth programme in the IT sector).
23. Investigate the development of an all-island graduate placement programme (incorporating InterTradeIreland's FUSION programme, Invest NI's Knowledge Transfer Partnership, Enterprise Ireland's Graduate Placement and IBEC's Market Orientation Programme) specifically for the agri-food sector.
24. Coordinate promotion of agri-food as a key industry in both jurisdictions to attract quality people to it from education.

The main objective of this report has been to identify new co-operative opportunities in the agri-food sector that have the potential to deliver mutually beneficial competitiveness gains in Northern Ireland and Ireland. In a broad overview of the sector across the island the research has identified twenty four potential actions in six key areas of Innovation, Market Development, Food Safety, Energy/Waste, Cost Competitiveness and Capability Development.

These are summarised below.

## Summary of Proposals

### Innovation and R&D

1. Take steps to increase awareness/stimulate cross-border proposals under FP7, e.g. workshops & road shows to promote the programme and provide advice to potential applicants.
2. Publicise roadmap of food sector research expertise and use to stimulate collaboration across the island in order to access EU funding streams.
3. Designate centres of excellence to share capacities and technologies across institutions; use roadmap to help define.
4. Consider cross-border application of future major inter-company/research institute R&D projects being promoted/funded by state agencies.

### Market Development

5. Define and expand 'food island' strategy within EU rules; exploit healthy/pure/natural/safe image and sustainability advantages.
6. Review scope for regional cross-border brands to exploit natural advantages and develop food tourism.

7. Develop support systems for small artisan food producers on cross-border basis; benchmark learning to provide evidence-based interventions.
8. Conduct research on consumer trends on island-wide basis where feasible.
9. Deliver appropriate marketing support programmes from development agencies & industry bodies on a cooperative basis; include joint involvement in trade missions & access to overseas offices.

### Food Safety

10. Strengthen cross-border collaboration in food safety – training & procedures, contingency planning & rehearsal, traceability and systems (e.g. food residue data base) etc.
11. Develop risk-based sampling strategy with results sharing between compounders, in liaison with regulatory authorities on linkages with statutory sampling.
12. Extend Food & Feed Safety Advisory Forum to have an island-wide role.
13. Investigate feasibility of food testing reference labs on island to reduce dependence on overseas labs.

### Energy/Waste

14. Develop cross-border strategy to reduce agri-food carbon footprint.
15. Map waste streams in key food industry subsectors and define initiatives to address.
16. Implement best practice energy/waste/carbon footprint reduction company support programmes by agencies on a cooperative basis.

### Cost Competitiveness

17. Support mechanisms to share capacity in key primary subsectors to achieve internationally competitive scale.
18. Support SME collaboration in procurement, waste, energy, lab testing, logistics, HR, IT, etc; provide scale to encourage services to set up on island.
19. Support/devise schemes to provide SME access to GB and other central markets through shared logistics, channel partners, 'piggy-back' with established suppliers, etc.
20. Develop cross-border competitiveness/lean business support programme, building on EI & INI models.

### Capability Development

21. Extend proposed EGFSN industry/agency/third level institute forum to address skills, training & development needs of food sector to have a cross-border remit.
22. Continue the development of strategic leadership programme for CEOs/senior management open to suitable food companies from both jurisdictions (similar to EI's Leadership 4 Growth programme in IT sector).
23. Investigate the development of an all-island graduate placement programme (incorporating InterTradeIreland's FUSION programme, Invest NI's Knowledge Transfer Partnership, Enterprise Ireland's Graduate Placement and IBEC's Market Orientation Programme) specifically for the agri-food sector.
24. Coordinate promotion of food as key industry in both jurisdictions to attract quality people from education.

Clearly, further work and discussion between relevant agencies and industry representatives is necessary to validate and prioritise each of the 24 recommendations in terms of mutually effective outcomes. In an online survey of agri-food businesses in which respondents were asked to rank the recommendations in terms of their potential impact, those that related to Market Development scored highest (see Table 6.1). In particular, the promotional branding of food to exploit 'off-island' markets offers clear opportunities for branding cooperation and food promotion in non-competitive markets and is a strategic area that should be prioritised.

The fundamental importance of R&D and innovation generally, particularly that which is industrially relevant, to sustained industrial competitiveness is acknowledged in the economic strategies of both jurisdictions and is another obvious priority for cooperation.

Food safety is a critical issue for the industry and a matter which easily transcends borders. Since the dioxins incident in 2008 much progress has been made on cross-border cooperation between agencies, e.g. the Foods Standards Agency has developed an action plan which includes running an emergency exercise to test communication links between all key organisations in Northern Ireland and Ireland.

Given the progress made to date on Food Safety and the benefits flowing from this cooperation, Food Safety is another area from the group of six summarised above that should be prioritised for further work and action development.

While Market Development, Innovation and Food Safety are three areas of strategic importance, an area of immediate concern for the industry and indeed for industry more generally across the island, is the rising cost of energy. Cooperative discussions to meet this shared challenge could lead to more innovative, effective and efficient solutions for the sector.

Table 6.1: On line survey of industrial preferences

Initiative	5 high potential	4	3	2	1 low potential
Carry out market research on all island basis where appropriate.	18	13	8	1	0
Develop an island food promotion strategy to project/exploit a healthy, pure and safe image.	19	12	7	2	0
Provide marketing support programmes from development agencies, etc on an all island basis.	18	15	5	2	0
Implement all island reporting of key food & drink sector statistics as well as trend analysis/forecasting for skills gaps, etc.	17	13	7	3	0
Set up supports to permit SME access to GB and other central markets.	12	12	10	5	1
Develop a carbon footprint reduction strategy through collaboration in waste stream treatment, renewable energy, etc.	11	14	13	1	1
Create regional brands to exploit natural advantages and develop food tourism.	12	13	10	5	0
Support artisan producers on an all island basis.	9	9	14	7	1
Develop a carbon footprint reduction strategy through collaboration in waste stream treatment renewable energy, etc.	7	13	9	9	0
Set up an all island strategic leadership programme for CEOs/senior management.	9	10	9	9	3
Strengthen all island collaboration in food safety and in animal health.	7	5	19	5	4
Implement lean business and other improvement programmes on an all island basis.	7	7	18	6	2
Support SME collaboration in procurement, waste, energy, lab testing, logistics, etc to reduce costs.	3	4	21	10	2
Provide graduate placement programmes on an all island basis.	3	6	12	16	3

● ROI ● NI



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