



Taking food innovation further

A new prepared consumer food (PCF) centre at **TEAGASC** Ashtown will focus on developing novel, sustainable and innovative food processing, preservation and packaging technologies.

The agri-food sector continues to play an integral part in Ireland's economic recovery and is our largest indigenous industry, contributing €27.5bn in turnover. The sector accounts for around 250,000 jobs or 9% of total employment, and makes a particularly significant contribution to employment in rural areas. Food and beverage exports increased to a record value of €12.6bn in 2017. The Prepared Consumer Food (PCF) Centre at Teagasc Ashtown will support the Irish PCF sector, enabling it to remain vibrant and competitive in both domestic and export markets.

Innovation is a key driver of economic growth and Teagasc continues to be committed to supporting science-based innovation and the delivery of related services to the Irish PCF sector. Teagasc recognises the diversity and complexity of the sector and offers specialist know-how, facilities and services in the broad areas of:

- meat products;
- cereals, breads, biscuits and bakery technology;
- fruit- and vegetable-based products;
- dairy products;
- savoury snacks;
- other food preparations including ready meals, sauces and confectionary; and,
- non-alcoholic beverages.

We also have a strong knowledge transfer base that supports the PCF sector in terms of novel processing technologies, sensory science, nutritional composition and product safety. Teagasc currently provides research and specialist commercial services to a range of clients within the PCF sector, extending from multinational subsidiaries based in Ireland to Irish international food companies, small and medium sized enterprises (SMEs) and food entrepreneurs. Services provided include new product development, shelf life extension, scale-up processing, product testing and analysis.

Pilot plant facilities

The food development pilot plants at Teagasc Food Research Centres in

Ashtown, Dublin, as well as at Moorepark, Cork, are critical anchors in the innovation process and in delivery of services to the PCF sector. The pilot plants facilitate various industries in new product development, exploring process scale-up feasibility, process optimisation, and final product testing. Facilities in Ashtown include a dedicated meat industry development unit, as well as a large food processing pilot plant with state-of-the-art process equipment, incubation space, developmental bakery, test kitchens and a sensory analysis suite. PCF companies account for a significant number of our clients, with a high proportion of meat, dairy and cereal processing companies. Our main interactions in terms of commercial services to the PCF sector take the format of product development, reformulation and analysis.

Brexit challenges

The PCF sector is now entering a huge period of uncertainty as a result of Brexit, and is facing a fundamental restructuring of how our food industry will do business in the UK. The costs of doing business are higher, whereas the UK consumer is under further pressure due to reduced spending power, and retailers are increasingly more aggressive with regards to pricing and promotional demands. Additionally, there are new challenges in transporting goods onwards to Eurozone countries and beyond. It is, therefore, more critical than ever before that the PCF SME companies focus on raising their innovation capacity. Innovation needs to be market led and managed efficiently, bringing new technologies and approaches to the sector. Ireland's PCF sector is particularly exposed to Brexit but yet has great potential for growth (**Table 1**). The gross output of the PCF sector is €4.5bn, €2bn of which is sold domestically, while €2.5bn is exported to other markets. The UK is a very important market for the PCF sector; it accounts for 65% of food and drink exports and comprises 500 manufacturing units spread across the State, directly employing more than 20,000 people. A growing consumer food sector has the potential to lead to a significant number of direct jobs across the country, as well as indirect jobs, as the PCF companies are more labour intensive than other parts of the food sector.



Table 1: Growth of the PCF sector.

PCF	2013	2025 (projected)
Employment	20,600	28,100
Gross output	€4.06bn	€6.87bn
Exports	€2.145bn	€3.74bn
Domestic sales	€1.915bn (40% domestic market share)	€3.12bn (50% domestic market share)
Imports	€2.867bn (60% domestic market share)	€3.02bn (50% domestic market share)

Source: A 10-Year Vision for Prepared Consumer Foods: [www.fooddrinkireland.ie/Sectors/FDI/FDI.nsf/vPages/Publications~a-10-year-vision-for-prepared-consumer-foods-16-09-2014/\\$file/PCF+10+Year+Strategy+-+Final.pdf](http://www.fooddrinkireland.ie/Sectors/FDI/FDI.nsf/vPages/Publications~a-10-year-vision-for-prepared-consumer-foods-16-09-2014/$file/PCF+10+Year+Strategy+-+Final.pdf).

New Government investment

Minister for Agriculture, Food and the Marine Michael Creed TD recently highlighted that his Department, through Teagasc, will be funding a €5m investment in capital equipment for a new PCF Centre in the Teagasc Food Research Centre, Ashtown, to purchase specialist processing and packaging equipment that companies can pilot with a view to scaling up their production and/or operations. The vision for the Centre is to support PCF companies in piloting internal research and innovation capabilities. This will maximise value creation opportunities to address the challenges and opportunities across the industry, and enable adoption of novel technologies to meet evolving consumer demands and expectations. Teagasc expects to launch the PCF initiative in September 2018.

Technological innovations

The main focus of the Centre will be to develop novel, sustainable and innovative food processing, preservation and packaging technologies in collaboration with PCF companies. A range of key enabling technologies will be installed in the PCF Centre, Ashtown, including pulse electric field, shockwave, extrusion, non-destructive drying technologies, supercritical fluid extraction and new packaging capabilities. Innovative product development expertise will contribute to new food product developments, new food ingredients, product reformulations, process optimisation, shelf life extension, and food waste reduction and/or reutilisation, leading to new income streams and recycling of food waste. These aspects are critical in light of delivering high-quality, value-added products to far away markets like China and Eastern Asia. Teagasc will support and partner with companies, collaboratively with Enterprise Ireland and Bord Bia, to deliver products that are recognised by consumers globally as innovative, safe, sustainably produced and of the highest quality.

Further information

On June 12, the PCF Centre will be featured at the ‘Beyond Brexit – Making Food Innovation Go Further’ event in Teagasc Ashtown. For more information, see www.teagasc.ie/news--events/national-events/events/teagasc-food-gateways.php.

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