

# Food Technology Centre

A guide to research,  
development and  
training support services

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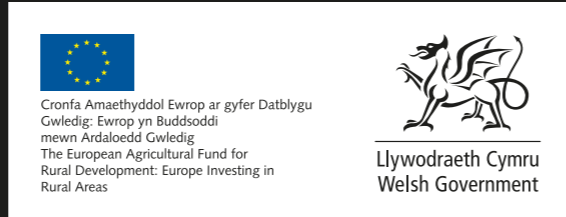
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# Transferring knowledge to the Food & Drink sector

The Food Technology Centre (FTC) has been established since 1999 and plays a key role in transferring knowledge to the food industry in Wales and across the UK.

Working closely with food businesses in order to assist them in gaining a competitive advantage, the FTC has dedicated resources which enable food businesses to access technical support, practical solutions, advice and guidance on areas which are key to business growth.

With the long term objective of developing food businesses, processing and manufacturing capacity, we aim to further develop Wales and the UK's reputation for producing and manufacturing innovative food and drink that is of the highest quality.

Resources at the FTC include dedicated processing halls for fresh meat, fish, dairy products and prepared foods; training room; product development test kitchen; analytical laboratory; and a video conference suite.

These resources allow the FTC to provide a range of services to the food industry, including research and development, technical advice, knowledge transfer and training courses tailored specifically for clients. The Centre also provides the agri-food sector with skills that can be transferred to the rural workforce in order to nurture entrepreneurial activity.



# FTC Links

As part of the Welsh Government's Rural Development Plan, Supply Chain Efficiencies Programme, the Food Technology Centre has supported primary producers and processors in adding value to Welsh produce. Food businesses have been provided with food technology advice, guidance and mentoring so as to embrace research and development, to be innovative in creating new high quality Welsh food and drink products. The project also aims to promote and develop closer supply chain links between food producers and processors.

Research & Development services to the Welsh Agri-Food Industry began in 2001 and has been responsible for many successes in terms of food product launches and benefits for the food industry across Wales. Some of the food products launched through this European Objective One-funded project have made regional and national news headlines.

Apart from the successes of its European-funded projects, the FTC has continuously provided academic and tailored courses to people within the industry, and those planning to join the industry.

The FTC has close links with several other key organisations and agencies across Wales which enables clients to benefit from an established network of contacts.

Clients have the opportunity to gain understanding and benefit from expertise in a range of fields which include, Marketing, Branding, Packaging, Market research and Legislation.



# Developing a Food Safety Culture

Effective food safety systems are key to the success of any food business. The FTC team are well positioned to support your business in order to improve or establish a robust food safety system that reflects your operation.



## HACCP: Hazard Analysis Critical Control Points

The team at the FTC will be able to provide step by step advice and guidance to move you to a position whereby you are comfortable in developing and validating your own HACCP systems so as to provide tight control of your operation.

## CIEH Level 2 Award in Principles of HACCP

This one day course is designed to help individuals to understand the principles and purpose of HACCP and to be able to apply it correctly in their own workplace. (The programme is assessed through a short multiple choice test).

## CIEH Level 3 Award in HACCP

This 1 day course is designed for managers and supervisors of food manufacturing businesses and provides an understanding of the controls needed to protect the safety of food. This information enables learners to implement a food safety management system based on HACCP principles.

The programme is assessed by an assignment that requires the development of a HACCP plan. Alternatively, a non-accredited update is available which is not assessed.

## Environmental Health

Our technical team can assist with any food safety concerns you might have. If you are a start-up company who would benefit from advice so as you are prepared for EHO visits and any other audits you might have, support is available.

## SALSA: Safe and Local Supplier Approval

The FTC staff are registered as SALSA mentors and auditors which enable food businesses to benefit from support with systems design through to accreditation. The SALSA accreditation will assist in winning contracts to supply larger retailers.

## BRC: British Retail Consortium Global Food Standard

The team at the FTC carry out work with food businesses in order to establish systems and support in the preparation for BRC accreditation. Assisting with design, implementation and verification of systems is a key part of this work. BRC is a recognised global quality standard which is often a prerequisite to supplying the major supermarkets and multiple retailers. Companies who are already BRC accredited may benefit from a pre-audit health check!

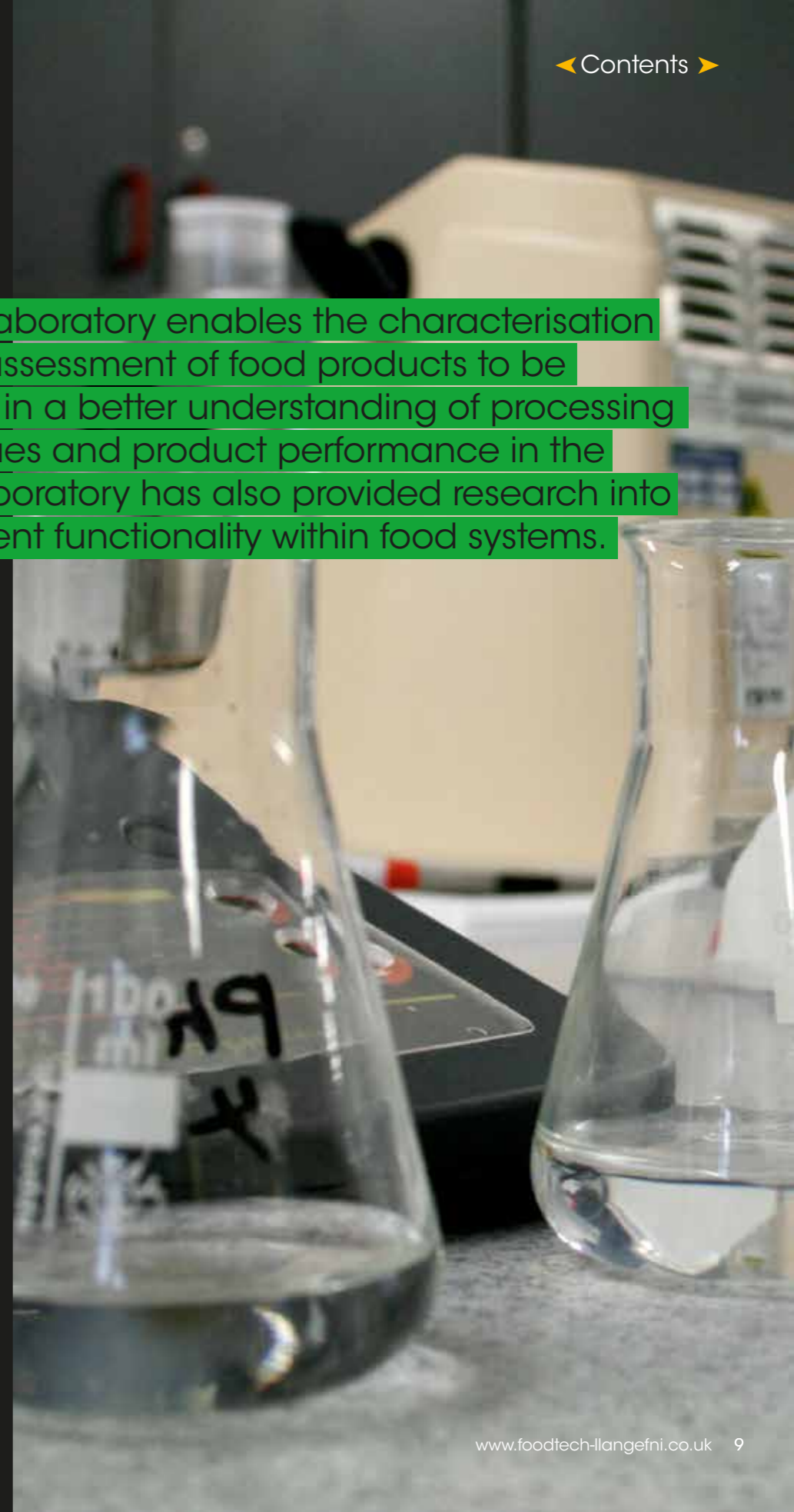
# Food Product Testing

The analytical food laboratory enables the characterisation and compositional assessment of food products to be carried out, assisting in a better understanding of processing technology, techniques and product performance in the market place. The laboratory has also provided research into product and ingredient functionality within food systems.

Food testing services available in the fully equipped laboratory:

- Shelf Life Analysis
- Nutritional Analysis
- Energy
- Protein
- Fat
- Carbohydrates
- Salt
- Alcohol
- Moisture
- Soluble Solids
- Water Activity

The FTC has the advantage of having a food microbiological laboratory on site via Marine Biological and Chemical Consultants (MBCC). This service offers full traceability and UKAS accreditation for a broad and expanding range of analysis.





## Facilities

The FTC houses three processing halls and test kitchen with each hall averaging a floor space of 85 sqm, dedicated to meat, dairy, fish and horticulture. Each processing hall is equipped with an extensive range of modern pilot and industrial scale equipment for both new product development and product launch.

These facilities allow the client to manufacture products on small industrial scale to retail outlets and final consumer.

The hiring of the facilities enables start-up companies to ascertain if there is current market demand before investing heavily in equipment and having to gain EHO approval and the FTC technical team will assist with scaling up your product to ensure continuity and safety.

All client projects are treated in confidence which enables the client and the centre to establish a good working relationship.

## Meat / Fish Processing Hall

A 100 sqm, EU approved meat cutting plant, where product development, lease manufacturing and practical butchery workshops are carried out.

Facilities include a controlled atmosphere climate chamber, vacuum packer, slicing machine, industrial mincer and numerous items of other equipment you would expect to see in a meat manufacturing unit.

Specialist butchery courses and tailor made added value training takes place in the meat hall. This includes:

- Beef Butchery (Forequarter and Hindquarter)
- Lamb Butchery Workshop
- Pork Butchery Workshop
- Sausage Making Programme
- Curing Techniques
- Air Dried Meat
- New Product Development

Our meat development officer has over twenty years experience in the meat industry which allows clients to learn new techniques and develop their own individual product(s). Working alongside the team at the FTC you can lease these facilities in order to develop and manufacture your product.

## Dairy Processing Hall

A 76 sqm, EU approved dairy processing plant.

Clients can lease the hall to manufacture and produce their products here. Facilities include cheese vats and press, HTST Pasteuriser and Separator, Homogeniser, Butter churn and an ice cream maker.

The hall can be used to develop a broad range of added value dairy products such as:

- Hard Cheese
- Soft Cheese
- Ice Cream
- Yoghurts
- Drinks
- Butter
- Cream Cheese
- Dairy Desserts

We have a dairy specialist within the team who has a wealth of experience and knowledge of undertaking NPD projects, pilot production, R&D and bespoke training to suit the clients' needs.

## Test Kitchen

The test kitchen allows clients to carry out bench top product development before commencing with pilot scale production in the food halls. The equipment available ranges from industrial steam ovens to mixing and blending table top machinery.

With its ample worktop space this facility is perfect for cooking the products produced in the halls and carrying out a sensory analysis with invited guests.

## Prepared Foods Process Hall

An 81 sqm, multi-functional processing hall accommodating cooking and blast chilling and freezing, MAP/CAP packaged products, bakery, confectionary, ready meals, fruit and vegetable processing.

Utilised for training or lease manufacturing the hall is designed with maximum flexibility in order to scale up bench top recipes into more commercial, more automated and efficient production. Examples of such products would include ready meals, soups, preserves, vegetable and fruit preparation, confectionary, juicing and baking.



## Training Courses

A full range of vocational and academic courses are offered. Most courses offer a nationally-recognised qualification while others are developed to match the training needs and development requirements of individual clients and companies and the current needs of the food industry at large.

Training is delivered both on and off-site at locations throughout the U.K.

The Food Technology Centre provides a broad range of training opportunities to support individuals working at all levels within food businesses.

### CIEH Level 2 Award in Food Safety

This one day course is designed for anyone working in a catering, manufacturing or retail setting where food is prepared, cooked and handled. This award provides fundamental food hygiene knowledge for all food handlers. (Assessment is done through a multiple choice test).

### CIEH Level 4 Award in Food Safety

This course is run over 5 days, delivered on consecutive weeks. The programme is tailored for those managers, supervisors and senior hygiene personnel who are responsible for the management of food safety in food manufacturing or catering.

The programme is assessed through a controlled assignment to be completed under examination conditions (2 hours) and one 2.5 hour examination.

### CIEH Level 3 Award in Food Safety

This three day course is run over three consecutive weeks and is designed for those working in all food businesses at a supervisory level, with particular relevance for those who have to develop or monitor HACCP based Food Safety Management Procedures and Systems. (Assessment is done through a multiple choice test).

### HACCP's

This course aims to ensure candidates develop the knowledge and practical skills to implement a HACCP plan in their workplace. It covers the HACCP process and its role within food manufacturing and how to develop, monitor and evaluate HACCP based system.

### Health & Safety

This course provides the fundamental aspects of Health and Safety to all employees, covering such topics as risk assessment, fire safety, manual handling and legislation.

### Meat Butchery Workshops

The course is aimed at those who wish to carry out butchery skills to process carcass meat into primal cuts. The course covers areas such as factors affecting meat quality, meat safety issues, methods of slaughter, meat storage and costings and calculations of carcass yields. There is a choice of workshops covering Pork, Lamb or Beef.

### Basic Cheesemaking

This course aims to provide an introduction to cheesemaking. It is intended for those who would like to start manufacturing cheese or simply wishing to improve their knowledge and experience. The course covers topics including ingredients, processes, flavouring and food hygiene aspects. The theory is reinforced with practical cheesemaking.

### Soft Cheesemaking

The course is intended for those who would like to improve their knowledge and experience of soft cheese manufacture, for example production staff, technical and R & D personnel, marketing personnel, suppliers, buyers and interested parties.

The centre offers several other courses which are run either at the Llangefni site or at the employee's workplace, for further details please contact the Food Technology Centre.

# Products developed and manufactured at the Food Technology Centre

## Luxury Dairy Ice Cream

The centre has developed and manufactured a luxury ice cream made with local milk which is being sold to local eating establishments throughout North Wales.

## Air Dried and Smoked Meat (lamb, pork and beef)

The centre has successfully developed a range of dried meat using state of the art climate chambers and a local smokery. These products have proved very popular with local deli's and eateries due to their unique flavourings.

## Award Winning Blue Cheese

A local blue cheese which won the Gold Award at the British Cheese Awards was developed at the centre. This cheese has received national recognition and is being sold across the UK.

## Luxury Welsh Butter with Salt Sourced from the Menai Straits

A luxury welsh butter with locally sourced ingredients was hand made at the centre which proved very successful when sampled at a local food festival.

## Delicious Hand Made Christmas Puddings

The centre assisted through its processing halls the making of a high quality Christmas pudding which used only the finest ingredients.

## Thick Set Dairy Yoghurt

The centre developed the ingredients for a luxury yoghurt which was then produced in the dairy hall.

## Italian Style Meats

Much development work was carried out to achieve the unique Italian style meat at the centre. With our client we successfully made and marketed the product which is sold throughout the North West region.

## Welsh Fare Ready Meals

A range of delicious Welsh fare ready meals was developed and manufactured at the centre. These are now being sold in major retailers throughout Wales.

## Organic Flavoured Milk

A innovative flavoured milk was researched and developed at the centre from concept to production. The flavoured organic drink then became a well known brand which was sold nationally.

## Cappuccino Milk

The centre has carried out a detailed project on how frothy the milk needs to be to make the perfect cappuccino. This concept was carried out on behalf of a major UK retailer.

# Other Services

## Technical Advice

Advice is offered on a wide range of food related subjects including interpreting food legislation, labelling and a host of other regulatory and technical issues. Advice can be provided over the phone or via written reports.

## New Product Development

We can structure and manage new product development programmes for companies which include modifying existing products or developing brand new products.

Services provided for new product development start with concept development, qualitative and quantitative prototype product testing, followed by pilot-scale production and process optimisation, packaging, shelf life and sensory evaluation.

## Pilot Projects

Where companies require the use of facilities to pilot new innovative products they will be able to utilise the qualified technologists at the centre.

## Product & Process Research

The FTC has the knowledge and expertise to research for the best equipment and processes for high quality food manufacturing. Process optimisation studies ensure that manufacturing companies develop high quality end products to meet the challenging demands of the market place.

## Technology Transfer

Clients can work with technical staff at the FTC or our experts can work alongside staff at a company's site to ensure that all aspects of new product development are adequately transferred while manufacturing scale operations are established.

## Labelling

The FTC is able to advice on legal compliance of food labelling. This advice could include feedback on the acceptability of labelling, regulatory compliance of an ingredient or a compositional breakdown of ingredients for your product which we can carry out in our fully equipped laboratory.

## Packaging

The FTC team can assist in sourcing the right packaging for your product whether it is biodegradable, recyclable or industry standard for your particular product. Ensuring you have the correct packaging is imperative for your shelf life stability.



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