

British Society of Baking 2018 Spring Conference

Wednesday 25th April 2018

Prof Paul Berryman
Innovation and Research
in the UK Food Sector



Department for
International Trade

**BUSINESS
IS
GREAT**

BRITAIN & NORTHERN IRELAND





Introduction to Paul Berryman



Agri-Food Consultancy

Director Berryman Food Science

DIT Food & Drink Specialist

Consultant SGS Ltd

Expert witness

Academia

Visiting Professor of Food Science,
University of Reading

Executive Board of Agri Food Training Partnership

Food Industry

CEO Leatherhead Food Research

Director of Research Leatherhead

- Regulatory, Science & Market Research
- 1500 Food Industry Member Companies

Food Enforcement

Head of Food Trading Standards

- Public Analyst
- Agricultural Analyst
- Port Analyst





Summary

- **The Department for International Trade:**
 - Exports
 - Foreign Investment
 - Innovation
- **The UK Food & Drink Market**
- **NPD Trends in Bakery Sector**
- **R&D Case Studies**





The Department for International Trade (DIT)

Our extensive network of specialists in the UK and across the world support UK-based companies to succeed in a competitive global economy.



Operating in over 100 markets worldwide



Over 1,000 staff based overseas



400 International Trade Advisers and support staff based in UK



40 Offices located throughout England

The Department for International Trade (DIT)

Three key areas:

- **Exports:** DIT helps businesses export and grow into global markets.
- **Foreign Investment:** DIT helps overseas companies locate and grow in the UK.
- **Innovation:** DIT promotes R&D to improve competitiveness and market share.



Exports

- **Leverage Government:** to address barriers to trade and accelerate routes to market.
- **Advice:** on tax, regulation, planning & finance.
2 Export Specialists from food & drink industry.
Ongoing support.
- **Introductions:** to new overseas markets across the DIT network of embassies and consulates. Trade Missions & Shows.



Foreign Investment

- **Market Insights:** to highlight key growth sectors and business opportunities.
- **Advice:** on tax, visas, immigration, regulation, local planning, finance and staffing. 2 Investment Specialists from food & drink industry. Ongoing support.
- **Introductions:** to businesses, trade bodies, research centres and government.



Innovation

- **Expertise:** knowledge of business, academia and government from across the UK and the international Food & Drink Sector.
- **Advice:** on new UK Technologies, latest R&D, research funding and incubator space for spin-offs or new ventures.
- **Introductions:** to centres of excellence to support new R&D consortia.
(e.g. Universities, R&D Centres & UK Companies)



Export Case Studies

Eat Natural:

DIT London has helped healthy snack bar company Eat Natural export into over 40 markets through their export programmes.

“Being able to talk to my DIT Trade Adviser about our export plans is really useful. Adrian has a wealth of knowledge from his commercial background and it helps to look at plans with a fresh pair of eyes.”

- Claire Jackson, Export Business Development Manager, Eat Natural



Export Case Studies

Premier Foods:

An insight-driven strategy has led to the creation of world exclusives in the Australian market including Mr Kipling Cranberry & Orange Liqueur Mince Pies.

Source: FDF

We've been able to unlock a number of opportunities for Mr Kipling and Cadbury cake ranges in the Australian market, leading ...to an incredible 10% market share within only three years”

- Jette Andersen, MD – International, Premier Foods



Investment Case Studies

Brioche Pasquier, France:

With DIT help, Brioche Pasquier located a 160,000 sq ft brownfield site in Milton Keynes, a £40m investment.



“The Department for International Trade helped us to understand how to get things done and facilitated contact for us with the local council...”

– Olivier Ripoché, MD, Brioche Pasquier UK.



Investment Case Studies

Quorn Foods, Phillipines:

received both local and national support from UK government to aid its Stokesley expansion. Used tax credits for R&D work, innovation and patents.

‘The UK government and departments like the DIT have been a great help’

- Kevin Brennan, CEO, Quorn Foods



Overseas visits – USA Roadshow 2017

Our experts visited 8 USA companies that have a UK base and invest in the UK economy



Philadelphia, Denver, Chicago and Dallas, 2017

The UK Food & Drink Market



The food & drink industry is the biggest manufacturing sector in the country...

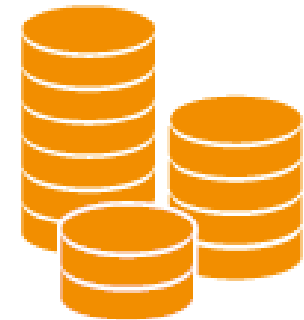


...larger than automotive & aerospace combined

Our industry has a turnover of

£97.3bn

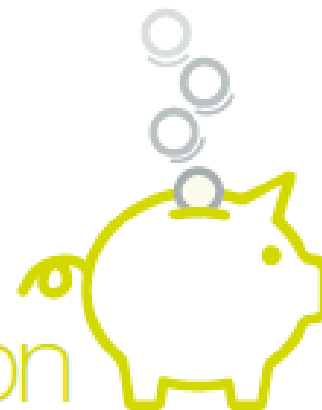
accounting for 19% of total UK manufacturing



Food & drink contributes

£28.8bn

to the economy

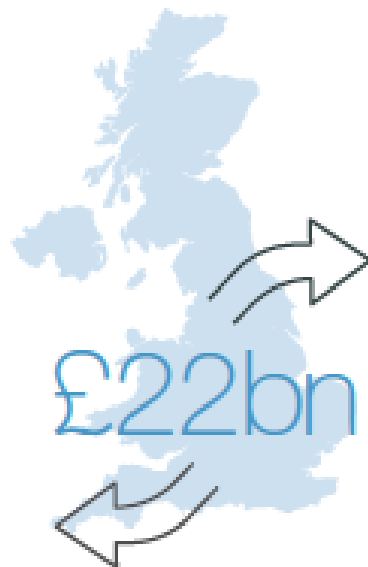




The UK Food & Drink Market



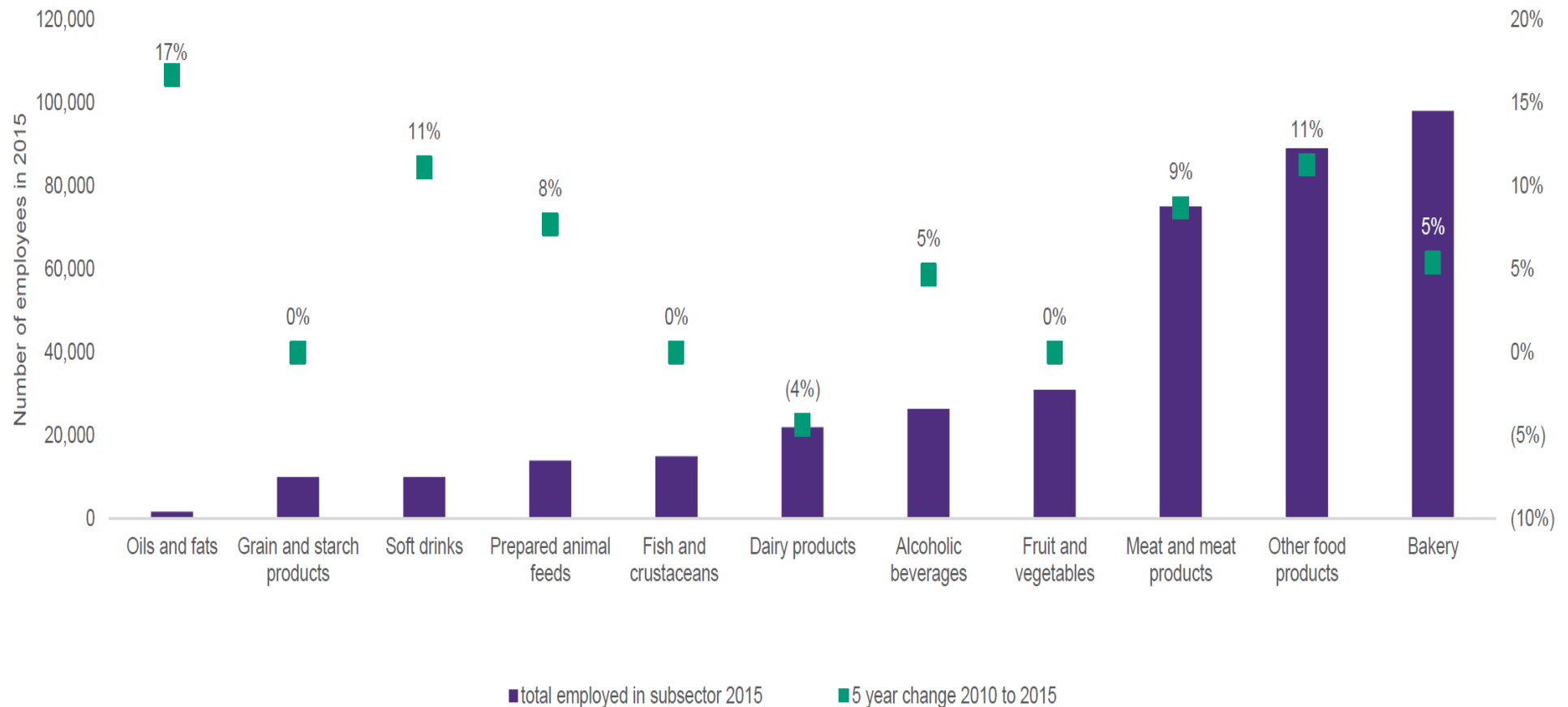
In 2017, total
food & drink
export figures
were worth
more than



Our top three
export markets are
Ireland,
USA
& **France**

The UK Market – Employment

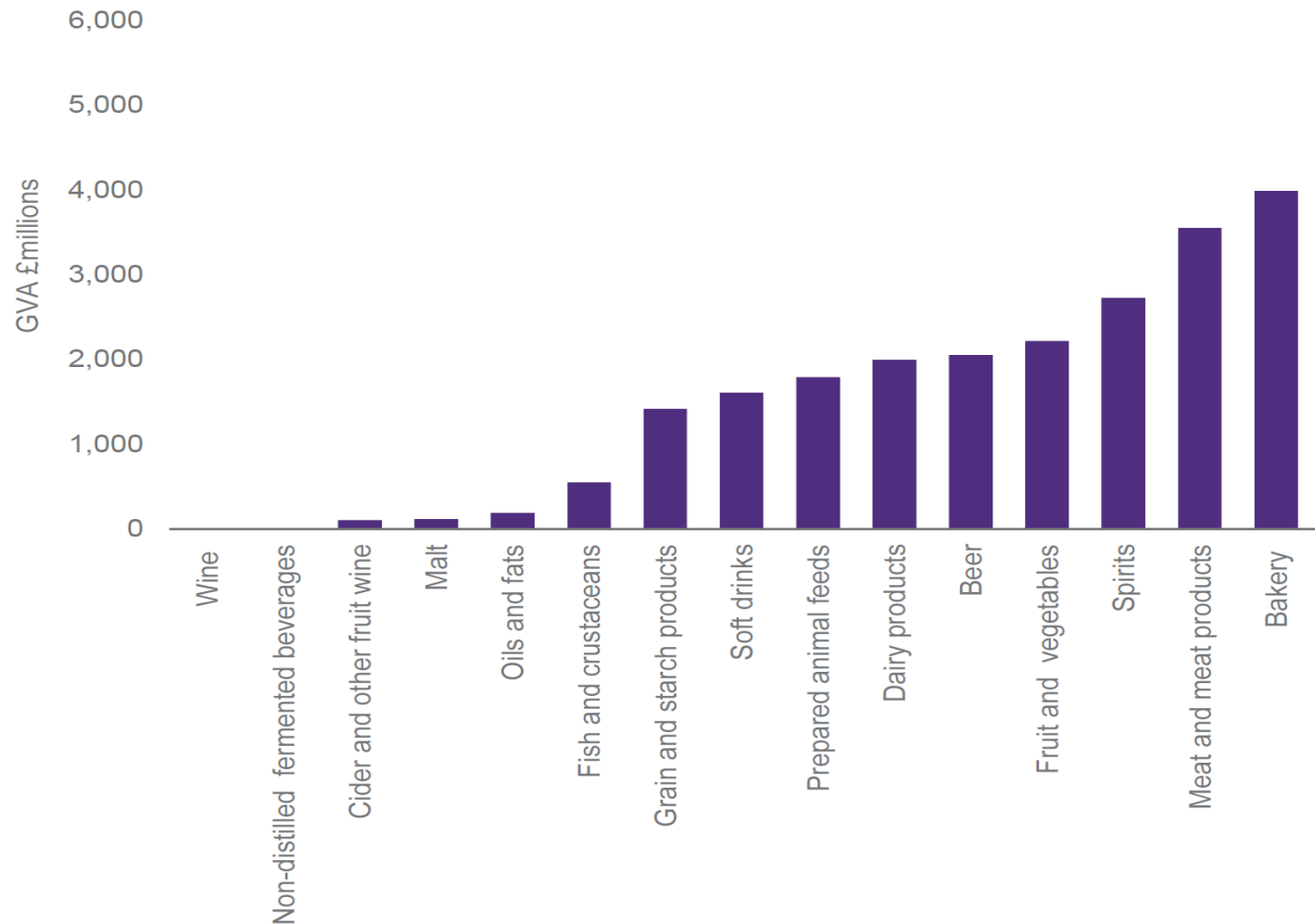
Bakery is biggest employer (100,000), with 1,890 businesses, mainly SME's





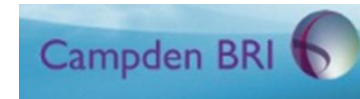
The UK Market – Gross Value added (GVA)

GVA by subsector 2015



Innovation and R&D Facilities

- **Research Institutes:** The UK has leading food research facilities including the **Quadram Institute**, which brings together state-of-the-art research in food and health and the **Rowett Institute** for nutrition.
- **Research Associations:** **Leatherhead** and **Campden BRI** are two leading food research centres that work closely with industry on food safety, NPD and global food regulations.
- **Universities:** The UK is also home to some of the most influential universities in this field, including **Reading**, **Leeds** and **Nottingham**.



NPD Trends – Bakery Sector

- **Free-from:** gluten-free bread and cakes are popular. Meat free pies and pasties.
- **Gut Health:** Sourdough breads contain wild yeasts that reduce phytic acids - better digestion & mineral absorption.
- **Reformulation:** sugar reduction using inulin and natural sweeteners. Salt reduction and fat reprofiling.
- **Snacking:** on the go foods, snack bars and exotic pies.
- **Artisan:** Wide range of seeded, rye and sourdough breads plus new flatbreads.



R&D Case Studies

Modern Baker Ltd - innovative salt reduction and fibre enhancement of artisanal sourdough bread products

InnovateUK Grant - £520k

Campden BRI
Newcastle University
Seaweed & Co Ltd



R&D Case Studies

Warburtons - improving the nutritional profile of baked gluten and wheat free products by reducing fat, sugar and salt and improving fibre content

InnovateUK Grant - £270k

Warburtons recently obtained planning permission for a new R&D centre in Bolton



Fuerst Day Lawson Ltd
Campden BRI



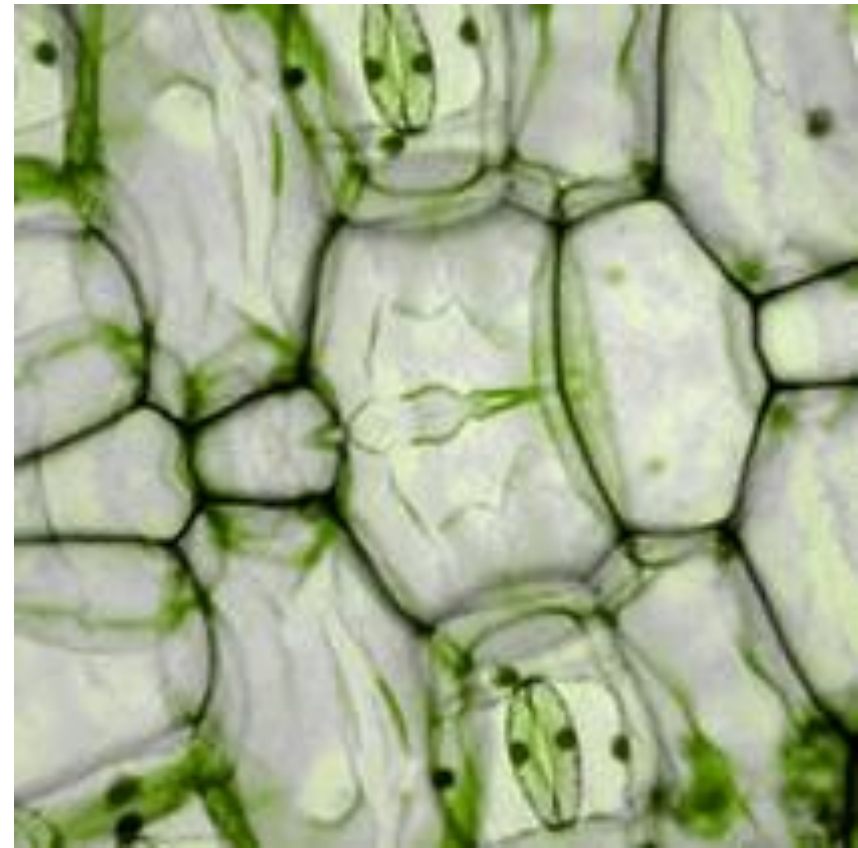
R&D Case Studies

CelluComp Ltd:

REMAC-reformulation via
advanced cellulose materials for
reduced sugar, fat and increased
fibre in confectionery & bakery

InnovateUK Grant - £655k

University of Reading
Mars Chocolate UK Ltd
Macphie of Glenbervie Ltd
Advanced Microwave Technologies Ltd



R&D Case Studies

Phynova developed Reducose™ derived from mulberry leaves. It lowers the availability of sugars and carbohydrates

InnovateUK Grant



*The natural ingredient
For healthy blood glucose levels
Making everyday foods and drinks
better for you*

R&D Case Studies

Saturn Bioponics has developed technology called the **Saturn Grower** that can produce 4 times more crop yield than conventional growing methods.

InnovateUK Grant



R&D Case Studies

The Jordans & Ryvita Co:

Reduction of sugars and fats by creation of adhesive structures from oats at lower sucrose concentrations. Snacking project.

InnovateUK Grant - £367k

New-Food Innovation Ltd
Biopolymer Solutions Ltd
University of Nottingham



R&D Case Studies

WheatScan: Tractor-mount sensing for precision application of nitrogen and control of wheat protein.

Agritech Catalyst Grant



This project aims to develop a **tractor-mounted scanning** unit for precision application of nitrogen, in order to **reduce the cost** and **carbon footprint** of **wheat production**



Partners



R&D Case Studies

Unilever: improving crops for health.

Agritech Catalyst Grant

Exploring **pearl millet variation** to ultimately produce **improved bread products for type-2 diabetics.**



Beneficial to type-2 diabetics



Partners

Aberystwyth University

Unilever Research & Development

International Partners
1. Hindustan Unilever, India



5 million type-2 diabetics in the UK by 2025



40 million type-2 diabetics in India





Conclusions

- The food and drink manufacturing industry is the single largest manufacturing industry in the UK. Bakery is the biggest food sector. (GVA & employees).
- The UK Government recognises the importance of a vibrant food and drink industry, delivering safe, affordable and healthy foods to consumers.
- DIT helps businesses export and grow into global markets and assists overseas companies to locate and grow in the UK.
- DIT promotes R&D to improve competitiveness and market share. The sector is supported by initiatives to aid fundamental research and assist collaborative research with industrial partners, including tax relief, grants and funding.





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Contact Details

For further information about investing and innovating in UK Food & Drink Sector contact:

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