

New Standards and New Directions in Quality Assurance – UK & EU Perspective

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Programme

✦ Context

- ✦ European Union
- ✦ Chilled food and its importance

✦ European regulatory framework

✦ Official enforcement

✦ Self-regulation mechanisms

✦ Traceability

✦ Industry standards and approach



European Union

⊕ >380M inhabitants, 1.25M sq miles, 15 countries:

⊕ Own cultures and legal systems

⊕ 'Common Market' in only a few products

⊕ **Enlargement:**

⊕ 27 countries, 495M inhabitants, 1.7M sq miles

⊕ **Local chilled food markets - diverse cultures:-**

⊕ recipes and products

⊕ consumer expectations

⊕ Common factor:

No market without product safety



What are Chilled Foods? UK NPD Chronology

1970s

- Meat products: Sliced, Pies
- Dressed salads: coleslaw, potato

1980s

- Recipe Dishes
- Non-dairy desserts
- Quiche, Flans
- Sandwiches
- Pizza
- Fresh Pasta
- Breaded Meat, Fish
- Soups

1990s

- Ethnic snacks
- Dips
- Dressings
- Meal Accompaniments
- Sauces
- Prepared Vegetables
- Prepared fruit
- Stir fry kits
- Chilled speciality breads
- Bistro/luxury ready meals/kits
- Sandwich fillings
- Stocks

2000s

- Sushi

UK: >95% are retailer own label.
'Fresh'/unpreserved. Many only reheated.
Many are handmade (short runs).

CFA Members' Products:

- ⊕ Multicomponent, prepared
- ⊕ Hygiene/safety critical
 - ⊕ Unpreserved
 - ⊕ HACCP, traceability
- ⊕ Short shelf life – JIT systems
- ⊕ Seasonal raw materials
- ⊕ Year-round supply/production
 - ⊕ Pan-global sources
- ⊕ >95% retailer own label

CFA Represents:

- ⊕ >85% of UK chilled prepared food market
 - ⊕ ~\$10Bn = ~50% total EU
- ⊕ 29 Member companies
- ⊕ 2 subscriber associations
- ⊕ 150 plants:
 - ⊕ UK/EU
 - ⊕ Australia
- ⊕ 9,000 SKUs
- ⊕ 50,000 employees inc 1,000 scientists
- ⊕ ~10% of UK food industry (employees, value)

European Chilled Ready Meals Market

✦ 2001 SYNAFAP/Stratega Survey:

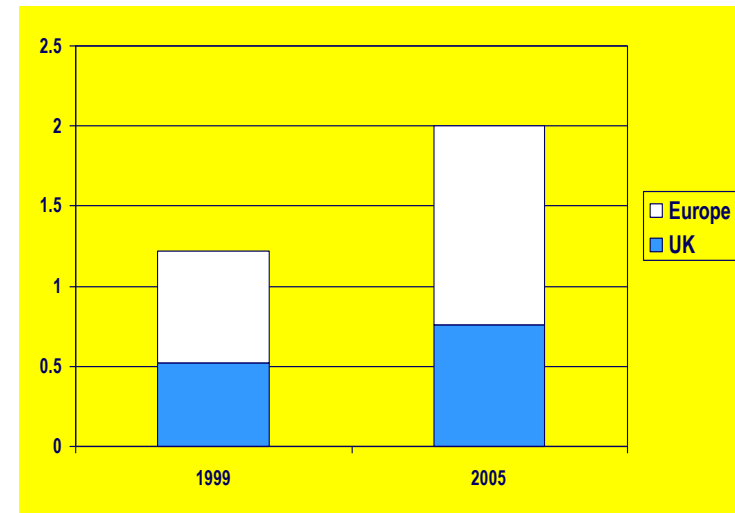
- ✦ UK, France, Germany, Italy, Spain, Belgium, NL, Switzerland
- ✦ Ready meal = recipe dishes, flans, pizzas, fresh pasta, sandwiches, breaded products, soup, sauce, chilled pastry

✦ Estimates:

- ✦ 1999: 1.221 M tonnes
- ✦ 2005: 1.998 M tonnes = **63% increase**

✦ UK market value comparisons

- ✦ 1999 ~\$8 bn (**43% total European market**)
- ✦ 2005 ~\$11.5 bn (**43% increase, 38% total European market**)



Basis of UK Industry's Success

⊕ Massive investment in hygiene & technology

- ⊕ 1970s secure chill chain established: UK target 5°C (41°F)
- ⊕ Factory design and layout: area segregation (GMP, HCA, HRA)
- ⊕ Process design and control: 6D heat processes
- ⊕ Safety and traceability: 'farm to fork' whole chain approach
- ⊕ Generally, short shelf lives: 1-10 days
- ⊕ HACCP + best practice: industry (CFA) guidance
- ⊕ Quality Systems: Manufacturer/retailer partnerships
- ⊕ Forecast/ orders / manufacturing / distribution systems integration
- ⊕ Generally, no stock and minimal raw materials held at plants - JIT

⊕ Distribution over short distances

→ CONTROL as foundation for innovation

CFA's Approach:

- ⊕ CFA promotes and maintains standards of excellence in chilled food production
 - ⊕ **Best practice** emphasis
 - ⊕ **Whole chain** approach
- ⊕ Membership criteria:
 - ⊕ **Compliance** with CFA Guidelines for Good Hygienic Practice in the Manufacture of Chilled Foods; and
 - ⊕ Successful UKAS-accredited **audit**

European Regulatory Framework

⊕ Instruments:

⊕ Regulations

- ⊕ Come into force in all Member States immediately on publication

⊕ Decisions

- ⊕ Binding on parties e.g. Member States, companies

⊕ Directives

- ⊕ Require implementing into national law via national legislation

Historic EU Food Regulatory Framework

- ⊕ General Food Hygiene Directive

- ⊕ All foods

Being replaced

- ⊕ Other Hygiene Directives (17) - protein

- ⊕ Red meat
 - ⊕ Poultry
 - ⊕ Products: meat, egg, dairy, fishery

Being consolidated

- ⊕ Temperature, Shelf life

- ⊕ No EU-wide legislation or harmonisation, but little trade

New: General Food Law Principles, EFSA

⊕ New framework - general food law & food, feed safety principles:

- ⊕ HACCP
- ⊕ Farm to table
 - ⊕ Responsibility of feed manufacturers, farmers, food operators
 - ⊕ Traceability of feed, food and its ingredients
- ⊕ Risk analysis (assessment, management, communication)
- ⊕ Application of the precautionary principle, if appropriate

⊕ European Food Safety Authority

- ⊕ New for 2003
- ⊕ Risk assessment-based advice and information to the EC
- ⊕ Hub for EU/national scientific committees, provide peer review
- ⊕ Run Rapid Alert System for Food and Feeds

Key Additional European Legislation

⊕ Labelling

- ⊕ **'Use by' dates:** Food Labelling Directive (since 1979)
- ⊕ **'Fresh':** some national rules and guidance - review

⊕ Microbiological Criteria

- ⊕ EU strategy and draft Regulation under development

⊕ Issues

- ⊕ **Role in HACCP** – verification
- ⊕ **Methodology** questionable
 - ⊕ Sampling issues
 - ⊕ Inherent variability – lab procedures and methods (human element)
 - ⊕ Unsuitable methods – confusion between non-/pathogens
- ⊕ **Testing is not a control measure = diversion of resources**

EU Temperature Legislation Examples

Belgium	7°C max (ground beef)
Denmark	5°C
Finland	6°C (meat products) Others 8°C
France	Retail \leq 4°C
Italy	-1 to 7°C (meat products) 0 to 4°C (fish products)
Spain	0-3°C
Sweden	<8°C
The Netherlands	7°C max
UK	8°C max + tolerances

Shelf life determination

- ⊕ **French industry guidance**
- ⊕ **CCFRA guidelines (under review - UK)**
- ⊕ **Retailer protocols**
- ⊕ **Company protocols**

Official Enforcement

European Union

⊕ Horizontal legislation:

- ⊕ Enforced under national food control systems
- ⊕ EC Food & Veterinary Office audits of Member States' control systems
- ⊕ FVO third country role

⊕ Vertical legislation:

- ⊕ Under veterinary control – food technology knowledge?

UK

- ⊕ Local authority responsibility for premises inspection (EHOs)
- ⊕ Report to Food Standards Agency

Additional Elements: UK Industry Self Regulation

⊕ Manufacturers' systems and audits

- ⊕ HACCP implementation
- ⊕ Housekeeping
- ⊕ Suppliers/growers
- ⊕ Traceability

⊕ Customer audits

- ⊕ Close partnership with suppliers – own label

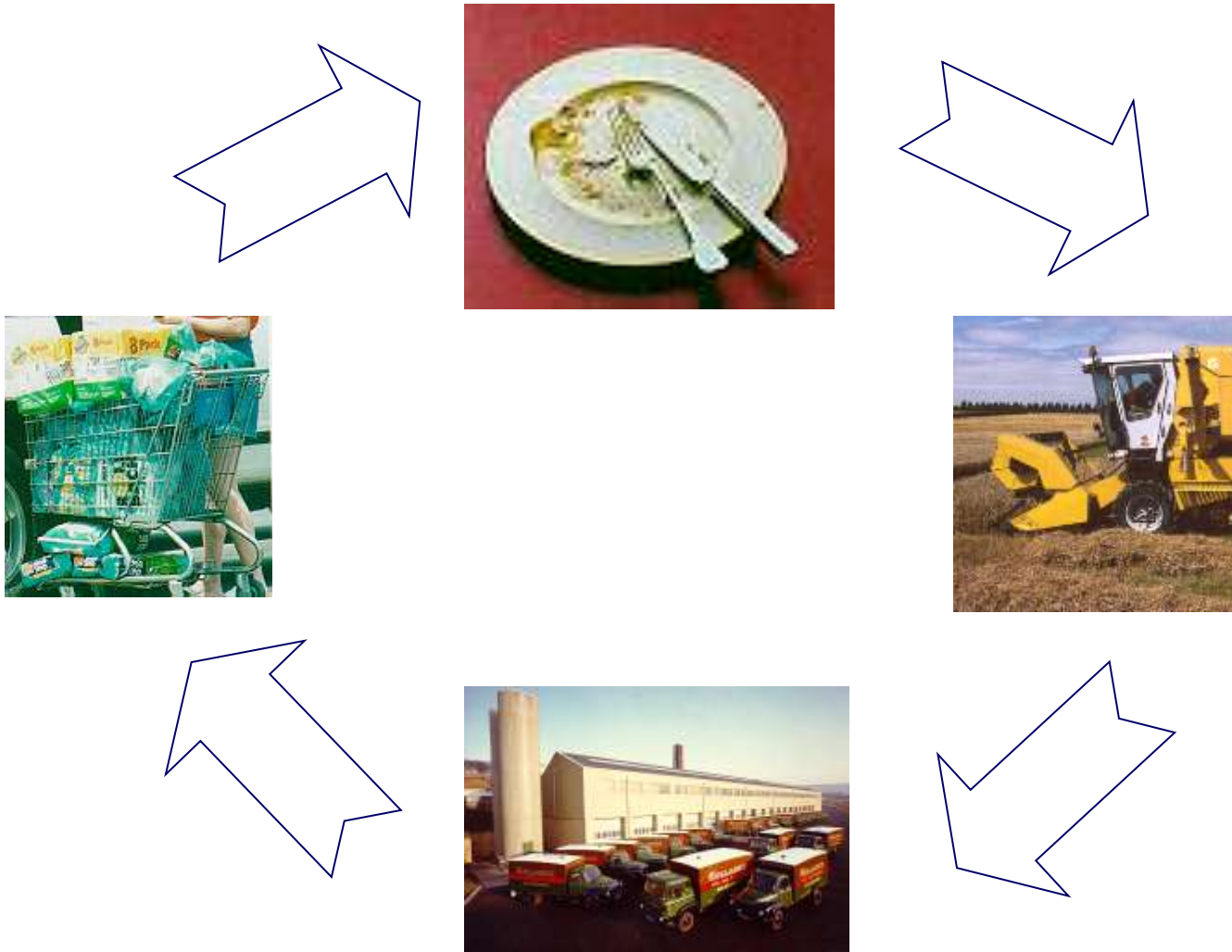
⊕ Third party audits, e.g. vs.

- ⊕ BRC Food Technical Standard – general requirements for own label
- ⊕ CFA Guidelines – specifics for chilled products

⊕ Competencies of auditors

- ⊕ UKAS accreditation

Supply Chain Management



Traceability throughout the supply chain - a non-negotiable, standard part of chilled food management systems

- ⊕ **Must link a lot or batch with its source and any treatment it has received**
- ⊕ **Will allow rapid access to product information**
- ⊕ **Can limit the potential scope of a problem associated with a raw material**
- ⊕ **Can help identify where the source of a problem may be**

Supplier Approval & Management Process:

Supplier approval inspection vs
technical standards



Material inspection vs specifications



Supplier management - Repeat
inspection vs technical standards



Continuous material appraisal vs
product & process specification

Traceability

Industry Guidelines

- ⊕ **European Chilled Food Federation (ECFF)**
 - ⊕ **Manufacturing guidelines – based on 1993 CFA Guidelines**
- ⊕ **UK Chilled Food Association (CFA)**
 - ⊕ **'CFA Guidelines' 3rd edition**
 - ⊕ **High Risk Area Best Practice Guidelines 2nd edition**
 - ⊕ **Packaging Hygiene Guidelines**
 - ⊕ **Water Quality Management Guidance**
 - ⊕ **Microbiological Guidance for Growers**
 - ⊕ **Pesticides Due Diligence**
 - ⊕ **Hygienic Design Guidelines**
- ⊕ **SYNAFAP (French Ready Meal Manufacturers Assn)**
- ⊕ **BRC Food Technical Standard**
 - ➔ **Global Food Safety Initiative**

CFA Guidelines - Hygiene Areas

Key concern: **CROSS CONTAMINATION!**

⊕ GMP Area

- ⊕ **raw** ingredients/components, packed final product

⊕ High Care Area

- ⊕ **raw + cooked** composite products
- ⊕ aim is to minimise contamination

⊕ High Risk Area

- ⊕ **fully cooked** ingredients/products only (6D process)
- ⊕ aim is to prevent contamination

High Risk Areas

- ⊕ **Segregation from non-HRA**
- ⊕ **Total exclusion of raw ingredients/components**
- ⊕ **Personnel**
 - ⊕ Operatives, cleaners, service staff
 - ⊕ Specially selected, trained, instructed
 - ⊕ Specified changing procedures: clothing, footwear
 - ⊕ Handwashing guidelines
 - ⊕ Enter/leave through designated areas
- ⊕ **Areas**
 - ⊕ Physical barriers: cookers at GMP/HRA boundary
 - ⊕ Separate equipment & utensils
 - ⊕ Filtered air

Summary

- ⊕ Framework of general and POAO European hygiene **legislation** **but not specific to chilled products**
- ⊕ Absence of European temperature legislation, but also generally lack of intracommunity trade in chilled products
- ⊕ High degree of industry **self-regulation** using **HACCP**-based trade body guidelines
- ⊕ Close **partnership** of manufacturers and retailers in most successful markets
- ⊕ **Controls and traceability** from farm to fork
- ⊕ **Investment** in technology for safety underpins innovation