Food Protection and Convenience

- Trends in Household Packaging

Thursday, 27 November 2014, 9.30 am, Campden BRI

10.00 – 10.15	Welcome from Martin Rogall, Cofresco Forum
10.15 – 10.30	Welcome and introduction to Campden BRI by Bertrand Emond, Membership and Training Manager Campden BRI
10.30 – 11.00	**"Overview of interactive packaging trends"** David Potter, Commercial Director, Interactive Product Solutions, UK
11.00 – 11.30	**"Processing new materials for packaging"** Prof Noëlle Billon, MINES ParisTech, CEMEF, France
11.30 – 11.45	Break
11.45 – 12.15	**"Designing packaging that delights more customers and frustrates fewer"** Rob Morland, Cambridge University, Centre for Business Innovation, UK
12.15 – 12.45	**"Allergens. A growing challenge"** Dr Helen Brown, Campden BRI, Biochemistry Section Manager, UK
12.45 – 13.30	Lunch
13.30 – 15.30	Practical Sessions Eye Tracking – Re-heating Instructions – Packaging Testing – Inclusive Design
15.30 – 16.00	**"Antimicrobial packaging: Increasing food safety and shelf life of meat and meat products"** Florian Brodkorb, Plastics Technology and Macromolecular Chemistry, FH Münster, Germany
16.00	Closing remarks/get-together

Chairperson

Robert Broughton
Product Safety Manager - Amcor Flexibles

Curriculum Vitae

Robert has a degree in Chemistry from Cambridge University and since graduating in 1976 has had continuous employment in the flexible packaging industry, mostly in technical roles.

He was originally employed at the Midsomer Norton, UK site of Mardon Flexible Packaging (later Lawson Mardon Packaging then Alcan Packaging). He was Food Contact Manager Europe for Alcan Packaging when they were bought by Amcor in 2010 and he took on his current position.

His role requires extensive knowledge of existing and forthcoming food contact legislation, transferring this into company guidelines, ensuring these are conformed with and communicating with suppliers, customers, trade associations etc.

He has chaired the Technical Committees of both the UK Packaging and Films Association (PAFA) and Flexible Packaging Europe (FPE).

“Overview of interactive packaging trends”

David Potter
Interactive Product Solutions, Walton-on-Thames, UK

Curriculum Vitae

David Potter has an Honours degree in Metallurgy and Materials Technology and a wide business background ranging across senior management positions in industries including Electronics, Engineering, Education and Finance.

Latterly he has focused on ‘disruptive technologies’ and developed wide experience & practical knowledge of RFID, intelligent packaging, nanotechnology, printable electronics, augmented reality & anti-counterfeiting technologies. This background has led him to help form Interactive Product Solutions Ltd as a system integration company delivering practical solutions to Global Brand requirements.

Abstract

The age of the smartphone, together with technological innovations such as printable electronics, augmented reality and near field communications (NFC), offer significant potential for food, health and wellbeing brands to develop interactive packaging which establish channels of direct communication with consumers, enhancing both nutrition and brand values.

This session will explore the latest consumer trends, technological developments and discuss how brands can realise the potential of experiential packaging.

“Processing new materials for packaging”

Noëlle Billon
Mines-Paristech – PSL Research University – CEMEF (Centre for Materials Forming) – Sophia Antipolis, France

Curriculum Vitae

Noëlle is a full Professor at Ecole des Mines de Paris, one of the leading engineering schools in France, and head of the research group “Physical Mechanics of Industrial Polymers”. Her research activities include the mechanics of polymers from rubbery state to glassy state, experimental characterisation, constitutive modelling, relationships with crystalline microstructures and application to thermoforming, film stretching and injection stretch blow moulding. In the course of her career, Noëlle has published extensively and is a sought-after speaker.

Abstract

Polymer processing is far from being only the shaping of a part. From the material point of view, it allows texturing and controlling of the microstructure. This microstructure will hopefully meet complex and demanding requirements for the final packaging. From the description of the different steps of usual polymer processing for packaging, such as thermoforming and ISBM, the lecture will consider the physical aspects that are involved. After a rapid overview of what we’ve learnt from past polymers, the focus will be on the necessary steps to be taken before new polymers, i.e. bio-based biopolymers, can be used for packaging.

“Designing packaging that delights more customers and frustrates fewer”

Rob Morland
Cambridge University, Centre for Business Innovation, UK

Curriculum Vitae

Rob Morland is a Communications Engineer with over thirty five years’ experience working across the European fixed and mobile communications industry. He is a Chartered Engineer, Fellow of the Institution of Engineering and Technology and a European Engineer.
Rob started his career with Philips designing custom ICs for use in telephony products before joining PA Technology in 1981 to work on a range of communications projects for clients across Europe. He helped Racal (subsequently Vodafone) launch the UK’s first cellular communications network in the mid-1980s and directed the £130 million Alvey VLSI collaborative research programme at the end of the 1980s. He joined the Generics Group (now Sagentia) in 1989 to develop a range of consulting business opportunities in the electronics and telecommunications sectors. He has designed market, service and product strategies for European operators and suppliers of electronics and telecommunications systems, and worked with major corporations on new business development and strategic problem-solving assignments.
Rob ran the international business of wireless local loop startup company Ionica at the end of the 1990s before returning to Generics as Director of the Communications Technology Division in 1999. Up to the end of 2005 Rob was Director of Sagentia’s telecomms and media business, where he further developed his links into leading European and Japanese mobile operators, handset vendors and silicon suppliers. During this time his division worked with the University of Cambridge to carry out one of the world’s first ‘Exclusion Audits’ for the UK government on digital TV set top boxes. He subsequently led the development of an Inclusive Design centre of excellence within Sagentia, delivering user experience programmes for Vodafone and others.
In 2005 Rob founded a spinout company from Sagentia in mobile-media interactivity, which was successfully sold to a group of Dutch media industry investors in 2007. Rob served as Managing Director of the company during its first two years of growth. He handed over to a successor in late 2009 in order to start his own company, Astutim, which specialises in helping companies make money out of technology.
An important part of Rob’s work includes the selling and operation of industry consortium programmes, working with the Centre for Business Innovation (CfBI) in Cambridge, UK. These programmes operate over twelve months and give major European companies the opportunity to come together with their peers from other industries to work on key issues and challenges facing their businesses. Rob runs consortia in Social Media for Business and Inclusive Design, the latter being delivered in partnership with the University of Cambridge Engineering Design Centre. Now into its second programme, the CfBI Inclusive Design Consortium has had members including Nestlé, Marks & Spencer, the BBC, Transport for London, Roche, Heathrow Airport, Beyer Schering, RBS, John Lewis, P&G, Stora Enso, Morphy Richards, Bosch and Siemens.

In his spare time, Rob drives and fires passenger trains on the Talyllyn Railway in Wales and is a Trustee of the A1 Steam Locomotive Trust, for which he designed and built the electrical system for “Tornado”, the first new express passenger steam locomotive to be built in the UK since the 1960s.

Abstract

There are already 130 million people over fifty years old in the European Union – by 2020 one in two European adults will be over this age. The demographic change of an ageing population brings a major opportunity for companies to develop products and services that better meet the needs of this growing and affluent sector. But designing products, and their packaging, that this population loves to use is not easy.

Most UK organisations are familiar with their obligations under the Equality Act towards people with disabilities. But this applies only to those who have a "physical or mental impairment that has a 'substantial' and 'long-term' negative effect on the ability to do normal daily activities". What about the millions of other people, especially the elderly, who don't meet this criterion, but still suffer from multiple minor impairments to vision, hearing, dexterity, mobility or cognition? For these people, many products and their packaging are a source of continuing frustration. In too many cases they will avoid buying products whose packages they find difficult or impossible to open without help from tools, or friends.

Most packaging designers are young and suffer from none of these impairments. How can they put themselves in the shoes, or more correctly in the bodies, of people three times their age? This presentation provides an answer that has already worked for the likes of Nestlé and BT. It could work for you too.

The University of Cambridge Engineering Design Centre (EDC) is one of the world's leading design research groups and has worked for more than ten years to achieve a comprehensive understanding of what it takes to design inclusive products. With sponsorship from BT and others, the EDC has developed a practical Inclusive Design Toolkit which includes all the resources needed for designers to create products that will delight more consumers and exclude as few as is reasonably practical for the product concerned. Working together with the EDC, the Centre for Business Innovation has launched and run two consortium programmes for leading companies around Europe that want to learn how to design inclusive products and packaging which will help them capture increased market share by delighting more customers and frustrating fewer.

“Allergens. A growing challenge?”

Dr. Helen Brown
Campden BRI, Biochemistry Section Manager, UK

Curriculum Vitae

Helen Brown is the Leader of the Biochemistry Section in the Chemistry & Biochemistry Department at Campden BRI, the world’s largest independent, membership based, food research and innovation organisation.

Helen obtained a BSc from the University College of Wales, Aberystwyth and a PhD from the University of Exeter whilst working at the Institute for Marine Environmental Research in Plymouth. She moved to Campden BRI where she has worked for 30 years.

She is currently responsible for three Groups, each undertaking research and providing contract testing, consultancy and training in the areas of: food allergen testing; food authenticity testing using DNA based methods; and the impact of processing and storage chemistry on food quality.

Helen’s work has covered the use of allergen tests to assist the food industry in allergen management and the assessment and comparison of available methods for food allergen testing. A key focus has been on the validation of cleaning to remove allergens - including the preparation of Campden BRI Guidance documents and the provision of training courses to the food industry.

Abstract

Food allergy or food intolerance is an issue that affects a large number of people. According to a recent YouGov survey (Sept 2014), over one in five of the UK population consider themselves to have a food allergy or intolerance. Nearly a third of households in the UK are affected as they contain someone who has a food allergy or food intolerance. The consequences for the individual and the household are the same regardless of whether the condition is medically or self-diagnosed.

Avoidance of food products containing the allergen is the main way to manage food allergy/intolerance. In some households this means that everyone in the household adopts the same behaviour as the sufferer and avoids the food to which the individual in the household is allergic or intolerant. However it appears that the majority of households, ‘fit’ around the individual with the allergy or intolerance, eating the foods they want to eat rather than all adopting the behaviour of the allergy sufferer. The household is challenged to ‘manage’ the food ingredients and products containing the allergens. The challenges include preventing cross contamination during food preparation and serving, thorough cleaning, and avoiding accidental use of ingredients due to poor or incorrect labelling.

Food packaging plays an essential role in the containment and segregation of allergen and non-allergen containing ingredients. Considerations of the requirements of households that contain food allergy or intolerance sufferers present opportunities for food packaging innovations.

“Antimicrobial packaging: Increasing food safety and shelf life of meat and meat products”

Florian Brodkorb
Labor Kunststofftechnologie und Makromolekulare Chemie, FH Münster, Germany

Curriculum Vitae

Florian Brodkorb holds a masters degree in Applied Chemistry from the University of Münster. Before taking up his university studies, he completed an apprenticeship as a chemical technical assistant (CTA) and attained advanced technical college entrance qualification at the Adolph-Kolping- School Münster. In 2002, he worked at the Synthetic Inorganic Chemistry Department of the University of Cardiff (Wales, UK) as part of an internship. He has been working at the Laboratory for Instrumental Analysis at the University of Applied Sciences Münster since completing his master thesis there titled: “Investigation of the degradation of electrooptic active materials”. Florian’s research topics include PhOLEDs, HTL layers and anti-microbial polymers.

Abstract

Food spoilage is mainly caused by microorganisms. Active packaging that reduces the growth of germs can improve food safety and extend the shelf life of products.

This lecture will present approaches for antimicrobial packaging concepts. Antimicrobial systems currently being developed focus mainly on low-molecular and thus migration-capable substances. The practical use of such concepts, however, is often inhibited by their low microbiocidal effect at refrigerator temperatures (4 °C) or changes in the odour and taste of the food.

Intrinsically antimicrobial polymers represent a novel approach. In the *Safe Pack* project funded by the German Federal Agency for Agriculture and Food (grant number 2816803411), intrinsically antimicrobial polymers are tested for their suitability in packaging systems. Polymers are investigated that kill microorganisms by combining highly hydrophobic and polar groups. The polymers developed so far display a good level of efficiency against a broad spectrum of germs – also at refrigeration temperatures. The aim of the project is to develop an intrinsic antimicrobial packaging solution for the self-service area in order to improve food safety and extend the shelf life of packaged food. The material profile of the antimicrobial polymers is currently being adapted to the individual components of the packaging (barrier film, thermoformed trays and absorbent nonwoven inserts).

The production of compounds from standard polymers with biocidal polymers is a further approach. These compounds can be used to produce shaped bodies, films and fibres for the respective application areas. In particular, film extrusion represents an economically attractive approach for the production of food packaging considering the low layer thicknesses of microbiocidal film required.

Cofresco Forum

Cofresco Frischhalteprodukte GmbH & Co. KG founded the Cofresco Forum in 2001. Originally named “Cofresco Institute”, the internationally aligned Forum was founded with the aim of driving research in the field of household packaging for food.

The first few years were dominated by the establishment of a network of researchers and research institutions. These activities were supported by the presentation of the Forum’s own research award

Various research projects have been funded over the years. The spectrum of topics ranged from active packaging and alternative food storage methods, to product applications which are easier to use, and environmentally friendly packaging.

This has resulted in the creation of an international platform for scientists and other interested parties which has presented and discussed a variety of ideas and research approaches in this particular field and led to the further exchange of ideas and concrete projects.

This website serves as a key instrument of the Cofresco Forum and aims to initiate further interesting and individual cooperation projects. However, the Cofresco Forum also attaches great importance to personal meetings between members of the network. A major element of the Forum’s work will therefore be the regular hosting of scientific round-table meetings on the subject of household packaging for food.

The Cofresco Forum website is not only a research tool for experts in the field of packaging and food science, but offers them an opportunity to present their work and exchange ideas. The topics are wide-ranging: from nutrition in connection with packaging, to the preparation and storage of food, as well as innovative packaging materials and technologies. Other areas of interest range from sustainability and health, to legal regulations.

About Cofresco

Cofresco Frischhalteprodukte GmbH & Co KG is Europe's leading brand manufacturer of home solutions for the fresh-keeping and storage of food as well as household waste disposal. Founded in 1996, the company is headquartered in Minden, Germany and is a joint venture between the German Melitta Group and the US-based S.C. Johnson Inc.
Cofresco operates four European subsidiaries: Cofresco Iberica in Spain, Cofresco Polska in Poland, Cofresco RusCom in Russia and Domofoil GmbH & Co KG in Germany. Cofresco employs around 300 employees across all five companies.
At its manufacturing facilities in Minden (Germany) and Brodnica (Poland), Cofresco produces household films and foils under the brands Toppits®, Handy Bag®, Albal®, Glad® and PrimaPack®. The company is among the leading suppliers in 15 of the 25 European countries in which Cofresco products are currently distributed. Cofresco products can be found in 70 million European households, with more than 3.5 billion uses per year.
The extensive Cofresco product range offers home solutions for the optimal storage and preparation of food, as well as for responsible waste disposal and safe household storage.
Cofresco Frischhalteprodukte GmbH & Co. KG is headquartered in Minden, Germany. The company has been led by Pieter van Halewijn since 1 February 2013.

Facts & Figures

Headquarters: Minden
Production: Minden (Germany), Brodnica (Poland)
European subsidiaries: Spain, Poland, Russia
Investments: Comital Cofresco S.p.A., Italy
Employees: 300
Products: Products made from plastic, paper and aluminium for fresh-keeping, baking/roasting, freezing
Brands: Toppits®, Albal®, Glad®, Handy Bag®, PrimaPack®
Core markets: Germany, France, Scandinavia, Spain, Austria
Most important trade partner: Food retail

About Campden BRI

Campden BRI is the UK's largest independent membership-based organisation carrying out research and development for the food and drinks industry worldwide. It is committed to providing industry with the research, technical and advisory services needed to ensure product safety and quality, process efficiency and product and process innovation.

The R&D programme reflects needs identified by industrial members and provides a constantly renewable knowledge base for technology transfer. A continuous programme of investment ensures leading-edge processing and analytical facilities for research and contract work. Campden BRI maintains close working relationships with industry through frequent meetings with its thirteen member interest groups.