

Rank	Need	Examples of need / requirements
1	Coatings & Barrier materials for packaging	Coatings & Barriers for packaging ; Simple, sustainable protective coatings; low energy curing of coatings enhanced coating adherence; Corosion Inhibitors Coatings to prevent migration through packaging, ideally selectively printable Coatings & Barrier materials for packaging Moisture Barrier Technologies Barriers fo oxygen and CO2 Sealing solution to reduce moisture immigration within a composite system Multi layer injection, blow and thermoforming. Label barrier packs.
2	Reduce sugar in beverages and food	Process development - recipe etc Sugar content vs sweetness experience Solutions in sugar reduction Lowering sugar content retaining sweetness level, low calori sweeteners Lowering sugar in products solutions in sugar reduction Lowering sugar in products
3	New, sustainable or compostable packaging materials	Renewable / Compostable packaging Renewable material for packaging, e.g. glass bottle replacement, PET replacement - Sustainable, sourced, raw materials; Bio derived food compatible polymers New, sustainable or compostable packaging materials Alternative Materials to Polyethylene Coated Paperboard for Freezer Applications Innovative and environmentally friendly new mono material film materials for packaging ready-to-heat (RTH) foods
4	Solutions in calorie reduction / Non-caloric	Process development - recipe etc Natural Calorie Reduction / Zero calorie, Great Taste Solutions in calorie reduction / Need Non-caloric Lowering sugar content retaining sweetness level, low calori sweeteners Total calorie reduction without affecting taste solutions in calorie reduction
5	Natural / Clean Label Ingredients (esp colours, preservatives & raising agents)	Natural / Clean Label Ingredients (esp colours) Natural anti-oxidants Label-Friendly Yeast and Mold Inhibitors Clean label presevatives Natural red colour for foods & Green colour for herbs and vegetables: a food-grade technology that we can use in products that contain herbs and vegetables. It must be natural (not artificial), work over a twelve-month shelf life and be cost-effective. Ideally the technology is i.e. applies to various sorts of herbs and vegetables. Alternative raising agents for baked goods - clean label
6	Lightweighting / packaging materials reduction	Lightweighting Lightweighting / packaging materials reduction Reduction in Packaging Material used in Cartons; Reduction in Packaging Material used in Shipping Containers; Substantial Package Weight Reduction without Sacrificing Performance interest Lightweighting is an integral part of all design work Better packaging: - multipurpose; lightweight; cost effective & sustainable
7	Reduce fat / Sat Fat	Process development - recipe etc Solutions in fat / SAFA reduction Reduced fat for fried crumb Lowering fats in products Lowering fats in products
8	Food Preservation & Extended Shelf-Life	Extended Shelf life espially focused around regulatory driven challenges e.g. sulphites. Also focused around stability of active ingredients e.g. minerals and vitamins Novel processes for preserving nutritional value of products Technologies for Food Preservation Reduction of Enzymatic Darkening in Chilled Dough Multi layer jars, bottles and thermoforming for extending shelf life
9	Materials, formulation or processing to deliver desired food properties	Reduction in Tortilla Sticking through Raw Materials, Formulation or Processing Technology to enable the production of a high quality evenly weighted product with a soft core; Method of incorporating particulate inclusions within an aerated product "Soft" deposit of breaded product (so crumb not lost) adavantaged pellets Advances in bio processing - to deliver new and advantaged wholesome materials (including new sources of protein), cost, taste, texture benefit in baked goods
10	Novel opening, closing, sharing and portioning technologies for enhanced consumer packaging interaction	Novel opening, closing, sharing and portioning technologies for enhanced consumer packaging interaction Novel opening, closing, sharing and portioning technologies for enhanced consumer packaging interaction Novel closure Injection and thermoformed portion packs Novel and cost effective portion pack & Sharing designs for Baked Goods category
11	Self cooling / heating container	Self cooling container Self-cooling can and self-heating can Sefl cooling self heating Self cooling container (same as Bacardi)
12	Easy open / Convenient packaging (eg for elderly / impaired)	Easy open / Convenient packaging (eg for elderly / impaired) Easier opening or Closing of metal packaging Novel opening, closing, sharing, and portioning technologies for enhanced consumer packaging interaction Full design facilities available alternative closure mechanisms and resealable packaging
13	Fibre fortifications	Process development - recipe etc Beta glucan oats and oats/Barley fractions Increasing nutritional value content in processed food Increasing nutritional value content in processed food
14	Lowering salt in products	Process development - recipe etc Methods and technologies to reduce salt content in products without impacting taste Less Salt: salt alternatives, technologies that address sensory and taste perception; tools and devices to help educate consumers; methods that could be used in professional kitchens Less Salt: salt alternatives, technologies that address sensory and taste perception; tools and devices to help educate consumers; methods that could be used in professional kitchens
15	Altering taste	Keeping taste and managing cost Keeping taste and managing cost Low Water Activity Date Paste flavour solutions
16	Novel Sweeteners	Novel Sweeteners Pre mix food solutions New low calori sweeteners novel beverage sweetners
17	Oxygen Scavanging / minimisation	Oxygen Scavanging High Speed Packaging with Low Residual Oxygen Materials with oxygen scavanging properties incorporated into pack Fresh produce applications
18	On-line printing	Industrial digital printing capability: wood/card/plastic/paper/textiles etc On-line Multi-Color Film and Carton Printing online printing In store or at manufacturer
19	Process monitoring	Low-cost sensor technologies. Online sensor for mycotoxin content. (Already have: Online sensing platforms for particle size, moisture, protein, ash, and other for various processes.) Rapid analysis method to determine ice crystal size in frozen foods solids measurement On-line monitoring of Manufacturing performance
20	Sorting, Scanning and Vision Systems for High Speed	Novel technologies for high-speed - product feed, - defect detection, - ejection. (To complement Sortex Optical Sorter Range) Scanning and Vision Systems for High Speed Seeking Innovative Methods for Size Sorting Small Tri-Axial Ellipsoids solids measurement

21	Food grade packaging materials	Food grade packaging materials Food grade colours for use in inkjet printers, especially white and green Food grade packaging materials Large supplier to the food industry
22	Low-energy processes / Energy recovery	Energy recovery for low grade heat. (Already have solutions in Energy recuperation in drying processes.) Low-energy processes / Energy recovery Low energy methods for producing fine powder mixtures Energy recovery solutions from low grade heat
23	Packaging interacting with consumer	interest in such technologies Dispensing, handling and storing Personalisation of offers via packaging
24	Technologies offering enhanced consumer interaction	eg sensation / perception altering coatings for metal packaging Dispensing, handling and storing Edibles
25	Digital Technologies for Marketing & Ecommerce	Emerging Digital Marketing Technologies interest in such technologies Digital Technologies to Enable Mobile Marketing & Ecommerce of Consumer Food Products
26	New sources of Protein	Related processes Chicken protein for health drink new and advantaged wholesome materials (including new sources of protein)
27	Anti-counterfeit technology	Embedded anti-counterfeit image technology, non visible to users. Needs "app" to identify. Anti-counterfeit technology interest
28	Traceability solutions	Tracking of metal packaging through suply chain Traceability solutions interest
29	Printing on food & 3D printing of food	Novel technologies & processes Conversation about printing on food at extrusion product Printing barcodes direct
30	Product optimisation for microwave cooking	Food Grade Edible Materials that Reflect Microwaves Fresh microwavable crumb (that delivers oven baked experience) Microwave benefits ?
31	Reclosing / resealing technology for packs (including metal beverage cans & baked goods)	Reclosing technology for metal cans (beverage) Reclosing technology for metal cans (beverage); Economic, resealable packaging solutions for Baked Goods category
32	Bacteria control / life extension in Packaging	Bacteria control / life extension in Packaging Technologies for Food Preservation Bacteria control in MAP Packaging for fresh poultry products - life extension
33	Solutions for low / fossil-free energy & storage	Solutions for low / fossil-free energy & storage Solutions for fossil free energy need to find small-scale energy storage systems that keep releasing power when, for example, the sun has gone down or the wind has stopped blowing.
34	Mobile technology	Innovative applications of mobile technology to drive impulse purchase Innovative applications of mobile technology to drive impulse purchase
35	Understanding emotions that effect consumer behaviour	Understanding emotions that effect consumer purchasing behaviour interest in such technologies
36	New media channels	New tools for B2B marketing & communication Any information on consumer behaviour (relating to packaging) is helpful
37	Cheap bulk ingredients (for food)	Cheap bulk ingredients (for food) waste to worth
38	Reduced food waste through full utilisation of natural products	Novel processes Utilisations of bi-products from chicken
39	Control of contamination in Food Processing	Inactivation technologies, e.g. steam pasteurization or sterilization of low-moisture food. Cleaning technologies: Reduction of mycotoxins in food commodities through cleaning and sorting. WANT: New approaches for inactivation and cleaning. Control campylobacter in chicken products
40	Ingredients which enable exercise & recovery	Balanced Energy Soft drink applications
41	Solutions for incorporating healthy ingredients	And other active ingredients Solutions for Incorporation of Whole Grain into Wheat-Based Baked Goods
42	New mouthfeel sensation / novel texture	New mouthfeel sensation and broader sensory expriences Alternative raising agents for baked goods - novel texture
43	Consistent, safe cooking	Temperature Control of Food During Microwave Heating & "Perfect every time" BBQ chicken (via packaging, control or ingredients)
44	Preserving food, naturally - especially colour	Preserve colour of natural ingredients Ways to achieve broad spectrum anti-microbial stability. We'd like to achieve that naturally - specifically in the aqueous phase of water in oil spreads, oil in water emulsions, and intermediate moisture foods for savoury applications.
45	Novel speciality food ingredients & systems	New technologies in vegetable oils (e.g. clearec processes) novel beverage ingredients
46	Moisture management	Low Water Activity Date Paste Solution to Reduce Moisture Migration within a Composite System
47	Pack tracking & anti-theft technology and systems	Anti-theft tags which work on metal Unique pack tracking technology and systems
48	Platform Technologies for food ingredients	efficient de hydration for health
49	Tooling & Technology for Agile Manufacturing	Tooling & Technology for Agile Manufacturing vacuum cooking
50	Technologies for material forming, joining & shaping	Technologies for metal forming, joining & shaping injection molding foods