Packaging Mega Trends 2009

Packaging Magazine has collaborated with the Australian Institute of Packaging to identify the Packaging Mega Trends of 2009.

Australian Institute of Packaging National Technical Forums

Wed 17th & Thurs 18th June 2009
Sydney Show Grounds
Alongside AUSPACK 2009

1. Sustainability
2. Bioplastics vs traditional plastic
3. In store merchandising
4. Private Label
5. Openability
6. Surefresh Carton technology
7. Contract packaging

Sustainability

Packaging sustainability is a complex, many-faceted subject where a well-meaning single-issue focus could do more harm than good. Director of the product stewardship consultancy MS2 Russ Martin maintains over-emphasising recycling rates or energy in isolation could cause other opportunities to be overlooked. “Australia’s National Packaging Covenant already encompasses broader sustainability concerns across the full life cycle of packaging; however, these concerns have generally been overlooked due to attention on the 65 per cent recycling target for 2010,” he says. “Most stakeholders support an extension to the Covenant while reflecting broader sustainability concerns such as energy, greenhouse and water.”

“The market has decided that carbon risk is an essential issue and is moving forward strongly to reduce risk through properly pricing and reducing carbon exposure,” Martin says. “Carbon risk is affecting not only input costs (particularly for aluminium and plastic), but also credit quality, asset valuation, exposure to overseas policies, trade practices and exchange fluctuations.”

As with recycling rates and carbon footprint, Martin believes ‘food miles’ can be used to paint a negative view of packaging industry practices when provided without the full context. “Basing procurement decisions on minimum food miles could be counter-productive,” he says. “It may well be better to ship in foodstuffs from faraway countries where the climate is better suited to them than to create the right conditions artificially.”

“Globally, retailers such as Wal-Mart and Tesco have been driving significant changes in packaging along the supply chain. However, there is a risk that retailer requirements are conflicting about preferred options and might be more difficult for suppliers to cope with than legislation would have been.”

According to Martin, ‘Choice editing’ is being heard in Europe, with legislators expecting retailers to stop selling items deemed to be bad for the environment. “If choice editing comes about, the probability is high that it will be based more on public opinion (as formed by media comment and NGO pressure) than by any objective assessment of packaging’s environmental impact,” he warns.

“Real sustainability requires innovation to develop comprehensive solutions across the supply chain that address social, economic and environmental components,” Martin says. “For example, reprocessing glass fines from recovery facilities can help to ensure recycling of the 50-60 per cent of collected glass that would otherwise be lost because it’s too small for bottles. Similarly, reprocessing glass fines for localised secondary markets could provide significant life cycle benefits and reduced costs compared to collecting and shipping heavy materials halfway across the country in the name of ‘closed loop’ recycling.”

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Dr Karli Verghese, Manager Sustainable Products and Packaging Centre for Design RMIT University believes Companies will increasingly need to demonstrate the environmental impact of their packaging designs and formats and how these have been reduced. “This can be achieved using life cycle assessment,” she says. "The Packaging Impact Quick Evaluation Tool (PIQET) developed by the Sustainable Packaging Alliance (SPA) in Melbourne is increasingly being used by brand owner companies and retailers as well as packaging manufacturers and suppliers. I believe that it will become an industry standard for the sector and provide an avenue for life cycle thinking to be embedded within the packaging development process."

Dr Verghese says achieving sustainability requires a holistic approach. "You can't undertake one aspect, such as recycling, in isolation from the others because they are too interlinked. Sustainability must be the overarching principle to work towards. There must also be policy direction and systems put in place that provide the tools for decisions to be made effectively at design concept stage."

Bioplastics vs traditional plastic

The plastic industry agrees, Bioplastics should not be seen as competitive with conventional plastics, rather as complementary. "Many applications are well served by conventional petrochemical based plastics and will continue to be well served by them in the future," says Warwick Hall, Divisional Manager, Specialty Polymer and Biplastics at Plastral. "There are some applications where there are particular disposal and litter requirements where the properties of bioplastics offer advantages. The reduced cradle to grave environmental impact of bioplastics compared to conventional plastics will increasingly be seen as beneficial. As the raw material inputs for conventional plastics increasingly change from petrochemicals to renewable resource feedstocks, the differentiation between conventional plastics and bioplastics will fade."

Bioplastics are generally defined as plastics partly or fully derived from renewable resources and which are compostable and biodegradable. Increasingly, durable plastics are being derived from renewable resources. An example is polyethylene being produced in Brazil from a sugar cane resource. The polyethylene is no more or less biodegradable than petrochemical sourced polyethylene.

In recent memory, traditional plastics have predominantly been petrochemical based. This is changing with renewable resource feedstocks being used to produce engineering plastics, elastomers and commodity resins like polyethylene. "We will see little if any difference in the properties of the renewable resource products compared to the petrochemical resourced products while the reliance on oil and its by-products will be reduced," Hall predicts. "Overall, there will be greater attention to product identification and recycling of both traditional and bioplastics."

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The largest applications for bioplastics to date have been in single use disposable applications like the collection of compostable waste and packaging of food and other products. New disposable and durable applications are developing because the range of bioplastics available today is broad. "Build up of plastic waste in the oceans of the world is a widely recognised problem and bioplastics will help address it," Hall says. They will also reduce our dependency on oil."

According to Hall, our future challenge with all plastic materials will be feedstock. "Petrochemical based plastics are derived from oil which is a diminishing resource in a market of expanding demand," he says. "Bioplastics have mostly been developed using grain and vegetable oil feedstocks. New feedstocks are being developed including using the by-products from agricultural activity. Plants will be bred which can directly produce bioplastics. At the same time the performance properties of bioplastics are improving to the point where the requirements of many more applications and processing methods can be met."

Companies such as Plantic Technologies Limited and NatureWorks are producing plastic alternatives from renewable feedstocks that are also compostable and biodegradable. They say while it's unlikely their product will supersede traditional plastics in the short term, there's virtually no industry that can't be enhanced by their products. Plantic Technologies is currently developing a variety of film derivatives to meet a wide range of flexible packaging applications, particularly for the food and industrial markets says the company's Fleur Wilkins, while NatureWorks is pursuing both durable and single use applications for its polylactide Ingeo.

"Also in development are Plantic-based films for water flushable applications in the household and personal care sectors," Plantic's Wilkins says. "These are especially important where water dispersibility is required, and in wet environments where functionality is required for a defined period of time."

"Whether the packaging materials are based on renewable or non-renewable resources, it is up to brand owners and retailers to select packaging materials based on merit, with functionality and end-of-life disposal top of mind," she adds.

"There's good reason that thermoplastics ranging from PET, PEN, PA, PP, PE, PS, to PVC, PC and ABS to name a few, are all out there with valid end markets," agrees Peter Clydesdale Asia Pacific Managing Director, for NatureWorks. "They all offer different properties."

"We see potential for significant growth of our "Ingeo™" polylactide within many of the segments where oil based resins serve, and at the same time, expect healthy markets for the incumbent resins to continue. It's obvious to us from our own growth rates, that there is plenty of room in the market for a material like Ingeo which is similar to the incumbents in some respects, yet comes from ‘somewhere different’, and offers options like composting and chemical recycle back to virgin polymer, depending on the application.”

In the bigger picture, Clydedale sees the use of renewably based plastics, gaining market share at the expense of fossil fuel based materials. “It’s obvious that the market is hungry for materials which perform well, while offering a better environmental pedigree,” Clydesdale says. “There are two routes here. The first, which NatureWorks has pursued, has been to commercialise new to the world materials from annually renewable feedstocks, such as Ingeo. This is obviously a nascent market, which is only just beginning to innovate and determine the best fit for the Ingeo’s physical properties and characteristics.”

“The second route is to use renewable feedstocks to produce well established plastics - plastics which have until now relied on fossil fuel feedstocks,” Clydesdale says. “Examples here are recent statements of intent from some of the big resin producers to commercialise polyolefins from renewable resources. Although the end use possibilities are nothing new and the recovery options after use are unchanged, we think this is a commendable approach as long as the environmental credentials of such materials are rigorously established and vetted.”

In store merchandising

Retailers and suppliers are pushing hard to understand shopper behaviour in-store to develop solutions that meet shoppers’ needs. According to UK based James Tupper, ECR Learning & Change Manager at IGD, the evidence of this can be seen in the increasing sophistication of information about shoppers using loyalty card data and in-store observation. “Retailers are encouraging suppliers to collect information in conjunction with their category knowledge to drive relevant merchandising solutions,” he says. “IGD Global research shows that more UK companies use shopper insight as part of their category planning process than any other country.”

Despite this, many primary packaging designs are based on brand values and targeted at the end consumer; failing to take shopper insights into account. “The role of primary and retail ready packaging in engaging the shopper is increasing as traditional media channels become diluted by digital and viral marketing,” Tupper says. “Companies need to work harder to raise brand awareness in-store through strong packaging visibility. This can go hand in hand with solutions that aid replenishment and increase on-shelf availability.”

In the UK Tupper says grocery industry tends to adopt a clear aisle policy, with fewer secondary display units, less signage and more focused point of sale messages. “This is in contrast to Asia and South America where there is a greater focus on in-store theatre, higher merchandising fixtures, brighter and busier signage which can be engaging but also confusing for the shopper,” he explains. “Understanding of shoppers needs to be translated into decisions across all the aspects of in-store merchandising.”

For example, IGD research shows that shoppers often ‘hug’ one side of the aisle and visually scan across it. Other research finds that shoppers tend to look slightly downwards when shopping. “In the UK this has led to an increase in the use of ‘bus stop’ signage at eye level to guide the shopper within the category,” Tupper says. “As shoppers recognise colour and shape more speedily than words, brand imagery is increasingly being used on category signage. Other developments include the use of TV monitors to communicate category or corporate messages, such as brand advertising, promotional activity and retailer information.”

Cross category merchandising is another tactic being used to provide ease of shop solutions, encourage impulse purchase and grow overall basket spend. For example, pre-packed ambient sauce units might be positioned at meat/fish chillers or snacks such as confectionery and drinks might be grouped with the DVDs. “A trend working well in Asia, but yet to gain traction in Europe, is the use of day-part-merchandising,” Tupper says. “Chilled space is utilised for a lunchtime offer of sandwiches and carbonated drinks, then substituted with ready meals and chilled alcohol in the evening. This is highly dependent on a disciplined replenishment process but provides an area of opportunity for ease of shop and fixture utilisation.”

In addition, James Tupper says on-

shelf availability is being improved by combining category performance data and shopper observation research. "This aids shelf capacity allocation by aligning product space to the velocity of stock turn," he explains. "A significant development in the last two years has been the increased use of retail ready packaging to improve shelf optimisation through better availability and replenishment."

Private Label

It was not long ago that private labels were regarded as a tactic by major Australian retailers. Today they are a strategic imperative for Australian retailers, an imperative which enhances profitability, retailer differentiation and enhances retailer share value.

"Private label value share in supermarkets has now passed 22 per cent," says Paul O'Brien, Private Label Manufacturers Association (PLMA) Member Services for Australia and New Zealand. "Five years ago it was a little over 12 per cent. This is unprecedented growth by any measure. We have now passed the USA in terms of Private Label market share."

"It's recognised that in tough economic times private label share accelerates," O'Brien says. "We're already seeing evidence of this in both USA and NZ and we can realistically expect a repeat of this trend in Australia. A further indicator of Private Label growth is the introduction of new SKUs. In 2007 Woolworths and Coles alone launched over 2000 new Private Label SKUs."

Consumer research reveals continued and accelerated acceptance of private labels by Australian consumers with ever increasing scores for repeat purchase and purchase intent. "We're now reaching a stage where consumers regard Private Labels as as good as brand equivalents. The massive growth of Aldi and the ever increasing emphasis by Australian retailers on the development of robust Private Label portfolios are in themselves unequivocal evidence of consumer acceptance. Another telling statistic is the ever increasing value of consumer private label basket purchases for average weekly shopping purchases."

O'Brien says the private label market in Australia is transitioning from a generic to a premium profile as Woolworths and Coles develop their middle tiers via 'Woolworths Select' and 'You'll love Coles' respectively. "This dynamic coupled with the continued growth of the Aldi portfolio is leading to more sophisticated packaging for private label which is being driven by a continued emphasis from retailers and consumers on quality products and presentations, and an increased emphasis on superior, innovative packaging," he maintains.

As a result, retailers are launching private label entries in more specialised categories to lift the value of their Private Label portfolio. "Less than ten years ago, private labels were confined largely to commodity categories and were positioned as generic by nature," O'Brien says. "Today private labels in Australia are driven by demands for quality, and impacting virtually every category. Overseas trends tell us this will continue."

Openability

Arthritis Australia CEO Ainslie Cahill believes the packaging industry must soon face up to the issue of openability. "According to the Australian Bureau of Statistics, 1 in 3 Australians (7.3 million people) will be aged over 50 by 2011," she says. "This age group will grow to more than 44 per cent of the population by 2050. The ageing population brings with it a range of economic and social changes, including increased chronic illness, such as arthritis, and disability. Baby boomers demand quality services and products and, as they age, will not tolerate products that don't meet their needs. This includes packaging."

"Unless manufacturers address the issue of hard-to-open, hard-to-read and hard-to-carry packaging, they stand to lose sales and suffer commercial consequences. A re-think of the way products are packaged should become a priority-for manufacturers and brand owners."

"In a recent survey of the UK market 50% of businesses had a clear three year vision for shopper marketing. For others the voice of the shopper still does not have as much influence as that of the consumer."

Industry veteran Emeritus Professor Harry Lovell says it's a misunderstanding to suggest openability is confined to the ageing or kids' markets. "Openability knows no boundaries, from the business man trying to open the foil packed cheese portion to the clam shell with a tool inside by a DIY enthusiast," he points out. "In the same context, arthritis is perceived to be a problem of the elderly when in fact it can affect children from four years onward into seniority. The elderly market will continue to grow, but this group is likely to be healthier as a result of better eating habits and going to the gym. This does not preclude them from having difficulties opening packs."

Lovell agrees openabilty isn't on the radar, when it should be. "Most companies don't currently see the benefit of going after this demographic, although there are signs of improvement," he says. "The perforations on the sides of breakfast cereal

packets appear to be better and the packs no longer crush inwards but break at the intended profile. In the plastics area we have some way to go, however as well as the ubiquitous beverage can."

Ainslie Cahill has a different view. "The packaging media and its industry groups have been paying more attention to making products easy-to-open," she says. "The number of inquiries Arthritis Australia has received from companies wishing to design easy-to-open products and packaging has increased significantly in the last twelve months. This has included students studying packaging who have taken a greater interest in this subject."

"There are several beverage and consumer goods manufacturers, including sporting, household, personal grooming, that are currently redesigning packaging, but Arthritis Australia is not permitted to name them," she adds.

Cahill argues there's a need for government, industry and consumers to work together to develop openability standards. "'Universal Design' is an approach which aims to create greater inclusion and openability for consumers," she says. "Its objective is to have manufacturers consider elderly and disabled consumers at the concept stage of products and packaging. Manufacturers can significantly increase sales by incorporating Universal Design concepts."

Harry Lovell warns suggestions of set of standards will send a shudder through the industry. "Legal requirements have been raised overseas so there are regulatory options, but one would hope that these would not be necessary," he says.

Surefresh carton board technology

Both carton and corrugated board offer an environmentally friendly, cost effective, light and yet strong packaging material option for the packaging of goods. New material and manufacturing processes are continually being developed to help deliver innovation in the fibre packaging arena, ensuring that these packaging solutions will remain the most practical packaging format for many decades to come.

According to National Development Manager, Amcor Fibre Packaging George Ganzenmuller FAIP, Amcor's latest material innovation is a family of functional laminates known as SureFresh®. Through the use of tailored high performance, ultra thin film/paper laminates, the SureFresh® materials deliver greatly improved packaging solutions, offer cost effective bulk tray options and a generational shift in point of sale product presentation.

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"The new laminates offer unparalleled water resistance and are FDA Food Contact Approved with the packaging solutions still able to be recycled through the standard corrugating waste streams," Ganzenmuller says.

"Traditional functional laminates have consisted of a paper/film/paper construction and offered considerable performance improvements over standard kraft and recycled papers."

Ganzenmuller believes SureFresh® is therefore the most cutting edge technology available. "It utilises a thin, glossy, water proof, scuff and tear resistant film/paper laminate to deliver an attractive material option which also has low elasticity to assist in minimising base sag in tray solutions," he explains. "As the packs have an external surface made from film, no special inks or adhesives are required."

Standard Surefresh® laminates are available in black and white. However, through the use of high quality film printing processes, Amcor has just launched an innovation known as Photo SureFreshTM. "High quality photographic quality artwork can now be applied to the film and is sealed within the laminate structure protecting the print and producing a high quality, high performance structure ideal for premium products in harsh environments," Ganzenmuller says.

"Surefresh delivers a quantum improvement in packaging performance, robustness and presentation. It also allows for substantial reduction in total materials required to fulfil a given application. It delivers tangible benefits in the delivery of goods through the supply chain and can be tailored to deliver clear product differentiation at the point of sale."

Contract Packaging

The growth of the Contract Packaging industry is a result of several major global changes, outsourcing, regionalisation and a tightening economy, all of which are interrelated. "Contract Packaging is a noteworthy trend, as the packaging industry must continually absorb global impacts," says Brad Devine, Managing Director of contract packaging company Creative Pack. "Outsourcing because it enables a company to focus on its core business; regionalisation because it enables products purchased cheaply elsewhere to be tailored to the local market, and the tough economy because it forces companies to become more innovative and flexible."

Devine says as the function of packaging becomes more important, the emphasis on contract packagers also increases, as they help convey a message and add value. "As the economy gets worse, contract packaging companies are booming," he points out. "We're seeing a changing trend in the market spend of Consumer Packaged Goods Companies (CPGs)- from above the line marketing to below the line sales promotion, such as in pack and on pack promotions, kitting, gift with purchase, multi-packs, trial/sample packs and direct mail. These have proven to be effective, low cost and measurable direct marketing strategies and they are all services offered by contract packers!"

According to Devine, companies must forge authentic buyer-supplier relationships marked by commitment and communication. "It's only through such relationships that competitive advantage can truly be achieved along with real added value and cost savings," he says. "The key to this is having enough trust in the partnership to involve the contract packer much earlier in the process. Contract packers can and should be driving product innovation. Earlier involvement will get products developed cost effectively, flexibly and innovatively, improving overall time to market."

"Many traditional CPGs still don't appreciate the value contract packers offer, and fail to open up to new ideas," Devine maintains. "A contract packer may specialise in one or two functional areas, but package a vast range of product. It's our exposure to product that makes us a wealth of knowledge and a great source of product innovation. Brand managers typically package one type of product and should call on their contract packers' depth of knowledge gained from the broader market. "

"Although the supplier is termed 'contract packer' it is unlikely we'll actually see companies enter into contracts," Devine adds. "Rather relationship behaviour will be marked by improved information sharing and power balance; shared investment in innovation; the supplier involved at earlier stages in a product's planning and development; establishment of cross-functional teams; cooperative cost management approaches; sharing of resources to develop performance capabilities and the establishment of mutual goals."