

# Bubbling over with innovation

In an increasingly fast moving and competitive marketplace, innovation in packaging continues to play a key role in new product development and branding in the global beverage sector.

**Canadean** has published a comprehensive report, which explores the market statistics and trends for the future, and also the innovations in beverage packaging techniques and materials.

**B**everage markets continue to become more competitive and sophisticated as manufacturers and marketers look to develop products to satisfy regional preferences, rather than adopting a 'one size fits all' approach. The industry is also increasingly addressing the specific needs of identified target segments based on a range of criteria including age, gender, lifestyle and purchasing power.

Packaging innovation is required to meet the varied and changing needs of all sections of the supply chain – from the manufacturer through to consumer – within an ever more demanding regulatory environment.

Against the background of global economic downturn and growing environmental awareness, much of the recent focus of packaging innovation has been aimed at cost reduction and more efficient use of scarce resources through developments in material specifications and reductions in pack weights. However, other influences are expected to take on greater importance as economic recovery strengthens. These include a greater consumer desire for convenience, improvements in the functionality of packaging and the requirement of suppliers to improve overall brand image and on-shelf presence.

## Packaging innovations

- Light-weighting – this has continued to feature strongly across a range of product pack types as manufacturers look to develop products that satisfy both environmentally conscious and cost-conscious demands. However,

opportunities for further reduction are likely to be restricted as the main advances have already been made.

- PET bottles – material savings of up to 25% have been achieved through engineering developments and using light-weight closures.
- Glass – regional and smaller brewers are looking to introduce lighter bottle grades.
- Beverage cans – the main focus of attention is on lighter weight can ends as further options on can walls are limited.
- Bottle cans – although bottle cans continue to weigh significantly more than standard beverage cans, moves to Drawn and Wall Ironed (DWI) technology will reduce pack weight.

## Material developments

- Biodegradable plastics – Coca-Cola's trials on "PlantBottle" demonstrate that this will remain a feature of new product development activity.
- RPET – this is an increasingly popular option, despite continued concerns over the availability and quality of recovered feedstock.
- Pouches – these are achieving some success as a 'greener' alternative to rigid plastics in some volume dairy products such as milk.
- Cartons – FSC certification in cartons is becoming the flagship for sustainability.

## Pack shape and design

- Panel-less bottles for hot-fill – technological/processing developments are focused on

extending sizes to small containers and very large sizes.

- Shaped/embossed cans – these are most suitable for premium products.
- Slimline/sleek cans – products packed in this way include premium beers and stylish/trendy products, or new markets such as energy drinks.

## Decoration

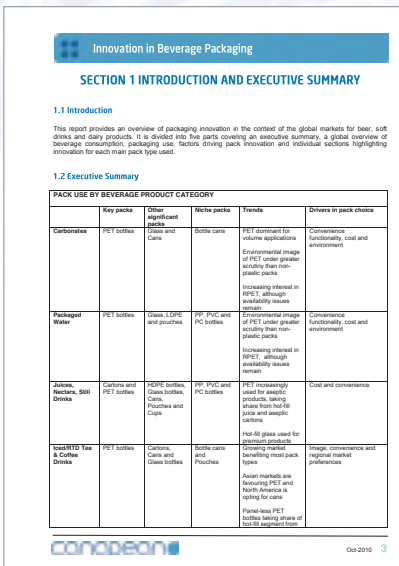
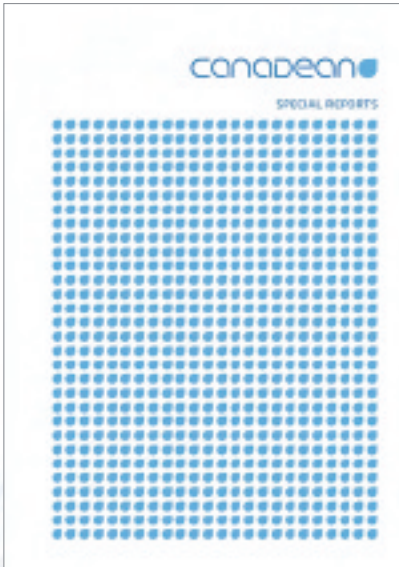
The industry has seen the further development of sophisticated printing techniques, such as thermochromatic inks, while developments in digital printing continue for short run printing for special events or more frequent pack changes.

High-impact printing on bottle cans is proving the ideal choice for premiumisation, and there is a focus on material use in labelling on both environmental and cost grounds.

## Innovations in packaging materials

PET bottles are the main pack type used for soft drinks and are widely used for multi-serve and single-serve applications. PET's light weight, functionality and good clarity ensure that it remains the main choice for standard brand volume soft drinks, such as carbonates and mineral water, although impact in the beer category remains limited. Improvements in hot-fill technologies, barrier PET and the development of panel-less bottles have offered new opportunities for PET as a glass replacement for premium products.

The main development activity centres on increasing the use of



Canadean's 'Innovation in Beverage Packaging, 2010' report is a comprehensive analysis of current innovations and future trends.

recovered PET, with the pace of change on this issue likely to be dependent on the relative price/availability of recovered materials and virgin polymer. However, Coca-Cola's announcement that its long-term plans are to develop a product based on 100% renewable/recyclable materials indicates that there is significant mileage for further development work.

Cans have a well-established position in the global beverage market and are an important pack of choice for the large volume markets of carbonated soft drinks and beer. The pack type has good environmental credentials in respect to recyclability, while significant efforts have been made in recent years

to introduce lighter grade materials without significantly impairing overall pack performance.

New product developments will continue to be devoted to improving decoration, with a particular emphasis on short run digital capabilities and improving re-sealability for 'on the go' consumption. However, bottle cans are also expected to assume greater significance, with future usage likely to extend beyond premium, niche applications to more mainstream brands as the technology develops.

Glass bottles are by far the most popular pack type used for beer packaging and overall usage continues to benefit from strong growth within developing markets in Asia.

While the product retains a good environmental image and a strong track record in recycling, its overall carbon footprint is adversely affected by an energy-intensive production process and high distribution costs related to significantly higher weights than those of competing materials.

Glass retains a quality image, which is likely to ensure that it will remain a strong candidate for packaging for premium products. New product development is likely to feature weight reduction and new shapes to feature new premium products.

Cartons are mainly used for liquid milk and juice products, sold in both chilled and ambient form. Europe accounts for just under half of total consumption across both soft and dairy drinks markets, with consumption in North America relatively low at 9% of the global total in 2010.

With relatively few innovations in material usage and shape, the main emphasis in new product development activity here has been on proving environmental credentials and improving closure systems to provide customer benefits in the ease of opening and pourability.

Foil laminate pouches remain something of a niche product in most developed markets, although Latin and South America remain significant users of lower cost products for dilutables. Environmental factors are the key driver

in trials to introduce pouches as an alternative refill pack for volume liquid purchases such as milk. Elsewhere, the main developments are likely to be for novel applications where brand owners are looking to stand out from the crowd.

### Closures

The environment and cost saving remain the current key drivers in closures innovations. Developments in lightweight materials and shorter closures are designed to reinforce moves to reduce the carbon footprint of plastic bottles and save material. Improvements to functionality include the development of sports caps with improved flow and leakage properties and improved barrier properties.

For metal packaging, re-sealable cans are establishing a niche in the market.

### The beverage market

As well as innovations in beverage packaging, Canadean's industry report looks in detail at the consumption of all the different types of beverages across the globe, and the various packaging that is used.

Growth of global soft drinks demand was affected by the world recession in 2008 and 2009, but the market is expected to grow by around 4% per annum to 2015. The strongest growth performance will be achieved in iced/ready-to-drink tea and coffee drinks, which are forecast to grow at roughly twice the overall rate, while packaged water will contribute the largest volume increase over the next five years.

BRIC countries will play an increasingly influential role in global soft drinks consumption. The four markets have already grown to account for around 23% of total soft drinks demand in 2010 and this share is expected to exceed 28% by 2015. ■

### Read the full report

'Innovation in Beverage Packaging, 2010' is available from Canadean, [www.canadean.com](http://www.canadean.com). For more details, contact Frances Hicks on +44 1256 394251.