

Packaging Breakthroughs

Weight reduction and added functionality are driving new packaging innovations.

A Presentation By
Innova Market Insights

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Cutting Back on Materials

- Sustainability has been put on the back burner, as more immediate financial concerns take priority for companies and consumers. However, “better for the environment” can also be “better for the balance sheet,” with some new economical packaging innovations.
- PepsiCo’s Aquafina has launched the Eco-Fina Bottle, the lightest half-liter bottle of any nationally distributed bottled water brand in the market. At a weight of just 10.9 grams, the Eco-Fina Bottle is made with 50 percent less plastic than the half-liter Aquafina bottles produced in 2002, eliminating an estimated 75 million pounds of plastic annually.
- Coca-Cola recently unveiled a new plastic bottle made partially from plants. The PlantBottle is fully recyclable, has a lower reliance on a non-renewable resource, and reduces carbon emissions, compared with petroleum-based PET plastic bottles. The new bottle is made from a blend of petroleum-based materials and up to 30 percent plant-based materials.



Cutting Back on Materials

- Kronos AG's 500ml PET lite 6.6" bottle, based on the NitroPouch concept, is claimed to set a new milestone in the field of lightweight beverage containers thanks to its mere 6.6g of PET. The bottle is innovative for two reasons: the bottle is divided into different functional sections and nitrogen is used to build up a defined pressure inside the bottle, so that it does not collapse during transport.
- Ecolean has introduced a lightweight aseptic packaging system for liquid food products. The material is a flexible, multi-layered, polymer film that protects the product. The package weighs just 14 grams, 40-50% of a conventional liquid food carton or bottle.



Cutting Back on Materials

- Kellogg's is testing a more consumer-friendly, space-saving box for its cereal brands. By optimizing the box configuration, the company can reduce the package size without decreasing the amount of food. It saves shelf space for retailers and also uses eight percent less packaging.
- Dutch start-up company Dolphin Water has become the first to adopt the AquaFlexCan, a unique stand-up flexible container for packaging non-carbonated water and other still beverages from Amcor. This is the first laminate film not to migrate with water. There is only 3.5g of material in the packaging and it is therefore completely recyclable.



BASF Succeeds in Lightweighting

- An innovation project has paved the way to BASF's success in using a conventional stretch blow-molding machine to create the lightest half-liter polystyrene bottle ever: it weighs a mere 7.5 grams.
- This project gave BASF the opportunity to see how extremely lightweight bottles for dairy products can be made of polystyrene using stretch blow-molding methods. After all, less weight always translates into lower costs and less consumption of resources. Since polystyrene has a lower density than PET, it can be used to produce bottles that weigh less but have the same wall thickness.
- Owing to the special properties of this plastic, BASF recommends the new polystyrene type (PS BX 3580) specifically for containers used for milk products. This is an approach that will be consistently pursued together with customers.



Cutting Back on Costs

- Tralin Pak (China), which claims to be the world's leading alternative supplier of aseptic packaging material to Tetra Pak filling machines has announced ambitious plans for 2009, as companies look to cost saving solutions in the recession. A spokesperson for Tralinpak told Innova Market Insights that they offer a 15-20% lower price than Tetra-Pak.
- In 2009, Tralin Pak is initiating an ambitious expansion of its production capacity to reach 12 billion packs annually, with one extension project next to the existing plant, and one state-of-the-art mega-factory in Inner Mongolia, China. So far the company's packs have mostly been used in China, but Danone has already used this packaging on a product in France and the company is hoping to expand significantly westwards this year. In terms of production by product type, 60% is used for milk and yogurt drinks, 24% for beverages and tea and 16% for juice.



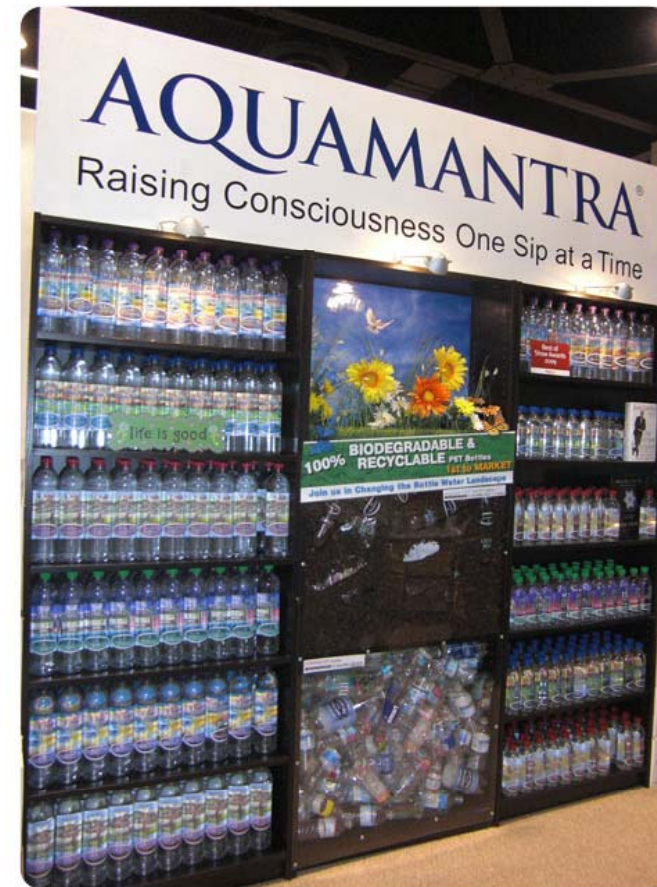
Environmental Differentiation

- SunChips, Frito-Lay's popular line of multigrain snacks, has announced that in 2010 it will introduce the first fully compostable snack chip bag made from plant-based materials. The change is designed to significantly improve the environmental impact of its packaging.
- The SunChips brand already took the first step towards this transformational packaging in April 2009. The outer layer of packaging on 10 oz size SunChips snack bags has now been made with a compostable, plant-based renewable material, polylactic acid (PLA). By April 22, 2010 (Earth Day), PepsiCo's Frito-Lay North America division plans to roll out a package for its SunChips snacks where all layers are made from PLA material so the package is 100% compostable.
- In January PepsiCo and the Carbon Trust launched an innovative partnership to certify the carbon footprint of several PepsiCo products, beginning with Tropicana Pure Premium Orange Juice. Tropicana is the first consumer brand in North America to be independently certified by the Carbon Trust.



Biodegradable Bottle Adopted

- Aquamantra has become the first company to launch a water product in new “100% biodegradable-recyclable” material from Enso Bottles, LLC. Offering premium, natural spring water labeled with “soul-stimulating” affirmations, such as “I Am Healthy” and “I Am Loved,” Aquamantra chose the Enso bottle to complement its socially conscious brand, which donates portions of each sale to children’s charities.
- The Aquamantra Enso bottle does not leach plastic, is not made from PLA, and is not oxo-degradable. It is a U.S. Food & Drug Administration-approved food-grade PET 1 bottle that maintains the same properties as traditional PET and can be intermingled with standard PET in recycling streams and programs.



Pepsi Lipton Cuts Back on Plastic

- The Pepsi Lipton Partnership has launched a new 500 ml light-weight, environmentally friendly bottle design boasting a 20 percent reduction in plastic for a variety of flavored, non-carbonated brands.
- The new light-weight bottle also communicates the message of Pepsi's non-carbonated brands through more refreshing quality cues. This package builds on the Lipton global equity package initiative that also has resulted in the launch of a sustainable, light-weight, non-carbonated 1 gallon size in the US featuring a first-of-its kind attached flex-grip handle.
- The packaging eliminated 20 million pounds of waste.



Wines Adopt Tetra-Pak Format

- The Wine Group has announced the replacement of its 187 ml single serving glass bottles for the popular Glen Ellen and Fish Eye brands with environmentally-friendly 250ml Tetra Paks.
- The innovative Tetra Pak container offers numerous advantages over traditional glass wine bottles including price and reduced environmental impact.
- Tetra Pak's state-of-the-art carton protects freshness and eliminates the possibility of cork taint. Tetra Paks are also convenient to open and reseal, portable, lightweight, and resistant to breakage.



Reusable Milk Jug Finds Acceptance

- Dairy Crest's refillable milk jug, Jugit, will be available in more than 200 Sainsbury's and Waitrose stores across the UK after the extension of the product's distribution contract.
- Jugit, manufactured by RPC Market Rasen in Lincolnshire, was initially launched in 35 Sainsbury's stores in April last year. The plastic jug can be refilled with bags of milk, which, according to Dairy Crest, use 75% less packaging than standard HDPE milk bottles.
- Jugit uses a two-part lid with a hollow spike attachment, which perforates the milk bag when it is placed inside the jug. The main body of the lid secures the bag in place.



Traceable, Locally Sourced Chicken

- The back to basics, locally sourced and traceability trends are epitomized by the launch of Just BARE Chicken, a premium brand of fresh, all-natural chicken packaged in a recyclable, transparent tray. Just BARE is claimed to be one of the first chicken products available nationally that addresses the full range of shoppers' concerns about buying, handling and consuming chicken: from how and where chickens are raised to packaging issues relating to food viewability, handling, traceability and recyclability.
- Just BARE is all-natural chicken, with no added hormones or antibiotics. The chickens are vegetable-fed and raised cage-free by independent, local family farmers in the upper Midwest. Most unique, however, is the combination of Just BARE's transparent package with a system that enables consumers to trace which family farm their specific package of chicken originated.

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Shots in the Spotlight

- Two major upcoming shot product launches in the US illustrate that this diverse but intense product category will enjoy growing interest in the upcoming months. Red Bull will introduce Red Bull Energy Shot and Red Bull Sugarfree Shot in June as solutions for “sustained energy for hours in just a sip.” Like their siblings, Red Bull Energy Shot and Red Bull Sugarfree Shot contain taurine, glucuronolactone and caffeine, but with less liquid, no carbonation and only 25 and 2 calories, respectively.
- Hero-WhiteWave is introducing Fruit2day, an innovative fruit shot product to the US market. The convenient shot concept provides consumers with an easy way to get more fruit in to their daily diet. Fruit2day is already well established across Europe. Fruit2day was originally launched in The Netherlands in 2004 and has since appeared in markets across Europe, including Germany.
- An Innova Market Insights new product matrix on the next slide provides an illustration of how big and diverse small bottles are becoming.



Fun Distinction

- Maraca, the new party drink from Fundrinks, is claimed to taste like a fresh cocktail mix and sound like the South American samba. The unique packaging is in the form of a sambabal and can also be used in this way, as a shaker. The packaging consists of 3 pieces, with the beverage filled in the main central part and small plastic granules enclosed in a click system base, which can be used for shaking.
- As novelty products go, few have caught the attention recently like Russian Roulette which is being offered by De Monnik Drinks. Russian Roulette is a vodka liquor with a strawberry-lime flavor and 15% alcohol to be consumed as a type of game with one victim falling out of the four participants . Boxes consist of four shooters which are to be consumed with four friends at the same time. Participants then all need to stick out their tongues. “The person with the green tongue has to dance at the bar, kiss the bartender, stand on their head or even worse,” the company writes. The tainted bottle simply contains a type of food coloring that disappears after 10 minutes and tastes the same as the others.



Premium Alternative

- Yoplait has recently launched its first soft drink for the French market, displayed in the fresh food section of the supermarket: a sparkling, refreshing milk-based drink in exotic fruits and citrus flavors. The new generation dairy beverage in the ultra fresh segment is presented in a 250ml aluminum bottle with high definition printing from Boxal, a path also followed in France by Coca Cola Blak 25cl and Burn Energy drink. This revolution in the ultra fresh segment targets 15-25 years old.
- Meanwhile Floressance, a Léa Nature Group brand has selected Boxal aluminum bottles printed in high definition for the development of its key product range Floressance Express. The 330ml Boxal sleek shaped aluminum bottle is aesthetic and convenient.



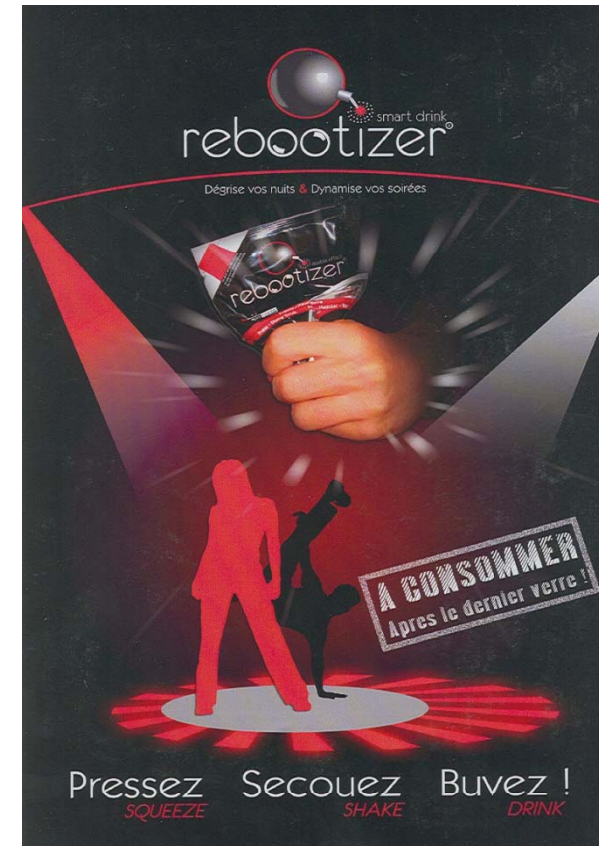
Capping the Opportunity

- Weener Plastik AG has developed a revolutionary closure for drink-training for toddlers which can be used for all non-carbonated drinks. The DROP STOP CAP includes a silicon-valve which prevents the contents of the bottle from leaking out. The valve itself and the shape of the closure help the child learn correct drinking habits and avoid sucking, thus promoting natural, healthy tooth development.
- Heineken is marketing a novel closure cap called One Look that shows a color if the cap has been opened, thereby providing a new method of illustrating tampering. The new feature is that the very first opening does not take place by tearing off a tamper evident ring but through a color change in four small windows on the top of the closure. These snap into position and cannot be moved back when the cap is re-tightened.



Packaging Cure for Hangovers

- Rebootizer is a technological innovation which groups a mix of anti-hangover ingredients and water together in separate components of the same packaging. The ingredients are mixed prior to consumption, in order to benefit efficacy. The fun concept comes in an innovative pouch which separates the powdered extract (6g) from osmosed water in order to conserve all of its properties.
- Rebootizer is a alcohol free drink based on fruit and plant extracts well-known for their digestive properties and is promoted as a detoxifier for the body. According to the company, it is scientifically proven as an anti-hangover cure.
- The company PSP SAS worked together with AlpaPharma (Swiss laboratory) in the development of the product. The efficacy of each vegetable extract has been studied according to its active principle dosage. This product can be used for the formulation of an alcoholic free beverage because it is water soluble.



New Idea in Nutrient Delivery

- IDECAP is a unique galenic form of dietary supplements: a dosage capsule which immediately releases a concentration of active ingredients with completely preserved nutritional values after having been screwed onto your normal water bottle.
- A consumer simply has to unscrew the cap of their bottle and replace it with the IDECAP capsule. The active ingredients are immediately released. Shake the bottle for a few seconds and your drink is ready!
- This new galenic form is able to be used on all mineral water bottles and can be used everywhere, anytime during the day.
- The packaging principle of the active ingredients (in form of a powder which is protected in a dosage capsule) ensures that all vitamins and minerals salts as well as all nutritional properties are optimally conserved.



Convenient Cheese Snack Option

- P'tit Louis has received the a SIAL Kid award 2008 for the extension of its P'tit Louis range with X-Press, an on-the-go serving cheese which can be eaten for 8 hours out of the fridge (perfect for school snack). The squeeze format is fun and convenient.
- Based on soft cheese & whole milk from selected farm from West of France, X-Press is rich in calcium and a source of vitamin D with only 17.5 % fat (one of the most balanced snacks for kids on the market).
- With a nice Emmental taste, it can be spread on bread, on pasta or potatoes or directly squeezed on the mouth. The processed cheese market is decreasing (-2% sales & -1% volume in 2007), so it was urgent to innovate in this market, the company notes. The product comes in a doypack format (8 x 20g servings).



Cheestrings Given a Makeover

- Kerry Foods has unveiled its new-look 'all-natural' Cheestrings (UK) in all-natural Smurfit Kappa retail-ready packaging that offers one of the fastest opening times on the market – just 3 seconds.
- The Smurfit Kappa Cheestrings on-shelf pack is made from 100% natural recycled materials and is 100% recyclable and biodegradable. It has been designed using moisture resistant solid board to withstand the challenging retail environment of the chilled aisles. The secondary packaging format also includes a crash-lock base, commended by the major multiples as it intuitively collapses allowing for easy disposal during shelf replenishment.
- The new Cheestrings packaging has a distinctive purple color and a softer shaped 'Mr Strings' character and logo.



Spray Can for Beverages

- Dutch based Boost Beverages is beginning to market the ShuPack, a highly innovative can containing an aerosol style system that allows consumers to spray the drink into their mouth by pressing down on a button and shooting the drink through the straw.
- Pieter van der Akker at Boost told Innova Market Insights, “This is a combination of beverage can and aerosol technology that allows a leak free method of injecting liquid into the mouth. It can be used on a can of any size and provides great advantages. For example you don’t have to tilt your head back when drinking, which makes it a safer alternative while driving a car.”
- Another advantage is down to the sensory experience, he noted. “The mouth gets a more fizzy experience by doing this, as the can sprays the drink throughout the mouth, thereby increasing the aroma impact,” he says. The concept meets all the convenience packaging trends.



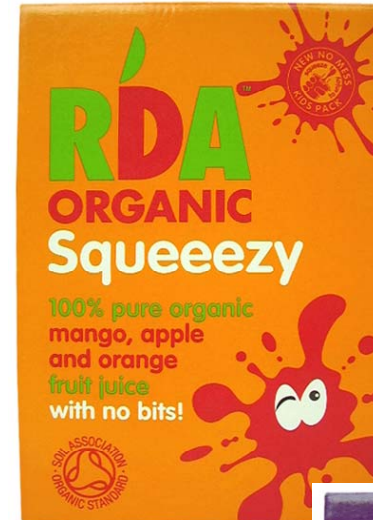
Cigarette Alternatives

- Smoking bans in Europe have led to a surge in interest in alternatives to cut out the cravings.
- United Drinks and Beauty Corporation, a Dutch/South-African company has successfully developed a drink which contains an African indigenous herbal extract with similar properties as nicotine, that results in initially creating a sense of alertness (good for exams for example) and thereafter in a euphoric feeling of calming and relaxation.
- Wyke Farms, the UK's largest independent cheese producer and milk processor, introduced Pubtubs; a 150 gram pot containing bite sized cubes of award winning cheddar last year and are now looking to export the concept in Europe. The company pointed to recent research in Nicotine & Tobacco Research that suggested that cheese and other dairy products can have a positive effect of those trying to stop smoking.



Squeezing Out the Opportunity

- RDA Organic worked in close partnership with PepUp in creating a product featuring a patented automatic closure valve that makes the packaging virtually spill proof, simple to use, hassle-free for parents and fun for kids.
- The UK's first chilled organic kids drinks – RDA Organic Sqqquishy smoothie and Squeezy juice – contain only 100% pure organic fruit. RDA Organic has responded to demands from parents for honestly priced, real fruit juices made from organic fruit without additives or concentrates.
- The unique packaging format offers parents additional value: children are encouraged to “squeeze” or “sqqquish” the pack to drink the juice. If the drink is dropped or put down it won't leak making it perfect for the lunchbox and even in the back of the car on the way to school.



Olive Oil Finds Spray Application

- A new method of dispensing olive oil has been introduced. Noveo is a natural olive oil packaged in an innovative spray system with compressed air, the olive oil is isolated in an airtight bag. A 100% natural process is used, with the nutritional values of the olive oil completely protected. The olive oil is preserved, sheltered from the air and from the light meaning a preservation of taste and organoleptic qualities.
- The spray can work in three different positions (fine and uniform spray, trickle and drop by drop) and uses a patented and anti-drip diffusion. The system allows the consumer to control the quantity and use the right dose of olive oil. Directions for use are as follows, "Spray from a distance of 20cm over your salads, grilled meat, toasts. Adjust the pressure on the actuator to apply drops, a trickle or a spray."



Sauces Adopt Imaginative Aerosol

- UK based Imaginative Cuisine has created an innovative ground-breaking culinary foam concept designed to help chefs create truly imaginative, beautiful, and delicious dishes.
- Airspuma is a new light airy sauce that enhances taste and presentation at a press of a button. No preparation combined easy dispensing make these delicious sweet and savory sauces a kitchen essential for any menu, whatever the course.
- The company claims that foams usually require hours or preparation from professional chefs and can often go wrong at the last minute. Airspuma is available in five flavors – Black Truffle, Porcini Mushroom, Mango & Passion Fruit, Raspberry, and Vanilla with seed.



Single Serve for Premium Sauces

- High quality sauce brand Christian Poitier has introduced a new range of sauces in a single serve-sachet ready to use, easy opening format. The product offers a diversity of flavors, no waste, no extra dosing and maximum impact (a new size with a strong impact on display). The product has a 12 month shelf-life (stored at room temperature) and only requires 10 seconds in the microwave at 750W.
- The following varieties are available to spice up pasta: Sun-dried Tomatoes, Pepper-Aubergine and Pesto. To top meat: Roquefort, Béarnaise and Pepper. As marinades: Pesto and Lemon-Tarragon. As well as being available in a four pack format for the retail sector, 20 and 50 sachet packs are also available for the foodservice sector.



Getting A Crush on Dairy

- Danimals brand yogurt offers a new wrinkle: The yogurt is sold in "crush cups." The cups are molded with accordion-style pleated sides that permit them to be squeezed to dispense the yogurt for direct eating from the cup.
- The patented CrushPak (Inveratek) pack is especially suited for foods like yogurt that are thick or viscous. It can be used without a spoon (as a "squeeze-pack"), with a spoon, or as a dispenser to pop out the product. The flat-bottom package with accordion-like fans is distinctive and stands out on the shelf.
- The unique CrushPak design also requires less plastic than conventional single serve cups, and can result in significant savings for manufacturers in costs and materials. Environmentally, less plastic enters the waste stream.



EasySnap Creates High Convenience

- EASYPACK SOLUTIONS Srl has introduced a new and innovative monodose sachet from 2 to 20 ml. Years of technology and market research studies have given this new *EASYSNAP* sachet.
- This innovative monodose sachet is simple to use with its unique opening system. Practically, the sachet has a rigid PET or PS on one side and a flexible printed film on the other. The rigid side has a patented variable cut through thickness which allows any sort of liquid to get through the opening, in a controlled manner. No need to tear open the sachet with two hands or to bite it open, with the possibility to spill the inside. The *EASYSNAP* monodose is taken with one hand and folded with two fingers.
- The folding pressure given creates a breaking of the film in the centre of the rigid side film and product flows out progressively in a controlled manner. Products that can use this packaging include: ketchup, mayonnaise, salad mixes, marmalades, creams and liqueurs.



Asda Goes for 360° Food View

- Branding and design implementation specialist, Gilchrist – part of Sun Branding Solutions - has given the packaging for Asda's new Fresh Tastes range a new dimension by offering a transparent, 360° view of the food inside.
- As part of the brief, Gilchrist sourced a special high-clarity polyester/polypropylene laminate to ensure the pouches were suitable for the microwave as well as withstanding refrigeration conditions.
- Each pouch is surface printed with special microwave-compatible inks, which are then sealed with a combination lacquer that both protects the ink and gives the matt finish required. In addition, they are laser micro-perforated to allow the ingredients to respire.



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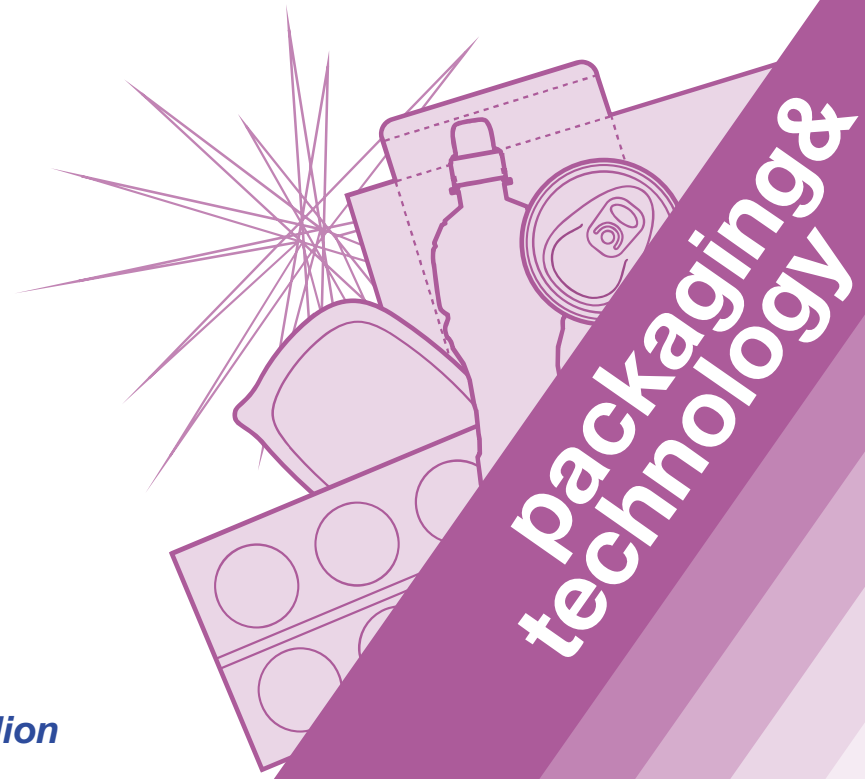
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