



PACKAGING INNOVATION

BRIEFING REPORT
FEBRUARY 2023



Welcome

Welcome to ThePackHub's Packaging Innovation Briefing Report for February 2023.

In this comprehensive and unique monthly report, you'll find a wealth of information on the latest packaging innovations and industry news. With 136 pages of content, including 105 new packaging innovations for the month, you can be sure that you'll stay informed and up-to-date on all the latest developments in the packaging industry.

So sit back and enjoy this exciting journey through the world of packaging innovation.

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Summary

This report highlights the recent developments in packaging innovation, with a focus on bio-based packaging, technology-based solutions, e-commerce packaging, functional packaging, plastic reduction, and refillable and reusable packaging. Sustainability continues to be of primary focus with around 80% of new initiatives being environmentally focused.

The bio-based packaging sector is expanding rapidly particularly seaweed-based packs, and packaging that connects with consumers is still essential. Additionally, with the growth of e-commerce, there are increasing opportunities for brands and retailers to offer packaging solutions tailored specifically for this channel. The trend towards refillable and reusable packaging is gaining momentum, with many initiatives in the dry food, household, and personal care sectors. Recycling initiatives also continue to be one of the most active sustainability areas, driven by challenging Plastic Pacts commitments and packaging taxes.

The innovations featured track ThePackHub's nine trend areas:

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Naturally done

Naturally done

This month saw a continued focus on bio-based packaging, with 22 new initiatives in the space. Biodegradable and compostable packaging continue to be developed, as well as new bio-based alternatives to plastic. However, the lack of established industrial composting systems in most markets is a significant barrier to mass adoption.

Additionally, there are concerns about compostable and biodegradable packaging contaminating existing recycling streams, and the cost of such packaging is often three to four times higher than conventional plastic-based products. Despite these challenges, the bio-based packaging sector is expanding rapidly, with many new initiatives in development and not yet available on store shelves. However, big brands are yet to widely adopt these new packaging options, and most usage is currently limited to small challenger brands looking for a sustainable point of difference.

Seaweed packaging is a particularly strong area of development in recent times.



Naturally Done

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Organic superfoods company moves to compostable coffee pods

Oregon-based Laird Superfoods, which was launched in 2015 by surfer Laird Hamilton, has launched a product called Bright Cups, as its own sustainable version of individual coffee pods. These commercially compostable single-serve coffee pods are made with plant-based materials and share the taste of coffee with that of the brand's best-selling Focus mushroom. Bright Cups is one of the only single serve BPI (Biodegradable Products Institute) certified compostable coffee pods available. Laird Superfood is on a mission to reduce the amount of single-serving waste that ends up in landfills, especially as around 12 billion single-serving capsules were reportedly purchased last year. As part of its sustainability drive, the company has been moving to solar power in its new facilities and is constantly identifying ways to reduce its carbon footprint with an employee-led sustainability committee.



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Spanish company uses agricultural waste to produce sustainable packaging

Feltwood is a Spanish company using waste from agriculture and vegetable processing to produce a sustainable material. Their raw material is converted into one of four biodegradable, recyclable and compostable products. These are listed as Feltwood Pack, which can be made into products such as trays and containers, Feltwood Hard, which can be made into rigid products such as furniture and toys. Another is Feltwood Insulation, which can be used for building applications, and lastly Feltwood Anti-impact, and can be used as protective packaging for fragile products. Feltwood is made from the by-product of agriculture and food processing, for example lettuce or artichoke waste. It is then processed, with fertiliser being a possible by-product of the Feltwood process. After processing it can then be moulded into one of the above products. Feltwood has similar properties to wood, and can be recycled several times without the need to add new material.



Ice cream container is made from sustainable EPS

Italian packaging company Imballaggi Alimentari is using BASF's EPS (expanded polystyrene) Styrofoam Ccycled for ice cream containers. Called the Remaxigel box, the manufacturing process starts from pyrolysis oil, obtained by chemically recycling various types of plastic waste that would otherwise have been used to generate energy or dumped. BASF says that compared to conventional Styrofoam, the production of packaging made of Styrofoam Ccycled produces around 50% less CO₂, with no loss of functional quality. The recycled content is mathematically assigned to the end product using the so-called mass balance approach. Remaxigel is one of the seven winners of the Ecodesign Award for Circular Creativity, awarded by the Italian National Packaging Consortium Conai. Imballaggi Alimentari is working with BASF on an even more sustainable Remaxigel box version with a new inner shell made of recycled material, which will meet the strict requirements of the food industry.



Multi-million dollar grant awarded for research into bioplastics from food waste

Researchers at the Virginia Tech College of Agriculture and Life Sciences have received a US\$2.4 million (£1.95m) grant from the US Department of Agriculture to create bioplastics from food waste. The three year project will focus on developing an affordable modular bioprocessing system to produce biodegradable bioplastics from food waste diverted from landfills. Unlike traditional plastics from petroleum-based materials, bioplastics are made from biological elements such as plant or animal oils and will naturally degrade in compost and waterways. One of the primary targets of the research is finding a way to create bioplastics while keeping the costs as low as possible. The reusability of food waste for bio-based plastic production could help reduce landfill quantity and waste management costs, offset petroleum-based plastic production and pollution and minimize greenhouse gas emissions.



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Alternative to bubble wrap for envelopes is made from wool

Estonian start-up Woola has developed an alternative to bubble wrap made from locally sourced waste wool. The project began when the CEO of Woola discovered that 200,000 tonnes of wool were left over from European wool production annually. Woola claim that bubble wrap is used for the protection of an estimated 63 billion products every year, and Woola wants to make the use of fossil fuels for plastic redundant. Woola aims to halve that number by 2030 by producing a functional alternative free from fossil fuels. They source all of their wool locally from Estonian farmers. As they expand globally in the future, they aim to continue to work with local manufacturing units. The company currently has a team of about 15 people across Europe, including their manufacturing unit in Paldiski, Estonia.



French biscuits move to 30% algae wrapper

Biscuit Olibet, a near two hundred year old French biscuit manufacturer has moved its internal wrappers to a bi-oriented polypropylene (BOPP) trilayer, which is “grafted” with Eranova’s AlgX. The composition of the laminate contains up to 30% algae. The bioplastic is made from green algae from the Etang de Berre, near Marseille (Bouches-du-Rhône). The substrate is extruded in Turkey by Superfilm then used in France, in Bordeaux, by Olibet to package chocolate and spice shortbread, then marketed in luxury grocery stores. The wrapper has just won a Worldstar award, the competition organized since 1970 by the World Packaging Organization (WPO). Eranova currently employs 10 people for an annual production of 300 tonnes of AlgX. Fundraising of 60 million euros should allow the company to strengthen its seaweed operation. With the aim of moving to an industrial scale, they hope to be able to produce 30,000 tonnes of bioplastic by 2027.



Kombucha producer moves to compostable bioplastic bottles

Jubiles is a French company that manufactures organic kombucha, a fermented, lightly effervescent, sweetened black tea drink. One of the materials they have access to for their bottles is bagasse, a fibrous by-product of the sugar industry, supplied by a producer based in Charente-Maritime, on the west coast of France. The manufacturing process to turn bagasse into bioplastic bottles does not involve any fossil fuels. The bottles for their organic Kombucha are made with materials that comply with the EN 13432 standard for biodegradability and compostability. Jubiles organic Kombucha bottles are industrially compostable, and although the sector is not yet sufficiently developed at the national level, local initiatives are developing. The company has now formed a partnership with Les Alchimistes, based in Lyons. Les Alchimistes are a bio-recycling and composting company, who will dispose and compost the bottles after use.



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Polish university creates packaging from corn

Researchers from the West Pomeranian University of Technology, Szczecin, Poland, have created packaging made from corn. The corn flour is processed into a dough which is then thermally treated. The resulting material is a polymer that they say has the same properties as a plastic bottle. The material has so far been used to make compostable trays where vegetables such as tomatoes and other fresh produce can be sold. It is also suitable for storing products with a short shelf life, such as milk, processed cheese and homogenized cheese. The researchers claim that the corn packaging will decompose in around a year. A spokesperson for the university said that the use of corn material, in addition to being environmentally friendly, has an additional value, which is its low price, which is important when introducing new solutions and replacing existing cheap plastic packaging with them.



Singaporean start-up turns grains into food containers

AlterPacks is a Singaporean start-up that turns spent grains into food containers. They have now announced that they have raised \$1m in pre-seed funding. The company will use the funding to commercialise its products in Asia, Australia and Europe. The funding was led by Plug and Play APAC and Seed Capital, while other contributing investors included Earth Venture Capital and angel investor Alice Foo. The company aims to “combat plastic packaging” by offering solutions made using food waste such as malt and barley. It converts this food waste into takeaway boxes and other containers. AlterPacks uses automated machines to manufacture containers at scale by cleaning raw materials, mixing their formulation and pressing them into container shapes. The company’s containers have received US Food and Drug Administration (FDA) and Singapore Food Agency (Sfa) certifications for direct food contact and have been commercially available since December 2022.



Spanish research centre develops bio-based inks

ITENE is an R&D technological centre based in Valencia, Spain, that specialises in packaging, logistics, transport and mobility. As part of the BIOSURFINK 2022 project, financed by the Department of Innovation, Universities, Science and Digital Society of the Generalitat Valenciana, the ITENE technology centre has developed magenta and yellow bio-based inks, for printing on plastic and cardboard containers. Conventional printing inks often contain pigments and other constituents based on fossil resources, while the constituents and pigments of the inks developed under BIOSURFINK 2022 come from renewable raw materials. Magenta and yellow bio-solvent-based inks have now been developed for sustainable packaging printing by flexography and rotogravure, complementing the blue and black inks achieved in the BIOSURFINK project. Subsequently, an industrial-scale printing test was carried out successfully on different plastic substrates (PET, OPP, white PE and cellulose film) at the facilities of Industria Gráfica Vidal.



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Biodegradable envelope window is made from wood pulp

Ohio-based JBM Packaging specialises in manufacturing small envelope products, such as those used for seeds, coins and other small items. Their EcoView range of envelope products features their Fiberfilm window, made from renewable, biodegradable PEFC-certified wood pulp. Fiberfilm gives customers a clear, protected view of the product, helping producers achieve their sustainability goals and reducing risk to their brand. Fiberfilm does not compromise the integrity of the recycling stream; the entire EcoView package can be recycled. Fiberfilm reportedly meets U.S. standards for industrial compostability and has also achieved accreditation with the TÜV OK Compost Home programme, the European Certification body. It is guaranteed to biodegrade in natural, freshwater environments helping reduce plastic waste. JBM uses responsibly sourced paper products from renewable materials, with certification from The Forest Stewardship Council (FSC) and the Sustainable Forestry Initiative® (SFI) programme.



Bio-based spray-on coating triples fresh produce shelf life

Delaware-based Peelon say that their mission is to reduce food waste. They currently have two products on the market, Peelon-Pro, a spray-on coating that they say extends the shelf life of fruit and vegetables by up to three times. Peelon-Pro is a natural plant-based powder that mixes into water to become a spray-on, edible solution. Once applied, an invisible coating is created which helps extend shelf life. The Peelon-Pro coating is invisible, odourless, edible, and tasteless. The application of this solution means that produce stays fresh in long-distance transportation. It reduces the amount of spoilage from post-harvest to end-consumer and cuts down on energy costs incurred by cold-storage cooling. The other is Peelon-Fresh, a 100% biodegradable packaging solution that doubles the shelf life of fruits and vegetables. Peelon-Fresh is a solution that works on all types of fresh produce, including microgreens and leafy greens.



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Plastic-free compostable films and trays being developed from brewery by-product

The University of A Coruña (UDC) in Spain is developing plastic-free compostable films and trays. As part of the Waste2BioComp project, researchers from the Ferrol Campus of the UDC are developing films and trays that will be more environmentally friendly throughout their entire life cycle, from natural and renewable sources and fully compostable once disposed of. Waste2BioComp will focus mainly on plastic packaging materials by developing bio-based plastic films for packaging by extrusion, blown extrusion and thermoforming processes. The raw materials are completely biodegradable, and the source from which they are obtained is a fermentation process by bacteria that feed wastewater from a brewery. A UDC researcher explained that these bacteria generate a material that is later extracted and sent to the campus from Germany. Once the prototypes of the flexible film and the rigid tray have been made, they will be scaled up by Italy's PROPA Group.



University develops 'spray-on' food wrapper

Researchers at Rutgers and Harvard University recently developed a biodegradable spray-on food wrapper. The researchers believe this wrapper can preserve the shelf-life of food, reduce food and plastic waste, and increase food safety. The spray on wrapper's main ingredient is pullulan, a glucan gum produced aerobically by growing a yeast-like fungus. Pullulan is a white powder that is odourless, flavourless, and stable. Pullulan films have low permeability to oxygen, which protects active ingredients, flavours, and colours incorporated into the film from deterioration. The U.S. Food and Drug Administration (FDA) considers pullulan to be "generally recognize[d] as safe" (GRAS). The mixture of the biodegradable polymer and non-toxic solvents can be rinsed off with water. The spray-on wrapper is still in its early stage of development, but the research team intends to scale up the process. They want to ensure that the wrapper is cost-efficient and suitable to current industry equipment standards.



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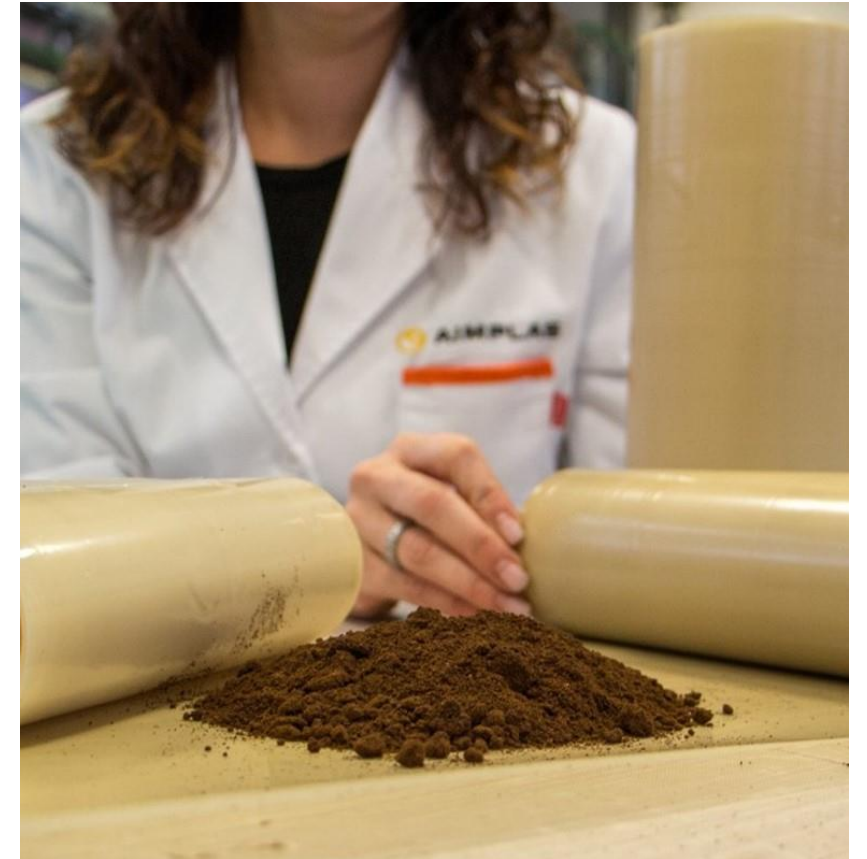
Researchers develop edible ink for printing on fruit and vegetables

Researchers from the Indian Institute of Technology (IIT) Roorkee have developed a water-based edible ink from plants for printing on fruits and vegetables as an alternative to stickers. Using plant-based material called catechu, and developed as a substitute for synthetic ink, the more environmentally friendly and non-toxic ink can be used in several packaging and printing applications. Catechu is an extract of acacia trees used variously as a food additive, astringent, tannin, and dye. The surface branding method and printing on foods are expected to reduce toxicity and unexpected health concerns. It is reported that currently used solvents and chemicals in synthetic ink may cause skin irritation and dermatitis upon skin contact. In India, the consumption of packaging was estimated to be around 373.6 billion units last year.



Research facility converting coffee waste into biofilm

The AIMPLAS Technological Institute of Plastics research facility, based in the Valencia area of Spain has announced that it is converting used coffee grounds into plastic film. The project is one of the main objectives of the European WaysTUP! project, financed by the Horizon H2020 programme, to turn biological waste into resources. The bio-based plastic film produced by AIMPLAS was obtained from polyhydroxyalkanoates (PHA) from restaurant coffee grounds collected by Bio-Bean in the UK. AIMPLAS first formulated the PHA to be processed by extrusion and then manufactured the film, which can be used in different types of flexible packaging. The WaysTUP! project aims to improve citizens' and local communities' perception of the importance of urban biowaste as a resource. The idea is to promote the community's active participation in selective urban biowaste collection for subsequent recovery.



Brewery waste product converted into cosmetic packaging

A Japanese brewer, and a cosmetic packaging manufacturer have announced that they have created refill packaging for compact cases. Using a by-product of the brewing process, Kirin Holdings and FANCL, along with Business Innovation Partners, has resulted in the creation of sheets suitable for producing refill packaging. This was made by mixing cellulose with hemicellulose from Ichiban Shibori beer lees. Lees, also known as trub or dregs, are deposits of dead yeast or residual yeast and other particles that precipitate. The packaging material for the refill is usually made of PET (polyethylene terephthalate) material. The refill packaging material can also be used for a “universal design,” making it easy to handle for foundation refills (patent pending at FANCL), for instance. Kirin touts itself as the first company in Japan to successfully commercialise plant-derived cosmetic packaging material for refills made from beer lees.



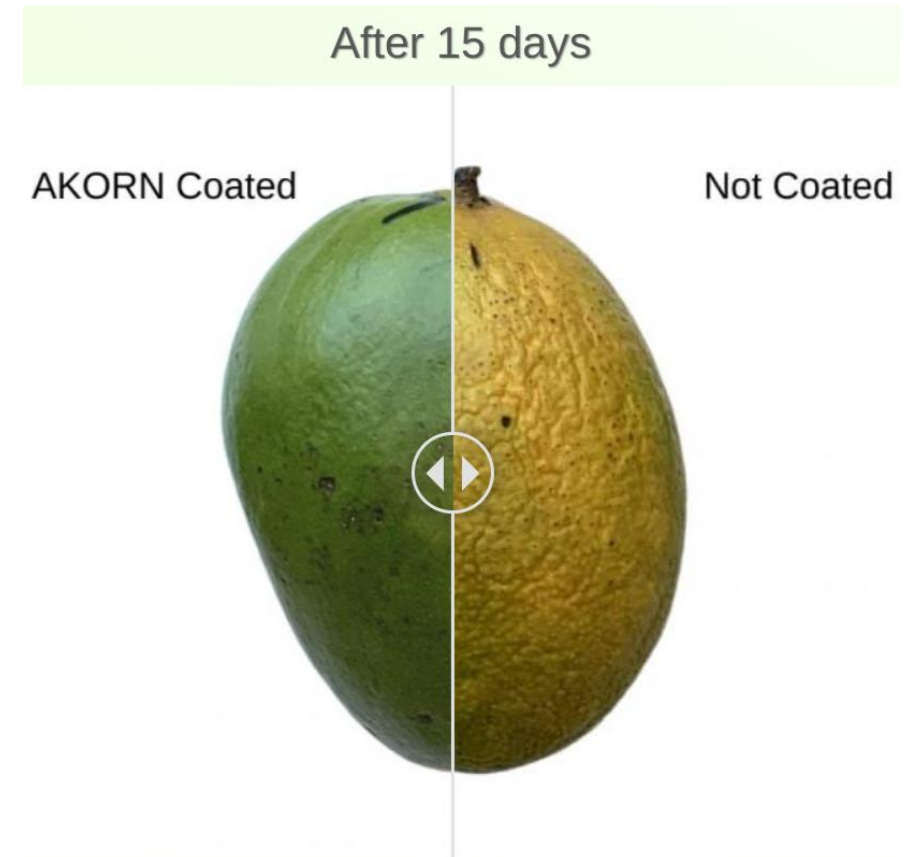
Swedish collaboration will focus on development of bio-based cosmetic packaging

Two Swedish companies have formed a partnership with the aim of developing fibre-based cosmetic packaging. Paperboard and pulp producer Holmen Iggesund, and Varberg-based dry forming specialist Yangi AB will be joining forces with the intention of exploring the possibilities of developing a new type of bio-based cosmetic packaging. The focus of the collaboration between Yangi AB and Holmen Iggesund is primarily on replacing hard plastic with alternative renewable materials in beauty and cosmetic packaging. Yangi's dry moulding technology produces up to 75% less CO₂ than conventional plastic production, uses 75% less energy than wet moulding technology, and has a 30% lower cost than other existing bio-based solutions. In the collaboration, Holmen Iggesund will supply fibre-based material to guarantee premium quality, while Yangi will contribute its revolutionary fibre-based dry-forming technology. They will also provide resources for research and development to develop further existing and future solutions for packaging manufacturers and brands.



Natural coating improves shelf life of fruit and vegetables

Akorn Technology is a California-based supplier of natural coatings that maintain product quality and extend a products' shelf life. Their all-natural edible food coatings are made from upcycled by-products of non-GMO corn. The company says that their coatings reduce moisture loss to prevent wilting, shrivelling, and loss of texture and flavour. They control oxygen exchange to slow down the ripening while maintaining flavour. They also enhance the fruits' natural gloss and increase resistance to mechanical damage, and maintain the produce's perfect texture for a better eating experience. The coatings are suitable for a wide range of products, including temperate and tropical fruits, vegetables, cut fruit, vegetable products, and shelled nuts. Other functional additives can be incorporated, such as vitamins, nutrients and flavours. They are also compatible with essential oils and other all-natural antimicrobials to inhibit the growth of foodborne pathogens.



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Ethical snack brand moves to compostable packaging

Dublin-based ethical snack producer The Good Snack Company has partnered with Yorkshire flexible packaging supplier Parkside. The latter will supply The Good Snack Company with its Park2Nature compostable material, which is fully accredited by TÜV Austria for compostability. This independent verification confirms that the packaging completely breaks down in specified conditions and timeframes suitable for both industrial and home composting environments. The compostable film will be used for the company's 25g "shot" range of nuts and snacks. Park2Nature™ is said to provide excellent oxygen and moisture barriers, keeping nuts and snacks fresh and crunchy, whilst also maintaining optimum flavour. The company plans to roll out the new compostable packaging further to incorporate their larger snack packs, currently packed in non-recyclable conventional plastics. Compostable materials are said to be ideal for small packs such as this as they are too small to recycle but are ideal for the home compost bin.



Italian collaboration results in first compostable stick pack

A collaboration between four Italian companies has resulted in what they say is the development of the world's first first compostable stick pack made of bio-based raw materials. The project, led by Novamont, was developed for Mix-Me, the multivitamin and multimineral nutritional supplement produced by DSM Nutritional Products. The sticks use Novamont's Mater-Bi, a bioplastic produced from raw materials of agricultural origin. A water-based biodegradable coating technology called Coathink from SAES Coated Films provides a high water vapour and oxygen barrier. Conversion of the resulting film was carried out by Ticinoplast and the end product is packed in stand-up pouches supplied by Gualapack. The stick packs are compostable in accordance with standard EN 13432, with a bio-based raw material content of over 65%, and are compostable and recyclable together with household food waste. The companies say that the pack is compatible with traditional automatic packaging lines thanks to its excellent sealability properties.



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Granola bar packaging gains BPI certification

Colorado-based BAR-U-EAT is claiming a world first for its granola bar packaging. Their bars are the first to obtain BPI (Biodegradable Products Institute) certification for the entire package. This means the wrappers will break down properly in commercial compost systems and not contaminate the environment. The new packaging is composed of plant-based materials from FSC Certified sustainably managed forests. It additionally complies with the specifications established in the American Society for Testing and Materials (ASTM) D6400 to be aerobically composted and is biodegradable, and will break down to become nutrient rich soil. The company points out that they are '10 years ahead of the curve' for already being compliant with California's SB 54 legislation which requires all packaging in the state to be third party verified recyclable or compostable by 2032.



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Everyday Engagement

Everyday Engagement

Packaging that effectively connects with consumers plays a crucial role in the market. We continue to observe a variety of innovative examples, such as utilizing smart technology or unique packaging graphics to spark engagement. Maintaining a consistent dialogue with consumers can greatly enhance brand-building efforts.

Tech-based solutions like RFID, NFC, and QR codes are becoming increasingly popular and cost-effective for these purposes. Sustainability is also a key factor in the use of technology-based packaging, as many lack proper disposal methods. However, as recycling options improve, this sector is becoming more viable. Additionally, utilizing technology in packaging also provides valuable data insights for brands.

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Everyday Engagement

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Electronics giant creates new life for its corrugated packaging

To tie-in with the recent World Cup, consumer electronics giant Samsung gave customers who purchased a new television the opportunity to convert the corrugated cardboard box the TV came in into a bench, thereby allowing guests to watch the game with them. The bench is just one of a range of what it calls the Eco Packaging concept, which is designed to encourage customers to reuse product packaging instead of discarding it. On the Samsung Eco Package website, customers can find many other ideas for converting their packaging from cat houses to shelving. The Eco-Packaging project began in 2019. Within a year, the idea had already been implemented in the packaging of Samsung TVs and has now been extended to the boxes of new products, such as monitors and home appliances.



New technology for corrugated packaging drives customer engagement

Tennessee-based International Paper has introduced OHMEGA Conductive Ink + Touchcode, a revolutionary technology that enhances brand protection in the packaging industry. This innovative solution features a physical card integrated into the corrugated packaging, containing a code that unlocks a unique experience designed by the brand. Powered by electricity from the human body, the eco-friendly ink conducts and unlocks a special interaction on customers' touchscreen devices. The benefits of OHMEGA Conductive Ink + Touchcode include quick and easy activation through the customer's phone browser without the need for a camera or separate app and a secure platform that minimizes the risk of spoofing, phishing, or counterfeiting. With OHMEGA Conductive Ink + Touchcode, brands can offer their customers exclusive content and loyalty programmes tailored to their target audiences, as well as access to an online dashboard to track, measure, and monitor customer engagement. This technology provides a new dimension to brand protection in the packaging industry, which International Paper state they are proud to offer to their customers.



“Scratch n Sniff” comes to cannabis packaging

The Humboldt Seed Company (HSC), based in Humboldt County, California, has launched cannabis packaging with “Scratch n Sniff” labels that represent the contents, to bags and jars, enabling customers to smell the contents prior to purchase. HSC collaborated with craft growers, One Straw Farm and Burr’s Place and the first-ever “Scratch n Sniff” type cannabis container made its debut at the Emerald Cup Harvest Ball in Santa Rosa, California. The ‘Scratch And Sniff’ labels were developed to help consumers smell the product before buying it to aid their decision-making. Therefore, HSC created a method to create the “Scratch n Sniff” ink. This one uses the actual terpenes extracted from the same batch of marijuana contained in the package. The strains that will be offered with the “Scratch and Sniff” option are Orange Creampop, Nutter Budder, and Blueberry Muffin. HSC has also been placing “Scratch n Sniff” ads in magazines distributed in the US.





The Online Surge

The Online Surge

The e-commerce industry has experienced substantial growth in recent times, and this trend is influencing packaging development. The COVID-19 pandemic has accelerated this trend, as the need for online-specific packaging remains significant.

The e-commerce market has seen a significant spike due to the pandemic, as consumers worldwide shift from physical stores to online platforms. A significant number of these consumers are online shopping for the first time, and it is likely that many will continue to do so. The role of shopping and packaging has changed permanently as a result.

As the e-commerce market continues to expand, there are increasing opportunities for brands and retailers to offer packaging solutions that are tailored specifically for this channel, rather than simply replicating the packaging used in physical stores. Packaging designed for e-commerce does not require the same level of security measures, as the purchase decision is made on a screen and bright on-pack messaging is not necessary. Additionally, packaging does not need to be explicitly designed to be attractive on a physical store shelf.

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The Online Surge

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[Online meat supplier introduces full traceability](#)

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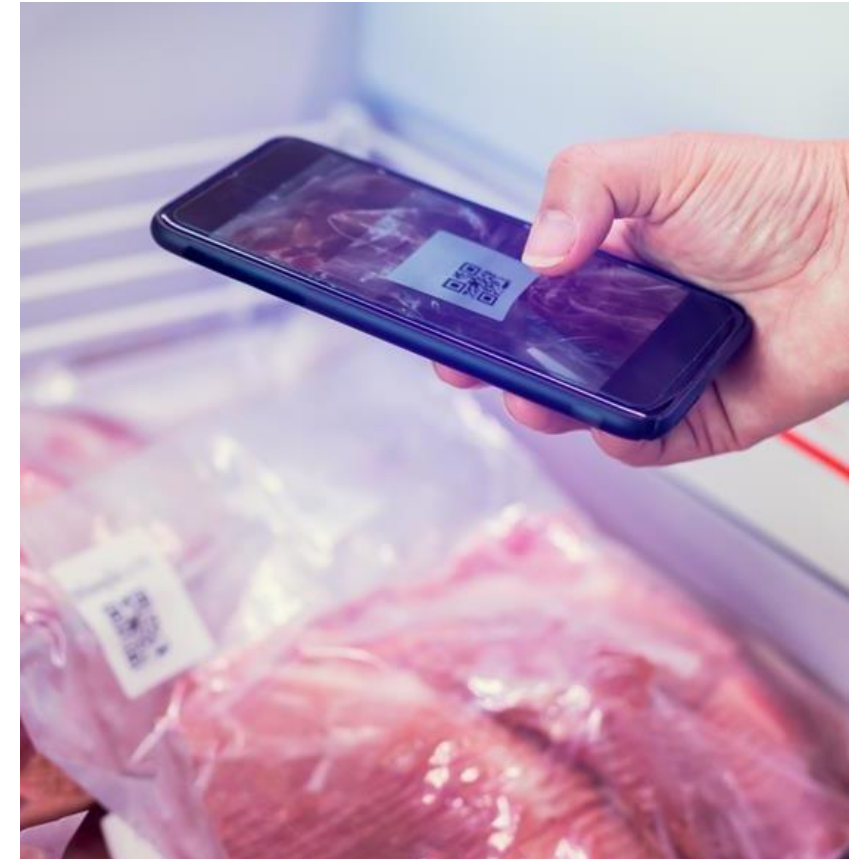
Hemp is alternative to plastic for transportation product protection

Cavac Biomaterials, based on the west coast of France, are producers of Ouatbox hemp, an alternative to plastic-based products to fill space and protect items during transportation. Their void-fill product, Ouatbox hemp, is a mixture of plant fibres from hemp and flax, grown locally in Vendée by farmers affiliated with its cooperative, as well as cotton and wool from recycled materials. The material, which comes in the form of an expansive wadding, is intended as void fill and is used between the products to protect them during transportation. Cavac are focussing on the booming e-commerce market in particular. Their products are also used in the automobile industry for soundproofing and in house-building as insulation. Cavac represents 10% of the bio-based materials market in France while also distributing its products globally.



Online meat supplier introduces full traceability

Farmison & Co. is an online butcher based in Ripon, North Yorkshire. They have introduced a new traceability system that enables customers to use their smartphones to see where their cuts of meat come from. The company says that its new system enables customers to see precisely where their meat originates and is part of its Farming the Future (FTF) programme. Using a QR code on the packaging, customers can trace the origins of their meat, including the breed, videography of the farm where it was reared, and the food miles. Customers will also be able to use the code to access exclusive recipes from Michelin-starred chef Jeff Baker. Following the horse meat scandal in the UK ten years ago, the company believes that more than ever, consumers are demanding to see full traceability of produce.



French partnership brings reusable packaging to e-commerce customers

In December 2022, French package delivery company Mondial Relay started a partnership with reusable packaging start-up Hipli. Hipli will provide Mondial with its reusable packaging, which they say can be reused up to 100 times. It says that it can reduce CO2 emissions by 83% compared to conventional corrugated board packaging. The benefits of using this reusable packaging, made from recycled PP (polypropylene), start from the second use. E-commerce merchants working with Mondial, who are already customers of Hipli now have access to 50,000 items of reusable packaging. The co-branded Hipli/Mondial Relay parcels are available in three sizes, allowing them to be deposited in Mondial Relay Lockers. When these reusable parcels are received by individuals, they have the option of reusing the packaging for a new shipment for personal use or returning it to Hipli by inserting it in a pre-stamped pouch. It will then be cleaned and returned to the system.



Swiss start-up offers reusable packaging for e-commerce operations

Kickbag is a Swiss start-up that is a reusable packaging solution for e-commerce operations. When a customer receives their order in a Kickbag, it comes with return labels and instructions on how to return the packaging. The bag itself is made from recycled plastic, of either PET (polyethylene terephthalate) or a similar durable plastic, with Velcro straps that adjust to the size of the product inside. The company says that it is more environmentally friendly than cardboard and plastic from the second use, and can be used up to 30 times before being recycled. Although the bags are generally in a neutral design, they can be individually branded with custom arrangements. In a press release on the 19th December 2022, Swiss Post announced that following successful trials, it had acquired Kickbag in order to achieve its ambitious sustainability targets.





Making Life Easy

Making Life Easy

Packaging that is easy to use will always have a place in the packaging innovation schedule. With the focus very much on sustainable solutions, it is important that packaging still delivers the necessary functional requirements and packaging. Easier to use packaging will always create a point of difference in the market and often meets the needs of a growing senior consumer segment.

Packaging that has added functionality, that is easy to use and makes life easier for consumers continues to be popular. We will continue to see many new examples come through the innovation funnel. With most of the development focus on sustainability, it is essential that brands and retailers can still deliver pack formats and solutions that meet an unmet functional need to make the consumer experience easier and more pleasurable. Plastic reduction is a primary focus for the majority of brands and retailers and there are signs this is having an impact on pack functionality in the market. We have tracked a couple of recent examples in the cheese sector where the resealable functionality has been removed to achieve packaging reduction targets. These isolated examples might just be a sign of things to come. However, the worldwide ageing marketplace means an increasing need for packaging that is easy to open and close.

Making Life Easy



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[New flip top avoids 'glued on' lids for German honey brand](#)

[Skin care company embraces 'slippery surface' technology](#)

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[Packaging improvement for pet-friendly salt product](#)

Start-up launches multi-functional modular water bottle

Ebite is a New York-based start-up currently raising funds on Kickstarter for its multifunctional water bottle. Called the Modular Bottle, it is built around a borosilicate glass canister that slides in and out of an exterior casing, creating a double-walled vessel with insulating properties that allows it to handle hot or cold drinks. It can be customised in several ways, including adding a separate fruit infuser for those wanting to add flavour. A reusable straw can also be slipped inside for easy sipping, while users can choose from a twist-open industrial cap, a flip-open sports cap, a screw-open classic cap or a simple flat-cap. Another feature is the base, which screws open and serves as a small compartment to stash snacks such as nuts or pills and valuable items. It comes in 17.5-oz (520-ml) and 25-oz (750-ml) variations, both of which fit in standard cup holders for easy transport.



New flip top avoids 'glued on' lids for German honey brand

Munich-based Breitsamer Honey has introduced a new flip-top lid for part of its product range. The flip top lid was developed as a way of making sticky jars a thing of the past. Traditional metal screw top lids suffer from becoming glued to the jar if the consumer is not diligent when replacing the lid, making it difficult to open on the next occasion. Because of the lid's design, no honey comes into contact with the screw top. The new lid also features an integrated scraper edge, meaning none of the product is wasted, and the consumer does not have to hold the spoon in their hand until it is clean enough to be put down. The new format features a foil seal that is required to be peeled before replacing the flip top lid. Both the glass jar and lid can be recycled separately and easily.



Skin care company embraces 'slippery surface' technology

Swiss-American is a Contract Development & Manufacturing Organization (CDMO). The company helps people achieve healthy skin by developing and manufacturing topical skin and wound care products. They have now formed a partnership with LiquiGlide, the inventors of the EveryDrop dispensing platform, a breakthrough non-toxic slippery surface technology that eliminates the friction between solids and liquids, resulting in zero product waste for consumer packaged goods. The technology is made from materials classified as safe by the FDA, meets rigorous safety and regulatory standards, and has been commercially launched in Europe, North America and Asia in other packaged goods categories. Research conducted by LiquiGlide indicates that more than 50 billion packages sold yearly will be discarded worldwide, with enough product remaining inside to fill 110,000 semi-trucks. The agreement means that Swiss-American is the first CDMO offering LiquiGlide's technology to the global skincare market.



Domestic spray bottle has added function

Yamazaki is a Japanese company that creates everyday items designed to make the best use of limited living space. Their magnetic spray bottle is designed to be attached to any magnetic surface such as washing machines or fridges, for easy grab-and-spray access. It can be filled with shop-bought cleaning solutions or the customer's own formulations. It has three modes, spray, mist, or be switched off with a simple twist of the nozzle. The magnetic spray bottle measures 4.13 x 1.77 x 9.06 inches (10.5 x 4.5 x 23cm) and weighs 0.23 pounds (104g). It is available in either black or white and retails at \$12 (approx £10) on Amazon or through their online site.



Tamper-evident pail feature helps tackle anti-counterfeiting

Indiana-based Rieke Packaging has announced the launch of the IMF-5 In-Mould Flexspout, their latest product to help brands tackle anti-counterfeiting. The new addition is a tamper-evident closure for plastic pails. It is moulded directly into the pail lid during the injection moulding process, and has a retractable pull-out spout with a large pour orifice for controlled directional dispensing. The company says that counterfeiting and product piracy rank among the growing challenges of the increasingly interlinked global economy. Product fraud is considered a real issue for manufacturers not only due to lost sales, but also because of the damage done to their brand's image caused by the poor quality of fakes. The IMF-5's all-plastic, PE (polyethylene) design allows the closure to be easily recycled. The company expects the IMF-5 to target a wide range of industrial applications such as automotive oils and lubricants, paints and coatings, adhesives and cleaning chemicals.



Packaging improvement for pet-friendly salt product

To boost its pet-friendly salt product, Morton Salt enlisted California-based Studio One Eleven to help the company update its Safe-T-Pet packaging to boost the product's shelf visibility and benefits messaging. Veterinarians say rock salt and other salt-based ice melts can be harmful to pets when they walk on it and when they lick their paws and coats clean. The new, custom-designed Safe-T-Pet package reportedly delivers on multiple fronts. Made of durable HDPE, the design draws attention. It adds consumer appeal on retail shelves through angled geometries that provide a contemporary look, updating the previous curved bottle and improving pack-out efficiencies for shipping. The translucent bottle material hints at the pale blue product inside. The handle, also reworked, is wider and deeper to accommodate a gloved hand. Raised handle threads give even gloved fingers something to grip confidently.



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Materially Changed

The packaging continues to see a lot of change of materials driven largely by sustainability objectives. Plastic replacement is still top of the agenda for many brands and retailers as they look to switch out of the material to solutions that may offer a better environmental footprint or at least be better received by anti-plastic focused consumers. We have 24 initiatives this month.

ThePackHub continues to report many instances of brands and retailers switching primarily from plastic to other often paper-based alternatives. Some, but not all, support the move with positive evidence of these changes' environmental impact. The reality is that we are experiencing a cycle of high change where, in some cases, recyclable plastic is being replaced with other materials because consumers believe this as the right thing to do from an environmental perspective. However, not all examples stand up to stringent environmental scrutiny. Most of the material changes have often come about following significant investment in machinery and new processes. These switches are for the longer term, and any reversals are a long way off.



Materially Changed

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Corrugated board tray aimed at the fresh fruit and vegetable market

Cascades Containerboard Packaging, based in Canada, has announced the launch of a new corrugated board tray aimed at the fresh fruit and vegetable market. This new closed basket is made of recycled and easily recyclable corrugated cardboard and is intended as an alternative to plastic packaging for these types of products, which are difficult to recycle. By using recycled corrugated cardboard in its design, the company supports its customers in reducing their environmental impact while meeting consumer demand for more and more eco-responsible packaging. The basket's innovative design allows it to be shipped flat to reduce transportation costs and storage space. An assembly jig, specially designed for the two basket formats (2l and 3l), also speeds up and simplifies operations for producers. Thanks to high-quality flexographic, lithographic and digital printing options and customisation possibilities, a great look can be achieved for brand owners.



French manufacturer offers cheap, lightweight corrugated PP boxes

Distriplast is a manufacturer of corrugated PP (polypropylene) products based in Dunkirk, Northern France. They produce Diplast PP products for signage and building products, but they also manufacture corrugated boxes and protection products such as layer pads and top sheets. Diplast sheets can be easily die-cut, folded and glued with Corona treatment for printing on request. Ultrasonic or hot air welding fixtures allow for the making of highly sophisticated boxes. Being made from PP, these lightweight and cheap products are easily recycled. Diplast products are available in a wide range of dimensions, colours, thicknesses, weights and treatments. Distribox corrugated boxes can be easily customised for brands with inline one colour flexo printing. Aside from boxes, Distriplast is also able to manufacture protective internal dividers and trays.



Board-based tray developed to replace single-use plastic

Ulzama Graphics & Packaging, based near Pamplona, Spain, has launched a board tray intended to rival plastic containers used for the fruit and vegetable sector. A trigger for the company to develop this new tray is the new law that prohibits single-use plastic containers in the fruit and vegetable sector and that comes into force in 2023. The tray contains between 80-95% less plastic than current plastic options. The tray does feature a layer of plastic to retain the integrity of the tray but this has been designed to be easily removed by the consumer for recycling after use. The rim of the tray has been designed to replicate that of current plastic trays available, which means that packers require no costly retooling. The structural rigidity and the flatness of the rim also make it ideal for packing products with greater demands, such as MAP (modified atmosphere packaging), for meat and pre-cooked products.



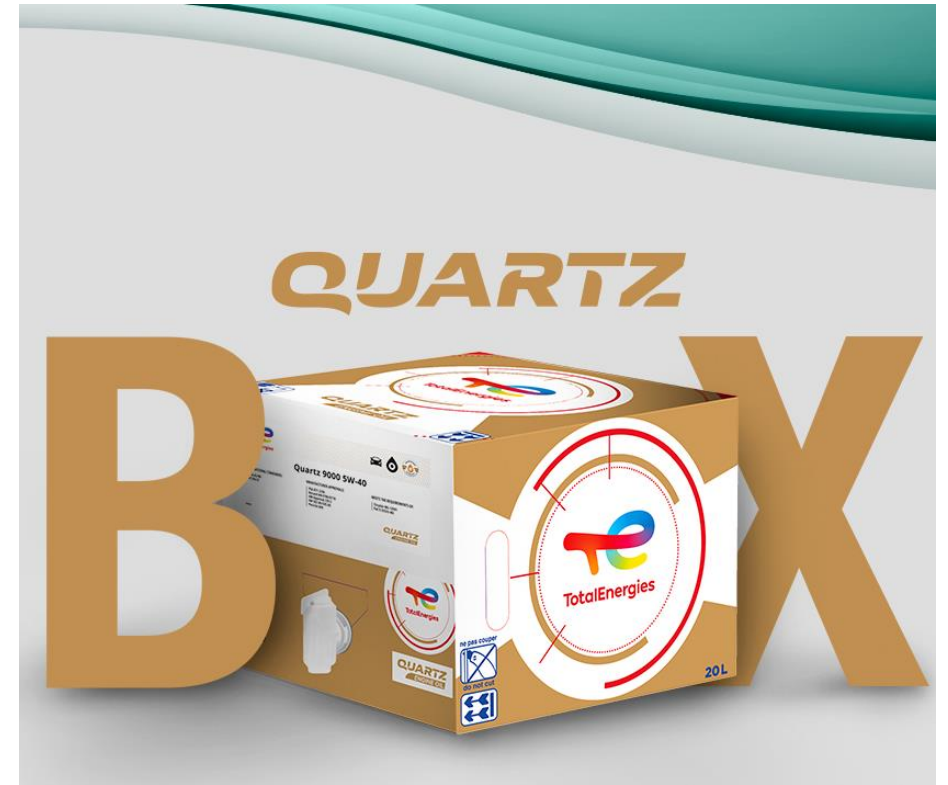
Premium knives move to plastic-free packaging

Leading manufacturer of high-performance knives for the kitchen, Kyocera, has announced that from the beginning of 2023 the global packaging for its Gen and Shin Black Series knives will be more sustainable. The newly designed, high quality packaging will therefore be manufactured 100% plastic-free. In addition to the reduced-plastic aspect, customers will be able to grasp the knife handle through a slot in the packaging material, as well as examining the colour prior to purchase. The inner part of the new packaging also has a recycled cardboard inlay, where the old packaging material included a plastic blister. The new packaging will be debuted at the Ambiente Trade Fair, which will be held in Frankfurt from 3-7 February 2023. Ambiente gives industry partners the opportunity to introduce innovations and new products directly to buyers and suppliers from all over the world.



Petroleum giant introduces bag-in-box for automotive oil

French petroleum multinational Total Energies has launched a new format for its 20 litre oil product that is aimed at garage owners. The Quartz Box is what the company says is an ingenious packaging concept. The bag-in-box format, supplied by Technibag, reduces plastic use by 86% compared to their traditional rigid plastic container. It also delivers 20% more volume per pallet than the previous incarnation, meaning fewer trucks on the road. The company also says that the TCO (Total Cost of Ownership) creates large CO2 savings. As the corrugated outer and bag can be completely flattened, waste storage volume is much reduced compared to standard 20 litre packaging. A useful display stand which holds six boxes is available, and easy pouring with the cap's no-spill design allows mechanics to fill jars and work safely for waste reduction purposes.



High barrier flexible material is environmentally friendly

London-based Evopak produces what they say is a disruptive flexible packaging material made with a combination of adaptive polymers and paper. Their product, called Enova Pack, can be recycled in both domestic industrial waste paper streams. The company says that Enova Pack is compostable, biodegradable, marine and wildlife safe. It degrades to biomass and CO₂ in the open environment leaving no damaging trace elements, and no microplastics are reportedly ever left. Enova Pack runs on horizontal and vertical form fill & seal (HFFS and VFFS) machines. It has a high gas and O₂ barrier, an exceptionally high fat barrier and a puncture resistance higher than PE (polyethylene), while still being extremely flexible. It is also water resistant. The packing of vegan lentil chips was considered a great success. The material ran on the company's VFFS machine at high speed and was sealed easily with no modifications needed.



Paper pouch delivers 18 month shelf life

Sourceful is a Manchester-based company that promotes sustainable packaging through a network of suppliers. Following a partnership with the Sustainable Materials Innovation Hub (SMI Hub), at the University of Manchester, they have developed a new paper pouch. This new product, called the HydroTec paper pouch is said to reduce plastic use by 99% and carbon emissions by up to 40% compared to traditional plastic pouches. The HydroTec paper pouch features a water-based barrier that can keep products fresh for up to 18 months. This makes it ideal for products such as pet treats, confectionery and coffee. The pouches can also be custom printed in up to eight colours, custom sized, and also available in a range of formats, shapes and paper types. The HydroTec pouch is kerbside recyclable with other paper and board items, giving a low carbon footprint option.



Sustainable alternative to EPS poultry trays

Pennsylvania-based Clearly Clean is offering a recyclable and recycled alternative to the widely used EPS (expanded polystyrene) tray used in the US poultry market. Being very difficult to recycle, EPS trays are becoming banned in more and more US states, and Clearly Clean has what they say is a more sustainable solution. The poultry tray they are offering customers is made from rPET (recycled polyethylene terephthalate), a polymer commonly used in water bottles, other containers, and clothing. The trays feature a rolled edge that helps maintain the tray's strength and can prevent moisture leakage and product spoilage. These trays are designed to fit any equipment and packaging machinery currently in use. The size, thickness, shape and colour of the trays are easily customisable for use in food processing, packaging or retail. After use, they can be easily disposed of and recycled into new trays, containers, water bottles and other products.



Paper wrappers for chocolate bars trialled in Australian first

Nestlé Australia is trialling its best-selling KitKat bars in paper-based packaging. The trial is being conducted in conjunction with Coles Supermarkets across Western Australia. The pilot will consist of 250,000 paper-based wrappers from January 2023 while stocks last. Each bar will feature a QR code which consumers in WA, SA and NT can scan to have their say by answering a series of questions about the new paper packaging. The paper wrappers can be recycled through kerbside recycling bins. The trial wrapper has a thin metal barrier film to keep the KitKat fresh, and has a recyclable ARL (Australasian Recycling Label). The ARL is an evidence-based system for Australia and New Zealand, that provides consumers with easy to understand recycling information. Nestlé has a goal of reducing its use of virgin plastics by a third by 2025, which includes using less plastic, recycled plastic, and alternatives to plastic packaging.



Supermarket moves to aluminium cans for smaller wine bottles

British supermarket chain Waitrose has announced that it is moving most of its small wine bottles from glass to aluminium cans. The new cans will include a wide range of grape choices including whites, reds and rosés, and will be available in 187ml, 200ml and 250ml sizes. Due to appellation restrictions the move will not include varieties such as champagne, prosecco, cava and rioja. It is expected that the move to aluminium will save more than 300 tonnes of glass packaging, and will halve the carbon footprint per drink, because the recyclable cans require less energy to transport as they are lighter and take up less space than bottles. The supermarket plans to have moved to aluminium by the end of January 2022. It has been reported that drinks producers have been seeking alternative packaging because the price of glass has almost tripled since the pandemic.



New eco-friendly salmon board launched

Telford-based Sirane has announced the launch of a new, more environmentally-friendly salmon board. Millions of traditional salmon boards are used on a weekly basis but contain a metallised polyester layer, which cannot be separated from the board. This means the board can be neither recycled nor composted. However, Sirane's Earthboard Eco boards are recyclable kerbside, are plastic-free, and use only water-based coatings. Also, Sirane says that besides being easily recycled, they are comparable cost-wise with the plastic-coated boards commonly used. The company also says that it has developed a range of pearlescent water-based coatings which allow them to supply the boards in the familiar colours of gold, silver and black. It's also possible to supply boards in any Pantone colour, subject to minimum orders. The same boards can also be used for vacuum-packed meats and charcuterie.



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Brewery moves from plastic multipack rings to board cartons

Maui Brewing Company, based in Hawaii, has announced that they are replacing the plastic multipack ring on its six-pack beers with board packaging. The 100% recyclable cardboard cartons are manufactured from sustainably-managed forests in the southeast U.S. and contain up to 15% recycled content. The Coated Natural Kraft (CNK®) paperboard is fully recyclable and designed to stand up to the rigorous packaging conditions associated with beverage products that go in and out of refrigeration. A large capital expenditure was required to procure new equipment, move existing machinery and create space for the new equipment. The new packaging has already found placements on shelves at Maui Brewing retail partners. The change to board packaging not only includes their craft beer offerings but also includes Maui Brewing's Island Sodas, Maui Hard Seltzer, and Kupu Spirits.



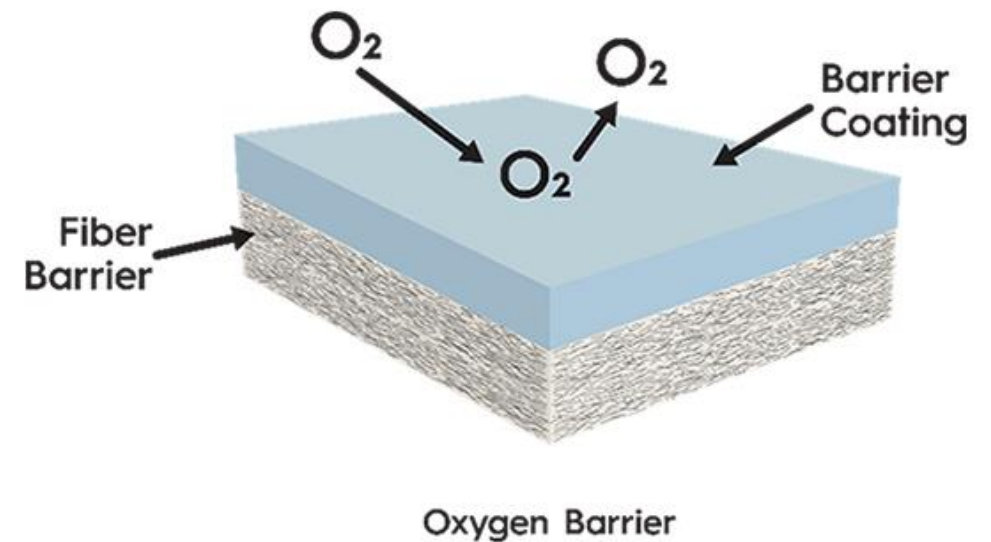
Moulded pulp used as alternative to plastics for cosmetic packaging

New York-based Knoll Packaging has launched a series of patent-pending make-up compacts made from its Knoll Ecoform moulded pulp, a plant material produced from bamboo, wood and sugar cane fibres, which can be used as an alternative to thermoformed plastics. These fully customisable designs feature magnet-free closure and can even feature a removable mirror. The compacts can be customised and can include embossing, stamping or added FSC paper mask for additional decoration. Knoll Packaging introduced Knoll Ecoform onto the market over five years ago to eliminate plastics and drive positive change in the packaging industry. Knoll Ecoform is certified recyclable in the paper recycling stream, and can be moulded, cut to order and colour matched. With the introduction of Ecoform, Knoll is reportedly on track to eliminate 200 metric tons of plastic from its supply chain by the summer of 2023.



Technology development replaces flexible plastic packaging with paper

Finland-based Ahlstrom is developing a specific technology that enables it to offer base papers, which they say is the key to solving barrier issues in flexible packaging. The base paper they are developing exploits the inherent value of cellulose as it is a very good barrier and specially designed base papers can improve barrier properties. They claim to be the first in the world to replace plastic structures and films with paper. For example, they say that they have replaced the plastic component in some pet food packaging. This base paper keeps food fresh while being suitable for municipal recycling programmes. Ahlstrom says that paper is the ideal material for flexible packaging applications as it has excellent printability characteristics. Their paper is said to be easy to glue, laminate, and withstands the most demanding converting processes.



Beverage giant launches fruit drink in latest aseptic carton development

Global beverage giant Coca-Cola has announced that it is to launch a new Minute Maid range of fruit-based drinks in India in Tetra Pak's latest innovation, the Tetra Stelo Aseptic. The new pack is described as a unique, tall, rounded, seamless package designed to create tangible differentiation in the market. Tetra Pak says that Tetra Stelo Aseptic cartons are paper-based, recyclable and have a lower carbon footprint compared to other packaging alternatives, as validated by various Life Cycle Analyses conducted across the world. The package also comes with WingCap 30, one-step opening with DIMC (Direct Injection Moulding Concept) technology that the company says ensures a perfect grip and a great pouring experience. Tetra Pak will also be supplying the processing and filling equipment. The new tall, rounded, seamless package is designed to create tangible differentiation in the market for the new benefit-led Minute Maid range – Honey Infused & Vita Punch variants.



Canadian restaurant chain unveils new compliant packaging

Canadian restaurant chain Tim Hortons has unveiled changes to its cutlery, lids and sandwich wraps that will be in stores starting in early 2023. Tim Hortons' 4,000+ Canadian locations will begin the switch in January, replacing plastic cutlery and lids with wooden and fibre cutlery and fibre lids for its bowls and cups. The new items will eliminate the use of an estimated 90 million single-use plastics a year across Canada, the company said in a press release. The wooden cutlery is made with wood certified by the Forest Stewardship Council based on its sustainable forestry standards. The announcement came on December 20th, coinciding with the federal government's ban on the import and manufacturing for sale of single-use plastics. These include bans on plastic checkout bags, cutlery and food-service ware made from problematic plastics. The company also encourages its customers to use reusable mugs (and bowls) by offering a 10% discount.



New stretch sleeves are 50% thinner

Austrian label converter, CCL labels, has announced the launch of stretch sleeves that are reportedly 50% thinner than the market standard. While current labels tend to come in at around 45µm, these are 30µm thick. CCL have calculated that over 100 million sleeves, producers could save up to 32 tonnes of plastic. The company sees the main application to be returnable 1 litre PET bottles commonly used in the mineral water market. These stretch labels are made from mono-PE (polyethylene) which has a high degree of elasticity. This means that no adhesives and no heat is necessary to apply the sleeve to the bottle or other container – it attaches itself and stays in place with the help of its own elasticity. It is possible to integrate different percentages of recycled content, including Post-Consumer Recyclate (PCR) material.



Seaweed snack moves to trayless format

California-based Ocean's Halo manufactures Asian-inspired foods and snacks. They have announced the release of a trayless seaweed snack, which most seaweed products rely on for product protection. The product was initially trialled without the tray in September 2021 in 400 stores, but has now been extended to over 5,000 outlets and select online retailers. By removing the tray, the company hopes to keep 15 million pieces of plastic waste out of landfills and oceans yearly. The change will also reduce the company's carbon footprint by 50%. The company says this trayless version will account for nearly four times more shelf efficiency at supermarkets and sell two times more units per shopping cart than the trayed version. This spring, it will launch in the UK at Morrisons and on Ocado.com.



Yoghurt container weight reduced by almost 20%

Thanks to the involvement of their packaging supplier Berry Superfos, German dairy producer Milchwerke Schwaben has managed to reduce the weight of its one kilo yoghurt and dessert containers by 19%. The Berry Superfos UniPak is the container that the dairy has used since the launch of the products. When it was first introduced, the container weighed 50 grams, years later it was reduced to 43 and now it is only 35 grams. This has been achieved by Berry Superfos carrying out several minor adjustments. They reduced the empty space, shortened the side edge, the handles are thinner and they changed the security seal. A spokesperson for Milchwerke Schwaben said that thanks to the modifications they can now load more containers on each pallet, and after slightly modifying their filling line for the newly designed containers, they now have lower handling costs.



New sustainable films reduce carbon footprint

Global packaging company Amcor has announced the European launch of its new PrimeSeal and DairySeal Recycle-Ready Thermoforming Films for meat and dairy, which are claimed to offer excellent packaging performance, as well as improved sustainability and circularity of packaging. The company says that the material is certified as recyclable by Cyclos-HTP, the German evaluation institute, and is recyclable within PE (polyethylene) streams while also offering up to 80% lower carbon footprint compared to existing PA/PE (nylon/polyethylene) thermoforming films. Ranging from 85 to 200µm thicknesses with custom-engineered forming, the packaging is puncture and abrasion resistant for increased product protection, and is heat resistant up to 90°C. The new films are said to be suitable for fresh and processed meat and fish, as well as hard cheese. The new PrimeSeal and DairySeal Recycle-Ready Thermoforming Films are available for orders in Europe, Middle East and Africa as of January 2023.



Patented pouch innovation reduces excess packaging

Toronto-based Arranti has launched a new product called the Beyond Spout Pouch, which the company calls “the pouch without the spout”. The new flexible valve technology provides controlled dispensing and spill-proof containment of liquids in flexible packaging. The flexible valve yields when squeezed, and pressure is applied to the product compartment, which then enables controlled dispensing. When pressure is released, the valve reoccupies and closes the dispensing channel. Dispensing is said to be easy and convenient, with one-handed functionality. The Beyond Spout Pouch is also stated to be efficient for in-line production applications. This patent-pending innovation is available with either digital or gravure print. It is also available in 100% recyclable material. The pouch boasts a myriad of uses, including shampoo & conditioner, lotions & gels, soap & body wash, hand sanitiser, household cleaners & detergents and liquid refills.



Automotive parts manufacturer reduces packaging by 70%

German multinational automotive parts manufacturer Continental has moved its Timing Belt Kits with Water Pump packaging to a smaller, more sustainable format. The new packaging is 70% smaller than the previous incarnation. This is because previously, the kits (belts, water pumps, tension pulleys, etc.) were packed in individual boxes, which were then assembled in a large outer cardboard box. Going forward, a specially folded cardboard reinforcement will ensure that all components remain safe and secure in the box, even without individual packaging. The new format saves around half the amount of board used in the manufacture of boxes, which substantially reduces CO2 emissions. CO2 is also reduced during transport, as around 70% more kits will fit on a pallet. This means a reduction of 98 truck trips per year in terms of logistics, which calculates to 390 tonnes less CO2 annually.



Dutch packaging-free supermarket saves over three million packaging items

Pieter Pot is a Dutch online packaging-free supermarket that began in 2019. They have now announced that following doubling its customer base from 50,000 to 100,000 users, it has reportedly saved over three million packaging items in 2022. Pieter Pot subscribers order from over 500 products online, which includes a small deposit for the glass jars. After use, the jars are then collected, and the deposit is returned. The company says that larger suppliers are beginning to adapt their supply chain to Pieter Pot's system. Heinz, De Ruijter, Brinta and Autodrop, among others, have started using (reusable) bulk packaging this year. Testing with other major brands is in progress. Pieter Pot hopes to save twice as much packaging by 2023, to arrive at ten million packaging items saved since its foundation. The company wants to prove that a circular packaging model can be financially sound. The latest innovation is the offering of refrigerated products in circular packaging.



Chilled meat supplier moves to more sustainable label operation

British label supplier Coveris, in conjunction with Finnish material supplier UPM Raflatac, is providing Yorkshire-based Cranswick Convenience Foods with a more sustainable solution for its cooked meat products. Cranswick will switch from a PET (polyethylene terephthalate) release liner – a critical component of the label application process, to the new fibre-based product from Raflatac, their RAFNXT+ material, which is then returned to Coveris for recycling. The move will also show a weight saving of around 12% per label, while the new liner material will remove over 35 tonnes of plastic PET from the supply-chain annually, replacing this with a lighter weight label, recyclable liner and more sustainable alternative. The used liner material will be taken to Coveris' Boston site where it will be recycled. The new material will be used across more than 175 million packs to support sustainable targets, including Cranswick's own carbon agenda, and Coveris' sustainability vision of No Waste.





Protect and Preserve

Protect and Preserve

Solutions that prolong shelf life, decrease food waste, and safeguard contents have both environmental and economic benefits. We continue to observe new developments in this area. The COVID-19 pandemic has led to an increase in supply chain-based initiatives that aim to safely distribute vaccines.

Preventing food waste remains a crucial goal, and we are monitoring various packaging formats that have been engineered to reduce food waste. It is widely reported that between 33-50% of all food produced globally goes to waste, with a value of over \$1 trillion. Advancements in technology are playing a role in addressing this issue, with many recent developments using technology to detect and communicate changes in the state of food. Packaging plays a vital role in minimizing food waste. In this section, we will focus on examples that enhance the environment by extending shelf life or reducing waste, as well as packaging that protects the product through improved secondary packaging solutions that take into account environmental or cost considerations.

Protect and Preserve



[Multi-million dollar funding for food sensor development](#)

[Cardboard fruit trays using twine offers flexible closure solution](#)

[New product provides tamper evidence for syringe needles](#)

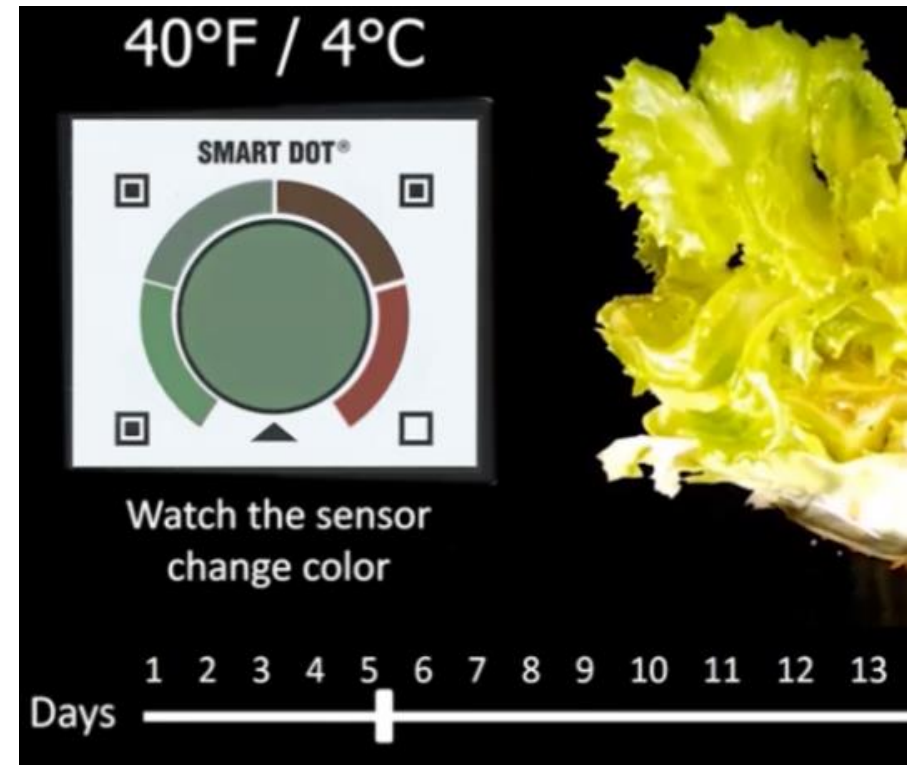
[Tamper-evident corrugated box meets online needs](#)

[Clamshell features patented child-resistant closure](#)

[Anti-counterfeiting holograms can be authenticated using mobile phone app](#)

Multi-million dollar funding for food sensor development

New Jersey-based technology company Evigence has announced that it has raised US\$18m (£15m) in a series B funding round. The company plans to use the money to further develop its system's data collection and analytics capabilities, and launch additional commercial partnerships in the US and Europe. Evigence's sensors, which are small enough to be incorporated into a sticker that goes onto produce packaging, can detect the temperature and time passage and uses that data to calculate the current and projected freshness of produce. Evigence's sensors can give visual cues such as through colour change on the sticker or have an hourglass empty to let the consumer know when a product is no longer fresh. The company says that "tens of millions" of Evigence sensors have been deployed across a variety of food and beverage markets which has collectively resulted in 20% shelf life extension and 33% reduction in waste.



Cardboard fruit trays using twine offers flexible closure solution

A+P Service is a specialist company based in Germany that produces fruit and vegetable sorting systems and packaging machines. Thanks to their sophisticated packing technology, cardboard trays of any size can be closed flexibly and efficiently with sustainable twine. Pack sizes of 4 to 8 apples, for example, can be packed in the tray regardless of fruit and tray size, as the packaging technology adapts with the tray of the fruit being packed. From the packer's point of view, it is a low-maintenance design with high efficiency. The technology is uncomplicated and user-friendly. The energy-efficient system can be used immediately without any start-up time. Also, there is no need to change over to other packaging sizes. As there are no changeover times to bear in mind, this in turn, has a positive effect on efficiency in production.



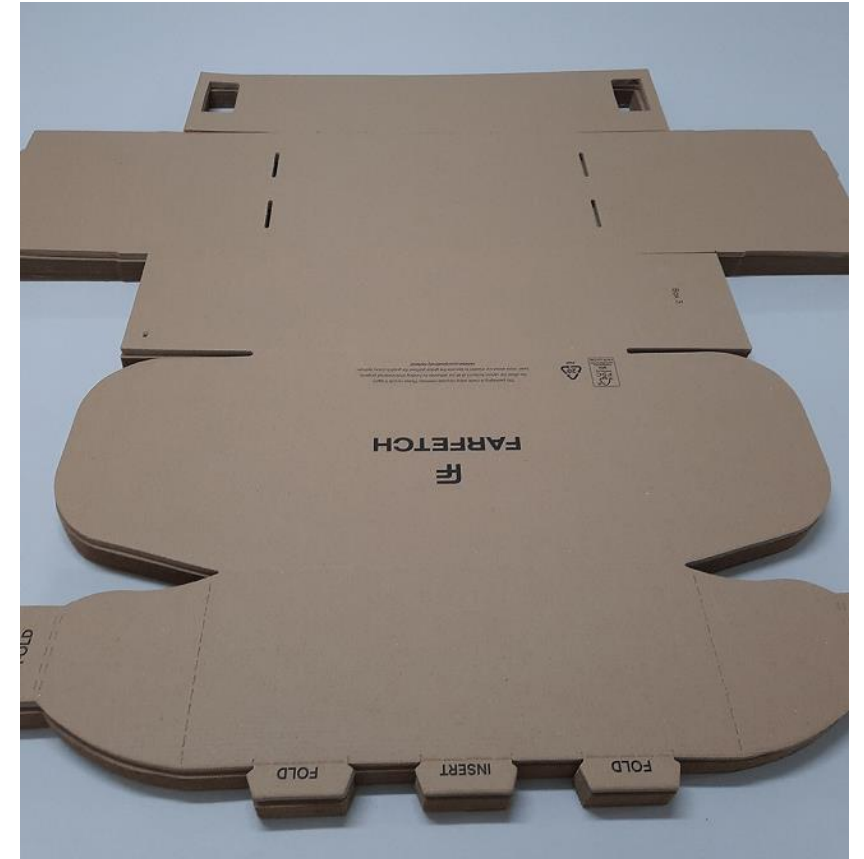
New product provides tamper evidence for syringe needles

Munich-based Schreiner MediPharm has launched a new product that provides tamper evidence for syringe needles. The new product, called Needle-Trap, features a novel closure seal with a tab ending on the syringe cap. While the cap is being pulled off, a perforation automatically activates the label-integrated seal, which irreversibly indicates the first opening of the label. Special security cuts prevent undetected removal of the seal. Overt authentication features such as a guilloche pattern or covert security features can be added for enhanced authenticity verification. The addition of the new feature provides pharmaceutical manufacturers with a multifunctional and cost-efficient solution. It combines the protection of healthcare staff against needlestick injuries with first-opening indication ensuring the integrity of the prefilled syringe. According to Schreiner, the new Needle-Trap version can be easily integrated into existing pharmaceutical manufacturing processes.



Tamper-evident corrugated box meets online needs

US-based International Paper Company, the world's largest pulp and paper company, has announced that it has won the Worldstar packaging 2023 award for its 'inviolable' box, which has been designed to secure and protect electronic products without the need to use plastic or adhesives. The design of the box is a response to one of the challenges presented by the shipment of products sold online and which is most demanded by consumers: ensuring that internet purchases reach their recipients in perfect condition. The design features a tamper-evident closure that breaks when the package has been opened for the first time, without the need to use adhesive tape, thus favouring the circular economy and sustainability. It is also manufactured with low-carbon production processes, made only of corrugated cardboard, a resistant material that reportedly increases the safety of its content. It is 100% recyclable and reusable.



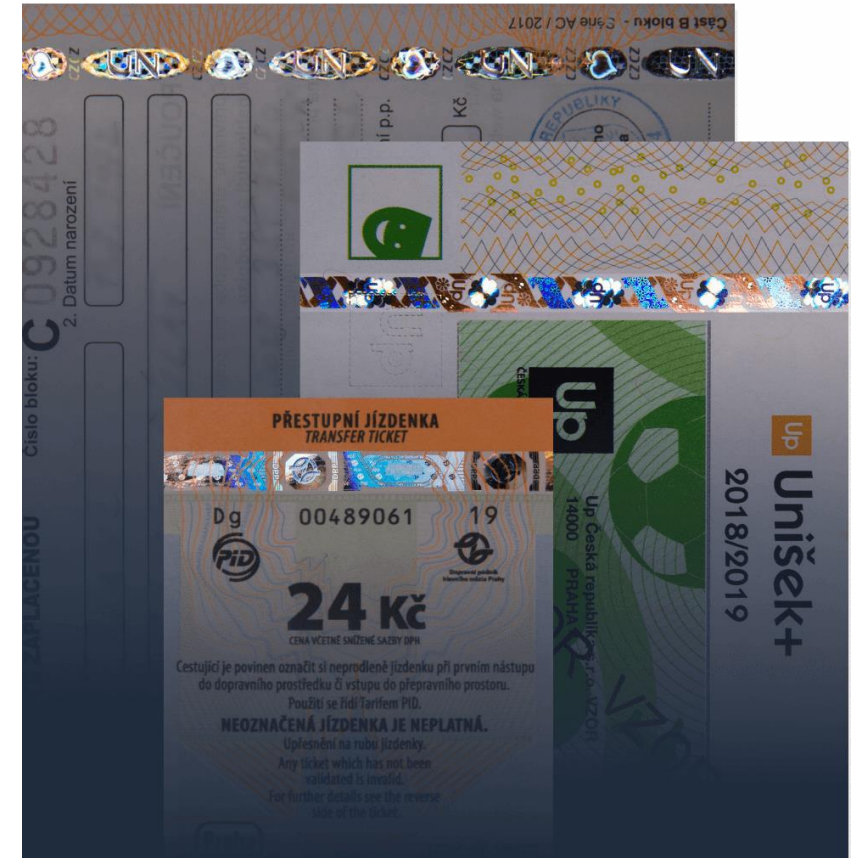
Clamshell features patented child-resistant closure

New York-based Jamestown Plastics is broadening the range of uses for its 'Clamtainer', which features its patented Click-It Closure technology. The Click-It technology was patented in 2015 and was successfully launched on child-resistant products such as their DoomBox mouse traps. They are now widening the scope of the product by producing versions suitable for a much wider range of products, including food products, such as baked goods and produce such as berries, to consumer products, such as nuts, bolts and screws, consumer batteries and even bullets. A spokesperson for the company said that any product in a conventional clamshell can benefit from their Clamtainer technology and both the producer and the consumer would be happier. The design utilises a pin that engages into a hole in the vertical sidewall of the Clamtainer, which achieves a very high level of closure strength. The Clamtainer is usually made from rPET (recycled polyethylene terephthalate).



Anti-counterfeiting holograms can be authenticated using mobile phone app

Prague-based IQ Structures is a research and production organisation that focuses on hologram technology for ID and anti-counterfeiting applications, including bank notes. They have now announced the development of machine-readable holograms that can be authenticated automatically using just normal light and a mobile phone app. A spokesperson for IQ Structures explains: “machine-readable holograms combine two very powerful principles. Our holograms contain unique visual effects that virtually cannot be replicated because they are based on special nanostructures. The second principle is automated control, immune to human failure. Each is powerful; together it is unbreakable”. This product is based on micro-segmentation technology to ensure seamless integration into the card. Any attempt to manipulate the holographic layer ends up disintegrating the hologram into thousands of miniature parts. This new development is said to have numerous applications, from personal documents to paper certificates and packaging for brand protection.



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Recycling Resurgence



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Recycling Resurgence

Recycling initiatives continue to be one of the most active sustainability areas driven by challenging Plastic Pacts around the world that are part of a three-pronged objective to deliver 100% recyclable packaging by 2025. Pending packaging taxes that require 30% recycled content is influencing change as well as the focus on stretching recycling targets. We are seeing more chemical recycling initiatives as well as recycled PS and PP developments coming to our attention.

This large section includes recycling initiatives as well as packaging that now incorporates (more) recycled content. We can report many examples of mono-material developments and other measures to improve recycling rates. The introduction of Packaging Taxes is also on the horizon, influencing the recycling of packaging. The UK's has already been implemented in April this year, which sees a levy on plastic packaging with less than 30% recycled content. This activity inevitably influences the demand for packaging reduction activities. There is still a long way to go in terms of consumer education and essential infrastructural and capability changes to improve recycling rates. We can report on an increase in the number of chemical recycling initiatives coming to our attention although still modest at this stage. Mechanical recycling processes is still the dominant way to deliver recycled packaging and this looks set to continue.

Recycling Resurgence

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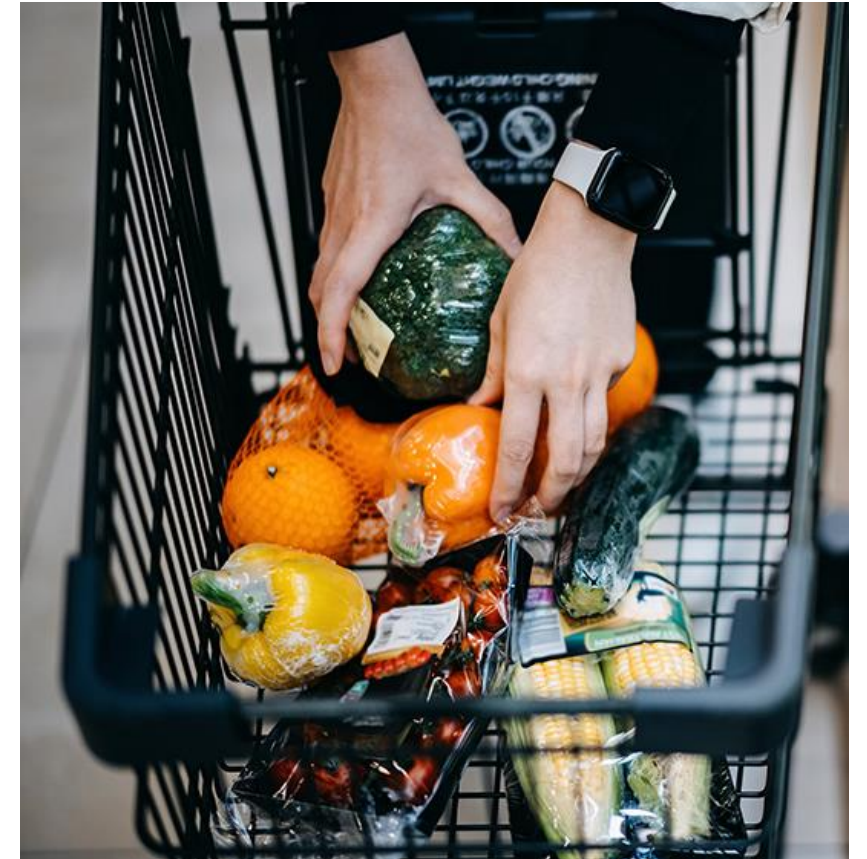
Luxury department store trials recycling of cosmetics products

Luxury department store Harrods is trialling a scheme to encourage customers to recycle their beauty cosmetics products. The trial will take place at Harrod's H Beauty store in Milton Keynes over three months. Harrods is working with its Yorkshire-based recycling partner MYGroup on the trial, which will accept nail polish and fragrance bottles in a first for a UK beauty recycling scheme. Classified as hazardous products, they have previously been difficult to recycle. Shoppers visiting the H Beauty store will also be able to recycle items such as compacts, mascara and eye shadow containers, as well as shampoo and skincare bottles, lotion pumps and vitamin bottles. The recycling stations are situated close to the checkout. As part of their membership of Harrods' My Beauty Rewards programme, customers can earn rewards points, exclusive offers and services, and discounts on beauty treatments at Drybar and Townhouse.



New range of thermal paper labels made from 100% recycled fibres

Helsinki-based UPM Raflatac are claiming a world first with the launch of a range of new thermal paper labels made from 100% recycled fibres. The range includes the first commercially available total phenol free thermal paper labels made with 100% recycled fibres. The labels are designed for use in the food, retail and logistics labelling sectors. The company says that this new range offers brand owners a way to increase the proportion of recycled materials in their packaging. This in turn reduces the pressure on forests and enables a more circular economy. The range is FSC (Forestry Stewardship Council) certified, and the labels maintain the same functionalities as label material made from virgin fibres. The labels adhere well to different types of packages which makes them a good choice for logistics and retail labelling applications, while the printability of the labels is said to be equal to non-recycled products.



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New addition to recyclable PE bag range

Cincinnati-based flexible packaging producer ProAmpac has announced a new addition to its QUADFLEX recyclable packaging platform. The PE-based range is now joined by QUADLFEX LT, which the company says is an excellent way for brands to transition into durable plastic packaging that offers superior product protection and sustainability options. The company also says that this new format is specifically designed for efficient performance on automated filling and palletisation equipment and can hold up to 50 pounds (22.7kgs) of product. QUADLFEX LT also has excellent drop and dimpling resistance for heavy product weight applications and can be formulated with either mechanical or chemical post-consumer recycled content. Four panels of branding space can be printed with high-definition (HD) flexography. For enhanced consumer convenience, QUADFLEX LT can include a top or c-cut handle or an additional header for more branding space.



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British supermarket moves to recycled coastal plastic for chilled fish trays

British supermarket chain Tesco has formed a partnership with international independent organisation Keep Sea Blue, which will mean that the plastic packaging for its fish products will contain a minimum of 30% Recycled Seaside Plastic (RSP). This is recycled coastal plastic collected from beaches, coastlines, and coastal communities within 10km of the Mediterranean Sea. A network of collectors across the region, including local authorities, non-profits, volunteer groups, and the private sector, collects the plastic, at which point the PET (polyethylene terephthalate) packaging will be sorted, ground, washed, and recycled to be utilised in food-grade packaging materials. The recycled PET will be used in trays to pack Tesco's salmon, haddock, cod, and sea bass lines. A spokesperson for Tesco said that where they can, they are reducing the amount of virgin plastic they use in their business.



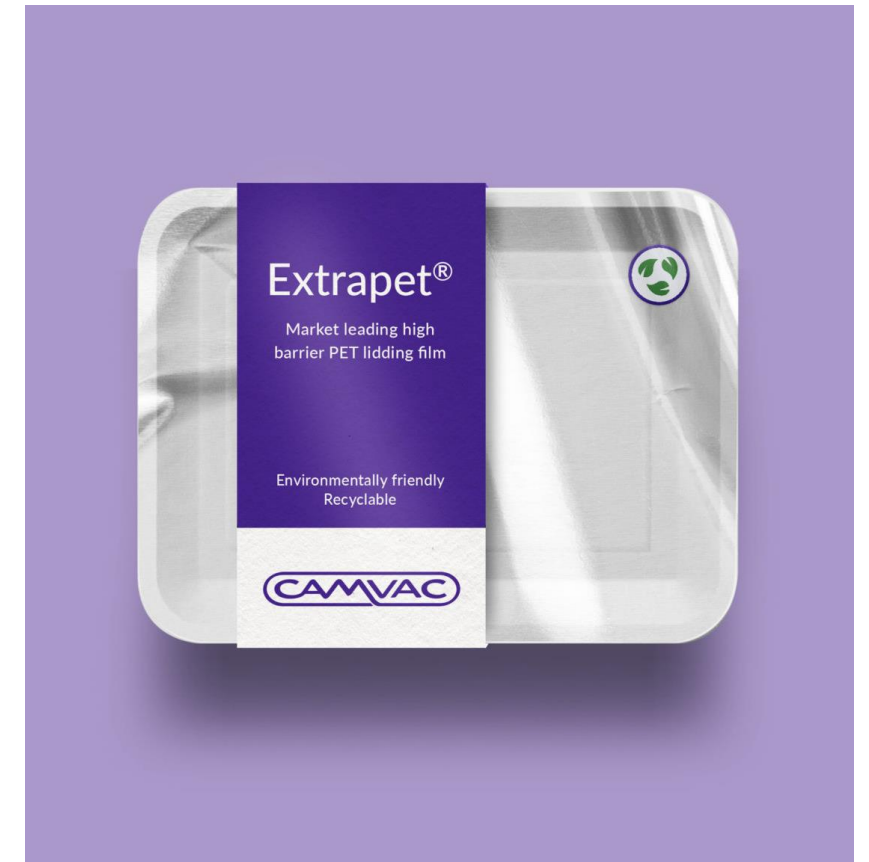
Polish food company moves beverage cartons to tethered cap

Polish multinational food company Maspex Wadowice Group has become the first food company to change its cartons to SIG's domeTwist closure with tethered cap (domeTwist TC) for their combidome carton packs. The company recently launched their Tymbark Vega juices in the combidome 500ml carton bottle with domeTwist TC. They intend to move their 1 litre packs to the same format in due course. The caps are compatible with SIG's existing filling lines and cap applicators, an example of the flexibility and adaptability of the packaging and filling solutions at minimal cost to customers. The closure does not need to be held in place, so the consumer can conveniently drink from the pack without being disturbed by the closure. The move comes well ahead of an EU directive on closures for single-use beverage packaging that will come into force in July 2024.



Peelable rPET film contains over 60% post consumer content

Camvac is a packaging company based in East Anglia that specialises in metalising PET (polyethylene terephthalate) and OPP (oriented polypropylene) films. Their latest development is a PET barrier film that contains over 60% PCR (post consumer recycled) content, well above the required 30% minimum of the UK Plastic Packaging Tax threshold. This new film, known as ExtraPET PCR, is part of Camvac's ExtraPET film range, which is used primarily for the food and converter marketplace. It also positions itself within Camvac's growing Camvert range of sustainable packaging solutions. The high barrier polyester laminate film's versatility contributes to the film being used for a wide range of processed meats, fresh meats, poultry, pasta, vegetable, and bakery packaging. The peelable ExtraPET PCR is available as an adhesive laminate of 12-micron polyester to 20-micron polyester. ExtraPET PCR Peelable total PCR content makes up 62% of the laminate structure.



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Spanish dairy moves to tethered cap

Spanish dairy Lactalis Puleva has moved its entire range of one litre aseptic 'brik' cartons to a new format which includes a tethered cap, ahead of upcoming EU legislation, which comes into force in 2024. Because the carton and the stopper will be deposited together, it makes the empty cartons simpler to recycle in the country's yellow recycling container. The company says that it uses 577.6 million caps for its brik containers, which is equivalent to a total of 1,762 tons of plastic. The union between the container and the cap, means that there is greater certainty that all the packaging produced will be recycled. The company has also moved all of its entire litre (slim) range to the most renewable plant-based container on the market, Bio-Based, which eliminated 3,027 tonnes of fossil-based plastic from the market.



Pasta packaging is now 100% recyclable

Italian multinational food company Barilla, the world's largest pasta producer, has announced that its 'blue box' range of pasta is now 100% recyclable, due to the removal of the plastic window to the front of the pack. The move also coincides with the brand's 145th anniversary, and is expected to remove approximately 126,000kg of plastic annually across the globe. The packaging is now made from virgin fibre board sourced from responsibly managed forests. The new packaging also features a redesigned identity with a fresh and modern logo and colour scheme. A spokesperson for the company said that a significant part of Barilla's commitment to a more sustainable world is the packaging they use for their products, and that it was their responsibility as a global brand to take a step forward for the environment by reducing unnecessary plastic waste.



New shrink film contains 30% recycled material

Gunze, a plastic film manufacturer based in Osaka, Japan, has announced the launch of what it calls an “eco-friendly” heat-shrinkable film. The company plans to launch GEOPLAS HCT3, a heat-shrinkable film with recycled resin, to the Japanese market in January 2023, with plans to expand and roll out to the US and ASEAN markets later. This latest film is the first of a series of recycled heat-shrinkable films that lowers the use of petroleum-derived raw materials. It also reduces greenhouse gas emissions. GEOPLAS HCT3 has both polystyrene (PE) and polyethylene terephthalate (PET) and uses 30% recycled raw materials. The company will launch the shrinkable film with 30% recycled material in January and aims to increase the ratio to 50% by 2024 and 100% by 2030. The new film can be used as shrink labels for bottled beverages, foods and other products such as cosmetics and personal care.



German dairy introduces tethered caps for UHT milk cartons

German dairy Landliebe Molkereiprodukte GmbH has moved its UHT milk cartons to tethered caps, well ahead of incoming EU legislation. This states that all single-use beverage containers must come with caps attached by July 2024, so they can be more easily recycled with the rest of the pack. In September 2022, the company introduced UHT milk in combiblocSlimline carton packs with SIG's combiSwift TC (tethered cap) under its Landliebe brand. SIG says that its combiSwift TC closure does not compromise on convenience for consumers and is very easy to use. They also say that it is compatible with existing filling lines and closure applicators, demonstrating the flexibility and adaptability of SIG's packaging and filling solutions for customers at a minimum cost. Market research conducted by SIG has proven high consumer acceptance in terms of drinking and pouring.



Malaysian noodle packaging contains 30% ocean bound plastic

Malaysian flexible packaging company Scientex Group has announced that it is supplying a customer with instant noodle packaging that contains 30% post consumer recycled (PCR) ocean bound plastic (OBP). Saudi Arabian petrochemical company SABIC collaborated with Scientex to develop what is claimed to be the world's first flexible food packaging made based on advanced recycled OBP, using SABIC certified circular polypropylene (PP). OBP is abandoned plastic waste found in areas up to 50 km inland from waterways that may eventually be washed into the ocean by rainfall, rivers or tides. The OBP used in the project is recovered and converted to pyrolysis oil in an advanced recycling process. SABIC uses this oil as an alternative feedstock to produce certified circular PP polymer for further processing to BOPP film. Scientex then prints and converts the film into packaging for noodles.



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LLDPE producer gains food contact certification for post consumer recycled material

Texas-based Natura PCR, who are part of Avangard Innovative, claims to be the leading producer of film/post-consumer resin in the Americas. They have now announced that they have been granted a Letter of Non-Objection (LNO) by the US Food and Drug Administration (FDA) for its 100% PCR (post consumer recycled) linear low-density polyethylene (LLDPE). The LNO means that Natura PCR's recycled LLDPE can be used to make direct food-contact packaging products. This would include packaging for foods that require storage at room temperature, as well as refrigerated and frozen foods. The demand for recycled plastics is increasing with more consumer-packaged goods companies pledging to include more recycled content in their packaging. Natura PCR has a capacity of more than 100 million pounds (45.36 million kgs), and they anticipate doubling this over the next 18 months.



Glass mustard jar becomes more sustainable

Nestlé, owners of the Thomy mustard brand, has announced that it is making its glass mustard jar more sustainable. A screw-top glass now replaces the previous drinking glass shape. This has caused something of a backlash on social media, as the previous mustard jars gained a cult status due to their second life. Once emptied and washed, they served as drinking glasses, which are an integral part of the crockery in many households in Germany. The company says that thanks to the screw cap, it is much easier to open and reseal than the previous version. Moving to the new jar, the CO₂ footprint is reduced, as the new Thomy mustard jars are lighter than the old mustard crystal. Recyclability of the jars has also been improved as the old glass moulds required 100% “new glass” during production. Around half of the new variants are now made from recycled glass.

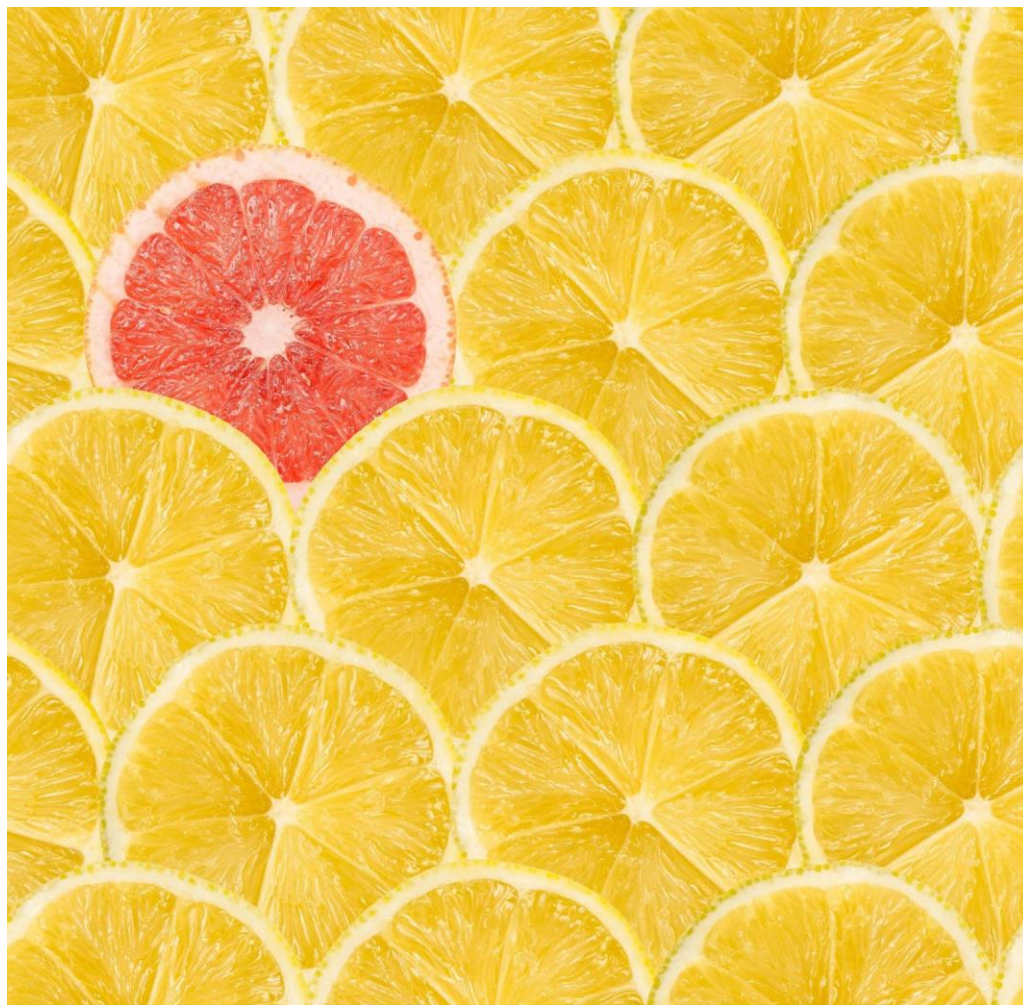


Handheld instrument can differentiate between 17 different plastics

Matoha Instrumentation is a London-based company that has developed PlasTell, a portable instrument that can identify different plastics in less than a second. Plastic manufacturing and waste streams contain numerous types of visually identical but chemically different polymers, meaning they are nearly impossible to differentiate with the naked eye alone. PlasTell takes away the guesswork. PlasTell can identify the 17 most common polymers. The free Android and iOS app can be used to save measurements, access cloud data and configure the machine. The LED indicator can be easily configured through the app to show a particular colour for a specific polymer. The company says that accuracy depends on the cleanliness of the samples and correct measurement techniques. In tests, > 95% is achievable. It cannot, however, handle dark materials that contain carbon black or thin films less than 20µm.



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Getting Noticed

Getting Noticed

Despite the growth of online, the importance of creating impactful and noticeable packaging continues to create a point of difference. The packs have a role to get noticed on shelf as well as engage and delight in the consumer's hand and again this month we have some great examples. Despite the shift to online purchases, packaging that can get noticed continues to come to our attention. The importance of standing out on supermarket shelves or even in kitchen cupboards cannot be understated.

A pack's first impression can be the difference between success and failure in an ever-increasing competitive marketplace. We have tracked several examples that do just this. Also creating an impact in the hands of consumers is also important. A challenge for brands and retailers is to deliver pack finishes and decorations that meet the need to be sustainable.



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Getting Noticed

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Corrugated packaging can now incorporate curves

Europe's leading corrugated packaging company, Smurfit Kappa, can now offer customers shaped corrugated packaging. Using microflute corrugated cardboard, packaging can now be designed to fit around the customers' product without the need to be regular angular shapes. Smurfit says that innovatively shaped corrugated packaging allows brands to differentiate their products from competitors' on shelf. The shape, in combination with the high quality print, creates an eye-catching pack, maximising both brand impact and sales. The lightweight material is also 100% recyclable. These shaped packs are suitable for food contact, and high quality print is available to promote both the product and brand. Smurfit also says that 100% of paper produced and sourced for its packaging solutions is FSC (Forestry Stewardship Council), PEFC (Programme for the Endorsement of Forest Certification) or SFI (Sustainable Forestry Initiative) Chain of Custody certified.



Luxury champagne has illuminating label

French luxury champagne producer Cattier has introduced a limited edition bottle with a label that illuminates to show the Cattier name light up on an all-black label as the drink is being poured, or manually turned on by users. The innovation was developed for Cattier by Polish design company PackHelp, and with German technology company Inuru. The concept was developed from Inuru's patented ELF (embeddable luminous film) and comprises paper-thin OLED (organic light-emitting diode) film. Inuru's visual interface can be found globally across printed displays thanks to its bendable and water-resistant qualities. With Warsaw-based Packhelp, the smart packaging brand integrates the ELF sheets into a new design for the all-white champagne bottle. A spokesperson for Inuru said that Illuminated labels were just a first step and that they are looking forward to introducing even more ways for consumers to interact with packaging.



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Stand-alone machine offers multiple 3D printing effects for film

Germany-based KURZ Group is a worldwide leader in thin film embellishment technology. They have developed the DM-UNILINER 3D, a machine which can metalise and varnish in just one work step. Thanks to the 'inkjet on substrate' technology, the machine offers individual flexibility for the finishing process and allows the user to create flat and haptic effects. With different ink lay downs from 4 µm up to 100 µm, the operator gains maximum design freedom and breaks with the conventional flat 2D surfaces that are typical for digital printing. Finished with a wide range of metallization effects, high-gloss or matte designs will catch the eye of shoppers at the point of sale. The DM-UNILINER 3D is a stand-alone decoration unit for flat or raised varnishing and metalisation effects. It is ready to use whenever and wherever it is needed in the printing process.



Researchers license environmentally-friendly flexo solution

A team of researchers at the Indian Institute of Technology, Roorkee (IIT Roorkee), along with Afflatus Gravure Private Limited, have developed a reportedly more sustainable solution for flexible printing that is also cost-effective. The researchers at IIT Roorkee developed the water-based solution to meet the challenge of reducing carbon footprint and VOCs to promote a green solution which will be the benchmark for green manufacturing systems in printing applications, leading towards an environment-friendly solution. The objective of the project was to develop a highly sustainable, environment friendly and cost-effective printing solution. A spokesperson for Afflatus said that the technology will likely be “a game changer in the world of printing”. A patent for the technology has already been applied for by IIT Roorkee.





Refill Revolution

Refill Revolution

The trend towards refillable and reusable packaging is gaining momentum as more companies explore ways to reduce their use of single-use, hard-to-recycle packaging. This growth is partly driven by the goal of the Plastic Pact to deliver reusable packaging by 2025. Many of these initiatives are coming from start-up and smaller brands, but multinational companies are also beginning to test the waters with small-scale trials and pilots. The dry food, household, and health and beauty sectors are currently the most active in this area.

Consumer attitudes towards single-use packaging are shifting, with a growing resistance to disposable packaging. The innovations in refillable and reusable packaging can be categorized into the four models outlined by the Ellen MacArthur Foundation: Refill at home, Return from home, Refill on the go, and Return on the go. The dry food, household, and personal care sectors are leading the way in this area. Many of the in-store examples of refillable and reusable packaging are currently small trials and pilots, as major retail chains test the waters with a limited number of initiatives in select outlets. The next steps of these major retailers will be watched with interest.



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Fashion designer's skincare brand packaging is refillable & recyclable

A collaboration between Italian glassmaker Bormioli Luigi, and the French beauty packaging specialist, Texen has resulted in a redesigned, refillable glass airless solution for fashion designer Stella McCartney's skincare line. The recyclable and refillable packaging has been designed with the aim of reducing the environmental footprint by at least a third. The bottle by Bormioli Luigi currently contains 15% recycled material though they hope to increase it to 40% in 2023. The refills are produced by Texen from a decorated and recyclable multilayer film, ensuring all the barrier effects required for the optimal protection of the new formulas. These refills are made from ISCC+ certified renewable sources, predominantly from wood waste, using the mass balance principle. All components are recyclable. When empty, the pouch and cap can be recycled in their respective recycling streams, while the pump kit and bottle or jar can be reused many times.



Dairy offers customers reusable lids for yoghurt pots

UK organic dairy Yeo Valley is offering its customers the opportunity to obtain reusable lids for its 350g and 450g yoghurt tubs. Consumers can go to the Yeo Valley website and exchange 'Yeokens' which can be earned by redeeming codes from Yeo Valley packaging, to obtain their own lid, which is set to replace the previous clip-lid design. Yeo Valley have made the decision to remove the clip-lids previously used, following successful trials on their Greek yoghurt pots. Removing the clip-lids will save an estimated 145 tonnes of plastic a year. Yeo Valley Organic's 350g and 450g yoghurts are currently sold in Greiner Packaging's K3 cardboard-plastic cups, which are recyclable, made from 100% recycled PET, and wrapped in cardboard made from FSC-certified material. The packaging can be cleaned and separated into the plastics and cardboard recycling streams, respectively.



Fast food giant offers reusable cups in German restaurants

Fast food giant Burger King has formed a partnership with reusable cup company Recup to supply their reusable cups in German restaurants. From the start of 2023, customers in all 750 Burger King restaurants have been able to order drinks, milkshakes and ice cream in reusable cups. The move follows a successful trial in selected restaurants in the Cologne area as part of a reusable pilot project. The pilot project has provided important insights for the nationwide launch of an attractive reusable system that guests can easily use. A deposit of €1 (£0.88) is paid for Recup cups and lids, which means a deposit of €2 for a drink with a lid. The return is possible in every Burger King restaurant and at over 16,500 Recup partners throughout Germany. After being returned, the cups are cleaned in the catering dishwashers like normal tableware and then returned to the cycle.



US e-commerce retailer offers refillable cleaning products

Thrive Market is an American e-commerce membership-based retailer offering natural and organic products. They have launched a new range of household cleaners under the Rosey brand, which includes three products offered as a liquid concentrate in a pouch, accompanied by a reusable glass bottle. Products in the refillable/reusable line include an All-Purpose Cleaner in a Fresh Lemon scent, a Tub & Tile Cleaner in a Peppermint Scent, and an unscented Glass & Mirror Cleaner. The concentrates are packaged in a stand-up pouch with a dispensing spout and a screw-on cap. The complementary reusable, dishwasher-safe bottles feature a glass body, a non-slip, protective silicone boot coloured yellow, blue, or green and subtly engraved with the Rosey logo, a plastic trigger spray made from recycled material, and a bamboo neck. The Refill-at-home products are available priced at \$9.99 (£8.12) per 16-oz bottle and \$4.99 (£4.06) for a 4-oz refill, or bundled together for \$12.99 (£10.55).



Portuguese supermarket chain trialling product refill service

Portuguese supermarket chain Continente is currently conducting a pilot trial on a product refill service. The 'Refill Spot by Continente' allows customers to reuse packages when buying detergents, dried fruits and dog and cat food, saving money in the process and promoting a circular economy. At the detergent refill station, customers can bring their own containers, paying only for the quantity of the product they buy. They can also purchase 1L containers that are 100% recyclable and reuse them in future refills. Food refills are based on a solution developed by Czechian technology company MIWA Technologies, which ensures the control and traceability of the product throughout the supply chain. Products from Continente's dried fruits, bio and pet food categories can be dispensed into reusable 'Smart Cups', which are equipped with an NFC tag. They are available in three sizes (350 ml, 750 ml, and 1,000 ml).



Polish supermarket trials bottle and can return scheme

Carrefour Poland is conducting trials at ten stores in conjunction with German recyclers Eko-Punkt Organizacja Odzysku Opakowań where customers can return PET bottles and aluminium beverage cans. Participants will receive PLN 0.15 (£0.03) in the form of an e-voucher for each item returned which can be spent in store immediately. The Eko-Punkt PETfur bottling machines accept bottles and cans in an uncrushed form and those where the bar code has not been damaged. The packaging collected in the bottling machines will go to professional recycling plants and, after processing, will be made into new packaging. The trials are a response to the plans of the Polish Ministry of the Environment, which is preparing a common deposit-refund system. In 2022, Eko-Punkt collected and recycled over 200,000 tonnes of packaging waste, which was processed into new products as part of the circular economy.



New twist for reusable e-commerce packaging

Two Polish companies have formed a partnership to offer a new reusable packaging option. Packhelp is an online platform that allows customers to design and order personalised packaging. Pickpack is a courier and technology company specializing in fast same-day, next-day and weekend deliveries from online stores. The partnership will allow customers the option of replacing traditional cardboard packaging with reusable packaging. The new packaging is made from corrugated PP (polypropylene) which offers better protection for the contents of the packages during transport, and can be reportedly used more than a hundred times. Unlike other systems, the recipient is not required to return the packaging, the courier will take it back at the point of delivery. Also, for returns, the courier will arrive equipped with appropriate packaging and prepare the shipment for transport to the e-shop themselves.



Major household cleaning product manufacturer moves to refillable packs

A major cleaning products manufacturer has launched products that are reusable and refillable. SC Johnson have introduced their Dissolve system which features dissolvable pod concentrates and a reusable PET (polyethylene terephthalate). The company has introduced Dissolve Concentrated Pods for its Windex Glass Cleaner, Windex Multisurface Cleaner, Scrubbing Bubbles Bathroom Cleaner, and fantastik Kitchen Cleaner. To create the cleaner, users drop the pod into the empty bottle, fill the container up to its shoulder with warm water, twist on the spray dispenser, and shake the bottle to dissolve the pod.



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Beauty giant patents in-store refilling of perfume bottles

American-French multinational beauty company Coty has announced that it has applied for an international patent for in-store perfume blending via a refill machine. The machine would enable customers to blend and refill their empty perfume containers. The beauty giant's method of refilling a used container with fragrance features a transfer system that mixes pre-selected amounts of fragrance concentrate, distilled water and organic compound ethanol. For ease of use, the in-store station will feature a digital interface for ease of use by customers. The company says the station could be used with a range of refillable bottles – both transparent and opaque – and these would be weighed before filling for accuracy. It is thought that in-store refilling of empty perfume containers could take personalisation and sustainability in the industry to new levels. The patent was filed in May 2022 and published in December 2022.



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Reusable label holder saves mess and money

FilmLOC, a US packaging company, has developed INTELLI-PLAC, a patented placard label holder designed for reusable containers. This innovative solution is made without silicone or other contaminants, making it perfect for labeling and re-labeling a wide range of items, including reusable containers, totes, racks, shelves, skids, pallets, equipment, manufactured goods, shipping crates, and more. Unlike other placard label holders that often have silicone-coated surfaces that can wear away during re-labeling, washing, or exposure to chemicals, making it difficult to remove labels, INTELLI-PLAC is designed to be easily removable and recyclable when applied to HDPE (high density polyethylene) and PP (polypropylene) containers. Additionally, the standard adhesive used on INTELLI-PLAC meets FDA standards for indirect food contact, the child toy safety act, and CONEG regulations, ensuring it is safe for use in a wide range of applications.



Refillable body cream jar in limited edition colour for Valentine's Day

Fenty Skin, a brand led by Robyn Rihanna Fenty, has launched a new limited edition product in time for Valentine's Day. Butta Drop Shimmering Whipped Oil Body Cream is in a 'hot pink' pot, rather than the standard lavender. The outer part of the jar is designed to be kept to reuse with a refill. Once it's empty, users press up from the inner ring to pop the refill out. Butta Drop Vanilla Dream Whipped Oil Body Cream is infused with a rose gold pearl, which gives the formula its shimmer. The moisturizer contains nearly 25% rich butters, restorative tropical oils, and extracts. Ingredients include Barbados cherry, and super-humectant glycerin. Rihanna paired her billowy black Schiaparelli Couture gown with the body cream to the Golden Globe Awards, and the product was sold out the next day at Sephora.



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French start-up raises 1m euros for food dispenser development

Woodland Garden is a start-up based in Marseilles, Southern France. They are manufacturers and distributors of a patented certified wooden bulk food dispenser. The food is presented in the manufacturer's bag and inserted into the bulk dispenser. This principle avoids plastic containers and the requirement to clean the dispenser. It also guarantees the consumer the origin of the product and the brand its visibility. They manufacture the dispenser units in their factory in Beaucaire using wood from French (and nearby) sustainably managed forests. In order to increase production and employees, they have now raised €1 million (£877k) via Provence Angels and MELIES Business Angels networks. Their dispensers are already present in seven stores (specialised organic and supermarkets), tested and validated by professionals and their customers. They intend to spread across France at first, then internationally.



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Swedish company promoting reusable takeaway packaging

Panter is a Swedish company that provides restaurants and their customers the opportunity to get their takeaway food and drinks in reusable packaging. When the customer requests their food or drink in reusable packaging, they scan the QR code on the packaging with their mobile. The packaging costs the consumer nothing to use. After use, the consumer returns the container/mug within two weeks to the same place they received it or at another affiliated restaurant. The restaurant then washes it for the next person to use. It is estimated that approximately 2 billion takeaway packages are used annually in Sweden, but recycling rates in Sweden are low, at around 8-9%. According to the organization Keep Sweden clean, disposable packaging accounts for 14% of all litter in the city, and of the plastic found on beaches, around half are disposable items.



Second generation resealable can top is child-friendly

Illinois-based Augusta Label and Packaging have announced the launch of their second generation resealable can top. The Gen II has a black insert on a silver 202 lid with an increased unilateral break point. These lids have been submitted for Child Certification in the US and Europe and should be approved in the near future. These resealable can lids fit any canning line without the need to make modifications. It is reported that millions of reclosable can units have already been sold by Augusta. Initial tests of reclosable can lids for retort and pasteurising processes have proven positive, with certification coming soon. The reclosable can tops are suitable for craft beer, canned cocktails, coffee and the cannabis drink market, these lids can be run on any can line or manual seamer. The design is easy to open and reseal, is spill proof, and preserves the freshness and carbonation of any beverage.



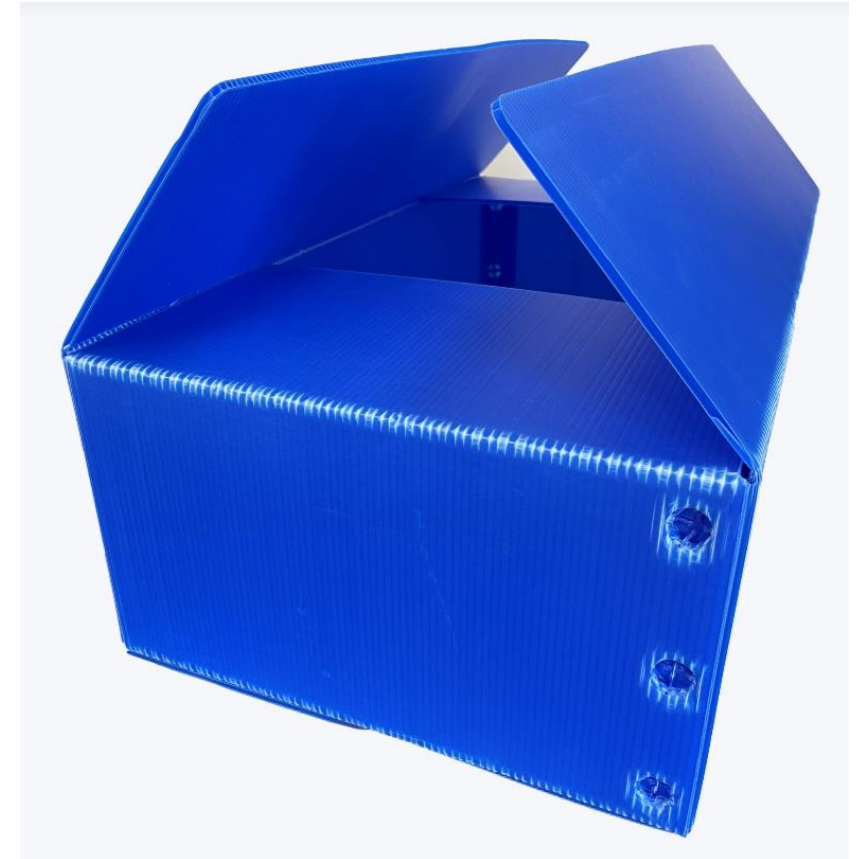
Reusable packaging option for German restaurants and takeaways

From 2023, German restaurants, bistros and cafés selling food on the go or to-go drinks are obliged to offer their products in reusable packaging. The reusable alternative must not be more expensive to the consumer than the product packaged in disposable packaging. Reusable packaging company 'and-less' is one of several companies that are offering reusable packaging solutions to these businesses. Customers generate a pick-up code via an app and request the number of trays required. The number of containers is added to the customer's account, and reconciled when the customer returns them. The containers are made of PBT (polybutylene terephthalate), which has similar properties to PET (polyethylene terephthalate) but has slightly lower strength and rigidity and slightly better impact resistance. 'And-less' offers three levels of service, depending upon usage, from a 'pay-per-use' to a premium branded option for larger customers.



Closed-loop alternative to single-use corrugated boxes

Pact Retail Accessories, based in St. Albans, UK, specialises in reusable products such as garment hangers and security sensors. They have introduced the PolyBox, a polymer-based box that is a substitute for corrugated packaging, enabling garment boxes to be reused and no longer discarded for recycling after one use. Although the initial creation of a PolyBox has a larger carbon footprint than a corrugated cardboard box, it is reported that after just one reuse, the greenhouse gas emissions become lower than those for single-use board containers. The PolyBox comes in a variety of box sizes that are available for production use, and can be customised for a retailer's needs. Reusing an item multiple times creates a carbon footprint that is up to 64% lower than a comparable single-use option. It also uses up to 86% less water. Pact launched the PolyBox in 2022 with successful retail trials at merchants in the United Kingdom and Australia.



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Dutch organic food supermarket to start offering returnable glass jars

The Dutch chain of organic food supermarkets, Ekoplaza has announced that they are to start offering returnable, reusable glass jars. The glass jars, supplied by Wisselwaar, are filled with bulk dry goods, such as peas, rice, breakfast cereals and canned goods, as well as bottles of dairy products. Customers can return glass containers after use and receive their deposit back. There is a 0.70 euro deposit on each jar. Last spring, Ekoplaza joined forces with the Brussels organic chain Färm. This merger allowed Ekoplaza to see which products packaging-free shopping is possible for, and for which it is not. The company aims to introduce Wisselwaar in every Ekoplaza before the end of 2023. The European Commission has recently announced its intention to reduce the amount of post-consumer waste and is encouraging deposit systems, while single-use plastics are increasingly banned.



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Budget smart water bottle is iPhone compatible

Minneapolis-based HidrateSpark has announced the launch of a budget smart water bottle. Retailing at around a third of the price of usual smart bottles at \$20 (£16.80), the HidrateSpark TAP Smart Water Bottle can be connected to the user's iPhone via the Apple Health app, with which you can see your water intake statistics direct from the app. The HidrateSpark TAP Smart houses a traditional water bottle design that includes a straw and inhale-in drinking mechanism to take in water. The bottle is made of plastic and holds 24 oz (681 ml) of water. The base of the water bottle is where the technology is. It houses a light sensor and NFC chip that helps log how much water has been consumed. Underneath the bottom are buttons that have different controls for how often the user can get reminded to drink water by the LED lights incorporated into the base.



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Fast food giant offers reusable packaging option

KFC Germany is now offering its customers the opportunity to order their favourite food in reusable packaging in a partnership with Vytal, reported to be the first digital reusable system for takeaway products. Customers need to download and register the Vytal app. When ordering food, they add the Vytal option to their order. For home delivery, the customer adds the 6-digit delivery code from the app. The customer pays a small deposit, and as long as the packaging is returned to an outlet that is part of the scheme within 14 days, there is no charge. Otherwise, the deposit is forfeited. Reusable packaging will become more prevalent in Germany, as restaurants, bistros and cafés that sell takeaways will be required to offer their products in reusable packaging from January 2023. The reusable option must not be more expensive than the food and drinks in disposable packaging.



Ultra-concentrated detergents reduce plastic use

Inokem is a Portuguese start-up that is a pioneer in the biochemical sector. It is unique in the fact that it sells ultra-concentrated cleaning and disinfection products. Their products are aimed at the household and small business sectors, and offer a unique proposition. One bottle of an Inokem product contains the equivalent of up to 100 containers of conventional detergent, though the average is 40 to 50. The company says that since the start of the business in 2020, they have saved more than a million plastic containers with its concentrated cleaning products. Their ecological products are not tested on animals, and 96% of its products are developed from biodegradable raw materials, which have zero impact, both in their use and on an environmental level. The company says that consumers could achieve financial savings of around €240 (£211) per year in detergents by moving to ultra-concentrated products.



Recycled plastic pallets are more sustainable

Cabka is a Missouri-based manufacturer of recycled plastic pallets. While wooden pallets are the norm in industry, plastic pallets are claimed to have advantages within the chemical industry. Their new pallets, the Eco CP3 and CP9 pallets are sustainable load carriers specially suited to the needs of the chemical industry. Cabka says that these new pallets have advantages over conventional wooden pallets, as they have a long service life, after which they can be recycled into pallets again. Also, in automated systems, as they are dimensionally always the same size, and do not warp or shrink, this ensures process reliability. At 12.5kgs for the CP3, and 14kgs for the Eco CP3, they are substantially lighter than wooden pallets at around 25-30kgs, therefore reducing carbon emissions during transportation, and can take up to 1400kgs of product. The surface of the pallets is robust and free of toxic substances, and therefore easy to clean.



Refillable vape system claimed to be sector disruptor

Independent British vape brand JAC Vapour has launched what it claims is a disruptor in the disposable category. This new product, called the Puff Box is what the company calls the 'indisposable' disposable vape. While the disposable vape device market has become increasingly popular within the convenience sector due to their simplicity and ease of use, this ease of use comes with a cost for the end user, the brand noted, as disposable vaping devices are one of the most expensive methods of vaping as well as not being good for the environment. The easy-to-use Puff Box device comes with one flavour pod/refill included for £5.99, while each refill pack containing 2 refills costs £5.49. The company says that using refill packs halves vaping costs for customers. There are six different refill flavour packs to choose from: Pink Lemonade, Sunleaf Tobacco, Ki Berry Cool, Wings Blast, Mango Ice & Absolute Menthol.



About Us

ThePackHub is a UK-based packaging innovation consultancy that provides packaging solutions to brand owners, retailers, and packaging suppliers. They offer technical support for packaging projects of all sizes, with a strong reputation for assisting start-ups to multinational organizations.

ThePackHub manages a comprehensive innovation database called The Innovation Zone, featuring over 6,800 packaging innovations worldwide, with 25 new initiatives added weekly. They have a vast network of packaging contacts across the industry that helps inform much of their consultancy work. Additionally, they have published several packaging reports, covering sustainability, packaging trends, supplier guides, seasonal packaging, and more. ThePackHub hosts face-to-face seminars that provide insight from expert speakers and bring the industry together to network and collaborate.

ThePackHub has a wealth of experience helping many major companies with their packaging innovation. Clients include Arla Foods, Waitrose, Barilla, Coca Cola, PepsiCo, Mondi, Premier Foods, AB InBev, Kraft Heinz, Mondelez, Mars Wrigley, Church & Dwight, PZ Cussons, Starbucks, Walgreen Boots Alliance, Marks & Spencer, Lidl, Muller and many more.



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