

PACKAGING INNOVATION

BRIEFING REPORT
APRIL 2022



Welcome to ThePackHub's Packaging Innovation Briefing Report for April 2022 – our biggest monthly report ever.

We hope you enjoy this comprehensive and unique monthly review of all things packaging innovation.

This briefing of the month's global packaging innovations and industry news ensures that you are kept up to speed and fully informed of the latest packaging innovations.

We have 140 pages of content and have collated 115 new packaging innovations for the month.

The innovations featured track The Pack Hub's nine trend areas:

Naturally Done

Everyday Engagement

The Online Surge

Making Life Easy

Materially Changed

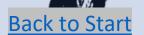
Protect and Preserve

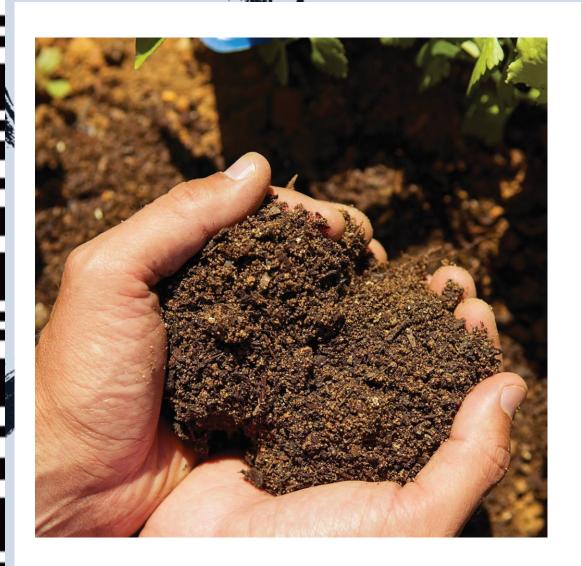
Recycling Resurgence

Getting Noticed

Refill Revolution







Naturally done

Naturally done

This trend area continues to be active with 16 new bio-based initiatives this month. Compostable and biodegradable packaging continues to be developed. We also continue to track several new bio-based material alternatives to plastic. There is a significant amount of compostable, biodegradable and bio-based examples both in development and coming to market.

Without established industrial composting systems in place in most markets, the compostable sector is at a turning point. Mass adoption will only really occur when the infrastructure to deal with the packaging is in place. Home composability is still relatively niche with most consumers not having the space or the will to participate. There are also concerns about compostable and biodegradable packaging contaminating existing recycling waste streams. Cost is also a significant barrier with the packaging sometimes costing brands and retailers three to four times the price of conventional plastic-based products. That is a substantial investment for a brand or retailer when compostable packaging's full benefits are still to be fully understood. We have yet to see many big brand examples introduced with the majority being small challenger brands looking for a sustainable point of difference. The bio-based packaging sector continues to expand at pace. Many of the initiatives listed are still in development and not yet on supermarket shelves.





Naturally Done

Researchers make moulded pulp packaging products from apple waste

Home compostable certification gained for coffee capsules

Compostable paper packaging developed for butter

Snack packaging made from grass and wood fibres makes French introduction

Gelatine-based antimicrobial plastic for food packaging in development

Project started to turn agricultural and food waste into bioplastics

Partnership accelerates compostable pack rollout

Inkjet ink made with bio-based content launched

Hot-melt adhesive developed with 55% bio-based content

Spent beer waste used to make packaging

Scientists use 'green' solvent and natural pigment to produce bioplastic

Roll out of compostable tea packs starts

Fibre-based packaging for olive oil launched

Pallets made from waste-based raw material introduced

Bio-based packaging created on all-electric machinery

Sawdust-based material could be an alternative to EPS foam

Researchers make moulded pulp packaging products from apple waste

Researchers from Oregon State University have announced the development of a process where they have managed to make moulded pulp packaging products from waste apple pomace. When apples are processed for juice, as much as 75% of the apple goes into the juice, leaving the remaining 25% as pomace. Currently this waste product is either composted or used for animal feed. The researchers envision apple pomace being the main ingredient for moulded pulp packaging products such as take-out containers, flower pots, beverage cartons and bottles as well as clamshell packaging used for fruits and vegetables. One of the key problems to solve in creating pomace and paper-based packaging is improving water resistance so that it can withstand high moisture, liquid food or non-food items and products stored under high humidity conditions. The team are now seeking to create biobased, compostable and cost-effective solutions that would improve the hydrophobicity, or water resistance, of the apple pomace-based moulded pulp products.



Home compostable certification gained for coffee capsules

Greiner Packaging, who have been producing coffee capsules for some time, has announced that it has applied for TÜV certification in Austria and Belgium for a compostable coffee capsule initiative, which would officially credit the solution as home compostable. Although the coffee capsule market is booming, disposal of them after use is still seen as problematic due to the materials used. Following extensive research, Greiner has chosen a polymer which is compostable and has good barrier properties. They say that they have already put this material through an initial series of successful tests. Greiner says that they have an ultra-precise production process in place. This protects the packaged product from external influences such as oxygen penetration, extending its shelf life and retaining optimum flavour. The TÜV certification process should be completed by the fourth quarter of this year, with the capsule available in black and white colours, with additional colours expected to follow.



Compostable paper packaging developed for butter

The Latin-American team at global packaging heavyweights Amcor has collaborated with Costa Rican brand owner Grupo Numar to develop paperbased home-compostable butter packaging. Amcor previously had the challenge of making the paper packaging folds as effectively as other materials, but significant research and development from their Peruvian team allowed them to overcome this. The paper wrap is reported to be around 40% lighter and has 80% less of a carbon footprint than other iterations of butter wrap, such as ones made using aluminium. The new solution is certified compostable by TÜV Austria, in both home and industrial settings. The packaging development contributes to Amcor's overall goals of having 100% recyclable, compostable or reusable packaging by 2025.



Snack packaging made from grass and wood fibres makes French introduction

BBC Cellpack Packaging, based in the Alsace region of France, has announced the launch of the CELLNat Crunchy paper packaging range. Designed for dry products such as energy and cereal bars, it is made of grass paper, which is a combination of grass pellets and wood fibres. The combination of these two elements gives the paper a level of strength while combining renewable and more environmentally friendly raw materials. Grass paper is reported to have important environmental benefits. Firstly, it is an alternative to traditional paper and reduces the demand for wood. It is also a quickly renewable raw material, as grass grows almost everywhere and can be harvested/mown several times a year. Therefore, grass can be classified as a fast, renewable raw material. The production of grass-based paper reduces CO2 emissions because of the often short distances between the mown grass and the processing plants. It also uses up to 50% less water than traditional paper.



Gelatine-based antimicrobial plastic for food packaging in development

A research team called the Composites and Hybrid Nanocomposites Group (GCNH) at São Paulo State University (UNESP) has produced a 'green plastic' that it hopes can offer a solution for the food industry. Starting with gelatine that is easily found in retail stores in the form of a colourless powder, they then added nanoclay, which made the film more homogeneous and increased its tensile strength to 70 megapascals (MPa). Conventional PE (polyethylene) packaging has less than half this tensile strength (in the range of 20 MPa-30 MPa). They then added nano-emulsion made from black pepper essential oil to give the packaging a more attractive flavour and odour. This mixture extends the shelf life of food products, as it has antimicrobial and antioxidant components. The bioplastic was originally designed to pack beef hamburgers, which are vulnerable to microbial contamination and have a strong smell, but is also considered suitable for other food products.



Project started to turn agricultural and food waste into bioplastics

Waste2Func is a Belgian project which aims to convert food waste into functional ingredients such as lactic acid and microbial biotensides, which can be used for the production of bioplastics for bio-based hygiene and home care products. The project has been awarded a grant of 6.7 million euros to build a platform to efficiently collect such food waste that is often thrown away, incinerated or just left to rot in the field. Belgian-Israeli company TripleW is collaborating with the University of Ghent and Bio Base Europe Pilot Plant (BBEPP) and has developed technology to convert the food waste into functional ingredients. The project will develop a registration website and an app, which can be used to document food waste flows from agriculture and the food industry, Interested parties will be informed about how the collection of food waste can be profitable for them and a revenue model will be created for how donors will be compensated.



Partnership accelerates compostable pack rollout

Polish plastic packaging converter SILBO, and Israel-based material supplier TIPA, are collaborating to prove there are alternatives to conventional plastic flexible packaging with the same functionalities as conventional materials. They have come together to bring compostable packaging solutions to market for fruit, vegetables and teabags. This packaging is resistant to moisture, aromas, and gases while also being suitable for refrigerated storage. The compostable film-based laminates use water-based adhesives and are also printed with water-based inks, which ensure that the end-product is certified compostable. TIPA have been regulars on the pages of the Innovation Zone and their compostable packaging is certified to international standards of compostability. It has been found to out-perform conventional plastic by extending the shelf-life of fresh produce in two peer-reviewed studies.



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Inkjet ink made with bio-based content launched

Ricoh, the printing equipment manufacturer headquartered in Ota, Tokyo, has announced the launch of an ink derived from odourless soybean oil, capable of degrading into its constituent elements. Although common in the world of offset and flexo printing, bio-based inks are much less common in inkjet. The ink is a derivative of the oil-based ink created for the décor printing sector as part of Ricoh's collaboration with German equipment manufacturer Olbrich, who specializes in printing and coating technologies. It has been developed to deliver excellent rub resistance and set-off performance for corrugated brown and white boards, as well as carton board. The plant oil component creates a more sustainable ink that is quick-drying, as no heat is required to fix or dry the ink. The print heads are reported to be easier to clean and less likely to clog as 'open time' is much longer. Low ink consumption is also enabled as the same optical density is achievable using 50% less ink.



Hot-melt adhesive developed with 55% bio-based content

Leuenberger+C is an Italian adhesive manufacturer based near Milan. Their new hot-melt adhesive, Termomelt C716 BB, includes a bio-based raw material content of 55%. The raw materials used to reach the more than half bio-based content threshold are derived from renewable resources and through processes with low environmental impact. Leuenberger+C say the new technical hot-melt adhesive thus offers lower CO2 emissions while maintaining the performance of the Termomelt C range in terms of adhesion, tack, and open time. They reference Trivium Packaging's 2021 Global Buying Green Report, which questioned over 15,000 consumers in Europe and the US. The conclusion was that 54% of respondents take packaging sustainability into consideration when choosing a product, a percentage that rises to 83% among Millennials. Termomelt C716 BB complies with FDA 175.105, 176.170, 176.180 and EU 10/2011 regulations for contact with food.



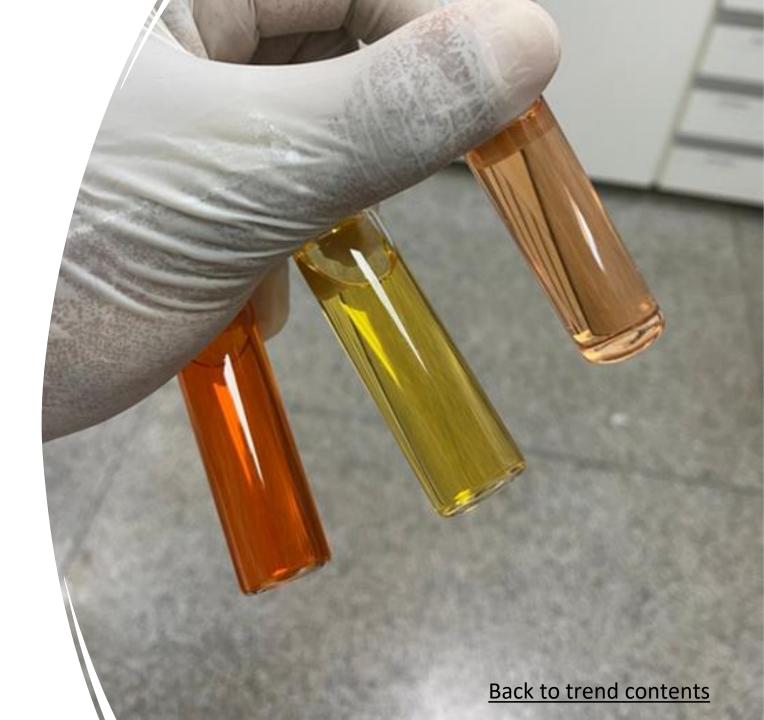
Spent beer waste used to make packaging

An engineer called Laurianne Bouvier, based in the Auvergne-Rhône-Alpes region of France has launched a company called "Le Petit Boxon", with the intention of using the residue from beer production, known as "draff" to make bio-based packaging. This residue, the remains of the cereals used, is considered of little value, and is used either for animal feed or to make disposable cutlery. She noticed an increase in the amount of packaging due to the increase of online shopping during the pandemic, and hopes to take this waste material and make it into an alternative to the current e-commerce packaging used. This bio-waste packaging would be manufactured locally in Auvergne-Rhône-Alpes, using the same technical process as paper. It is also an opportunity for the 280 brewers and micro-brewers in the region as the French antiwaste law (AGEC) will oblige all producers of bio-waste to find source sorting solutions for this waste product.



Scientists use 'green' solvent and natural pigment to produce bioplastic

Brazilian and Portuguese scientists have announced that they have developed an environmentally sustainable process to produce a bioplastic using pigment extracted from yeast. Using 'green' solvents they claim that this biodegradable plastic may have future uses in smart packaging containing antioxidant and anti-microbial properties. After more than eight years of research, the scientists demonstrated that eutectic solvents can efficiently extract two carotenoids, astaxanthin and betacarotene, from biomass of the yeast Phaffia rhodozyma. According to the researchers, eutectic solvents can be used both to extract the pigments and to produce a biodegradable plastic film based on bioactive starch without any need for additional purification. Ionic and eutectic liquids are considered ideal solvents for the extraction of compounds from natural matrices, thanks mainly to their capacity for solvation, a process whereby solvent molecules surround and interact with solute ions or molecules, or an ionic compound dissolves in a polar substance without forming a new one.



Roll out of compostable tea packs starts

Parkside Flexibles, based in Yorkshire, has collaborated with Brighton-based Bird & Blend Tea to roll out loose tea pouches and pyramid bags in compostable packaging. The move is a follow up to the launch of compostable single-serve tea bags in 2021. The compostable material used is said to decompose completely within 26 weeks, with the materials returning to the soil, and leaving no adverse effects to the environment. The collaborative approach ensured that the packaging was suitable for Bird & Blend's products, and the change was said to be well received by their customers. They say that they are happy that the solutions from Parkside, which keep their products fresher for longer, along with stand-out high-definition graphics. Bird & Blend have 15 stores across the UK, which have a 'Tea Wall' where customers can see and smell over 70 loose leaf tea blends.



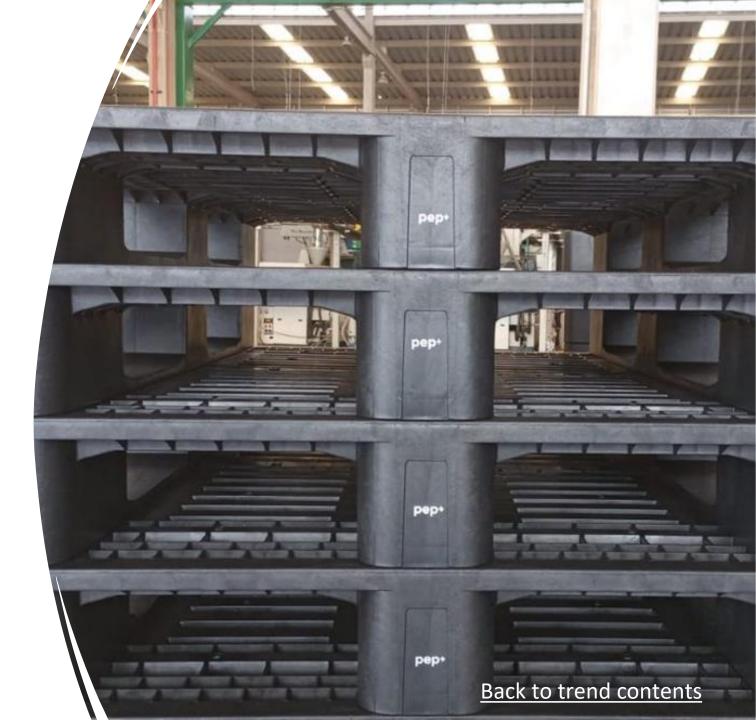
Fibre-based packaging for olive oil launched

Aeons is an organic Greek olive oil producer that takes a holistic approach to sustainability. They have now moved their organic extra virgin olive oil to a paper-based recycled board bottle. The new bottle weighs 83g, five times less than a comparable glass bottle, while also having a carbon footprint six times smaller. The bottle, supplied by UK packaging manufacturer Frugalpac, is made from 94% recyclable board and has up to 77% less plastic than a comparable plastic bottle. The paper-based bottle consists of a paper sleeve with a food grade foil inner liner. The paper-based element of the bottle is made from recycled board, which can be easily separated from the food grade liner, and both can be recycled in their respective recycling streams and do not have to go to landfill. The oil is retailed in a 750ml bottle and is now available in the German market, being imported by Taste Greece.



Pallets made from waste-based raw material introduced

Pepsico Brazil is partnering with UBQ, an Israeli cleantech startup company that converts household waste into a biobased thermoplastic composite. Their UBQ branded product is created using 100% unsorted municipal solid waste, including mixed plastics, paper, cardboard, and organics and is suitable to substitute conventional polymers in various durable applications. More than 739kg of this mixed waste will be redirected from landfills, and looped back into the material as a valuable resource. Part of this mixed waste will contain recycled PP (polypropylene) resin and recycled BOPP (biaxially oriented polypropylene), a plastic film used in the company's snack packaging. This material will be used in the manufacture of 830 ecological pallets for use in two of the company's logistics centres. The pallets are being developed by PepsiCo's partner Ecoboxes Embalagens Plásticas, which specialises in solutions focused on sustainability and circular economy.



Bio-based packaging created on all-electric machinery

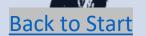
Swiss injection moulding machinery manufacturers Netstal are demonstrating a cup made from a 100% plant-based polymer at the FIP (France Innovation Plasturgie) in Lyon, the flagship event for the plastics Industry in France. The material being used by Netstal is Kaneka's Biodegradable Polymer Green Planet, also known as PHBH, and is a 100% bio-based polymer manufactured through a biofermentation process using renewable vegetable oils as the feedstock. The polymer accumulated in the bacteria is extracted and purified in a waterbased process. The thin-wall cups are produced in two cavities on the Netstal all-electric Elion 1200-510 in a two-cavity mould from French partner SN Caulonque. The high-performance application runs with a cycle time of less than 4 seconds. PHBH is approved for food contact, has good biodegradability under natural conditions such as in the soil and in sea waters, and is broken down by naturally occurring microorganisms into biomass, carbon dioxide and water.

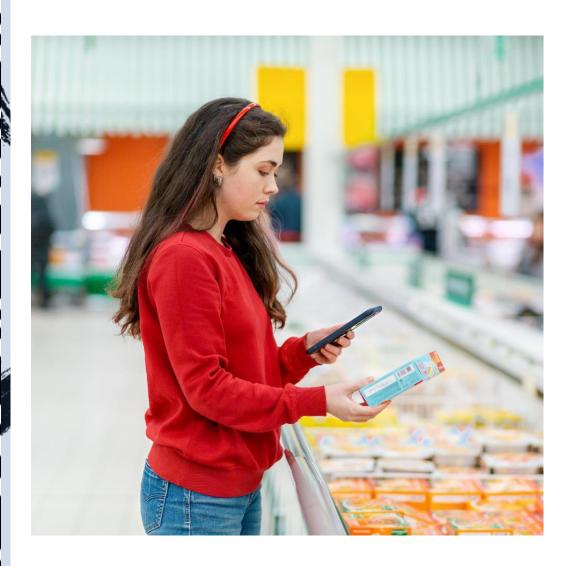


Sawdust-based material could be an alternative to EPS foam

A new biomaterial is being developed by scientists at North Carolina State University that they hope could replace EPS (expanded polystyrene). EPS is difficult to dispose of as it is bulky. It is still used extensively for protective disposable packaging but opportunities to negate its use are continuing to be explored. The material under consideration is sawdust waste, which would be sourced primarily from sawmills. Although there are some other uses for sawdust, it is typically just burned or sent to landfill. Other ingredients currently under investigation include hemp hurds (the inner core fibres of the hemp stalk). The team are also considering other types of agri-waste, such as sugarcane and banana-processing residue. The resultant powder is then mixed with a binder made of plant-derived cellulose. That mixture can then be pressed in a mould at high temperatures or dissolved in a non-toxic solvent and then cast at room temperature, after which it is dried at low temperatures.







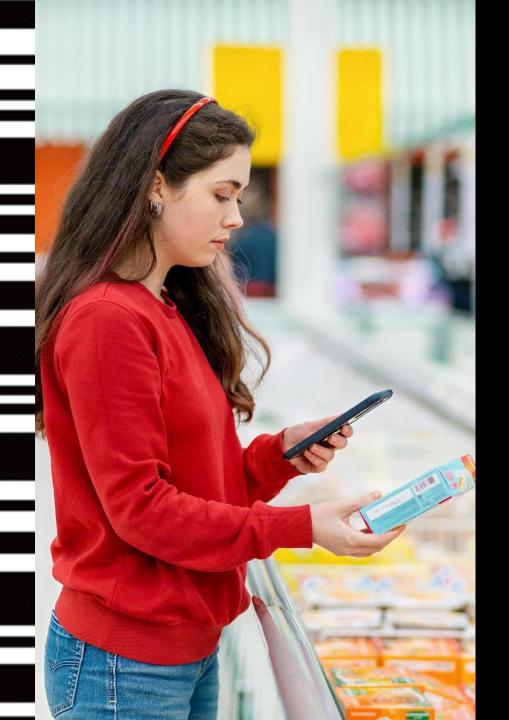
Everyday Engagement

Everyday Engagement

Packaging that engages consumers and end users has an important role to play in the market and we continue to track some great examples. Many use smart and intelligent technology to reach their goals whilst others use pack shape and distinctive pack graphics to get the conversation going.

The ability to operate an ongoing dialogue with consumers is an important brand-building tool. Smart and intelligent technology such as RFID, NFC and QR codes are increasingly used for these purposes. The costs of the capability is coming down, opening up more opportunities for more everyday usage. Inevitably, the drive to deliver sustainable products influences the decision to use many of the technology-based examples as they often do not have an acceptable end of life plan. However, we are seeing more solutions that are easier to recycle and that is opening up the sector. The use of technology to engage with consumers also generates vital data insight opportunities for brands.



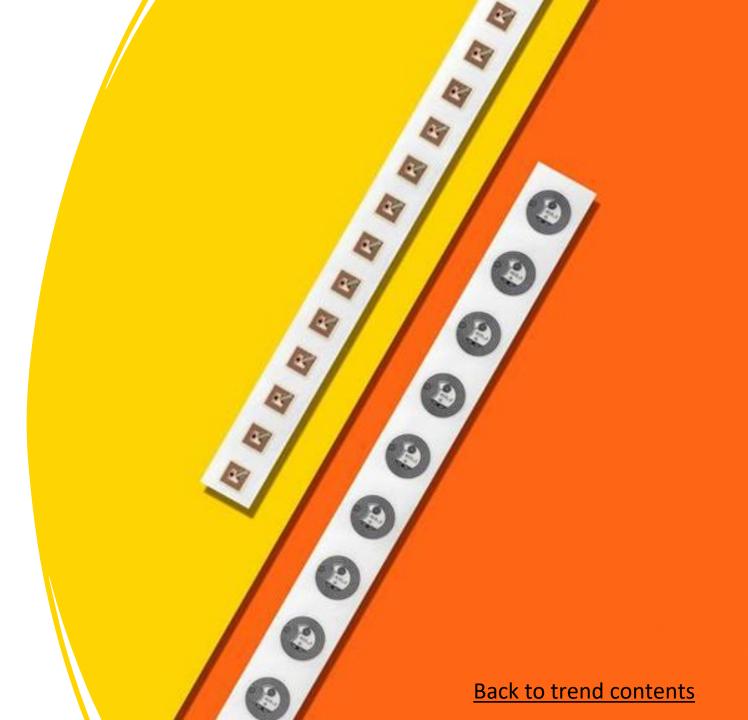


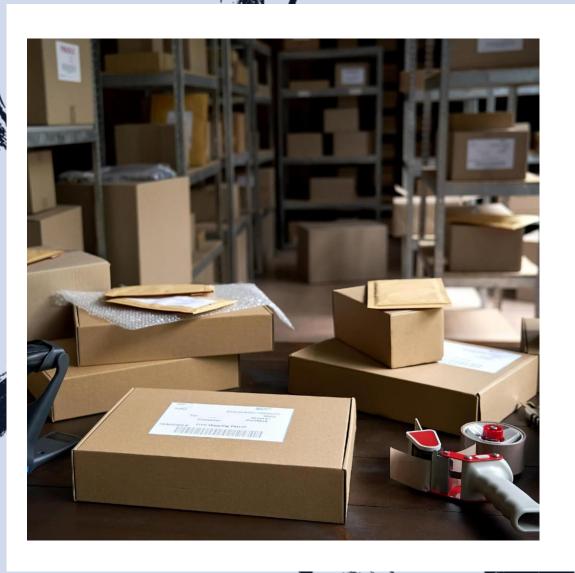
Everyday Engagement

Compact NFC inlays for retail packaging opens up smaller tagging options

Compact NFC inlays for retail packaging opens up smaller tagging options

Avery Dennison is a multinational manufacturer and distributor of pressure-sensitive adhesive materials, apparel branding labels and tags. They have now announced the introduction of ultra-small form versions of two of its popular NFC products, AD Circus Mini NTAG213 and AD Microblock ICODE SLIX, with the aim of anticipating demand for ever-smaller tagging options in the retail, packaging, pharmaceutical, and beauty sectors. NFC (near field communication) is wireless technology that allows the transfer of data between two devices that are in close proximity. The most everyday use is for contactless debit cards. NFC can also allow consumers to interact with brands in a way that goes beyond the point of sale, and to provide useful information about a product: what it is made of, how to use and how to recycle it. AD Circus Mini NTAG213 is available in wet and dry formats, and AD Microblock ICODE SLIX is available in wet format only.





The Online Surge

The Online Surge

The e-commerce market has demonstrated strong growth in recent years and its increasing prevalence is shaping packaging innovation. The COVID-19 pandemic has given the channel a significant boost with the demand for online specific packaging continuing to be important.

The growth of e-commerce is significant. The sector has grown more in the last 12 months than at any time in the last 20 years. It has received a significant shot in the arm due to the COVID-19 pandemic as swathes of consumers worldwide are compelled to switch from their local bricks and mortar stores to buying directly from their mobile, computer or tablet screens. It has been reported that a notable number of consumers were online shopping for the first time, and it's fair to say that many won't go back to the same physical shopping frequency again. Shopping and packaging's role has changed forever. As the market begins to scale, there are increasing opportunities for brands and retailers to offer packaging solutions tailored first and foremost for this channel rather than being replications of the packs bought physically instore. Packaging designed for the e-commerce channel does not need to have the same security measures. The purchase decision is on a screen so bright on pack messaging is not necessary, and packs do not need to be explicitly designed to be attractive for the supermarket shelf.





The Online Surge

Startup creates biodegradable packaging for e-commerce
Food and medicine chilled using natural fibres
Online food delivery brand invests in plastic-free packaging

Startup creates biodegradable packaging for ecommerce

Bioelements is a Chilean manufacturer of biodegradable packaging. They have developed a biodegradable, compostable and non-toxic material called Resina BioE-8, and its main ingredients are starch and synthetic polyesters. This biodegradable material is available in the form of retail bags, primary, secondary or tertiary packaging, cutlery, glasses and packaging for fast food delivery. Resina BioE-8 biodegrades in a 6 to 18-month timescale, leaving no toxic residues behind. Bioelements now has a presence in Chile, Peru, Colombia, Mexico, Brazil and the United States, and it expects to reach Asian markets such as India and Indonesia in 2022. To do this it is aiming to raise an investment of \$100 million. Due to the prohibition of single-use plastics in various regions of Mexico, it is now becoming the number one region for sales in retail and foodservice, at \$30 million in 2021.



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Food and medicine chilled using natural fibres

Schaumaplast is a German manufacturer of moulded parts and packaging made of Styrofoam EPS (expanded polystyrene). They have launched a range of thermal boxes made from natural fibres, under the name Thermocon Nature, a Biomass Balance Styrofoam. The boxes are intended for the refrigerated shipping of food and medicines. This new material is said to have the same quality, properties and performance as conventional Styrofoam. Thermocon Nature uses almost 100% renewable raw materials, among other things, grass, hemp or wood fibres are used for the production. According to Schaumaplast, it strictly ensures that no edible raw materials are used. A minimal amount of polymeric binder fibres are mixed into the natural fibres, but these too are partly made from recycled material. Schaumaplast states that one tonne of Biomass Balance Styrofoam produces 75% less CO2 compared to conventional Styrofoam, the equivalent of a 10,000km car journey.



Online food delivery brand invests in plastic-free packaging

A partnership has been formed between Deliveroo and Sustainabl, a zero-waste packaging company also based in Hong Kong. Deliveroo Hong Kong is committing HK\$2 million (£200k, \$255k USD) to its restaurant partners to encourage them "to get greener" in their delivery operations. Deliveroo states that this is the first initiative to be funded in Hong Kong by Deliveroo's Global Community Fund and comes ahead of the territory government's proposal to eliminate single-use plastic utensils from 2025. Restaurants will be able to choose from around 20 different plastic-free items supplied by Sustainabl made from either bagasse (a by-product of sugar cane processing), or FSC-certified (Forestry Stewardship Council) paper with water-resistant bio-coating. Customers of Deliveroo will see a badge on their screens when ordering that helps them recognise whether or not a restaurant is participating in the programme.





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.

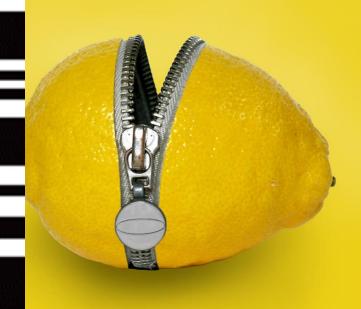


Making Life Easy

Integrated measuring cup for range of cleaning products

Expansion of no waste toothpaste pack technology continues

Contact-free sampling grows due to hygiene concerns



Integrated measuring cup for range of cleaning products

Cleenol is a manufacturer of cleaning and hygiene products based in Banbury, UK. They have announced that they are renaming their market-leading Evolution 1000 range of products to Easidose. Each bottle of Easidose has a specially designed measuring cup built directly into the bottle. Also embedded in the bottle is a feed tube which connects from the bottom of the bottle to the measuring cup above. The new Easidose range comprises multisurface cleaners and degreasers, floor cleaners, antibacterial bath and washroom cleaners, air fresheners, window and stainless-steel cleaners and toilet cleaners. Easidose products are super concentrated, meaning fewer single-use plastic bottles go to landfill. They say that a 1 litre bottle can make a minimum of 50 ready-to-use bottles, and a case of 3 x 1 litre bottles provides up to 150 ready-to-use bottles – equivalent to 25 cases of normal ready to use product.



Expansion of no waste toothpaste pack technology continues

Colgate Canada is set to expand its introduction of what they call the 'reimagining' of toothpaste with their Elixir product. Elixir uses LiquiGlide's EveryDrop technology, which eliminates the friction between solids and liquids. This technology is combined with a see-through recyclable tube which allows consumers to see how much toothpaste is left (unusual for the category), and Colgate thinks it will revolutionise the market. In Canada, Colgate Elixir will be on shelves for consumers to purchase starting this winter. LiquiGlide's EveryDrop technology is a unique packaging technology that is recyclable and designed to let people enjoy the toothpaste to the last drop. In addition, Colgate is also launching a product with LiquiGlide's EveryDrop technology in Sam's Club in the US. The Colgate Elixir package won the "Best in Show" and "Design Excellence" AmeriStar awards from the Institute of Packaging Professionals.



Contact-free sampling grows due to hygiene concerns

The Covid-19 pandemic has had an impact on all areas of the packaging industry. It has also seen the beauty and personal care brands experience a growing demand for sample-sized, single-use packaging. Shifts in consumer attitudes have spurred packaging suppliers to create innovative new solutions that emphasize heightened cleanliness at retail and improved hygienic user experiences at home. Hong Kong-based International Cosmetics Suppliers Ltd has experienced a high demand for sample-sized packaging such as bottles, sticks, lip packaging, mascara and brow packaging, pencils, pumps and tubes that enable consumers to safely try out the products at home. Arcade Beauty, based in North America, also reports seeing a "large increase" in hygienic sampling over the past year, with substantial growth coming from promotional sampling, both in-store and through e-commerce. New York-based JP Packaging is currently working with a boutique hotel chain to develop a single-use, hygienic package to be used for in-room shampoo, conditioner and body moisturizer as an alternative to the mini bottles and tubes currently used.





Materially Changed

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 environment footprint or at least be better received by anti-plastic focused consumers. We have 22 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

Paper-based alternative to bubble wrap for Indonesia

CO2-reduced steel can for fresh mints range

Pulp alternative to traditional wine bottle developed

<u>Ice cream pack switch from plastic to recyclable paper tubs</u>

<u>Lightweight foamed mono-material has multiple applications</u>

Paper replaces plastic for perfume samplers

Tool brand exchanges plastic for cardboard

Aluminium wine bottles are 100% recyclable

Cycle components brand reduces environmental impact with packaging changes

UK first launch of 100% PCR aluminium bottle

Pouches dissolve in hot water for more sustainable haircare

Deep-drawn IML cups delivers 25% weight reduction

Fibre lids replace plastic for salad packaging range

Dry moulded fibre coffee lid makes Swedish introduction

Rice brand switches to paper packaging

Easter egg range launched with 50% less packaging

Three-layered fibre bag developed with extra-strong properties

Yoghurt range pack weight reduction by 18%

Plastic bottle production process delivers energy and material reductions

Paper bags switch for major Australian supermarket chain

Recyclable and compostable paper bottle set to move to test market phase

<u>Service station moves to recyclable and compostable tableware range</u>

Paper-based alternative to bubble wrap for Indonesia

Sustaination is an Indonesian company that was formed in 2018 with the aim of helping the Indonesian people become more environmentally sustainable. They have now introduced an alternative to plastic bubble wrap, which is notoriously difficult to dispose of or recycle. Their product, called Papelpack is made from unbleached 75gsm kraft paper which has a honeycomb structure, and expands to 1.5 times its original size. Recommended for any product that conventional bubble wrap is used for, Sustaination have Papelpack available in two sheet sizes, 45 x 60cm, and 45 x 120cm. Papelpack is just one of a range of products on Sustaination's website to help the people of Indonesia to become more environmentally responsible, from personal care, laundry and cleaning products, and baby care products, including reusable cloth nappies (diapers).



CO2-reduced steel can for fresh mints range

In a three-way collaboration, Swiss manufacturer of cough drops and breath mints, Ricola, along with German tinplate manufacturer thyssenkrupp Rasselstein, and Hoffmann Neopac, Swiss producer of high-quality metal packaging, have joined forces to launch a reduced CO2 steel can. CO2 reduced steel is supplied by thyssenkrupp Rasselstein using their HBI (reduced iron) process. This reportedly decreases the use of coal for the reduction process in the blast furnace, resulting in lower CO2 emissions. Hoffmann Neopac then produce and print the cans using solar power, and Ricola use energy from renewable sources for the production and filling of their herbal drops. The first herbal drops in the CO2-reduced can are expected to leave Ricola's factory in Laufen at the beginning of March and will be available from stores by May 2022.



Pulp alternative to traditional wine bottle developed

Bio'teille, from French wine start-up Le Petit Baroudeur, is being presented as an alternative to the traditional wine bottle. It consists of an outer shell made from moulded paper pulp, derived from recycled newspapers and cardboard. The inner bag is made of barrier PE (polyethylene) and closed with a plastic screw cap, which is also made of PE, to aid recycling. It is claimed that production of Bio'teille bottles creates five times less CO2 than a comparable glass bottle. It is also eight times lighter than a glass bottle, and keeps the contents colder for approximately 30% longer. Transport costs are also lower, with up to three times the amount of bottles on a truck but with half the weight. Bio'teille recently won an innovation award at the CFIA (Crossroads of suppliers to the food industry) exhibition in Rennes.



Ice cream pack switch from plastic to recyclable paper tubs

Unilever UK has moved its Carte D'Or range of ice cream from plastic to recyclable paper tubs. The move is calculated to save more than 900 tonnes of virgin plastic per annum, and reduces the plastic used per pack by 93% compared to the previous pack. The paper comes from sustainably managed forests and controlled sources and is PEFC (Programme for the Endorsement of Forest Certification) certified. Both tub and lid can be put into the normal UK household paper recycling stream. The paper tub has a thin plastic layer to the inside of the new tub to ensure the ice cream stays fresh, so quality isn't affected, and also gives the tub stability over time. A plastic seal is also used to ensure the ice cream stays fresh and secure in the pack. At present this seal is non-recyclable, but Unilever said it is working on finding a fully recyclable solution.



Lightweight foamed monomaterial has multiple applications

Refour is a Danish materials company that boldly claims to be reinventing the mono-materials market. Their product RE-4 is a formable combination of up to 50% air, 30% minimum PP (polypropylene), and up to 20% minerals (a mixture of talc and lime). Due to the aerated nature of RE-4, it is guaranteed to be up to 42% lighter than comparable products, while also being up to 60% less expensive. CO2 emissions are also said to be much reduced, by as much as 66%. The combination of PP and minerals is also said to make the Refour material foldable. The PP binds the ground minerals together, making it flexible so that it doesn't break when folded. Due to the nature of RE-4, it is said to be adaptable to most types of packaging. For example, all types of fast food packaging, including straws, burger boxes and cups can be produced from RE-4, making the recycling process even more efficient.



Paper replaces plastic for perfume samplers

Two Brazilian companies have collaborated to bring to market the first plastic-free packaging for perfume samples. Paper makers Suzano, and beauty product manufacturer Grupo Boticário jointly developed the new packaging, called Greenpack, during an eight month period. This was based on technology developed for a product created for Johnson & Johnson last year, which reduced plastic use by 50%. The main body of the sachets is made of a type of flexible paper developed by Suzano. The Greenpack 1ml sachets however contain no plastic and instead utilise a biodegradable barrier that is applied to the surface that is suitable for food contact and other products in general. Among the challenges was finding the exact tension and shape of rolls and printing speed without breaking the paper. Grupo Boticário estimates that the average annual volume of these samples is around 30 million units.



Tool brand exchanges plastic for cardboard

Massachusetts-based Starret is a US manufacturer of saws, tools and measuring instruments. In a move to reduce the amount of plastic packaging they use, they are moving to predominantly board-based packaging across the full range of their products. The first in the range to move was the Manual Saw, which will reduce CO2 emissions by around 25% and eliminate the consumption of 7.9 tons of plastic per year. The new pack format meant it was also possible to optimise the pallet occupancy of the saws, which increased transport efficiency and directly impacted the product's carbon footprint in its life cycle, generating a reduction in CO2 emissions by 25%. A feature of the new Saw Manual packaging is an opening that allows the consumer to see and touch the saw teeth.



Aluminium wine bottles are 100% recyclable

CCL Container, based in Hermitage Pennsylvania, has announced the launch of a wine bottle manufactured entirely from aluminium. The 750ml aluminium bottle was shaped using CCL Container's BodyShapes technology, is resealable and has a screw cap. Even the cap thread is made from 100% aluminium, where there would normally be plastic, thereby making it 100% recyclable. The company claims that this keeps the wine fresher for longer than a traditional glass bottle. With higher thermal conductivity and cold retention than glass and plastic, aluminium bottles cool quickly and stay cooler longer. Despite the large diameter, aluminium bottles weigh less than glass bottles, while the metal's durability makes the bottles less prone to accidents. CCL states that their aluminium offering in the shape of a conventional wine bottle offers the best of all worlds in terms of quality, freshness, sustainability and unique branding opportunities.



Cycle components brand reduces environmental impact with packaging changes

Japanese multinational manufacturer of cycling components Shimano has announced that it is moving away from the use of single-use plastics in the packing of its cycle components. Until now, Shimano packaged its parts in a plastic bag or film that was placed in a cardboard outer box. The new R9200 generation of the Dura-Ace high-end road bike components is now completely packed in cardboard. The board used is FSC-certified (Forestry Stewardship Council) or recycled cardboard. Also, where possible, the packaging has been designed to be smaller. This not only saves on material usage but also means that more parts can be transported per pallet, thus reducing the environmental impact of transportation. Also, they have reduced the amount of ink used to print the packaging, as less ink is more favourable when recycling the cardboard.



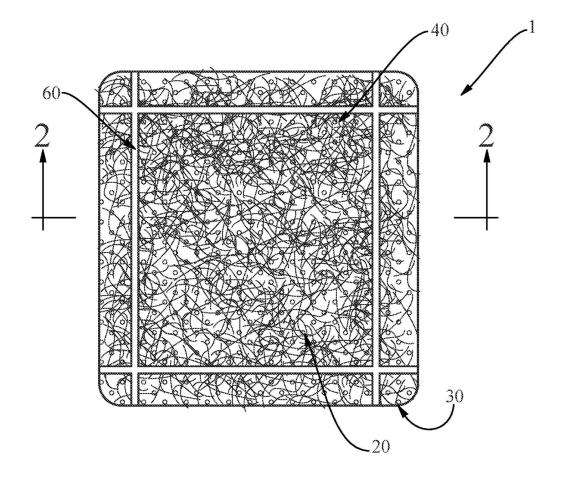
UK first launch of 100% PCR aluminium bottle

Re:Water Spring Water has claimed a UK first by launching a 100% PCR (post consumer recycled) aluminium bottle. The water is supplied by Bennington Water, based in Herefordshire, and the aluminium bottle is supplied by metal packaging supplier Tecnocap. Until recently, this type of package was not being produced due to the fact that there was not an adequate supply of 100% PCR aluminium. Re: Water chose the 100% PCR aluminium bottle because of its reported low carbon footprint and its ability to be refilled and reused. To top the bottle, it selected a 28-mm aluminium closure that can also be easily recycled across the U.K., with no separation required. Feedback says that consumers are refilling the bottle up to 5 to 10 times. Re: Water is available in still and sparkling varieties in a 500-ml size, sold in retail outlets as well as online.



Pouches dissolve in hot water for more sustainable haircare

US multinational consumer goods brand owner Procter & Gamble have introduced new haircare pouches seen as a sustainable alternative to single-use packaging. Made from sheets of fibre, the pouches are water-soluble, and are especially reactive to hot water above 45 degrees celsius, meaning they can be used in showers or baths as a replacement for traditional plastic bottles which, of course, need to be disposed of after use. The pouch consists of a water-soluble fibrous facing sheet with backing sheet. The pouches are full of the right amount of hair care product and are designed to be the right shape to hold in one hand. The pouches will reportedly cost less to mass-produce and distribute, due to them being mostly free of water and preservatives. P&G have filed an international patent for the pouches.



Deep-drawn IML cups delivers 25% weight reduction

Austrian plastic packaging manufacturer Greiner packaging has announced the launch of a deep-draw thermoformed cup with in-mould labelling. Less plastic is required for thermoformed cups than injection-moulded alternatives, meaning the weight is 25% lower in comparison. Known as T-IML (thermoformed inmould labelling), a label is placed in the deep-drawing tool in which the product is formed, thereby creating a permanent connection with the finished product. With this decoration method, shaping and decorating are done efficiently in just one step. This approach of labelling gives a high-quality appearance, and matt, rough, glossy, or soft-touch decorative effects can be applied. Both the label and cup are made of PP (polypropylene), making them easy to recycle, and can be imbued with barrier properties if required. Investments have been made in a test tool, and cups with a diameter of 95mm and volume of 500mls can be offered.



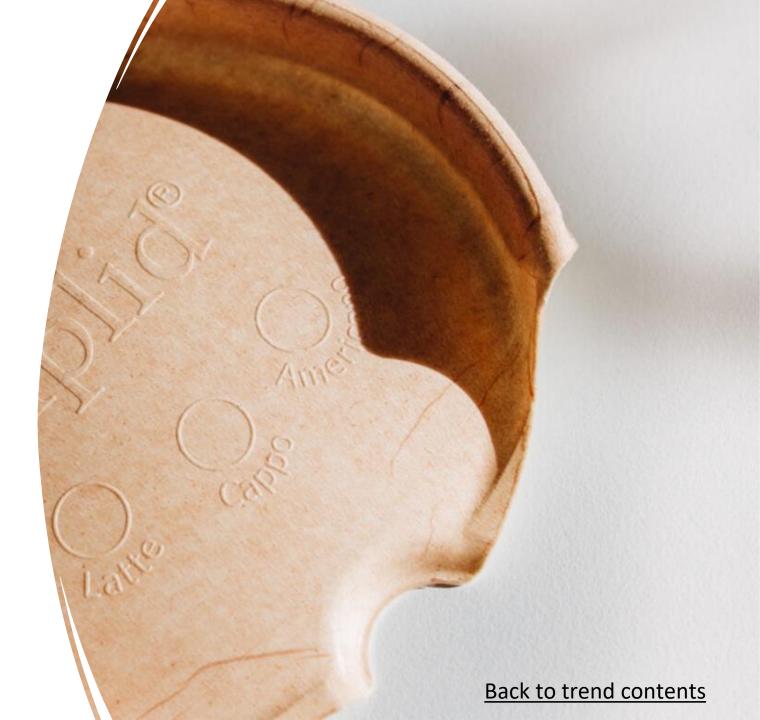
Fibre lids replace plastic for salad packaging range

Picadeli, based in Gothenburg Sweden, claim to be Europe's leading in-store salad bar concept. They are introducing formed fibre lids to replace single-use plastic versions. The lids will be supplied by Finnish pulp and paper product manufacturer Stora Enso, and are made from their PureFiber material. The move to fibre-based lids will help Picadeli remove around 120 tonnes of single-use plastic waste annually. The carbon footprint of the PureFiber lid is reported to be up to 75% lower compared to alternative materials such as plastic or bagasse. PureFiber products are produced from wood-based formed fibre using green energy. They contain no plastic, no per- and polyfluoroalkyl substances (PFAS), or any other forever chemicals. The lids are reported to provide a good user experience and tightly seal the food inside. The new formed fibre lids will be available for consumers at Picadeli salad bars. immediately..



Dry moulded fibre coffee lid makes Swedish introduction

Swedish fast food chain MAX Burgers is to start using Liplid's unique coffee lid, incorporating Pulpac's dry moulded fibre technology, to replace plastic lids in its restaurants. The unique lid is placed inside, rather than on, the cup to prevent leakage and improve the stability and drinking experience of on-the-go beverages. The innovative design, using 25% less material, has already received a great deal of international attention, including winning the 2022 World Star Packaging Awards. The patented design uses FSC (Forestry Stewardship Council) approved fibres, and using dry moulding technology saves significant amounts of valuable water resources and energy, resulting in a reported 80% lower CO2 footprint compared to alternatives on the market. This technology is also said to offer highly competitive unit economics, making it possible to replace single-use plastics a global scale.



Rice brand switches to paper packaging

Italian organic and vegan food producer Mr Organic has revamped its rice packaging to a more sustainable, environmentally conscious solution. In a move that they say is "specifically designed to be good for the planet", they have announced that they have moved their entire range of rice products to 100% paper packaging, away from the previous plastic packaging. The new paper-based packaging is said to maintain durability to protect the rice. The Mr Organic range of rice consists of pudding rice, long grain brown rice, black rice, basmati white rice, and carnaroli rice. Mr Organic products are available in the UK in independent health food shops, as well as farm shops and delis. Mr Organic started their journey growing tomatoes on their farm in Pontinia, south of Rome.



Easter egg range launched with 50% less packaging

Nestlé Australia has launched a range of Easter eggs with 50% less packaging. As part of the move, they have removed the hard plastic insert, thereby making the packaging plastic-free and completely recyclable. Of the total weight of an easter egg pack, the Nestlé packaging comes in at around just 19% of its Easter packaging, compared to around 41% packaging weight for the five top-selling boxed Easter eggs of similar net weight in Australia. Nestlé packaging also features the Australasian Recycling Label to help people know what bin to put it in. The new range includes favourite brands such as KitKat, Milky Bar, Allen's Retro Party Mix, Freckles and Mini Chocolate Raspberries.



Three-layered fibre bag developed with extra-strong properties

Finland-based manufacturer of pulp and paper and regulars to the pages of the Innovation Zone Stora Enso have announced a multi-million euro investment into machinery for the production of formed fibre. This is specifically to expand their production site in Hylte, Sweden. The capacity increase will help with the recent introduction of a new material for the use of consumer shopping bags. Called the CarrEco Brown, the bag is made from a three-layer recyclable fibre structure to give strength and longevity to the bag, made by Stora Enso's Tri-Ply tech, ensuring that the bag is suitable for heavy-duty shopping. The bag is food-safe, contains zero bleach and isn't coated, which the company claims is perfect for takeout and grocery applications.



Yoghurt range pack weight reduction by 18%

Arla Foods, Scandinavia's largest producer of dairy products, has announced that it has reduced the weight of its 1kg yogurt tubs by 18%. The move, for its Köket Greek and Turkish style yoghurts, equates to an annual reduction of around 30 tonnes of plastic. The new yoghurt pots will go on sale in stores from April 2022. The plastic in both the pot and lid is PP (polypropylene) and is sorted as plastic packaging for recycling. Although the tubs can be recycled, Arla also points out that the tubs could be repurposed after use for other functions, for example storage. Arla's goals for packaging are that by 2025 they will have 100% recyclable packaging for their own brands and that by 2030 they will have zero percent newly manufactured fossil-based plastic in the packaging for their own brands.



Plastic bottle production process delivers energy and material reductions

Competek is a French mould maker specialising in equipment for blow moulding beverage bottles. They have now combined their patented Sidel Starlite Base Solution with their Supervent technology. The Starlite Base Solution helps reduce bottle weight, while the Supervent technology uses decreased pressure for the blow moulding process. By combining these two processes, Competek claims that it is possible to produce a lightweight bottle with savings of up to 1g for 0.5 litre bottles and 2g for 1.5 litre bottles. The company claims that this could offer potential savings of between €1 and €2 for every 1,000 bottles manufactured, as well as a CO2 reduction of between 2.4kg and 4.8kg per the same amount of bottles. They also say that the technology can be adapted for a range of bottle sizes and styles, up to 2.5 litre for carbonated beverages, and 5 litres for non-carbonated.



Paper bags switch for major Australian supermarket chain

Woolworths stores in Western Australia are to begin phasing out its 15 cent plastic carrier bags. The move by Woolworths is said to be the first among major supermarkets, ahead of state legislation coming into force from July 2022 which will ban a variety of plastic bags. The remaining stock of plastic carrier bags will be run down in the next few weeks. Instead, customers will be able to purchase Australian-made paper shopping bags for those who haven't brought their own bags to the store, as well as for online orders. Woolworths has invested in a multi-million-dollar partnership with family-owned Australian manufacturer Detpak to increase local paper bag manufacturing capacity. The paper bag is designed to be reused and can carry up to 6kg of groceries. All paper used is sourced responsibly and is certified by PEFC (Programme for the Endorsement of Forest Certification).



Recyclable and compostable paper bottle set to move to test market phase

Cologne-based PAPACKS has formed a partnership with North American beverage giant Keurig Dr Pepper to develop a fully recyclable and compostable paper bottle. Their joint goal is to create a 100% plastic-free bottle, and for the entire package, including the bottle, label, cap and closure – to be compostable or recyclable with other paper products at waste collection in most communities in the US. The first prototype of the new bottle is expected by the end of 2022. The plan is to test the innovation in selected products from KDP's entire beverage portfolio – from water to juices and carbonated drinks. The partnership with PAPACKS is part of Keurig Dr Pepper's ongoing sustainability goals, which include plans to convert to 100% recyclable or compostable packaging by 2025, and use 30% post-consumer recycled content across its packaging portfolio by 2025.



Service station moves to recyclable and compostable tableware range

To meet EU regulations, all of Orlen's German service stations will move all of their tableware to single-use, 100% organic, recyclable and compostable items. Also, for their own-brand mineral and apple spritzer, they will introduce PET bottles made from 100% rPET (recycled polyester terephthalate). Their takeaway coffee cups and lids will be made using bagasse, a material that is a by-product of sugar cane – a rapidly renewable raw material. The paper cup has no plastic coating, so can be composted or disposed of with waste paper. In addition to the coffee cups, other disposable packaging such as bakery bags, sausage/chips trays, and napkins are now fully biodegradable and can be disposed of for composting or put in the waste paper bin. The move to 100% organic disposable packaging at the nearly 600 Star and ORLEN stations in Germany will save several tons of CO2 per year.





Protect and Preserve

Protect and Preserve

Solutions that help to extend shelf life, reduce food waste and protect contents have environmental as well as cost-saving implications. We continue to track many new initiatives in this area. The COVID-19 pandemic has seen a rise in supply chain-based examples that aim to improve the safe distribution of vaccines.

The prevention of food waste continues to be a priority, and we are tracking many examples of packaging formats that have been designed to reduce the wasting of product. There are widely reported statements that between 33-50% of all food produced globally is never eaten, and the value of this wasted food is valued at over \$1 trillion. Technology is playing its part with many recent developments using technological know-how to help detect and communicate changes in the state of food. Packaging has a key role to play in ensuring that produce and food waste is minimised. In this section, we focus on examples that improve the environment by increasing shelf life or reduce waste. The section also includes examples of packaging that protects the product through improved secondary packaging solutions that take on board environmental or cost concerns.





Protect and Preserve

UV resistant microcapsules allow clearer packaging without vitamin deterioration

Reinforced paper material delivers corrosion protection

Vape pack loaded with anti-counterfeit protection

High vacuum canning system saves energy

Alliance combines to deliver stretch film suitable for explosive atmospheres

Tamper-evident label for drug vials reveals warning message

Paper alternative to conventional plastic bubble wrap launched

Holographic blister packaging is heat-seal compatible

<u>Moisture-absorber gets sustainable upgrade</u>

Roll out of food protection technology in bid to cut packaging waste

Collaborations improve sustainability of glass used in pharmaceutical applications

<u>Thermal transport container liner helps regulate condensation</u>

Introduction of food waste 'rescue bags' for German retailer

Odourless barrier for paper-based food packaging launched

UV resistant microcapsules allow clearer packaging without vitamin deterioration

British soft drinks producer Britvic has formed a £1 million (US\$1.36 million) partnership with Xampla, a University of Cambridge spin-off company, to supply them with pea protein-based vitamin microcapsules. These capsules are ultraviolet (UV) ray resistant. This will allow Britvic to use clearer packaging without the worry of vitamin deterioration over time. Clear plastic bottles are considered widely recyclable through consumer recycling streams, with Britvic's research showing people are 40% more likely to recycle clear bottles over coloured ones. Britvic has a long tradition of adding vitamins to its drinks, it started life in 1845 as The British Vitamin Product Company. In 2021, major Britvic brands Fruit Shoot and 7UP made the shift to clear bottles to drive up recycling rates and Britvic has started to add vitamins B, C and D to Robinsons Fruit & Barley.



Reinforced paper material delivers corrosion protection

Corrosion and rust can be a problem in the packaging industry if susceptible metal parts are left bare. Causes of corrosion can be moisture in the air, rapid changes in temperature or air contamination. Current solutions involve treating the metal with oil or grease, but this is not viable in many situations. A new solution to prevent corrosion and rust has come from corrosion solutions company, who have launched their CorShield VpCl-146. This is a reinforced paper material suitable for several different packaging applications. The solution boasts puncture and tear resistance, and acts as an effective moisture barrier and corrosion inhibitor. It is designed to be very effective at packing metals with unusual shapes and sizes, using the strong puncture resistance to prevent damage from sharp pieces.



Vape pack loaded with anti-counterfeit protection

Geek Bar is a Chinese supplier of vaping products to the UK. In order to combat counterfeit products they have updated their security coding systems. The new security feature is a 14-digit serial number incorporated in a QR code, updating an earlier system based on a 12-number code hidden behind a scratchoff panel. The disposable packs also now include a hologram and include a new top-integrated seal, which will allow consumers to open the Geek Bar using a tear strip. Retailers can check the authenticity of products by verifying the security code online, and are also encouraged to report suspected counterfeit and non-compliant products through the Geek Bar website. The website also provides information on how to determine if the security codes generated are real or fake, and how to spot suspect holograms.



High vacuum canning system saves energy

Fanser, a Spanish market leader in the manufacturing of can seaming and filling machines, and Auxiliar Conservera, a Spanish can supplier, have managed to create an innovative packaging method known as the OpenVac system. This process consists of an airtight sealing method for the container, but with an easy-open tab. The system works due to all the air being removed from the can. The vacuum produced will lead to the temperature rising faster during processing, which results in reported shorter pasteurisation and sterilisation times. Although faster, there is said to be no risk of food being damaged. Due to the OpenVac system, considerable energy saving is achieved, because the thermal processes are much shorter. It also makes the opening of the can cleaner and safer, thanks to the easy-open tab. The OpenVac system is available across a range of can styles and sizes.



Alliance combines to deliver stretch film suitable for explosive atmospheres

Two German companies have collaborated to bring to market a stretch wrap film designed for use in potentially explosive atmospheres. Due to the inherent static charge, conventional stretch films are not approved for use in explosive areas and pallets must be repacked before entering. DUO EX-TRA, from DUO PLAST, based in Lauterbach, incorporates Elastostat, a dissipative polymer based on TPU (thermoplastic polyurethane) from BASF Polyurethanes GmbH in Lemfoerde, Germany. The film is colour-coded with red flashes, so that wrapped pallets can be identified visually to ensure their suitability for explosive areas. The companies say that stretch films with Elastostat are particularly suitable for companies in the chemical industry and their suppliers. The film can be used for packaging conductive containers in contact with earth in potentially explosive atmospheres (zones 1 and 2), and removal of the film is also permitted in these zones.



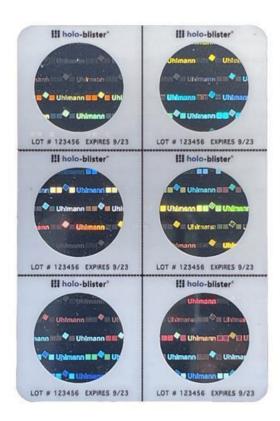
Tamper-evident label for drug vials reveals warning message

Schreiner MediPharm, based near Munich, Germany, is a leading developer and manufacturer of innovative, multifunctional specialty labels and marking solutions with value-added benefits for the healthcare industry. The Innovation Zone has tracked several of their initiatives in recent times. They have now launched a tamper protection label with a clear and irreversible first-opening indication. The new security label wraps around the vial up to the level of the cap. To open the vial, a label-integrated tear strip has to be peeled off that cannot be resealed unnoticed. In addition, a warning message clearly indicating that the vial has been opened emerges. The new label will help fight drug counterfeiters, who frequently fill original pharmaceutical containers with ineffective or harmful substitutes. For enhanced security, verification features for proof of authenticity may be incorporated into the label. Special features are also available, such as integrated NFC/RFID chips for digital applications.



Holographic blister packaging is heat-seal compatible

Holographic product developer Holographyx have recently been successful in their patent request for the USA and European markets for their Holo-Blister packaging solution. The collaboration with the Hazen Paper Company and Laupheim, Germany-based packaging machinery company Uhlmann led to the idea. This was to create an innovative and inexpensive solution to the application of holograms to medical blister packs, which would be effective at preventing counterfeiting. The Holo-Blister is designed with consumer-ease in mind, allowing them to simply see for themselves if the product within has been tampered with. The holograms have a major advantage over other similar iterations; they can be heat-sealed onto the blister packaging without losing shape or integrity.



Paper alternative to conventional plastic bubble wrap launched

Papair is a German packaging company based in Hannover that manufactures a paper alternative to conventional plastic bubble wrap. Papair bubble wrap is made of 100% recycled paper and does not use any plastics or adhesives in its construction. Each paper fibre can pass through the recycling process up to eight times. The high cushioning effect is created by the special geometric shape of the bubbles in combination with a two-layer processing of the paper. This makes the bubble wrap particularly stable. Papair products are claimed to be costneutral compared to their plastic counterparts and the business hopes to be able to undercut the price in the future. This is made possible by steadily rising prices of conventional manufacturers, due to regulations such as the Plastic Packaging Act or any CO2 taxes. Papair is available as wrapping, bags or boxes.



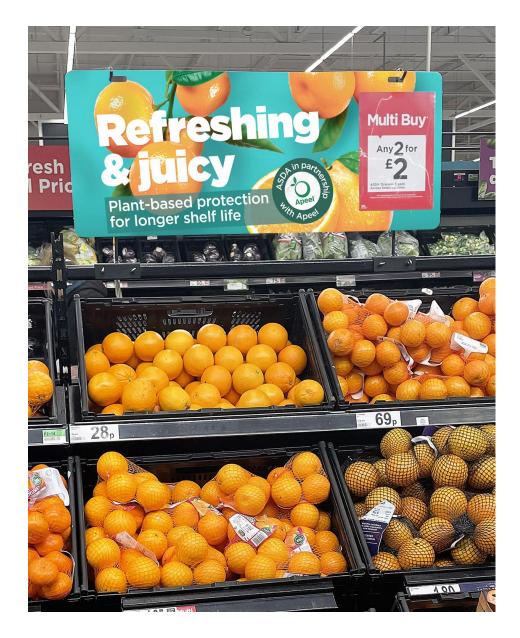
Moisture-absorber gets sustainable upgrade

French healthcare packaging company Airnov is the producer of a new moisture absorber with reported additional sustainability benefits. The DRICARD solution is a flat moisture absorber comprised of calcium chloride desiccant laminated between film layers, which also prevents dust settling through the binding of the calcium chloride within the laminate structure. It now has twice the moisture absorption capability for the same size, and uses 80% less ink in the printing process. As with desiccant packs, DRICARD is designed to maintain a dry pack environment to keep products in the nutraceuticals, food and diagnostics sectors safe from the potentially damaging effects of moisture. Airnov has announced the development of a sustainable improvement to their DRICARD moisture absorber.



Roll out of food protection technology in bid to cut packaging waste

British supermarket chain Asda is to roll out an innovative new material coating that extends the shelf life of fresh fruit and vegetables for up to twice as long, reducing packaging and food waste. The coating, from Apeel Sciences, based in California, is a tasteless, odourless, plant-based coating that is sprayed onto the surface. The coating acts as a barrier, keeping moisture in and oxygen out. The material is made using the proteins and cellulose found in fruit and vegetable seeds, peels and pulps, mixed with water. Only food-grade ingredients are used in the production of the innovative material, meaning it is safe to eat. It has been approved for produce in the US and by the European Commission. Asda first trialled the innovation on clementines sold at two of its stores in 2019 and is set to stock citrus fruits and avocados coated in the innovative material in 150 of its stores. It has also just been announced that Tesco will also be rolling out the technology in its stores.



Collaborations improve sustainability of glass used in pharmaceutical applications

Bormioli Pharma, a leading Italian manufacturer of pharmaceutical packaging, has announced that it has entered into two collaborations aimed at improving the performance and sustainability of glass used for pharmaceutical applications. The first is with Italian IMEM-CNR (Institute of Materials for Electronics & Magnetism - National Research Council), and together they will fund a three-year PhD scholarship for the development of new external and internal coatings, which will aim to increase the chemical and mechanical performance of glass. They will also work with IMEM-CNR on what it calls an innovative treatment to make Type II soda-lime glass bottles more resistant to aggressive pharmaceutical formulations. Bormioli Pharma is also working with Glass Futures, a UK-based project that is geared towards developing glass production processes with low CO2 emissions. The project is set to last for ten years. The collaboration will also include a pilot furnace dedicated to the experimentation and application of technologies developed by the partners.



Thermal transport container liner helps regulate condensation

EPG Industries, who have their head office in Miami Florida, say that they are a global leader in developing innovative solutions to facilitate the supply chain and protect goods during shipping. They have recently developed a new product called Temcoat Liner Flow. This new product is a thermal container liner with a breathable membrane that helps to prevent cargo loss due to condensation by encouraging the flow of humid air away from the cargo area. EPG says that products such as coffee are particularly sensitive and can see extensive losses in transit as a result of condensation. The solution could apparently also be suitable for other shipping markets such as perishables, pharmaceuticals, and powdered dairy. EPG says that the patent-pending design of the Temcoat Liner Flow includes a highly-reflective thermal liner with a breathable membrane that ensures that the dew point is not reached inside the container.



Introduction of food waste 'rescue bags' for German retailer

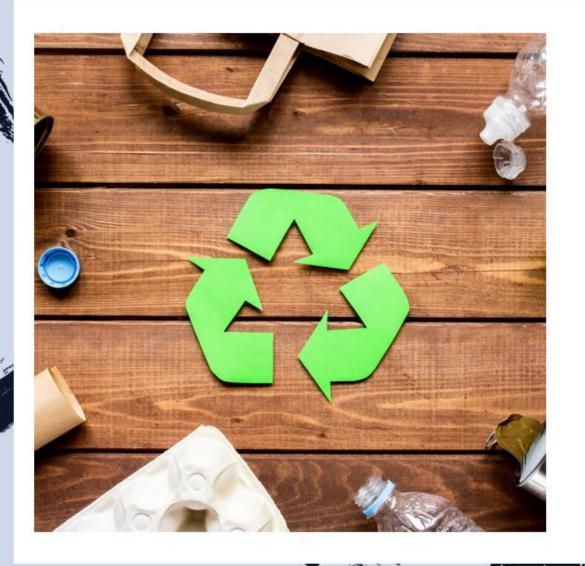
With the aim of reducing food waste in its stores, Lidl Germany is introducing what they are calling 'Rescue Bags'. The bags, which will be priced at €3 each, will consist of imperfect fruit and vegetables that would normally be thrown out. This new initiative will be available in German stores from May 2022. Other food waste reduction initiatives include boxes in which the retailer offers what it describes as 'quality products' at half the price a few days before the best-before date is reached. Also some products, which have a 'Best Before' date on them, such as milk or yoghurt, feature the slogan 'Ich halte oft länger, als man denkt' (I often last longer than you think), in an attempt to make customers aware that food can often be enjoyed even after the best-before date has passed. Lidl is seeking to reduce food losses and organic waste across its business by 30% by 2025.



Odourless barrier for paper-based food packaging launched

Swiss speciality chemical manufacturer Archroma has launched a new barrier coating for paper-based food packaging that is PFC (perfluorinated compound) and ammonia-free. Cartaseal VWAF is designed to form a continuous and defect-free film-like coating on the paper surface. The resulting barrier is said to offer excellent performance against the penetration of oils, fats, water and vapour. Cartaseal VWAF is seen as a more sustainable alternative to replace not only PFC-based coatings but also as a replacement for plastic. The odour-free product is ideally suited to food packaging applications, where the taste and smell of the packed food can be sensitive to the environment and must be carefully preserved for the consumer. Cartaseal VWAF is compliant with FDA and BfR requirements for food contact applications. It is also in line with eco-labels such as EU Flower, Nordic Swan and Blue Angel, and is also REACH (Registration, Evaluation, Authorisation and Restriction of Chemicals) registered.





Recycling Resurgence





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. The UK Plastic Packaging tax requiring 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 influencing the recycling of packaging. The UK's comes into force on 1 April 2022 and will see 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

Tubes for food made from recycled aluminium

Vertical Form Fill Seal bag solution made entirely of paper

Cellulose bioplastic can be recycled with plastic waste

New chemical recycling tech for mixed plastic waste in development

Tea brand removes metalised plastic to improve recycling

World's first system for recycling used PET strapping launched

Carbon neutral air cushioning film is fully recyclable

Customisable lipstick packaging set to disrupt market

Switch from plastic rings for beer six-packs

Recyclable paper wrap for butter is a UK first

Start-up launches French fast food recycling deposit scheme

Collaboration sees versatile PCR caps created for cosmetic packaging

Spanish water brand removes PET bottle label

Coloured caps on milk bottles scrapped for recycling trial

Launch of easy-to-recycle alternative to wooden shipping crates

Recycled HDPE caps launched ahead of UK Plastic Packaging Tax

Mono material containing 70% recycled PE has multiple applications

<u>Collaboration to increase recycled content in PET bottles commences</u>

Beverage carton concept is easy to separate for recycling

Egg carton with 25% PCR introduced

Recyclable corrugated packaging change for home heating brand

Chocolate carton eliminates the need for inner wrapper

Fabric softener pack gets sustainability overhaul

Tray-to-tray recycling developed for circular solution

New cast polypropylene film for lamination launched

Luxury chocolate brand gets sustainability overhaul

Lidless cup gets Canadian rollout

<u>Customisable corrugated board tubing saves warehouse space</u>

Plastic goes in beer crates instead of ocean

Labelless PET bottles launched in Japan

Frozen fish bags from recovered ocean-bound plastic

Tubes for food made from recycled aluminium

German organic food manufacturer Byodo has moved the aluminium tubes that it uses for its mustard, mayonnaise and tomato paste to 100% recycled content. Previously recycled aluminium was only used mainly for cosmetics, but the development of a special alloy now allows food products to be packed in 100% recycled aluminium. The special alloy ensures that the material properties of the aluminium tubes are in no way inferior to those made from primary raw materials. Using recycled aluminium material is reported to generate significantly fewer CO2 emissions during production compared to packaging made from primary aluminium. Although aluminium can be recycled an infinite number of times, correct disposal is important for its eternal recycling cycle. In Germany, the tube is required to be emptied completely and put in a yellow recycling bin or bag, while the PP lid must be disposed of separately.



Vertical Form Fill Seal bag solution made entirely of paper

WePack are a contract packing specialist based in the UK Derbyshire town of Ilkeston. They have announced that they are now able to offer a bag solution made entirely of paper. The bags are produced on a VFFS (Vertical Form Fill Seal) continuous bagger. Stand-up pouches are available, as well as standard bags. The types of products that can be packed include dry granular products such as salt, spices, flour, seaweed products, oats or seeds. Small solid products like beef jerky, granola, cereal, chocolate chips, or popcorn can also be packed this way. Although made from 100% paper, they can still be heat-sealed and after use disposed of in the waste paper stream. The recyclable paper film can be printed with full branding, ready for the shelves without the need for labelling. WePack say that they are also able to use sustainable inks that fit with a company's ecological goals.



Cellulose bioplastic can be recycled with plastic waste

Woodly Oy is a Finnish technology company that is producing a carbon-neutral, bio-based plastic material with cellulose from wood as a raw material. It is made from FSC-certified (Forestry Stewardship Council) wood. The material, called Woodly, has been tested by TÜV Austria, which certifies that it contains 40 -60% bio-based materials. The goal for Woodly Oy is to increase the bio-based content in the future. Woodly is not biodegradable or compostable but can be recycled together with other plastic waste. Woodly has been launched by the Finnish energy and fuel company St1, who are starting to use heat-sealed take-away bags for ready-made sandwiches for their roadside service stations. The take-away bag has been developed in collaboration with HelmiSimpukka and the Finnish flexible packaging and plastic company Amnerplast. It is claimed that sandwiches packaged in Woodly's heat-sealed take-away bags retain their freshness longer than in a traditional plastic bag.



New chemical recycling tech for mixed plastic waste in development

German high-performance film manufacturer Südpack is collaborating with Clean Cycle to invest long-term in Carbolig, the provider of a unique chemical recycling technology developed by German chemical recyclers Recenso. Carboliq technology is based on a process of Catalytic Tribochemical Conversion (CTC) – a one-stage direct liquefaction process, that involves the combined application of thermal, catalytic and mechanochemical mechanisms. CTC is applied at atmospheric pressure and at process temperatures below 400 °C. The process, during which almost no gases are formed, produces a high ratio of oil, which is collected in a condensing system. The oil recovered is virgin-grade quality and can be used by the plastics industry in the same way as fossil fuels to produce a wide spectrum of plastic granulates. These granulates can, in turn, be processed to produce high-performance films for sophisticated packaging applications required in the food industry.



Tea brand removes metalised plastic to improve recycling

The tea industry has been working on reducing packaging materials to improve recyclability while still maintaining barrier protection for the product. This challenge is being taken on by Ecotoneowned UK tea company Clipper Teas, who have introduced a new packaging innovation that avoids the use of foil bags. Over £1 million was spent on research and development and machinery for this project, allowing for the creation of a fully recyclable cardboard box that still keeps the tea fresh and protected. The company believes that the change will result in the prevention of over 20 tonnes of unrecyclable metalised plastic going to waste each year.



World's first system for recycling used PET strapping launched

A German company has announced the launch of the world's first system for collecting used PET (polyethylene terephthalate) strapping. re-strap Gmbh, based in Kurtscheid, is to offer this service throughout Germany. PET strapping is widely used to secure goods for transport, or as a handling aid. In many places, large quantities of it regularly accumulate after unpacking. Subsequent handling is made more difficult, among other things, by the rigidity of the material. Recycling this intrinsically high-quality raw material is very difficult. It is claimed that a large proportion of the strapping ends up being incinerated instead of being recycled and used in a new product. re-strap provides interested companies with the necessary shredding technology and exchange containers for the material (logistics standard, Euro pallet size, stackable) and exchanges the full containers for empty ones on site.



Carbon neutral air cushioning film is fully recyclable

Global manufacturer of protective packaging Pregis has announced the launch of Renew™ Zero, which is a 100% recycled content, carbon neutral air cushioning film. The 100% recycled PE (polyethylene) film is made from 50% postconsumer recycled content and 50% from renewable, sustainable plant waste such as cellulose fibers. The Renew Zero brand name describes the carbon-neutral film which achieves its goal without using an offset method such as planting trees. It is recyclable in the PE waste stream for nextgeneration applications. It also complies with EN13427, the European legislation for packaging and packaging waste. It has been independently tested by both PIRA and Emitwise to confirm that they are 100% CO2 neutral from cradle to grave. Because the film is partly made from ISCC-certified (International Sustainability and Carbon Certification) renewable plant waste, photosynthesis ensures that CO2 is taken out of the atmosphere and replaced with oxygen, resulting in a negative CO2 value.



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Customisable lipstick packaging set to disrupt market

Lumson Spa is an Italian supplier of primary packaging to the cosmetics industry. They recently launched their latest offering, Sign, at the MakeUp in Los Angeles trade show. Sign is a new lipstick case that features a metal insert on the cap that can be customised with logos, designs, and icons through debossing technology. Lumson also says that it is possible to add colour to the insert, playing with shiny or satin effects. The lipstick has a diameter of 12.7mm. The base, mechanism and cap are made of PP (polypropylene). Lumson has developed a large portfolio of 100% "made in Italy" packaging solutions for lipsticks, including "eco-friendly" solutions made from recyclable and/or recycled materials such as PP (polypropylene), PCR-PP (post-consumer recycled polypropylene), PCR-ABS (PCR-acrylonitrile butadiene styrene) or biobased plastics such as PLA (polylactic acid) or airtight lipstick packs for long-lasting formulas (A-TX2).



Switch from plastic rings for beer six-packs

Molson Coors has announced plans to move away from plastic rings for its six-pack Coors Light cans in North America. They are investing \$85m for this transition into more sustainable packaging, which will encompass an upgrade to their packaging equipment. The new format will be a fully recyclable, sustainably sourced board wrap. The transition is expected to be complete by the end of this year. The equipment upgrade will enable all Molson Coors brands to move to board carriers by the end of 2025. This is expected to help the firm save 1.7 million pounds (759 tonnes) of plastic waste a year. The move will help Molson Coors reach its goal of making its packaging fully reusable, recyclable or compostable, as well as use at least 30% recycled content for its consumer-facing plastic packaging, by the end of 2025.



Recyclable paper wrap for butter is a UK first

The ongoing push to make single-use packaging more sustainable continues. This time we see family-owned packaging company Wipak launching what is said to be a first for the UK market – a paper wrap for butter that is 100% recyclable through standard waste streams once cleaned. The aluminium-free wrap is reported to reduce its carbon footprint by nearly 70% when compared to conventional wraps. The butter wrap is reported to be covered with natural coatings that contribute to delivering oxygen and water vapour barriers as well as having grease resistance properties. The wrap scored an A+ rating in recycling tests performed by Bangor University's BioComposites Centre.



Start-up launches French fast food recycling deposit scheme

Swedish start-up & Repeat is launching a recycling deposit scheme in France in collaboration with the fast food catering industry. For each take-out order, the partner restaurants affix a sticker with a QR code on the packaging, provided by &Repeat. Customers can scan this code with their smartphone and find the nearest recycling point to return their containers. Once the packaging is dropped off, consumers fill in their app and earn credits that they can use on their next order from an &Repeat partner restaurant. For its launch in France, the Swedish startup has signed with several brands such as Bagelstein, Soup & Juice and the 150 restaurants of Not So Dark. It is estimated that the fast-food industry in France generates more than 220,000 tonnes of packaging each year, with a very low percentage currently being recycled.



Collaboration sees versatile PCR caps created for cosmetic packaging

French Beauty brand L'Oréal have collaborated with PSB Industries' Texen to create cosmetic packaging caps made from 100% recycled PP (polypropylene). The concept for L'Oréal's skincare brand Biotherm is to make it versatile by designing it to be easily changeable to fit different shapes and sizes of cosmetic packaging. It uses hot stamping as the closure method, which avoids the use of protective varnishes. This packaging development will source from certified marine environments and hopes to use the circular economy to give back in the long run. This will contribute to L'Oréal's ambition to use entirely recycled or bio-based plastic in their packaging by 2030.



Spanish water brand removes PET bottle label

Lanjarón Natural Mineral Water comes from the Salud Spring, located in the Sierra Nevada area of Spain. They are the second-largest water producers in the country with a market share of around 20%. They have now decided to launch what they call the 'Naked' bottle which means they have removed the label on their 1.25-litre bottle. The removal of labels is seen as an issue during the process of recycling PET bottles. The bottle also features a tethered cap as well as the removal of the label, part of their commitment to reducing their carbon footprint. In 2015 they launched their first bottle with 15% rPET (recycled polyethylene terephthalate), and in 2018 launched their first bottle made from 100% rPET. Lanjarón has been part of the Danone Group of companies since 1994.



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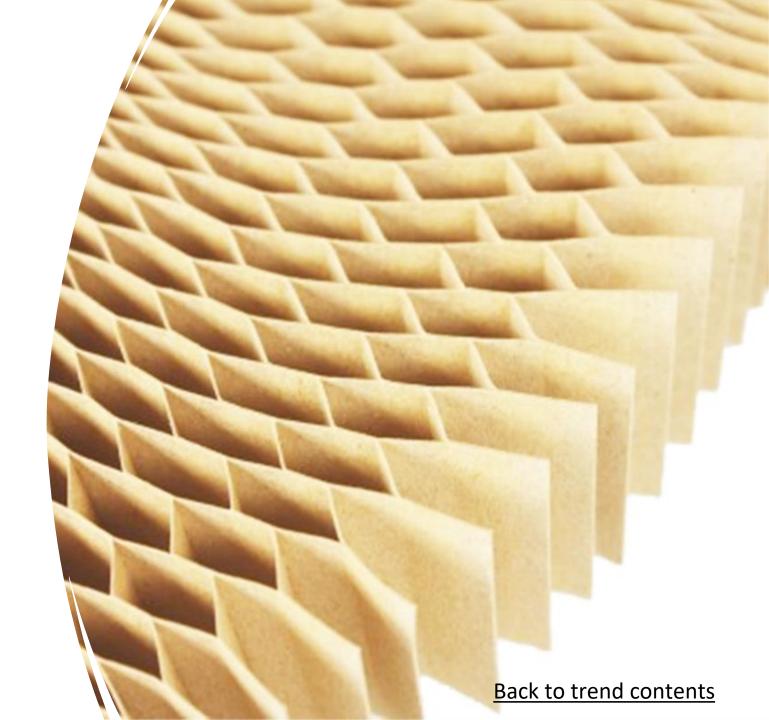
Coloured caps on milk bottles scrapped for recycling trial

Waitrose & Partners, in conjunction with Müller Dairies, is set to trial its milk products with clear bottle caps. This means that they will be able to be recycled into food-grade packaging, unlike the usual blue, green and red caps currently used by most operators. Research conducted by Müller found that the majority of shoppers support the change, with 80% telling the brand they would choose a bottle with a recyclable clear cap over a coloured one. The company also found that just over half of shoppers look for the colour of milk caps when selecting their milk in-store. Waitrose and Müller have estimated that this could increase the availability of recyclable plastic, high-density polyethylene (rHDPE) on the market by 1,560 tonnes a year. The trial will take place at all 331 Waitrose stores between April 4 and 30, following a successful in-house trial.



Launch of easy-torecycle alternative to wooden shipping crates

Antalis Parkside Packaging, based in Coventry, has designed an easy-to-recycle alternative to wooden shipping crates that saves customers money and supports their environmental sustainability goals. The fibre-based honeycomb cell shipping carton is lightweight and made from more than 80% recycled materials. A customer required more environmentally sustainable crates to transport their heavy, fragile food-to-go equipment overseas. Their solution was a bespoke shipping carton manufactured from Pallite, a lightweight, paper-based material reinforced with an innovative 25 mm honeycomb cell design. The packaging was required to withstand long journeys and be easy-to-recycle to support its sustainability objectives and reduce the inconvenience for the end recipient. The Pallite cartons are up to 83% lighter than wooden shipping crates. offering a considerable saving in shipping costs but with a capacity to hold up to 750 kg. The packaging has been used to successfully transport hot-holding units to the US and a customer in Australia.



Recycled HDPE caps launched ahead of UK Plastic Packaging Tax

Paccor, a plastic packaging manufacturer based in Mansfield, UK, have announced the launch of caps for milk and dairy bottles that contain a minimum of 30% rHDPE (recycled high density polyethylene), in order to conform with the UK's plastic packaging tax, which comes into force from April 2022. There were significant challenges to attain the 30% minimum, as the PCR (post consumer recycled) material used has a different nature compared to virgin material. Paccor's engineering and technical team tested various extrusion nozzle diameters and cutter holder profiles until a solution was found and trials with up to 40% rHDPE inclusion rate were successful. Paccor states that this development reduces the volume of virgin HDPE used for their closure production by more than 1,000 tons per annum and provides estimated carbon footprint savings of 1.3 kt CO2eq per year.



Mono material containing 70% recycled PE has multiple applications

Finnish packaging manufacturer Walki has announced the launch of Lamibel Recycled, a mono material PE (polyethylene) material made from recycled sources such as pallet stretch wrap, PE packaging material, and PE film used to bundle bottles, cans and Tetra Briks. Lamibel Recycled has been designed for the packaging of toilet paper, paper towels and other paper towel rolls. Compared to other products on the market that contain usually between 30 and 50% recycled material, Lamibel Recycled contains up to 70% recycled material and is itself completely recyclable. The demand for packaging material made from recycled plastics is spurred by the European Commission's Circular Economy Action Plan, one of the key components of the European Green Deal. It includes a revision of the Packaging and Packaging Waste Directive (PPWD) that seeks to ensure that all the packaging on the EU market will be recyclable or reusable in an economically viable way by 2030.



Collaboration to increase recycled content in PET bottles commences

Researchers from Edinburgh's Heriot-Watt University have been granted funding by the UK government's innovation agency, Innovate UK to develop additives and processing methods that will drastically increase the recycled content of plastic bottles. They will be collaborating with the University of Strathclyde, and Glasgow-based EnviroPET, who have patented what they say is 'plug & play' solution called PET-Yield. This enables the cost effective inclusion of up to 100% post consumer rPET (recycled polyethylene terephthalate) to be seamlessly integrated into new PET bottle production. Plastic drink bottles are difficult to manufacture with recycled PET content due to the high degree of variation in the recycled plastic feedstock. The Heriot-Watt team will study how the PET-Yield additives affect PET bottles containing recycled material under laboratory conditions before it is put to the test in a production environment. They hope to be able to exceed 30% recycled material in any PET bottle, which would have significant long-term environmental benefits and would be well received by operators.



Beverage carton concept is easy to separate for recycling

Pushan Panda is a creative technologist and solutions engineer based in San Francisco. He has created an alternative to the multi-layer drinks carton that we are all familiar with, which due to their numerous layers of different bonded materials, can prove difficult to recycle. A more sustainable alternative has been developed called Bruk. Once the packaging is empty, the outer board packaging is peeled away like a banana from the top to reveal the inner HDPE (high density polyethylene) liner, making it easy for the two components to be recycled separately. Bruk has been designed to look unassuming and familiar so that consumers will recognize the shape and overall look of the beverage container. It has been optimistically estimated that due to the complicated recycling process behind multi-layer beverage cartons, only 49% of beverage cartons are recycled in the UK, while only 16% are recycled in the USA.



Egg carton with 25% PCR introduced

Tekni-Plex Consumer products, based in Pennsylvania US, has announced that it has introduced a new version of its Dolco Packaging subsidiary ProPlus egg carton that contains 25% post-consumer recycled (PCR) foam polystyrene (EPS). The new resin contains recycled post-consumer waste, which Dolco uses to manufacture egg cartons which have the same performance and characteristics as cartons using conventional resin. They say that packers, retailers, and consumers can expect the same superior quality and protection while reducing their carbon footprint although no data is available that supports any decrease. Tekni-Plex claims that these new PCR cartons can be recycled multiple times through advanced recycling without compromising quality or performance. A major egg packer will be the first customer to utilize the new cartons as part of its commitment to delivering products in efficient protection solutions, minimizing food waste and reducing the use of virgin materials.



Recyclable corrugated packaging change for home heating brand

Global packaging manufacturer Mondi has created a fully recyclable packaging solution for Warmhaus, a Turkish producer of radiators and boilers for home heating. The new Monocorr Box solution is made of 100% recyclable corrugated board, including the inserts that cushion the packaged products. The previous Warmhaus packaging used expanded polystyrene (EPS) foam inserts, which have low recycling rates throughout Europe and generally end up in landfill or incineration facilities after disposal. In addition to being fully recyclable, the Monocorr Box has benefits in terms of logistics and shipping. The boxes are delivered flat and the corrugated inserts are reported to take up 94% less space during transport and storage than the previous EPS foam inserts. Assembled Monocorr Boxes are more compact than the previous packaging and the size of the outer box has been reduced by 6%, which allows Warmhaus to stack 20% more items on each shipping pallet.



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Chocolate carton eliminates the need for inner wrapper

Dutch printed folding carton producer Van Genechten Packaging has announced the launch of PurePac, a 100% recyclable chocolate carton that eliminates the need for inner wrappers made of aluminium foil, aluminium-paper composites, or plastic film. PurePac cartons have a unique antigrease barrier that has direct food contact approval that is certified by independent labs. The design ensures that aromas stay inside, while contamination or pests cannot get in. Van Genechten has calculated that 100 million PurePacs will save 150,000 kilos of aluminium and will give a cost-saving of €5 (£4.21) for every 1,000 packs. PurePac allows for a wide range of finishes, including low-migration inks and decorative varnishes. It is suitable for hot and cold foil blocking. It can also be designed with easy open and reclose features. Food safe colours and varnish can be printed on the inside of the carton too.



Fabric softener pack gets sustainability overhaul

Global consumer goods manufacturer Procter & Gamble (P&G) has announced two major sustainability updates to its Lenor range of fabric softeners. The first is the move away from opaque bottles which are more difficult to recycle, to clear rPET (recycled polyethylene terephthalate) bottles with printed shrink sleeves. These bottles will be on sale on Lenor Fabric Enhancer bottles across Germany, Switzerland and Austria. For total compliance with the requirements of the European PET Bottle Platform (EPBP) recyclability guidelines, the bottles have standard double perforation and consumer messaging to enable easy removal of the sleeve before disposal. The second is the adoption of digital watermarking to aid sorting and recycling as part of the Project Holy Grail initiative. Digital Watermarks are tiny imperceptible codes that are invisibly embedded onto labels to make them smart enough to inform the automatic sorting equipment how it should be sorted and recycled.



Tray-to-tray recycling developed for circular solution

AMB Spa, an Italian supplier of rigid and flexible film solutions, has launched Tray Revive, a circular tray-to-tray recycling initiative. The model utilises flakes from post-consumer recycled trays to create new trays for food contact applications. In collaboration with an Italian recycler, AMB has launched an initiative to collect material from post-consumer trays with the aim of promoting the circularity of food-grade PET trays. AMB says the raw material comes from a 95% food tray stream and undergoes strict analysis to ensure its quality. The postconsumer material is processed to avoid contamination and the flake quality is assessed for its impact on the extrusion process and its mechanical performance. AMB state that they are expecting demand for recycled bottles to disrupt the supply of rPET (recycled polyethylene terephthalate) as the European beverage industry has called for them to have 'first refusal' of rPET to meet their own sustainability commitments.



New cast polypropylene film for lamination launched

The UK arm of Innovia Films has announced the launch of a new, clear CPP (cast polypropylene) film, designed specifically as an inner sealing layer for monomaterial laminates. Propacast KF is available as a 30, 50 and 70 micron film which has a wide heat seal range. Its low temperature sealing attributes for laminating to other polypropylene films mean that it is expected to be especially suitable for stand-up pouches. Innovia says that in the UK market, this structure would be recognised by OPRL as a fully recyclable material. Propacast KF has also been corona treated on one side to ensure suitable adhesion during lamination. It also offers good coefficient of friction and anti-block properties which ensures easy processing on a range of HFFS (horizontal form fill & seal) and VFFS (vertical form fill and seal) packaging machines.



Luxury chocolate brand gets sustainability overhaul

Belgian luxury chocolate brand Guylian has announced that it is updating its design while making the packaging itself more sustainable. All packs with plastic windows will be removed of the Lotte Confectionery owned brand and the board used will be either FSC (Forestry Stewardship Council) or PEFC (Programme for the Endorsement of Forest Certification) approved. Internally, the plastic trays used, which they say are required to protect the chocolates from damage, will be made from clear PET/PP (polyethylene terephthalate/polypropylene) which they say is 100% recyclable, and easier to recycle. Products packed in pouches will move to a paper substrate, and individually wrapped chocolates will be wrapped in recyclable metalised OPP (oriented polypropylene). Bars of chocolate will be wrapped in recyclable aluminium inside a board sleeve. All secondary packaging paper/cardboard consists of 100% recycled material. The brand owner says that all packaging will now be made from 100% recyclable mono-material.



Lidless cup gets Canadian rollout

Fast-food chain A&W Canada is piloting a fully recyclable, compostable coffee cup. The solution, from UK-based company Butterfly Cup, has no straw, lid or plastic lining and is suitable for hot and cold beverages. A&W claims to be the first quick-service restaurant in North America to pilot the Butterfly Cup. The Butterfly Cup has numerous worldwide patents, is said to biodegrade naturally and quickly in the right conditions, can be recycled with other paper-based products, and is also said to be cost-effective. The board used to manufacture the Butterfly Cup is both FSC (Forestry Stewardship Council) and PEFC (Programme for the Endorsement of Forest Certification) approved. The pilot initiative was rolled out in participating restaurants across the Greater Toronto area earlier this week.



Customisable corrugated board tubing saves warehouse space

Kite Packaging, based in Coventry, has launched a customisable corrugated board protective tubing product. The solution arrives flat on a 100m roll, saving valuable warehouse space. It is then assembled by merely folding along the scored corners. The corrugated cardboard will then hold its shape to offer strong protection to each side of the object inside. It can then be cut to size, depending on the product to be packed. The tubing is made from recycled 'B' flute corrugated material, making it a sustainable alternative to plastic tubing. Once packed, the tubing can be sealed using staples, self-adhesive tape or hot melt adhesive. Available in three different widths 102, 160 and 224mm, the corrugated tubing can be tailored toward a wide variety of products including anything from table legs and other furniture parts to pipes, tools, sections or even skateboards.



Plastic goes in beer crates instead of ocean

Belgium-based global beverage brand owner AB InBev is to launch a new plastic crate format for the German market. The plastic crates will contain 2.2 kilograms of recycled plastic, including waste from the maritime industry such as fishing lines, nets and ropes that have reached the end of their useful life. The crates will contain over 90% recycled plastic, and have an imperfect look, which they have named the "Riptide Finish", meaning that no two crates look exactly alike, and is said to embody the brand's "perfectly imperfect" personality. The project, which was conducted with Dutch crate maker Schoeller Allibert and sustainability-focused design agency Drink Works, took around 18 months. The use of recycled material is said to ensure consistent quality in the manufacture of the box – and thus its longevity and structural integrity.



Labelless PET bottles launched in Japan

Material reduction programmes continue to be a priority for brand owners. Japanese tea company Kirin is removing labels from their PET bottles, for their Gogo no Kocha sugar-free tea. During the early stages of the pandemic, Kirin trialled this method of labelless packaging, using cardboard boxes with brand and nutritional information printed on them. This allowed them to remove the labels from their bottles without affecting consumer experience. The removal of labels is seen as an issue during the process of recycling PET bottles, because either consumers will have to do it or the recycling firms will have to do it. The bottles will now be more easily recycled at the end of their use, saving costs and making the whole process quicker. It is not clear how brand messaging will be communicated on the bottle.





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Frozen fish bags from recovered ocean-bound plastic

Saudi-based chemicals company SABIC and Portuguese plastic film converter Polivouga, have brought to market what they say is the world's first bag for frozen seafood made from oceanbound plastic. The partnership of SABIC and Polivouga utilises SABIC's certified circular polyethylene from feedstock sourced from recovered ocean-bound plastic. SABIC states that even used plastic recovered from in and around ocean feeding waterways has the potential to be converted into a high-quality plastic product for customers. The ocean-bound plastic is converted using advanced recycling into an alternative feedstock which SABIC uses to produce certified circular polymers - LLDPE (linear low-density polyethylene) and LDPE (low-density polyethylene) for further processing to flexible packaging film by Polivouga. The resulting film will be used by Nueva Pescanova Group, who is using the packages for its frozen seafood in bags made from this film. The packaging will be launched to coincide with World Oceans Day 2022.





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.





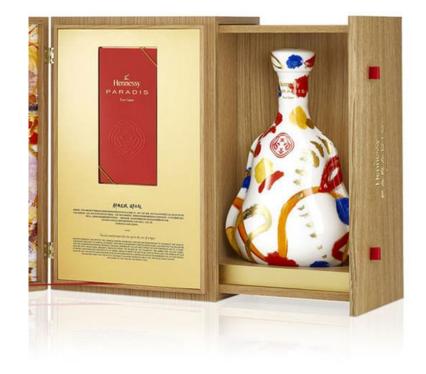
Getting Noticed

<u>Limited edition porcelain spirits bottle gets shelf stand out</u>

<u>Glass bottle innovation to benefit local spirits market</u>

Limited edition porcelain spirits bottle gets shelf stand out

Hennessy Cognac has collaborated with Shanghai-based artist Zhang Enli to produce a limited edition porcelain bottle for its Hennessy Paradis to celebrate the 2022 Chinese New Year. Called 'Poetry and Wine Welcome the Tiger' the design is said to celebrate the poetry, optimism, and vitality of the Chinese New Year. The switch from glass to a ceramic porcelain material is relatively unusual for the spirits sector. The artist conjures the tiger — an ancestral symbol of power, success, and confidence — with dynamic lines and vibrant colour. For the Year of the Tiger, the designer also chose to pay tribute to the peaceful beauty of the Charente River in Cognac, using it as a metaphor for transformation and the passage of time. The artist recalls that the Charente River left a profound impression on him after his visit to Cognac. The bottle was made by Limoges-based porcelain specialists Bernardaud Porcelain.



Glass bottle innovation to benefit local spirits market

Australian bottle manufacturer Orora Beverage have announced the launch of a new spirit bottle. The new solution, called the Oro-Gin spirit bottle, is made with Orora Crystal glass and was developed with a classic shape and elegant finish. It can be supplied with either a screw cap or cork finish. Orora says that quality spirits and liqueurs are typically bottled in high quality, clear glass known as super flint, which allows distillers to showcase their products in the best way to consumers. The new bottle was developed to present a local solution for distillers, who until now have had to import their glass bottles from overseas. These companies are faced with navigating global supply chains and dealing with international shipping and logistical challenges, border policies and global market fluctuations. Because of these potential issues, buying locally is seen to make more sense.





Refill Revolution

Refill Revolution

Refillable and reusable packaging continues to come through the innovation funnel. The growth is in part driven by the Plastic Pact aim to deliver reusable packaging by 2025. Many of the initiatives are from start-up and challenger brands with multinational brand owners also getting in on the act with small scale trials and pilots. The dry food, household, health and beauty sectors are the most active.

Reusable and refillable packaging examples have increased in occurrence, notably over the last two years months as brands, retailers and suppliers look at ways of tackling single-use and difficult to recycle packaging. A change in consumer attitude is emerging with resistance to single-use packaging. The innovations collated can be segmented into the Ellen MacArthur Foundation's four reuse models – Refill at home, Return from home, Refill on the go and return on the go. Dry food, household and personal care sectors are the ones that are making the most ground. Many of the in-store examples listed are small trials and pilots as major retail chains test the water with a small number of initiatives in outlets. Their next moves will be eagerly anticipated.





Refill Revolution

Deposit return scheme for reusable coffee cups starts UK trial

Refillable household cleaning range reduces plastic by 80%

Cup test will inform future reuse strategy

Refillable mascara solution closing the cosmetic packaging loop

<u>Deposit cups introduced for 'unpackaged' stores</u>

Reusable temperature-controlled packaging bang on-trend

Refillable packaging scheme introduced in US stores

UK start-up launches reusable bin liner

Reusable packaging systems reduces plastic by more than 85%

Reusable cup trial introduced by fast-food brand

Bio-based refill alternative for new lip balm range

Gin refill station launched to save money and waste

Spanish startup launches first network of returnable cups

Washable reusable sponge system eliminates single-use packaging

<u>Closed-loop system reduces single-use glass waste</u>

Mobile refill scheme goes direct to Orlando communities

<u>Post consumer recycled PP refill tubs reduce supply chain carbon footprint</u>

Reusable packaging trial introduced by Swiss Post

Deposit return scheme for reusable coffee cups starts UK trial

Multinational coffee chain Starbucks has launched a trial scheme where customers can borrow returnable cups. The scheme will be trialled in London's Canary Wharf and all stores in the city of Geneva. It will enable customers to request a reusable cup at the till for a £1 deposit fee, which customers will be reimbursed when the cup is returned to a Starbucks store. Each cup has an identifying number, meaning that Starbucks staff can scan them and return the fee to the customer once they are finished. Cups returned will be sanitised in-store ready for reuse. This means customers do not need to remember to bring their own reusable cup from home. Research has revealed that 36% of UK coffee drinkers don't use a reusable cup every time they buy a drink on the go because they forget to bring their reusable cup. The trials in Canary Wharf and Geneva will last for two months.



Refillable household cleaning range reduces plastic by 80%

US household cleaning product manufacturer Clorox has announced the launch of three new refillable products to help consumers cut down on plastic when tackling household cleaning tasks. Clorox Disinfecting Mist is an innovative, aerosol-free disinfecting product that effectively kills 99.9% of bacteria and viruses on hard surfaces, sanitizes soft surfaces and even deodorizes and freshens the air. The mist is housed in a 100% recyclable bottle with a reusable sprayer, which can be reused with refill bottles for two to three years, according to Clorox. They have also rolled out Clorox Multi-Purpose Refillable Cleaner and Clorox Bathroom Foamer Refillable Cleaner, two innovative cleaning solutions that deliver 10 times the cleaning power while using 80% less plastic than the average single-use spray. Each product comes in a sleek, reusable spray bottle that can be refilled up to 30 times, according to the brand.



Cup test will inform future reuse strategy

According to The Paper Cup Alliance, 2.5 billion cups are sold in UK high streets each year. Because of their polyethene lining, the vast majority of single-use cups do not biodegrade and are notoriously difficult to recycle. It is reported that in the UK, only one in 400 cups is recycled. According to a UK parliamentary paper, the cups ending up in landfills generate 152,000 tonnes of carbon dioxide a year. To combat this problem, coffeehouse chain Costa Coffee has introduced the BURT (Borrow, Use, Reuse, Take back) system as part of an initial one outlet trial. This is a reusable cup scheme, first trialling in Glasgow, allowing customers to sign up to the Costa app and use a BURT wallet. This then enables them to show their unique QR code to staff at Costa who will scan it and give them a reusable cup, which can be returned at a later point, using the app. The cup will then be washed on-site to be used again by another consumer.



Refillable mascara solution closing the cosmetic packaging loop

Izzy is a US-based cosmetics brand whose intention is to offer consumers zero waste and carbon neutral beauty products. Their current portfolio features two products, Zero Waste Mascara BLK, and Zero Waste Glossy Lip Butter, which are certified as carbon neutral in accordance with The Carbon Neutral Protocol and designed specifically with the refill model in mind. The medical-grade, stainless-steel tubes are designed to be cleaned and refilled over 10,000 times, so they never have to be thrown away. After use, Izzy's packaging comes back into play. The container is returned via a Zero Waste Reusable Shipper with no outer packaging. A scannable QR code takes customers to Izzy's website, showing them information about the mascara, membership and the company's zero-waste policy. The products are claimed to contain 94% less plastic than the leading single-use brands, and while some of the product packaging does use plastic, this is reground and recycled at Izzy's processing facility.



Deposit cups introduced for 'unpackaged' stores

Kaufland is a German hypermarket chain, part of the Schwarz Group, which also owns Lidl. Following successful trials of unpackaged food stations at two stores, in Pfungstadt and Steinheim, they recently extended it to a total of eight outlets in cities such as Hamburg, Berlin, Munich, Cologne, Heidelberg and Leipzig. Customers are expected to bring in their own containers to fill, however, realising that some customers forget to bring in their containers, the retailer is now providing disposable cups. The cups are made from 50% recycled PET, have a volume of 600ml and require a deposit of 25 Euro cents. After use, these can be returned as empties to the branch where they were purchased and then end up in the recycling cycle of the Schwarz Group, to which Kaufland belongs. The retail chain is also part of the "Waste Separation Works" initiative, to explain to consumers how to separate waste correctly and clear up misconceptions and myths surrounding waste.



Reusable temperaturecontrolled packaging bang on-trend

Supply chain specialists, UK-based Oakland International, has announced the launch of reusable temperature-controlled packaging. Called the OakRA (Oakland Returnable Asset), it is an insulated box made in the UK that can be tracked using a unique RFID tag, allowing Oakland and its clients to keep track of the boxes and help ensure they are reused. The OakRA boxes are said to encompass considerable impact resistance whilst remaining lightweight and strong. OakRA units feature secure, tamper-evident banding, along with water and pest resistant properties, OakRAs are said to be the perfect choice for doorstep deliveries. Trials provided positive feedback from endusers and carriers, particularly on the strength, thermal performance, ease of handling and weatherproofing. The boxes are made from the same material as car bumpers, thermoplastic olefins, a blend of plastic molecules, rubber, and a reinforcing filler such as carbon fibre or calcium carbonate.



Refillable packaging scheme introduced in US stores

US retailer Kroger are piloting a reusable packaging scheme in Portland, Oregon through a collaboration with circular economy shopping platform Loop, a division of TerraCycle. This pilot will be the first instance of Loop's reuse service being implemented in supermarkets in the United States having already started programmes in other markets such as the UK. More than 25 Kroger-owned stores in Portland will take part in the trial, with around 20 products available for purchase under the scheme. Consumers will pay a small deposit to obtain the Loop packaging, which will be returned to them at a later point. When consumers are finished with the contents of the pack, they can scan a QR code on the packaging with the Loop mobile app and return it to a collection point within any of the participating stores. The packaging will be cleaned and restocked to be sold again and the deposit will be returned.



UK start-up launches reusable bin liner

Moonie is a mother and daughter start-up based in the south of England that focuses on making eco-friendly products more accessible, affordable and attainable. Noticing that during the pandemic there had been a surge in household waste, the business responded by developing a reusable bin liner. Waste from English households increased in 2020/21 by 1.8 per cent, whilst the amount of waste recycled decreased by 1.2 per cent – statistics from the Department for Environment, Food & Rural Affairs revealed. The bin liner, which is made locally, is made of eco-PUL (polyurethane laminate) that has a waterproof lining and drawstring and can be machine washed. The reusable bin liner is available in three sizes, 15 litres, 30 litres, and 80 litres, and cost £19.99, £24.99 and £29.99 respectively.



Reusable packaging systems reduces plastic by more than 85%

Japanese cosmetics giant Kao has launched two new reusable packaging systems for its MyKirei personal care brand. MyKirei's body wash comes in the reusable Bottle for Life that, in conjunction with the refill pouch, reduces plastic by more than 85% versus a traditional rigid bottle. MyKirei's Yuzu Flower Foam Hand Wash comes in the same reusable Bottle for Life as the body wash but has an upward facing dispenser that forms the foam soap in the shape of a flower, or for younger consumers they can choose a dispenser that forms the soap into the shape of a paw print. The other product is a body lotion with refillable Eco-Holders which are decorated with artwork from famous Japanese artists. The Eco-Pouch refill snaps into the back of the Eco-Holder by the neck, and a reusable pump dispenser is added. Both refill pouches can be recycled through the Terracycle scheme.





Reusable cup trial introduced by fast-food brand

Multinational fast-food chain Burger King operates nearly 18,000 outlets around the world. The business, like its contemporaries, is working to ensure that all of its packaging will be renewable, recycled or come from certified sources. This ambitious objective is continuing to shape how the business develops new packaging solutions. They have recently introduced a new reusable cup model for the German market. The pilot will last for at least six months and involves reusable cups being deployed across several restaurants in Germany, where customers can pay a deposit of €1 for a reusable cup, which will be refunded to them upon its return. The trial is intended to prevent the waste of several hundred thousand single-use cups. Alongside the launch of the scheme, the company has created a motto, "Reusable is King".



Bio-based refill alternative for new lip balm range

High Wycombe, UK-based lip balm brand above & beyond has partnered with Finnish plastic alternative manufacturer Sulapac for its refillable lip balm packaging. above & beyond's lip balm packaging is completely plastic-free, with an outer case made from lifetime-use refillable aluminium, while the refills are made from Sulapac. The latter is a recent addition to the pack format. Lip balm packaging is said to be one of the most used and lost items of cosmetics. They are notoriously difficult to recycle, frequently ending up in mixed waste and going to landfill. Sulapac, on the other hand, is bio-based and derived from sustainably sourced material. It is made of wood from industrial side streams and plant-based binders, is industrially compostable and also biodegrades without leaving permanent microplastics behind. The lip balms are available as a set of one case and three refills for £25, while three replacement balms are available for £18. An online subscription option is also available.



Gin refill station launched to save money and waste

Since their bottle's creation in 2012, Sydney-based craft gin brand Garden Grown Gin has been mindful of sustainability and has encouraged the reuse or repurposing of their glass gin bottles. This month, they announced the introduction of a gin refill station. The station is in an artisanal bottle shop, The Drink Hive, in the Rosebery suburb of Sydney. Initially, for one month only, customers can refill their own glass bottles with Garden Grown gin and save \$9, paying only \$76 (£42) dollars per 700ml as opposed to \$85 (£47) for a brand-new bottle, while also preventing waste.



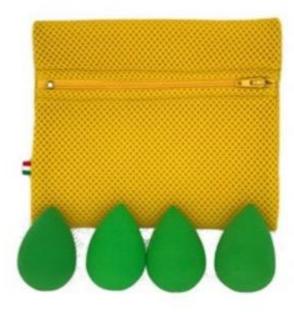
Spanish startup launches first network of returnable cups

Bûmerang is a Spanish startup that specialises in returnable packaging systems in Barcelona. They have now announced the introduction of a returnable cup programme. Their digitised system allows the consumer to take their drink in a returnable cup. The cups are made of 100% recyclable PP, and can be returned to any cafeteria or collection point in the Bûmerang network once they have had their coffee. Bûmerang claim that in Spain, 2,584 single-use cups are thrown away every minute, and are difficult to recycle because of their plastic-lined board construction. The startup already has more than 80 points in its network with clients such as Flax & Kale and Poke Si, serving more than 2,000 users. They have also begun to offer a subscription for corporate clients, such as company canteens, hospitals and university campuses, and it is already collaborating with Sodexo and Eurest.



Washable reusable sponge system eliminates single-use packaging

The Beauty Sponge Sachet is a patented all-in-one maintenance US-based system for cosmetic sponges designed to eliminate single-use plastic packaging. The Beauty Sponge Sachet is a complete packaging system constructed from an antimicrobial treated, air-mesh fabric. Each sachet contains four high quality beauty sponges. The three-dimensional mesh packaging inhibits bacterial spread on the packaging, while also allowing the sachet containing the sponges to be laundered in a standard machine cycle before a thorough drying in a typical laundry dryer. Aside from eliminating singleuse packaging, there is a health concern connected to the reuse of (not washed) cosmetics sponges. A study found that up to 90% of sponges tested were contaminated with bacteria like E. coli and Staphylococcus aureus, and 96% of all sponges tested were fungal laden. A pack of four sponges in washable sachet is priced at \$40USD (£29.85), and sachets are available in a range of different colours.



Closed-loop system reduces single-use glass waste

Pernod Ricard, the world's second largest wine and spirits company, is partnering with closed-loop distribution system providers ecoSPIRITS to pilot an innovative distribution process in the Hong Kong and Singapore markets. The collaboration will see Pernod Ricard's premium spirits transported in bulk and delivered to bars in ecoSPIRITS' patent-pending ecoTOTE format, a fully reusable 4.5-litre glass container, instead of 75cl glass bottles. Once empty, ecoTOTES will be returned to the ecoPLANT, where they are sanitized and refilled, in line with standards of leading international distillers. Over 80 bars across Hong Kong and Singapore are said to be joining the pilot programme, and it is claimed the initiative will reduce carbon emissions by an estimated average of 66% across the two cities compared to the traditional packaging and distribution model. The pilot will include iconic brands Absolut Vodka, Beefeater Gin and Havana Club Rum.



Mobile refill scheme goes direct to Orlando communities

Good Fills is an Orlando Florida start-up that started in January 2022 and offers a mobile refill service for soaps and laundry items, among other household items. The mobile service visits community and farmer's markets in the Orlando area, with times and dates available on the Good Fills website. For first time customers, they offer bottles for sale that meet FTC and FDA regulations. If you're a returning customer, they ask you to bring back your bottles. If you're done with your bottles, they will buy them back for \$2. They sell their products by weight, but are happy to approximate any volume you desire. The container weight is subtracted out so you only pay for what you need. Good Fills is a mobile zero-waste store aiming to reduce plastic consumption by refilling family-friendly soaps, detergents, and cleaners, and have curated a selection of ecofriendly positioned national brands and boutique hand-crafted local brands.



Post consumer recycled PP refill tubs reduce supply chain carbon footprint

French natural skincare, beauty and organic cosmetics producer L'Occitane en Provence has collaborated with VPI, part of the Faiveley Plast group, who specialise in injection moulded plastic parts for use in luxury goods. Together they have developed a new refill tub made from 100% PCR (postconsumer recycled) PP (polypropylene). The companies say that the 100% PCR PP reuses fossil resources, thus reducing the use of virgin fossil-based plastics. In addition, the lightweight rPP reportedly offers a lower carbon footprint across the entire supply chain. The refill method means consumers initially purchase the tub along with aluminium packaging that the tub fits inside. The heat-sealed tubs can then be replaced and reloaded into the aluminium packaging for future purchases. The design of the grip creates an unsnapping and re-snapping closure, which reportedly ensures a user-friendly and pleasant mode of use. The refill tub will be used for its Shea Ultra Rich Body Cream.



Reusable packaging trial introduced by Swiss Post

Collaborating with five retail companies (DM, Tchibo, Intersport, Thalia and Interspar Weinwelt), the national postal service of Switzerland Swiss Post is launching a trial project offering reusable packaging for e-commerce applications. The initiative involves cardboard re-zippable boxes and wood-fibre re-zippable bags. The cardboard boxes are designed to have a life of at least 10 uses, while the wood-fibre bag should last more than 30. The retail companies involved will begin to use the reusable packs, which consumers simply remove their ordered products from and mail back to the respective companies, using the post office itself. To observe the level of success the trial brings, there will be a link to a review and questionnaire, allowing customers to share their opinions with the companies involved to help improve and refine the offerings.



About Us

ThePackHub is a leading UK based packaging innovation consultancy specialising in delivering packaging solutions to brand owners, retailers and packaging suppliers. ThePackHub manages a market-leading innovation database called The Innovation Zone. The easy to use resource has over 5,700 packaging innovations from around the world updated at to 20 initiatives a week. This internal insight and knowledge feeds into much of the consultancy we undertake. ThePackHub also has an unrivalled network of packaging contacts and connections across the industry.

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Our team delivers technical support for packaging projects, large and small. From quick and helpful tips and advice through to the project management of significant packaging initiatives, ThePackHub has established a strong reputation for helping companies from start-ups to multinational organisations. Our recent clients for technical support have included EAT, Greencore, Able & Cole, Loch Duart, Innocent, Aunt Bessies, Waitrose, Leathams, WRAP, KP Snacks, Iglo, Fortnum and Masons, Church and Dwight, Aubrey Allen, Glanbia, Pip & Nut and Happen!

We have published several packaging reports covering sustainability, packaging trends, supplier guides, seasonal packaging and more. The Pack Hub also hosts packaging events. We have delivered a dozen face-to-face seminars that provide insight from expert speakers as well as bring the industry together to network and collaborate.

The Pack Hub 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, Meiyume, Walgreen Boots Alliance, Marks & Spencer, Lidl, Aldi and many more.