

PACKAGING INNOVATION

BRIEFING REPORT
JULY 2023

Welcome

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

In this comprehensive and unique monthly report, created exclusively for Innovation Zone members, you'll find a wealth of information on the latest packaging innovations and industry news.

With 138 pages of content, including 110 new packaging innovations for the month, you can be sure that you'll stay informed and up-to-date on all the latest developments in the packaging industry.

Summary

Our latest monthly report underscores the latest advancements in packaging innovation, highlighting key areas such as bio-based packaging, tech-enabled solutions, e-commerce packaging, functional packaging, recycling initiatives plastic reduction, and refillable and reusable packaging. Sustainability remains the primary focus, with approximately 80% of the latest initiatives being ecocentric.

The bio-based packaging industry, particularly seaweed-based packages, is seeing rapid expansion, and consumer-centric packaging continues to be vital. Furthermore, the surge in ecommerce offers increasing opportunities for brands and retailers to provide packaging solutions specifically designed for this platform. The trend towards refillable and reusable packaging is picking up steam, with a plethora of initiatives observed in the dry food, household, and personal care sectors.

Recycling initiatives continue to be among the most dynamic sustainability actions, fuelled by the stringent commitments of global Plastic Pacts and packaging taxes.



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

Naturally Done

The Online Surge

Making Life Easy

Materially Changed

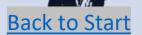
Protect and Preserve

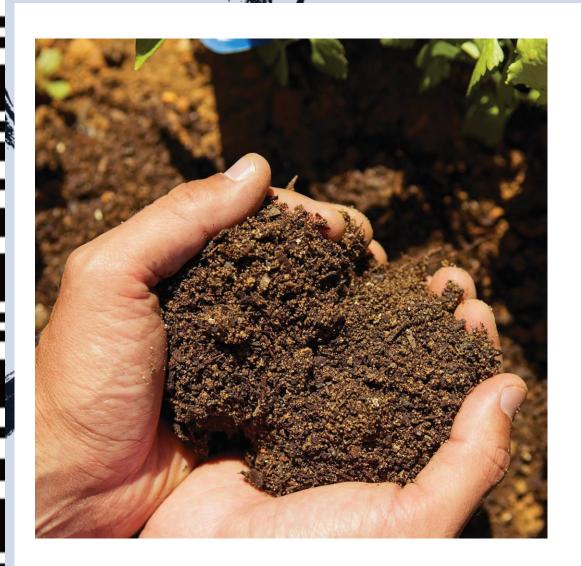
Recycling Resurgence

Getting Noticed

Refill Revolution







Naturally done

Naturally done

This month, we've seen a continued emphasis on biobased packaging, with an introduction of 22 initiatives in this area. The development of biodegradable, compostable packaging, and novel biobased substitutes to plastic are continuing unabated. Nevertheless, the absence of widely available industrial composting infrastructures in many markets significantly hinders widespread adoption.

Moreover, there is an ongoing concern that compostable and biodegradable packages might contaminate existing recycling processes. Despite these hindrances, the bio-based packaging industry is experiencing strong growth, with numerous new projects underway, many of which may nver hit store shelves.

However, the adoption of these innovative packaging solutions is not yet widespread among major brands, and their use is primarily confined to small, emerging brands seeking to establish a unique sustainable angle.

In recent times, the development of seaweed packaging has emerged as a particularly robust area.





Naturally Done

Potato chip brands to launch compostable packaging at US festival Recently launched ice cream pack is recyclable and compostable Launch of sustainable lidding film range

Bamboo-based taco boxes are compostable and can be custom printed

<u>Ice cream packaging made from cassava composts in 90 days</u>

Partnership will create bio-based ethylene from industrial residues

Partnership will upscale forest biomass-based packaging

Sustainable bio-based cap material aimed at high end cosmetics

Shellfish shells recycled for sustainable packaging

Company launches range of drinks cups made from bamboo

Edible coffee cups: An Australian solution to reduce disposable waste

Compostable lidding solution for coffee capsules

<u>Café creates 100% compostable packaging from pumpkins</u>

Researchers develop biodegradable single-use soap product

Four year project looks at PHA and improving recycled material properties

Researchers develop biodegradable packaging from avocado seeds

Scientists develop antibacterial and biodegradable packaging for the food industry

<u>Israeli company offers dissolvable alternative to conventional plastics</u>

Developing sustainable single-use packaging from natural polymers

Australian company receives major investment for bio-based waterproof coating

Nordic beauty brand launches bio-based pot and labels

Partially bio-based coating makes food packaging recyclable

Potato chip brands to launch compostable packaging at US festival

Frito-Lay has teamed up with flexible packaging specialists Bryce Corporation to develop compostable packaging for five of its most popular products: Lay's, Cheetos, Doritos, Tostitos, and Ruffles. This initiative was launched at the 2023 Coachella Music Festival, where the packaging was available from all food vendors. The packaging, made from plant-based materials like cornstarch and sugarcane, can decompose within 180 days in a commercial composting facility, according to John Meehan Jr., Product Development Manager at Bryce Corporation. The goal of the project, Meehan explained at the Global Pouch Forum, is to create functional packaging that consumers can easily recycle or compost, without compromising product quality. Frito-Lay spokesperson, Melissa Sklar, expressed the company's excitement about providing fans with the compostable packaging at Coachella, viewing it as a significant step towards sustainability and a continuation of the company's efforts to minimize its environmental impact.



Recently launched ice cream pack is recyclable and compostable

British multinational consumer goods company Unilever has collaborated with Italy-based Seda Packaging Group and Finnish fibre-based materials supplier Stora Enso to develop new recyclable and compostable paperboard packaging for its Carte d'Or ice cream, which has been launched in the Italian market. The tub and lid are made from 100% PEFC-certified (Programme for the Endorsement of Forest Certification) renewable fibre with a biodegradable barrier coating, that makes the packaging waterproof and, therefore, suitable for ice cream. After use, it can be either recycled or composted in industrial composting. Both of the Carte d'Or packaging items are produced by Seda Packaging Group in Naples, and the material used is Cupforma Natura[™] by Stora Enso. The board has a biodegradable barrier on its both sides to preserve ice cream safely in frozen and moist conditions. The paperboard tub is also said to be 23% lighter than the previous packaging. The lid also allows for the contents to be seen.



Launch of sustainable lidding film range

Yorkshire-based flexible packaging company Parkside has launched a range of new sustainable lidding films. It comprises certified renewable and compostable films, paper-based solutions, and recyclable monomers. It has been launched as part of the company's 'Sustainable 7' product strategy, which refers to the seven pillars of sustainability that uphold Parkside's approach to packaging design and development. The new range is augmented by its in-house laser scoring technology, ParkScribe, which uses a laser to quickly score substrates with micron-level precision. This means it can cut through only a few layers of the lidding material in specific areas to create a lid that peels away, then reseals without additional glue strips, zips, or stickers, which can affect recyclability. When weld sealed to a tray, it is fully recyclable under current OPRL guidelines, provided the polymer is the same as the one used in the tray.



Bamboo-based taco boxes are compostable and can be custom printed

Georgia-based Better Earth has launched a range of 100% compostable taco clamshells made from unbleached bamboo fibre and free of PFAs, wax, and plastic linings. They are said to be a sustainable alternative to EPS (expanded polystyrene) clamshells. The freezer-safe, soak-proof design ensures tacos remain fresh during transit. The containers compost in a commercial composting facility in just 2 to 4 months, leaving no waste or harmful residues behind. Made of FDA-compliant, foodgrade material, they are fully compostable and comply with ASTM standards (BPI certification pending). Available in two or three-compartment clamshells, the designs enable better opening with a locking lid that snaps over a better-fitting clamshell. Better Earth's custom printing capabilities are also available to customise the branding of the new 2 and 3 taco clamshells in four colours, CYMK, enabling foodservice operators, restaurants and taco trucks the ability to own sustainability in their own style.



Ice cream packaging made from cassava composts in 90 days

A Brazilian start-up is using cassava starch to make packaging that is compostable, turning to fertiliser in around 90 days. Cassava is a nutty-flavoured, starchy root vegetable or tuber. Wild cassava is destined for industry, such as textiles and glue manufacturing, because it would be toxic in food, whereas Já Fui Mandioca uses cassava starch, which is cassava after processing. According to the company, for a 300 ml glass, cassava items consume about 100 times less water compared to plastic, and 480 times less than paper. The startup had to develop machines specifically for the manufacture of their packaging. Today, Já Fui Mandioca has a greater demand than it can meet. Their main customers are vegan restaurants and natural ice cream shops. Prices for their packaging range from R\$0.60 (UK 10p) for a simple glass, to R\$2.90 (UK 48p), for larger items used for delivery.



Partnership will create bio-based ethylene from industrial residues

Michigan-based Dow Chemicals has announced that it has entered into a long-term supply agreement in North America with biomass refineries operator New Energy Blue, which is set to create bio-based ethylene from renewable agricultural residues. Under the terms of the agreement, Dow is supporting the design of New Energy Freedom – a new facility in Mason City, Iowa, US – that is expected to process 275 KT of corn stover per year and produce commercial quantities of secondgeneration ethanol and clean lignin. Corn stover is comprised of stalks, leaves and cobs that remain in fields after the corn harvest. Nearly half of the ethanol will be turned into bio-based ethylene feedstock for Dow products. The move is expected to displace over one million tons of greenhouse gas (GHG) emissions yearly. Dow's share will also lead to a reduction in its sourcing of fossil fuels and subsequent GHG emissions.



Partnership will upscale forest biomass-based packaging

Finland-based UPM Biochemicals has formed a partnership with Portuguese polyester resin specialists Selenis to deploy PET glycol (PETG) in upscaling forest biomass-based packaging. UPM will supply Selenis with its new sustainable bio-mono-ethylene glycol (Bio-MEG), called UPM BioPura, to make partial BioPETG. PETG is a transparent, FDA-approved material used in various applications, including cosmetics and personal care packaging, heat shrink sleeves and durable goods, such as bulk dispensers. UPM BioPura is produced from certified hardwood obtained from forests in Germany's Leuna regions, where the company is building what it says is the "world's first industry scale biorefinery," converting wood biomass into biochemicals. The partnership with UPM allows Selenis' converters and brand owners to customise their products to reduce their carbon footprint by adding bio and recycled content, with no performance trade-offs. UPM asserts that the biomass produced through its partnership with Selenis does not compete with food resources.



Sustainable bio-based cap material aimed at high end cosmetics

Finnish sustainable materials manufacturer Sulapac has announced the launch of Sulapac Luxe, a new bio-based material ideal for substituting hard plastics, including ABS (acrylonitrile butadiene styrene), as part of its expanded portfolio for cosmetics and beauty packaging. This new material comes in response to demands from the beauty industry's leading brands for more environmentally conscious packaging solutions that still offer high-end luxury feel, function, and aesthetics. Not only is Sulapac Luxe recyclable but like all Sulapac materials, it can also be made with recycled content, another feature important for many premium brands. The company says that several high-end beauty brands have already shown interest in utilizing Sulapac Luxe in combination with their existing glass fragrance bottles or jars. The material is commercially available to all manufacturers, and Sulapac says that Luxe slips seamlessly into existing injection moulding production lines.



Shellfish shells recycled for sustainable packaging

Finpesca, a prominent player in the Italian packaging industry, has found an innovative use for recycled shellfish shells in packaging. The Italy-based company has been reclaiming shellfish shells discarded by the seafood industry and transforming them into a product called Searcular for over two years. This approach repurposes organic waste and helps minimize the use of non-recycled plastic materials in the packaging industry. Each Searcular package comprises 25% shellfish shells collected and processed within Italy.



Company launches range of drinks cups made from bamboo

Celebration Packaging are food packaging suppliers based in Burton-on-Trent. As part of their EnviroWare brand, they have announced the launch of a new range of double-wall hot drinks cups made from bamboo fibre. The new cups are made from FSC-certified bamboo fibre with a water-based lining, and are certified commercially compostable (DIN EN 13432:2000-12). The new range of insulated cups are available in popular 80z (227ml), 12oz (340ml) and 16oz (455ml) sizes and accessories are also available, including compostable domed lids, to fit all cup sizes, made from moulded fibre (bagasse) or CPLA (crystallised polylactic acid); kraft coffee sleeves; and wooden drink stirrers. A spokesperson for Celebration said that bamboo was chosen as it is one of the fastest-growing plants in the world, growing up to two feet (61cm) a day. They also noted that cafés and food-to-go outlets are seeking more sustainable solutions across the foodservice category.



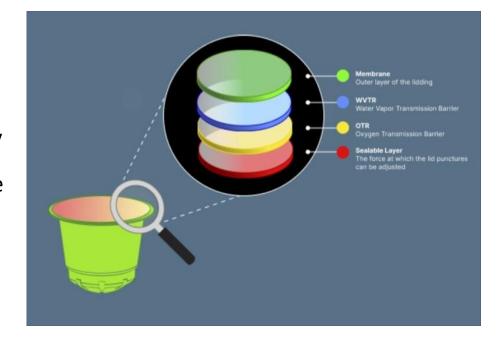
Edible coffee cups: An Australian solution to reduce disposable waste

Melbourne-based start-up, Good-Edi is combating the environmental impact of disposable cups with their edible coffee cups enterprise. This initiative was inspired by the alarming statistic of 1 billion takeaway cups being sent to landfill annually in Australia alone. The duo created the Good-Edi cup to offer an alternative to single-use takeaway cups. After careful testing, a recipe was created using a combination of rye flour, wheat bran, oat bran, sugar, salt, coconut oil and water, resulting in sturdy and biodegradable cups. These can be eaten or composted after use. These cups can reportedly hold hot coffee for 40 minutes and cold drinks for up to eight hours. Following a successful crowdfunding campaign that raised \$148,000, Good-Edi now produces around 500 cups daily, with ambitions for expansion. Good-Edi's products are available online and in selected Australian retailers, and they aspire to distribute their cups globally in the future.



Compostable lidding solution for coffee capsules

Advanced Technology Innovations (ATI) are Netherlands-based developers of sustainable packaging solutions. In a close partnership with German compostable packaging material suppliers Bio4pack, they have announced the development of a compostable and certified lidding material suitable for the Nespresso coffee system. As compostable Nespresso capsules are now available, there is obviously a need for a complimentary compostable lidding material that has a suitable oxygen and water barrier. ATI has developed a plant-based and compostable lidding material with the reported same characteristics as aluminium, ensuring a reliable and constant extraction. The lid on the capsule on the Nespresso system opens as a result of water pressure in combination with the filter plate situated in the coffee brewer. This patented technology, in combination with the grinding specs, ensures a constant extraction and/or improved brewing time.



Café creates 100% compostable packaging from pumpkins

The Zerna café in Uzbekistan has reportedly created the first packaging made with lagenaria, a vegetable belonging to the pumpkin family. The idea behind the innovation was to combat the problem of excessive plastic consumption in packaging by using lagenaria as packaging to preserve products, especially spices and dried fruit. In collaboration with the advertising agency Synthesis, it decided to replace the plastic packaging of its dried fruit with dried lagenaria, which has a decomposition time of about one year, compared to a plastic bag, which can take between 100 and 400 years to decompose. This vegetable has another benefit: It is highly resilient, making it ideal for transport. Finally, it adapts to environmental conditions without major problems, and is not affected by the presence of humidity and sudden changes in light.



Researchers develop biodegradable single-use soap product

African researchers have developed a biodegradable single-use soap product, called 'Tab Soap', which is aimed at improving public health in developing countries. The researchers tested Tab Soap in the field, in the Dar es Salaam and Morogoro regions of Tanzania. They collected feedback, held discussions with local soap retailers, and monitored electronic product usage. Not just a technical challenge, it was about challenging a culture where sharing soap is seen as a possible vehicle for contamination. The researchers presented households with five prototypes, which resulted in two concepts – a soap grater, which is used to recycle leftover soap, and personal soap – being eliminated. Tab Soap comes as tabs of biodegradable bamboo-based textile impregnated with soap. The most used prototype was the Tab Soap. Once the tab is used, it can be discarded in a pit latrine where it will decompose. The tabs come on a roll or in a tear-off version.



Four year project looks at PHA and improving recycled material properties

AIMPLAS, the Spanish Technological Institute of Plastics is embarking on a four-year project to develop PHA-based (polyhydroxyalkanoates) water vapour barrier coatings for bioplastics and reinforced materials with improved mechanical properties as part of the European PRESERVE project – to preserve food, beverages, and non-renewable resources. The project is to be coordinated by Barcelona-based IRIS Technology, and is a collaboration between twenty-six partners. The aim of the project is to phase out fossil-based plastics in favour of bio-based alternatives developing new processes, coatings, and adhesives made from renewable sources, cellulose fibre, and bioplastics, all while creating as little environmental impact as possible. By improving the properties of cellulose-based packaging and producing biodegradable and recyclable substances, AIMPLAS intends to achieve optimal protection for food and drink products, reduce material waste, improve the mechanical properties of its recycled materials, and achieve circularity.



Researchers develop biodegradable packaging from avocado seeds

Researchers at the National University of Colombia (UNAL) have developed a biodegradable packaging material from avocado seeds. The researchers discovered that the Hass avocado pit contains natural compounds that make it ideal for producing biodegradable packaging. These compounds include lipids, cellulose, and hemicellulose, which provide strength and flexibility to the material. In addition, the Hass avocado seed contains a substance called polyphenol, which gives it antibacterial and antifungal properties. These properties can be highly beneficial for preserving and protecting packaged food products. The pits are collected from the waste generated by the avocado industry and are subjected to a drying and grinding process to obtain a fine powder. This powder is then treated with natural chemical agents to improve its physical properties. The obtained bioplastic is moulded into different shapes and allowed to dry to obtain the final packaging.



Scientists develop antibacterial and biodegradable packaging for the food industry

Scientists at the University of Lima, in Peru have developed an antibacterial and biodegradable packaging paper for the food industry. This novel material uses a bilayer film based on nanocellulose, obtained from Bolaina (Guazuma crinita) forest residues and incorporates copper nanoparticles. The materials used are processed in a Supermasscolloider mill, a suitable instrument to reduce various materials to the nanometer scale. This allows the obtaining of physical properties such as mechanical resistance and hardness, which are key characteristics of the new material. The resulting paper can be used as reinforcement in food packaging, offering a biodegradable alternative. Using forest residues for its production, promotes the use of renewable resources. The objective of the bilayer film that accompanies the packaging paper is to provide resistance to humidity. Copper, which is added to the film, has antibacterial properties and helps prevent the formation of bacteria in contact with food.



Israeli company offers dissolvable alternative to conventional plastics

Israel-based Solutum is an innovative Cleantech company on a mission to reduce plastic pollution by providing sustainable alternatives to single-use plastic. The company has created what they report to be a revolutionary compound that can be engineered to create a range of flexible packaging that completely dissolves in water and fully biodegrades into natural and eco-friendly components. Their product is claimed to be a perfect and costeffective solution to the plastic pollution problem. The company's compound leverages natural biochemical processes to dissolve into natural biomass, including CO2 and H2O, in water at ambient temperatures. They control the compound's temperature sensitivity to water through unique mechanisms, offering a range of predetermined temperature and dissolving times, allowing them to adapt to a broader range of plastic applications and substitutions. Solutum utilises existing industry machinery to provide a seamless supply chain integration, eliminating the need for CAPEX modifications to offer a cost-effective solution.



Developing sustainable single-use packaging from natural polymers

The Spain-based AIMPLAS (Technological Institute of Plastics) is spearheading the OCEÁNIDE project to create a new form of single-use packaging that complies with recent legislative changes and is exempt from the new plastic tax. The initiative, funded by the Valencian Innovation Agency (AVI) with a €1.2 million budget over two years, is in collaboration with the University of Valencia (UV), and Nutrinovex. AIMPLAS is developing packaging materials made from natural polymers like seaweed, starch, fish gelatin, and milk protein. These materials, often by-products of various industries, will be produced using conventional technologies such as injection moulding, and are intended for use in food industries such as ice cream parlours and delicatessens. AIMPLAS will validate these materials at an industrial scale, while UV will assess their compatibility with food.



Australian company receives major investment for bio-based waterproof coating

Australian materials science company Earthodic has announced that it has recently attracted an investment of \$1.85 million (£992k) in a pre-seed round led by early-stage venture capital funding organisation Tenacious Ventures and Investible. The money will be used to further develop its innovative and trademarked bio-based coating solution 'Paperbarc'. The company says that Paperbarc is well suited to bulk and secondary packaging applications in the agricultural and food supply chain that require water resistance and enduring structural integrity. For example, replacing wax boxes for fruit, vegetables and seafood that are being moved in and out of cold rooms. Earthodic has been working to scale up production following the completion of the round and has recently completed a commercial-scale manufacture run in the US, where it also recently received 100% USDA Biobased Product Label certification and the ability to participate in the USDA Biopreferred Program.



Nordic beauty brand launches bio-based pot and labels

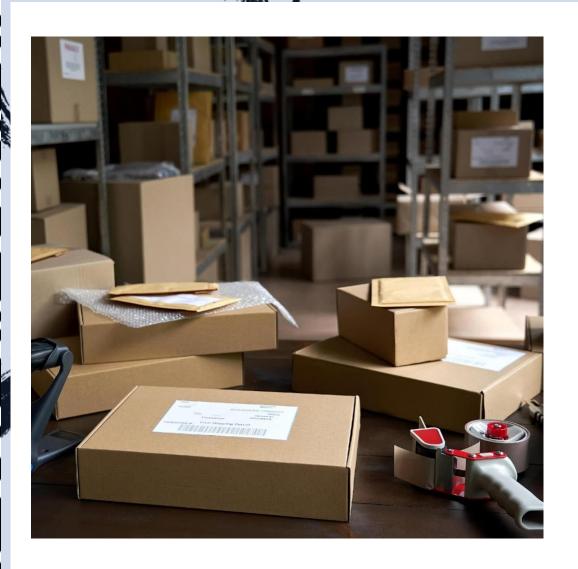
Finnish beauty brand Lumene has collaborated with UPM and Saudi-based chemical company SABIC to introduce new moisturiser jars made from bio-based materials and wood-based labels. The company is launching a jar, topped with self-adhesive labels that are made of BioVerno naphtha, a wood-based material developed by UPM in Finland. SABIC processes the biobased material into certified renewable polypropylene before converting it into various recyclable cosmetics containers and product labels. The labels are printed on UPM's Raflatac Forest Film, which is claimed to be the world's first film label material made with wood-based biomaterials. Lumene opted to use the renewable biobased raw material in order to reduce its packaging carbon footprint. It is reported that the materials will reduce the company's fossil-based plastics usage by more than 60 tonnes per year and cut its carbon footprint by 1.5 million jars every year.



Partially bio-based coating makes food packaging recyclable

German chemical producer Covestro has announced the launch of Decovery CQ 6010, a family of plant-based resins designed to deliver high-performance products across coatings and inks. Decovery CQ 6010 helps 'close the loop' for recyclable paper packaging, and provides a solution to meet the growing needs of companies to be more sustainable. Most packaged food products are sensitive to moisture, so controlling the moisture vapour transmission rate (MVTR) is critical to maintaining the quality of the food. To protect the product inside a pack, paper and board food packaging is often laminated with polyethylene (PE) or aluminium. These materials limit the packaging's recyclability, meaning it often ends up going to landfill or being incinerated. Covestro's innovative barrier coating resin reduces waste by replacing these layers in paper food packaging to make it recyclable. Decovery CQ 6010 is made with 37% plant-based ingredients, such as bark, castor beans, and corn.





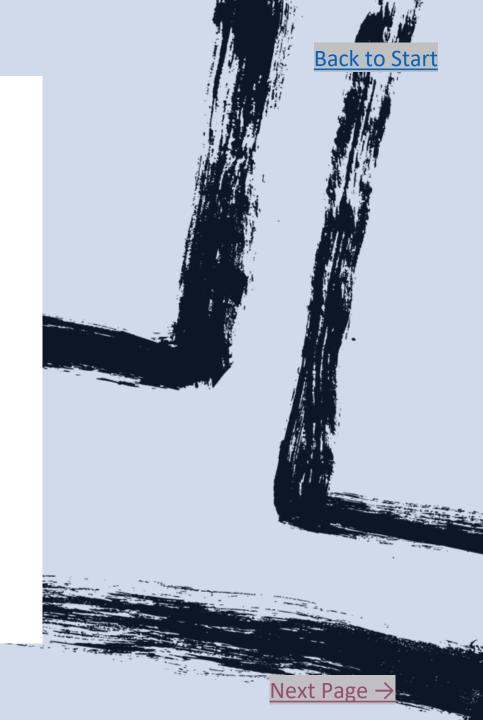
The Online Surge

The Online Surge

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

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

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





The Online Surge

New tamper-evident tape is compostable
Rapid box assembly solution aimed at e-commerce
French start-up develops packaging that can talk
New wet taper is mobile, lightweight and easy to use
New e-commerce solution offers reusability and better protection

Retail giant moves to plastic-free and 'right-size' packaging for e-commerce

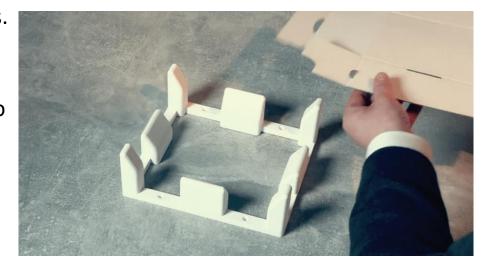
New tamper-evident tape is compostable

Quebec-based tamper-evident solutions company Tamperguard has collaborated with Japanese cellulose films manufacturer Futamura to develop a renewable and compostable tamper-evident tape using Futamura's NatureFlex film. Futamura says its cellulose NatureFlex films are sourced from renewable wood pulp from PEFC-certified (Programme for the Endorsement of Forest Certification) plantations and meet global standards for industrial composting, including BS EN 13432 and ASTM D6400. The company also states the films are certified by TÜV Austria for home composting. The companies say that an attempt to remove the tape will leave a non-stick 'void' message on the surface, indicating interference. The tape's adhesive remains on the surface, preventing re-sealing and safeguarding the contents. The new tamper-evident tapes provide solutions for various markets, including retailers, e-commerce companies, and industries such as food, pharma and cannabis throughout North America.



Rapid box assembly solution aimed at e-commerce

UK packaging supplier Macfarlane Packaging is launching a patent pending rapid box assembly solution aimed at online and omnichannel retailers producing high volumes of small packages. The system can assemble boxes from a reported ten seconds down to under three. The equipment will be made-to-order for customers and is compatible with Macfarlane-exclusive box designs. As such, it aims to provide a cost-effective alternative to crash-lock boxes, both in assembly and transportation. The 3D printed units can handle boxes of varying depths, with a footprint of up to 400 x 300mm. The design of the boxes has apparently been optimised to utilise less material without compromising performance strength, thus increasing pallet fill and reducing CO2 equivalent emissions. A spokesperson for Mcfarlane said that the development of the rapid box assembly solution by the company's Innovation Lab team could be a gamechanger for some of their customers.



French start-up develops packaging that can talk

LivingPackets is a Nantes-based startup specialising in creating innovative, sustainable packaging solutions for e-commerce deliveries. They recently unveiled their latest innovation, the chatBox. The chatBox has a conversational module integrated into its connected and reusable package. The chatBox was developed using the intelligence of LivingPackets' The Box and ChatGPT and will enable users to ask questions about the packaging and its functions, as well as the use and characteristics of the product. It will also inform customers about payment methods, making for a smooth, personalised user experience and even how to handle returns or exchanges if necessary. Recently at VivaTech 2023 in Paris, LivingPackets was the winner of the LVMH Innovation award in the Operational Excellence category. The Box is a high-tech, high security e-commerce delivery container, made from recyclable PP (polypropylene) and features a 100% recyclable plastic plate that adapts to all possible object shapes so that the object cannot move.



New wet taper is mobile, lightweight and easy to use

Paris-based Rajapack has launched what it calls the Xtaper, which combines the advantages of manual sealing with those of wet adhesive tape. Wet tape and traditional paper tape are made from paper and are often a preferred alternative to plastic tapes made from polypropylene or polyester. However, watersoluble tape dispensers are expensive, inflexible, large and require power, making them difficult to use at a packing table and resulting in limited mobility when packing. The Xtaper, however, is a lightweight, mobile, automatic wet glue dispenser. Equipped with a rechargeable battery and integrated water tank, the machine dispenses moistened packing tape at the push of a button and can be attached directly to the packaging. It is reported that compared to semi-automatic tape dispensers, the integrated motorized mechanics of the tape dispenser facilitates smooth unwinding and increases work productivity and efficiency.



New e-commerce solution offers reusability and better protection

A French professor of technology called Chrystelle Peltier has developed a new reusable e-commerce packaging solution called Ôpack. The solution comprises a non-woven pouch and a double-walled protective bag. She was prompted to develop Ôpack during Covid as she was concerned about the amount of single-use packaging she was receiving. This new two-part format works in the following way: the product is inserted into the inner pouch. This is then inflated and sealed, holding the product in place. The inflated pack is then put into an outer pouch. Ôpack is said to have two distinct advantages over current e-commerce packaging: firstly, the inflated section offers much better product protection. Secondly, the pack is reusable, and has the capacity to be reused up to 100 times.



Retail giant moves to plastic-free and 'right-size' packaging for e-commerce

US retail giant Walmart has announced that it is to adopt waste reduction steps for its e-commerce packaging. This will include moving away from plastic mailers, utilising right size packaging technology for corrugated cases, and also consolidating orders and fulfilling orders closer to the customer's home. Nearly all orders currently shipped in plastic mailers from fulfilment centres and stores and all marketplace items shipped with Walmart Fulfilment Services will arrive in recyclable paper bag mailers. This transition is expected to eliminate 65 million plastic bag mailers or more than 2,000 tons of plastic from circulation in the US by the end of the current fiscal year. Additionally, customers nationwide will soon have the choice to opt out of single-use plastic bags for their online pickup orders. The retailer says it expects to complete the rollout nationwide by the end of the year.





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

Polystyrene wine glass designed for on-the-go consumption

Cheese packaging features built-in grater

Novel pack has separate compartments for rice and beans

Egg producer develops peel-off labels to give customers more product information



Polystyrene wine glass designed for on-the-go consumption

Vintimtim is a Brazilian company that has developed its wine packaging so that it can be taken anywhere, but also to places where glass bottles and glasses are often prohibited, such as nightclubs. Their product consists of an 187ml PS (polystyrene) glass, closed with an aluminium seal and a protective PET (polyethylene terephthalate) lid. The glass was designed and developed by Vintimtim itself. They are injected in virgin crystal polystyrene, in moulds also developed by the company, and the machine has a capacity of 1,200 glasses per hour. The packaging was designed to be closed with an aluminium seal, the same type used in glasses of mineral water, developed with materials that do not react with wine. The PET lid protects the aluminium seal so that it does not pierce when placed in a container with ice, and also serves to reclose if required for later use.



Cheese packaging features built-in grater

New Jersey-based Atalanta Corporation is the largest privately held food importer in the United States. The company claims to be one of the foremost specialty food importers of high-quality cheese, meat, seafood and grocery products from around the world. At the recent International Dairy Deli Bakery Association (IDDBA) show in Anaheim, California, it revealed its latest development, what the company calls 'Twist & Grate' packaging for its Il Villaggio Grana Padano Gourmet Cheese. The new packaging is set to launch in early 2024, with a suggested retail price for the new product is \$9.99. A spokesperson for the company said that they wanted to increase the product's value by making it affordable for the consumer without giving up quality. The prototype displayed at the show will have some changes made before the product launch, including changing the yellow cheese grater piece to green to better match the branding on the product label.



Novel pack has separate compartments for rice and beans

A Brazilian dried food manufacturer has produced a novel promotional pack. The brand created packaging that plays with the subject: beans over rice or rice over beans? The pack, by Camil, is divided into two separate compartments, one of which contains rice, and the other with beans. Camil's double packaging with beans and rice will not be sold. Created by Brazilian agency Lew'Lara\TBWA, who are known as the Disruption® Company, the packaging will be released in a limited edition and will be sent to social media "influencers" only. A spokesperson for Camil said that the pack is intended to promote a relaxed discussion about ways and means of consuming these foods that form the basis of the Brazilian diet. They also said that this was their way of saying that for Camil it doesn't matter how the rice and beans are served, as long as they are always served together.



Egg producer develops peel-off labels to give customers more product information

Organic German egg producer, Fürstenhof GmbH, has developed new peel-off labels with six different designs. The labels provide customers with much more detailed background information about the production and standards of the company's egg production. For example, information about the ecological cycle or also their new transparency offensive, in which customers can apply as egg inspectors via the label. The new packs are said to stand out more on the shelf and for this reason alone, retailers are said to have decided to add Hähnlein eggs to their product range. For customers, this gives them the opportunity to find out about all the different aspects of the company's eggs. Although Fürstenhof had previously tested multilayer labels on the cartons to provide more background information on their eggs, these new labels feature six different packaging designs mixed together. Despite higher costs, the company feels that the introduction of peel-off labels will pay off.





Materially Changed

Materially Changed

The packaging industry is experiencing a substantial shift in materials, primarily driven by objectives centered around sustainability. The replacement of plastic remains a priority for many brands and retailers, as they seek alternatives that may provide a smaller environmental footprint or at least be more favourably received by consumers focused on anti-plastic initiatives. This month, we tracked 21 new initiatives in this direction.

ThePackHub continues to document numerous cases of brands and retailers transitioning primarily from plastic to other, often paper-based, alternatives. While some substantiate their moves with positive environmental impact data, not all changes can withstand rigorous environmental examination. The truth is that we're currently in a period of substantial transformation, where recyclable plastic is often replaced with different materials because consumers perceive it as the environmentally conscious choice. Most material changes typically follow significant investments in machinery and novel processes. These changes are made with a long-term view, and any backtracking seems far in the future.





Materially Changed

Cosmetic brand chooses paper-based push-up deodorant packaging Paper-based alternative to PET display travs Partnership aims to develop recyclable paper solution for dried foods Innovative lightweight PET packaging meets wine industry needs Luxury brand moves to eco-friendly bottle decoration for fragrance Improved euro slot for paper-based confectionery packaging 3D fibre-based packaging emulates formed plastic German mouthwash moves to carton format Fruit drink to be trialled in carton made from 89% plant-based materials Change to minced beef packaging reduces plastic use by 63% Vodka brand trials paper bottle in UK Aluminium wine bottle for on-the-go-consumption Recyclable paper sachets replace plastic pots New lemonade drinks to be packaged in resealable aluminium bottles Confectionery giant trials recyclable chocolate wrappers Supermarket removes plastic from its own brand tissue packaging Coffee brand moves to paper-based format for secondary packaging Snack giant rolls out 'bagless' multipacks UK supermarket launches vegan milk in bottles Paper bag developed for Australian potatoes is kerbside recyclable

New paper-based solution has high barrier and is recyclable

Cosmetic brand chooses paper-based push-up deodorant packaging

French cosmetics brand Respectueuse has chosen to launch its new deodorant range in Sonoco Europe's paper-based EnviroStick packaging. The EnviroStick is said to be 100% recyclable and is constructed from recycled cardboard. The company chose to go with Sonoco as they are one of the only European manufacturers that produces 3-piece cardboard push-up packs; most similar products are apparently manufactured in Asia. Respectueuse says that it has two brand pillars: 'my health' focusing on its apparently 100% natural, certified and organic products and 'my planet', aiming to limit plastic waste with cardboard packaging for its products. Reynaud-Cleyet added that going forward, Respectueuse is considering using EnviroStick packaging for sunscreen and other cosmetic and beauty products. The deodorants are available in either Shea, Almond, and Aloe Vera fragrances and are priced at €12.20 (£10.53) for a single stick or €31.90 (£27.52) for the trip stick, or €31.90 (£27.52) for the trio.



Paper-based alternative to PET display trays

Smurfit Kappa Spain has announced the development of sustainable paper-based packaging that replaces PET (polyethylene terephthalate) display tray packaging. Smurfit says that the tray allows large stores to achieve significant savings in their logistics operations and reduce their carbon footprint, thanks to its paper-based design, which is more sustainable than its PET moulded plastic counterparts. Other points made by the company include the fact that it allows branding to be printed on its sides, better capturing the attention of the final consumer at the point of sale and making it possible to display both its length and its width. It only needs one die for its manufacture, translating into a saving of €35,310 compared to its plastic counterparts, which require expensive moulds. It also saves space in the warehouse, is quick to assemble, is valid for several SKUs, and is fully recycled and 100% biodegradable.





Partnership aims to develop recyclable paper solution for dried foods

A partnership has been formed between global packaging company Mondi, and Austrian manufacturer of process and packaging machinery, Syntegon, to develop a recyclable paper packaging solution using recycled fibres for dried foods such as flour, sugar and pasta. Mondi supplies its EcoVantage rollstock to Syntegon who then applies spot coating to create dust-tight, heat sealable packaging that eliminates contamination throughout the entire product lifecycle – from production to the consumer's home. Syntegon's unique technology ensures that only the minimum amount of sealing agent needed is used. Syntegon's technology ensures protection of powdered food goods and packaging strength which is recyclable in existing paper streams. Mondi's EcoVantage kraft paper has been approved by ISEGA, for the entire food packaging sector (ISEGA is a German material testing institute for paper and pulp). EcoVantage is made from recycled and responsibly sourced fresh fibres and was previously mainly used for paper shopping bags.



Innovative lightweight PET packaging meets wine industry needs

Indorama Ventures, a leading sustainable chemical company, has collaborated with Veneto, Italy-based SIPA, to introduce an innovative PET wine packaging solution. The award-winning packaging for sparkling wine provides brands with a fully recyclable and lightweight alternative to traditional glass bottles. Developed by SIPA and manufactured using Indorama Venture's resin and OxyClear barrier, this PET bottle alternative addresses the glass shortage in the European wine industry. With its striking resemblance to glass bottles and weighing only 90 grams, the PET bottle offers durability and enhanced transportation efficiency. The bottle has demonstrated sustained functionality even after 24 months of storage. This advancement showcases PET's flexible, safe, and lightweight properties for the world's most recycled plastic. The partnership between Indorama Ventures and SIPA has ushered in a packaging solution that prioritizes sustainability without compromising on functionality or consumer experience.



Luxury brand moves to eco-friendly bottle decoration for fragrance

French luxury fashion house Chanel is moving to a more sustainable decoration for its Chance eau de toilette range. The bottles will now feature an anodised aluminium strip instead of the galvanised polished brass that was previously used. In addition to its lightness, aluminium has the advantage of being one of the most recycled metals. The change in material also avoids the use of chemicals that are necessary for galvanising. To achieve the move to the new material, Chanel called on the expertise of g.pivaudran, a French-based manufacturer specialising in the development of aluminium parts for the perfume, cosmetics and spirits markets. These new metal strips are made in the southwest of France by g.pivaudran and assembled by glassmakers partnering with the brand in France and Italy. Chanel is launching these new bottles with the 100 ml version first, with other sizes to change in 2024.



Improved euro slot for paper-based confectionery packaging

Finnish fibre-based packaging manufacturer Walki has announced the development of a paper-based concept for bags with euro slots. Sweets and confectionery are often packed in small plastic bags equipped with a euro slot to allow them to be hung up on metal hooks in stores. Because of the risk of the slots being torn, plastic has always been the material of choice to ensure the pouches withstand the product's weight. Walki is now launching a new reinforced euro-hole pouch concept that is completely fibre-based and prevents the tearing of the bag in the slot area. Walki believes that due to the euro slot potentially tearing this, confectionary brand owners have not transitioned to paper-based alternatives. By applying an extra strip on the area above the euro hole, the pouch can be made completely out of paper, meaning that it is fully recyclable in the paper stream.



3D fibre-based packaging emulates formed plastic

Two Finnish companies have collaborated to develop a new fibre-based gift box. Paper and board concern Metsä Group, and manufacturer of sustainable tools and implements, Fiskars Group, jointly designed the new pack for Fiskars ReNew scissors at Metsä Board's Excellence Centre. It combines a Muoto 3D fibre packaging, which mirrors the iconic shape of the classic scissors, with Metsä Board's cardboard, which provides a fine printing surface for the outer packaging. Muoto 3D fibre packaging can be shaped in many ways. Using wet wood fibre pulp, it is pressed into its final shape using new 3D technology that enables the production of rounded, complex shapes familiar to the plastics industry. The new packs were produced at Metsä Group's and Valmet's joint demo facility in Äänekoski. Muoto is currently in a demo stage, and its potential is being tested on the market, an example being this collaboration with Fiskars Group.



German mouthwash moves to carton format

German oral hygiene brand Paperdent has partnered with Norwegian carton suppliers Elopak to launch its range of vegan, alcohol-free mouthwash in cartons made from sustainably sourced paperboard. By using Elopak's D-PAK cartons, the plastic content of its packaging is reduced by over 80% compared to conventional packaging for mouthwash. The mouthwash is filled directly by Elopak at the company's newly built test facility in Terneuzen, Netherlands. The facility caters to small-scale filling and initial market tests in the non-food segment, making it ideal for small-scale producers and start-ups. The 500ml D-PAK carton is made with paperboard from responsibly managed forests and is fully recyclable and reported as carbon neutral. Paperdent has dedicated one side of the carton to informing consumers about the benefits of the packaging. The mouthwash has been available online and in selected pharmacies and supermarkets across Germany and Austria since May 2023.



Fruit drink to be trialled in carton made from 89% plant-based materials

Britvic, owners of the Robinsons squash brand, is trialling a new packaging format for its super-strength squash in the UK. The new plant-based carton called Ecopack is being supplied by Norwegian packaging company Elopak and is made from 89% plant-based materials. Robinsons' new packaging innovation aims to reduce packaging waste with 85% less plastic per serve, compared to a one litre bottle of Robinsons Double Concentrate. With a higher squash concentration than its single or double concentrate drinks, the carton is the equivalent of three single concentrate bottles, resulting in significantly less packaging per serve. The trial will be in 385 Tesco stores from June through to December 2023. Robinsons Ecopack carton is primarily made from paperboard, sourced from responsibly managed forests, though it does contain a small amount of aluminium and nonrenewable plastic, which are necessary to form a watertight barrier. The cap uses plastic derived from renewable raw materials.



Change to minced beef packaging reduces plastic use by 63%

Lidl GB has revealed plans to introduce new vacuum-packed, recyclable packaging across its beef mince range, resulting in a plastic reduction of almost two thirds (63%). The smaller packs provide a valuable space saving, reportedly resulting in up to 350 delivery trucks being taken off the road per year. The company also says that the new packaging will double the shelf life, from eight to around 16 days, staying fresher for longer for customers to use. The new pack will also feature easy peel film, so that customers do not have to touch the raw meat. The smaller footprint pack also takes up less storage space in the fridge or freezer. The company has estimated that the move will collectively save over households 250 tonnes of plastic a year through new packaging. The new format will be introduced early in 2024.



Vodka brand trials paper bottle in UK

Swedish vodka brand Absolut is trialling single-mould paper bottles in the UK, which it claims is a world first. The bottles went on sale at 22 Tesco stores across Greater Manchester in early June 2023 and will be stocked for three months. The trial aims to gain insights from consumers, retailers and supply chain partners to inform the next steps on Absolut's innovation journey towards a commercially viable, fully bio-based bottle. Absolut will test how the paper-based bottle transports and how consumers perceive it. The bottle is supplied by Denmark's Paboco, and its composition is 57% paper, and an inner barrier of 43% HDPE (high density polyethylene). Absolut claims that the plastic barrier is recyclable via waste collections from homes in the region. The bottles can help to minimise emissions from transport as they weigh around one-eighth as much as a standard glass bottle.



Aluminium wine bottle for on-the-go-consumption

Hinterkopf is a family-owned German company that develops and manufactures complete lines and machines for the highvolume production of packaging such as cans, bottles and tubes made of aluminium, or plastics like PE (polyethylene) or PP (polypropylene). The company recently introduced a new 100% recyclable aluminium bottle aimed at wine producers. Instead of traditional glass bottles, Hinterkopf chose lightweight aluminium bottles that are easy to transport, making them perfect for onthe-go consumption. Hinterkopf's aluminium bottles offer a more convenient and durable option for mobile consumers, as they are unbreakable and can be cooled down to the desired drinking temperature faster than glass bottles. The packaging also maintains its freshness and quality over time, making it ideal for long-term storage. Hinterkopf plans to digitally print around 25 million bottles in cooperation with Spanish winegrowers, with the goal of producing 100 million bottles by the end of 2025.



Recyclable paper sachets replace plastic pots

UK honey manufacturer Rowse has developed a more sustainable solution for Pret's porridge pots by creating fully recyclable singleserve honey sachets made of paper. These 14g sachets feature an innovative snap-and-fold mechanism, ensuring a mess-free dispensing of honey. The sachets will be introduced in over 450 Pret outlets this month, replacing the previous plastic honey pots. The development of these new sachets is a response to consumer feedback and has already gained popularity among customers due to its convenience, ease of use, and sustainability credentials, according to Rowse. This initiative aligns with Pret's commitment to achieving zero waste by 2025. The company has already eliminated plastic straws and stirrers from its stores and is actively working on reducing the use of single-use packaging across its entire product range. Introducing these recyclable honey sachets marks a positive step for Pret and Rowse in minimising their environmental impact. The sustainable alternative is expected to be well-received by customers.





New lemonade drinks to be packaged in resealable aluminium bottles

British drinks brand Gunna is launching what it calls "immunityboosting" lemonades packaged in resealable 500ml aluminium bottles. The company claims that these will be the first of their kind to be packaged in this manner. The range of lemonades is made up of Tropical, Raspberry and Twisted flavours, with a recommended retail price of £1.99. They are made with natural ingredients, contain added vitamin C and zinc, and are claimed to be the "first" flavoured soft drinks in the format. Gunna, which last year petitioned the government to ban plastic bottles, said it hoped the innovation would be a "catalyst for change" for the soft drinks sector, by encouraging rivals to transition from plastic to aluminium bottles. Although the format costs around 10% more, their research says that customers are prepared to pay a little more to avoid plastic. They will launch via Amazon and the brand's website.



Confectionery giant trials recyclable chocolate wrappers

Multinational food company Mars is trialling recyclable paper wrappers for its chocolate bars in the UK. The move is part of a pilot and the chocolate bars in paper wrappers will be rolled out at 500 UK Tesco stores starting at the end of May 2023. The company plans to leverage the knowledge it gains from the pilot to inform other trials. Mars is exploring and testing different types of materials for Mars Food's chocolate bars. A spokesperson for Mars said that with the Mars bar pilot project, they are taking a big step to see how paper-based packaging works in everyday life. They hope to derive insights from the test for their sustainable packaging strategy. Mars bars' current plastic wrappers cannot be recycled, as is the case with several other kinds of food packaging. Recently, Mars Bar Products achieved carbon-neutral certification.



Supermarket removes plastic from its own brand tissue packaging

Australian supermarket chain Coles has announced that it has removed plastic openings on some of its own brand tissue boxes. The newly designed boxes, which are made from 95% recycled material, underwent vigorous testing to ensure a high standard of performance was maintained and have a tissue elevator and smaller opening size for ease of use. Coles has estimated the packaging change will remove 13 tonnes of plastic a year from circulation, the equivalent of 412,000 plastic bags. The move includes the following products: Coles Facial Tissues Aloe Vera 95 pack, Coles Facial Tissues Eucalyptus 95 pack, and Coles Facial Tissues White 224 and 90 packs. Removing plastic openings for some Coles Brand tissue boxes is the supermarket's latest move to reduce unnecessary and problematic plastic packaging from its shelves.



Coffee brand moves to paper-based format for secondary packaging

Swedish coffee brand Zoégas, owned by Nestlé, has moved away from shrink PE (polyethylene) for its secondary packaging of vacuum-packed coffee products and has replaced it with a paper-based solution. The project began as part of work to replace an outdated shrink oven used in the factory. The result was a solution that means a reported reduced material use, increased efficiency and less emissions compared to the shrink plastic used previously. The move means that the factory's use of plastic has reduced by around 20 tonnes per annum. Apart from a more efficient production line, the new format also means less energy consumption per produced coffee package. Replacing plastic with paper is part of Nestlé's overall journey towards net zero emissions. Like many other major brand owners, they aim to make 100% of the packaging recyclable or reusable before 2025.



Snack giant rolls out 'bagless' multipacks

British snack food manufacturer Walkers is to trial 'bagless' multipacks of its Snack A Jacks range of rice cakes. Five packs of the snacks will be held together with a tape-like strip. The removal of an outer bag will apparently reduce the amount of outer packaging by 86%. Walkers says that the new outer tape as well as the individual packets qualify as officially recyclable under the UK On-Pack Recycling Label Scheme (OPRL) and can be recycled at flexible packaging collection points in supermarkets across the UK. The snack giant has invested over £2 million in new equipment to enhance reduced plastic packaging capabilities at the Walkers' Skelmersdale site in Lancashire where Snack A Jacks are made. The new format will include Salt & Vinegar, Sour Cream & Chive and BBQ flavours, and will be first rolled out in Tesco stores across the UK.



UK supermarket launches vegan milk in bottles

In what appears to be an industry first, British supermarket chain Marks & Spencer (M&S) has launched vegan oat milk in plastic bottles, mimicking conventional milk packaging. The oat drink products are part of the company's vegan Plant Kitchen range. They also come in skimmed, semi-skimmed and whole varieties, just like their dairy counterparts. The bottles cost around £2 for a litre. They are fortified with calcium, iodine, vitamin D, and vitamin B12, and are now available in M&S stores nationwide. Vegan milk has grown in popularity recently, becoming more widespread than any other dairy alternative. According to statistics from September 2021, a third of UK adults drink plant-based milk, with oat milk being by far the most popular choice. Younger people are increasingly choosing these alternatives over dairy, with 84% using standard cow's milk, compared to 96% of those 65 and over.



Paper bag developed for Australian potatoes is kerbside recyclable

Following three years of development, Australian potato producer Mitolo Family Farms, packaging converter Detpak, and support from supermarket chain Coles have brought a kerbside recyclable paper bag for fresh potatoes to market. The new paper bag for Mitolo Family Farms' premium Gourmandine potatoes is manufactured and flexo printed with water-based inks by Detpak in South Australia. Detpak supplies the material in reel form to Mitolo for in-line vertical form, fill and seal (VFFS). The packaging innovation is said to deliver a 64% reduction in plastic, compared to the previous packaging for this product, with 8.2 tonnes less plastic being used each year. The paper bag carries the Australasian Recycling Label (ARL) and is kerbside recyclable. Mitolo Family Farm's Gourmandine potatoes are exclusively available in Coles supermarkets.



New paper-based solution has high barrier and is recyclable

Global packaging company Amcor Flexibles has announced that it has expanded its AmFiber Performance Paper packaging range to include heat seal sachets for instant coffee, drink powders, spices, and other dry culinary and beverage applications. AmFiber Performance Paper is a high-barrier, recyclable pack reported to protect against oxygen and moisture and is said to give an 'excellent' performance on brand owners' packaging machines. The company has invested in a 'state-of-the-art' production line at its Amcor Flexibles Alzira plant in Spain, which can now produce cold and heat-seal AmFiber packaging in a bid to ensure product protection. From a technical point of view, the new material delivers a high barrier and excellent machinability. From an environmental point of view, it is PVDC-free (polyvinylidene chloride), available in FSC-certified (Forestry Stewardship Council) paper, and is recyclable in most European countries.





Protect and Preserve

Protect and Preserve

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

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





Protect and Preserve

MAP sandwich pack gives 28 day shelf life

Oxygen sensor can be printed directly onto packaging

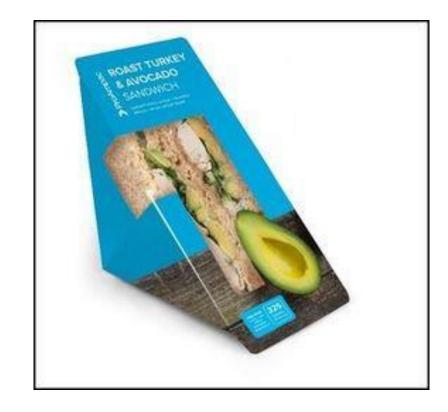
Partnership develops first battery-free Tag on Metal sensor

Sensor that detects food spoiling is cheap and easy to use

Scientists develop inexpensive alternative to electronic temperature trackers

MAP sandwich pack gives 28 day shelf life

US-based flexible packaging company ProAmpac with revenues in excess of \$460 million in 2022 has announced the development of a fibre-based MAP (modified atmosphere packaging) format for the North American market that is specifically designed to extend the shelf life of cold sandwiches and wraps. The packaging combines the benefits of modified atmosphere packaging with sustainable fibre materials and is claimed to keep a fresh sandwich or wrap preserved for up to 28 days. ProAmpac's Irish on-the-go food packaging division, Rapid Action Packaging, developed the new pack and is an established pack format in the UK and Ireland. The packaging combines a lightweight board with a thin film laminate which is suitable for gas flushing. The board provides strength and a print surface for images and information; the film is a high barrier, for sealing in freshness and extending shelf life – enhancing sales potential while minimising food waste. After use, consumers can peel away the film liner, and the carton board is easily recycled in paper streams.



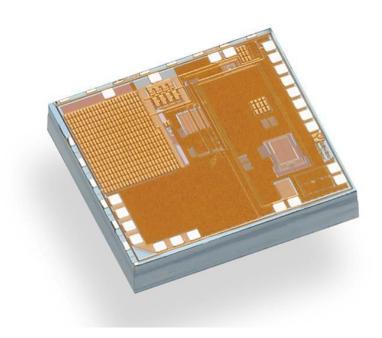
Oxygen sensor can be printed directly onto packaging

Dublin-based Senoptica Technologies has announced the development of an oxygen sensor that is printed directly into MAP (modified atmosphere packaging) lidding film. Once the product has been packed, the sensor is scanned using an in-line scanning system, providing 100% inspection. Packs are then accepted or rejected based on the specification of that product. The sensor is formed from food-safe ink, which can be printed directly onto the food packaging. And because the sensor is printed into the packaging, the conditions within the pack can be checked at any point in the supply chain using hand-held devices. This allows retailers to conduct spot checks on all products entering their supply chain, ultimately, increasing retailer revenue, reducing food waste and improving consumer satisfaction. The company is a spin-out company from Trinity College, Dublin and is on a mission to help halve food waste by 2030 on fresh packaged foods.



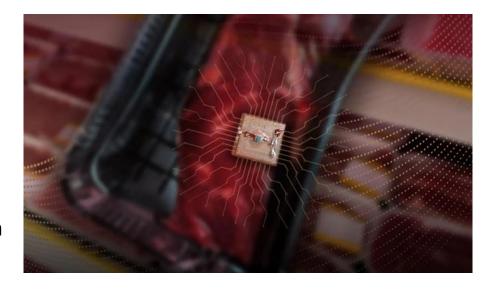
Partnership develops first battery-free Tag on Metal sensor

Two Internet of Things (IoT) technology companies have formed a partnership to bring what is claimed to be the first battery-free sensory Tag on Metal (TOM) label to market. California-based Identiv, a global digital security and identification leader, has collaborated with French sensor and IC specialist Asygn. Based on Asygn's next-generation AS321X IC platform, the on-metal sensor devices capture temperature and strain data near metallic objects. Tracking these and other sensor data, Identiv's Asygn-based devices are said to be ideal for industrial, logistics, supply chain, and other applications needing advanced monitoring without the cost and maintenance overhead of a battery-powered device. The next-gen AS321X chips fully comply with RAIN RFID standards and feature an analogue interface for connecting external sensors such as magnetic field, motion, or pressure, and on-chip sensors that can measure temperature, strain, ambient, light, or humidity.



Sensor that detects food spoiling is cheap and easy to use

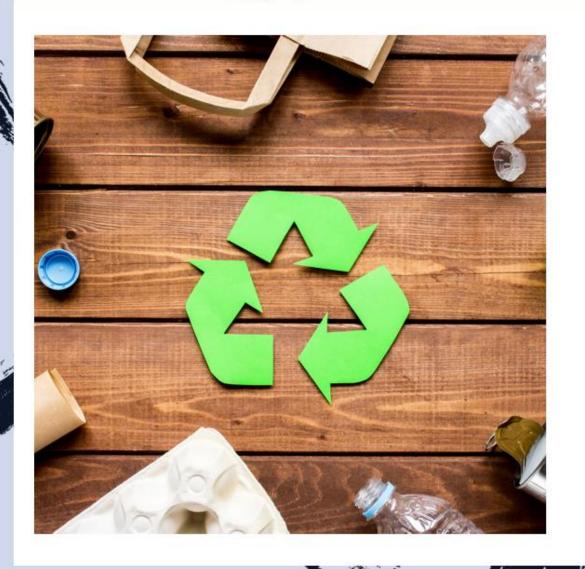
Researchers at Koç University, Turkey, have developed a tiny sensor that can monitor food freshness in real-time, wirelessly, without a battery, and send the results to a smartphone. The sensor is made of an easy-to-synthesize polymer laminated on electrodes that use capacitative sensing to detect biogenic amines generated by protein-rich foods. It weighs about 2 g and is 0.3 in 2 (2 cm 2) in size, and uses near-field communication (NFC) technology. The researchers tested their sensor in packaged chicken breasts and rib steak to demonstrate the realworld application of the device. The meat samples were stored in different conditions: in a freezer, in a refrigerator, and at room temperature. Over three days, the capacitance of the sensor monitoring the room-temperature samples went up, indicating that biogenic amines were being released from the meat as it spoiled. The researchers say their sensor is easy-to-use and cheap to make.



Scientists develop inexpensive alternative to electronic temperature trackers

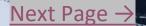
Researchers from the University of California, Riverside and the Chinese Academy of Sciences have produced an alternative to more expensive electronic tags that record any changes in temperature which occur during the shipping and storage of perishable items. These can also become yet another form of electronic waste. The researchers developed glycerol-coated silicon dioxide nanoparticles, which get mixed into a solution of water and polyethylene glycol or ethylene glycol. The particles cluster together to form microcrystals in the liquid, and remain in that form once the solution has been frozen into a solid. Due to the surface structure of the crystals, they reflect light in such a way that they appear bright green or red. Upon melting, the microcrystals fall apart and no longer produce the green colour. By tweaking the water-to-glycol ratio, it's possible to adjust the temperature at which the frozen solution melts.





Recycling Resurgence





Recycling Resurgence

This comprehensive segment encompasses both recycling initiatives and packaging that now integrates more recycled content. Numerous instances of mono-material developments and other measures aimed at boosting recycling rates are reported. The advent of Packaging Taxes, influencing packaging recycling, is also on the horizon. The UK has already set this in motion in April 2022, implementing a tax on plastic packaging with less than 30% recycled content. These activities inevitably drive the demand for packaging reduction efforts.

However, there's still a significant journey ahead in terms of consumer education and the crucial transformations needed in infrastructure and capabilities to enhance recycling rates. We're seeing an increase in the number of chemical recycling initiatives, albeit modest at this stage. Mechanical recycling processes continue to be the prevailing method for delivering recycled packaging, and this trend looks set to continue.





Recycling Resurgence

New beverage label range contains up to 100% recycled fibres

Floral packaging contains 90% PCR material

New protective cushioning contains 80% PCR material

UK supermarket to incorporate Prevented Ocean Plastic in water bottles

Al vision technology used for material recycling

One piece SRP is designed for the circular economy

Novel technology allows increased use of recycled PS

Beverage giant trials multipack shrinkfilm with 50% recycled content

On-pack QR codes help US consumers with recycling

Plastic recycling shake up with patented process for HDPE

UK retailer introduces recycling scheme for hard-to-recycle beauty packaging

Sustainable shift in detergent packaging recycling

Recycler introduces new bag scheme for 'hard-to-recycle' products

Portuguese dairy moves its milk cartons to attached cap format

New paper-based protective mailer is kerbside recyclable

UK supermarket moves away from coloured milk bottle caps

German coffee roaster introduces recyclable film

New mono PET blister pack film is recyclable

Company develops process for turning production waste into rPET

UK supermarket to trial UV tags to gauge recycling rates

Pioneering yogurt cup recycling programme launched with innovative cleaning technology

Baby food manufacturer moves pouches to mono-material

New soft fruit punnet design removes need for bubble padding

Pilot scheme trials 100% PCR material for toilet freshener blister pack

Companies collaborate to use certified-circular content in pet food packaging

Companies collaborate to use certified-circular content in pet food packaging Next Trend →

New corrugated solution for liquid cartons reduces weight and CO2 emissions

New beverage label range contains up to 100% recycled fibres

Helsinki-based UPM Raflatac has launched a new range of labels made from recycled fibres called Rêverie 3. The labels are aimed at the wine, spirits and beverage markets. The company says Rêverie 3 offers packaging designers labels made with materials from FSC-certified (FSC C012530) forests, recycled materials and other controlled sources. UPM gave five Spanish design agencies a range of papers with the brief to create a new collection. The label designs in the Rêverie 3 collection were created for high-end wine, spirits, sparkling cider, craft beer and tomato juice drinks, with excellent execution of the artworks with different printing techniques managed by label print house Gráficas Varias, using the latest technology. Among the materials used were Drops Wsa PCR-FSC, which has 100% recycled fibres and an uneven textured surface, Biarritz Wsa PCR-FSC with 20% recycled fibres, and Fenix Wsa PCR-FSC, which has 40% recycled fibres.



Floral packaging contains 90% PCR material

Florida-based Decowraps is a leading supplier of floral packaging. The company has now introduced a new sustainable film called EvolveFlex, which is made with 90% post-consumer recycled (PCR) plastic. Traditionally, floral packaging films have relied heavily on virgin materials. EvolveFlex is suitable for various cut flowers and potted plant packaging options and is available in HDPE (high density polyethylene) and CPP (cast polypropylene) versions. The HDPE version is recyclable at store drop-off locations, keeping the material in the circular economy cycle, and supporting sustainable packaging and recycling initiatives. EvolveFlex offers a wide range of thicknesses and transparency options, meeting the diverse needs of the floral industry. The company also says that in addition to its positive environmental impact, EvolveFlex generates social benefits by creating new sources of employment and income for at-risk communities by collecting and processing recycled materials.



New protective cushioning contains 80% PCR material

Illinois-based Pregis is a global supplier of protective and flexible packaging. They have now launched Pregis AirSpeed Hybrid Cushioning (HC) Renew PCR, the only high-pressure air cushioning film made with 80% post-consumer recycled (PCR) content. HC Renew PCR reduces carbon emissions by 40%, fossil fuel usage by 65%, and water usage by 70% compared to cushioning film made with virgin resin, according to a life cycle analysis. The analysis considers product lifecycle phases, including materials, manufacturing, and end-of-life. HC Renew PCR is printed with 80% PCR messaging and a How2Recycle store drop-off label, which provides clear instructions on how end users can dispose of it properly. Pregis state that the solution helps to reduce landfill waste and promote responsible recycling practices.



UK supermarket to incorporate Prevented Ocean Plastic in water bottles

In what they are claiming is a UK first, Lidl GB has announced that from July 2023 their own brand one litre bottles of San Celestino Italian Sparkling Mineral Water bottles will contain a minimum of 30% Prevented Ocean Plastic, also known as POP. According to Lidl, the initiative is set to save almost 100 tonnes of plastic from entering oceans per year. Prevented Ocean Plastic packaging, supplied and developed in conjunction with Richmond-based Bantam Materials, is made from discarded water bottles found in Southeast Asia within 30 miles of a coastline or major waterway that feeds into the ocean. This waste is then sorted and processed before being used in packaging. A spokesperson for Lidl said that ocean plastic pollution is a pressing environmental concern and have launched other POP packs in the market for sausages and fish.



Al vision technology used for material recycling

London-based Greyparrot is a leading AI waste analytics platform for the circular economy. Greyparrot's mission is to increase recycling transparency and automation to unlock waste's financial value. Their AI Waste Recognition System is deployed on moving conveyor belts at plants around the world. It enables MRFs (Materials Recycling Facilities), PRFs (Plastics Recycling Facilities), and other reprocessors to monitor, audit and sort large waste flows at scale and has a reported error rate of less than 1%. Greyparrot detects differences almost imperceptible to the human eye, even when crumpled and overlapping. Reliable recognition of packaging type, including food vs. non-food grade items. Greyparrot can accurately identify over 50 materials, including the black plastics and mixed material packaging (e.g. sleeved bottles) that confuse current NIR systems. It also has the ability to recognise packaging by brand and SKU e.g. Diet Coke 300ml.



One piece SRP is designed for the circular economy

UK multinational corrugated packaging company DS Smith has announced the launch of DD Wrap, a Shelf Ready Packaging (SRP) solution designed to conserve resources, reduce waste, and facilitate a positive unboxing experience for consumers. DD wrap is made from a single piece of corrugated board without perforations on its front side, to optimise the product's on-shelf visibility. While originally designed for biscuits, DS Smith says that the DD Wrap can be adapted for a range of different products while also meeting circular economy requirements and increasing supply chain efficiency. As it consists of only one piece, the packaging is reportedly easy to open without requiring scissors or sharp tools. DS Smith's Italian design team developed it in accordance with the company's Circular Design Principles, which aims to utilise a minimum number of resources and rightsize boxes to remove unnecessary empty space and air.



Novel technology allows increased use of recycled PS

Styrenics Circular Solutions (SCS) is the joint industry initiative to significantly increase the circularity of styrenics in the European Union. They have now announced the development of novel technology which ensures the safe use of rigid recycled polystyrene (rPS) as food contact material behind a functional barrier, in an A-B-A structure. The notification aims at the immediate and continued availability of safe rPS produced with that established technology, under the stringent conditions and supervision foreseen by EU law. A spokesperson for SCS said that this significant step would accelerate the uptake of recycled polystyrene in the market. The development notification builds on polystyrene's intrinsic suitability as recycled food contact material, due to its low diffusion characteristics, among other things. It demonstrates the justified confidence in the safety of recycled polystyrene for food contact applications based on research initiated before the new EU regulation.



Beverage giant trials multipack shrinkfilm with 50% recycled content

PepsiCo Germany has announced that it has conducted successful trials with the collaboration of Gröna Punkten, which tested the use of recycled material in its multipack shrink film. The film trialled contained 10% recycled plastic from the 'yellow bag' (the bag in which plastic, metal or composite material waste can be disposed of in Germany and Austria), and 40% from recycled plastic from other sources. Only half of the plastic film's content comes from virgin plastic. Following the initial successful quality tests, further tests will be carried out. If these quality tests are equally successful, the next goal is to convert film in regular production to this type of film. If the new packaging film is put into commercial use, it will no longer look as clear and bright as before, but according to a spokesperson, if people know and understand why the packaging looks different, they will accept it.



On-pack QR codes help US consumers with recycling

The Recycling Partnership, a Virginia-based non-profit organisation, has announced the launch of a new packaging label feature called 'Recycle Check'. The feature uses on-pack QR codes that consumers can use to access information about whether that specific item can go into the kerbside recycling bin based on the user's ZIP code or location. The first two brands to roll out the label feature, alongside How2Recycle labels, will be General Mills on its Pillsbury frozen pie crust packaging and Horizon Organic on certain of their milk cartons. The feature can be used with plastic, paper, metal or glass packaging, and it is compatible with GreenBlue's How2Recycle and the Consumer Brands Association's SmartLabel labelling systems. Variability between regional recycling programmes and confusion around how to recycle items are well-documented consumer experiences – a situation that stakeholders across the packaging, waste and government sectors are currently trying to improve.



Plastic recycling shake up with patented process for HDPE

Interzero, a recycling service provider, has patented a new process that significantly enhances the recycling of HDPE plastics. Developed in their competence centre for plastics recycling in Maribor, Slovenia, this new technique eliminates the need to add newly produced plastic or post-sorting of used packaging, thereby cutting costs and CO2 emissions. It involves a chemically controlled modification that transforms lightweight packaging waste into recycled plastic material containing at least 95% HDPE. The process also includes a chemically controlled rheology modification, enabling the production of blow-moulded products from 100% postconsumer material. Previously, these were only suitable for extrusion processes. The innovation improves the polyethylene's flow properties, increasing viscosity and decreasing the melt flow rate, to create blow moulding quality suitable for bottle production. This breakthrough offers Interzero's clients, including the Slovenian company Rupar Plastika, substantial savings, allowing them to maintain standard technologies when manufacturing new recycled products.



UK retailer introduces recycling scheme for hard-to-recycle beauty packaging

British retailer Marks & Spencer (M&S) has collaborated with London-based beauty recycling experts Handle Recycling to introduce a 'Beauty Takeback Scheme' for recycling beauty packaging empties. From June 2023 onwards, all M&S customers can utilise the scheme to return their plastic or aluminium beauty packaging, which can be of any form, including bottles, tubes, caps, pumps or tubs. The empties can be from any retailer brand. It will allow the customers to deposit their hard-to-recycle materials and components that would otherwise end up in landfill. The collected empties will be then recycled by Handle and turned into new packaging and products, such as brushes, mirrors and razors. The scheme will be launched across 40 stores in the UK, and M&S hopes to recycle two tonnes of empties in the first year. Customers can visit the stores' beauty section where dedicated boxes are installed to drop off their used beauty packaging.



Sustainable shift in detergent packaging recycling

Aldi, the German supermarket chain, is transitioning the packaging of its detergent brand, Tandil, to predominantly recycled plastic. This change, part of Aldi's 'packaging mission' initiated in 2018, uses recycled plastic sourced from yellow bag/bin waste for its Tandil 3-in-1 Active Caps and Colour Caps products. The packaging, available mid-year at Aldi Nord and Aldi Süd, comprises 92% recycled polypropylene, thereby saving approximately 60 tonnes of new plastic annually based on 2022 sales data. The uniform grey packaging, eschewing colour sorting complexities, differentiates products solely through labelling. This initiative stems from Aldi's partnership with recycling service provider Interzero's dual system, Interseroh+. Committed to sustainable packaging, Aldi aims to reduce packaging material use by 30% and ensure at least 30% recycled materials in all its brand's plastic packaging by 2025.



Recycler introduces new bag scheme for 'hard-to-recycle' products

US recycling business TerraCycle has announced the launch of the Zero Waste Bag, which has been described as a "first-of-itskind" solution for consumers to recycle hard-to-recycle waste. The Zero Waste Bag is designed to help recycle 14 common waste streams which are not collected in council kerbside recycling collections, meaning they are usually destined for landfill, incineration or the natural environment. The accepted waste streams include plastic packaging, crisp and snack packets, cosmetic products and packaging, and medicine blister packs. The Zero Waste Bag is a paid-for solution and comes in two sizes, priced at £25 for a small bag and £39 for a large, with discounts available for bundle purchases. The price of the Zero Waste Bag covers the cost of delivery to the consumer, shipping of the full bag of waste back to TerraCycle via InPost and the cost of processing it into a reusable material that can be incorporated into new products.



Portuguese dairy moves its milk cartons to attached cap format

Portuguese dairy Terra Alegre has reportedly become the first company to offer its customers the attached SIG MaxxCap Linked on their carton packs. The company offers whole, semi-skimmed and skimmed milk in SIG SlimlineBloc carton packs with SIG MaxxCap Linked. The European Union's Single-Use Plastics Directive includes a requirement for all single-use beverage containers to have caps that remain attached to the container, by July 2024. This will ensure that caps are disposed of and recycled with the rest of the container. Both Terra Alegre and SIG are well ahead of this deadline. The SIG MaxxCap Linked cap can be firmly locked in the desired position by pressing it down on the top of the container until it enters its "parking mode". There is no need to hold the cap down and users can easily pour from the container without any interference from the cap.



New paper-based protective mailer is kerbside recyclable

Florida-based Intertape Polymer Group (IPG) has launched an alternative to conventional mailers. The Curby Mailer is a patent pending mailer made from recycled and recyclable paper. It is lined with an innovative honeycomb paper structure that reportedly provides better protection than traditional materials like bubble wrap, bubble-on-demand, foam, and other paper materials. It is also kerbside recyclable and easily disposed of with other recyclable materials. The Curby Mailer has earned Cradle to Cradle Certified® Silver, indicating that its production and design meet stringent criteria for material health and material reuse, while relying on renewable energy, lowering carbon emissions, saving water, and engaging in fair social labour practices in manufacturing. While the Curby Mailer can help minimise the amount of packaging that ends up in landfills, it can help create new products by repurposing into new packing material all over again.



UK supermarket moves away from coloured milk bottle caps

British supermarket chain Asda has announced that it is replacing coloured bottle caps to clear for all of its own label range of fresh milk. The switch to natural-coloured caps means that they can be easily recycled back into food-grade packaging. Unlike green, blue, and red coloured caps, the clear bottle caps, which contain 30% recycled material, can be recycled. The move to natural coloured caps means that 268 tonnes of high density polyethylene (rHDPE) can be recycled to make new milk bottles and is part of Asda's plan to make more of its food packaging recyclable. As a result of this change, 207 million plastic milk caps will now be available to be recycled in this way each year. In partnership with Arla, the UK's largest dairy cooperative, the change will be rolled out in Asda stores beginning in June 2023.



German coffee roaster introduces recyclable film

Hamburg-based coffee roaster Tchibo has announced that it has developed a recyclable film for three of its coffee products. Their coffee packaging was previously made of composite materials such as PET, aluminium, and PE, which are complex to manufacture and difficult to separate into their individual components after use, making them virtually impossible to recycle. For the new film the plastic has been adapted so that it is recognized in the sorting process after disposal via the yellow garbage can. Therefore, they can be assigned to the correct recycling stream. Successful production materials have been gradually introduced to the market since mid-2022 – with very positive customer feedback, so that the project is now being further implemented. Tchibo also says that the new film's machinability has been tested without any problems. The move apparently reduces the coffee packaging's carbon footprint by between 31 and 45%.



New mono PET blister pack film is recyclable

Italian sustainable packaging company AMB has announced that it has developed a mono PET solution for blister films that is designed to be recycled in the RIC (resin identification code) #1 stream. Most pharmaceutical blister packaging available today is currently still composed of a multi-material mix that includes PVC. It is not recyclable and not suitable for the circular economy as it needs to be disposed of or incinerated, and as a consequence, creates waste. The new film from AMB provides high quality optical clarity and is ideal for blister packs for all forms of pharmaceutical, healthcare and other products, including over the counter (OTC) and ethical pharmaceuticals, veterinary pharmaceuticals, food supplements, confectionery and more. AMB's focus on sustainability is driving changes in pharmaceutical and healthcare packaging by manufacturing products that enhance recyclability and thereby close the circular economy loop.



Company develops process for turning production waste into rPET

German thin film technology specialist Leonhard Kurz recently presented RECOSYS 2.0 at Interpack 2023. RECOSYS 2.0 is developing the return and recycling system for PET transfer carriers, which Kurz implemented as the world's first company from the plastics industry. With RECOSYS 2.0, production scraps can now be turned into rPET (recycled polyethylene terephthalate) for the first time. rPET is used, among other things, for the production of plastic bottles or plastic packaging and also offers a wide range of uses beyond this. Kurz are currently the only manufacturer in the industry that converts the PET of their ultra-thin transfer decoration into valuable raw material. The long-term goal is to recycle all their products and produce new substrate material. By doing this, they hope to achieve a true circular economy in the future, where no more surplus material has to end up in landfill.



UK supermarket to trial UV tags to gauge recycling rates

Aldi UK is to partner with Deeside-based recycling technology company Polytag to capture recycling data and bolster traceability throughout its supply chain. It will trial the deployment of Polytag's invisible UV tags onto its packaging, starting from July 2023. The Biffa Teeside recycling centre will use Polytag's unique readers in order to get insights on the quantity of its packaging that is actually recycled and be able to track an item's journey through said process. This previously inaccessible packaging lifecycle information will help the supermarket accurately measure and track its performance against its sustainability targets, such as halving its plastic footprint by 2025. A spokesperson for Polytag said that leading retailers in the UK were awake to the fact that the only way to truly tackle the waste problem in this country is by using data, enabling retailers to develop a greater understanding of their products' journey.



Pioneering yogurt cup recycling programme launched with innovative cleaning technology

Danone, in collaboration with partners DP Recykling and REKOPOL Packaging Recovery Organization, has initiated a groundbreaking yoghurt cup recycling programme in Poland, leveraging an innovative packaging cleaning technology via a team of scientists at the Silesian University of Technology in Gliwice. This technology enhances the recyclability and reuse of polystyrene yoghurt cups. The initiative is part of Danone's sustainable development strategy, "The Path to Positive Impact," and it encourages consumers to recycle plastic packaging for reuse. The recycling process transforms the yoghurt cups into a high-quality material, which can be repurposed into new products such as car hubcaps but not food grade packaging as things stand. This initiative is a stride in Danone's sustainability strategy, which boldly aims for a 50% reduction in greenhouse gas emissions by 2030, carbon neutrality by 2050, and the utilization of 100% recycled or renewable materials in its packaging by 2025.



Baby food manufacturer moves pouches to mono-material

British organic baby and toddler food manufacturer Ella's Kitchen has announced that it has launched its first mono-material pouch, The Green One smoothie. The new mono-material pouch was launched in May 2023 and the company is now seeking to repackage its entire pasteurised range over the next eighteen months, aiming to improve the recyclability of its packaging range by removing the aluminium layer. Ella's Kitchen also claims that The Green One's compatibility with the UK recycling system has been proven. The company says it aims to ensure that 73% of its baby food pouches will be fully recyclable at kerbside by the end of 2024. The remaining 27% of pouches for 7 and 12 months+ calls for a mono-material pouch that can withstand a different cooking process. Ella's Kitchen says that it intends to work alongside packaging manufacturers to ensure their future transition into a fully recyclable material.



New soft fruit punnet design removes need for bubble padding

UK-based plastic thermoformers Waddington Europe have launched a new soft fruit punnet that requires no extra bubble padding at the base of the punnet. The company's new punnets utilise its MONOAIR cushion technology. Until now, fruit punnet bases have required an additional layer of bubble padding attached with a glue adhesive to protect soft fruit from bruising and spoiling in transit. The MONOAIR cushion technology is now integrated into the base of Waddington's 100% rPET (recycled polyethylene terephthalate) fruit punnets, eliminating the need for a separate bubble pad. After use, consumers can now simply throw the whole punnet into their recycling bin without worrying about separating the bubble padding first. That gives them peace of mind knowing that there is less plastic in the punnet and that 100% of the container can be recycled back into food-grade packaging rPET.



Pilot scheme trials 100% PCR material for toilet freshener blister pack

German multinational chemical and consumer goods company Henkel has announced that it is conducting a pilot trial using 100% post consumer recyclate (PCR) from the yellow recycling bag for the blister caps of its WC Frisch Kraft Aktiv Pro Nature Pack cleaning product. 80% of the PCR material is derived from recycled PET (polyethylene terephthalate) trays which are used for food products and have not been recycled as standard until now. Henkel has so far used recyclate from PET bottle collections which are particularly suitable for high-quality reprocessing due to their high purity and low sorting complexity. The pilot scheme was a collaboration by Henkel alongside two Austrian companies, Boldog Consulting and the film manufacturer PETman, and relies on a specially adapted recycling and manufacturing process. The resulting material is said to be virtually indistinguishable in quality from the current blister hoods made from recyclate from the deposit bottle system.



Companies collaborate to use certified-circular content in pet food packaging

Three companies are joining forces to integrate International Sustainability and Carbon Certificate (ISCC) PLUS certified-circular plastics into pet food packaging for household brand names in Canada. Berry Global, Peel Packaging and ExxonMobil will utilise ExxonMobil's ExxtendTM technology for advanced recycling, which processes plastic waste and attributes it to new plastic for foodgrade packaging through a mass balance approach. Advanced recycling technology helps capture the value of plastics that currently go unrecycled, like snack wrappers, food pouches, and plastic toys. Unlike other recycling technologies, the resulting circular plastics are identical to those made from conventional feedstock and can be used in contact-sensitive, food-grade packaging solutions. A spokesperson for ExxonMobil said that this was their first sale of certified-circular polymers into Canada leveraging Exxtend technology and they looked forward to continuing their work across the plastic value chain to develop products that deliver exceptional performance, while also supporting the global circular economy.



New corrugated solution for liquid cartons reduces weight and CO2 emissions

DS Smith Iberia has launched a new wraparound corrugated solution for liquid cartons that uses 19% less material than traditional alternatives, and has reduced CO2 emissions. The British multinational packaging business has equated this to 1,831 flights between Madrid and Lisbon since its creation. This new solution, known as Light Wrap, features a patent stemming from a €116 million investment into R&D and innovation announced by DS Smith in mid-2021. The pack features a double crease at the base – the first functioning when the box is formed in customers' forming machine, with a second crease added for its compression and stacking on a pallet. Light Wrap supports the weight of stacked bricks during transportation and at the point of sale without deforming or damaging the packaging. The development has been inspired by the compression and fastening features used to protect the components and occupants of a car.





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>Self-adhesive materials aimed at premium bottle applications</u>

<u>Limited edition mini jars celebrate iconic spread's 100th anniversary</u>

Self-adhesive materials aimed at premium bottle applications

Fedrigoni Self-Adhesives North America (FSA), part of The Fedrigoni Group, an Italian leader in the production of premium labels and self-adhesive materials, has announced that it is now able to offer a new range of premium self-adhesive materials specifically designed for neck label applications. This new range of neck labels has reportedly been engineered to outperform other offerings in the market. Downgauged substrates combined with an adhesive designed for tight mandril applications ensure a smooth application and overcome the "memory effect," the tendency of paper to return to its natural state, which often causes labels, especially those applied to smaller circumference surfaces to pull away over time, such as on the neck of a glass wine or champagne bottle. Material options have been engineered as prime and neck labels so brands can ensure a perfectly coordinated package while being confident in each label's performance.



Limited edition mini jars celebrate iconic spread's 100th anniversary

To celebrate the 100th anniversary of Vegemite, Australia's iconic spread, the company is releasing a commemorative fine silver mini jar replica range. The jars will feature an intricately detailed design that celebrates the iconic Vegemite jar and its historic label, and the fine silver mini jar replica is available in petite one ounce (28.3 g) and three-ounce (85 g) sizes. The first 500 purchases of the one ounce mini jar and 500 purchases of the three ounce mini jar may also be lucky enough to receive an 18-karat gold-plated version. A spokesperson for Vegemite said that the jar replica design was based on a historic Vegemite label, adapted in fine silver form by Melbourne Gold and Silver. Each silver mini jar is paired with a certificate of authenticity. The company also clarified that the replicas are solid silver, not a usable packaging form.





Refill Revolution

Refill Revolution

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

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





Refill Revolution

UK start-up trialling reusable e-commerce packaging with activewear brand Coffee retailer pilot tests reusable shipping bags
Collaboration offers long-lasting reusable containers for lithium battery transportation

transportation

Bag aimed at supermarkets and food delivery is reusable and recyclable
Reusable cups and trays to be available at football finals
French refill cleaning brand moves to 100% recyclable spray head
Beverage giant to trial returnable glass bottles with doorstep delivery provider
Reusable shopping bag is made of certified organic cotton
German reusable container system for food is app-free
Food delivery company to trial reusable packaging in Canada
Versatile and sustainable containers for leftover food delivery introduced
Reusable stretch wrap replaces single-use film and saves money
Hong Kong start-up tackles city's packaging waste problem
Portuguese start-up creates returnable packaging system for restaurants and

Portuguese start-up creates returnable packaging system for restaurants and takeaways

Reusable transit packaging solution for broccoli helps reduce waste
Project will assess reusable packaging for New Zealand craft brewers
Brewery replaces stretchwrap with reusable rubber bands
French company to supply reusable packaging for 2024 Olympics
New film-to-film technology recycles packs in multi-layer packaging
Jar concept taps into health & beauty refillable trend
New aerosol design is propellant free, refillable and recyclable
Refill pack introduced for Spanish washing up liquid
British supermarket to offer refill option for olive oil
New salad packaging has shelf stand out

UK start-up trialling reusable e-commerce packaging with activewear brand

A Manchester start-up is launching a sustainable and reusable packaging and returns solution for e-commerce retailers. The solution, from no-boxx, is looking to eliminate single-use packaging and claims it reduces CO2 emissions by 87% by just the second use. The reusable pouch is made from recycled polyethylene terephthalate (rPET), and is currently available to manufacturers and retailers in three sizes, depending on the size and quantity of items dispatched. no-boxx uses its proprietary web application to track the status and environmental impact of the packaging. no-boxx has secured a partnership with parcel lockers firm, InPost, which has a UK network of more than 5,000 locations. Customers receive a QR code and drop off their returned item or empty reusable packaging at any of the 24/7 InPost lockers. The pouch is currently being used in a pilot scheme by a sustainable activewear brand, with plans for a wider roll-out later in the year.



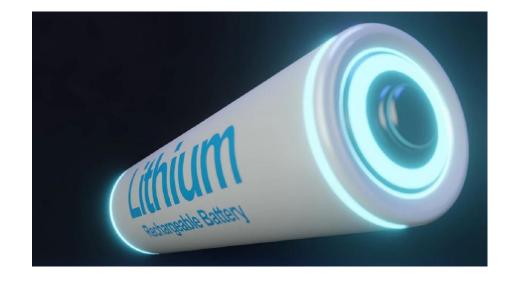
Coffee retailer pilot tests reusable shipping bags

German coffee retailer Tchibo has announced that they are conducting a new pilot test on reusable mailing bags. The trial began at the end of May with 26,000 reusable bags made from recycled plastic, which will be recycled again at the end of their useful lives. Two previous trials were conducted in 2020 and 2022 to assess customer acceptance and the response rate. According to Tchibo, the latter was 81%. In this new test phase, Tchibo wants to find out, among other things, how long the reusable bag can be kept in circulation, how well the associated processes work and how the processing procedure can be designed. The empty bag can be returned to Tchibo shops or folded and put into mailboxes. If the customer has a return, it can be handed in as usual at a post office.



Collaboration offers long-lasting reusable containers for lithium battery transportation

Two US companies have collaborated to offer cost-effective packaging solutions for the car aftermarket industry. Labelmaster is a leading supplier of resources for dangerous goods compliance, while Endural is a provider of handling containers made of thermoformed plastic to engine and transmission remanufacturers. By integrating the large format lithium battery packaging and shipping capabilities of Labelmaster and durable plastic casing of Endural, the partnership will provide sustainable, reusable HDPE (high density polyethylene) packaging for transporting damaged, defective or recalled lithium batteries and other dangerous goods. Labelmaster, which has been offering wood and metal casing until now, will add plastic to its packaging option. Made of recycled material, Endural's reusable plastic containers are designed to fit all batteries and are claimed to be lighter than their wood and metal container counterparts. The durable plastic cases are said to last for several years and will not leak while in transit.



Bag aimed at supermarkets and food delivery is reusable and recyclable

Carolina-based Novolex has launched a new reusable and recyclable tote bag under its Hilex brand. Called the ProWave Tote, the company says that the bag simplifies deliveries and carry-out for supermarkets, restaurants, retailers and end users. The ProWave Tote is available in either a 2.25 or a 1.7-mil gauge MDPE (medium density polyethylene) film, and is manufactured with a minimum of 40% post-consumer recycled material. Hilex says the ProWave Tote has folded handles and a sturdy doubleply top, ensuring the bag remains open for easy loading. The flat bottom design allows for the efficient packing of larger grocery or retail products. The bags offer a to-go solution for carry-out and delivery. They have a flat bottom for easy loading and two large carrying handles. The inner fold was explicitly engineered to bolster the bags' strength during transport and gives customers convenient access to the contents when the products arrive.



Reusable cups and trays to be available at football finals

UEFA and PepsiCo have partnered to implement circular economy practices centred around the 3Rs (reduce, reuse and recycle), to minimise the impact of football on the environment and drive resource efficiencies. These practices will feature at the Women's UCL Final at PSV Stadium in Eindhoven on 3 June and the UCL Final at Istanbul's Atatürk Olympic Stadium on 10 June. All PepsiCo food and beverage packaging supplied at events throughout the finals will be 100% recyclable. Istanbul's Atatürk Olympic Stadium will also include 220 recycling bins for waste sorting post-event. The Women's Champions League Final will be the first to implement returnable packaging for food and drinks. 52,000 0.40L transparent cups will be available for fans to be able to purchase drinks, with a returnable deposit of €2. Doritos Nachos will also be served in returnable trays throughout the stadium.



French refill cleaning brand moves to 100% recyclable spray head

French ecological cleaning brand Rainett has launched three of its products with a recyclable trigger spray head. As well as being 100% recyclable, it is also a PP (polypropylene) mono material and contains 29% PCR (post consumer recycled) plastic. The trigger spray head is also said to be 18% lighter than comparable heads currently available. Rainett is associated with reusable bottles, and their ambition is to become leaders in the eco-refill format. The "ecological" brand of household cleaning products, which belongs to the Werner & Mertz group, is launching a range of three products with the new trigger: one for the kitchen, another for the bathroom and the last for windows. The trigger is being supplied by Indiana-based Berry Global, and is the company's 3R trigger spray head, which won a WorldStar Global Packaging Award at this year's Interpack international packaging exhibition in Düsseldorf.



Beverage giant to trial returnable glass bottles with doorstep delivery provider

UK doorstep delivery company Milk & More is partnering with Cola-Cola Europacific Partners (CCEP) to conduct a trial on returnable, reusable glass bottles for its Coca-Cola Zero Sugar carbonated drink. The trial starts in early June 2023 and will run for eight to twelve weeks. The trial will feature one litre bottles of Coca-Cola Zero Sugar and will take place across south London and central southern England. The company says that washing, refilling and reuse process can take place up to 20 times, in which case it expects to offer an 82% reduction in carbon footprint compared to single-use glass. Milk & More claims that its milk bottles are reused 28 times on average. CCEP hopes that 100,000 consumers will engage with the trial and take up refillable packaging solutions, aiding the organisation's efforts to reduce waste and greenhouse gas emissions.



Reusable shopping bag is made of certified organic cotton

Australian sustainable packaging manufacturer Copar has announced the launch of Eco Mesh, a range of certified organic cotton mesh produce bags. The bags are made with an expandable mesh design, which Copar says is compact and easy to carry. As the bag is filled with produce, it expands to accommodate the groceries and can handle up to 15kg in weight. The company says Eco Mesh bags are crafted in India from certified organic cotton, meeting the rigorous standards of renowned organisations such as GOTS (Global Organic Textile Standard), OEKO-TEX, and TUV Nord SA 8000. These certifications ensure that the bags are made from organic cotton, free from harmful substances, and adhere to ethical production practices. Copar says that Eco Mesh bags are durable, reusable and hand washable, making it a sustainable choice, reducing waste and promoting a more circular economy.



German reusable container system for food is app-free

Simply Reusable is a reusable container system by Berlin-based company Sykell. The system is simpler than other return systems as an app is not required to be a system user. The customer just pays a deposit of between €1 and €2.50 at the time of purchase. All containers and cups are produced in Germany and meet the requirements for contact with food. They are made of PP (polypropylene) and are optimally designed for multiple uses, and are recyclable, BPA-free and free of harmful substances. After use, containers and cups can be returned to participating system partners' empty vending machines, as easily as with returnable bottles. Sykell offers two levels of service. Basic is the ideal reusable solution for cafés, restaurants and retail companies with their own cleaning infrastructure. With Sykell Complete, the company takes over the return logistics, cleaning, inventory management, and deposit settlement.



Food delivery company to trial reusable packaging in Canada

Uber Eats Canada is conducting a pilot scheme to offer customers in two cities reusable rather than single-use containers beginning at the end of June. Uber Eats is collaborating with Canadian reusable packaging companies, Toronto-based Suppli and Vancouver-based Reusables.com, and the scheme will cover both city areas. Uber Eats said that dozens of merchants had joined Suppli and Reusables.com to provide zero-waste takeout alternatives to Uber Eats' users in the area. The companies will also expand their effort to target a broader restaurant delivery ecosystem to contribute to a greener future. Through their technology platforms, the companies manage container accounting, return reminders to customers, and the efficient collection, cleaning and redistribution of the reusable containers. Recently, Uber announced new goals to eliminate emissions on all Uber Eats deliveries globally by 2040, along with a focus on helping merchants eliminate plastic waste from deliveries by 2030.



Versatile and sustainable containers for leftover food delivery introduced

Envapro, a packaging wholesaler based in Madrid, Spain, has introduced a family of versatile and sustainable containers with a 'kraft effect' to cater to the growing need for packaging leftover food in restaurants. With impending regulation in Spain and some other European markets requiring hospitality companies to offer customers leftover food at no additional cost, these containers provide a practical solution. Available in rectangular and circular formats, the containers are suitable for both hot and cold dishes, can withstand temperatures ranging from -20°C to +40°C, and are microwave and freezer-safe. The solution eliminates the need for multiple container types, saving space and costs for restaurants. The recyclable cardboard containers can be customized to reflect the restaurant's branding. The forthcoming legislation, the Law for the Prevention of Food Losses and Waste, aims to raise awareness about food waste and encourages clear communication in establishments regarding the option of taking leftovers. It is reported that food waste is a significant issue in Spain, where 7.7 million tons of food are wasted annually.



Reusable stretch wrap replaces single-use film and saves money

New York-based W&P, kitchenware producers, have introduced a new product to their range — reusable stretch wrap. Designed specifically to replace the need for single-use products like cling wrap, this money-saving reusable stretch wrap is said to be perfect for everything from wrapping up sandwiches to covering bowls and much more. W&P's reusable stretch wrap is made from durable, super-stretchy, and ultra-thin platinum silicon. The wraps are aimed at anyone looking to be more sustainable in the kitchen. They are classed as dishwasher-safe but are also easy to hand wash, and they dry best on a dish rack or with a simple shake. They are also freezer-safe, BPA-free (Bisphenol A), microwave-safe, and oven-safe up to 400°F (204°C). The set comes in three different sizes and retails at \$16 (£12.55).



Hong Kong start-up tackles city's packaging waste problem

Three Hong Kong students have formed a start-up called Re³ to provide meal boxes that people can borrow when ordering takeaway and return later to any participating restaurant. After being quarantined due to Covid-19, and seeing the amount of packaging that accumulated, the students discussed how the use of single-use tableware was ingrained in Hongkongers' habits and that bringing reusable containers for takeaway was uncommon in the city. The students founded, Re³ to provide reusable food containers that people can borrow when ordering takeaway. To join, clients just need to register on the group's online platform, and they can return the containers to any participating eatery for cleaning. So far, 11 restaurants have joined Re³, and they have about 300 registered users. The formation of the start-up is timely, as the government is preparing to implement a ban on single-use tableware in an effort to tackle the city's plastic waste problem.



Portuguese start-up creates returnable packaging system for restaurants and takeaways

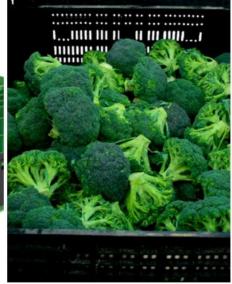
A Portuguese start-up called Ecoceno has created a packaging reuse model aimed at restaurants and takeaway services. The return system is managed through a downloadable app. Each container and each user has a QR code, issued by the app. Thus, when a customer goes to a restaurant, the person and the package they took are registered in the app, so that the company knows where the packaging items are. After receiving the order, customers have 14 days to return the container to the restaurant, distributor or return point. If they are not delivered, a penalty system has been introduced. The system is always free for the consumer as long as the pack is returned. The Portuguese start-up already offers eight different types of reusable products, with common packaging in different sizes (400, 700, 1000, 1300, 1500 and 2000 ml), a pizza container, and a transport bag. Restaurants pay a monthly amount for the containers.



Reusable transit packaging solution for broccoli helps reduce waste

Agromark, a leading Spanish export company specialising in fruits and vegetables, has partnered with Georgia, Atlanta-based Tosca, a global leader in reusable packaging and performance pooling solutions for food supply chains. The partnership has changed how it transports broccoli from Spain to the UK. The new solution helps to preserve freshness and quality throughout the supply chain. Tosca modified a reusable foldable PP (polypropylene) bin to protect the quality and freshness of the broccoli and to replace the company's rigid plastic boxes. The solution was a foldable bin measuring 120x100x80cm and incorporating a customised base. The foldable nature of the box optimises storage efficiency during return trips, reducing the number of trips by 75%. The boxes can also be repaired easily, eliminating the need to discard and replace bins in the event of damage. It has been reported that Agromark has seen a significant reduction in product waste and losses as a result.





Project will assess reusable packaging for New Zealand craft brewers

Sustainable packaging technology company Again Again, based in New Zealand, has announced the launch of a new AUS\$530,000 (£258,000) project to assess the possibility of using reusable packaging in the craft beer industry. As part of the project, the company will closely coordinate with brewers and taprooms to identify a reusable container for beer that can serve as an integrated and easy-to-use solution. According to Again Again, funding will be provided to approximately 50 individual breweries to help set up a reusable packaging asset pool that will deliver several environmental and cost-saving benefits. The new project is being supported and co-funded by the New Zealand Ministry for the Environment's Te Tahua Pūtea mō te Kirihou Auaha – Plastics Innovation Fund, Glass Packaging Forum and Garage Project. The project integrates Again Again's point-of-sale (POS) software for customers to conveniently purchase and return craft beer in reusable bottles.



Brewery replaces stretchwrap with reusable rubber bands

Drake's Brewing in San Leandro, California was looking for a more sustainable way to move its kegs from location to location. Illinois-based Aero Rubber provided the novel solution in the form of large rubber bands. The reusable rubber pallet bands have dramatically saved disposal costs, budget, and labour time for the brewery. With an investment of just \$500, Drake's was up and running with several hundred rubber pallet bands to transport its empty kegs. The brewery took just over three months to achieve an ROI (return on investment). After one year of use, the company replaced 226,248 ft2 of plastic shrink wrap with rubber pallet bands, significantly reducing the company's plastic waste output. Since 2019, the trend has continued, with an additional 61,886 ft2 of shrink wrap eliminated between 2020 and 2021, further reducing shrink wrap and disposal costs.



French company to supply reusable packaging for 2024 Olympics

French reusable packaging company Re-uz has been named an official Paris 2024 Olympic and Paralympic Games supplier. As part of the arrangement, Re-uz will be supplying reusable cups and containers during the events. The company will also look to install a deposit system at the sites and places where the games will be held, to encourage the spectators to give back the materials which have been provided. A spokesperson for Re-uz said they were proud to be associated with the biggest sporting event in the world, as It represented a unique opportunity to demonstrate the company's know-how. This partnership is part of a global goal — to raise awareness of the ecological impact of sporting events and to support as many people as possible towards re-employment.



New film-to-film technology recycles packs in multi-layer packaging

Kao Corporation is a chemical and cosmetics company based in Tokyo. They have announced the development of a film-to-film recycling technology for used refill packs that have been implemented into a layer of its Attack ZERO liquid laundry detergent packaging. Measuring approximately 100–250µm, Kao explains that the film packaging used for refill packs is a composite of several thin material layers – around 80% PE (polyethylene) and other materials such as PET (polyethylene) terephthalate) and nylon. It is designed to offer barrier protection against temperature, humidity, and UV rays. Metallic films, such as aluminium foil, are removed from the stream at the sorting stage to produce a homogenous film. Select Ito-Yokado, Welcia Pharmacy, and Aeon stores are selling limited quantities of the refill packs for Kao's Attack ZERO that utilise the recycled material in a middle layer which aims to protect the quality of its contents while offering rigidity to the pack.



Jar concept taps into health & beauty refillable trend

Fasten Packaging, a subsidiary of the Innovative Beauty Group, has introduced a refillable jar concept called The Goodloop that taps into the trend for refillable health and beauty products. It features a sleek design with an outer jar made from recycled polypropylene (PP) and polyethylene terephthalate (PET). Its notable features include a curved inner portion and a lightweight bayonet closure, which enables easy refilling and leak-free usage. The materials used are neither glued nor mixed, simplifying the recycling process. Additionally, it incorporates embossing and printing on different walls for branding opportunities. Fasten also has another refillable jar concept entirely composed of recycled PP. The Goodloop concept received the Gold Award at the 2023 German Innovation Awards, organized by the German Design Council.



New aerosol design is propellant free, refillable and recyclable

The TwistMist, from Alternative Packaging Solutions (APS) is claimed to be the world's first twist-activated, propellant-free, globally patented aerosol that reduces carbon footprint in an affordable way. The consumer twists the spray head 180 degrees to load the propellant-free aerosol without planet-harming chemicals. Thanks to the ergonomic button design, the consumer can spray the perfect amount on the desired area, and from any position, even upside down, to get to hard-to-reach places. TwistMist is refillable and designed for up to six reuses. It is available in various materials, including beach plastic, PET (polyethylene terephthalate), glass, and aluminium. It has been officially tested and certified by Leeds Beckett University as the most sustainable aerosol system on the market. TwistMist has been developed in conjunction with German aerosol specialists Lindal Group.



Refill pack introduced for Spanish washing up liquid

Procter & Gamble Spain has introduced a new cardboard refill to enable consumers to reuse their Fairy Maxi Power bottles. The brand's latest innovation is said to help reduce the carbon footprint of plastic at home when washing dishes. Each cardboard refill (950 ml) allows consumers to fill the Maxi Power bottle more than twice. The launch of the refill pack reduces plastic use by a reported 85% by reusing the Fairy Maxi Power bottle. A spokesperson for Fairy said that they were delighted that the company continued to introduce practical solutions that helped all families to enjoy life more and, at the same time, reduce the consumption of plastic at home when it comes to washing the dishes. A survey said that 40% of those asked, pay attention to the fact that they are environmentally friendly products when they decide to buy a dish detergent.



British supermarket to offer refill option for olive oil

British supermarket chain Waitrose has announced that it will offer its customers a refill option for olive oil, the first in the UK to do so. The 'Citizens of Soil' olive oil will be available in a 500ml bottle and as a refill pouch in 155 Waitrose stores across the UK. The award-winning Citizens of Soil was founded in 2020 with the aim of championing small-scale female farmers who prioritise soil health and biodiversity in their olive groves. The pouches reportedly have a carbon footprint that's fifteen times lower than the glass bottles, because they're lighter and therefore require less energy to transport them. When customers have washed and dried their empty pouches they can drop them off at a soft plastic drop-off point at one of 295 Waitrose stores, or send them back to Citizens of Soil by posting them in any postbox.



New salad packaging has shelf stand out

European packaging solutions provider Coveris has teamed up with London-based Pollen + Grace, a plant-based food-to-go business, to deliver a new vibrant packaging solution for its range of fresh salads. Coveris has delivered a three-piece packaging initiative for Pollen + Grace, which is comprised of sustainably sourced board sleeves, square kraft bowls with a PE (polyethylene) coating to prevent moisture ingress, and clear mono rPET (recycled polyethylene terephthalate) lids, containing a minimum of 30% recycled content. As part of the trialling and pre-launch process, Coveris engaged with the lids' tooling manufacturer to design a bespoke offering which gave consistency of application to the base, thereby eliminating the variability of airflow due to ill-fitting lids on the outer bowl, delivering and maintaining product integrity. The packs are also stackable, to support product visibility and shelf utilisation, meaning consumers can easily identify and engage with Pollen + Grace's visually appealing range of salads.



About Us

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

ThePackHub manages a comprehensive innovation database called The Innovation Zone, featuring over 7,300 packaging innovations worldwide, with 25 new initiatives added weekly. They have a vast network of packaging contacts across the industry that helps inform much of their consultancy work. Additionally, they have published several packaging reports, covering sustainability, packaging trends, supplier guides, seasonal packaging, and more. ThePackHub hosts face-to-face seminars that provide insight from expert speakers and bring the industry together to network and collaborate.

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



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