

PACKAGING INNOVATION

BRIEFING REPORT NOVEMBER 2023

Welcome

Welcome to ThePackHub's Packaging Innovation Briefing Report for November 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 123 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 biobased 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 trend areas:

Recycling Resurgence

Refill Revolution

Paperisation

Bio Alternatives

Miscellaneous



Recycling Resurgence (19)

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.





2022 VIN ROSE 2022 PINOT GRIGIO







Recycling Resurgence

New bubble mailer is 100% paper and fully recyclable

French dessert company chooses aluminium bowl style can

Collaboration brings reusable PCR rPET water bottle to market

New child-resistant metal tin is 100% recyclable

Australian discounter reduces plastic use

US fruit producer switches to food-contact approved PCR PE bags

Thin-wall yoghurt pot weight reduced by 34%

Packaging awards entrant creates elegant pack from single piece of board

Recycled HDPE handles proven to be more environmentally friendly than board

Food grade thermoformable rPET is made from 100% PCR material

Corrugated alternative to EPS hits market

New rPET bottle solution ensures material circularity

Packaging giant embraces advanced recycling technology for PP

Australian supermarket switches to clear lids for its own brand milk

Portuguese collaboration develops more sustainable coffee capsule

Multi-layer barrier technology for chemicals containers is now fully recyclable

New metal overcap offers 100% recyclable alternative to plastic

Collaboration results in recyclable PE tube for hand cream

German supermarket adds digital watermarks to aid recycling

New bubble mailer is 100% paper and fully recyclable

SEE, previously known as Sealed Air, has announced the launch of the Paper Bubble Mailer, an alternative to conventional bubble mailers, made from a combination of paper and plastic. The Paper Bubble Mailer is made from 100% paper, fully recyclable, and is a protective envelope with internal bubbles for cushioning, made with up to 35% recycled content. The bottom is folded into a C shape for greater strength, and its interior has a coating for greater water resistance. The solution was developed to meet consumer demand for a packaging material that is easy to dispose of and offers good protection. The padded internal construction eliminates additional clearance padding and cushioning, minimising packaging costs. Additionally, using envelopes reduces shipping costs compared to corrugated cardboard. This paper solution has a practical closure, as it is a self-sealing adhesive, and provides packaging speed, being three times faster to pack than cardboard boxes..





French dessert company chooses aluminium bowl style can

Swiss metal packaging manufacturer Eviosys, in collaboration with French dessert brand Mont Blanc, has designed and supplied individual printed bowls. The combination with the PeelSeam peelable opening makes it an easy-to-open and ergonomic pack, claimed to be perfectly suited for small or clumsy hands. The 100% aluminium packaging is not only 100% recyclable, but it also helps to consume the right portion and avoid food waste. Combining tasty cream desserts with sustainable and convenient packaging has allowed Mont Blanc to increase its market share and satisfy its loyal customers. The brand has also strengthened its positioning with new consumer targets, including active people who want to enjoy the products anywhere, anytime. Eviosys has developed a wide range of bowl format cans, available in aluminium and steel and with different diameters (65 mm, 73 mm, 83 mm and 99 mm).



Collaboration brings reusable PCR rPET water bottle to market

Following development lasting approximately a year, packaging and recycling specialist Alpla, and mineral water company Tönissteiner Sprudel have developed a reusable rPET (recycled polyethylene terephthalate) bottle made of post-consumer recycled material (except the closure and label). The 1-litre bottle developed jointly by the global packaging specialist and Germany's oldest Roman spring conserves resources during production and lowers carbon consumption. The rPET used for the innovative packaging solution is produced and provided by Alpla recycling, and the bottle can be fully recycled at the end of its lifespan. The perfect-fit design of the reusable rPET bottle means it can be used with Tönissteiner's existing twelve-bottle crates. Up to 160 crates containing 1.920 more bottles can be transported 160 crates containing 1,920 more bottles can be transported per lorry load. The optimised return of empty Tönissteiner rPET and glass containers on a pallet of standardised crates also speeds up the cycle. It reduces the bottle sorting work of wholesalers and retailers.



New child-resistant metal tin is 100% recyclable

Connecticut-based Dymapak is a leading manufacturer of innovative child-resistant packaging solutions designed for a variety of applications and industries. Their latest product is the 'Squeeze and Turn Tin', an innovative, 100% kerbside recyclable plastic-free child-resistant packaging solution. The tin's proprietary mechanism is ingeniously designed to harmonize with the natural attributes of steel. It features audible and tactile feedback when opening and closing, reassuring consumers that their package is sealed. While securely child-resistant, the tin is also designed to be accessible to elderly or arthritic consumers who may have difficulty opening other all-metal child-resistant packaging. It is claimed that it stands out for its ease and simplicity among the current industry standards. The Squeeze and Turn Tin has the potential to replace many plastic child-resistant closures that are thrown away each year.



Australian discounter reduces plastic use

Aldi Australia is to make what it says are major changes to some of its products in a bid to reduce the amount of plastic packaging it uses. Some of the biggest changes that customers will notice will be in mince meat, noodle cups and batteries. A swap from tray packaging to soft 'flow-wrap' casings on mince will reduce the amount of plastic by 70%. Noodle cup packaging made from EPS (expanded polystyrene) will be phased out by the end of the year, with production already underway for paper-based cup replacements for instant noodles. Changes have already been made to battery packaging, with paper now used instead of plastic, which will reportedly cut down on 17 tonnes of plastic waste each year. Aldi Australia has committed to making its packaging recyclable, reusable or compostable by 2025. It also promises to achieve zero waste to landfill in the same year.



US fruit producer switches to food-contact approved PCR PE bags

Washington-based fruit producer Superfresh Growers has announced that it has introduced its first apple and pear bags made from PCR (post-consumer recycled) plastic. The recycled PE (polyethylene) is derived from items people recycle daily, such as plastic bottles, milk jugs and other bags. Superfresh's new PCR packaging is sourced from U.S. recycling centres, can be continuously recycled, is SGS Global Services certified and FDA food-contact approved. The move to a PCR bag helps Superfresh Growers to reduce its footprint and conserve resources. The company says the cost of the bags is comparable to a bag made from 100% virgin plastic. The Superfresh Growers PCR bag can be recycled through current plastic bag and film recycling streams, such as instore drop-off. As this design is added to its packaging lineup, Superfresh Growers is said to be excited about continued growth in packaging sustainability and carbon footprint Washington-based fruit producer Superfresh Growers has growth in packaging sustainability and carbon footprint reduction.



Thin-wall yoghurt pot weight reduced by 34%

Netstal is a Swiss supplier of injection moulding machinery. At Fakuma 2023 (October), the company demonstrated an injection moulding process for optimised thin-wall packaging and its new Axos 9 control generation. At Fakuma Netstal is presenting a yoghurt pot that has been lightweighted, has a filling volume of 200g, a part weight of 5.4g, and a wall thickness of 0.3 mm. The packaging is easy to recycle since the cup and label are made of 100% PP (polypropylene). In contrast to a conventional in-mould label, the label comes off in the mechanical recycling process. The PP stream is unaffected because printing ink particles are reliably separated from the pure PP. Using an injection compression moulding (ICM) process, the cup's weight is reduced by 34%. Combining the ICM process and product optimisation also results in a 27% reduction in packing volume.



Packaging awards entrant creates elegant pack from single piece of board

Spanish carton converter Alzamora Group entered the European Carton Excellence Awards 2023 with a crafted and elegant packaging solution that resembles a luxurious jewellery box. Inspired by the arches of skincare brand GERnétic's logo, this packaging protects the product and presents it as a beautiful gift. The pack boasts a unique structural design, fashioned from a single piece of cartonboard to create an almost spherical case. While its appearance gets noticed, the folding of the Stora Enso virgin fibre cartonboard to create the shape can be done quickly. The project presented a challenge to showcase the product in a visually stunning manner, while ensuring ease of use and cost-effectiveness. The aim was to optimise productivity and reduce cost without compromising the pack's functionality or aesthetic appeal. Alzamora Group has used minimal materials to create this intricate three-dimensional pack.



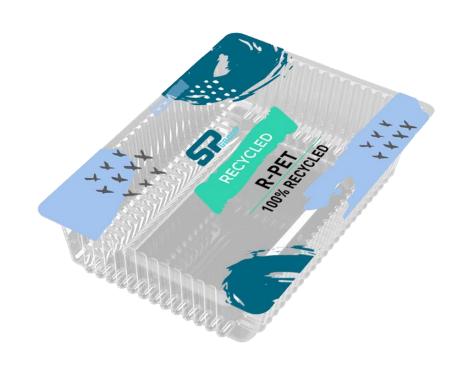
Recycled HDPE handles proven to be more environmentally friendly than board

Oregon-based PakTech is a designer and manufacturer of 100% recyclable injection moulded handles made from 100% recycled HDPE (high density polyethylene) for the food, beverage, and consumer goods markets. PakTech's recent Sphera Life Cycle Analysis study evaluating the environmental impact of secondary packaging options shows that PakTech's 100% recycled HDPE handles emerged as the most environmentally friendly packaging option due to two main factors: material mass and recycled content. These handles are the lightest packaging option currently available. Lighter packaging means fewer materials used and reduced emissions during transport, significantly lowering the product's carbon footprint. By utilising recycled materials, PakTech not only reduces the demand for new plastic production but also contributes to a circular economy model. The company says switching from paperboard packaging to PakTech's rHDPE handles would considerably decrease the potential environmental impacts of beverage can packaging.



Food grade thermoformable rPET is made from 100% PCR material

SP Group, based in Córdoba, Spain, manufactures flexible and rigid films. They now offer their clients a thermoformable rPET (recycled polyethylene terephthalate) monolayer laminate. This rPET laminate is made from 100% PCR (post-consumer recycled) material. More than 50% of this is recycled material from trays and is 100% recyclable. This facilitates its classification and recycling where the infrastructure exists to do so. Also, its excellent degree of transparency is comparable with products made from virgin plastic, and its specific mechanical properties ensure it will withstand any impact during the packaging process. The material is entirely suitable for food use and holds EFSA certificate No. 2017/4843. SP Group's rPET can be thermoformed into trays for many products, including cakes, biscuits, salads, and fresh fruit and vegetables, as well as other non-food products: perfumes, cosmetics and blister packs.



Corrugated alternative to EPS hits market

Sumbox, based in Barcelona, has created a sustainable alternative to EPS (expanded polystyrene) insulated boxes. Sumbox is a corrugated cardboard box that is waterproof, isothermal, can be customised with print, is easy to erect, is designed according to IATA for air transport, and is 100% recyclable. Its resistance to the melting point of ice compared to expanded polystyrene is reported to be 15% lower, though under the same conditions, it still grants temperature preservation under normal cold chain conditions. The boxes can be printed in photo/offset quality and can offer an appealing image of logos, brands or graphics. Sumbox is stronger than expanded polystyrene, and even if it suffers damage, it will not break or crack like EPS, avoiding liquid losses, damaging other boxes or losing properties of the content itself. Pallet efficiency is between 20% and 35% greater than EPS, and the required warehouse space to stock Sumbox is 700% less than EPS boxes.



New rPET bottle solution ensures material circularity

Sidel is a French manufacturing company providing equipment and services for packaging liquids. They have announced the launch of StarLiteR, a new 100% rPET (recycled polyethylene terephthalate) bottle base, aiming to help carbonated soft drink packaging producers embrace material circularity. StarLiteR allows producers to switch to rPET bottle production easily and efficiently while significantly reducing the impact on product quality or packaging integrity. rPET resin can present the packaging industry with challenges such as fluctuating consumption habits impacting the product category mix across the year, and different PET collection models, meaning that post-consumer PET material bales will vary from region to region. Traditionally, greater variability in rPET resin leads to a narrower process window and lower bottle quality. However, Sidel said its new StarLiteR base ensures efficient production by restoring a wider process window. StarLiteR can be easily installed on existing production lines and adapted to fit current bottle designs.



Packaging giant embraces advanced recycling technology for PP

Pactiv Evergreen is a US company that claim to be the world's largest manufacturer of food packaging and food service products. They have announced that they have partnered with ExxonMobil to leverage advanced recycling for food service packaging. Pactiv Evergreen will utilise ExxonMobil's Exxtend technology for advanced recycling to convert PP (polypropylene) into packaging materials bearing the International Sustainability and Carbon Certification (ISCC) Plus "certified-circular" label. Using Exxtend technology, plastic waste is broken down into its molecular building blocks, subsequently contributing to the creation of numerous valuable new products, including PP, through a mass balance approach. The technology can broaden the range of plastic materials suitable for recycling, delivering performance and quality on par with virgin plastics. A spokesperson for ExxonMobil said they saw tremendous opportunities to help address consumer demand for more circular products without sacrificing performance or safety for PP in foodcontact applications.



Australian supermarket switches to clear lids for its own brand milk

Australian supermarket Woolworths has followed other supermarkets in the UK and in their domestic market with the introduction of new clear lids on its own brand milk, meaning they can now be recycled into a greater variety of products. The HDPE lids, which are currently dark and light blue, have started popping up in Victorian, New South Wales and Queensland stores this week for an initial trial and will be rolled out nationally across all stores by early next year. Woolworths says up to 290,000kg of plastic from millions of milk bottles will be more effectively recycled each year. At present, coloured plastic needs to be separated from clear plastic during recycling. While coloured plastic can be recycled, the coloured pigment makes it less versatile as it can only be recycled into dark-coloured plastic. A spokesperson for Woolworths said that they were pleased to be the first Australian supermarket to start the switch to help their customers' good recycling habits go further.



Portuguese collaboration develops more sustainable coffee capsule

Portuguese metal packaging company Colep has collaborated with INEGI (Institute of Science and Innovation in Mechanical and Industrial Engineering), based in Porto to develop a more sustainable coffee capsule. Colep challenged INEGI to develop a solution to address the product's environmental impact, where 75% of capsules are reported to end up in landfill. Thus, the Eco-Cápsula project was born, which also has the support of NewCoffee, a major operator in the coffee market in Portugal. The aim was to develop metallic capsules made of ultra-thin steel and 100% recoverable by conventional collection and recycling systems without needing special collection or alteration of treatment systems. The new capsules were developed to be compatible with Nespresso coffee machines and other equipment and capsules already on the market. The principles that were the basis of development can be extended to other formats and types of coffee packaging.



Multi-layer barrier technology for chemicals containers is now fully recyclable

Ohio-based Greif is a leading global provider of industrial packaging products and services, serving diverse industries and committed to promoting a circular economy. In response to the demand for more sustainable barrier packaging, Greif has developed ECOEX, an innovative, fully recyclable, and high-performance multi-layer barrier technology specifically designed for high-value UN-certified jerrycans and bottles. This eco-friendly solution assists customers who require a high-performance barrier to transport goods, such as pesticides, but want their packaging to have high recyclability properties with the ability to be recycled into packaging. The ECOEX barrier technology for jerrycans and plastic bottles not only reduces waste but also contributes to a reported significant reduction in carbon emissions. Using the Greif Green Tool, a Life Cycle Analysis (LCA) calculator based on ISO 14040/14044 standards, a 48% reduction in carbon emissions was found when comparing ECOEX jerrycans to coextruded packaging.



New metal overcap offers 100% recyclable alternative to plastic

Eviosys, headquartered in Switzerland, is Europe's largest steel and aluminium food packaging manufacturer. It has now announced the launch of 'Horizon', which the company says is a lightweight, shallow metal overcap designed to fit perfectly on tin cans, enabling brands to embrace mono-material packaging, significantly reducing environmental impact while maintaining optimal product protection for dry storage cupboard essentials. One of Horizon's key advantages is its full customisability, allowing brands to create a seamless and distinctive look for their products packed in metal cans. Horizon also facilitates efficient stacking of cans, optimising storage space in consumers' homes. Eviosys believe that the launch of Horizon comes at a critical juncture when environmental concerns surrounding single-use plastic are reaching unprecedented heights. According to Greenpeace, 46% of the UK's plastic waste is incinerated, 19% is exported, and 17% ends up in landfills. Eviosys aims to combat this issue by offering a 100% recyclable metal packaging alternative through Horizon.



Collaboration results in recyclable PE tube for hand cream

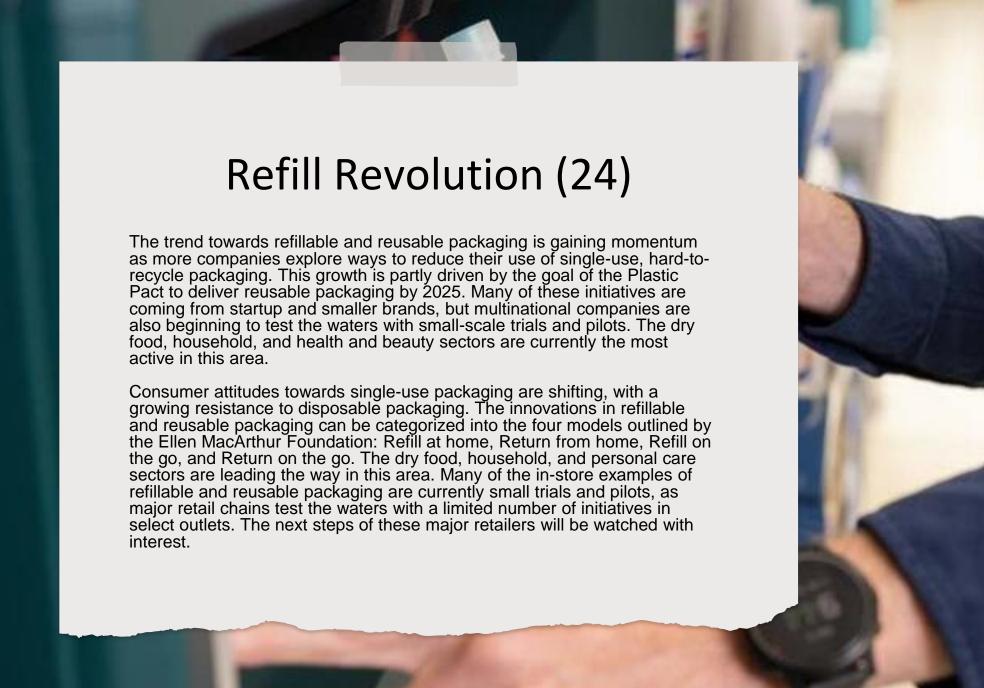
French cosmetics brand L'Occitane en Provence has collaborated with cosmetic tube supplier Albéa Tubes to redesign the packaging of L'Occitane's 30ml hand cream collection. The new packaging solution features an all-plastic laminate and an Association of Plastic Recyclers-certified Greenleaf tube with a multilayer sleeve in HDPE (high-density polyethylene). It will replace the formerly used Aluminium Barrier Laminate tube for the collection and, in turn, reduce the product's weight by 23%. The new tube is recyclable in existing PE recycling streams in France, Europe, and the US. For the packaging's cap, L'Occitane selected Albéa's EcoTop technology with the OctoTop opening system. The two-in-one flip-top closure system retains its octagonal shape while having its seal peeled off. The closure system is also made of HDPE, so the entire tube is recyclable in existing PE recycling streams. The companies will launch the shea butter hand cream packaging in January 2024.



German supermarket adds digital watermarks to aid recycling

Aldi Germany have announced that they are taking part in the third phase of the HolyGrail 2.0 initiative, which will bring products with digitally watermarked packaging to the German market. Adding watermark technology to packaging will help to improve sorting in waste facilities and boost recycling for a circular economy. In preparation for the testing phase of the HolyGrail 2.0 initiative, ALDI South and ALDI Nord have partnered with Digimarc and Wipak to print invisible codes on packaging to improve sorting of materials. Aldi suppliers, in collaboration with packaging converter Greiner, have ensured that 18 different Milsani kefir and yoghurt flavours have been digitally enhanced with watermark technology. These products can already be found in ALDI stores across the German market. The packaging will be detected and decoded by a highresolution camera on the sorting line at the recycling facility, accurately separating the different materials to their corresponding streams.





Back to Start

Refill Revolution

Startup travels around Southern England offering refill shopping experience

Patented spray solution is refillable and free of pressurised gases

Refill pilot launched to tackle single-use plastic waste

Danish reusable packaging system requires no deposit or app

Reusable packaging initiative aims to scale across UK retailers and products

French bulk product retailer introduces reusable containers

<u>US manufacturer launches all-plastic easy refill system for fragrances</u>

Premium reusable cups aimed at the foodservice industry

German drugstore and consumer products manufacturer move to reusable crates

Spanish supermarket chain introduces range of reusable containers

UK company offering sustainable reusable packaging solution for takeaways and restaurants

Ambitious refillable PP milk bottle launch is a UK first

US startup aims to modernise bulk food buying

French company offers turnkey solution for reusable cups in vending machines

Babycare brand launches range of refillable cleaning products

Indian refillable product provider uses software to improve inventory management

UK reusable packaging provider increases range of bowls and pots

New York-based meal subscription programme now offers reusable packaging

Scandinavian service reuses HDPE containers for household products

Norwegian reusable packaging startup is backed by government

Swedish gas station and store to pilot returnable packaging scheme for takeaway food

French perfume brand launches refills made of glass

Food giant launches refillable toddler milk in Australia

Startup travels around Southern England offering refill shopping experience

The Refillable Van is a zero-waste shopping startup based in the Canterbury area on the south coast of England. Customers bring their own clean and dry container, which is then weighed and refilled with chosen items. The van stocks a range of refillable, plastic-free, household, self-care and beauty products as well as dried food, herbs and spices, all without plastic packaging. Goods include vegan honey from Margate, 'unpaper' towels and wax wraps from Folkestone, botanical soaps from Bexleyheath, wax melts from Deal and shampoo, conditioner and handmade soaps from Herne Bay. The van travels to various farmer's and artisan markets, as well as 'pop-ups' at selected local villages. The owners say they only stock products from individuals and brands who share their vision to reduce waste and create a positive environmental impact. They strongly believe in supporting small, local producers..



Patented spray solution is refillable and free of pressurised gases

AFA Dispensing Group, based in the Netherlands, are providers of sustainable liquid dispensing solutions. Their product, Flairosol, is a next-generation spray and foam solution that the company says ticks all the boxes of various application areas. It combines sustainability with high performance and convenience with premium quality. Thanks to its patented liquid dispensing technology, Flairosol is free of pressurised gases or other environmentally barmful of pressurised gases or other environmentally harmful substances, while its refill/recharge functionality reduces waste and boosts customer loyalty. The company says that the innovative combination of sustainability and premium quality of Flairosol technology is making a difference to growing numbers of conscious consumers across various markets. And apparently, it is helping brands in these markets to stand out from the crowd and reach new audiences with a fresh offer. AFA says Flairosol offers consistent premium performance, maximum convenience, certified safety and health and environment-friendliness.



Refill pilot launched to tackle single-use plastic waste

The UK Refill Coalition, consisting of Aldi UK, Ocado Retail, and supply chain solutions company CHEP, have initiated its first in-store pilot at Aldi's Solihull location to combat single-use plastic waste. Conceived by GoUnpackaged (formerly Unpackaged) and supported by Innovate UK's Smart Sustainable Plastic Packaging Challenge fund, the initiative focuses on reusable bulk vessels developed by Berry Global that replace single-use plastic packaging for various food and household items. The programme enables customers to purchase refill products at a cheaper rate using their own containers. A successful trial could see a nationwide roll-out in other retailers and online. The system includes a tareless weighing setup meaning consumers don't have to weigh their own container before refilling and a liquids dispenser under development for next year, as well as a bulk home delivery option soon to be launched by Ocado. Research suggests a strong consumer demand for such alternatives, with up to 85% of UK adults willing to use refills if available in mainstream supermarkets. The Coalition aims for the refill solution to become an industry standard.



Danish reusable packaging system requires no deposit or app

Kleen Hub is a Copenhagen-based startup that has developed a digital return system for reusable packaging. Their returnable packaging system, called Tap&Reuse does not require the customer to download an app or pay a deposit. The customer taps their payment card on the Kleen Hub payment device, and the cup or bowl is registered to that card and lets the user borrow the packaging for free for up to 10 days. They then return them to any partner in the Kleen Hub network. The system works with any card, including Apple and Google Pay. Each container comes with an RFID chip for easy tracking. They are expected to be reused around 300 times and are carbon-positive after ten uses. At the end of their useful life, they are recycled into new plastic cups and containers. They currently operate with more than 140 partners in eight cities in Denmark as well as Ibiza, Spain.



Reusable packaging initiative aims to scale across UK retailers and products

Retailer Marks & Spencer (M&S) has teamed up with household brand Ecover, start-up Reposit, and environmental group City To Sea to expand its 'Buy anywhere, return anywhere' reusable packaging initiative. This project is supported by the UK Research & Innovation (UKRI) Smart Sustainable Plastic Packaging Fund and aims to develop a reusable packaging system that is commercially viable as well as sustainable. The scheme allows customers to purchase products like cleaning and beauty items in returnable packaging. Consumers can then return the empty packaging to registered drop-off points, where it is collected, sanitised, refilled, and returned to stores. The project, which initially ran as a pilot in six M&S stores, covering 10 homecare products, outperformed sales and return rate targets. Plans are underway to expand the initiative to up to 100 products and 200 stores across the UK in the next six months. The crucial factor is the expansion involving collaboration between multiple retailers and brands to scale up refilling options. City To Sea noted that this model aims to overcome the limited success of traditional 'self-refill' systems by offering a more convenient solution that also reduces single-use packaging.



French bulk product retailer introduces reusable containers

Day by Day claims to be the first network of grocery stores in France that allows its customers to do daily shopping in bulk and in reusable returnable containers. The company has been committed for 10 years to reducing the waste of resources and limiting waste from daily consumption, thereby offering their customers a wide range of selfservice bulk grocery, drugstore and hygiene products, accessible to all. Although selling products in a bulk format will always be Day by Day's number one choice, when a product cannot be sold in bulk, the company now offers it in a returnable container to encourage reuse. The first three major categories of products in returnable containers for reuse in all its grocery stores from October 6, 2023, feature jams, fruit purees and mayonnaise. Due to the lack of a nationwide infrastructure for collecting, washing, and refilling containers for all products, Day by Day have opted to promote reuse by establishing a local management system for returnable containers. Customers return their empty containers to stores, which are then washed and returned for reuse.



US manufacturer launches all-plastic easy refill system for fragrances

Silgan, a supplier of high-barrier plastic containers based in Connecticut, has announced the launch of Replay, an all-plastic, mainly PP (polypropylene) recyclable refill system that uses the company's patented LifeCycle Technology. The pack's key features include the ability for consumers to refill the bottle in 20 seconds, improved adaptability across different bottle types, plastic usage reduction, and a feature that stops the refilling process automatically when finished. Silgan says that there is dissatisfaction with the current refill experience. It says existing refill solutions are commonly criticized for being messy and difficult to manage at home. Qualitative testing of Replay's consumer experience showed it to be easy to use, clean and quick, with minimal concerns of spillages and waste. The pack uses Silgan's LifeCycle Technology, with a plastic spring, removing nonrecyclable metals and materials – allowing dispensers to be constructed nearly completely from a single recyclable polyolefin.



Premium reusable cups aimed at the foodservice industry

Indiana-based manufacturer of plastic packaging Berry Global has launched a new range of upmarket reusable plastic cups for the foodservice industry to meet increasing demand for alternative solutions to single-use packaging. Available in various sizes for hot and cold beverages, including soups, and ideal for both on-site and takeaway requirements, the Berry Cup Range combines reusability with a premium quality feel and high-impact branding opportunities. The company says the cups are durable, lightweight and can be recycled when they finally reach their end of life, as they are made from high-quality polypropylene (PP), which is safe for food contact and easy to recycle. The cups can incorporate an RFID chip or QR code to provide additional customer engagement. The RFID chip offers the ability to set up a streamlined automatic return deposit system and refill options. It also ensures efficient cup maintenance through wash cycle tracking and inventory management..



German drugstore and consumer products manufacturer move to reusable crates

German drugstore dm, and consumer goods giant Proctor & Gamble (P&G) have adopted the GS1 Smart-Box, an innovative, standardized, and reusable transport box developed jointly by industry, retail and GS1 Germany. The companies used the example of Gillette to demonstrate the solution's potential in terms of efficiency: In one year, P&G was able to save more than 50 tonnes of disposable cardboard packaging in transport from the factory to retail distribution centres. So far, the manufacturer has only used the Smart-Box for 32 items from the Gillette range. Discussions are underway about its use in other categories, such as diapers/nappies and mouthwash. For the next step, P&G is now trying to save up to 30% of material in secondary packaging. The higher stability of the Smart-Box compared to a carton or tray on a pallet enables material savings in both primary and secondary packaging while also enabling lower CO2 emissions.



Spanish supermarket chain introduces range of reusable containers

Carrefour Spain has launched reusable stainless steel hermetic containers within its range of Carrefour Home products. The development of this product responds to the company's commitment to making it easier for its customers to reuse packaging, a measure that the company has been betting on in its challenge to eliminate waste. The containers are available in different sizes and manufactured with stainless steel and materials suitable for the microwave, oven, freezer and dishwasher. The company deducts 15 cents for each container the customer brings from home to reduce the use of other materials at the fresh product counters. The measure, which applies to a maximum of three containers, ratifies its commitment to reducing plastic materials while offering a more sustainable alternative to the consumer. The reusable containers are on sale in all Carrefour hypermarkets across Spain and carrefour.es.



UK company offering sustainable reusable packaging solution for takeaways and restaurants

UK-based Reconomy, who are a resource management company, has launched a sustainable food and drink container service for businesses throughout the country. The company offers a diverse range of reusable containers suitable for various applications, which the company says is reusable over 1,000 times (although they will never be reused as much as this). These containers will help to cut carbon emissions by up to 96%, create zero litter, landfill and incineration, reduce transportation and storage and be recycled easily at the end of its lifecycle. In addition to increasing circularity, Reconomy says the packaging collection will also deliver cost savings it estimates to be at approximately 70 to 85% over a three-year period compared to using single-use disposables. The move comes as the UK government brought in a ban on single-use packaging from October 1st 2023. Businesses will no longer be allowed to supply single-use plastic plates, trays and bowls, food and drink in polystyrene containers, single-use cutlery and balloon sticks.



Ambitious refillable PP milk bottle launch is a UK first

Refillable milk packaging has traditionally been associated with glass bottles due to their ease of sterilization and cost-efficiency, but glass's fragility and weight has led to the adoption of recyclable, single-use HDPE plastic containers across many markets, driven by cost savings and retailer convenience. While this shift made sense economically, it resulted in significant single-use plastic. It also necessitated costly specialized equipment for dairies, making the transition back to glass prohibitively expensive. The UK-based Club Zero Refillable Milk initiative from Abel & Cole challenges the notion that plastic is inherently detrimental to the environment. Their packaging, constructed from 100% Polypropylene (PP), offers a sustainable alternative, allowing for multiple refills and complete recyclability. By reusing these bottles just four times, they claim to reduce the carbon footprint by half compared to glass bottles, saving substantial quantities of plastic and carbon emissions each year. Abel & Cole are calling on UK retailers and the dairy industry to get in touch to make this a widespread reality.



US startup aims to modernise bulk food buying

TAINR is an LA-based startup with ambitions to modernise the bulk aisle with a smart refill kiosk that moves inventory efficiently, reduces restocking times, eliminates product losses and single-use plastic packaging waste. After conducting research, it was found that most customers want to reduce their plastic footprint but are frustrated with the limited options available. Concerns were raised about the current options: lack of hygiene, having to weigh out products manually, and not being compatible with Bring Your Own containers. With TAINR, shoppers order food via the kiosk's touchscreen interface or a mobile app. Shoppers select products by price, fill level, or weight. This eliminates any guesswork or surprises at checkout. Shoppers want a clean experience. Minimum steps mean minimum germs with hygienic and contactless dispensing. The startup has a crowdfunding page on Wefunder to raise money for the project and has commitments from 20 US stores.



French company offers turnkey solution for reusable cups in vending machines

It has been estimated that 4.7 billion single-use cups are thrown away in France annually. Newcy is a French company that offers a turnkey solution that allows companies to replace single-use cups with reusable cups directly in vending machines, water fountains and cafeterias. After use, the consumer places their cup in one of Newcy's collectors provided for this purpose, who will then take care of collecting it, washing it in their washing stations located in suitable companies and then returned clean, to their dispensers. The company says that their reusable cups fit in all machines, so no modifications are required. Their cups will be inserted directly into dispensers. Newcy's cups are said to be unique, suitable for all distributors, reusable and washable, with a lifespan of 12 years, and are Bisphenol A free. At the end of life, the cups can be recycled.



Babycare brand launches range of refillable cleaning products

London-based Kit & Kin offers families a range of award-winning cleaning products. The company has launched a range of plant-based eco-cleaning products — stored in refillable bottles with refill pouches that can be returned for recycling — and ensured consistent branding with its mother and baby products. The products were developed in collaboration with designers B&B Studios, also based in London. Kit & Kin's twelve products include hand wash, all-purpose cleaner, multisurface cleaner, and glass and mirror cleaner. Each claims to be nontoxic, thus protecting the consumer, their homes, and the environment. With the new range, consumers can reuse the refillable bottle and recycle it at the end of life. Empty refill pouches can be sent back to Kit & Kin at no extra cost to the consumer, where it will be recycled in a specialist process.



Indian refillable product provider uses software to improve inventory management

Refillable, an Indian refillable product solutions provider, who are committed to reducing single-use plastic waste and promoting environmentally responsible practices, has chosen Mumbai-based Satma CE to enhance its inventory management capabilities. By integrating Satma CE's software into their operations, Refillable will gain comprehensive insights into their product lifecycle, track refill management, and determine the number of times a product is reused before being refilled, all in real-time. This partnership underscores Refillable's dedication to transparency and accountability in their sustainability efforts. Satma CE's robust software will empower Refillable to track inventory efficiently, monitor refill management, quantify product reuse, and enhance sustainability reporting. Refillable can strengthen its commitment to minimising single-use plastic waste to reduce its environmental footprint by quantifying product reuse and real-time data insights. This collaboration further marks a crucial step for Refillable towards achieving its mission to enhance sustainability in its operations.



UK reusable packaging provider increases range of bowls and pots

London-based CLUBZERØ has unveiled a new bowl and pot to cater to a wider variety of dishes in its returnable packaging system. This is to adhere to English government legislation cutting down on single-use plastics, which came into force at the start of October 2023. Scotland has already banned the supply of plastic straws, stirrers, and cotton buds, and will ban the supply of plastic cutlery, plates, and polystyrene food containers from 2024. Wales are also due to follow. The new products will feature an 800ml bowl for dishes like noodles and a 400ml pot for sides, soups, and breakfasts. New drop points will also be opened to enable the packaging to be returned for reuse. The company's packaging is designed in-house by packaging design, product, and engineering experts. CLUBZERØ has also used UKRI's Smart Sustainable Plastic Packaging grant to develop its new packaging range. It is reported that the new designs were tested and developed in collaboration with CLUBZERØ Hosts, who have responded with 'great feedback' that they are compatible with the intended menu items and suit the needs of takeaway and delivery services.



New York-based meal subscription programme now offers reusable packaging

MealPal is a New York-based lunch and dinner subscription programme. The company partners with various restaurants offering subscription plans that price meals around \$6 dollars a piece. For example, consumers can sign up for two 30-day lunch plans: 12 meals for \$6.39 per meal or 20 meals for \$5.99. Now, when ordering through the app, there is the option to select reusable containers for the meals. Returns are available at hundreds of receptacles at participating MealPal locations, and consumers scan a unique QR code to indicate the return. The containers are then washed, sanitised and reused for subsequent meals. Because subscription members use MealPal about 3.5 times a week, the company says it makes it easy to return a container to another MealPal outlet. During the trial period, more than 65% of customers chose reusable containers over single-use. Additionally, over 96% of containers were returned within two weeks.



Scandinavian service reuses HDPE containers for household products

Four Nordic firms have collaborated to develop a novel form of reusable/refillable consumer packaging. På(fyll), which translates as 'pour-fill', is an app-based subscription service for Orkla's household products, which uses a series of utilitarian, minimally branded, compact plastic containers that can be stacked and refilled over and over. Users of the service purchase products online. Once they've used the product and want a refill, they scan a QR code on the side of the container, leaving the empty containers outside their residence to be exchanged for full ones. The concept is being tested initially on a trial basis in the Swedish market. The containers are moulded out of HDPE, but there are plans to make them from recycled HDPE. The four companies involved are Swedish design firm Form Us With Love (FUWL), consumer brands conglomerate Orkla ASA, strategic innovation consultancy Æra and Bakken & Bæck AS.



Norwegian reusable packaging startup is backed by government

Packoorang is a fast-growing, government-backed startup from Oslo, Norway. They are suppliers of innovative reusable packaging and transport ecosystems. Their goal is to significantly reduce the environmental impact of transport by replacing single-use packaging with more financially sustainable solutions. The reusable packaging system works in the following way: when customers buy a product online, they can choose to have it delivered in a Packoorang bag. After delivery, the customer can return their bag at a convenient collection point. Customers earn rewards and discounts as they return the reusable bags. If the bags are not returned within two weeks, the customer then has to pay for them. The bags are made from polyester, and each of the company's medium-sized bags is made from 15 recycled bottles and is expected to be reused over 100 times



Swedish gas station and store to pilot returnable packaging scheme for takeaway food

Circle K Sweden is testing a reusable circular packaging system where customers will be offered lunch boxes and mugs to borrow for their takeaway food and beverages. This solution is a pilot collaboration with Panter and Tingstad Packaging, where Tingstad provides the products, while Panter has developed a digital return system. The customer creates an account with Panter, then borrowed lunch boxes and mugs are scanned in the web app, and then the containers are returned to any connected partner within seven days. The project is initially running at several stations in the Gothenburg area, and will then be rolled out at all at the turn of the year. Circle K serves over 30,000 cups of coffee and 80,000 hot meals daily at its stations nationwide.



French perfume brand launches refills made of glass

Ormaie is a fragrance brand based in the South of France. The brand has opted for fragrances solely made out of 100% natural ingredients and is launching a range of small-size refillable bottles using glass ampoules. With "The Small Bottles" range, Ormaie now offers its collection of nine fragrances in a refillable 20ml format designed to be used at home or taken anywhere else. For a refill that is both elegant and more sustainable, Ormaie has developed an original alternative to usual systems: glass ampoules of the same size that are filled with perfume. According to the brand, the new patent-pending refill solution, which required 24 months of development, introduces a new way of filling an empty bottle of perfume. Each small bottle bears the colour of the fragrance it contains, with the characteristic shape of the original cap stamped in gold.



Food giant launches refillable toddler milk in Australia

Nestlé Australia has introduced a new refillable packaging system for its NAN SUPREMEpro Toddler dairy infant formula, which it says is a world first for the company. The refill system includes a reusable stainless steel can, 600-gram flexible pouches that go inside the can, a specially designed lid to keep the pouches snugly in the can, and a spoon made from 95% renewable, plant-based bioplastic. Parents can reorder refill bags online or sign up for a subscription service. A spokesperson for Nestlé said that the company was looking forward to hearing feedback from parents about the refillable system. In the coming months, the company will look at the potential to scale a refillable solution and continue to evaluate how it can reduce environmental impact. According to Nestlé, the new NAN SUPREMEpro Toddler ReFill system will result in 40% less primary packaging weight over the course of a year.



k to Start Paperisation (18) The packaging industry is experiencing a substantial shift in materials, primarily driven by objectives centred 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. This month, we tracked 15 new initiatives in this direction. The Pack Hub continues to document numerous cases of brands and retailers transitioning primarily from plastic to 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.

Paperisation

Paper-based alternative to stretch PE pallet wrap launch

Paper-based alternative to PE shrink film for can multipacks launched

Packaging manufacturer launches premium paper bag with effect resembling animal fur

<u>Carton manufacturer launches paper-based bottles for on-the-go opportunities</u>

British rice brand opts for paper-based packaging

<u>Dutch supermarket moves to board underlay for sliced meats</u>

Dry moulded fibre technology arrives in Japan

Companies collaborate to bring paper pallet wrap to market

New high-speed paper-based twist wrap for confectionery

UK retailer moves from plastic to paper wrapper for toilet and kitchen rolls

Jigsaw puzzle packaging switches from plastic to paper

New paper-based barrier film alternative to plastic

French brand moves baby care product to paper-based tube

Beverage giant to partner with developers of fibre-based closures

Paper-based confectionery packs can now be fitted with euroslot

Innovative paperboard lids enhance salad bowl packaging

Pasta packaging transitions from plastic to paper

Pharmaceutical giant joins Blister Pack Collective

Paper-based alternative to stretch PE pallet wrap launch

UK-based packaging solutions provider Antalis has announced the addition of a new paper-based alternative to conventional stretch PE (polyethylene) pallet wrap. Made from 100% paper fibres without any coating, Paper Stretch Master'in Performance is fully recyclable and easily recycled in the paper waste stream. In addition, the opacity of the Paper Stretch film provides additional protection against theft. Paper Stretch Master'in Performance is reportedly lightweight and durable, and the manual and machine stretch films work with almost all wrappers. Their use is particularly recommended for pallets up to 300 kg and 120 cm high, for direct shipments and preferably for internal storage (dry zone) and intralogistics. To achieve its ambition and support the growing demand for sustainability, Antalis has developed its Green Star System and the Green Card, two initiatives to support customers in choosing the best sustainable packaging solutions.



Paper-based alternative to PE shrink film for can multipacks launched

Atlantic Packaging, based in North Carolina, has partnered with WestRock to develop a paper-based alternative to PE shrink wrap for can multipacks. The product, called Canopy has passed rigorous ISTA 3 Series testing, is coated for moisture and abrasion resistance, and provides a printable surface for showcasing branding. Canopy can be retrofitted into existing shrink bundling lines. Machine operators run the paper through the conventional film feed and turn off the heat function. Then, Canopy gets tightened and turn off the heat function. Then, Canopy gets tightened and glued around the tray, preventing the cans from falling out. When Canopy was shown at PACK EXPO visitors were reported to be impressed by the product's strength and durability. Canopy is made from Fibershield extensible kraft paper, a high-strength and low-weight paper used for demanding packaging applications. Atlantic Packaging and WestRock employees commented on the excitement experienced after picking up the wrapped trays and noticing that the Canopy Wrap wouldn't wrinkle or tear.



Packaging manufacturer launches premium paper bag with effect resembling animal fur

German luxury packaging manufacturer Rissmann has announced the introduction of a prestige paper bag with a suede effect and a feel that resembles animal fur. The manufacturer has designed a premium feel bag in flocked paper that is FSC-certified and produced from eucalyptus pulp. The bag's surface offers a suede effect to the sight and touch. Patterns obtained by a complementary embossing process give this material the appearance of an animal's fur. A giraffe effect was used for the model showcased at Luxe Pack Monaco 2023, but other animal skin appearances are possible. This material can be available in around a hundred colours, meeting the Oeko-Tex Standard 100. Each colour, associated with the embossing process, offers numerous customisation possibilities, tone on tone, without additional colour printing processes. The gold logo was achieved via hot foil stamping.



Carton manufacturer launches paper-based bottles for on-the-go opportunities

Swiss aseptic carton manufacturer SIG has announced the launch of SIG DomeMini. This small-size carton pack reportedly offers all the convenience of a plastic bottle with the sustainability benefits of a carton pack. SIG DomeMini encourages consumers to rethink their packaging choices, especially regarding sustainability. Beverage manufacturers also have the opportunity to choose a solution that puts significantly less plastic on the market and caters to the growing 'paperisation' trend. SIG DomeMini offers a new drinking experience for consumers, who can now enjoy their favourite drink on the move while helping to reduce plastic waste. Designed for recycling, SIG DomeMini is mainly made from FSC-certified paperboard and produced using 100% renewable electricity. The centrally positioned SIG DomeMiniCap is perfect for drinking, just like from a bottle. It is easy to open and reclose, which ensures safe storage in bags, ready to drink from whenever needed.



British rice brand opts for paper-based packaging

Multinational packaging and paper group Mondi has collaborated with British rice brand Veetee, to launch the country's first paperbased packaging for dry rice. Veetee's new rice packaging has been created using Mondi's FunctionalBarrier Paper, providing a safe, secure and strong alternative to the industry standard plastic packs. Created using Mondi's recyclable FunctionalBarrier Paper, the new packaging was developed for Veetee's rice range. The two companies collaborated closely on the entire creation process: as with all food products, the barrier properties for the packaging needed to be suitable for the contents, in this case, providing protection against moisture and ensuring a long shelf life. Trials were carried out to ensure the result was a solution that worked on all counts while supporting Veetee's mission to reduce plastic. The new packs have been certified by OPRL (On Pack Recycling Label) as widely accepted for kerbside recycling in the UK.



Dutch supermarket moves to board underlay for sliced meats

Utrecht-based Plus supermarket has announced that it is replacing the plastic underlays for its meat products with paper-based versions. All packaging for the meat products from 'Puur van Smaak' and the vegetarian meat products range will be packed with a cardboard underlay instead of plastic. This move will reduce the amount of plastic per pack by 60%, which the company says is the equivalent of 225,000 kilos of plastic per annum. The sustainability step will be rolled out in phases in mid-October. A spokesperson for Plus said that they continuously check whether products can be sold without packaging. If that is not possible, they look at whether packaging can be smaller, lighter or thinner and whether packaging without plastic is possible. This is the case with the 'Pure of Taste' meat products and moving to cardboard underlays apparently makes no difference to the quality of the product.



Dry moulded fibre technology arrives in Japan

Swedish dry moulded fibre pioneers PulPac have formed a partnership with Japanese industrial machinery importers Correns to launch dry moulded fibre products onto the Japanese market. PulPac's dry moulded fibre aims to replace single-use plastic globally. The company describes it as sustainable, resource-, energyand cost-efficient packaging. PulPac's process is said to be ten times faster than conventional fibre-forming methods and produces 80% less CO2 emissions compared to plastic production processes. A spokesperson for PulPac said that dry moulded fibre fits Japanese customer requirements of fast production ramp-up, short cycle time, high-quality products and small production footprint. Dry moulded fibre products are also cost-competitive, which is seen as important in a market with large imports from neighbouring markets. Correns has installed a dry moulded fibre promotion team. The company explains that it has witnessed dry moulded fibres' development since the beginning of its cultivation and is impressed with what PulPac has accomplished.



Companies collaborate to bring paper pallet wrap to market

European paper-based packaging company Mondi has partnered with Italian pallet wrapping specialists Robopac to develop a paper stretch wrapping solution to help phase out unnecessary plastics in pallet wrapping applications. Robopac's new paper wrapping machine is compatible with Mondi's Advantage StretchWrap, made entirely from kraft paper and claims to offer high strength, puncture resistance, and tension absorption in pallet wrapping applications. Mondi states that it uses responsibly sourced, renewable materials to create the paper, which does not feature plastic or coatings and is thus thought to be fully recyclable in existing European waste streams. The companies claim that each reel of paper can wrap up to 750 pallets. According to an independent life cycle assessment, the material lowers greenhouse gas emissions by 62% compared to virgin plastic stretch film and by 49% when compared to plastic stretch film made with 50% recycled content.



New high-speed paper-based twist wrap for confectionery

Adapa is an Austrian company specialising in flexible packaging solutions. It has introduced PaperTwister(re), aimed at the confectionery market for products such as toffees, caramels and candies. The paper-based twist wrap PaperTwister(re) also runs on high-speed machines and is certified as "repulpable". The PaperTwister(re) is available in thicknesses from 40 to 50 g/m2 and can be used as a single or double twist and for folding applications. is designed to run on the fastest twist-wrapping machines on the market and works on established lines as well as the latest highspeed wrapping machines. With a proven output of 2,300 pieces/min, the twist wrap, available in standard paper and metallized versions, delivers reliable performance. With PaperTwister(re), the company has been shortlisted in the 'Innovation of the Year' category at the UK Packaging Awards 2023.



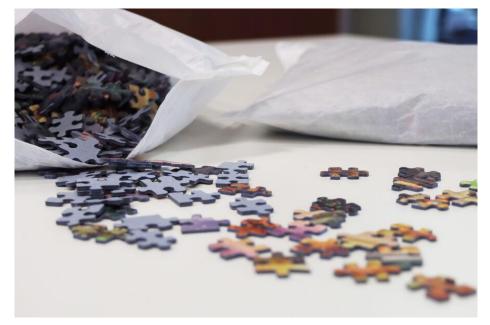
UK retailer moves from plastic to paper wrapper for toilet and kitchen rolls

UK supermarket Sainsbury's has moved from plastic to paper on all of its own-brand toilet and kitchen roll packaging, saving over 55 million pieces of plastic, the equivalent of 485 tonnes tonnes annually. It is the biggest single plastics reduction across Sainsbury's grocery business so far. The new fully recyclable packaging will help customers cut down on plastic and recycle more at home. The move to paper means that Sainsbury's has become the first UK retailer to switch its own-brand toilet paper and kitchen towel ranges from plastic to paper packaging. The new packaging will launch across 27 products, with customers starting to see the change in-store and online from this week. The paper packaging will have rolled out to all lines by February next year and can easily be recycled in UK homes through kerbside collection.



Jigsaw puzzle packaging switches from plastic to paper

German games manufacturer Ludo Fact has switched from plastic to paper to replace the traditional transparent plastic bag used to contain the jigsaw pieces inside its cardboard boxes. By moving to Koehler NexPlus Seal Pure 40 gsm packaging paper this marks the final piece in the games manufacturer's quest to offer its customers 100% recyclable and sustainable products, entirely free from plastics, for both games and puzzles. Like all other Koehler NexPlus papers, "Koehler NexPlus Seal Pure" is also heat-sealable, and its sturdiness characteristics make it ideally suited for further processing on all commercially available packaging machines. Koehler NexPlus Seal Pure can be used as secondary and primary packaging if no additional barriers are required. Ludo Fact is the first manufacturer in their market that has been able to introduce sustainable paper packaging for its products in large runs and at optimal costs.



New paper-based barrier film alternative to plastic

A partnership between Coveris Flexibles Germany and Brigl & Bergmeister Austria has resulted in the launch of PaperBarrier Seal. This fully recyclable, sustainably-sourced packaging material, the companies say, offers the same functionality and product safety as existing plastic packaging alternatives whilst minimizing both packaging and product waste. Thanks to its unique paper coating, the material enables sealability whilst remaining fully recyclable in existing paper streams. Additionally, the solution ensures comparable production efficiencies as packaging solutions. Suggested uses for PaperBarrier Seal include dried foods, cereal, sugar, chocolate, confectionery, crisps, snacks and nuts, bakery, tea, coffee, spices and tobacco. It is suitable for VFFS/HFFS & premade bag/pouch formats and has excellent printing characteristics. PaperBarrier Seal supports the growing demand for sustainable packaging solutions while maintaining product safety and visibility on the shelf. It was manufactured in partnership with Brigl&Bergmeister, a paper producer for labels, flexible packaging and special applications with production plants in their headquarters in Austria and Slovenia.



French brand moves baby care product to paper-based tube

French beauty, cosmetic and personal care brand Klorane has worked with Albéa Tubes to reinvent the new packaging of Klorane's iconic baby care product: their organic Moisturising Cream with organic Calendula. The brand has chosen Albéa Tubes' paper tube in its brown version, which integrates at least 50% FSC-certified (Forestry Stewardship Council) paper. The partly carton-based cosmetic tube reduces plastic by replacing it with a bio-based, certified paper-like material. Combined with Albéa Tubes' EcoFusion Top, the fusion of head and cap for further weight reduction, this tube reduces by 74% the amount of virgin plastic used for Klorane's product compared to its previous version. Klorane and Albéa Tubes also claim that this packaging is technically recyclable in the used beverage carton stream. A spokesperson for Klorane said that this solution was a step forward in their commitment to lowering the carbon footprint of their products.



Beverage giant to partner with developers of fibre-based closures

Blue Ocean Closures, a sustainability startup based in Sweden, has formed a partnership with Coca-Cola's EMEA R&D Centre in Brussels. Blue Ocean Closure's innovation is a fibre-based screw closure, or cap, that is bio-based, FSC (Forestry Stewardship Council) certified and recyclable like paper. A spokesperson for Blue Ocean said that for the company to succeed with this pioneering step away from fossil-based plastics, it is extremely important to have global brands on board with the ambition and ability to make a difference. In line with its ambitions to promote sustainable packaging while reducing the use of non-renewable materials and supporting its ambitious World Without Waste strategy, Coca-Cola joins Blue Ocean Closure's community of pioneering partners. A spokesperson for Coca-Cola said they were excited to be part of the pioneering community and to help test and develop this innovation as it continues to evolve.



Paper-based confectionery packs can now be fitted with euroslot

Finland-based packaging company, Walki and German machinery manufacturer Rovema, have collaborated to bring to market a new paper-based confectionery pack with a euroslot to enable the packs to be hung in-store on metal hooks. Until now, these packs have always been made of plastic because paper versions have not been able to sustain the weight, resulting in the pouches dropping to the supermarket floor. Walki's idea was to apply an extra strip on the area above the euro hole. The double-layer strip is invisible to consumers but works as a safety belt for the paper pouch. For production reasons, it's important to ensure that the transition from plastics to paper does not result in less output or any other inconvenience for brand owners. The pouch can also be used in non-food segments for home hardware materials like screws or toys like plastic bricks.



Innovative paperboard lids enhance salad bowl packaging

Graphic Packaging International has collaborated with Picadeli to develop further a novel range of plastic-free paperboard lids for its salad bowls. These new lids are recyclable within household paper waste streams and are crafted from renewable plant-based fibres sourced from sustainably managed forests. Notably, they now feature a secure snap closure system that outperforms Picadeli's previous solution, enhancing functionality. This innovation allows the healthy eating brand to provide a salad bowl and lid combination that is both plastic-free and highly functional, aligning with consumer expectations. Graphic Packaging noted that these lids fulfill Picadeli's needs while also offering branding advantages through high-quality printing with water-based inks. Picadeli expressed their satisfaction with the partnership, emphasizing plastic reduction in their packaging portfolio in response to modern consumer demands.



Pasta packaging transitions from plastic to paper

As part of Coop Sweden's commitment to sustainability, the packaging for Änglamark 500-gram pasta, including varieties such as Linguine, Penne, Paciocche, Eciodali, Zoo, Genove Mezza Lisce, Manfredine, Spaghetti, Spaghetti whole grain, Macarones, and Fusilli, is undergoing a transition from plastic to paper. This shift, in line with other changes in the market, is expected to save more than 300 tons of plastic annually, aligning with the EU's plastic waste reduction strategy and its 2030 goals in accordance with the EU's Green Deal. The change is part of a broader effort by Coop Sweden to reduce material complexity in packaging, making it more recyclable. Additionally, the plastic window in Änglamark potatoes' packaging will be phased out, saving 1.5 tons of plastic each year. Coop's long-term vision includes eliminating sticky labels and directly printing information on the bags. The Swedish Food Retailers Federation aims to make all packaging recyclable by 2025, with these initiatives helping to contribute to this ambitious sustainability goal.



Pharmaceutical giant joins Blister Pack Collective

The Blister Pack Collective brings together pharma, consumer health, and FMCG businesses to accelerate progress towards a world of more sustainable tablet packs free from problem plastics like PVC. The collective was formed by London-based PA Consulting and Swedish dry moulded fibre (DMF) pioneers Pulpac. The collective has now announced that the Consumer Health division of Bayer has joined the Blister Pack Collective. Bayer is a German pharmaceutical enterprise with a global reach and has core competencies in the life science fields of healthcare and nutrition. PA and PulPac have developed the underlying technology to bring a functioning DMF tablet blister pack to life. The adoption of DMF tablet packs provides an opportunity to cut back on the more than 100,000 tonnes of plastic medicine packaging used every year. DMF technology reportedly minimises CO2 emissions – leaving up to an 80% lower CO2 footprint than plastic – and requires minimal water usage.



Bio Alternatives (22)

This month, we've seen a continued emphasis on biobased packaging, with an introduction of 28 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 will 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 never 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.



Bio Alternatives

UK supermarket launches kiwis fruits in improved linerless label format

Philippines startup manufactures bags made from cassava

Brazilian startup secures funding to scale fungus-based sustainable products

Lighting manufacturer chooses cellulose-based packaging foam

Researchers develop edible film from plant polymers

Partnership aims to revolutionise cosmetics packaging with biodegradable sachets

Organic carrot packer switches to compostable packaging

Spanish packaging supplier introduces compostable product for foodservice customers

Plant-based edible barrier to replace plastic on cucumbers

Whey protein and spirulina makes edible coating for cheese

Ecological ionomers will be used for cosmetic packaging

Vegan chocolate company chooses compostable packaging

Spring water company moves its bottles to bioplastic

New PLA grades contain up to 30% recycled material

Swedish confectionery product moves to 50% bio-PE material

French cellulose-based packaging company looks to expand material range

Research looks into potential of turning coffee grounds into bioplastic

Olive stone by-products utilised for packaging applications

Organic potato packaging switches to compostable solution

Fibre-based bottle is said to be ready for industrial production

Companies collaborate to create biodegradable polymers

Plant-based coating allows plastic packaging to be recycled

UK supermarket launches kiwis fruits in improved linerless label format

UK supermarket chain Sainsbury's has launched its Taste The Difference Gold Kiwis in a plastic-free linerless format in collaboration with supplier Chingford Farms, label producer ProPrint Group, and machinery supplier Ravenwood Packaging. The initial launch of the format was originally in 2020, with the latest version of the die-cut packaging showcased at Fruit Logistica in February 2023. Industry feedback was positive regarding the visibility of the improved lid, which now allows producers to showcase and at the same time, protect the product. Online reviews have reportedly been particularly positive, with customers commenting with satisfaction on the opportunity to recycle the packaging at home, with domestic waste disposal. Comments also confirmed the packaging's success in protecting fruit during transportation. ProPrint Group supplies the new die-cut lids in the same easily storable roll format, while the Ravenwood Packaging Nobac 5000L applicator can apply them at high speed.



Philippines startup manufactures bags made from cassava

Philippines-based Sachi Group (Sustainable And Compostable Horizons Industries Group) are manufacturers and distributors of sustainable packaging products. The company is seen as a pioneer of biodegradable, compostable and sustainable packaging solutions made from cassava in the Philippines. Cassava (Manihot esculenta) is a perennial woody shrub with an edible root that grows in tropical and subtropical areas. Aside from its use as a foodstuff, other modern-day uses for cassava include manufacturing fabrics, paper, and building materials like plywood. Cassava has also been used in the pharmaceutical industry as an ingredient in medications, as well as a source of feed for livestock. Sachi Group uses cassava to make a range of bags, mailer pouches, griphole bags and multi-use bags.



Brazilian startup secures funding to scale fungus-based sustainable products

Mush, a Paraná-based startup specialising in fungus-based products, has secured an investment of R\$900,000 from Irani Ventures, the venture capital arm of traditional paper and packaging firm Irani from Rio Grande do Sul. The funding aims to help Mush scale its product offerings, which currently include a diverse catalogue encompassing packaging, furniture, fashion, and construction items, all made from biodegradable materials derived from agricultural and vegetable waste. Utilising patented technology, Mush controls the growth process of mycelium—the vegetative part of fungi—to create a resilient material. The investment aligns with Irani Ventures' focus on innovative and environmentally considerate packaging solutions. This is the third investment by Irani Ventures since its inception last third investment by Irani Ventures since its inception last year, reflecting its ongoing commitment to supporting sustainable and innovative business practices in the packaging sector.



Lighting manufacturer chooses cellulose-based packaging foam

Finnish manufacturer of lighting solutions Airam has become one of the market pioneers in the implementation of Stora Enso's Papira foam in bicycle lamp packaging. Papira is a paper-based, fully recoverable packaging foam made from cellulose obtained from wood, which is an sustainable alternative to traditional materials such as EPS (expanded polystyrene) used in similar applications. As Stora Enso emphásises, it not only protects sensitive items during transport, but also helps users implement the principles of sustainable development in practice, as it can be recycled, just like paper. The company adds that the wood used in Papira foam comes from sustainably managed forests, further emphasising its environmental aspect. According to Stora Enso, by choosing this solution in the production of packaging, every brand owner has the opportunity to actively participate in reducing plastics used in the packaging industry.



Researchers develop edible film from plant polymers

Researchers at the Sirius University of Science and Technology, Sochi, Russia have announced the development of sustainable packaging made from plant polymers. The scientists have reportedly developed a cling film made from seaweed and tea tree extract. The material, made from plant polymers, has many unique properties. Its biggest advantage is its biodegradability. Before mass production, tests have been carried out using ultraviolet rays. According to the test results, the developed packaging showed good results, as products placed in this film can be left even in the sun. In addition, tea tree oil provides antibacterial protection. The developed film material can be used not only for product packaging but also in the cosmetics industry, for example, to be made into face masks. Also, the researchers say that the film is safe for human consumption.



Partnership aims to revolutionise cosmetics packaging with biodegradable sachets

British skincare brand ELEMIS has partnered with Xampla, the maker of plant-based material brand Morro, to develop biodegradable sample sachets to reduce plastic waste. The collaboration seeks to utilise ELEMIS' plant waste to create heat-sealable biofilms that can replace the single-use plastics commonly used in sachets. This initiative is based on Xampla's Morro materials, already made from plant feedstocks. The project is co-funded by grants from the Biotechnology and Biological Sciences Research Council (BBSRC), Engineering & Physical Sciences Research Council (EPSRC), and Innovate UK, with additional support from PlasticFree.com. Extensive testing will be conducted on Morro's natural materials when used with ELEMIS products. The initiative aligns with a growing industry trend towards sustainability and upcycled ingredients, as consumers increasingly prioritise products with minimal environmental impact.



Organic carrot packer switches to compostable packaging

Bolthouse Farms, based in the American Midwest, has replaced its fossil-based plastic packaging with fully compostable packaging for its organic baby carrots. The Bolthouse Farms packaging material has earned certification as "home compostable," assuring consumers of its sustainability, according to the company, who will exhibit the packaging during the upcoming IFPA show. The compostable packaging undergoes a transformation, degrading at a minimum rate of 90% within 26 weeks and achieving full 100% biodegradability within 52 weeks when placed in common home composting environments, like compost heaps or bins, according to the company. The printed bags are certified home compostable by TUV, a globally recognized leader in sustainable packaging. The company says the new packaging is crafted entirely from 100% renewable resources, specifically derived from canola and soy. The carrots can be purchased at supermarket chain Meijer at all their stores across the Midwest.



Spanish packaging supplier introduces compostable products for foodservice customers

Madrid-based Envapro is a packaging supplier for the food service sector in Spain. The company has launched new plastic-free and home-compostable packaging for restaurants and takeaway businesses. These containers are presented as a more ecological option since their base and lid are made of cardboard from sustainable forests, and both the printing inks and the adhesives used in their manufacture are environmentally friendly, according to the company. As the packaging is compostable at home, the containers become an active source of compost, a valuable organic fertilizer that enriches the soil and promotes the health of plants and gardens. These containers are suitable for a wide variety of cold dishes as they withstand temperatures between 0° and 40°C, adapting to the needs of restaurants that offer takeaway food. The company also has a range of containers and cutlery made from bagasse, which are also compostable



Plant-based edible barrier to replace plastic on cucumbers

Swedish tomato and cucumber growers odlarna.se and Lund-based startup Saveggy have partnered to bring to market an edible, plantbased protective barrier that replaces the plastic on cucumbers. Saveggy's barrier is said to extend the shelf life of cucumbers by a factor of three to four. The technology has been developed and validated in collaboration with, among others, retailers Lidl Sweden and ICA. The European Agricultural Fund for Rural Development (EARFD) supports the project through the European Innovation Partnership for Agriculture. A spokesperson for Saveggy said the company was very happy to have established the partnership. They have worked closely with odlarna.se and significant retailers to adapt and improve the product in accordance with consumer wishes and look forward to taking the important step towards the first commercial launch of the product. The goal is be on the Swedish market in 2024.



Whey protein and spirulina makes edible coating for cheese

Greek scientists have announced that they have developed edible cheese packaging made from whey protein and the algae spirulina. Edible films can improve the organoleptic and nutritional attributes of cheese, either due to its film/coating composition or due to its ability to incorporate active ingredients which can be consumed with the coating. Researchers from the Laboratory of Food Chemistry, University of Greece, used whey protein to produce edible films, combined with commercial spirulina powder added at varying concentrations. The physicochemical, mechanical and antioxidant properties, along with the optical parameters of the film, were evaluated. The main objective of the research was to assess the possibility of using whey protein films with better properties as packaging material for cheese. They found that protein films containing 2% spirulina could be consumed with Kefalotyri cheese and constitute a functional food by increasing the protein value and maintaining the nutritional value of the cheese.



Ecological ionomers will be used for cosmetic packaging

American multinational Dow Chemicals has announced the launch of two ecological ionomer grades that use renewable and circular feedstocks. Surlyn CIR is an ionomer produced from mixed plastic waste, while Surlyn REN is an ionomer made from bio-waste from other industries, such as used cooking oil. Dow says these two new grades are significant for the cosmetic packaging and plastics industries. The new Surlyn grades will enable beauty brands and manufacturers to create sustainable and high-quality cosmetic packaging due to the properties that give the unique look, feel and performance for which the Surlyn material is known. LVMH (Moët Hennessy Louis Vuitton) Beauty will be the first user of these new grades following the brand's announced collaboration with Dow earlier this year. The partnership is intended to accelerate sustainable packaging across LVMH's perfume and cosmetic products. The companies plan to integrate bio-based and circular plastics into several multinational product applications.



Vegan chocolate company chooses compostable packaging

Yorkshire-based Parkside Flexibles has collaborated with vegan chocolate brand Mummy Meegz to bring its amphibian mascot, Billie, to life in a 100% home compostable pack and featuring a colourful design. The company chose to go with Parkside's Park2Nature compostable material, and is available in two eyecatching designs to differentiate the oat milk and white chocolate product lines. Both are adorned with the colourful cartoon frog Billie, closely depicting the cool chocolate frog inside the pack. Billie is made from chocolate which is sustainably sourced and then packed in TÜV-certified home compostable packaging. The Park2Nature material that makes up the pack is a paper-based triplex laminate, made without polylactic acids (PLAs) or genetically modified organisms (GMOs). The pack is guaranteed to break down into nothing more than biomass, water, and carbon dioxide within 26 weeks in a regular domestic compost heap, and within 12 weeks in a composting facility.



Spring water company moves its bottles to bioplastic

Austrian spring water company Wildalp has moved its bottles from fossil-based plastic to bioplastic. Their bottles are now made from PLA (polylactic acid), a 100% natural plastic, which makes it both recyclable and compostable according to DIN 13432. The new product is being sold as WILDALP NOT PLASTIC, and is being marketed as the 'sustainable and plastic-free alternative with which you do something good for yourself and nature'. The bottle is guaranteed free of petroleum and plasticisers. The natural plastic is 100% biodegradable, decomposing into a biogenic mass. The premium quality of Wildalp's water is based on the purity of the Wildalp spring. As karst waters, the water makes its way through underground watercourses and layers of terrain untouched by human hand and is naturally filtered through various rock layers in the limestone Alps.



New PLA grades contain up to 30% recycled material

Netherlands-based TotalEnergies Corbion presented a PLA grade with up to 30% recycled content to the UK market at Interplas in Birmingham at the end of September 2023. The company claims that its rPLA grades are designed amongst others to enable customers to comply with the UK's announcement of several new regulations limiting many single-use plastic items and as well as the UK's Plastics Packaging Tax on items made without recycled content introduced on 1 April 2022. According to TotalEnergies Corbion, Luminy PLA provides an excellent alternative to, for example, products traditionally made from PS. It can offer similar functional performance in the end-use application and a carbon footprint that is 75% lower than traditional plastics. TotalEnergies Corbion Luminy PLA resins are made from sustainably sourced raw materials, meeting the "sugar cane code of conduct" that has been developed together with Corbion and the Thai sugar mills.



Swedish confectionery product moves to 50% bio-PE material

Ahlgren's Cars is a Swedish candy product, which is known as "Sweden's most-bought car". In 2023 the product turns 70, and the brand owners Cloetta, have decided to update the design while also moving to a new film material called PlantPack, which consists of up to 50% bio-polyethylene (bio-PE), manufactured with sugar cane as a raw material. Cloetta has ambitious climate goals aimed at reducing greenhouse gas emissions in accordance with the Paris Agreement. By using packaging materials with a certain amount of plant-based plastic, they say that the company is approaching its overall climate goal of reducing its footprint by 46% before 2030. The change of design is the first in 15 years, the font and logo of the new bag have been modernised with softer shapes, and, in addition, the "window" of the bag has now been given a shape that mimics the shapes of the candy cars.



French cellulose-based packaging company looks to expand material range

Technicaps specialises in the design of premium closure and packaging solutions. They claim to be the only player on the market to offer a wide range of sustainable products designed using cellulose. The French high-end packaging manufacturer has added new solutions to its cellulose-based resin business. The investment will help support two additional businesses related to the company's original know-how: thermosetting resin compression. They specialise in designing solutions based on transforming thermosetting resins, like bakelite, for luxury spirits, cosmetics and perfume caps or jars. Technicaps started to diversify its industrial techniques three years ago. Technicaps has been studying the potential of alternative materials. An R&D team was set up with a PhD in materials, who screens all materials to check their viability in an industrial context. Technicaps can also inject materials based on cellulose, like Finland's Sulapac, or PET that can be massified with existing recycling systems.



Research looks into potential of turning coffee grounds into bioplastic

A researcher at South Dakota State University believes that coffee grounds could be transformed into biodegradable films that might one day replace plastics. The focus was on creating biodegradable alternatives to plastics using agricultural byproducts. Previous projects involved materials like avocado peels and corn stover (stalks, leaves and cobs). In this study, spent coffee grounds were chosen as they are widely available, with millions of tons produced annually, but most end up in landfills or are used inefficiently. Also, the rise of chain coffee shops in emerging economies will increase the volume of spent coffee grounds. The process involves extracting lignocellulosic fibres from the coffee grounds and subjecting them to a green chemical modification process to enhance their suitability for packaging. The resulting films are reported to biodegrade within 45 days in soil and possess high tensile strength. Moreover, they exhibit the unique properties of blocking UV radiation and displaying antioxidant qualities.



Olive stone by-products utilised for packaging applications

BioPowder, a Maltese company specializing in repurposing olive stone powders, has developed an alternative to traditional packaging materials. Based in the Mediterranean region, they transform olive stone by-products into versatile additives for various packaging applications, including solid containers, transparent films, biobased adhesives, and barrier coatings. These additives, marketed under Olea FP (Functional Powder) name, are designed to enhance biodegradable packaging compounds like protein films and biosourced resins. Customizable in terms of micron range for viscosity control and texture effects, Olea FP powders are applicable for injection moulding, extrusion, film blowing and filament creation. Furthermore, surface-treated product grades are available to meet specific absorption requirements. With a focus on sustainability, BioPowder aims to assist material scientists in reducing environmental impact and encourages innovation in the packaging industry, acknowledging that the path to sustainability may vary among manufacturers



Organic potato packaging switches to compostable solution

Good Life Organic, a Corona, California-based Veg-Fresh Farms subsidiary, has unveiled sustainable compostable and biodegradable packaging for organic potatoes. The pack has earned certification for biodegradability from the RISE Research Institutes of Sweden. Crafted from paper, it is designed to decompose when disposed of correctly fully. A spokesperson for Good Life Organic states that consumers want to feel good about their environmental contributions and that the business is committed to providing sustainable options. This initiative is seen to reduce plastic waste and offers a more sustainable choice in line with their mission. Veg-Fresh Farms, a third-generation, family-run agribusiness, has been a trusted fresh produce supplier to national food service chains and retailers for decades.





Fibre-based bottle is said to be ready for industrial production

Rypax is a manufacturer of moulded fibre packaging based in California. The company has been using Scottish company CelloComp's proprietary microfibrillated cellulose product known as CurranÒ to produce a moulded fibre bottle that they say is ready for industrial production. The companies have developed a moulded fibre bottle made from curran, bagasse and bamboo. Curran is a microcrystalline nanocellulose fibre derived from the pulp of root vegetables. The curran in the fibre provides extra structural strength. Importantly, it also allows the inner surface to be optimised for the application of a coating, a thin, impermeable coating specially developed by CelluComp called Reef, again including Curran. In the future, RyPax and CelluComp will work closely with the Taastrup-based Technological Institute of Denmark to explore additional fibre packaging solutions, including fibre-based screw threads, lids and even thinner coatings. The bottle was shown recently at Pack Expo in Las Vegas.



Companies collaborate to create biodegradable polymers

Two US companies are collaborating to create biodegradable materials from PHAs. Polyhydroxyalkanoates or PHAs are polyesters produced in nature by numerous microorganisms, including through bacterial fermentation of sugars or lipids. Georgia-based Danimer Scientific and Oklahoma-based Chevron Phillips Chemical are expanding their collaboration to use Rinnovo polymers produced in a loop slurry reactor process to create biodegradable cast extrusion films, blown extrusion films, injection moulded parts, and rational moulded parts. Danimer's proprietary Novo22 catalyst technology is used to create Rinnovo, which can then be incorporated into the production process for biodegradable materials and contribute towards replacing fossil-based plastics. CPChem's facility in Bartlesville, Oklahoma, features research equipment that enables rapid product testing across various processing conditions. Its testing and analytical abilities are thought to speed up the development and optimization of resin formulas by offering a more rapid feedback loop.



Plant-based coating allows plastic packaging to be recycled

Israel-based Barrier coatings producer Melodea has introduced a barrier product specifically engineered to allow for the recyclability of plastic food packaging. Named MelOx NGen, the new barrier has proven superior in its key role of maintaining food freshness and substantially reducing plastic waste. MelOx NGen is a water-based, plant-sourced coating designed to line the inside surface of numerous forms of plastic food packaging such as films, pouches, bags, lidding, and blister packs used to house products. It is currently being rolled out to the global plastic industry. Most plastic packaging available today cannot be recycled due to its multi-structure composition. EVOH, which is typically infused into the thin plastic films of the food packaging to serve as an oxygen barrier, is nonrecyclable, preventing the entire pack from being recyclable. MelOx NGen presents a sustainable and cost-effective solution by being applicable to various forms of plastics.



Miscellaneous (27)

The packaging industry is seeing a wave of innovative solutions aimed at improving efficiency, added functionality, and userfriendly design. Brazilian brewery Cervejaria Masterpiece and US can supplier Ball Corporation have launched the world's first beer can featuring the Aluminum Stewardship Initiative (ASI) certification seal, highlighting sustainable practices. MIT scientists have developed BrightMaker, a technology that embeds invisible, infrared-readable fluorescent tags in objects for tracking and security. Researchers at Case Western Reserve University are working on self-powered smart packaging to monitor perishable food conditions during transport. German smoothie maker True Fruits has introduced a bottle cap with a cannabis grinder, retailing for €25 plus postage. Meanwhile, General Mills is engaging young consumers with thermochromic packaging for its Yoplait Go-GURT product, which reveals hidden graphics when frozen. These innovations are typical of those that touch on various aspects of sustainability, security, and consumer engagement in packaging.

Miscellaneous

New pharmaceutical label designed for extremely low temperatures

Luxury goods specialist partners with laser marking technology experts

Wood packaging federation introduces recyclability standard

UK supermarket to trial recycling scheme for blister packs

German medical packaging manufacturer launches glass bottles offering safety and efficiency

Innovative recyclable and child-safe packaging in one-piece design

Coating for corrugated containers reduces fresh produce spoilage

Hot melt adhesive replaces plastic wrap for pallet stabilisation

Packaging for wind turbine components features shock sensors

New PVDC coating allows thinner and more sustainable blister films

NFC bottle tag detects wine bottle volume

Brazilian perfume packaging features NFC technology

Australian dog food manufacturer chooses long-life carton system for new products launch

Vodka brand releases limited 'Bone' edition skull-shaped bottle

Significant milestone achieved in citrus fruit traceability

Thermochromic cans add magic to Halloween editions

Inclusive mineral water launch includes Braille inscriptions

Tech giant includes UV security markings on new phone packaging

Russian student develops antibacterial packaging

Easy open solutions using laser technology

Advanced printing technology enables photo-realistic images for cans

Bottle manufacturer offers variable customised decoration

Revolutionary new method of folding corrugated board use liquid

UK healthcare product manufacturer moves to eco-friendly aerosol

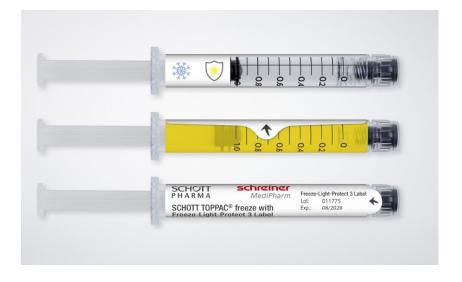
New temperature-controlled solutions aimed at the pharmaceutical industry

New olive oil packaging format is ten times lighter than glass

Spring water company chooses digital printing solution for cartons

New pharmaceutical label designed for extremely low temperatures

German global provider of functional label solutions for the healthcare industry, Schreiner MediPharm, has developed a new protective syringe label specifically designed for deep-freeze applications. Therapies and vaccines with mRNA substances, as well as cell and gene therapies, are becoming increasingly prevalent. These novel active ingredients entail specific logistical challenges. For example, they must be transported and stored on dry ice at freezing temperatures as low as -100°C. In addition, special light protection is frequently required, depending on the type of substance. Because of these requirements, Schreiner MediPharm has developed the Freeze-Light-Protect syringe label. Freeze-Light-Protect labels securely adhere to the syringe despite extremely low temperatures, enabling reliable marking. The specialty label can also be enhanced with various UV and light protection levels. The first level provides UV protection exclusively, while the second protects against UV rays and blue light. A third level delivers comprehensive light protection.



Luxury goods specialist partners with laser marking technology experts

Seram, who specialise in accessories and ornaments for the luxury goods industry, has formed a partnership with laser marking technology provider Qiova to use their expertise in innovative femtosecond laser material treatment solutions. The femtosecond laser, by means of a specific interaction of light with the material, enables the companies to obtain exceptional renderings, right on the product itself or on an added decoration (metal plate, leather, etc.) with precision and reproducibility. QR codes, integrated into the decor or of the infinitely small order, can now be customised at very high speed to enable unitary identification of packaging without disrupting the user experience. The Neyret Group, of which Qiova is a subsidiary, is now able to offer a global solution (laser and software) and can, therefore, provide customers with a turnkey solution, with Qiova providing the laser part and Sansara (also part of the Neyret Group) providing the software environment for product tracking.



Wood packaging federation introduces recyclability standard

FEDEMCO, the Spanish federation for wood packaging and its components, has introduced ECOWOOX, which it says is a European identification seal of 100% recyclability for wooden packaging. It complies with Spanish legislation and is designed to meet upcoming regulations on eco-design, recyclability, and economic valorisation across Europe. Packaging that receives the ECOWOOX seal is then certified as made entirely from recyclable components with the least amount of material possible without impacting its function, thus maximising raw materials savings. As such, it hopes to incentivise a reduction in waste generation alongside efforts to make wooden packaging completely recyclable. FEDEMCO believes that wood is the most sustainable material in the packaging space. Citing its existing presence in nature, its recyclability, and its biodegradability, the federation asserts that wood is a carbon-negative material, as sustainably run forests absorb more CO2 than is emitted during the manufacturing process.



UK supermarket to trial recycling scheme for blister packs

Aldi UK is to trial a recycling scheme for medicine blister packs, in what it is said to be a first among supermarkets. Aldi customers will be encouraged to send back their empty medicine packets using a free postal service. These packets are not typically recycled in traditional processing plants as their multi-material nature – including metal (aluminium) and plastics (PVC or PET), which makes them challenging to recycle. The posted packaging will be managed by TerraCycle. Recycled metal will be used to make nuts and bolts. Plastics, meanwhile, will be used to create items like waste bins or outdoor furniture. Freepost envelopes can be claimed via the outdoor furniture. Freepost envelopes can be claimed via the Aldi website. Customers will be limited to two envelopes per month. A spokesperson for sustainable resource advocates WRAP said that blister packs were a product that cannot currently be recycled at the kerbside and are instead disposed of in general waste, so they fully supported the trial.



German medical packaging manufacturer launches glass bottles offering safety and efficiency

Gerresheimer AG is a German manufacturer of primary packaging products for the medical sector. The company has announced the launch of their Gx Elite product line, which offers patient safety and product efficiency. The Gx Elite glass bottles are characterised by their high quality and resistance to breakage, thus reliably protecting valuable medicines. They are the result of several years of product development and are manufactured using a patented production process. The Gx Elite vials can optionally be coated with materials science technology business Corning's proprietary Velocity outer coating. This coating reduces frictional resistance and enables a more efficient filling process: downtimes on the filling lines are reportedly significantly reduced. The Gx Elite bottles are also available in the new, optimised EZ-fill Smart packaging. The innovative RTF (ready to fill) packaging platform simplifies the filling process through pre-sterilisation.



Innovative recyclable and child-safe packaging in one-piece design

Valencia-based Hinojosa Packaging Group has partnered with SPB Global, a manufacturer of hygiene and maintenance products, to create an award-winning, sustainable packaging solution for watersoluble washing capsules. The new packaging was recently honoured at the Liderpack Awards 2023 in Spain. It replaces traditional plastic boxes and is made from 100% recyclable corrugated cardboard. Notably, the one-piece design of the packaging also serves to reduce production costs. Beyond its sustainable features, the packaging has received CIC approval, certifying its secure closure system that prevents children from accessing the capsules. This certification was obtained under the AISE protocol by the Technological Institute of Products for Children and Leisure (AIJU) in Spain, after rigorous testing confirmed the box couldn't be opened by children up to 4 years old. SPB Global began distributing the capsules in this new packaging in France and plans to expand to other countries like the UK, Spain, and Portugal, as the patent has been validated in these regions.



Coating for corrugated containers reduces fresh produce spoilage

Europe's leading corrugated packaging company, Smurfit Kappa, has announced the launch of Agrolife, a packaging treatment that extends the life of fruits and vegetables. Agrolife is a treatment applied to different packaging formats that extend the useful life of climacteric products and those sensitive to ethylene, improving product quality throughout the supply chain. AgroLife is a versatile product applied to corrugated cardboard, making it 100% sustainable. Depending on the demand in the logistics chain that the product requires, there are various options to apply Agrolife. It is certified for direct contact with fruits and vegetables and acts throughout the logistics chain. Agrolife adsorbs ethylene from fruits and vegetables throughout the supply chain to delay their ripening. In this way, it improves quality and extends useful life, allowing retailers to extend expiration dates and minimise waste at the point of sale.



Hot melt adhesive replaces plastic wrap for pallet stabilisation

Meler is a Spanish company that specialises in hot melt adhesive applications. With all packaging on the EU market being required to be reusable or recyclable in an economically viable way by 2030, the company says it receives calls daily with requests to redesign adhesive application facilities with an eye toward sustainable development goals. One of the applications they are offering customers is the replacement of plastic stretch wrap for pallet stabilisation. A spokesperson for Meler said that this innovative adhesive application improves occupational safety in logistics operations and significantly reduces its environmental impact. By using adhesive, additional strapping or plastic wrap is no longer necessary. Meler also says that it has focused its innovation on optimising resources, reducing consumption and developing pioneering solutions in energy efficiency. One of them is Micron+, the hot melt melter that guarantees the lowest energy consumption on the market.



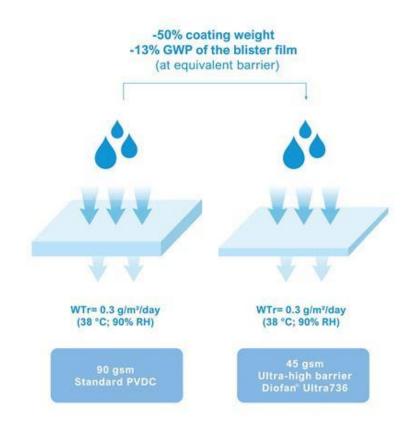
Packaging for wind turbine components features shock sensors

Mondi Grünburg has partnered with NKE, a prominent manufacturer of bearing solutions for wind, railway and industrial applications, to create a new packaging solution for wind power components. NKE approached Mondi as they were facing mounting complaints due to transportation damage. A hybrid bearing has a value of thousands of euros and weighing more than 20kg, features inner and outer rings made of high-quality steel and ceramic balls. Unfortunately, damage often goes unnoticed until installation, resulting in costly delays in wind energy production. Mondi Grünburg's in-house team swiftly embarked on a mission to design a cutting-edge packaging solution that would ensure optimal protection for NKE's bearings during transport. The innovative design incorporates one-way shock sensors, providing real-time feedback on the bearing's condition upon arrival. The design earned recognition from external experts, receiving an award in the 'Wellpappe konstruktiv' category during the Forum Wellpappe Awards ceremony in Vienna in October 2023.



New PVDC coating allows thinner and more sustainable blister films

Belgian multinational chemical company Solvay has launched Diofan Ultra736, a new polyvinylidene chloride (PVDC) coating solution with an ultra-high water vapour barrier that allows carbon footprint reduction for pharmaceutical blister films. As an aqueous dispersion, Diofan Ultra736 is fluorine-free, meets regulatory requirements for direct pharmaceutical contact and supports the design of sustainable films with thinner coating designs. Diofan Ultra736 PVDC coating was custom-engineered to maximise the water vapour barrier without sacrificing its high oxygen barrier, chemical resistance or transparency. The product also exhibits excellent thermoformability, enabling smaller pack sizes with higher pill density compared to incumbent alternative coating solutions. For Duplex barrier structures, Diofan Ultra736 enables halving the number of base coat layers while delivering the same water vapour barrier. It is reported that this approach can contribute to decreasing the overall carbon footprint of final blister film structures by up to 13%...



NFC bottle tag detects wine bottle volume

Japanese global printing company Toppan has developed an NFC (near field communication) tag that detects liquid volume inside bottles. The tag has been adopted for high-end wines and a number of other products. With this new product the company has added to its NFC tag lineup by developing a tag equipped with a capacitive sensing function. A pair of electrodes formed inside the label make it possible for users to read the NFC tag attached to a bottle with a smartphone and detect the presence and remaining volume of liquid based on the level of capacitance inside the container. The tag was launched in August 2023, targeting, among others, the cosmetics, medical and pharmaceutical sectors, as well as the liquor industry. The new tag label was shown at Luxe Pack Monaco 2023 (October 2-4), the premier trade show for luxury packaging. The tag will however not read through a metal container.



Brazilian perfume packaging features NFC technology

Brazilian cosmetic company O Boticário has announced the launch of Her Code, the first women's fragrance brand in Latin America. After four years of research, the brand arrived in O Boticário's portfolio of women's fragrances. In addition to the bottle having a unique padlock-shaped design, it also features NFC (near field communication), which means that when the consumer brings their smartphone close to the top of the bottle, they will be directed to a digital experience. This will give consumers access to a portal called Her Code Hotel, created by Druid Creative Gaming, a safe online space for women to find out about feminine pleasure. To communicate the launch, the brand is relying on a 360° strategy created by AlmapBBDO, which includes a film starring Luana Piovani, a hub of proprietary content accessed via NFC contained in the bottle and digital activations.



Australian dog food manufacturer chooses long-life carton system for new product launch

Australian pet food manufacturer Prime100 is rolling out its new premium dog food product line in Tetra Pak's Tetra Recart packaging system, which has involved a multimillion-dollar upgrade to its Melbourne production facility that will pave the way for global expansion. The product is slow cooked first and then retort cooked within the sterile packaging system and ultimately has a shelf life of at least 18 months, possibly as long as two years. Prime reports that following extensive research, consumers responded well to the new packaging concept as an alternative to cans, indicating that they would migrate to the Tetra Recart pack. One of the key positives of this packaging system for consumers surveyed was that it's easy to open and can be reclosed and thus would not emit odours in the fridge. The companies claim the Recart system has up to 6 times less environmental impact than a can.



Vodka brand releases limited 'Bone' edition skull-shaped bottle

Crystal Head Vodka is a brand of vodkas manufactured by Globefill Inc. in Newfoundland and Labrador, Canada. It was conceived and founded by actor Dan Aykroyd and artist John Alexander in September 2008. They have now announced the return of its limited-edition Bone bottle in celebration of Halloween. The skullshaped packaging showcases a bone-replicated design created with an eerie yet elegant decorative finish just in time for the spooky season. The 2023 Bone bottle displays a chalky white ceramic coating that mimics the look of bone to artistically house Crystal Head's original Canadian corn-based vodka. It is crafted from Canadian peaches and cream corn offering neutral grain aromas with a touch of citrus, and silky smooth with a hint of sweetness and vanilla that ends with a sweet, creamy finish. The 2023 release will offer a super-limited run of 4,500 cases total of Bone bottles globally.



Significant milestone achieved in citrus fruit traceability

The Australian agriculture sector has reached a significant milestone in ensuring the safety and quality of citrus fruits through the implementation of GS1-based traceability. Mildura Fruit Company has fully deployed GS1 QR codes, following a pilot programme supported by Agriculture Victoria and involving Citrus Australia. The latter has underscored the importance of robust traceability systems and recommends industry members adopt GS1 standards for building traceability into their businesses. The development aligns with the worldwide trend of increasing traceability regulations, such as the US FDA Food Traceability Rule, which requires timely electronic traceability data from farm to consumer. QR codes powered by GS1 and Auckland-based Trust Codes Global technology enable easy scanning by consumers and supply chain partners with standard smartphones, facilitating access to product information, authentication, brand narratives, and real-time consumer-producer interaction on a global scale.



Thermochromic cans add magic to Halloween editions

This year, Fanta's Halloween editions bring an exciting twist to their lineup, which includes the new Fanta Mistério product for the Brazil market. What sets these cans apart is their thermochromic technology, which is also available for the traditional passion fruit, orange, grape, and guaraná versions. These cans come in 310ml and 350ml sizes and feature a unique "warming flavour" for Fanta Mistério. The label on the can undergoes a colour transformation to pink when it freezes, thanks to a collaboration with global can producer Ball Corporation. The manufacturer highlights that this technology indirectly enhances the can's advantage of rapidly cooling the drink. This special Fanta packaging is part of a seasonal campaign by The Coca-Cola Company, which includes various themed promotions, giveaways, and experiences in Brazil and 11 other Latin American countries.



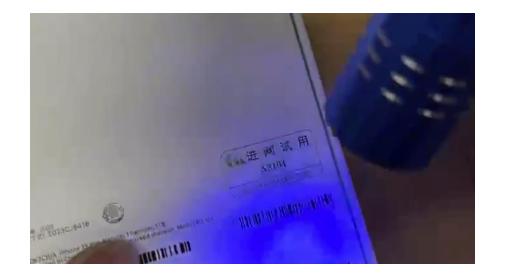
Inclusive mineral water launch includes Braille inscriptions

Minalba Brasil, part of the Edson Queiroz Group, has introduced an innovation for the beverage industry by launching the first can of mineral water in Brazil with Braille inscriptions on the lid, making it accessible for people with visual impairments. This pioneering initiative, developed over several months, received support from Ball Corporation, a global leader in sustainable aluminium packaging, and consultancy from the Dorina Nowill Foundation for the Blind. The #LataPraTodosVerem ("Can for Everyone to See") campaign aims to enhance accessibility in the beverage market, considering that there are reportedly over 6.5 million visually impaired individuals in Brazil. This inclusive approach aligns with Minalba's commitment to sustainability and corporate responsibility, as the company had previously introduced mineral water in recyclable aluminium cans. By adding Braille inscriptions to their cans, Minalba is not only providing an inclusive product but also promoting accessibility awareness.



Tech giant includes UV security markings on new phone packaging

For the launch of the new Apple iPhone 15, the company has introduced a new anti-counterfeiting measure. The phone giant has included invisible ultraviolet security markings on the packaging to deter counterfeiters. The hidden holograms and QR codes on the new iPhone packaging are intended to help consumers avoid buying counterfeit or non-new devices in counterfeit packaging. Videos released show that iPhone 15 packaging features Apple branding and codes that are only visible under UV light. The authenticity of the packaging can be confirmed by scanning a QR code. The markings serve as protection when purchasing a third-party iPhone. The UV markings provide additional security when purchasing an iPhone. Consumers can check the hidden features themselves using a UV or black light. It has been indicated that Apple also uses the markings internally to track the supply chain.



Russian student develops antibacterial packaging

Packaging to increase the shelf life of products is being developed at the Moscow Aviation Institute. Packaging based on a polymer material with a fluorocarbon coating to increase the shelf life of food products has been developed by a first-year student at Institute No. 12 "Aerospace High Technologies and Production" MAI (Moscow Aviation Institute), who became the winner of the Republican competition of innovative projects under the "UMNIK" program", aimed at supporting projects of young scientists. Active packaging increases the shelf life of food products by influencing the factors that impair the freshness of the product. An antibacterial coating is created on the inner surface of the pack, preventing the proliferation of microorganisms. It is this activity that is the main cause of food spoilage. For the development of the active packaging, the student received a grant of 500,000 rubles (£4,045).



Easy open solutions using laser technology

Coptics Innotech is a Chinese company that provides laser solutions to the packaging industry. The company says that their Coptics laser process is ideally suited to producing precisely-defined material weakening as an aid to opening packaging. Extremely fine structures in the hundredth of a millimetre range can be produced – with the utmost precision, repeatable accuracy and contactless. Usually, only part of the layer of a laminate is subject to laser processing, so the physical characteristics of the other layers remain the same; for example, aroma preservation and water-vapour barriers are unaffected. Coptics systems can be used for dairy products, cereals, coffee products, pet food, washing and cleaning, cosmetics and pharmaceutical products. With Coptics-Laser Shaping, shapes are scored on both sides of the packaging, so a combination of easy open and contour shaping of the materials takes place. This solution is often used for high-value products.



Advanced printing technology enables photorealistic images for cans

Colorado-based Ball Corporation claim to be the world leader in sustainable aluminium packaging, has released a new report on the transformative power of Eyeris, its proprietary enhanced printing technology for aluminium cans and impact extruded bottles. Unlike traditional printing methods, Eyeris uses advanced printing and imaging processes to deliver high-resolution, photo-realistic images directly onto the aluminium packaging surface. This groundbreaking HD imagery spans 360 degrees around the can or bottle, offering not only unparalleled detail and colour accuracy to visually showcase ingredients and fragrances within the product, but also offers brands a unique platform to tell their story. At point of purchase, Ball point out that product packaging plays a pivotal role, with 76% of consumers saying it influences their final purchasing decision. Eyeris amplifies both sustainability and consumer engagement by allowing high-resolution printing directly on the pack, thereby eliminating the need for additional labels.



Bottle manufacturer offers variable customised decoration

Leading glass bottle manufacturer O-I has become the first glass manufacturer to produce decorated glass bottles using variable data printing. The O-I Expressions service allows brands to choose variations during the same print run, including changing a graphic on the bottle, changing the colours within the graphic design and changing a name or a word on the bottle. They can utilise different customised tactile digitally printed effects with O-I Expressions Relief. For example, the serialisation of the bottles by applying a sequential number for limited editions or an individual fixed code – e.g. QR or 2D data matrix code unlocking an online experience. A spokesperson for O-I said that previously, they had to have various printing stations simultaneously that could do eight different designs sequentially. If a brand owner asks for two million different names on two million bottles, they can create a database and print them individually along the same line.



Revolutionary new method of folding corrugated board uses liquid

Robatech, based in Switzerland, has launched an alternative way of folding corrugated board that they call PerfectFold. PerfectFold applies SpeedUp creasing fluid to fold lines without contact. It always applies the correct quantity, no matter how slow or fast the production line is. The corrugated cardboard can then be folded precisely along these fold lines. The creasing fluid does not leave any traces. The soft fold lines reduce the stiffness and restore force of corrugated cardboard, reducing the effort required to set up tools and speeding up the process. Robatech notes several advantages over traditional creasing methods. These include high process stability: fewer interruptions and rejects due to soft fold lines. Consistently accurate folding delivers accurate inner dimensions for precisely fitting inserts without fold breakage. The reduced force required for folding simplifies folding tool setup, fast installation and easy operation.



UK healthcare product manufacturer moves to eco-friendly aerosol

The UK arm of Mentholatum has announced that it is moving its Deep Heat and Deep Freeze brands, which are in aerosol format, to Salvalco's Eco-Valve. To move away from LPG propellant to nitrogen, the iconic brands will utilise the Eco-Valve technology, launching in stores across the UK from August 2023, followed by a rollout across Europe. Salvalco Eco-Valve is a valve designed to enable aerosols to be propelled successfully by harmless gases such as nitrogen or simply compressed air while offering a spray performance that is similar to LPG-propelled products. A spokesperson for Mentholatum said that switching both sprays to Eco-Valve will prevent 1523 tonnes of CO2 from being emitted into the atmosphere every year, which is great news for the climate. Plus, their consumers can rest assured that as well as helping the environment, the sprays still provide effective cooling and warming relief.



New temperature-controlled solutions aimed at the pharmaceutical industry

Pluss Advanced Technologies is an Indian manufacturer of temperature-controlled packaging solutions for the pharmaceutical industry. They have announced the launch of two new products, the Celsure XL Pallet Shipper series and Celsure VIP Multi-Use Parcel Shipper series. Pluss uses its patented PCM (phase change material) technology to sustainably ensure the safe and efficient transportation of temperature-sensitive pharmaceuticals. A PCM can be defined as an organic or inorganic compound that can store and release thermal energy under latent form when it changes from one physical state to another at a nearly constant temperature. This feature prevents thermal energy loss or gain when stored at the target temperature, providing extra hours of temperature stability for long-haul multi-modal shipments facing logistical delays at transit points. Celsure VIP is designed with high-strength and stability materials to last up to several years.



New olive oil packaging format is ten times lighter than glass

Maison Orphée is a Canadian retailer of extra virgin olive oil. They are now offering what they say is a more ecological packaging solution for its olive oils with a new Bag in Box (BIB) format for its 1.5 litre product. Positioned as more ecological than a glass bottle, the BIB is made in Canada. The new packaging is reported to be almost 10 times lighter than a glass bottle, which reduces CO2 emissions during transport. In addition, the cardboard and the bag are fully recyclable, also offering double protection against oxidation. The new BIB packaging format also represents a 10 to 12% saving for consumers compared to the same quantity in a bottle. The new BIB format is available in more than 550 retailers in Canada, and the company also has its eye on Costco warehouse stores.



Spring water company chooses digital printing solution for cartons

Canadian spring water brand Flow Beverage has collaborated with paper-based carton packaging giant Tetra Pak to launch new carton artwork that showcases Tetra Pak's Custom Printing solution. Tetra Pak says its Custom Printing solution, developed by Würzburg-based Koenig & Bauer, is the "first and only" premium inkjet-based carton package printing solution to offer brands an innovative, costeffective and customisable system while providing all the environmental benefits of paper-based beverage cartons. The company says that with this offering, companies can utilise promotional activations such as varied designs within a single case or limited-edition packaging collaborations to take their marketing and media mix to the next level. A spokesperson for Tetra Pak said that digital printing opens a world of opportunities for brands looking for powerful promotional campaigns, and it is an ideal solution for start-up businesses launching a new product.



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 7,800 packaging innovations worldwide, with 25 new initiatives added weekly. They have a vast network of packaging contacts across the industry that helps inform much of their consultancy work. Additionally, they have published several packaging reports, covering sustainability, packaging trends, supplier guides, seasonal packaging, and more. ThePackHub hosts face-to-face seminars that provide insight from expert speakers and bring the industry together to network and collaborate.

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



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