thepackhub
INNOVATION ZONE

PACKAGING INNOVATION

BRIEFING REPORT

MAY 2022

Welcome

Welcome to ThePackHub's Packaging Innovation Briefing Report for May 2022.

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

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

We have 121 pages of content and have collated 95 new packaging innovations for the month.

The Nine Trends →

The innovations featured track ThePackHub's nine trend areas:

- Naturally Done
- Everyday Engagement
- The Online Surge
- Making Life Easy
- Materially Changed
- Protect and Preserve
- Recycling Resurgence
- Getting Noticed
- Refill Revolution

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Naturally done

This trend area continues to be active with 18 new bio-based initiatives this month. Compostable and biodegradable packaging continues to be developed. We also continue to track several new bio-based material alternatives to plastic. There is a significant amount of compostable, biodegradable and bio-based examples both in development and coming to market.

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

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Naturally Done

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Biodegradable wood chip-based packaging for skincare range
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Partnership aims to create biodegradable barrier packaging
Compostable solution introduced with reduced pack noise

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Patent granted for new compostable paper coating

Miami-based J&J Green Paper has received U.S. Patent and Trademark Office approval for its ‘cutting-edge’ green paper solution. This new coating, known as JANUS, is an all-natural moisture-proof coating used for paper packaging. JANUS is said to be a third of the cost of polyethylene glycol (PEG), uses less energy to produce and has diverse applications. J&J is currently in discussions with some of the biggest makers of paper products in the retail, food and beverage industries. J&J see the need to assemble an eco-system to initiate the global distribution of this so-called transformative, eco-friendly material. They have already initiated limited production in facilities in China, Brazil and Miami, while also recently announcing a partnership with CERAX PTY Ltd., which has a manufacturing facility in South Africa and will help with mass production.

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Cocoa-based paper for Easter egg packaging

Dengo Chocolates is an ethical Brazilian cocoa and chocolate producer. As part of its range of Easter eggs, the paper for the packaging used was produced using cocoa seed husks. About 20% of cocoa beans are husks and using it on ‘cocoa paper’ is one of the best ways to make full use of it, avoiding the need for materials like plastic. The paper was printed by Brazilian flexible packaging company Camargo Embalagens. The 100% compostable natural paper was used on its ‘Classicos’ range of Easter eggs. Going forward, the intention is to adopt this packaging material in regular line products as well. Dengo works with small and medium producers of high quality cocoa, generating good income by paying more for cocoa producers and providing agricultural technical training for producers.

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Partnership to develop bioplastic masterbatches

Avantium, a leading Dutch producer of PEF (polyethylene furanoate) bioplastic, is collaborating with Sukano, a Swiss-based expert in additive and colour masterbatches and compounds for polyester and specialty resins, to produce PEF-based films. Avantium recently announced that it had started the construction of the world's first commercial plant to produce FDCA (furandicarboxylic acid) from plant-based sugars. FDCA is the key ingredient for making the high-performance PEF material. Two prototype masterbatches have been developed which significantly reduce friction without interfering with the film's performance. Sukano says that the conditional offtake agreement with Avantium is a key step forward to showcase this and to provide customers with fit-for-purpose innovative and bio-based polyester alternatives to lower the environmental impact of this industry value chain.

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Fibre laser printer achieves chemical-free coding

Markem-Imaje offers chemical-free coding with their new fibre laser printer, the SmartLase F250. Fibre lasers use an optical fibre cable made of silica glass to guide light. The resulting laser beam is more precise than with other types of lasers because it is straighter and smaller. They also have a small footprint, good electrical efficiency, low maintenance and low operating costs. The SmartLase F250 is the first new product launched as a result of Markem-Imaje's acquisition of laser coding and marking solutions specialist Solaris Laser. The SmartLase F250 reportedly delivers chemical-free production, as well as reducing operational expenses through fewer line stoppages and by eliminating the requirement for ink. As the F250 uses no ink, it can radically reduce operating costs, while the elimination of chemical components makes it ideal for companies who are looking to reduce their impact on the planet.

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New film bag breaks down faster in landfill

California-based PEAKfresh USA, who specialise in modified atmosphere packaging, has announced the launch of a new biodegradable film. The technology they have invested in means that in biologically active landfill sites the film degrades by 18.1% in 300 days, compared to minimal degradation seen in conventional plastics at the same point in time. The degradation rate has been independently verified by a third-party laboratory. PEAKfresh products are made of low-density polyethylene (LDPE) film impregnated with a naturally occurring mineral found in Australia. This mineral extracts ethylene gas, the chemical agent that causes produce to ripen and ultimately spoil. The use of PEAKfresh film is said to extend the freshness of the product for up to two to three times the normal shelf life. Since 2018, NASA has been using PEAKfresh bags to extend the life of produce sent to, and consumed by, the astronauts at the International Space Station.

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Own label coffee pods are home compostable

In what is claimed to be a first for a major Australian retailer, supermarket chain Coles has announced the launch of home compostable pods for its own label coffee capsules. The Coles Urban Coffee Culture Organic Home Compostable Pods, which have been made with bio-sourced cellulose and vegetable oils, can be composted in home compost bins, where they break down in about the same amount of time as orange peel, according to the retailer. The sustainable packaging innovation comes as the COVID 19 pandemic sparked a major shift in coffee-drinking habits, with more people opting for convenience while working from home. Coles say that over the past two years their sales of coffee pod sales have spiked by 30%. The pods, which can be used in machines designed for Nespresso-style coffee pods, have been certified by the Australasian Bioplastics Association and are available in Coles supermarkets from 4 April.

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Landfill-destined food waste converted into biodegradable plastics

A Toronto company is using food waste destined for landfill and converting it into biodegradable plastic. Genecis Bioindustries uses bacteria to convert food waste into a plastic called PHA (polyhydroxyalkanoates), and it works similarly to most plastics. The two-step process is based on two groups of specialised bacteria used throughout the process. The first group digests food waste, producing short-chain carbons as volatile fatty acids, acting as the precursor feedstock for the second group, which eats these carbons and converts them into bioplastics. The resulting product can be used to make things like cutlery, cups and textiles. The Genecis website says that when the product reaches the end of its useful life it can be composted within a month, and if it does find its way into the ocean, it will degrade within a year.

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Biodegradable wood chip-based packaging for skincare range

Finnish companies Lumene and Sulapac have formed a partnership to market water-based cosmetics in wood chip-based packaging. In a pilot project, Lumene's most popular skincare products, Nordic-C Glow Reveal moisturiser and Nordic Hydra Intense Hydration 24 hour moisturiser will be packed in Sulapac's jars made from wood chips. The FSC-certified jars are made from wood chips sourced from industrial side streams and plant-based materials. Sulapac's bio-based barrier allows water-based cosmetics products to be packaged in biodegradable packaging without leaving permanent microplastics behind. The barrier is added to the inside surface of jars and gradually falls apart when it comes into contact with natural microbes. Following tests, they have already achieved a best-before time of nine months for the Lumene moisturisers packed in Sulapac jars. It is claimed that until now there have not been alternatives for the packaging of water-based products that biodegrade without leaving permanent microplastics behind.

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Printed home compostable, recyclable pulp fibre trays launched

Canadian manufacturers of sustainable food packaging and disposable tableware, CKF Inc. have announced printed versions of its Earthcycle range of home compostable, recyclable and renewable containers. The trays are FDA (Food and Drug Administration) approved and the wood fibres used are from FSC (Forestry Stewardship Council) approved sources. These pulp fibre containers can now be produced with full-colour high impact graphics, messaging and logos. Using digital print technology means that CKF can offer lower minimums on print runs and can support client requests for smaller speciality, seasonal or limited trial programmes. A second phase will include the ability to print QR and UPC codes. CKF has also partnered with UK-based Parkside Flexibles to provide home compostable top seal packaging in conjunction with their Earthcycle trays for Riverford Organic Farmers, a UK-based produce delivery service, and allows increases in line speed due to the automated sealing of film to the Earthcycle trays.

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Chocolate manufacturing food waste used for new biomaterial

A material designer from Germany is using food waste from chocolate factories to create a solid biomaterial. Paula Nerlich, who is now studying for a PhD at Newcastle University in the UK, has developed a product called COCOA, a material composed of 50% of the shells that initially protect the cocoa beans, mixed with other vegan, compostable and more environmentally friendly ingredients. She selected this ingredient, which represents several tons of surplus every year. Indeed, in the cocoa industry, only the bean is important and only parts of the surplus from chocolate production find further use. Many attempts were undertaken before being fully satisfied with the texture of her material and its physical form. Once this had been achieved a collaboration with Canada-based Punctuate Design to create a physical product from her new material. with whom KUSK was developed, a speculative container concept for the cosmetics industry.

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Compostable paper bags for apple range

New York apple brand Yes! Apples is to launch new packaging for its retail partners later in the year. They intend to launch new recyclable and compostable paper bags, and their plastic bags will now contain 5% less plastic. They are also introducing product in cardboard boxes which are completely recyclable. The paper bags and cardboard boxes can be recycled through household waste collection. Plastic bags can be left at the nearest soft plastic recycling point, usually in grocery stores. Yes! Apples grown in upstate New York are available in a number of outlets, including Market Basket, Walmart, HEB and Sprouts. Also, the palletainers supplied to the Costco chain support the company's partnership with the '1% for the Planet' initiative and will be made of recyclable and compostable paper. Yes! Apples are members of How2Recycle, a standardized labelling system that clearly communicates recycling instructions to the public.

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Squid skin cells inspire development of composite insulating material

Engineers from the University of California, Irvine (UCI) have developed a composite material that mimics the expansion and contraction of chromatophores on the skin of squid. Chromatophores are cells that produce colour, of which many types are pigment-containing cells, or groups of cells, found in a wide range of animals including cephalopods, amphibians, and fish. The researchers claim that this material can be cost-effectively scaled up for insulating applications such as beverage cups. The team claim that the reproduction of this feature in the composite material allows for “tunable thermoregulation”, which apparently improves energy efficiency and protects consumers when handling hot surfaces. The fabrication technique used by the research team involves depositing a copper film onto a reusable substrate such as aluminium foil and then spraying multiple polymer layers onto the copper film. The team claims that this enables cost-effective production at multiple scales, as the copper and other materials involved start at around $0.10 per square metre.

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Compostable adhesive tape is directly printable

German tape manufacturer monta Klebebandwerk GmbH has developed a self-adhesive tape that is strong and directly printable. The new tape, monta biopack 860 DP, is based on the same technology as monta biopack, and is manufactured with a robust PLA film carrier made from corn starch, and coated with a high-performance natural rubber adhesive. Its raw materials are approximately 90% bio-based. The transparent monta biopack 860 DP is also OK COMPOST INDUSTRIAL certified by TÜV Austria. In addition, monta biopack completely biodegrades under industrial composting conditions and meets the strict requirements on disintegration (composting), biodegradation, ecotoxicity and material characteristics of EN 13432, ASTM D 6400-04, AS 4736 (2006) and ISO 17088 (2012). monta biopack® 860 DP is carbon neutral; monta compensates all unavoidable CO2 emissions by investing in certified offset projects in collaboration with offset experts Climate Partner.

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Wool-based bubble wrap alternative to plastic

Woola is an Estonian company that manufactures a sustainable alternative to bubble wrap and conventional bubble wrap-based protective mailers. Woola can be used for anything that you would use plastic bubble wrap for. Their product is protective packaging made of leftover wool. The waste wool is combined with a bio-based binder and, in case of the Wool Envelope, recycled paper, all of which are biodegradable. For disposal, the paper is easily removed from the wool layer. The leftover wool used in their products currently is from the UK as it's the country with the most sheep in Europe. Their products are customisable on orders over 5000 pieces. A brand's own text, logo or any other brand element can be added to the top paper layer of the Wool Envelope. The business is setting up a return system so that the material can be reused.

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Packaging material created from cucumber peel

The development of alternatives for the use of plastic in food packaging continues. Another example comes via researchers at the Indian Institute of Technology Kharagpur, who have developed a new packaging material made from cucumber peel. They managed to extract cellulose nano-crystals from the peel, which can be turned into a strong substitute for single-use plastics, due to their potential for modification and biodegradability. The advantage of using cucumber peels to get cellulose nano-crystals instead of other sources is that they have a greater cellulose content of 18% more than other peel wastes.

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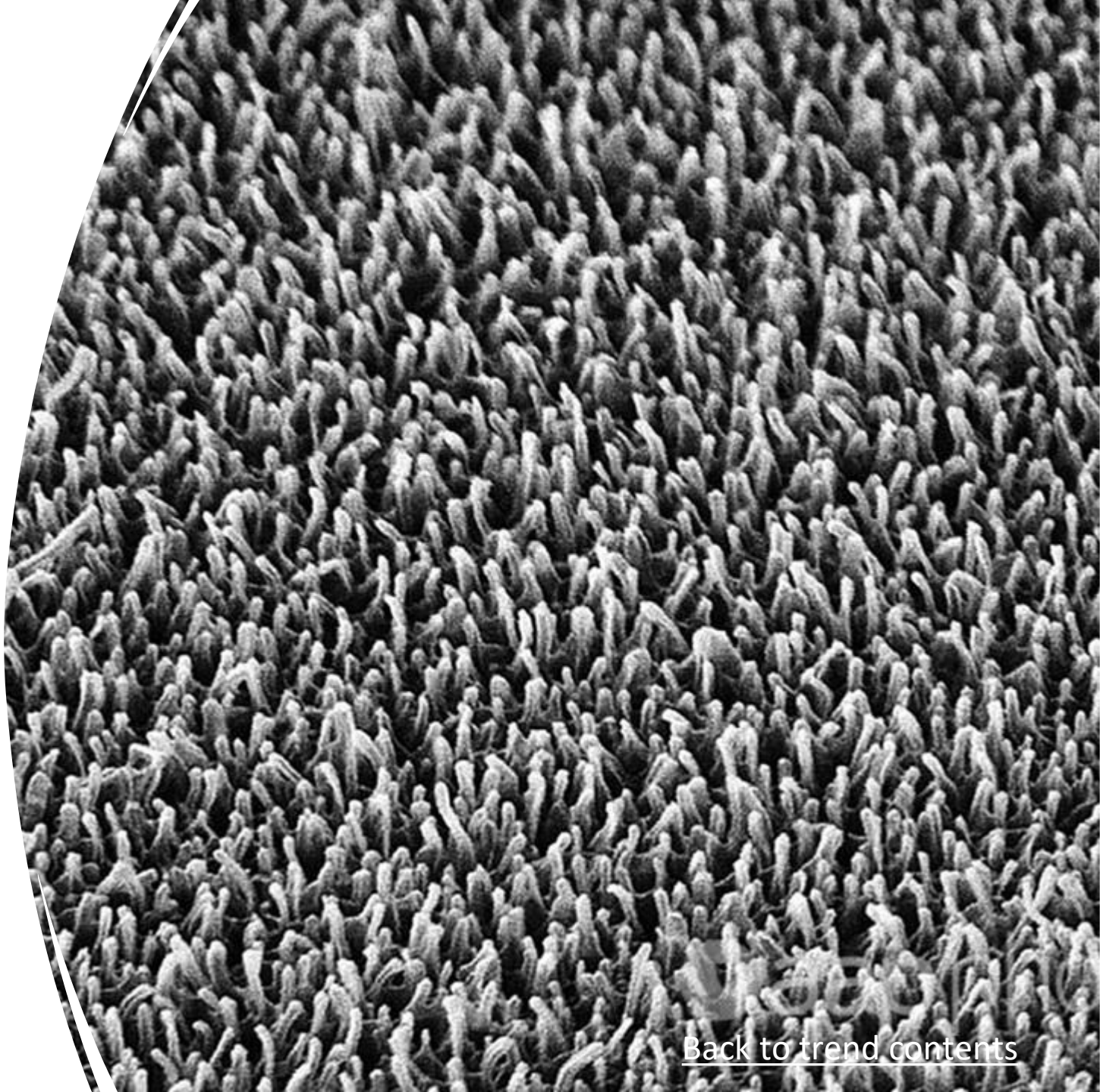
Cicada wings bacteria-killing qualities inspires new food packaging format

Scientists have developed a food packaging innovation based on the antibacterial properties of the wings of cicadas. A team of Australian and Japanese scientists first made the discovery of the bacteria-killing technology 10 years ago, but until recently found it difficult to reproduce the same effect. Cicada as well as dragonfly wings are covered with an array of ‘nanopillars’ – blunted spikes similar in size to bacteria cells. Nanopillars kill bacteria by ripping the cells apart when they land on the surface of the insect’s wings. Now though, the scientists have managed to replicate the same effect in the laboratory, mimicking these properties, which kill up to 70% of bacteria. The nanotexturing can now be printed on plastic and imitates the bacteria-destroying qualities. The research shows potential for a significant reduction in food waste as the technology could extend the shelf life of produce planned for export such as meat, dairy and packaged products by reducing bacterial contamination.



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Partnership aims to create biodegradable barrier packaging

Global food giant Cargill has formed a partnership with Plug and Play Topeka and biodegradable film startup StenCo LLC. The intention is that, through the partnership, StenCo will create an oxygen-excluding, biodegradable barrier for a range of Cargill products. StenCo is a recent graduate of the Plug and Play Topeka accelerator, while Cargill is one of the three founding partners of the programme. The Plug and Play Topeka programme aims to facilitate opportunities for pilot processes, proof of concept (POCs), and new relationships between each selected batch of startups and Plug and Play's global network. Cargill say that they are focused on exploring advances in science and technology that enable the development of new products, ways of working and solutions for their customers.

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Compostable solution introduced with reduced pack noise

Snack manufacturer and PepsiCo subsidiary Frito-Lay have introduced 100% biobased packaging for a second time. They originally introduced plant-based packaging on their SunChips product as far back as 2010. However, the brand made the headlines at the time not about the brand's move to renewable packaging and more about the bags' noisiness, with many consumers complaining that the noise was just too much to bear. The new bags, supplied by Atlanta-based PrintPack are made of non-food, plant-based materials with newly developed compostable inks. A QR code directs consumers on locating composting drop-off sites or how to obtain a prepaid shipping label for the bags to be mailed to TerraCycle. Currently, the packaging is being used for Frito-Lay's Off the Eaten Path chips. According to PrintPack, the new bags utilise special sound/frequency dampening technology employed in the structure to reduce the overall volume.

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Everyday Engagement

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Everyday Engagement

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

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

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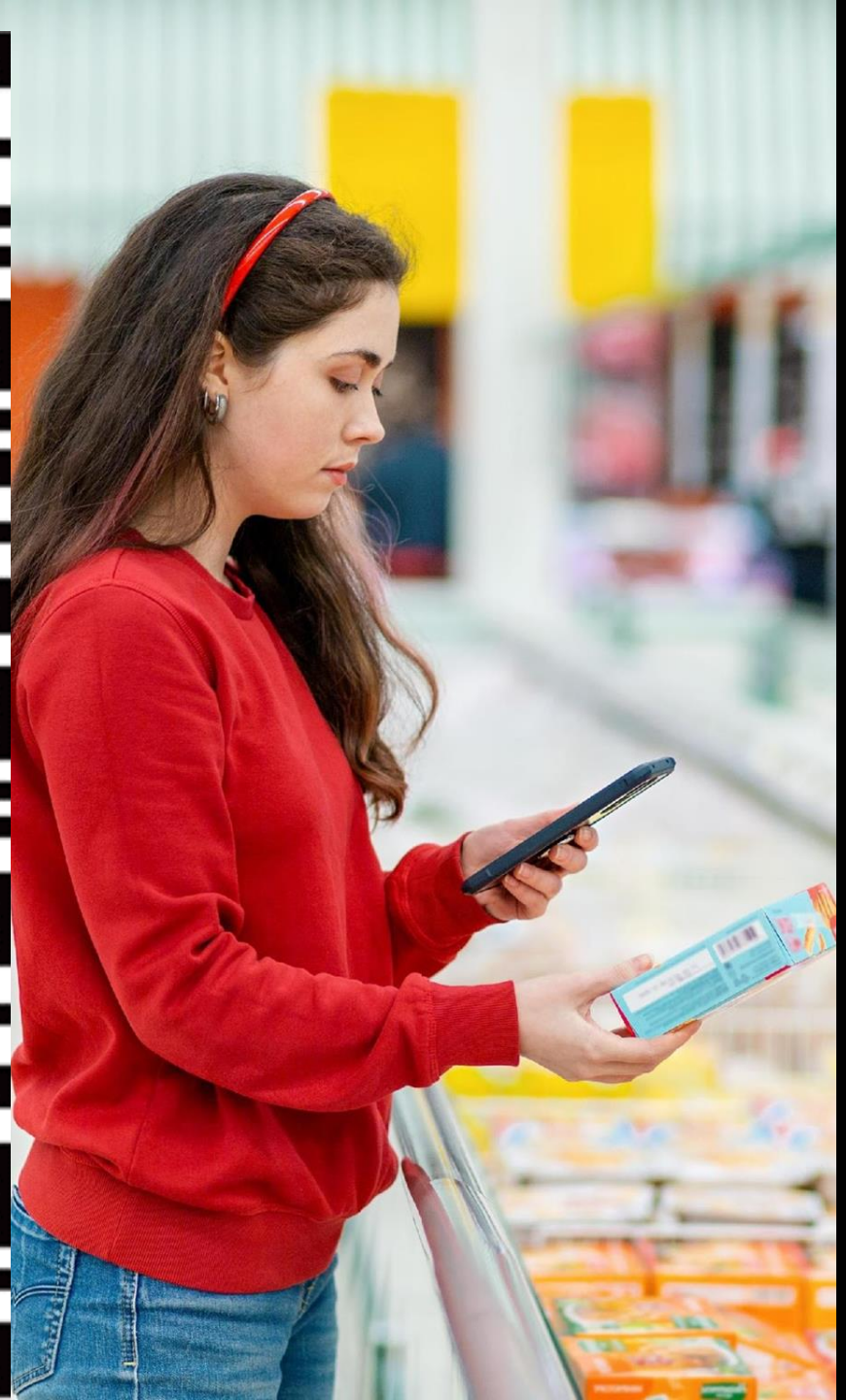

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Everyday Engagement

Translucent paper allows for good product view
RFID case labels improves traceability of ingredients
Next generation e ink exploits colour richness

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Translucent paper allows for good product view

South African pulp and paper company Sappi have introduced a new type of paper to their huge portfolio of sustainable offerings, called Crystalcon. This is a translucent paper material that has several significant functional attributes; the translucency allows for a view of the product not previously available with paper, and it does not require additional converting or finishing of the paper. It can also be used for nearly any application, including food. The translucent paper has been designed to be used in conjunction with Sappi's Seal Silk, a one-side single-coated silky paper material with sealable coating on the other side. The combination of these two innovative technologies allows for a fully recyclable and suitable packaging solution.

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RFID case labels improves traceability of ingredients

Chipotle Mexican Grill, based in California, has announced that it is testing RFID (radio-frequency identification) technology to enhance its ability to track ingredients from suppliers to restaurants via serialisation. Ingredients in the test arrive at Chipotle restaurants are affixed with RFID-enabled case labels. They are then scanned by RFID readers, which complement existing scanners in the restaurants, requiring minimal incremental investment. The tech-enabled traceability system is designed to allow the company to act on food safety and quality concerns swiftly, efficiently and precisely. Suppliers have invested in RFID technology using Chipotle specifications, which is anticipated to save suppliers time on inventory management and stock rotation, mitigate human error, and increase expiration date visibility and accountability. Chipotle has worked closely with the Auburn University RFID Lab to refine the pilot programme, which is being tested on meat, dairy, and avocados from five Chipotle suppliers.

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Next generation e ink exploits colour richness

Taiwan-based E Ink is launching its latest generation of Kaleido ePaper. Kaleido 3 colour ePaper technology is claimed to be more colour rich than its predecessor, supports bigger display panels and is easier on the eyes. This new generation technology supports displays of up to 13.3 inches (33.8 cm), and also includes new front light technology called ComfortGaze, that lowers the blue light ratio reflected off the display surface by up to 60% and the blue light toxicity factor by 24%, for the promise of after dark reading that's easier on the eyes. The new generation of Kaleido ePaper technology is reportedly responsive enough to play animations and videos and is being made available in various panel sizes, with the company pitching the bigger displays at outdoor digital signage applications. E Ink plans to first show off the technology at the Touch Taiwan expo.

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The Online Surge

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The Online Surge

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

The growth of e-commerce is significant. The sector has grown more in the last 2 years than at any time in the last 20 years. It has received a significant shot in the arm due to the COVID-19 pandemic as swathes of consumers worldwide are compelled to switch from their local bricks and mortar stores to buying directly from their mobile, computer or tablet screens. It has been reported that a notable number of consumers were online shopping for the first time, and it's fair to say that many won't go back to the same physical shopping frequency again. Shopping and packaging's role has changed forever. As the market begins to scale, there are increasing opportunities for brands and retailers to offer packaging solutions tailored first and foremost for this channel rather than being replications of the packs bought physically instore. Packaging designed for the e-commerce channel does not need to have the same security measures. The purchase decision is on a screen so bright on pack messaging is not necessary, and packs do not need to be explicitly designed to be attractive for the supermarket shelf.

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The Online Surge

Recyclable paper padded mailer also delivers tamper evidence
Personalised chocolate packaging encourages consumers to be more colourful

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Recyclable paper padded mailer also delivers tamper evidence

PAC Worldwide is an American packaging company based near Seattle, that manufactures protective padded mailers. They have now launched a patent-pending 100% recyclable paper padded mailer that can be recycled in the standard waste paper stream. Called the Ecojacket, they are conformable, lightweight protective paper padded mailers, and are made from recyclable natural kraft paper. The exterior paper is bonded to a fluted interior paper for effective cushioning protection and is constructed with a bottom fold and strong side seals for superior bursting strength. The mailers are sealed with a pressure-sensitive self-seal adhesive closure system that is reliable, tamper-evident, and easy to use. Opening of the mailer is straightforward, the pull-tab with tear strip opens quickly and easily without compromising the security and integrity of the mailer or its contents.

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Personalised chocolate packaging encourages consumers to be more colourful

Multinational digital print experts HP have collaborated on digital print projects with global confectionery company Mondelez several times over the years. This time, they are working together again to develop the personalisable ‘Color Your Break’ campaign in Belgium for the Milka chocolate brand. The campaign will see the Milka LEO variant embellished with colourful designs using HP’s digital print technology. The companies commissioned twelve artists to create almost 300 designs for the packaging. The designs are only half coloured in, with the thought that consumers will take a break and finish the colouring themselves. Additionally, consumers can go to a dedicated website and be able to co-create their own designs using the hundreds of different pieces of art to customise their own versions.

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Making Life Easy

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Making Life Easy

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

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

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Making Life Easy

Coffee dispenser created for improved ease-of-use
Capless tube makes dispensing efficient and convenient
5-litre fridge pack for water targets alternative usage occasions
Inverted packaging delivers flow control for honey brand

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Coffee dispenser created for improved ease-of-use

Despite a large focus on sustainability, the need to make packaging inclusive and easy to use continues to be of focus for many operators. Malaysian espresso brand @Once have shaken up the coffee market with the introduction of a one-handed innovation for storing and dispensing coffee. The tube contains compressed nitrogen, which has double use; it helps preserve the freshness of the coffee, while also being used as a propellant to dispense the coffee out of the tube. The innovation will allow major convenience improvements for those who want instant coffee on the go and will be easier for those who are less able, due to it being operated with one hand. It is not clear as to the end-of-life of this product and whether or not it can be recycled.

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Capless tube makes dispensing efficient and convenient

Quadpack is a Spanish global cosmetics packaging manufacturer and provider for beauty brands. They have announced the launch of a new product called the Central Dispensing Tube. The new solution features a cap-less design that is both efficient and convenient. The user can simply twist open the dispenser, squeeze out the creamy product, then twist it closed again with a single hand. The tube is available in five different diameters of 25, 30, 35, 39 and 48.9mm, and with volumes of 15ml to 250ml of product. As a further benefit to beauty brands, it can be manufactured in monolayer PE (polyethylene), or as a multilayer barrier tube, which can also incorporate PCR HDPE (post-consumer recycled high density polyethylene). Potential uses are expected to be for face masks, facial cleansers, exfoliators, body lotions and deodorants.

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5-litre fridge pack for water targets alternative usage occasions

Highland Spring is introducing a new 5-litre fridge pack of mineral water. The new pack is designed to target summer staycations, on-the-go occasions, and at home decanting occasions, and fits perfectly in the fridge. It is claimed that the 5L fridge pack keeps fresh for up to four weeks once opened. The 5 litre pack follows the successful launch last year of its 10-litre hydration pack, with the five-litre format being seen as a natural extension to the range, offering a more compact solution for shoppers. Highland Spring says that this innovation delivers strong consumer appeal for a pack that provides better value for money, uses less plastic, can be stored in the fridge and stays fresh for longer once opened than other formats. It will debut at UK retailer Asda, selling at £3, with a wider retail rollout planned in the weeks ahead.

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Inverted packaging delivers flow control for honey brand

US-based Aptar Food + Beverage has provided Brazilian chocolate-based honey alternative producer Chacauhaa with a novel inverted packaging initiative. The solution for Chacauhaa's Mel de Cacau Honey features Aptar's Lock-Back Partial Lid solution with SimpliSqueeze flow control valve. The previous packaging consisted of a glass jar with a metal closure. The new packaging system is said to add value not only to the consumer experience, as it is easier to use and provides a more hygienic application without the need for utensils, but also creates more manufacturing and shipping efficiencies. Aptar Food + Beverage say that they are keen to collaborate and develop partnerships with companies of all sizes in Latin America to help increase consumer loyalty and grow market share through packaging innovation. Chacauhaa's Mel de Cacau honey is natural, sugar-free, preservative-free, vegan, and cruelty-free certified.

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Materially Changed

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Materially Changed

The packaging continues to see a lot of change of materials driven largely by sustainability objectives. Plastic replacement is still top of the agenda for many brands and retailers as they look to switch out of the material to solutions that may offer a better environmental footprint or at least be better received by anti-plastic focused consumers. We have 15 initiatives this month.

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

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Materially Changed

Closure for sauce bottles is 20% lighter
High-speed formable PE-based monomaterial film designed for microwave vegetable steaming
Collaboration moves plastic takeaway packaging to corrugated board solution
Trial sees clear cups switched for bio-based alternative
Partnership aims to deliver carbon-negative packaging materials
PET aerosol container has raw material carbon footprint half of aluminium
Chemical-free thermal adhesive material for labels launched
Sliced loaf range introduced in paper packaging
Board trays designed for pet food brand
Solid laundry detergent wash bars save 97% plastic per wash load
Plastic clamshells replaced with board-based tray packaging
Paperboard beer can carrier broadens range
Pasta brand reduces the plastic use by 90%
Cosmetics packaging reduced by 84%
Cardboard-based can pack option introduced

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Closure for sauce bottles is 20% lighter

Indiana-headquartered global plastic packaging manufacturer Berry Global has announced the launch of a new lightweight closure for sauce bottles. The 55mm closure is said to be over 20% lighter than the previous version, while reportedly offering the same performance and consumer convenience. They say that the valve offers clean, no-spill dispensing for sauces, while the open and star-orifice have been developed for high-viscosity products such as mayonnaise. The company adds that a TPE valve is also available, which is reportedly RecyClass approved as a more recyclable option than a traditional silicon version. Berry says that the closure is suitable for a variety of ketchups and sauces. For maximum flexibility, Berry says it can be adapted to suit different neck finishes and specified with a choice of orifice configurations to meet the dispensing requirements of different products.

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High-speed formable PE-based monomaterial film designed for microwave vegetable steaming

Ohio-based ProAmpac has announced the launch of a patent-pending PE-based mono-material film designed for microwave vegetable steaming. The film, known as ProActive Recyclable R-2000S, is designed to run on high-speed form/fill/seal equipment and is pre-qualified for store drop-off recycling. The main technical challenge in developing this solution was said to be engineering a recyclable film that could withstand both cold chain storage and microwave conditions. ProAmpac says that after a series of strategic trials, they managed to engineer a recyclable lamination with ideal stiffness, excellent toughness at low temperatures, and great graphical qualities that allow consumers to microwave in the pack, and which met retailer and brand environmental sustainability commitments. ProAmpac has already launched R-2000F frozen food packaging, R-2000D dry food packaging, and QuadFlex Recyclable for human and pet food applications, to help brand owners achieve their sustainability objectives.

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Collaboration moves plastic takeaway packaging to corrugated board solution

Nordsee is a German fast-food restaurant chain specialising in seafood. With the help of corrugated board manufacturer Thimm Group they have moved their takeaway packaging from a plastic and aluminium combination to a corrugated board solution. Thimm use ComBa® papers with a sustainable water-based coating. These papers for the production of corrugated cardboard, suitable for direct food contact, known as foodWave®, are free of emulsifiers and solvents and provide reliable protection against liquids and grease. The snack boxes are currently produced in two sizes for the restaurant chain and can therefore hold all types of burgers, baguettes, burritos or wraps. As the boxes are manufactured using 'F' flute, the boxes are easy to print on since the small flute pitch forms an even surface. The printing was done in flexo postprint. The boxes are stackable and have foldable flaps to vent escaping steam.

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Trial sees clear cups switched for bio-based alternative

Ubiqitous global fast-food chain McDonald’s is said to serve on average 1% of the world’s entire population every single day. That is over 70 million people, who are each served their meals in a variety of different packaging formats. The sheer quantity of packaging the business uses puts an extra onus of responsibility to consider its sustainability. They are beginning a trial which will see their clear plastic cups sourced from recycled and bio-based materials, with a 50-50 split of the two. The cups are designed to be as identical as possible to the main iteration, because influencing customer behaviour with visual differences is not a variable they wanted to include in the trial. The pilot will take place in 28 restaurants in the US state of Georgia, with the aim of expanding the scheme if positive results are achieved.

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Partnership aims to deliver carbon-negative packaging materials

LVMH Beauty, part of the LVMH Moët Hennessy Louis Vuitton group has announced that it is forming a strategic partnership with California-based Origin Materials who claim to be the world's leading carbon negative materials company. Origin will provide the beauty business with carbon-negative materials for their cosmetics and perfume products. As part of the multi-year deal, Origin will supply LMVH Beauty with carbon-negative PET (polyethylene terephthalate), which is functionally identical to petroleum-based PET, but with a dramatically lower carbon footprint, since it is made from sustainable wood residues which capture carbon. Additionally, Origin PET is equally recyclable to fossil-based PET within the existing infrastructure, which is critical to creating a circular economy with a significantly reduced carbon footprint. The move is part of LMVH's Life 360 program, a key part of which is that their packaging will contain zero plastic from virgin fossil resources in the near future.

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PET aerosol container has raw material carbon footprint half of aluminium

Part of the Tetra Laval Group, Sidel is a provider of equipment, services and complete solutions for packaging liquids, foods, home and personal care products in PET (polyethylene terephthalate). They have now launched the PressureSAFE, a new safe PET aerosol container offering brands an alternative substrate and potential competitive edge. PressureSAFE is approved for the traditional PET recycling stream. The expected uses are for products such as perfumes and deodorants. PressureSAFE is said to offer home and personal care brands a more competitive choice of pressurised container than the traditional metal aerosol container. The average PET market price is almost half that of aluminium, in addition, PET has a raw material carbon footprint that is said to be half that of aluminium and is 100% recyclable within the PET stream. The transparency of PET also offers consumers direct visibility of the product and enhanced marketing with decorative options such as a partial or full body sleeve.

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Chemical-free thermal adhesive material for labels launched

German speciality paper manufacturer Koehler Paper has announced the launch of a new product, Blue4est Pro, in their Thermal Paper division. Blue4est Pro is part of a new generation of environmentally friendly labels that is produced without chemical developers. This means that it can be disposed of as waste paper and is also approved for direct contact with food. The Blue4est Pro self-adhesive label can be instantly recognized by consumers as more environmentally friendly by its blue colour. Blue4est Pro was developed as part of a joint development with leading German self-adhesive label manufacturer Herma. Blue4est Pro follows in the footsteps of Blue4est, which was developed as an alternative to conventional till receipts. Compared to current conventional thermal papers, Blue4est is particularly friendly to the environment. The labels are expected to be used initially for fruit and vegetable scales. Further applications are to follow in the near future.

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Sliced loaf range introduced in paper packaging

Warburtons has introduced a new range of sliced loaves called Seeds & Grains, which is packed in paper packaging. In a move to support consumer desire for more sustainable packaging, the paper-based packaging is 100% recyclable. It is part of Warburtons' work to improve its impact on the environment as part of an overarching five-prong strategy that focuses on carbon management, ethical sourcing, packaging, food waste, people and communities. The range is comprised of three 700g loaves which are 100% wholemeal, high in fibre and protein and low in saturated fat and sugar, according to Warburtons. Calories per slice range from 119-130. The three products in the range are The Big 21, Plant Power, and Make It Grain. The loaves will be available exclusively in Asda with an RSP of £1.85, with a further UK rollout to follow.

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Board trays designed for pet food brand

Bedfordshire-based Colpac, designers and manufacturers of innovative and sustainable food packaging solutions, have provided a future-proof packaging solution for Hug Pet Foods. The brand owner was looking for a packaging solution that was simple, effective and represented the premium values of the Hug brand. They were attracted to Colpac's Stagione range of PP (polypropylene) lined FSC (Forestry Stewardship Council) approved board trays for its unique shape, stack-ability and performance that allowed both freezing, and microwave heating. The ability to recycle the packaging within current and future guidelines was equally important. They chose two sizes, 750ml and 1000ml, which had the same top out dimensions, therefore requiring just one set of tooling for the sealing equipment that Colpac also supplied. In addition, a full colour printed sleeve was fitted onto the packs for each of the flavour combinations, with space for an inkjet label for ingredients, best before date and serving/cooking instructions.

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Solid laundry detergent wash bars save 97% plastic per wash load

German detergents, bathroom and all-purpose cleaning product manufacturers Love Nature have been producing plant-based detergents and cleaning agents since 2020. They have now announced the launch of Love Nature Wash Bars. These new laundry detergent bars are a solid, particularly compact universal detergent in virtually plastic-free packaging. The packaging for the tabs is reported to be similar in size to a book, making it easy to transport and store. The almost plastic-free packaging saves 97% plastic per wash load compared to an equivalent bottle of Love Nature liquid detergent. The transport and production of the innovative detergent bars cause significantly fewer emissions compared to classic liquid detergents. The new Love Nature Wash Bars Alpine Fresh universal detergent will be available in stores throughout Germany. Love Nature GmbH is a subsidiary of Henkel and is part of the Laundry & Home Care business unit.

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Plastic clamshells replaced with board-based tray packaging

Portland-based grocery chain New Seasons Market is to replace the plastic clamshells that are currently used for their Partner Brand Fresh Pasta. The grocery chain has made the decision to replace the plastic trays with Graphic Packaging International's (GPI) PaperSeal trays. Moving to board-based trays means a 91% reduction in the amount of plastic used. The plastic lining of the tray is easily removed after use; the tray can then be recycled in the waste paper stream. The board used for the trays is obtained from sustainably managed forests. The PaperSeal trays were developed in a partnership with Italian machinery manufacturer Mondini, who specialise in tray sealing technology. The new board trays will replace 120,000 plastic trays annually. PaperSeal trays are suitable for MAP (modified atmosphere packaging), VSP (vacuum skin packaging), and for packing a wide range of chilled and frozen foods.

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Paperboard beer can carrier broadens range

Leading producer of board-based packaging, Graphic Packaging International (GPI), has announced the launch of Enviroclip. THe solution is a minimal material alternative to plastic rings and shrink film for the beverage industry. It is suitable for both 330 and 500ml cans, and in either four or six-pack configurations. Enviroclip is made from a single ply of paperboard, produced using renewable fibre from sustainably managed forests. No adhesive or plastic laminations are utilized in its construction. The cans remain easy to detach at the point of consumption while the overall pack design features finger holes to ensure easy and comfortable carrying. Further benefits include the space to print brand and sustainability messages. It also requires equipment with a small footprint and can be used alongside GPI's other board-based beverage offering, the KeelClip.

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Pasta brand reduces the plastic use by 90%

Spanish frozen food manufacturer Tutti Pasta has announced that they are moving to a more sustainable packaging format for their frozen ready meals. They intend to replace the current plastic trays with an eco-friendly, 100% recyclable board tray system, which reduces the amount of plastic used by 90%. The board used for the trays is from FSC (Forestry Stewardship Council) approved sources. The move will mean the replacement of over 5,000,000 plastic trays every year. The new board trays are suitable for both conventional ovens and microwaves. Finance for the project came from the Spanish Ministry of Industry, Commerce and Tourism with Next Generation funds from the European Union through the Recovery, Transformation and Resilience Plan (PRTR), which allowed Tutti Pasta to install a new packaging line for their ready meals.

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Cosmetics packaging reduced by 84%

MartiDerm is a Spanish dermocosmetics brand aiming to become a ‘100% sustainable company’. To this end, they have had a complete overhaul with the development of a new container for its flagship products, which are packed in ampoules. The amount of plastic in the new packaging has been reduced by 84%. They use a 100% compostable material from corn starch: the bases that hold the blisters are compostable and it is claimed completely degrade without leaving any residue. The number of dispensers has been reduced, and those that exist are made of 100% recyclable plastic. Superfluous elements have also been eliminated, such as the base and the cap of the ampoules. The packs are also said to be more accessible, improving the experience for consumers. The new packaging will be available on the following MartiDerm products: Proteos Hydra Plus, Proteos Hydra Plus SP, and Proteos Liposome.

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Cardboard-based can pack option introduced

German manufacturer of packaging and bottling machines Krones AG has announced the launch of LitePac Top as an alternative to single-use plastic rings for can packs. LitePac Top is a cardboard option containing neither plastics nor adhesives, which is produced from renewable raw materials and can be easily recycled after use. It is fitted underneath the can seam, thus keeping the pack stable. The pack features recessed grips with which it can be conveniently grasped and carried. To remove a can, it can be pulled vertically out of the packaging, meaning that it's unnecessary to tear open the cardboard. The pack also offers space for design options to ensure an eye-catching presence on supermarket shelves. With Krones' associated modular Varioline machinery it is possible to selectively orientate the cans – for prominent brand logo placement or to form a coherent motif from several different can designs.

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Protect and Preserve

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Protect and Preserve

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

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

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New oxygen barrier coating ideal for monomaterial applications
Void-effect label includes integrated QR code
High-barrier transparent film meets pharma and food packaging needs
Anti-counterfeiting technology encrypts signature on pack artwork
Limes last 14 days longer by keeping moisture in and oxygen out
Scannable fingerprint technology fights pharmaceutical copies
Antiviral pet food pack launched for more safety conscious consumers
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Cheese traceability enhanced via microchipped labels
Plastic coating-free paper material delivers moisture protection
University researchers develop lightweight shock-absorbing material

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New oxygen barrier coating ideal for monomaterial applications

German chemicals manufacturer Hubergroup has launched a new oxygen barrier coating aimed at the monomaterial laminate film market. The new coating, called HYDRO-LAC GA Oxygen Barrier Coating, is from Hubergroups' Print Solutions division. The expected use is for laminates made of the same polymer, usually polypropylene (PP) or polyethylene (PE). This allows the flexible packaging to be monomaterial overall and thus offers a more recyclable solution. Conventional flexible food packaging often consists of several laminated film layers of different chemical natures. Each fulfils a specific function, one of which can be to prevent the ingress of oxygen. The oxygen transmission rate (OTR) of the barrier coating is reportedly less than 10 cubic centimetres of oxygen per square metre, which can be achieved under industrial conditions when using PP. This means that Hubergroup's oxygen barrier can be used for oxygen-sensitive foods such as muesli or nuts.

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Void-effect label includes integrated QR code

Securikett is an Austrian label manufacturer specialising in tamper-evident and anti-counterfeiting labelling applications. The business is combining digital product protection with sustainable labels, and are launching what it calls its PaperVoid labels, which come with an integrated QR code. Sustainable packaging is known to be a hot topic and the company has presented a safe and visually appealing solution for this requirement, with the “It’s Paper” product series. In addition to the proof of first opening, the so-called void effect, the manufacturer also has the option of communicating further information about the product directly to the customer via the label. The paper labels are available in different colours and shapes and they are suitable for all paper and cardboard packaging, optimising the recyclability of this type of packaging.

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High-barrier transparent film meets pharma and food packaging needs

Toppan is a Japanese provider of integrated solutions in the fields of printing, communications, security, packaging, décor materials and electronics. They have now added to their GL Barrier range of transparent barrier films with a new grade that provides high-barrier performance combined with light-shielding. Their new offering, GL-ME-RC, is suitable for packaging pharmaceutical goods and foods that require high-barrier performance, light-shielding, and flexibility, which until now has required aluminum foil. The removal of an aluminium layer means that the volume of CO_2 emitted during packaging manufacture is reduced by 15% compared to conventional products. The barrier properties of GL-ME-RC are achieved by a two-layer structure consisting of an aluminum vapour-deposited layer and a barrier coating, giving approximately five times the oxygen barrier performance of conventional aluminum vapour-deposited films. Its stretch-resistant barrier performance is said to be excellent, claiming approximately 500 times the oxygen barrier performance level of conventional films.

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Anti-counterfeiting technology encrypts signature on pack artwork

Ennoventure are a US anti-counterfeiting technology company that was set up in 2018 with the aims of developing digital solutions, using advanced technologies like AI, blockchain and embedded solutions. Their patented anti-counterfeiting solutions can encrypt cryptographic signature on artwork of the package making the pack digital. The encrypted signature is invisible to the naked eye and can be retrieved using any smartphone, eliminating the need for extensive changes in the production process, including significant CAPEX and operating expenses investments. Their technology can be used for a number of purposes including anti-counterfeiting, converting analogue packs into smart and intelligent packs, global tracking of products, customer engagement for promotions, competitions etc, and warranty management. It can also be used as a tool to make packaging friendly for the visually impaired. The carbon footprint of companies can also be reduced as the technology can remove the need for paper instruction booklets and enable eLeaflets.

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Limes last 14 days longer by keeping moisture in and oxygen out

Robinson Fresh, part of the C H Robinson logistics group, has formed a partnership with Apeel Sciences, a Californian technology company that produces edible coatings that when applied to fresh fruit can double their shelf life. Robinson Fresh will be offering Persian limes in Europe from the Robinson Fresh facility in Mexico, which stay green, fresh and juicy for up to 14 days longer than untreated fruit. The vegetable coating that Apeel uses, known as Apple Protection, extends product shelf life by keeping moisture in and oxygen out. This technique neutralizes the main causes of spoilage and is suitable for a wide variety of fruits and vegetables. Tests carried out by Robinson Fresh show that by the time the limes reach the consumer's kitchen, there are 33% more bright green and 91% less shriveled limes than other lime producers using a traditional wax coating.

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Scannable fingerprint technology fights pharmaceutical copies

Laava Smart is an Australian technology company that has created the patented Laava Smart Fingerprint. They have previously used their technology as broad as wine, cherries and face shields. They are assisting Australian nutraceuticals company Biogency to protect its products from counterfeiters. Laava Smart Fingerprints now feature on the labels of four of Biogency's nutraceuticals: Synext, Piliant, VMAN and Beauty Skin. The on-product labels feature the secure and scannable Laava Smart Fingerprints with the ability to match the batch number on the packaging with the batch number on the apps' results screen. The Australian Made tick gives further assurance. Fake pharmaceuticals are a global problem, making up the world's largest fraud market at over $200 billion a year. It is said that the problem has been compounded in the last couple of years with the growing trend for health supplements in the wake of the COVID 19 pandemic.

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Antiviral pet food pack launched for more safety conscious consumers

Brazilian pet food manufacturer Adimax has announced that they are to use antiviral packaging for its products, noting that consumers have become more safety conscious due to the Covid-19 pandemic. Adimax states that the packaging is able to reduce the number of infectious viral particles that have contact with the surface. The packaging releases ions that attack the virus, causing the rupture and decomposing the membrane that covers it, where all the genetic information that allows it to enter human cells is kept. Once this membrane is removed, the virus ceases to exist, eliminating the risk of infection. The new antiviral packaging will be supplied by Kangaroo, Incolpast and Plastrela. As well as limiting the spread of COVID-19, the additive is 99.68% effective against bacteria, fungi, mold, algae and mould. The packs are approved for contact with food, as the antiviral is applied only on the outer layer.

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Anti-bacterial coating developed amid shopping hygiene concerns

European supplier of highly specialised flexible packaging solutions Schur Flexibles has developed an antibacterial coating for packaging film. The varnish is to be used for food packaging, and is applicable for several different kinds of packaging film, including flowpacks and other similar films. The coating is aimed to target the concerns around ‘take-and-put-back’ behaviour surrounding the COVID pandemic where additional handling of products in-store by browsing shoppers is a concern for some consumers. The coating will destroy any bacteria that comes into contact with the packaging, allowing consumers to feel more reassured about any concerns around hygiene. The varnish has no effect on the recyclability of the packaging it is applied to.

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Cheese traceability enhanced via microchipped labels

In an attempt to tackle potential food fraud activity with its world-famous cheese, the Parmigiano Reggiano Consortium has incorporated secure digital labels onto its cheese wheels. They have teamed up with Dutch cheesemark designer Kaasmerk Matec and US developer of digital tracking tech p-Chip Corporation to add blockchain-enabled digital labels to improve the traceability of its cheese. The partnership between Kaasmerk Matec and p-Chip resulted in the development of a micro transponder – a blockchain crypto anchor that can be embedded into 2D QR code labels or a smaller Data Matrix code. According to p-Chip, their micro transponder cannot be replicated or counterfeited and can survive a temperature range of -200°C to 500°C. It is resistant to microwave irradiation and is not affected by solvents or reagents. The microchip embedded into the casein label of the parmesan wheel is reported to be as small as a grain of salt and is also food safe.

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Plastic coating-free paper material delivers moisture protection

Minnesota-based Cortec Corporation has announced the launch of a recyclable moisture-proof paper material that works without conventional wax or plastic coating. Such moisture barrier materials usually become difficult to recycle due to the coatings. They say that this new product, called EcoShield Barrier Paper, had superior results compared to wax-coated paper and results in class with those for PE coated paper during tests for WVTR (Water Vapour Transmission Rate). The moisture penetration for Cortec's new coating-free paper ended up at 0.61-0.69 grams per hour and square metre, while the corresponding value for a PE-coated paper was 0.47-0.71. For a conventional wax-coated paper, the throughput was 6.5-6.9 grams per hour per square metre. EcoShield Barrier Paper contains recycled paper fibres from certified paper materials and is also approved and certified by the US Department of Agriculture as a bio-based product.

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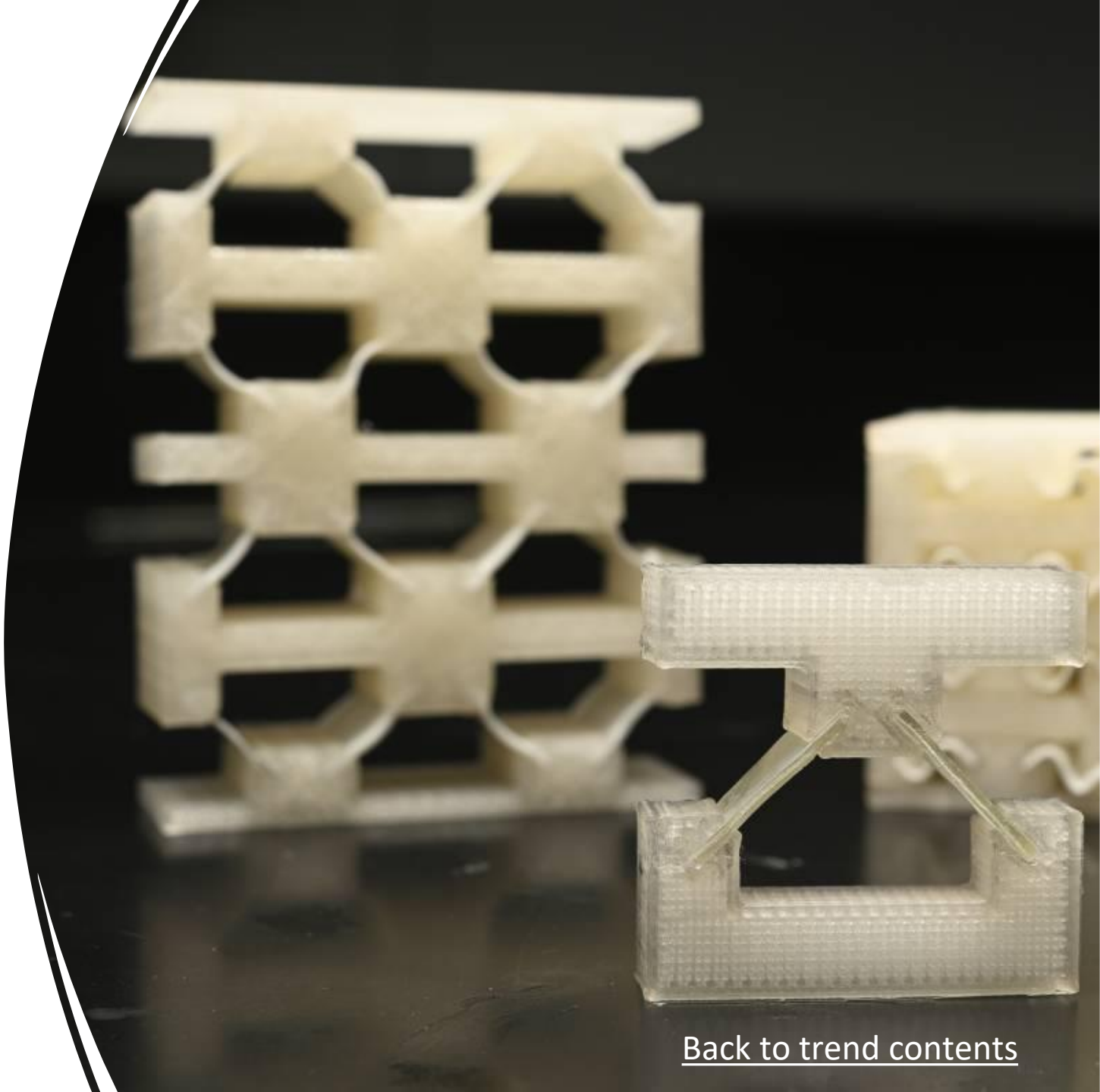
University researchers develop lightweight shock-absorbing material

Researchers at Baltimore, Maryland based Johns Hopkins University have created an innovative material that is said to be as strong as steel, but as lightweight as foam. It is made from liquid crystal elastomers and is designed to be effective at shock absorption, in cases where a product needs major protection at a low strain on storage capacity. The developing team claim that the material can withstand immense impact speeds, having tested up to 22mph. It is not clear as to the end-of-life destination of the material, but it can be reused several times before needing to be replaced.



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Recycling Resurgence

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Recycling Resurgence

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

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

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Recyclable paper tube launched for premium spirit market
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Recyclable cake box reduces material requirements by 25%
Reduced plastic avocado packs make French launch
300 collecting machines facilitate easy Mexican recycling
World's first caps attached to beverage cartons launched
Glue-free plastic/cardboard tray is easier to recycle
Colour switch ensures bottle is 100% recyclable
Egg cartons made from 100% recycled paper launched
Pouch made from renewable plant materials is 'most sustainable'
Recyclable coloured plastics don't require major investment
Collaboration creates recyclable refill sachet
Recyclable cutlery range introduced
Hinged closures made from ultra-pure recycled plastic achieves testing milestone
New generation of recycled and recyclable single-material tubes introduced
Paper lids for foodservice are recyclable
Muesli pouch can be rolled for easy recycling
Artificial intelligence could help with packaging waste separation
Agricultural residues converted into single-use disposable fibres
White in-mould label film has high opacity
Next-generation paper bottle includes paper closure
100% paper translucent bags can be kerbside disposed
Newly found enzyme breaks plastic down quickly
Food-to-go retail now part of coffee pod recycling scheme
German yoghurt range introduced in 100% r-PET

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PP material switch from aluminium lidding might improve material sorting

MCC Verstraete is a Belgian company specialising in IMLs (in mould labels). They have launched a new product called SealPPeel, designed as a replacement for aluminium lidding. SealPPeel is a PP (polypropylene) heat seal die-cut lidding option designed to optimise the recyclability, consumer convenience and shelf appeal of PP packaging. By using SealPPeel in combination with a PP tub, the packaging becomes a mono-material, ensuring the complete pack is easily sorted and recycled as consumers no longer need to separate the tub and seal to correctly throw the empty packaging away. MCC claim that due to the offset printing technique, the cost of printing and producing multiple SealPPeel SKU's is much lower compared to aluminium lidding, and can be colour-matched to the container. It is claimed that SealPPeel also easily peels off without tearing nor leaving residues, contrary to aluminium lidding. It is also suitable for microwave use and has high puncture resistance.

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100% recycled shrink film for Polish beer multipacks

Polish brewery Kompania Piwowarska, who produce Lech Beer, have announced that all of their multipack shrink film will be made of 100% recycled material. They are sourcing their waste material from breweries, producers of beverages and mineral waters, producers of glass packaging, as well as retail chains and households. It is then carefully sorted at recycling plants. Kompania Piwowarska says that as the energy used to manufacture recycled film is much lower than that of virgin film, using recycled film they will reduce CO2 emissions by almost half, at 47%. Also, by using recycled film, the amount of virgin material used will be reduced by 250 tonnes per annum. Starting with the 4's pack, they are looking to move their other multipack sizes, 6, 8 and 12 packs to recycled film as soon as possible.

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Recyclable paper tube launched for premium spirit market

Global paper packaging manufacturer Smurfit Kappa has developed what they say is a 100% recyclable, sustainable paper tube packaging solution. Aimed at the premium spirits and luxury goods market, the Eco-Tube is made using only FSC (Forestry Stewardship Council) sourced papers and recycled board, making it a cost-effective environmentally friendly solution. The robustness of the paper tube packaging is said to offer added perceived value to products in-store. Combined with high-quality print and an array of print finishes, the Eco-Tube is said to create on-shelf disruption encouraging first and repeat purchases. One of the first applications was for The Clydeside Distillery, who were in the process of launching their first single malt whisky, Stobcross. The Clydeside Distillery opted for a design that represents the maritime history of Glasgow to reflect their brand and product.

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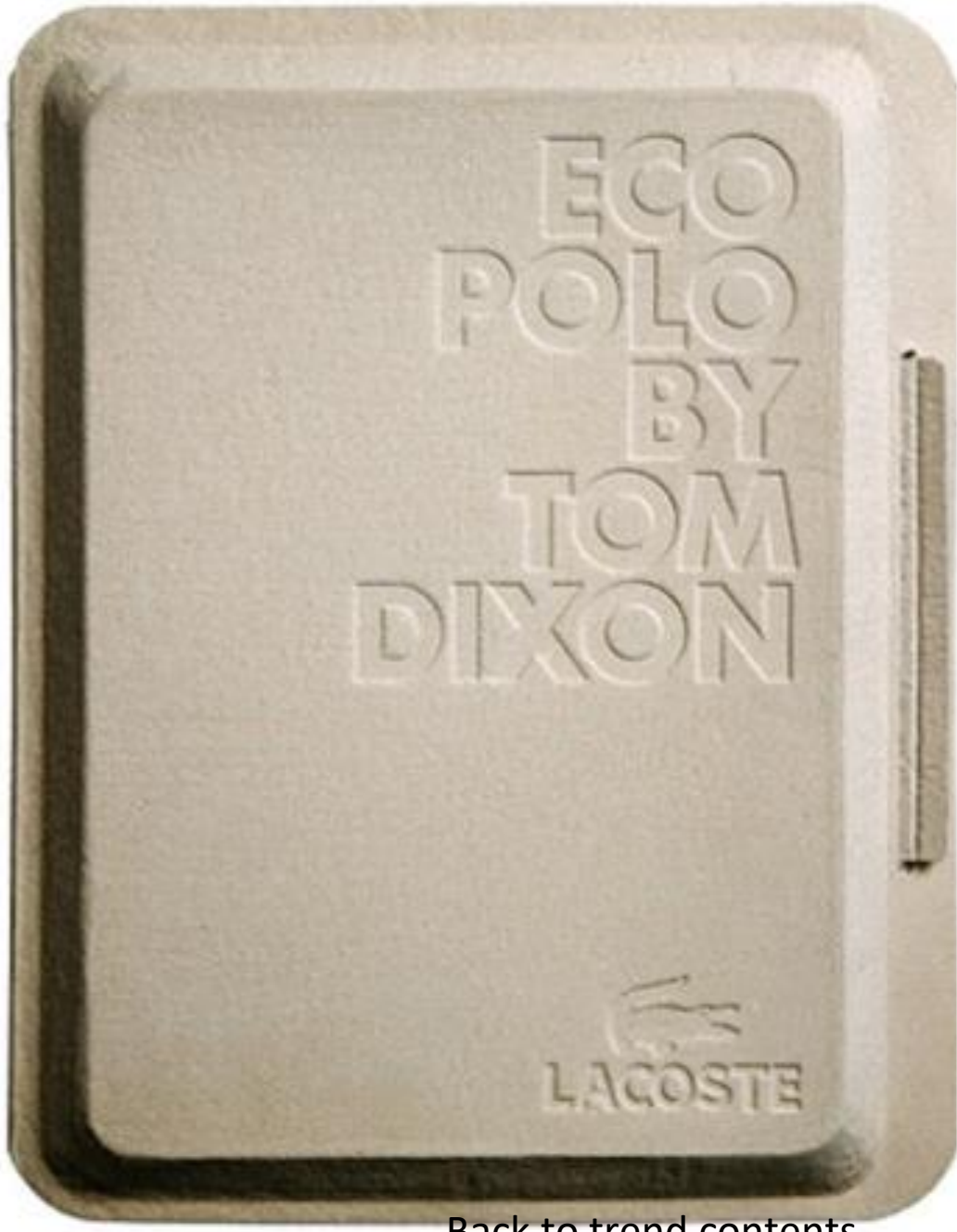
Unisex shirt made from recycled cotton launched

French fashion brand Lacoste has announced the launch of the Loop Polo, a unisex shirt made using 30% recycled cotton spun together with 70% virgin cotton, made using a “closed-loop” process, which means no two polo shirts are identical. The recycled content of the Loop Polo is derived from cotton from surplus Lacoste polo shirts. The whole process is said to mark a new era for Lacoste, with the French brand adding that it is a new reinvented low environmental impact model, as production also consumes less water. It comes in a speckled look in heather grey or midnight blue and the iconic polo still maintains its “petit piqué” texture, explains Lacoste, as well as its two-button neckline, short sleeves and tonal croc camouflage, which has been made from recycled polyester.



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Cap designed to remain attached to closure throughout use

Through collaboration with United Caps, Norwegian carton producers Elopak are to release their Pure-TwistFlip solution to store shelves imminently. Developed in 2021, the Pure-TwistFlip was designed so that the cap will remain attached to the carton throughout the entire life of the pack, meaning the chance of it being littered is reduced. The Pure-TwistFlip 29i is also the lightest screw cap Elopak have ever made, and can be used in conjunction with any PurePak carton to create different packaging solutions based on the needs of the particular product. The cap is fully recyclable, and is made from renewable and sustainably sourced materials.

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Recyclable cake box reduces material requirements by 25%

Finnish board manufacturer Metsä Board has developed a 100% recyclable cake box for Viipurilainen Kotileipomo, a near 100 year old bakery, also based in Finland. Viipurilainen Kotileipomo produces pastries and artisan bread from local ingredients using traditional methods and were looking for a new packaging option that would reduce the company's environmental footprint, while also providing quick and easy assembly. The jointly designed new cake pack is made of MetsäBoard Prime FBB EB, a dispersion coated barrier board, which can be recycled using paper and board collection waste streams. The MetsäBoard Prime FBB EB board is thick and resistant to grease, which is key for foods that naturally have a high-fat content such as pastries and cakes. The design reduced material requirements by 25% and carbon dioxide emissions by 34% compared to the previous packaging. Use of plastic is also reduced by not having to use polyethylene-coated cardboard.

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Reduced plastic avocado packs make French launch

Westfalia Fruit is a leading multinational supplier of fresh fruit and related products to international markets. Their French arm has now launched a new range of consumer friendly packaging for avocados. The move is in response to a new law in France that came into effect in 2022, which bans the use of plastic packaging on most fruit and vegetables. Their new avocado packs focus on either removing plastic completely, or reducing the amount of plastic considerably. The plastic-free alternative is a cardboard tray with a paper label or a paper band, both of which are fully compostable. Both are made with Forest Stewardship Council (FSC) materials, guaranteeing that the cardboard used has been sourced from sustainably managed forests. A heat seal film option includes recyclable plastic which contains a QR code on the packaging directing consumers to details of where they can recycle it.

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300 collecting machines facilitate easy Mexican recycling

BioBox is a Mexican social responsibility project that seeks to facilitate and promote recycling through collection machines. There are currently over 300 machines in circulation, and they have permanent internet connectivity for monitoring purposes. They are equipped with technology to internally identify and separate recyclable solid waste. More and more materials are being received; they started with PET (polyethylene terephthalate) and aluminium. In recent years they have added tinplate, straws and coffee pods. At the end of the process, the user generates points to later exchange them for the payment of services: electricity, water, gas, or entertainment, such as Netflix, Spotify or Cinépolis, or to receive coupons for products and services of the brands that sponsor BioBox. Each Biobox has the capacity to collect between 500 and 600 containers. Among the future plans, international growth stands out, with the arrival in markets in Chile, the United States, Madrid, Costa Rica and Panama on the horizon.

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World’s first caps attached to beverage cartons launched

In a collaboration with a number of major brands, Tetra Pak has launched the world’s first caps attached to beverage cartons. This development paves the way for Europe-based customers to stay ahead of schedule and comply with the Single Use Plastics (SUP) Directive which comes into force in 2024. Five of these new closure solutions are being introduced in the Baltic States, Germany, Ireland and Spain across various product categories. The new caps are said to have been designed to improve convenience, being easy to open and reclose for later consumption, and also feature carefully measured diameters to pour and drink without problems. The new bonded caps also feature a reduced amount of plastic. Depending on the solution, the company achieves a reduction in the percentage of plastic that ranges between 7% and 15%. They say that they expect to sell over 1.5 billion of these caps by the end of 2022.

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Glue-free plastic/cardboard tray is easier to recycle

Düsseldorf-based Paccor has developed a tray made of rigid plastic wrapped in cardboard without glue, called the DuoSmart® Tray. This makes the product easy to sort and therefore recyclable. If consumers can more easily sort packaging, this can contribute to more effective recycling and thus a more circular economy. The tray can be made of PP/rPP (polypropylene) or PET/rPET (polyethylene terephthalate) with a cardboard sleeve. There is no adhesive and a tear-off mechanism has been developed that makes it easier for the end customer to separate the cardboard sleeve from the plastic shell. The DuoSmart-Trays can be sealed without investments on standard customer systems. The new generation of trays is suitable for packaging meat, fish, ready meals, salads and vegetables. The ratio of cardboard to plastic is 51 to 49%. The box can be printed inside and out. The bowl is available transparent or coloured, and cut-out windows are possible on the box.

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Colour switch ensures bottle is 100% recyclable

Swedish sauce, vinegar and pasta manufacturer Druvan, who are owned by Kavli, has announced that their Guldsoya soy sauce is to move from its current black plastic bottle to a transparent plastic version. By doing this, it makes the bottle 100% recyclable. Kavli says that they are committed to circular and sustainable packaging development. Kavli has been behind the industry-wide Plastics Initiative since 2018, which was launched by DLF, a trade association for companies that produce or import goods for resale to the grocery retail and foodservice markets in Sweden. The goal is, by 2025 at the latest, that all plastic packaging that member companies place on the market should be recyclable. The shift to the transparent bottle will take place gradually starting in April 2022.

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Egg cartons made from 100% recycled paper launched

Dutch ethical egg producer Kippenboer Kipster has announced the introduction of egg cartons made from 100% recycled paper. The CO2 released during the production process is compensated, so that the boxes are CO2 neutral. The move complements their egg production, which is already CO2 neutral. The new egg cartons will be supplied by Brødrene Hartmann A/S who claim to be the world's leading manufacturer of moulded-fibre egg packaging. They are switching egg cartons because the company is expanding to include Belgium, France, the UK and the United States. The CO2 footprint of the egg cartons has been calculated according to the Greenhouse Gas Protocol and compensates for the emissions via Climate Partner. The new egg cartons are available exclusively at Lidl and will be in stores from April 1, in boxes of six and ten eggs.

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Pouch made from renewable plant materials is ‘most sustainable’

Grounded is an Australian packaging company that specialises in pouches and bags made from rapidly renewable plant materials. Plantmade is the material used, is carbon negative, compostable and recyclable. This material is then converted into carbon negative Sugarflex laminates. They are a mono-material (made using only one type of polymer) suitable for recycling in either #4 or soft plastic streams. It is said to be the most sustainable refill pouch on the market and is available in both high and low barrier options. They can be supplied as either a metalised or clear laminate. They are fitted with a Plantmade recyclable spout pouch, which can be flip cap, spray spout or child proof. It can be fitted either at the corners or the centre of the pouch. Grounded say that all of their products are vetted for quality and environmental impact.

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Recyclable coloured plastics don’t require major investment

German start-up Smart Coloring has found a way to remove the colour from plastic recyclate and thus make it more attractive for customers. Their focus is primarily on polyolefins such as PE (polyethylene) and PP (polypropylene), from the packaging of shampoos and other care products, but also from billions of plastic lids that are produced annually. Masterbatchers would incorporate certain Smart Coloring additives in the course of colouring the plastics. Also, recycling companies would wash out the colour pigments and dyes from the plastic waste in the course of the hot wash by adding a solvent producing large quantities of high-quality decolourised recyclates. They claim that this can be done without major upfront investments for the packaging industry because the Smart Coloring process fits into today’s processes on many existing systems.

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Collaboration creates recyclable refill sachet

Global packaging and paper company and Innovation Zone members Mondi has collaborated with French machine supplier Thimonnier to create a recyclable refill sachet, with the goal of reducing plastic waste. The sachet is for refilling liquid soaps and is designed to get every drop of the contents out with consumer ease. It is made from a fully recyclable mono-material, coextruded polyethylene (PE), which is lighter and uses as much as 75% less plastic than traditionally used plastic bottles. They have taken part in the development of this refill sachet as part of the Mondi Action Plan sustainability goals, which sees the business follow a 10-year sustainability target to make 100% of their products reusable, recyclable or compostable.

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Recyclable cutlery range introduced

Food packaging innovators Sabert have launched a recyclable paper cutlery range, made using virgin cellulose from paper certified by the Forest Stewardship Council. The company invested heavily in research and development to achieve a sustainable set of cutlery that is rigid and sharp, but also pleasant to use. Sabert has compared the cutlery to that made from plastic in terms of functional performance but has said that the sustainability benefits of a paper-based range far outweigh those of plastic. Sabert were able to conquer the design challenge to create patented cutlery made from paper that delivered product strength, was robust and also performed well with stiffness and cut quality when used with both hot or cold foods.

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Hinged closures made from ultra-pure recycled plastic achieves testing milestone

A partnership between US companies AptarGroup and PureCycle Technologies to develop hinged closures made from UPR (ultra-pure recycled) plastic, that started in 2019 is making good progress. Developed and licensed by major consumer goods group Procter & Gamble, PureCycle's patented recycling process separates colour, odour and other contaminants from plastics waste and transforms it into high-quality recycled resin. Aptar has now successfully produced hinged closures with performances similar to conventionally-produced polypropylene in different colours from prototype material from the PureCycle feedstock evaluation unit. Aptar sees partnerships as the way forward toward a more circular economy and believes the packaging industry must move beyond the "make, use, dispose" behaviours of the past. The company has set ambitious targets for 2025, including the use of more recycled content in product offerings and ensuring all dispensing solutions for the beauty, personal care, home care, food and beverage markets are 100% reusable, recyclable or compostable by that date.

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New generation of recycled and recyclable single-material tubes introduced

L’Occitane en Provence, the French natural skincare, beauty and organic cosmetics producer, has collaborated with Dutch chemicals and plastics refiners LyondellBasell and French cosmetics packaging manufacturer Albéa, to design the new generation of recycled and recyclable tubes for its Almond collection. Produced by Albéa Tubes with polymers from LyondellBasell, this packaging is atypical of a new generation of circular packaging resulting from advanced recycling technologies. The outcome is a recycled and recyclable single-material tube for two of L’Occitane’s Almond collection. The tubes were made from LyondellBasell’s CirculenRevive polymers, which are produced through an advanced molecular recycling process that turns waste plastics into new polymer base molecules. CirculenRevive products are polymers derived from the chemical recycling of their supplier Plastic Energy, which converts end-of-life plastic waste streams into synthetic pyrolysis oil. The resulting material, called TACOIL, replaces petroleum to produce virgin plastic that can be used in a wide range of applications.

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Paper lids for foodservice are recyclable

Finnish manufacturer of paper and pulp products, Stora Enso, has announced the launch of a recyclable fibre-based material for foodservice paper lids. Cupforma Natura Aqua+ material is said by the company to be optimal for converting into paper cup lids, while offering recyclability in the same stream as paper cups and compostability in industrial settings. They say that Cupforma Natura Aqua+ material is lightweight, sturdy and able to withstand the heat and moisture of hot beverages. The company adds that the material provides excellent haptics, while being easy to apply and secure tightly to paper cups when used as paper lids. The material features a double-sided, water-based dispersion – which is fluorochemical-free and replaces a traditional plastic layer – optimal for converting into paper cup lids. The lids are also printable, which means brands can customise them as desired, such as including a logo.

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Muesli pouch can be rolled for easy recycling

O F Packaging is an Australian packaging company that specialises in sustainable flexible and carton packaging. They have now been awarded The Diamond award at the Dow 2021 Packaging Innovation Awards, which is the highest honour, and had 189 entries, leading to 36 shortlisted finalists. The solution is a high barrier, kerbside recyclable Muesli Pouch for muesli manufacturer Brookfarm. Once the pack is empty, the flat pack can be rolled up into a tube by the consumer and secured with a label that is attached to the pack, ready for kerbside collection and subsequent recycling. The recyclable muesli pouch, as part of the Australian Roll ‘n’ Recycle programme, took over a year of development and testing.

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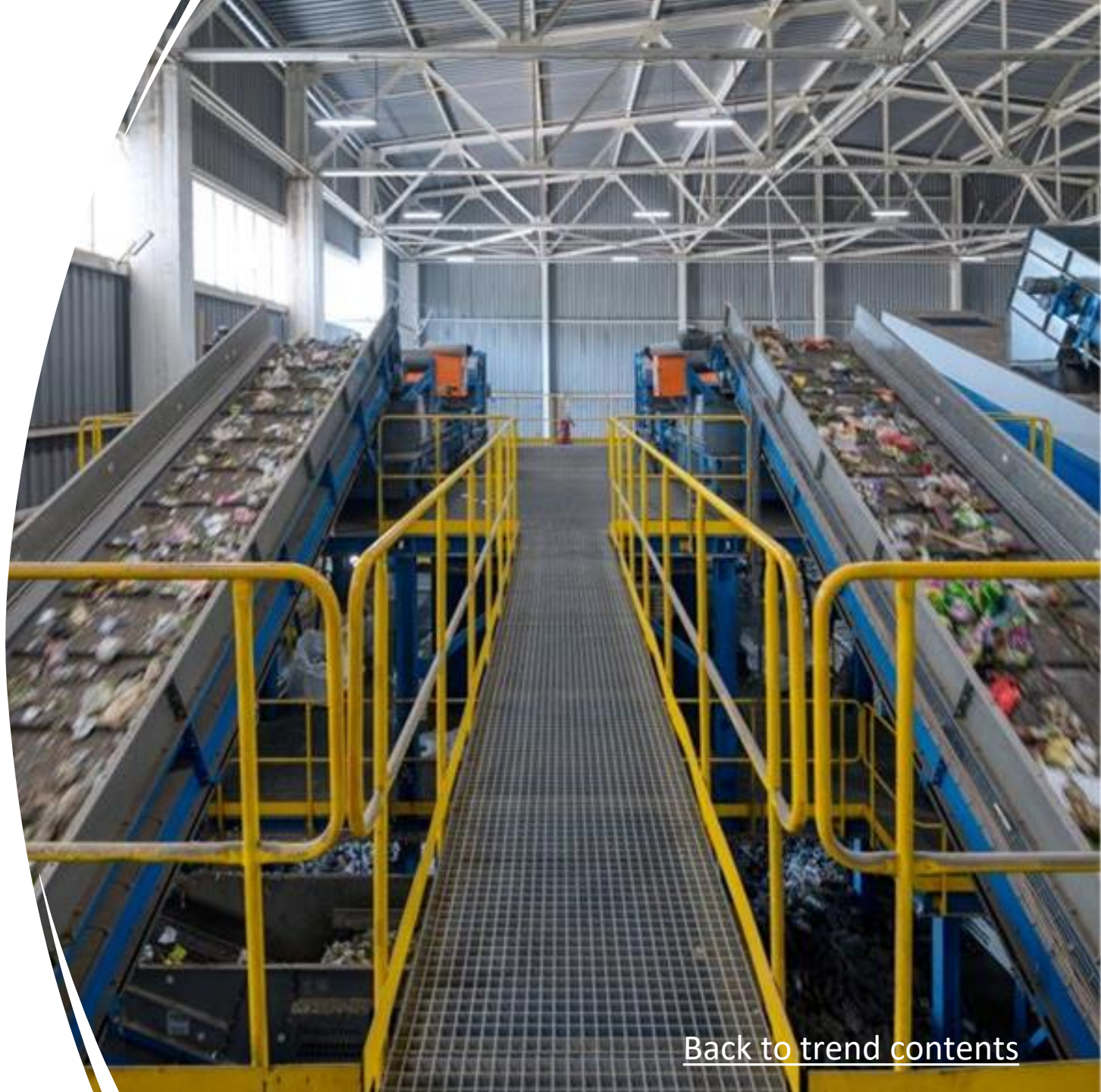
Artificial intelligence could help with packaging waste separation

A consortium of nine brand owners, two universities and an independent test centre have come together to develop and test an AI (artificial intelligence) decision model that could help with the separation of packaging that is not currently properly sorted. The project will take place over the next two years. The National Test Centre Circular Plastics (NTCP), Danone, Colgate-Palmolive, Ferrero, LVMH Recherche, Mars Incorporated, Michelin, Nestlé, PepsiCo, Procter & Gamble, Ghent University (Belgium) and Radboud University (the Netherlands) will form the consortium. NTCP will test a wide range of packaging products provided by the brand owners using its own flexible and modular sorting lines with industrial equipment. At the end of the project duration, the partners are aiming to successfully test the AI decision model in an industrial sorting plant. Ultimately, the goal of the Perfect Sorting Consortium is to make the AI decision model widely available for use in sorting plants in Europe in the coming years.



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Agricultural residues converted into single-use disposable fibres

BIO-LUTIONS is a German cleantech startup that mechanically converts agricultural residues into self-binding and durable natural fibres. Using these fibres, BIO-LUTIONS states that it can create a variety of single-use disposable products and packaging, which are suitable for food industry applications. They are now partnering with specialty chemicals producer Solenis to use their portfolio of barrier coatings for fibre-based products, which includes a range of products that repel water and water vapour, hot and cold liquids and oils and greases. Solenis says that these barrier coatings are available as either water-based polymer emulsions or solid biowaxes, which are reportedly made with renewable raw materials. The companies claim that the fibre-based packaging coated with Solenis' barrier coatings is typically repulpable, recyclable, compostable, and biodegradable. Both companies hope that the partnership will lead to faster innovation and the creation of more sustainable disposable products for the food and beverage paper packaging markets.

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White in-mould label film has high opacity

UK-based Innovia films has announced the launch of RayoForm EUP60 as part of its IML (in-mould labelling) range. EUP60 is a white BOPP (biaxially oriented polypropylene) film that is said to have a very high opacity. It is also a high yield product that has a density as low as 0.55 g/cubic centimetre. The film is suitable for use on small-to-medium size, thin or thick wall PP or PE containers, providing a tactile ‘soft-touch’ finish after moulding. It can also be used to produce a finished polyolefin mono-material container, making the pack fully recyclable. EUP60 is also said to give outstanding high-speed sheet feeding and adhesion for both UV and oxidative inks. Innovia says that longer reels are achievable with EUP60, meaning fewer changeovers and improved printing efficiency, with printing speeds of up to 14,000 sheets per hour being realised.

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Next-generation paper bottle includes paper closure

Paboco, a Danish paper bottle manufacturer, has announced that it is a step closer to achieving its goal of having a 100% paper-based bottle. In a partnership with Swedish start-up Blue Ocean Closures, they have intentions to include a recyclable paper closure that fits the paper threaded neck of its bottle prototype. Blue Ocean Closures claims that its screw cap solutions are fully bio-based, with a top-seal barrier layer that can be biodegradable or adapted to any type of filled goods. Meanwhile, Paboco says its paper threaded neck allows for the cap to be screwed directly onto the paper bottle, avoiding adding further processing steps or non-fibre materials. Paboco's current prototype bottle features a very thin PE (polyethylene) internal lining, but they are actively looking at bio-based liquid barrier solutions. Paboco claims that the thin PE coating is a common barrier material for paper in the recycling stream.

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100% paper translucent bags can be kerbside disposed

Kite Packaging, based in Coventry, has launched a new range of translucent paper-based bags. The bags are made from glassine, a natural paper product made from wood pulp that has a smooth and glossy finish. This means that they are both recyclable and biodegradable and can be disposed of in kerbside board and paper collections. The bags are aimed primarily at the fashion and textile industries, where a high clarity, high gloss plastic bag would be traditionally used, though applications could span across various industries. They are available in five sizes, from 200 x 150mm to 425 x 350mm, all in 40gsm glassine. The bags are grease, moisture and dirt resistant, helping to maintain the pristine condition of the contents. The bags are also pH neutral and acid-free due to the manufacturing process. The bags are secured with a neat seal omitting the need for any additional tape or sticker.

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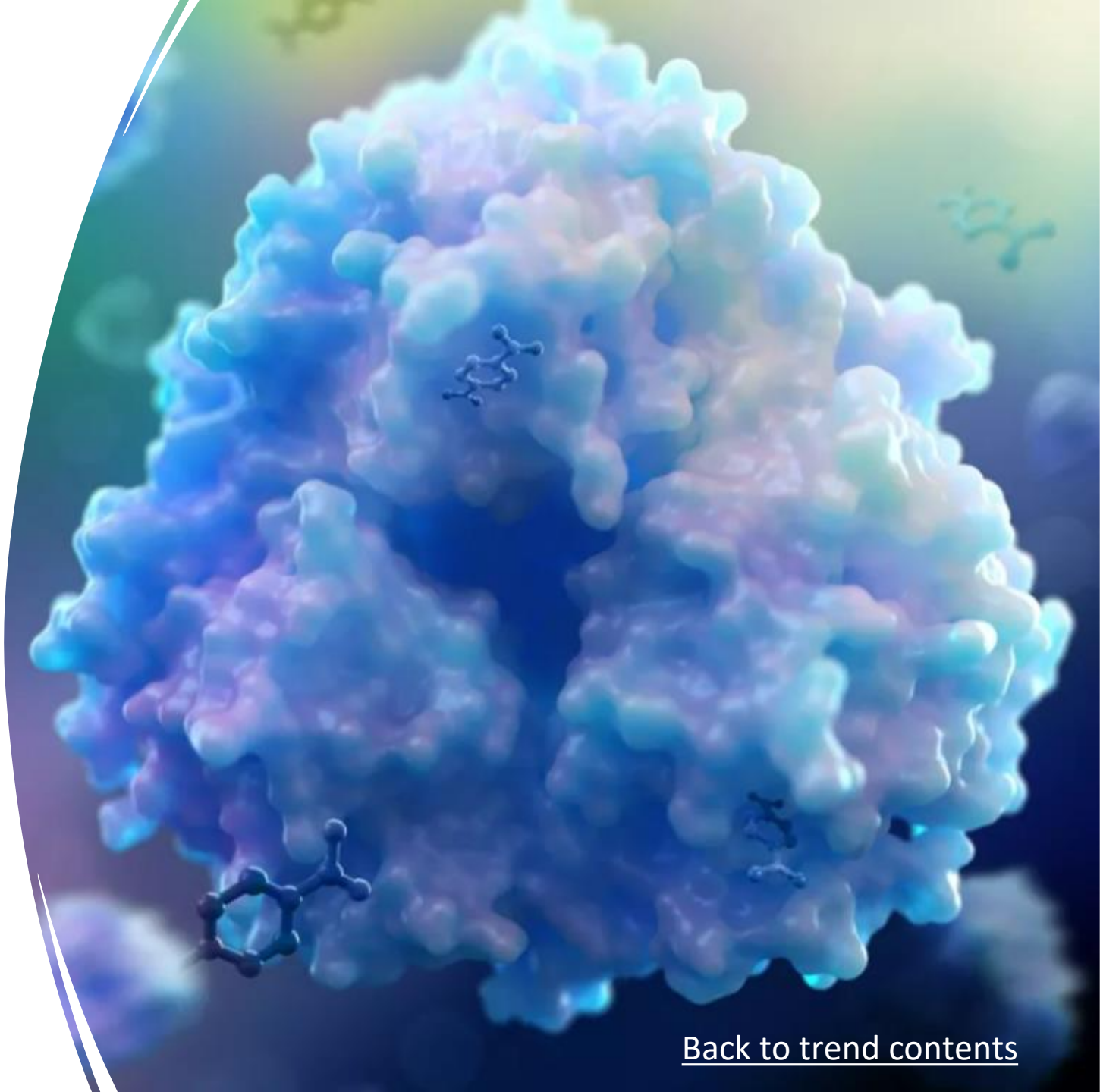
Newly found enzyme breaks plastic down quickly

A newly discovered enzyme called TPADO can break down one of the key building blocks for PET (polyethylene terephthalate) plastics. The news follows the discovery in 2016 by Japanese scientists of a bacterium with a natural appetite for PET plastics, using enzymes to break it down in a matter of weeks. In the following years, the enzyme had been improved, but one of the key plastic building blocks, TPA (terephthalate) left behind by this process was problematic as it had few uses outside of its use in PET. However, the development of TPADO by Montana State University has now overcome this problem. They studied these enzymes at the Diamond Light Source Facility in the UK, which blasted them with beams of powerful X-rays, revealing how TPADO carries out its TPA-consuming duties. These can then be utilised by bacteria to generate sustainable chemicals and materials, essentially making valuable products out of plastic waste.



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Food-to-go retail now part of coffee pod recycling scheme

Pret A Manger has become the first UK food-to-go retailer to join the coffee pod recycling scheme Podback. The move is aimed to help customers to recycle their aluminium Pret at-home coffee pods. Customers are supplied with recycling bags, which when filled, can be taken to their nearest drop off point. There are thousands of drop-off points in local Pret stores across the UK. Initially, Pret customers can order recycling bags alongside their regular pod order via Ocado. Pret will also make recycling bags available in its UK shops later this year. A number of local councils will also collect them as part of their kerbside collections, including Cheltenham Borough Council, South Derbyshire District Council, Chichester District Council, Oxford City Council, Ipswich Borough Council, Exeter City Council and London Borough of Waltham Forest. Podback was created by Nestlé and Jacobs Douwe Egberts UK.

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German yoghurt range introduced in 100% r-PET

Plastic packaging manufacturer Greiner Packaging has announced that it is to produce a 100% rPET (recycled polyethylene terephthalate) pot for Harvest Moon, a German manufacturer of plant-based yoghurt and dairy products. They will use Greiner's K3® cup, which is a combination of an inner rPET cup with a board outer sleeve. r-PET is considered a sustainable plastic as it is light, unbreakable and without plasticisers. Since the new cups are made from 100% recycled, unprinted r-PET monomaterial, they can be processed again and again into 100% food-safe cups. By switching from virgin PP to r-PET, CO2 emissions are significantly reduced, with a saving of around 40%. The outer board wrap can be made from recycled material, and gives the plastic cup stability, so that it can be produced with particularly thin walls. In addition, the cardboard wrap can be easily detached from the cup by the consumer thanks to an innovative tear-off mechanism.

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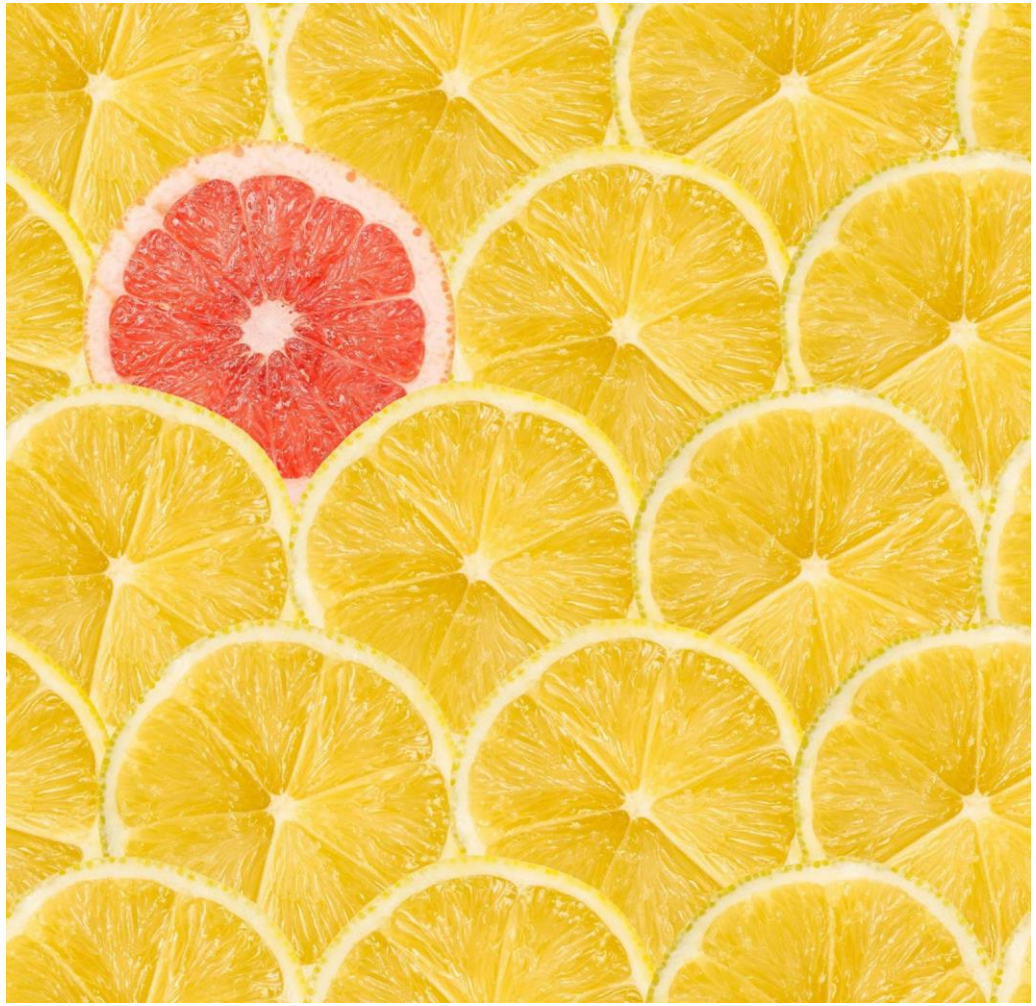

Getting Noticed

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Getting Noticed

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

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

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Getting Noticed

Distinctive designed jars for Easter aim to get noticed

Beer brand celebrates anniversary with a champagne bottle

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Distinctive designed jars for Easter aim to get noticed

Barry PET Power, based in the Netherlands, has announced the launch of two new PET (polyethylene terephthalate) jar designs aimed at the Easter gift market. The two 300ml jars are available in egg and bunny shapes, providing eye-catching and appealing packs, while the clarity of the PET enables the products that the jars contain to be presented to their best effect to maximise on-shelf appeal. In addition, to help meet companies' sustainability commitments, the jars can be produced in post-consumer recycled (PCR) materials. They can also be recycled in standard collection streams. The seasonal designs are part of Berry PET Power's extensive novelty jar range, offering companies a choice of shapes and decoration options to enhance brand image and create shelf impact in the competitive confectionery market.

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Beer brand celebrates anniversary with a champagne bottle

With 2022 being the 175th anniversary of the founding of the Carlsberg brewery, the brand owner is celebrating with a limited edition beer, bottled in a 750ml ‘champagne bottle’. The beer, which will be limited to 2,000 bottles, will be sold in the Swedish state-run Systembolaget chain of liquor stores. Carlsberg describes Anniversary Beer as a low-hop “Brut Beer”, brewed with wheat malt, and then fermented with Montrachet yeast. The result is an aromatic and crunchy beer with clear mineral tones and hints of grapefruit, yuzu and rose water. It is then packaged in an elegant 750ml glass bottle and closed with a traditional champagne cork. The alcohol content of Anniversary Beer is 6%. In addition, a Special Porter was also produced by Carlsberg Falkenberg in collaboration with Brooklyn Brewery.

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Refill Revolution

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

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

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Reusable cup goes multi-purpose with bottle version

KeepCup is an Australian company that manufactures reusable coffee cups. They have now announced the launch of ‘The Bottle’ to their range of reusable drink containers. The Bottle is a multi-purpose container utilising a modular system, whereby it can be changed from a water bottle to a coffee cup by unscrewing the top and replacing it with a reusable top similar to KeepCup’s other coffee cups. It is also insulated and will keep drinks hot for two hours or cold for eight. The Bottle was designed so that when in coffee cup mode it fits “under coffee machine group heads, keeping extraction and crema intact” according to KeepCup. The Bottle comes in 18oz (511ml) and 22oz (650ml) sizes and boasts 10 different colour options. Prices range from $34 (£19.46) to $55 (£31.48) based on size and colour configuration.

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Enchilada sauce moves to easy-open reclosable packaging

California-based MegaMex Foods, owners of the La Victoria brand of salsa and sauces has announced that its classic enchilada sauce packaging is moving to an easy-to-open pouch with a twistable cap, making it easier than ever to store the extra and reuse. Available in red and green enchilada sauce varieties, the new reclosable pouches are designed to provide consumers freedom from the hassle of cleanup with traditional canned enchilada sauce and the can opener. The recipes of the red and green variety is the same formula as that found in the previous can format but now it is packaged in a convenient 12-ounce reclosable pouch, it can be stored in the refrigerator after opening. La Victoria enchilada sauces are now available at select Albertsons locations and other leading retailers in the western U.S.

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New ‘Shake & Clean’ reusable and refillable dish soap bottle introduced

US multinational consumer products company Colgate-Palmolive, in collaboration with Walmart, have announced the launch of the Palmolive Shake & Clean Dish Soap. The Palmolive Shake & Clean is available as a starter kit which contains a reusable, refillable bottle made from 100% recycled plastic, and both the bottle and carton are widely recyclable. The concentrated gel pouch makes it easy to refill the reusable bottle, uses 75% less plastic and requires less water in transport, all of which contribute to reducing the carbon footprint of dishwashing. Consumers are instructed to fill the empty dish soap bottle with water to the line on the reusable bottle, and add the 5oz gel dish soap concentrate from the pouch. Then shake the bottle and watch how the 4x concentrated formula activates to yield a new 20oz (568 ml) bottle of soap. Palmolive Shake & Clean is available exclusively at 2,000 Walmart stores across the US and at walmart.com.

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Reusable envelope for clothes cuts carbon emissions

DaklaPack is a Dutch company that produces plastic packaging and envelopes. They have now launched Fashionpak, a reusable shipping envelope designed to slash carbon emissions, in collaboration with The Netherlands postal service PostNL. The envelope has a special valve where redundant air can be pressed out, allowing it to fit into a letterbox. With traditional shipping products, clothing that consumers want to return is typically packed into new material and therefore, normally more packaging is needed for sending items back. However, since the Fashionpak is reusable, less packaging is needed for returning products. One of the potential issues DaklaPack faces is achieving consumer acceptance, therefore the Fashionpak must be easy to use and understand, they say. They chose PostNL as a partner as they have a system in place and the possibility for users to return their products without having to return them to the post office first.

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Wall of dispensers delivers packaging-free shopping

Dutch retailer Albert Heijn is launching a new shopping concept that will allow customers to do some of their shopping more sustainably. The new concept has been achieved with a partnership with Prague-based MIWA Technologies and consists of six metres of smart dispensers filled with a packaging-free range. Customers can fill their own reusable packaging from the dispensers, or buy a reusable jar or bag on the spot. They first weigh the packaging without the product, then they fill it with one of the seventy products, before printing a label with which they pay at the checkout. Known as AH Packaging Free, the range consists of seventy products, from breakfast cereals and spreads to ingredients for meals, such as pasta and rice. About 80% of the assortment (55 products) is organic. The Albert Heijn XL in Rotterdam is the first store to implement the new concept.

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World-first reusable pouch with tracking system hits market

UK plastic-free and reusable packaging pioneers Bower Collective have introduced what is claimed as a world-first reusable pouch. The BowerPack can be used up to 10 times before it is recycled by the company through a specialised partner. The pouch utilises a one-way valve system, which only allows liquids to flow in one direction out of the pack. This should prevent contaminants from entering the packaging. BowerPack utilises an innovative tracking system, using digital infrastructure experts Reath's unique digital passports to give each pouch an individual and distinguishable identity, adding an extra layer of security to the constant reuse of the pack, and allowing the company to know which product is in any pouch at any given moment. The customer also gains from the use of the tracking system – they can scan the QR code and check for themselves how many times their pack has been reused, and how much carbon and plastic waste has been prevented. Once a customer is finished with the pack, they simply pack it into an envelope and send it to Bower who will clean and get them ready for reuse again.

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Reusable Easter eggs made from tinplate launched

Gåva is a London-based company formed in 2020 that sells a range of reusable Swedish Easter eggs (or äggs as they are called in Sweden) made from tinplate. Through their website, customers can choose from 18 different designs, including the Vintage Beatrix Potter Collection. There are some new designs for 2022, including the Leo in yellow leopard print, and the floral Blomster. Extra items such as Swedish Chocolate and vegan pick n' mix are sold as optional extras. For 2022, they have also launched the limited-edition Gin Äggs, with a miniature bottle of English Berry small-batch sloe gin from the award-winning (and sustainably minded) 58 Gin distillery in Haggerston, plus a can of Fever Tree elderflower tonic to bring out its ripe plum, damson, orange blossom and soft raspberry notes. Easter Äggs by Gåva cost from £9.50 and are available from their website.

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Sunflower pollen used to create reusable paper

Singapore's Nanyang Technological University is developing a technology that makes paper re-writable. Derived from sunflower pollen, the university researchers used potassium hydroxide to remove the outer layer from the pollen grains. They then used the soft leftover interior from the pollen to make a gel-like substance which was poured into a paper-shaped mould to dry. This paper can be written on and laser-printed using traditional methods but has the added bonus of its ability to be fully erased and used again. To do this, the paper is submerged in an alkaline solution, washing away and erasing the marks on the paper. It is then doused in ethanol. Once this is done, it is dried and coated in acetic acid, at which point it is as good as new, and can be used again. The process works around ten times per sheet.

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About Us

ThePackHub is a leading UK based packaging innovation consultancy specialising in delivering packaging solutions to brand owners, retailers and packaging suppliers. ThePackHub manages a market-leading innovation database called The Innovation Zone. The easy to use resource has over 5,800 packaging innovations from around the world updated at to 20 initiatives a week. This internal insight and knowledge feeds into much of the consultancy we undertake. ThePackHub also has an unrivalled network of packaging contacts and connections across the industry.

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

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

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

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