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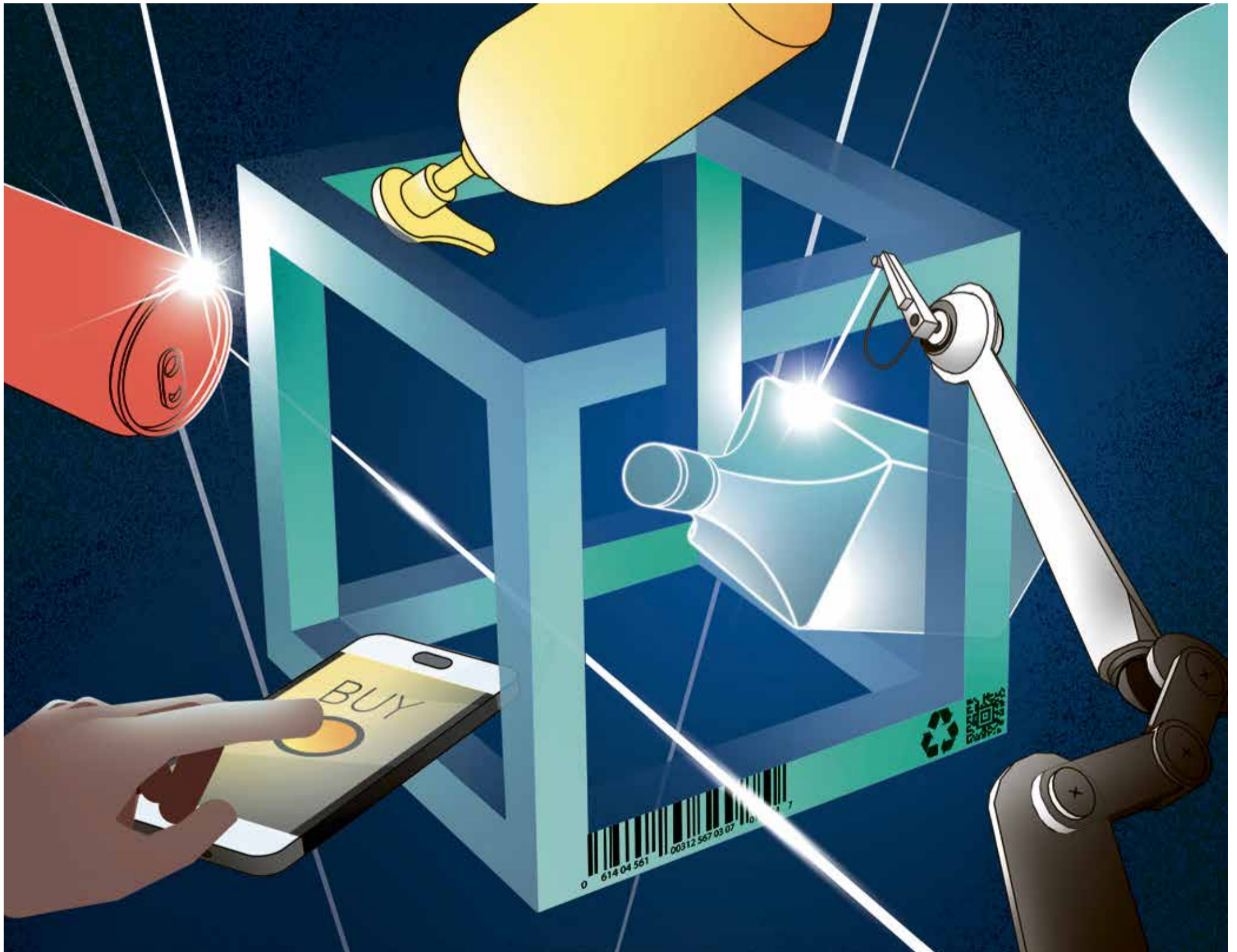
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FUTURE OF PACKAGING

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Thinking outside the box

The packaging industry is at a crossroads where technology and e-commerce must avoid colliding with sustainability, finding a direction that safeguards the planet

OVERVIEW
MIKE SCOTT

We may take packaging for granted – indeed, failing to notice it can be a sign of its success. But in many cases, whether it is a child’s toy or a toothbrush that you just can’t get into, or an iconic symbol of a brand such as the original Coke bottle or the box the latest iPhone comes in, packaging can evoke surprisingly strong feelings, for good or ill.

Packaging has long since evolved from being just a way to keep products safe and secure in transit from producer to end-user. It is the consumer’s first point of contact with a product and so it now plays a vital role in building brand differentiation, awareness and loyalty.

Products can have huge amounts of resources invested in them, but then live or die as a result of their packaging. It can say more about a brand than the product inside – on issues ranging from the environment to the way the company sources ingredients – and some packaging has even become an unlikely star of social media thanks to the phenomenon of “unboxing” videos.

A recent survey revealed that the Coke bottle was the most recognisable piece of packaging in the UK, followed by the Toblerone box, the Marmite jar and the Pringles tube. “Innovative design alone cannot grant packaging iconic status – it needs to be ingrained to some extent in a culture’s subconscious,” according to Michael Grass of AD Communi-

cations. But, he adds: “Once that happens, it becomes nigh impossible to dissociate it from our collective memories.”

By definition, packaging encompasses every sector of the economy – everything needs packaging, from herbs and spices to nuclear reactors. As a result, it is a huge market, set to reach almost \$1 trillion by 2020, up from \$839 billion in 2015. There are five main segments – paper and board, rigid plastic, glass, flexible plastic, and cans.

All these materials are among the biggest sources of waste and recycled material, and sustainability is one of the key challenges for packaging companies. The sector is at the forefront of the fight to reduce waste, to lightweight products and to introduce a circular economy.

For some products, this is easy – everyone knows they can recycle cans, cardboard and bottles. However, when it comes to plastic packaging it can be a bewildering experience, not just trying to work out what type of plastic the packaging is, but also whether your local authority accepts it for processing. According to the Ellen MacArthur Foundation, just 14 per cent of plastic packaging is recycled and at least eight million tonnes a year leaks into the ocean.



The newly heightened awareness of the problem of ocean plastic and the speed of recent developments in the fight against climate change, such as the signing of the Paris Agreement in the past few weeks, mean it is inevitable the industry will face growing pressure to make packaging more recyclable and degradable both by simplifying the materials involved and through innovations in design. Plastic, in particular, is likely to be in the spotlight, not just because of its impact on pollution because it is made from oil, a fossil fuel that contributes to climate change.

But at the same time, technological advances in digitisation, sensors and the internet of things are pushing in the opposite direction to make packaging more complex so products can be better tracked, secured and monitored.

“I think we’re at a tipping point: the intersection of e-commerce and sustainability,” said Marianne Rosner Klimchuk, associate chairwoman of the Fashion Institute of Technology, at the recent DuPont Awards for Packaging Innovation. “This moment in time is that pivotal point in which sustainability and e-commerce are coming together [with] people looking to reduce use of materials and thinking about innovation in terms of e-commerce.”

Although the technology is too expensive to be widely adopted at the moment, many millennials expect 3D printing to transform the world of packaging in years to come. In the same way that many products will become increasingly bespoke, so will the packaging. Coca-Cola and Nutella have led the way in packaging with people’s names on, but in future individual designs may be possible as well and packaging may play an even more important role in marketing products as a result of augmented reality.

Ultimately, packaging will have to respond to the same challenges that retail as a whole has to face. In addition to megatrends such as the ageing population, changing household sizes and increasing urbanisation, packaging will increasingly have to tell a story to consumers who, thanks to the spread of social media, are evermore inquisitive and proprietorial about the products they buy. The packaging of the future will carry more information than ever before.

This information will be directed at consumers to help them find out more about the provenance and ingredients of their products, and to interact with brands more. But information embedded in sensors and internet of things technology will also flow in other directions to reveal more about consumers to retailers and suppliers, via domestic appliances in connected homes.

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Innovation can still save the environment

As single-use packaging clogs oceans and overwhelms landfill sites, sustainable and recyclable alternatives are being developed, but these need a boost to become mainstream

NEW MATERIALS

NICK EASEN

Anyone who has walked along a beach and seen degraded plastic packaging washed up on the shore realises we need new, smarter materials if we're not to swamp our oceans or stuff-up our landfill.

Global plastic production has mushroomed from 15 million tonnes in 1964 to 311 million tonnes just two years ago. This is expected to double in the decades ahead. In fact, by weight there could potentially be more plastic than fish in the ocean by 2050, according to a report from the World Economic Forum.

"A substantial share of plastic packaging is uneconomical to recover, re-use or recycle," explains Rob Opsomer, who leads the New Plastics Economy at the Ellen MacArthur Foundation. "There are now many new materials with a large range of properties that make them interesting alternatives to some unrecyclable ones."

Bioplastics have specifically come to the fore as businesses rethink packaging, but they are yet to develop any single source into a widely used alternative due to higher production costs. Some new materials are based on plant, even algae, fungi or animal products, while others are being created from renewable resources.

"I think we will see a lot more cellulose-based materials going forwards," says Anna Glansén, a designer from Tomorrow Machine, a Stockholm-based studio specialising in novel packaging. "This type of packaging is often made from wood, but now we also see more cellulose coming from algae."

Due to the high volume and fast turnover of food and beverage, beauty and health, as well as household goods, there are significant opportunities for new packaging materials in these sectors. Fashion, hygiene and electronics are also potential markets.

Take IKEA for example, it has been looking into packaging grown from mushrooms. The product is being developed by an innovative US company called Ecovative, which feeds fungi with agricultural waste. While Colombian designers have produced



01

Ecovative



02

Kosuke Araki



03

Brayan Steven Pabón Gómez/Rafael Ricardo Moreno Borda



04

Tomorrow Machine

01 Biomaterials company Ecovative is developing packaging made from fungi

02 Agar prototype by designer Kosuke Araki can provide cushioned packaging for perfume bottles

03 Discarded banana stem fibre is being used for food packaging

04 Tomorrow Machine has created a food and beverage case made from caramelised sugar that cracks like an egg

is still just a fraction of the main materials market in plastic packaging."

Certainly design is seen as a big part of the equation. "We need to re-envision the way we make packaging, from the materials we use to what happens to them at the end of their useful life," says Lewis Perkins, president of the Cradle to Cradle Products Innovation Institute.

This is the reason why the Ellen MacArthur Foundation has an ambitious £10-million three-year New Plastics Economy initiative to redesign and reimagine packaging, to replace plastics with sustainable new materials and to minimise single-use products.

Kosuke Araki, an award-winning Tokyo-based designer, is experiencing all these challenges as he tries to scale up packaging made from agar, a jelly-like substance, obtained from algae and red algae fibre waste.

"Plastic is not often consumed or treated as a precious material, but it absolutely is. If agar-derived plastic materials could be used, there will be much less pollution, since the raw material is harvested from the sea," explains Mr Araki.

The composite can be used as a sheet for wrapping flowers, to cushion wine bottles or moulded to make boxes. After it's used the packaging can condition your garden soil. "It improves water retention and the fibre waste also acts as a fertiliser," he says.

It's these kinds of new materials that industry and consumers are looking to. But there's still a long way to go to get them produced on an industrial scale and on to the world market.

“There are now many new materials with a large range of properties that make them interesting alternatives to some unrecyclable ones

innovation in packaging, yet these new materials still need to perform to the same or better standards, quality and finish than our traditional packaging such as plastic, paper and glass, as well as be accepted across industries and consumers globally.

"Disruptive materials are sometimes not necessarily more expensive or more complicated to produce, but there is always a big initial cost when you develop new products and we are at that stage right now," says Ms Glansén.

Most new packaging is also produced in tiny volumes compared with our common fossil-fuel sources; therefore issues associated with economies of scale kick in. New materials can sometimes be uncompetitive substitutes in the mass market, only good for particular applications.

"It takes a long time for new materials to get established in the packaging market," says Mr Opsomer. "Polylactic acid is considered a 'new' polymer, but it has been around for decades and is currently produced in several hundreds of thousands of tonnes. But this

FIVE TOP ALTERNATIVE PACKAGING MATERIALS

01 EDIBLE FILMS AND WRAPS

These starch-based products have been around for a while, but at the US Department of Agriculture they're now developing a film made of milk protein. In South Korea they've been looking at animal protein.

02 ALGAE-BASED PACKAGING

If you boil up seaweed you get a gelatinous substance called agar. This can be used to create textures that can replace bubble wrap and foam packaging. Researchers in Japan, Lithuania and Spain are pioneers.

03 MUSHROOM-BASED CONTAINERS

Grown from agricultural by-products, this so called myco-foam is produced from mycelium, a fungal network of threadlike cells, which are like the roots of mushrooms. Ecovative in the United States is at the forefront of this technology.

04 CELLULOSE, FIBRE AND RESIN

Bananas, coconut, softwood forestry by-products, as well as grasses and cereal stalks all have the potential to become bioplastics. Some materials can be heated, melted, and injected into moulds, which is crucial if they're to compete with petroleum-based plastics.

05 PLANT-BASED POLYMERS

Biopolymers can be made from corn or potato starch, even sugarcane. Long molecular chains such as polylactic acid can be derived from annually renewable resources. A number of companies from New Zealand to Thailand produce this.

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COMMERCIAL FEATURE

MAKING GOOD THINGS BETTER

Amaray is a high-volume, highly efficient, highly automated plastic injection moulding company providing insight, innovation and cost-effective manufacturing solutions across a variety of consumer markets



With its laser-like focus on customer satisfaction, Amaray is well positioned to strengthen brand-to-consumer relationships to aid long-term sustainable growth.

Customer-focused innovation and manufacturing excellence continues to define Amaray's success. As the leading packaging manufacturer for home entertainment, its ambition "to make good things better" leads its expanding service offering into multiple markets. Embracing positive change, it continues its strategic diversification journey to bring focused plastic solutions and manufacturing excellence to a wider audience.

"In the last two years, our branding, our purpose and our culture have changed. This passion for change brings optimism, motivation and engagement, and has enabled our business to move swiftly into new consumer markets," says marketing manager Neil Pentecost.

As one of the largest high-volume producers of plastic components and packaging, Amaray has dominated the media market for more than 25 years. The benefit of Amaray's experience in media is that it has an extensive history of collaborating with reputable global brands.

"Our competitive advantage continues through innovation, ingenuity and an immense understanding of customer and market desires," says Mr Pentecost. "Manufacturing media products in extremely high volumes inspired us to aggressively drive opportunities for operational efficiency, reduce waste

and lower costs. Our business thrives on this relentless approach."

With more than 320 patents to its name, innovation remains integral to Amaray's future. Driven by its purpose to make good things better, Amaray is developing new packaging formats to inspire and encourage consumer interaction via additive functionality. Added-value packaging is a differentiating factor that can help influence repeat purchases and encourage brand loyalty.

With convenience being such an important part of consumers' lives, great packaging that supports varying lifestyles and enhances their experience can make all the difference to a consumer's decision to purchase in the future.

Packaging development in areas such as accessibility, portion control and waste reduction continues at pace, with one Amaray example being SqueezeOpen. Designed with the consumer in mind, it helps people suffering with arthritis in their hands, while also offering speed of use for on-the-go products. Its easy opening and closing action enriches the consumer experience, needing



Amaray consistently manufactures packaging that is structurally competent, designed for value and meets government regulations, while maintaining its environmental responsibility



BELOW LEFT
Amaray plastic injection molding facility, Corby, Northamptonshire

only a gentle squeeze to open and an effortless pop to press it closed.

"This versatile system, created a number of years ago, continues to be advanced, making it available to multiple applications, including products within personal care, confectionery and vitamin packaging," says Mr Pentecost.

"We design distinctive brand-enhancing packaging that makes a real difference. Major companies appreciate our unique approach to proactively bring new and innovative ideas to their marketplace," he adds.

Amaray's understanding of consumer and environmental needs is helping it to transfer plastic technologies pioneered in its media products into new product categories. Plastic's inherent flexibility, lightness and strength-to-weight ratio allow Amaray from the outset to design right-weighted products suitable for the entire supply chain, including post-consumer recycling. As a result, it consistently manufactures packaging that is structurally competent, designed for value and meets government regulations, while maintaining its environmental responsibility.

The company's collaborative culture spills over into the design process. "Companies that outsource the design of their rigid packaging sometimes meet challenges from a manufacturing perspective. This is where Amaray can make a real difference. We bridge the gap between what looks great and what can be manufactured so that customers achieve the best design, made efficiently and as cost effectively as possible," says Mr Pentecost.

Beyond design, the company's ability to mass-produce high-quality products via injection moulding sees Amaray constantly achieve high performance supplier ratings with its customers. This, in addition to the company's operational excellence, is why they choose Amaray as the best provider for mould transfer.



Brands can transfer their own existing tools to Amaray's facilities where they can be incorporated into their production lines.

Through naturally streamlined processes, optimisation and integrated automation, Amaray delivers cost-reductions via efficiency gains. With the initial investment in moulds being expensive, Amaray helps customers to maximise their tools' full potential over the course of their useful life. These benefits are already being realised by a number of global companies in multiple consumer markets.

Amaray also helps brands to meet consumers' growing concerns about environmental issues by designing recyclability into its products. However, there is an additional and exclusive service that it continues to operate, relating to its commitment to reuse material internally whenever possible.

Historically, the home entertainment market has suffered with inventory management and sales forecasting. Overestimating sales, while retaining high levels of stock, leads to a combination of high costs with financial risk. With the introduction of Closed Loop, the excess inventory is returned to

Amaray to be recycled and reused in new customer-specified products.

The data extracted from the returned material is closely monitored to ensure each customer receives the correct material allocation and maximum value from this service. Plastic waste often occurs in manufacturing during colour purges, the implementation of new moulds, the completion of maintenance and the carrying out of quality compliance checks.

Closed Loop aims to manage this waste, to reuse it and gain maximum value offered by this versatile material. By cutting waste and reusing material, the demand for virgin material is controlled, inventory management becomes more efficient and unnecessary landfill is avoided.

Amaray's relentless and proactive pursuit of the best possible solution generates opportunities to create additional value for customers via innovative packaging. Packaging is an invaluable communication tool for brands, and making the consumer experience memorable will bring brands and consumers closer together.

For more information please visit
www.amaray.com



Packaging designed to promote brand values

Bold, minimalist pack designs are the latest vogue for mass-market brands as the craft craze of the early-millennium begins to look distinctly passé

DESIGN TRENDS

DAVID BENADY

From colas to cosmetics and oven cleaners to crisps, brands are looking to strip their designs back to the bare essentials to stand out on shelves and on screens. Out go the daisies, sunlit fields, the ornate Victoriana, the histories of brand origin, the ostentatious logos and swirling colours that were the hallmarks of the craft trend. In come big, simple logos in bold hues with little else on the packaging to distract the eye. This is branding writ large.

Striking examples of the minimalist trend include new designs for McDonald's takeaway packaging, the Coca-Cola range, the Argos Simple Value range, Oxo, PG tips, Domino's pizza and countless others.

Landor executive creative director Valerie Aurilio explains: "Design is about solving a problem and one of the biggest problems these days is that consumers are inundated with information. People are looking to declutter, they are looking for simpler choices, they are overwhelmed by everything they are seeing on shelf and online. It behoves brands to become easy to choose, easy to shop and a simple pleasure."

She says brands which relaunch with minimalist designs can struggle to achieve this. But brands such as Method, Eos and Nivea, which were originally launched with a minimalist design, are far more successful.

Relaunching a brand with minimalist packaging and stripping design back to basics risks erasing powerful brand symbols that come to define a product in the consumer's mind. It can look clinical and lacking in personality.

Some global megabrands have fallen foul of the rush to minimalism. Tropicana tried a minimalist rebrand in 2009 that hurt sales and had to be reversed. The pack redesign dispensed with Tropicana's straw in the orange – denoting freshness – and took out some of the fancy additions such as the green leaves, paring the design so far back to basics that it resembled a Nasa instruction manual. Sales fell 20 per cent before the previous, much loved design was reinstated.

Following that debacle, marketing managers were understandably wary of adopting minimalist

rebrands and looked askance at designers offering simple logos on acres of white space, unadorned type faces and endless talk of the "new essentialism".

But the demands of the digital era are forcing brands to take minimalism seriously. Designs need to be clear and simple to capture a consumer's attention in a nano-second as they scroll through a mobile feed. Brand designs must be direct, unfussy and create maximum impact.

The contemporary trend for mass-market brands to recreate their packs with minimalist designs was kicked off by Coca-Cola with the stripped back 2007 redesign created by agency Turner Duckworth. Founding partner Bruce Duckworth says Apple had already paved the way, using a sleek, upmarket look in designs for its products, packaging and logo.



By paring back and prioritising the message, brands have a better chance of standing out

"Coca-Cola was the first mass-consumer brand that employed that attitude," says Mr Duckworth. "It was stripping away all the unnecessary bits of design that had accumulated over the years on the packaging. We stripped them away so you were just left with the elements that were truly, unmistakably Coca-Cola."

Every time a new brand manager came in, they added something new to the design – one added bubbles to denote freshness, the next added some icicles on top of that, another put on an extra white swoosh. "Eventually you cover up the bits that are the unique and staple parts of the brand, so you have to strip that back," he says.

Some draw a distinction between minimalism and essentialism – the latter is about finding the visual language which is distinctive, essential and pertinent to the brand. As Vicky Bullen, chief executive of design agency Coley Porter Bell, which created the new Oxo packaging, says: "It's less about minimal-

ism as a deliberate lack of adornment or use of simple forms and more about building the brand's visual DNA ruthlessly around what is fundamental.

"As brands try to differentiate themselves, it's easy for packs to get full of claims and benefits, most of which aren't noticed by consumers because they aren't interested and don't have time. By paring back and prioritising the message, brands have a better chance of standing out."

So designers are moving away from the florid craft-based approach which proliferated among new, independent products during the early-2000s. This was aped by several big brands and is still evident today with launches such as Tesco's own-label Farm Brands. The trend was prevalent among food and drink brands such as Hendrick's Gin, which was dressed with intricate 19th-century adornment. This busy design style contrasts with cold, authoritarian corporate brands of the eighties and nineties.

The craft movement in branding dovetailed with a faux-naïve trend promoted by brands such as Innocent Smoothies and Ella's Kitchen. They used packaging which mimicked the child-like scrawl of a kids' picture book and featured amusing copy and softly drawn cartoon designs. This approach offered to bring humanity and humour to consumerism, signalling a hopeful new era of smaller, nicer and more caring brands.

The grand old dame of faux-naïve branding is Ben & Jerry's ice cream, which scrawls jokes, images, descriptions and cartoons all over its packs; a hippy-dippy world view which admittedly seems somewhat at odds with its corporate ownership by Unilever.

The craft and faux-naïve brands have sought to create a new definition of authenticity. They use designs to tell their stories and create a close bond with shoppers by filling their packs with narratives about their ideologies, origins and purpose.

Often newly launched and independent, these brands take a fresh angle on consumerism and usually lack big advertising budgets. They need to rely on pack design to communicate those values.

Jim Prior, chief executive at design agency The Partners, says: "There is a genre of design that looks to cram as much of a story or narrative as possible into the space



Modern packaging is bold, striking and stripped back, as brands attempt to cut through all the noise and stand out



available, and there are other kinds of narratives which are much more confident and single-minded, and project a singular message."

He points to the polarisation between the two approaches in cosmetics, for instance with elaborate designs on personal care brands such as Kiehl's and Dr Bronner's Soap compared with the stark designs of many perfume brands.

The Partners worked on a minimalist approach with Argos for the packaging of its Simple Value range of products. The range of more than 140 low-priced goods sought to shift the concept of "basic" to one of

"simple with a twist". The products feature bold, humorous statements in white on red, with scales which bear the instructions, "Cross your fingers. Step on. Look down."

Argos senior brand manager for own brands Rob Quartermain says the company wanted to differentiate the Simple Value range from the Argos master brand so needed a striking design. He adds: "There are plenty of examples of how entry price point brands have significantly improved. Everybody will buy into a value range." And he says of the joky instructions on the packs: "A playful tone of voice is important to us."



We wanted to inject personality into the products. We are a British brand with a playful tone of voice and we don't take ourselves too seriously.”

The digital world is transforming people's relationships with brands. “For the consumer, the first moment of truth is probably not on the pack, it is probably happening in their Facebook feed or when they are looking for inspiration for the meal they are going to cook that evening and they do a Google search. Brands are showing up long before the actual in-store experience,” says Chris Koller, managing director for Europe, the Middle East and Africa at design agency bluemarlin. So design is less about persuasion on the shelf and more about creating a simple, enjoyable and noticeable experience for the consumer, he says.

The craft and faux-naïve brands have sought to capture authentic-

ity with designs that look a world away from the serious tones of the big brands. But Ed Silk, strategy director at agency Bulletproof, believes that essentialism is a new kind of authenticity. “There are lots of manifestations of how you can convey craft and how you convey quality. Minimalism is stripping it back and letting the quality speak for itself. It's an understated assertion of being more confident.”

The need to appear authentic is still of huge importance for mass-market brands. Whether this is achieved through craft, humour, childlike graphics or bold minimalism, the common element for high-quality pack design will always be an understanding of a product's basic brand values.

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COMMERCIAL FEATURE



KEEPING IT TOGETHER

Why product consistency is vital as physical and digital blurs



In the new world of the digital economy where consumer packaged goods (CPGs) are increasingly sold online and it is ever harder to get the customers' attention, brands need to do more to stand out.

The task of bringing a product to market in this new world is extremely complex. Brands have to consider not only the inherent aspects of the product, but there are also diverse packaging considerations, including legal regulations, and physical and marketing requirements.

To meet the needs of the demanding modern consumer, brands have discovered that more variations, promotions and localised versions are vital, even to the ultimate endpoint of a truly personalised product.

Coca-Cola's successful Share a Coke campaign, which saw its script logo replaced by consumers' names, marked the moment when the personalisation trend hit the big time. In its original launch in Australia, the campaign boosted sales of Coke among young adults by 7 per cent, bucking the decline in the soft drinks market.

Other CPG brands have also enjoyed great success with personalization, including Lindt and Nutella.

Moving from the mass markets of the past to the dream of one-to-one marketing can be challenging for everyone involved in the process.

Philippe Adam, vice president of global marketing at Esko, a global supplier of integrated solutions for the packaging, sign and display, and publishing industries, says: “This is a key challenge for all CPG brands. Everyone wants more versions, promotions and personalisation in order to sell more.

“The consequence of this desire is that it forces everyone in the supply chain to move from managing few SKUs [stock-keeping units] to hundreds and even thousands, up to

the point where each personalised product has its own SKU.”

The Share a Coke campaign eventually allowed consumers to choose from half a million different personalised bottles using an online portal.

This brings us to another key challenge for brands and designers: we live in a world where the boundaries between the physical and digital are increasingly blurred, creating an environment that think-tank The Future Laboratory dubs “phygital”.

Reflecting this new phygital paradigm, Amazon is now opening physical stores while Apple is making its new stores into experience hubs rather than simply places to buy the latest iPhone.

Ensuring consistency is the main challenge for CPG brands, agencies and printers working in a world where consumers want localised and personalised products, and the online and offline are blurring.

“The issue for those in the CPG industry is that the packaging has now become the product,” says Mr Adam. “How can companies get consistency around the assets they produce to print the packaging for the shelf versus the same asset they are using digitally with online retailers, as well as in advertising, social media and other campaigns?”

Changes in legislation are also having an impact. Information on nutrition and allergies needs to be consistent across the product universe, physical as well as digital and even in a personalised world.

“The more channels you have to manage and feed, the more you multiply the risk of errors and inconsistency – this is where Esko can help,” says Mr Adam.

In an increasingly global and heavily outsourced world, embracing all a brand's assets and managing them in a consistent way is crucial.



“Esko provides an end-to-end solution for producing packaging assets, from the initial design, using hyper-realistic 3D imaging on virtual shelves, via printing and producing, to smart solutions that optimise how the package fits into its box for transport to the retailer and end-consumer,” says Mr Adam. “In addition, Esko solutions enable those assets to be shared for use in all communication and online channels.”

The pre-media and printing companies in the supply chain play an important role and also use Esko's solutions to be more efficient in a highly competitive world.

“We make sure any creative idea can be printed,” he says. “We manage colour and also provide software to optimise the whole process, enabling printers and packagers to avoid mistakes, cut costs and handle more jobs.”

This is why Esko's integrated asset management and workflow solutions for the print and packaging industries are used in nine out of ten products on shop shelves worldwide.

In today's digital economy, the challenge is to bring products from ideation to the world of both shelf and screen as fast as possible, but with consistency across the entire journey. Esko is there every step of the way.

Want to learn more? Talk to us at info.eur@esko.com or visit www.esko.com/futureofpackaging

SUSTAINABILITY THROUGH THE PACKAGING



EFFICIENCY

- Down-gauging
- Scrap avoidance
- Prototyping
- Elimination of secondary packaging

FUNCTIONALITY

- Shelf life
- Integrity
- Protection

CONSERVATION

- Recyclability
- Storage/shipping optimisation
- Lightweighting

SAFETY

- BPA free
- No hazardous substances
- Leachables/extractables testing
- Standards compliance

REDUCTION

- Mineral fillers
- Lower-density resins
- Foamed resins

COMPOSITION

- Biobased
- Biodegradable
- Recyclable
- Compostable
- Recycled content
 - Post-industrial
 - Post-consumer

ENERGY EFFICIENCY

- Lower temperature
- Higher volume
- Faster cycle time
- Right-sized equipment

WATER CONSUMPTION

- Lower requirements
- Closed-loop system
- Proper disposal

COMPLIANCE

- Proper resin identification coding
- Responsible package labelling

PACKAGING

- Accepted in municipal recycling
- Appropriate for industrial composting

CLOSED LOOP

- Customer scrap
- Post-industrial material
- Post-consumer material

UK PACKAGING

● Packaging waste (million tonnes)

PAPER

GLASS

PLASTIC

WOOD

METAL
Aluminium and steel

OTHER

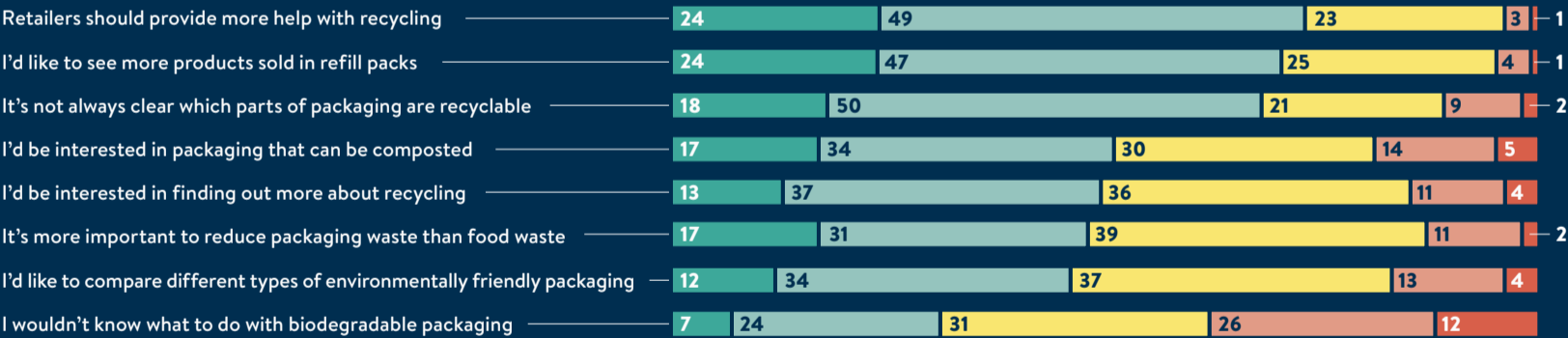
TOTAL



Source: PolyOne 2015

CONSUMER ATTITUDES TOWARDS FOOD PACKAGING AND THE ENVIRONMENT (%)

● Strongly agree ● Agree ● Neither agree nor disagree ● Disagree ● Strongly disagree



Source: Lightspeed GMI/Mintel 2016

BARRIERS TO CO ENVIRONMENTA



44%

Greater cost

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envi

pr

Discovering a business case for sustainability

Sustainable packaging is not an oxymoron – to embrace it as part of the solution, not part of the problem, is good for resilience on a resource-poor planet. But is it good for business? Will it make money?

SUSTAINABILITY JIM McCLELLAND

Given the megatrend of urbanisation, packaging is simply an everyday essential of modern living and an asset to development, according to Jane Bickerstaffe, director of INCPEN, the Industry Council for research on Packaging & the Environment.

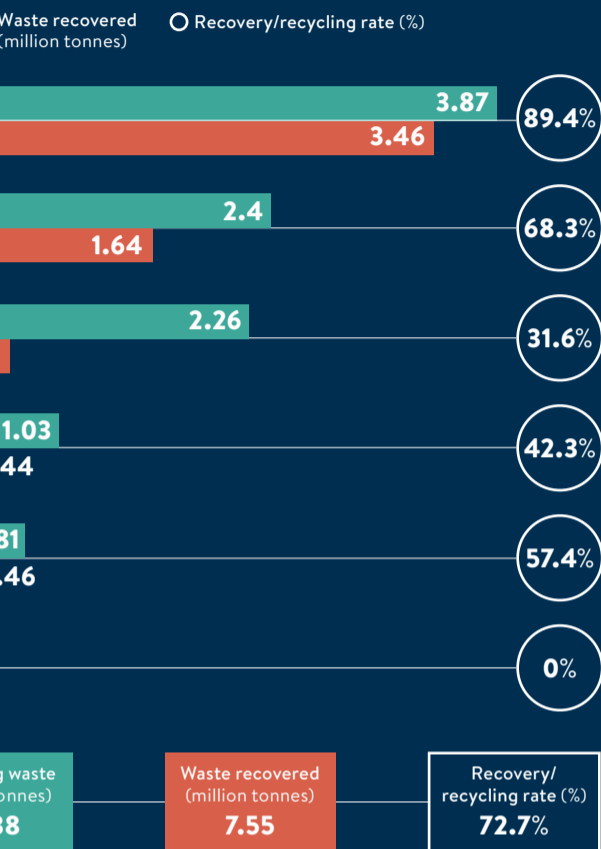
“The human race could not exist today without packaging,” she says. “Over 50 per cent of people (70 per cent in Europe) now live in urban areas, so food and other products have to be produced remotely and, protected by packaging, transported to them.”

Placed in this wider sustainability context, negative perceptions about packaging impacts are just plain wrong, argues Nicholas Mockett, head of packaging M&A, at Moorgate Capital. “It is a fallacy that packaging is bad for the environment. Packaging is a green technology,” he says. “For example, packaging makes food live longer and typically has only a fraction of its carbon footprint. Moreover, most packaging can be recycled.”

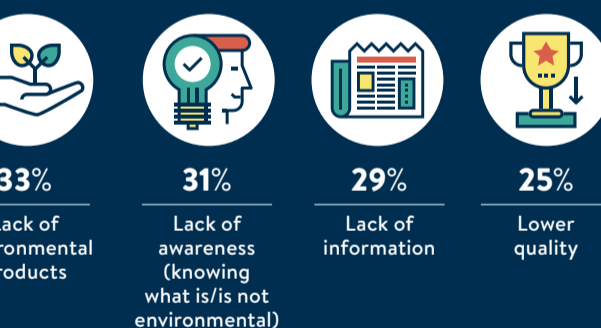
However, it appears the public is not listening. Increasingly conscious of the most visible impacts of packaging waste on local and marine environments, namely street litter and ocean plastic, consumers demand more or rather, less.

NG JOURNEY

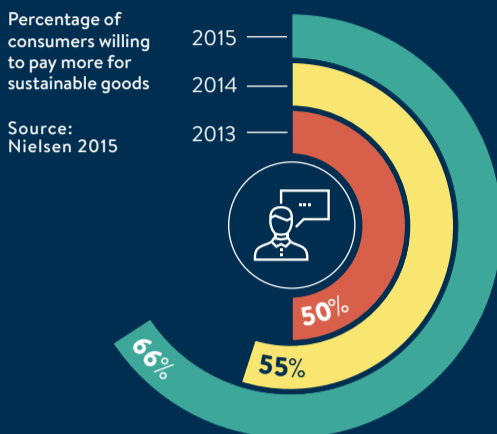
WASTE AND RECYCLING/RECOVERY



CONSUMERS PURCHASING FULLY SOUND PRODUCTS



CONSUMER ATTITUDES TOWARDS SUSTAINABILITY



MOST IMPORTANT DRIVERS OF ENVIRONMENTAL INITIATIVES FOR GLOBAL FOOD AND DRINK PACKAGING COMPANIES



The key is for brands to make more environmental choices easy to adopt and part of an enhanced service, which also delivers cost-saving and other tangible benefits

On one side of the equation sits the packaging sector – a huge and growing, resource-hungry industry, forecast by Smithers Pira to reach a global market value of almost \$1 trillion (\$997 billion) by 2020, yet responsible for 156.9kg of waste a year from each and every European Union inhabitant. On the other side is found the circular economy, which could itself deliver overall benefits of €1.8 trillion to the EU by 2030, according to figures from the Ellen MacArthur Foundation.

Doing a simple sustainability sum seems to suggest that balancing the two sides could create both significant environmental benefit and substantial business opportunity.

Unfortunately, just because that opportunity is big and clever, does not also make it easy, observes Christina Välimäki, chemicals senior director at Elsevier. “Sustainability is a more complex issue than it initially appears,” she says. “When it comes to packaging materials, manufacturers often face multiple competing resource demands and need to make a judgment call. These decisions are further complicated by knock-on effects, so mapping environmental impact is tricky at the best of times.”

Any resultant uplift in product price still presents a potential sales risk, though, maintains Mr Mockett. “If the end-consumer will pay a premium for the ‘sustainable’ packaging, the brand owner can justify the higher costs and the packaging manufacturer can be rewarded for investing in innovation,” he says. “But, it is a big ‘if’. Consumers, when surveyed, may say they will pay more, but results can be quite different.”

The good news for sustainable packaging is that material innovation seems everywhere, including solutions that are biobased and biodegradable, reusable, refillable and recyclable, collectable and compostable, even good enough to grow or eat. Options range from mushroom-based Ecovative protection for shipping computer hardware; via plantable gift wrap from Eden’s Paper embedded with vegetable seeds; to six-pack Saltwater Brewery beer rings that double as fish food.

It is one thing to be innovative, however another to be disruptive. Innovation needs scale to become a game-changer and, for Mr Coles, such market transformation calls for collaboration to brainstorm and bankroll development. “The funding and scaling of ‘breakthrough innovation’ packaging solutions should be a strategic collaborative partnership enterprise, involving key stakeholders, such as brand owners, packaging manufacturers, material suppliers, resource recovery organisations and investors,” he says.

Mr Coles cites examples such as the Synvina joint-venture between chemicals giant BASF and Avantium, in partnership with Coca-Cola, Danone and ALPLA, as well as Tetra Rex, to produce the world’s first fully renewable drinks carton for chilled milk. Biobased plastics used by Tetra Pak in combination with Forest Stewardship Council-certified paperboard are produced by Brazilian chemical company, Braskem, sourcing feedstock from sugarcane. Support from Finnish dairy Valio proved vital to the early commercialisation of the concept, with sales of 100 million units now forecast this year.

Of course, the usual assumption with sustainable packaging is that it is all about renewable material choices and reducing resource-use in production. Traditional, organic and low or no-tech options often tick the eco-box best.

The new frontier of sustainable packaging, however, is arguably active and intelligent, says Andy Hobsbawm, co-founder and chief marketing officer of internet of things smart products platform EVERYTHING. “The definition of a modern product and its packaging is a combination of three elements: hardware, software and real-time data,” he says. “While there are many hardware innovations in materials technology, the biggest sustainable innovation opportunity is in the intangibles of software and data.”

According to Mr Hobsbawm, once smart packaging connects to the cloud, it can generate and capture real-time product data to help optimise use, efficiency and, ultimately, disposal.

Digitally connected products also become a brand-controlled communication channel. This new media platform empowers companies to inform, educate and inspire consumers towards more sustainable behaviour. For example, clothing could tell you how to care for it by washing at lower temperatures or direct you to the nearest recycling centre at its end of life.

It is this additional digital dimension to packaging that will really enable mainstreaming of sustainability. Mr Hobsbawm concludes: “Sustainability was a niche consideration for most packaging companies five years ago; today it’s a central part of their positioning, solutions and go-to-market strategies. Most probably don’t do this out of eco or ethical principles, but because they are responding to market demand.”

For sustainable packaging, the business case just got real.

That is not to say they practise what they preach, in terms of recycling. Growth in kerbside collection levels has slowed. So, despite the fact 98 per cent of local authorities offer a collection service, barely more than half the 500 plastic bottles used every year by the average UK household actually get recycled. According to RECOUP, that means 15 million bottles a day fail to make collection.

Nevertheless, waste is essentially still a blame game and packaging a soft target. Producers remain under pressure to respond to client concerns about rising reputational risk, says Richard Coles, director of Emagine Packaging. “A growing number of brands are adopting sustainability strategies to meet current

and future needs of increasingly eco-aware consumers, particularly millennials,” he says. “These businesses recognise sustainable packaging plays an important role in communicating ecologically and socially responsible brand values that can be critical for competitive edge.”

Sustainability is effectively one of the success factors in the added-value mix, agrees Dr Chris Thorpe, director of Intelligent Design Associates and leader of the new circular economy group at the Royal College of Art. “There is already an openness on the part of the consumer towards more sustainable options, as evidenced by the emergent reusable cup phenomena in the coffee sector,” he says. “The key is for brands to make

more environmental choices easy to adopt and part of an enhanced service, which also delivers cost-saving and other tangible benefits.”

Figures from Forum for the Future research into scaling disruptive innovation in sustainable packaging support this view, with 69 per cent of people surveyed considering sustainable packaging a top concern when grocery shopping, ranking it slightly higher than animal welfare and genetically modified organisms. Some 68 per cent would even consider switching beverage brand for one with better environmental credentials, but only if taste and price were the same – and there is the kicker for sustainable packaging. The question is, does the business case add up?

COMMERCIAL FEATURE

FASTER, GREENER PACKAGING FOR AN E-RETAIL AGE

*With online shopping in the UK now exceeding £114 billion a year, demand for packaging is sky-rocketing. **Test Valley's** innovative retention packaging design will ensure customers receive their purchases quickly and safely - and without costing the Earth*



UK buying habits are changing fast as consumers spend more time online and less time on the high street. The shift has seen profits for online retailers' soar, but it has also presented them with major delivery problems.

Salisbury-based Test Valley Packaging is at the forefront of a drive within the packaging industry to design sustainable, cost-effective innovations that help retailers with the safe, efficient delivery of their products.

Michael Steedman, Test Valley's marketing director, cites Black Friday as illustrative of the challenges retailers now face. Last year, the retail bonanza weekend in late-November saw such large volumes of online sales that retailers needed days, if not weeks, to catch up with orders.

"Of course, Black Friday is great news for packaging firms as demand for our packaging materials goes through the roof. But many retailers really struggle to sufficiently protect goods for shipping at the same time as achieving necessary throughput speeds at peak times," he says.

FAST PACKAGING

Dynasafe, Test Valley's flagship product, represents an innovative response to e-retailers' demand dilemma. The packing system revolves around the use of a low-slip, flexible film that easily accommodates a wide range of differently shaped fragile products. Whether it's a glass bottle or a smartphone, the product is packed with zero fuss.



Adding to the efficiency of the process is the reduced requirement for "void fill" and other protective packing material. Test Valley has also designed a modular packaging system, which allows for products such as chinaware to be safely segregated - but, again, all with a minimum of additional labour and time.

"Early trials with Dynasafe modular systems have seen packing times reduced by up to 75 per cent, particularly for fragile goods. In one case the pack time of a large tableware order being packed by a major retailer was reduced from nineteen minutes to just three minutes," says Mr Steedman.

Fast and easy unpacking is also factored into Dynasafe's design. Test Valley prioritises simplicity of its retention boxes to avoid problems that consumers often face when it comes to opening packaging. Because Dynasafe contains no void fill or other packing materials, it is easy to recycle as well.

SUSTAINABILITY

More online purchasing means more business for a packaging firm such as Test Valley. But it also means more cardboard and plastic, and therefore higher environmental impacts.

"We take environmental sustainability very seriously," says Mr Steedman. "Not only do we feel minimising resource use is the right thing to do, but we're finding that demonstrating our 'green' credentials is providing us with an edge in today's market."

With that in mind, the company has developed Dynasafe using environmentally friendly corrugated cardboard that contains 70 per cent recycled content and uses starch-based glues that are low in toxicity.

Another of the upsides of Test Valley's retention packaging designs is the film technology they use. This offers an alternative to foam and polystyrene inserts, which add hugely to the environmental footprint of conventional packaging.

RECYCLING

Test Valley's commitment to using recycled materials makes sense. Paper packaging can be recycled up to seven or eight times, while recycled paper requires 70 per cent less energy than paper made from raw materials. The firm is now in the final stages of developing a new ultra-compact machine to produce protective void-fill from recycled paper rather than plastic-based alternatives.

Recycling legislation poses a potential obstacle for many packaging firms, however. Under new regulations passed in 2014, corrugated board can have no more than 1.5 per cent "unwanted" content by weight if it is to be recycled in its entirety. Dynasafe packs meet these criteria. Test Valley is currently innovating with newer materials, ensuring its packaging continues under this threshold into the future.

"We expect Dynasafe will be changing the future of packaging for online fulfilment companies. For the first time, retention packaging with all its benefits will be accessible to online retailers at a cost comparable to traditional forms of packaging," says Mr Steedman.

With Black Friday growing in popularity year on year, Test Valley will have no shortage of opportunity to put its technology to the test.

For more information please visit www.testvalleypkg.co.uk

Making person

Affordable digital printing is bringing brands featuring customers' names, designs and

DIGITAL INTERACTION

DES KING

Supporting a designer label was once the height of cool: a visual prompt to an aspirational consumer lifestyle that also provided brands with the bonus of free promotion. However, the established quid pro quo is now shifting into reverse as a growing number of products opt to display the name and often image of the consumer on packaging.

It's a trend that's been made viable through the use of digital print technology in place of the longer-established conventional offset litho and flexo processes, unlike which it isn't dependent upon the preparation of a separate plate for each print run.

Not only can a digital press, many of which are developed by well-known electronics names such as HP, Konica Minolta and Xerox, switch between an infinite number of different impressions without interruption, it will also print precisely the volume of each required. Rapid set-up, minimal waste, reduced inventory, print on demand that's always topical - what's not to like?

Within our social media dominated culture, those attributes have transformed what was a no-go area in maintaining brand integrity into fair game for any Tom, Dick or Harriet; also one that can be played by any brand owner irrespective of size. While the likes of Coke, Nutella and Oreos have attracted most of the attention for their recent personalised retail marketing campaigns, niche and startup brands are equally capable of getting upfront and personal without blowing the budget.

For the natural juice brand Firefly, inviting its consumer-base to upload selfies for reproduction on the bottle's label (#feelingfly) is an extension of an existing tradition, says marketing manager Sarah Brooks. "Innovation is key for driving the soft drinks category forward and consumer engagement is crucial," she says. "Having received so many images from loyal fans over the years, the next step of brand development was to follow their lead."

Personalised bottles of Firefly available in six different flavours are digitally printed by Berkshire Labels and shipped within two days of being ordered. Meanwhile, there's been an unanticipated bonus. The quirky image of an All Bar One bartender on one such label has led to the brand now being stocked throughout the chain's 50 UK outlets, helping to boost annual production to 1.7 million units. Berkshire Labels also regularly print short-run, full-colour personalised sleeves for the brand's promotional



on and off-trade events.

In addition to printing customised packaging on its state-of-the-art HP digital presses, Grimsby-based Ultimate Digital has developed a cloud-based integrated workflow that ensures each personalised pack goes to the correct recipient, says executive director Chris Tonge. "Smartflow interacts equally with both the consumer and the brand owner. It collects data, builds artwork and manages the entire web-to-print process from when the consumer uploads text and images online through to the pack being despatched 48 hours later," he says.

It's an invaluable tool that will prove its worth ahead of Christmas as confectionery brand Kinnerton fulfils the delivery of thousands of individually personalised advent calendars. Drawn from a selection of seven differently themed designs featuring topical children's favourite characters, including the *Trolls* and *PAW Patrol*, it's a first-to-market venture that's tipped to set an ongoing seasonal trend.

Personalised packaging pays

and consumers closer together with personalised packaging photographs



- 01
Print My Smile offers customers the chance to design personalised confectionery boxes with their own image
- 02
Firefly invited customers to upload selfies for reproduction on labels

Ultimate Digital is well versed in how to convey personal best wishes for the festive season. The printer was instrumental in delivering last year's Waitrose #MakesChristmas campaign led via social media, as well as personalising the cool-bags handed out in-store for customers who'd ordered the retailer's turkey breast – a UK first, according to Waitrose seasonal and specialised poultry buyer Frances Westerman.

Also using digital to make chocolates a more personal proposition is startup brand Print My Smile, which as of next month will be giving visitors to its website a free hand in designing their own presentation box. "It's all about enabling the consumer to be in control," says co-founder Suzanne Rouart. "While the big confectionery brands may be doing beautiful things with personalisation, we provide the flexibility to create a unique pack that's exclusive to the recipient."

The full production and dispatch of individually designed boxes is completed within three days of order by the Alexir Partnership, one of the earliest UK carton suppliers to install a digital press.

"We foresee massive growth in digital carton production in the next five years as brand owners, retailers and design agencies become more aware of the breadth of potential for customisation, not least in dovetailing the technology's short-run and personalisation capabilities for test marketing or to pre-launch new products to a targeted demographic of trade buyers," says Alexir marketing manager Claire Summersby.

There's far more to personalisation than the equivalent of a selfie, says Silas Amos of Design Thought, who masterminded last year's Irn-

Bru Fabric of Scotland campaign, which substituted the beverage's blue and orange brand colours with those selected at random from a range of 57 different clan tartans and as a result lifted sales by 17 per cent between Hogmanay and Burns Night on January 25.

"The novelty of sticking people's names on packs has been done; we'll get bored with that pretty soon. It'll be how and why brands personalise that will start making a difference," says Mr Amos. "Think of audiences not as demographics, but as individuals. Think about localisation. Think about real-time topicality. Think about the charisma that is within a brand anyway. Then think how the brown box that delivers goods we order online can be brought alive at the door."

"Packaging is media – it's a billboard. It's just a matter of rethinking what it can do when you can change it daily and where content can be infinite."

Corrugated box manufacturers are rapidly becoming alert to the potential of customisation. After four years in development with HP, sector leader DS Smith has invested more than £2 million in the UK's first corrugator-width digital press with a running speed of 180 metres per minute.

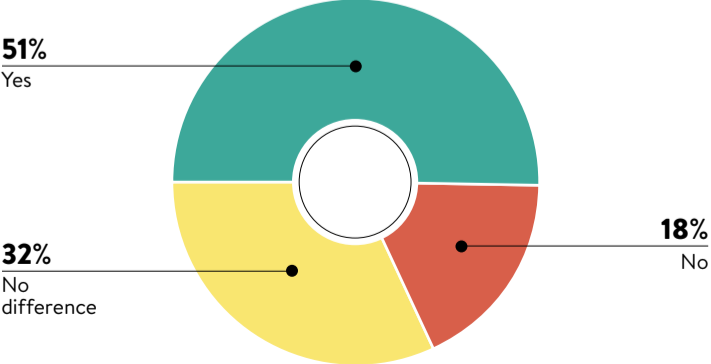
"While personalisation has become commonplace for primary applications, it's still a pretty new phenomenon in the secondary packaging industry. However, we're constantly exploring opportunities that digital technology can present us and I expect customisation to really come to the fore in the next 12 months," says sales and marketing director Mick Thornton.

Meanwhile, with six other suppliers having brought new presses on to the market this year, the standard issue cardboard box with black lettering is clearly ripe for recycling.



CONSUMER ATTITUDES TOWARDS PERSONALISATION

DOES SPECIALLY PRINTED/CUSTOMISED PACKAGING MAKE YOU FEEL LIKE THE PRODUCT IS MORE VALUABLE?



Percentages do not equal 100 per cent due to rounding Source: Shorr Packaging Corp 2016

we are: design pioneers,
structural explorers,
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COMMERCIAL FEATURE

BEHAVIOURAL ECONOMICS IS THE FUTURE OF PACKAGING

The study of how we make decisions and why we choose to buy certain products is becoming the focus of consumer goods companies and retailers



Have you ever wondered why the shopping list you made at home never tallies with what ends up in your trolley at the supermarket checkout? That's because much of your shopping experience is happening at the subconscious level and packaging is driving your decisions.

The colour, shape, design, logos and branding all nudge us to make choices in store. We succumb to instinct and default to the familiar as we walk down the aisles. Most of us are not robots that consistently rely on rational calculations. Instead, we are wired to look for so called shortcuts and make irrational decisions time and again, albeit in predictable ways.

"People simply don't have the time or mental bandwidth to actively compare all the options in a category," says Scott Young, chief executive of PRS IN VIVO, a market research agency focused on packaging, shopper marketing

and new product innovation. "So our decisions are driven by ingrained habits and by which packs are quickly seen, recognised and understood."

The proliferation of choice across many retail environments has made it much harder for packs to break through the clutter. This is one reason why marketers are increasingly interested in deciphering shopper behaviour. Millennials are a particular challenge as they are less likely to be brand loyal or be influenced by traditional advertising.

Behavioural economics is the study of how we actually make decisions and why we choose to buy certain categories or products. It goes beyond traditional rational economics by taking into account that there is a strong social, contextual and irrational element to how humans function.

This science is now very much part of the lexicon of consumer goods companies and retailers in the UK,

and the future of packaging is being increasingly driven by learnings from this research discipline.

"It is a new way for us to think about shopping behaviour and to help our clients develop more successful packaging, in-store communication and new product launches," explains Mr Young.

The science is now evolving rapidly. Retailers, manufacturers and market researchers cannot only monitor the choices we make, but they can influence them too. For example, online retailers such as Amazon and Netflix are aware of your previous purchases, so they suggest books and movies that you're expected to like. They generate suggestions that nudge you in the right direction. The supermarket shelves in Sainsbury's, Asda and Lidl employ similar tactics with consumer goods.

"Many corporations are increasingly using sophisticated behavioural economics to influence the consumer," says Andy Rushforth, managing director at PRS IN VIVO UK, who works with companies such as Unilever, P&G and Nestlé. "A great pack is a key part of that process. For starters, you have to be seen in-store to be bought."

In addition to a product standing out on the shelf, it is critical for packs to differentiate and justify price premiums. That is particularly challenging for well-known brands in an age where discounters have made price an all-important factor, especially post-Brexit with prospective inflation inflamed by the slide of sterling.



Packaging is a consumer's single most important touchpoint with a brand; it needs to embody a brand's core values and convey the product's unique selling point

ABOVE
ShopperLab

RIGHT
Eye-track pack-viewing pattern

BELOW LEFT
Shopper wearing eye-tracking glasses to browse a shelf

"In this volatile economic climate, it is increasingly important for brands to connect on a visceral or emotional level with shoppers," says Mr Rushforth. "Packaging is a consumer's single most important touchpoint with a brand; it needs to embody a brand's core values and convey the product's unique selling point."

In this tough environment, it is absolutely vital for marketers to get their packaging right. But to do so, they cannot always rely on what shoppers tell them because shoppers are not a reliable source when it comes to describing their own behaviour.

"What shoppers say often does not correspond to what they do in-store – this creates a major challenge for us," says Mr Young, whose company conducts more than 1,000 packaging and shopper studies each year, "and it means that we need to focus on observing actual behaviour, rather than asking questions."

This is one reason why PRS IN VIVO extensively uses different types of eye-tracking in its research, both in actual and simulated stores. This technology allows their researchers to see what shoppers focus on and what they ignore. It helps ensure packaging attracts the eye and holds our attention.

"Eye-tracking is valuable because it captures subconscious behaviour, which shoppers typically lack the vocabulary to tell us about because it happens so quickly," says Mr Rushforth.

The company is continually expanding its network of ShopperLabs, with multiple locations both in the UK and across the world. These mini-stores can be customised to look like a section of a supermarket or many other retail environments, such as pharmacies, pet stores or convenience outlets.

The ShopperLabs are often used to simulate the introduction of new products and packaging systems, with cameras and two-way mirrors allowing researchers to observe



consumers behaving in a very natural way in the aisles.

"So many new products fail because they are developed and screened in isolation, far removed from competitors and the realities of the store and the shopping process. If we want to create and effectively assess truly breakthrough ideas and innovative packs, we need to start in the aisle," explains Mr Rushforth. "The fact is people do not really know what they want, until they see it in context on the shelf."

As researchers continue to learn about the complexities of human decision-making, they are increasingly recognising the power of packaging. Behavioural economics represents an important step forward on both counts.

"This new framework encourages us to dive beneath the surface and think beyond rational claims in developing and testing new packaging," says Mr Young, "and it also continually reminds us and our clients that great packaging can influence so many purchase decisions."

For more information please visit www.prs-invivo.com



NEUROSCIENCE

MARK FRARY

“The average large supermarket has 40,000 product lines. You buy on average 40 products per trip in a shop that lasts 30 minutes. This means you need to reject 20 products per second – you cannot do that consciously,” says cognitive neuroscientist Andy Myers.

“The sheer amount of conscious brain power this would take would leave you in the supermarket for days, therefore we rely largely on unconscious processes to guide our behaviour,” says Dr Myers.

Walnut Unlimited, where he works, is increasingly consulted by brands to find out why consumers are drawn to particular products and they are using neuroscience to help explain why. The Walnut Unlimited team are part of a new generation of brand experts who have degrees in cognitive neuroscience rather than the traditional “fluffier” subject of marketing.

The company has carried out what is known as implicit testing to understand which cues have the strongest association in the brain and act as a shortcut to a particular brand. “This may be particular colours, shapes, iconography and so on – and by doing this for the brand and competitors we can understand which of these assets are truly unique to the brand and which are simply owned by a category,” says Dr Myers.

To see this in action, imagine you are in the cleaning products aisle. If you see pink, you know that it is almost certainly a Vanish product. You do not have to go and look at the product in detail to know that.

Ed Silk of international brand and packaging design agency Bulletproof says we often rationalise our purchase decisions, telling ourselves that we bought something because it was the cheapest, say, but the decision was made before you reached the shelf.

Coca-Cola is one of the world’s best companies for using packaging to influence consumer behaviour – think of the classic bottle shape and the colour red.

“If you were launching Coca-Cola today, you wouldn’t put it in a red can with white writing and the script is pretty illegible,” says Mr Silk. “But



Neilson Barnard / Staff / Getty Images



A new generation of brand experts have degrees in cognitive neuroscience rather than the traditional ‘fluffier’ subject of marketing

Brainy scientists get into shoppers’ heads

Much of what we do when shopping is unconscious, so major brands are asking neuroscientists how packaging can help get inside consumers’ heads

ABOVE
The implicit value offered by the Voss brand is that of a premium table decoration

you have a sense of familiarity and Coke has invested a huge amount of money into communicating that to you. When you walk into a newsagent, red signifies refreshment.”

Logos such as the Coca-Cola script also operate on our brains without us knowing it. Nicky Place, business director at design studio Build, says: “A logo is a typically a ‘pinpoint’ of a brand, the one thing that many

consumers will instantly recognise. A customer will probably go with a tried-and-trusted brand for a large electrical item, but is far more likely to be led by an emotional response for something like a new cereal. In other words they may not recognise the new brand, but are willing to risk an ‘unknown’ purchase.

“But a logo doesn’t stand alone, it will always belong within a wider

brand, however subtly, and it’s this overall message that people will respond to, even if they aren’t aware of it.”

Curious things are going on in our brains when we are standing at the supermarket shelf. In his book, *Decoded: The Science Behind Why We Buy*, neuromarketing expert Phil Barden says purchase decisions are based on a simple reward-pain

relationship and marketers can do much to increase the net value of a product through clever use of packaging.

Mr Barden cites the example of Voss mineral water, which comes in an instantly recognisable glass cylinder. Despite its higher price, Voss water has fared no better in blind taste tests than other waters, so its explicit value, the ability to quench thirst, is no different from its competitors.

“Thanks to design language, Voss is more than simply water: the implicit value offered by the brand is that of a premium table decoration,” says Mr Barden. “This additional value is partly based on the fact that a nicely decorated table uplifts the whole dining experience.”

Andrexx is another brand that has used neuroscience and psychology to get consumers buying more toilet paper. Simon Preece of brand agency Elmwood, which works with Andrexx, says it rethought how to use the brand’s famous puppy ambassador to increase sales.

“We photographed the puppy from above,” says Mr Preece. “When you are standing in a position over something, you feel responsibility for it. We also made the puppy look you in the eye.”

“The brand had faced six years of decline, but this created a huge response, with 13 per cent volume growth in standard products, 17 per cent in premium products, all with a 50 per cent reduction in media expenditure.”

If you have ever wondered why you always end up buying more than on your shopping list, now you know.

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SORTING DUCK FROM CHICKEN



A few years ago, the only place you might have eaten duck was in a restaurant. Most consumers were convinced that duck was difficult to cook and it was often ignored in favour of the ubiquitous chicken.

Five years ago, the marketing director for the UK’s leading duck farmers Gressingham, Steve Curzon, decided to change all that and turned to brand design agency Elmwood for help.

The agency’s director of effectiveness, Simon Preece, had previously developed a system with Bradford School of Management based on sensory cues called biomotive triggers.

Mr Preece says: “There is a whole series of stimuli that people react to in a subconscious way that generates an emotion or an action and bypasses the conscious part of the brain.”

These biomotive triggers are subtle cues that can be designed into packaging to provoke specific emotions. Cusps and curves are two of the most important. Cusps are sharp pointy shapes which signal fear, danger and caution. By contrast, curves suggest safety, softness and comfort; they make people feel secure and encourage interaction.

Gressingham’s Mr Curzon says: “When you are shopping in that aisle in the supermarket, the rest of the packaging is very angular. To have a curved label is disruptive on the eye.”

The colours used in the new packaging were also important. Mr Curzon adds: “We used yellow and black because that signals danger – think bees and wasps – that gets our attention.”

Since Gressingham first started working on its packaging, the household penetration of duck – the percentage of households buying it in the past year – has increased from 7 per cent to 11 per cent, meaning three quarters of a million more households tried it.

Mr Curzon says: “It’s very difficult to disentangle what contributes to commercial success, but the packaging has played a significant role.”

Five ways to inspire an unboxing video

Unboxing has truly become a YouTube internet phenomenon, keeping viewers entertained, but also often helping them gain a better understanding of an item before they buy

EXPERIENTIAL PACKAGING FINBARR TOESLAND

01 BIRCHBOX

Few companies have managed to create an unboxing experience as popular and tailored to their customers' needs as Birchbox. The beauty box subscription business has used creative packaging designs to establish a personal connection with subscribers and elevate the unboxing experience to become an integral part of the product.

Every month samples of skincare and makeup products are shipped in colourfully decorated boxes,

which are fitted with tissues and ribbons. Stickers are often included in the package, allowing customers to personalise the box and show off their own creation in an unboxing video.

The unique product packaging not only makes each box a visual surprise, but also encourages customers to collect them all. Although the subscription box market is highly competitive, Birchbox differentiates itself by constantly offering a new unboxing experience and keeping the contents a secret until subscribers receive them. Birchbox even have a "spoiler" page on their website, highlighting the importance of surprising customers with exciting and unexpected products perfectly suited for unboxing.



02 NET-A-PORTER

Since NET-A-PORTER was founded in 2000, the online fashion retailer has placed great importance on offering stylish packaging that matches the high-end goods inside. Translating the experience of physically shopping in a designer boutique to ordering products online is difficult, but NET-A-PORTER

has managed to give customers a luxury unboxing experience by using exclusive and quality packaging.

The discreet NET-A-PORTER black boxes, luxuriously tied with ribbon, have become the outlet's signature packaging. Customers at NET-A-PORTER's men's site, MR PORTER, get similarly high-end packaging, but also receive a personalised label bearing their name, written in an elegant script.

These little touches go above and beyond other e-commerce sites, encouraging customers to share this exclusive experience with others. The 2015 *Dot-com Distribution eCommerce Packaging Survey* found that consumers are 1.5 times more likely to share images or video on social media if they received a gift-like box, as opposed to a traditional brown box. As the old adage goes, quality speaks for itself.



03 WARBY PARKER

Warby Parker retails glasses and sunglasses through its online shop and limited high street outlets, offering vintage-inspired eyewear at relatively low prices. The Home-Try-On service gives customers the chance to choose five frames online and try them on at home.

When this package arrives customers will see "Good things await you" printed in large text on the exterior, building excitement for the contents, with Warby Parker using the interior to encourage shoppers to get feedback from friends by using #WarbyHomeTryOn on social media. This can increase engagement with current customers and help generate conversations around the glasses online.

The company has found success with this approach, evidenced by the thousands of unboxing videos on YouTube where viewers give their opinions on the glasses they like the most and sharing in the product unboxing process. Warby Parker include an extra little touch in the form of a note saying "For every pair of glasses sold, a pair is distributed to someone in need", letting the unboxer share their good deed.



Gonzalo Arroyo Moreno/Stringer/Getty Images

04 APPLE

Apple co-founder Steve Jobs' popular quote "Design is not just what it looks like and feels like. Design is how it works", fully extends to packaging at the technology company. At first glance the packaging of any Apple device can look rather discreet and unassuming, but don't underestimate this subtle design.

Each aspect of unboxing is meticulously planned by the design team at Apple's headquarters in Cupertino, California, where a dedicated unboxing room is located. Hundreds upon hundreds of prototype boxes are opened in this

room until just the right emotional response is evoked.

The quick and uncomplicated unboxing experience places emphasis on the product itself, while at the same time ensuring that the brand's signature ease of use is highlighted. Apple further differentiates itself with an all-white packaging interior for many of its devices and by making the product the first thing unboxers see rather than cables or instructions.

Clearly this approach is working, with there already being more than five million YouTube results for "unboxing iPhone 7". Bizarrely even a new Mac perfume and scented candle are on sale to emulate the freshly unboxed smell.



05 LOOT CRATE

Loot Crate is an online subscription service that ships an assortment of goodies to geeks and gamers every month. Each box has a specific theme that is kept a mystery until they are posted to subscribers, with past boxes offering horror, futuristic and dungeon themed items.

Unboxing Loot Crates has become extremely popular online thanks in part to the company inviting customers to upload unboxing videos and generating excitement over the surprise contents. "The box is more than just a vehicle

for shipping goods for our creative teams at Loot Crate," says David Voss, chief creative officer. "Every unboxing is an opportunity to surprise Looters [customers] through shareable artwork and transform the experience of unboxing from practical to magical."

Many previous boxes gave "Tips for the perfect unboxing" printed inside the packaging, reminding customers to share an unboxing video at just the right time. The company also offers special discount codes that save both the new Looter and referrer money on future boxes, to persuade Looters to share an unboxing with the code in the description.

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For more on PEFC and Packaging click here:
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