THINK

Innovation in packaging and print's role in the packaging market of today

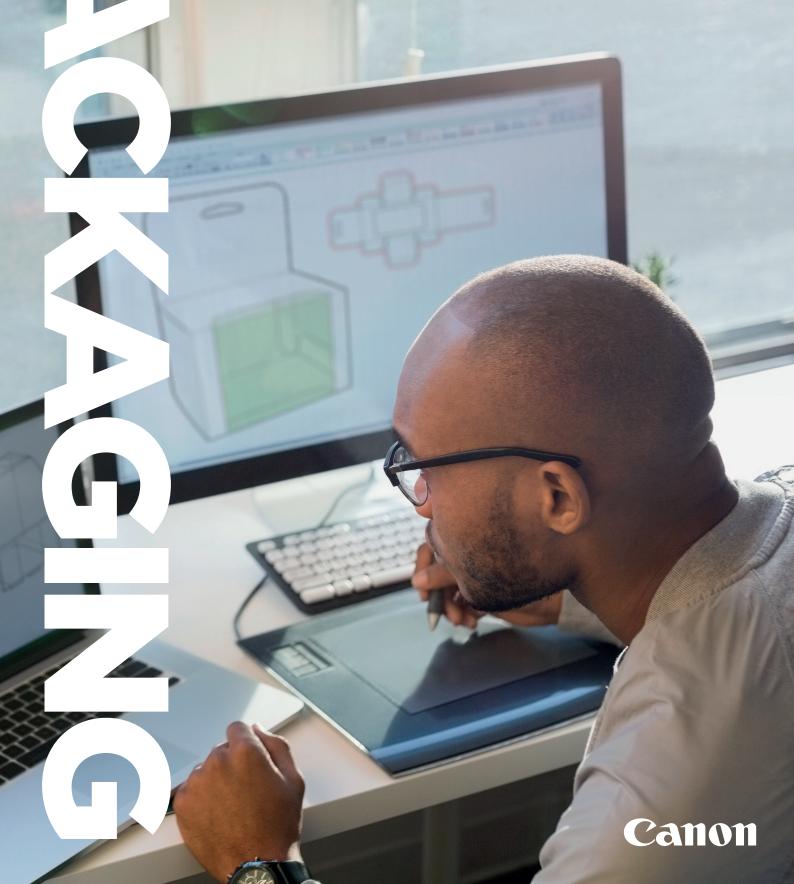
INTRODUCTION

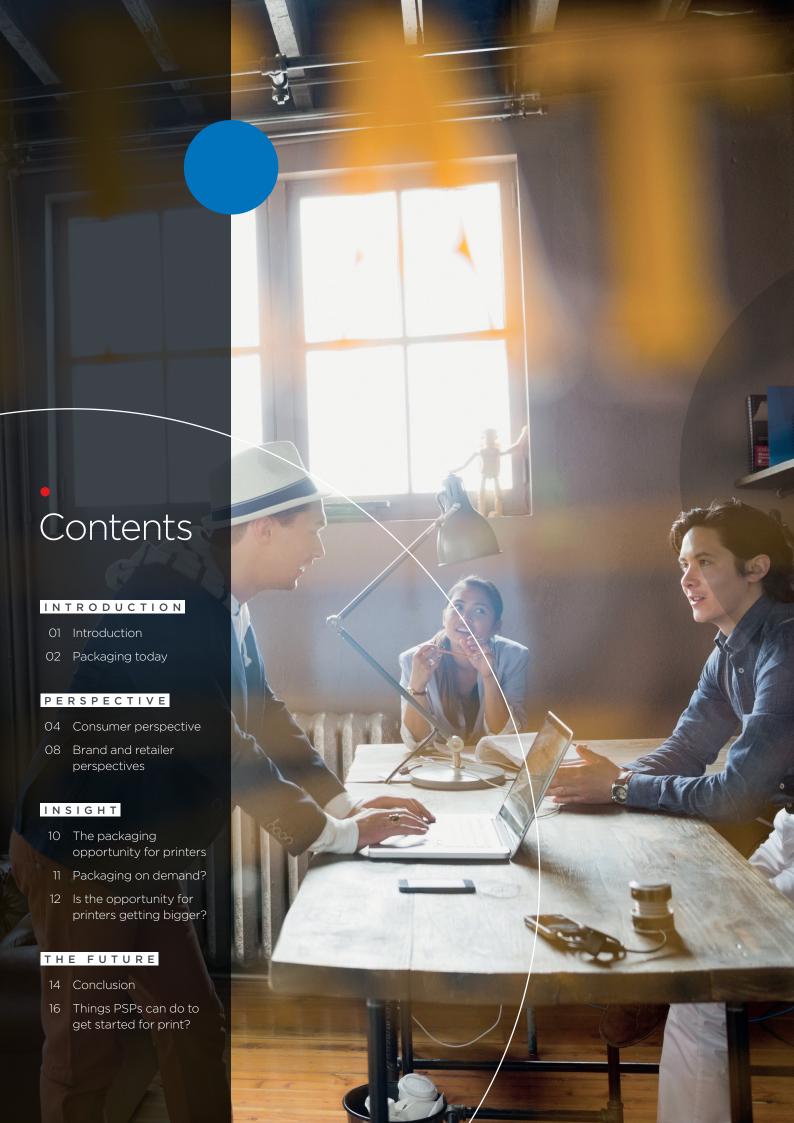
Packaging today

PERSPECTIVE

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20%

increase every year until 2024 - forecast growth for the total digital package and label printing market Thanks to impressive print packaging, brands can seduce customers into a change of purchasing. We would end up with less brand and more bland were it not for the attention that the packaging attracts.

Marcel Knobil Superbrands founder

Introduction

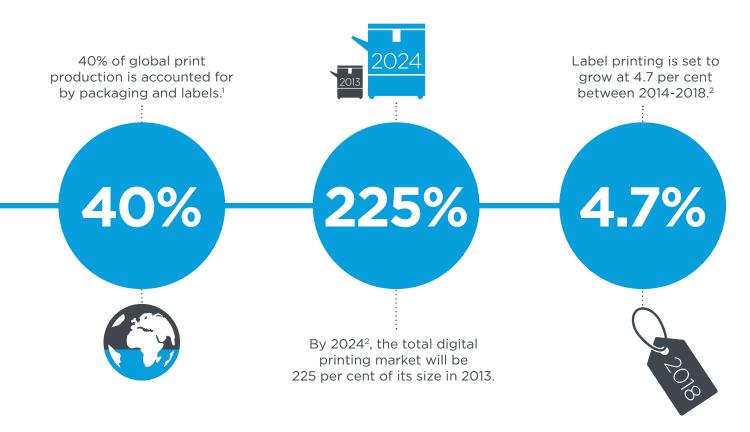
Packaging today is so much more powerful and valuable than a mere receptacle. It is a shortcut to consumer decision-making and a communicator of a brand's overall message. Because the demand for, and the rise of bespoke, innovative, engaging, beautifully designed or environmentally friendly packaging has become a mainstay of our day-to-day lives, packages have become a legitimate part of the customer experience themselves.

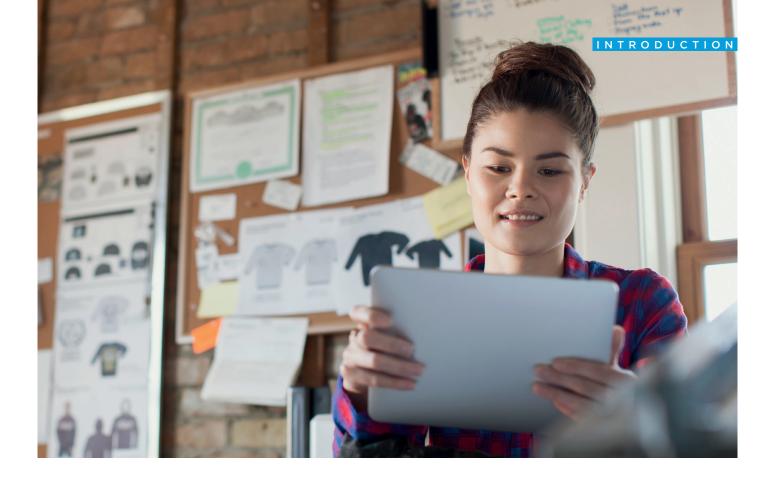
The total digital package and label printing market is forecast to grow at a rate of 20 per cent every year until 2024¹. It's an industry on the rise; both in terms of size and prominence.

Think Packaging will look at the evolving role of packaging in the marketing process and how both the changing retailer and consumer landscape is shaping it. It will look at both the present and the future of packaging from a consumer and brand perspective. From the impact of demographic changes to economic, environmental and social influences, the European packaging industry has never been so dynamic. Think Packaging will look to understand the role that print can play and how Print Service Providers (PSPs) can both tap into and help drive this rapidly moving market. O

For brands and retailers today, the proliferation of media channels, changing demographics and multichannel shopping has made it harder to grab people's attention and predict their purchasing behaviour. While marketers are adapting to an increasingly fragmented audience through the use of digital campaigns to identify and target customers, this also has implications for the packaging industry.

Packaging today





The luxury market alone is expanding by **4.4 per cent** per annum and the packaging printing market by almost the same amount over the period 2014-2018.

A well-designed or innovative packaging solution is an increasingly important differentiator for brands and one which can have a disproportionately positive effect in driving sales. Advances in digital and smartphone technologies have significantly transformed consumer behaviour and their expectations. Product packaging is at the centre of these developments in the consumer retail experience and it should come as no surprise that the packaging market is growing strongly. The luxury market alone for example, is expanding by 4.4 per cent per annum and the packaging printing market by almost the same amount over the period 2014-2018².

Since the birth of barcodes, digital technologies have continually been tested to bring reforms to retail experience. The rise of the Internet of Things (network connectivity of everyday objects) and advances in mobile computing, RFID, augmented reality and biosensors have not only shaken up the retail landscape - they've increased the scope of packaging from something to simply protect a product to something to genuinely connect with consumers. In addition, the latest innovations in digital printing have opened up possibilities in the production process that never previously existed. Integrated into the production process, these new technologies allow for truly customised print and frequent design changes whilst cutting down the time from design to production. Many printing procedures are now suitable for both small and large quantities, enabling manufacturers to respond quickly to changing markets or customer demands. With so many powerful opportunities, digital print is creating new values and growth within a wide range of industries, with minimised risk and cost. For retailers, brand owners and marketers, this should come as no surprise. O

¹ Smithers Pira, The Future of Global Printing 2018; December 2013,

 $^{^{\}rm 2}$ Smithers Pira, The Future of Global Packaging to 2018, December 2013





The changing expectations of product packaging are influenced by some master trends that are reshaping the world in which we live. These trends have far reaching implications that go beyond the general and affect every business from the smallest start-up to the biggest multinational.

Consumer perspective



The global population is ageing and the number of single person households is growing dramatically. The rise of the 'senior' generation (defined as 60+ by the UN) is outstripping overall population growth¹ and this trend looks set to continue for at least the next 25 years. By 2050, two billion people will be aged 60 and older². The implications for packaging and product design are immense. How will brand owners address this? Larger print and easy-to-open packaging are two considerations that spring to mind.

In parallel, single person households are already the most common household profile in Western Europe³ and North America. While couples with children prevail in emerging markets, single person households will increase here too in line with shifting cultural attitudes and rising female employment. Euromonitor predicts that this trend will equate to more demand for smaller household products and services aimed at the solo consumer³.



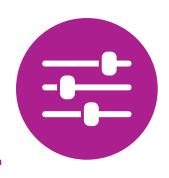
¹ UN.org, World Population Ageing, 1950-2050, 2000

² World Health Organization, Ageing and Life Course, June 2015



Consumer perspective cont.

Brands need to be constantly innovating to keep up with changing demands and stand out in an increasingly competitive environment. Technological advances mean that both manufacturers and suppliers can be more creative than ever before. Some of the most recent innovations in packaging have come both as a result of customer demand and brand innovation working together.



Customised packaging

As customers and their needs grow increasingly diverse, customising packaging has become a sure-fire way to gain traction. Mass customisation is an attempt to deliver this heightened consumer experience without adding cost and complexity to operations. For retailers managing different markets for global brands in particular, it is both a useful and cost-effective strategy. Every retailer knows that successful packaging depends on the consumer. Packaging loved by customers in Germany may be interpreted differently in France. Green packaging may suggest 'eco-friendly' or 'healthy' in the UK, but it is unacceptable in Egypt due to religious reasons. Now that print runs can be as short

as a single product customisation can even trickle down to individual users. A recent campaign for Heinz Tomato Soup, for example, allowed consumers to personalise a can on the brand's Facebook page and send it to a friend as a gift. Similar campaigns from other FMCG brands such as HP Sauce and Coca-Cola, as well as luxury brands, such as American Express, are ushering in an era of design where big brands aim to engage their customers with packaging specifically designed to appeal on a personal level. As digital printing technology becomes more affordable and wide-spread, short print runs will continue to increase and personalisation will be one of the main tools brands use to differentiate and attract customers.



INSIGHT

Tetra Pack France, a leading food processing and packaging solutions company created an app in 2014 aimed at getting consumers to recycle more. The packaging brand is one of the few to step out of the B2B sector to communicate directly with consumers. Predominantly aimed at children, the mobile app illustrated the benefits of recycling through a variety of augmented reality games.





Convenience packaging

It is not enough for brand owners to meet consumers' existing needs. They should be anticipating their desires and providing them with a product that goes beyond what's already on the market. One area that's ripe for packaging innovation is convenience packaging, targeting increasingly on-the-go, time-poor consumers. Unit-dose packs for example, have achieved wide acceptance in some categories such as laundry detergents. Other examples of new convenience packaging include Robinsons Squash'd, a plastic squeezable pouch designed to dispense fruit cordial into water bottles on the go.



Smart packaging

Innovations over the last 20 years have been able to take packaging's interactions with consumers one step further. A recent example of technology shaping packaging is Heineken and Strongbow's interactive bottle features. Heineken's 'Ignite' bottle used micro sensors and wireless networking technology to sense when people clinked the bottles together. These motions triggered certain effects that would light up the whole bottle and when left idle, fade away.



Eco-friendly packaging

Packaging can also boost the environmental credentials of brands. British start-up Graze developed eco-friendly packaging made of corrugated cardboard which was biodegradable and could be turned into sustainable punnets for growing plants and herbs^{1.} Subsequent research into new materials and optimal and sustainable solutions is a continuing trend with eco-friendly packaging playing a significant role in affecting consumer choices. Some 52 per cent of global respondents in a recent Nielsen survey² said their purchase choices are partly dependent on the packaging. They check the labelling before buying to ensure the brand is committed to positive social and environmental impact. O

There's a physical joy in buying products and picking up a bottle or a box – it's part of who we are, but many marketers and agencies tend to think about design as solving a problem rather than creating an addiction

Dennis Furniss *Unilever vice-president for design*



¹ Graze.com, https://www.graze.com/uk/about/packaging

Nielsen Global, Nielsen Global Corporate Social Responsibility Report, June 2014

³ Smithers Para, The Future of Global Packaging to 2018, December 2013





Many brands are balancing the need to maintain familiarity with the need to remain relevant by driving change. Packaging is their silent salesman and the key to helping them keep existing customers as well as attract new ones.

It's also functional. It protects the product during shipment from the manufacturer to the store selling it. It plays a vital role in the branding process of the product. It provides space for sharing information about the product, such as nutritional information, usage or directions. Size, measurements, uses and more printed on the packaging of a product can help customers decide if the product fits their needs. In essence, the packaging can help to paint a picture of how the product benefits the customer.

With the role of packaging so multi-faceted and today's multi-channel consumers so fickle and hard to please, what are the key issues for brand owners and retailers?

From SKU proliferation, sustainability and the emergence of smart packaging, all can be viewed as opportunities for retailers and brand owners to present their products in a new, fresh way.

Packaging is a brand's silent salesman

The rise of small disruptors

Packaging not only helps maintain brand loyalty but it also drives impulse purchases. Digital printing has made the advent of one-off and limited edition packaging a regular occurrence. In today's fast moving world of pop-up shops and one-off events, packaging can be customised, printed and used for one-off occasions.

It has also opened up a raft of opportunity for smaller enterprises. These used to struggle to compete with big business – particularly on very short runs of packaging. But digital short run has made high-quality packaging accessible to the smallest of companies – both from the point of view of the PSP and its customer.

SKU Proliferation

'SKUs' describes the total number of product variants a brand brings to market. SKU proliferation is a very current phenomenon despite there being little increase in overall consumption. Many retailers view SKU proliferation with apprehension for a number of reasons: they clog the supply chain with too many items that are nearly the same; they force smaller orders for a greater variety of products and they can complicate product lifecycle management. Despite the fact that SKU proliferation is being driven by customers demanding higher levels of responsiveness and greater product availability than ever before, in worstcase scenarios, SKU proliferation can actually confuse customers with a glut of products that may all look the same but have different functions. ingredients or benefits.

Creating multiple designs for a single job will put strain on all parts of the supply chain, from package and graphic designers to order entry, prepress and manufacturing. Even the process for packaging approval can be cumbersome and problematic when dealing with a short-run order. But from glass to squeezy bottles, cans to pouches and aluminium tins to plastic boxes, many retailers use a range of packaging selections to challenge their competition. Digital printing for labels, corrugated materials and folding cartons is also on the rise and increasing numbers of large format presses designed or modified for high speed printing on corrugated paper and board are appearing. Large companies can now prototype and test market products

Driving packaging in digital directions

without worrying that a short-run would be uneconomical. This demonstrates the rising demand for shorter runs and shorter lead times, with the additional facility to localise or personalise the printed images.

With packaging, retailers and brand owners often want to take advantage of seasonal marketing campaigns resulting in the shorter lifecycles of product packaging today. The trend of mass customisation can lead to complications - varying legal requirements on packaging labels between different territories are another SKU variant driver for example - but the march of SKU proliferation is unlikely to slow down any time soon. Using controlled proliferation to support the strategic direction of the business can help decision-makers avoid supply chain execution problems by bringing those very teams into the planning process from the start.

The prevailing trends in packaging, like those in other printing segments, are driving packaging in digital directions. The standard drivers of digital printing - shorter runs, customisation, personalisation - are combined with things like micro-segmentation, a dramatic increase in SKUs, faster time-to-market demands, prototyping, and true packaging personalisation to

help drive digital packaging printing. Advances in technology mean there are new items entering the market more frequently and inventory reaches its peak usefulness at a much faster pace than ever before.

What this all adds up to is a need for greater packaging variants and more versatile packaging techniques. SKU proliferation has led to an increase in pre-press demand for design, prototyping and proofing. Digital printing and digital production systems are perfectly placed to meet these demands thanks to its speed, ability to produce short print runs economically and variable data capability.

Consumers today desire more variety and short-run jobs will only increase in the coming years. Yet before investing in any short-run printing solution or making operational changes to accommodate growth in short-run work at one's plant - converters and PSPs should not only get to grips with the market forces driving the new demand, but should also understand the benefits and drawbacks of analogue and digital short-run production. O

Smart Packaging

Smart Packaging is a key retail and branding trend. It relates to packaging that provides enhanced functionality that can be divided into two submarkets:



Active packaging, which provides functionality such as moisture control.



Intelligent packaging, which incorporates features that indicate status or communicate product changes and other information.

It's a growing segment:

According to a report from MarketsandMarkets¹, the global Smart Packaging market is expected to reach

39.7 billion,

growing at a CAGR of 4.8% from 2014 to 2020, well above total packaging demand growth.



There are drivers both on the consumer and retail/brand side towards greater customisation, greener packaging and more transparency. The challenge for anyone in the packaging supply chain is to affect these changes, offering broader choice to different groups of consumers (particularly the increasingly affluent older demographic and single householder) without a significant increase in their cost base.

The packaging opportunity for printers



Research¹ into what the drivers towards digital printing are for packaging companies identified cost savings as the main factor – 49% are interested in reducing the cost of short runs. 37% want to be quicker to market and 29% wish to reduce packaging inventory. Only 25% aren't looking into digital printing at all.

Printed packaging companies need to deliver more packaging variations than ever before to meet the wants and needs of retailers that are simultaneously shaping and responding to consumer demands and expectations. Brands need to provide new shapes, new materials, more colour, more distinctive

and shorter-runs to differentiate from the competition and attract consumers. All of which needs the right technologies. Digital print is the answer to changes in supply chains and consumer behaviour. With digital package printing, brand owners can enhance the value they offer and their role in the process.

The opportunities for printing professionals are immense. Analogue packaging is predicted to grow by 28 per cent in the 2008-2018 period while all digitally produced material will increase by 375 per cent for the same period to reach \$9.4bn (€8.5bn) by 2018, according to a report by Smithers Pira². O

² Smithers Pira, The Future of Global Packaging to 2018, December 2013

¹ Packaging World Magazine and Cal Poly, Emerging Technologies for Packaging Innovation, 2014



Packaging on demand?

One of the biggest changes to the publishing industry was the advent of Print on Demand which allowed books to be printed singly or in small quantities. While build to order has been an established business model in many other industries, "print on demand" developed only after digital printing because it was not economical to print single copies using traditional printing technology.



Print-on-demand scenarios have enormous potential to reduce costs and are particularly well suited for market-specific products in small batches. As a result, it seems certain that packaging will follow the same route with the same opportunities for printers and print service providers.

Early digital printers were all developed largely for pages, making them realistically too small to work for packaging or indeed anything bigger than A3. However, recent developments in wide-format print have the power to slowly change this. German company puzzle & play GmbH creates personalised puzzles in personalised packages for thousands of customers from its offices in Bavaria, Germany.

The chosen puzzle motifs are printed on 1.9 mm puzzle cardboard with the latest digital printing technology, and punched and packed in a secure plastic foil before being placed in an individually designed box printed with the customer's puzzle motif.

The jigsaw puzzles can range from 100-1,000 pieces and turnaround is under two weeks.

There can be little doubt that digital printing is here to stay.

What seems certain is that digital, print-on-demand, label and package printing is meeting current lean manufacturing initiatives as well as creating opportunities for increasing customisation and targeted marketing. This sort of capability gives brand managers a powerful tool for attracting new customers. •

Is the opportunity for printers getting OIGGE

The short answer is yes. As digital technology continues to improve, a wider range of applications such as high quality printing / decoration of folding cartons, shrink sleeves, tube laminates and flexible packaging are becoming available.





Digital printing technology and finishing has already revolutionised packaging and lowered costs by reducing the need for prepress that exists with analogue printers. Today, labels cartons and other items can literally be printed on demand with minimal wastage – print runs can be as short as 50, 20 or even one or two packages.

With mass customisation, personalisation and SKU proliferation still high on the list of packaging trends, digital print provides PSPs with the perfect opportunity to meet the demands of these trends and churn out multiple-language packages, targeted marketing

promotions, seasonal packaging and personalised packaging at short notice and for little cost, with no compromise on quality. Not only is this a great way for PSPs to expand their business, but small businesses and brands benefit directly from smart and proactive packaging which informs consumers, protects and extends the life of products and brings added value to the brand.

There is an education role for printers to help their customers by communicating the benefits of digital print for packaging proofing and production (at small and industrial scales).

"

While the adoption of digital is an accelerating trend, despite the buzz being created it's still under-selling its potential. The top ten brand owners in the world are generating over a quarter of a trillion dollars in sales. If just 10 - 20 per cent of these were digitised with the balance going to analogue, that is still very large potential revenue that converters haven't yet grasped.

Doug Hutt

SAB Miller Global Packaging Manager

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As a rapidly growing total services agency specialising in design, we have seen first-hand how digital print has been instrumental in growing our business. Our agility is based on our ability to focus all of our creative energy into producing the best possible products with minimum fuss and in minimum time. Digital printing makes it easy to reduce the time and costs involved in producing genuine beautiful prototypes with no make-ready and no plates. Our print runs can be as small as a single product, enabling us to respond to orders quickly. Having this level of flexibility gives our creative team a much broader brush to meet the needs of our clients. I do believe however that this trend runs two ways: digital printing may be revolutionising the packaging industry but it is just as true that today's expectations of packaging are fuelling increased demand for digital print.

Mike Owen

VP Communications, Guild 26



The Coca Cola "share a Coke" campaign involved using versioning and personalisation to roll out the campaign in 70 countries globally.

"Without digital print the project would not have been possible; printing the labels using analogue methods would give the same number of individual bottles, but they would then be labelled and delivered together. Randomly printing names sequentially is the only way to get the right

distribution at the point of sale," said the report. As part of their campaign, Coca Cola produced over a billion labels; putting the widespread notion that digital is only suitable for short runs into perspective. "Share a Coke" has shown the packaging industry what is possible, created enormous interest and pushed digital label acceptance forward in companies of all shapes and sizes.

A quick check-list of benefits includes:

Makes short-run and customised packaging economical – ensuring that new designs or changes don't result in redundant stock

Creates opportunities for working differently

Gets products to market faster

Helps to streamline supply chains

Enables customisation

Generates less waste – printing on demand, to order, means the end of long print runs and unused packaging. The green and cost implications are compelling It's the printers' role to show how packaging innovation can be a key differentiator and USP for brands. However, it's important to realise that digital printing is not the solution for everything. What's interesting is what brands can do with it, how they can utilise advanced digital printing techniques to better meet the needs of their customers and increase the reach of their products into new markets. An excellent example of this is the specialist carton and leaflet manufacturer and contract packer Chester Medical Solutions, which has installed the first digital carton printer for braille in the UK.

The investment, which puts Chester Medical at the forefront of digital carton manufacturers for the pharmaceutical industry, allows the printing of braille dots onto a carton without the need for braille tooling. This makes it ideal for short runs and digitally printed cartons.

There are a number of drivers behind the rising demand for digital print. The ability to produce short print runs economically, as packaging buyers of any size continue to search for ways to engage with customers, is an obvious draw.

Conclusion



Printing on demand means less waste, ensuring that new designs or changes don't result in redundant stock. One-off customisation becomes just as possible as traditional long production runs. Technological developments in inkjet and electrophotography are making digital print increasingly accessible and cost-effective for all kinds of companies, big and small. In short, digital is enabling businesses to work in totally new ways.

Despite all of the advantages on offer, there has historically been reluctance in the industry to adopt digital printing processes on a large scale. A general lack of knowledge in the sector coupled with a perception that the process is expensive and difficult to manage has meant digital printing has evolved slowly in the past. However, more companies need to consider digital print to avoid being left behind in this fast-moving market.

With three quarters of the print industry¹ researching digital print packaging options, opting out seems like a risky option.

For printing professionals looking to make the move to digital printed packaging, the first step is to figure out what the benefits of digital printed packaging are, acquainting yourself with how others are using it innovatively. Before you can communicate its benefits to your customer base, it's essential you yourself are convinced of its merits and potential to add value. The next step is to discuss the opportunities of digital printing with your client base. Understanding their customers and what's important to them: the joy of unboxing, transparency, authenticity, green issues and balancing this with what their brand stands for will go some way to making a convincing case for the value of digital print. O





Things PSPs can do to get started





Do your research

- The beauty of packaging is that it is everywhere! PSPs should go out and see how packaging is being used by businesses in multiple sectors and of multiple sizes.
- How does it differ by product volume? What materials are being used? Is it functional, decorative or both?
- How is it working with other POS products that could also be an opportunity for print?



Look at your current capabilities

- PSPs should ask themselves which of their current services could be utilised in the packaging sector and what new areas or concepts they're able to deliver within the capabilities of their business.
- Can key trends such as prototyping, customisation and the social 'unboxing' experience be taken advantage of?
- Which of your customers already has a requirement for packaging that you can leverage?
- With your knowledge and Canon's support, how can you show them the new possibilities?



Implement short term changes

- Packaging is a technically demanding, knowledge hungry application but the rewards are there for those that invest the time.
- How can your skills and the skills you can acquire, service the packaging supply chains at any level?
- Do you have in-house skills that could be re-purposed or built on to deliver value in this sector?
- Are there new applications that you would like to offer?







Getting started

- Knowledge is key if you recognise areas where additional expertise would be useful, an investment in training or applications development, however modest, could pay large dividends. PSPs need to start small and see what offers they can make to support existing customers or businesses. The learning experience could be key to developing further in these markets.
- Take the proactive approach What showcase materials or samples do you need in your portfolio to highlight what you can do for retail?
- Consider working with other suppliers or customers in your network who already service packaging markets.
- Get creative Can you find an innovative niche that sits perfectly within your businesses capabilities and services the needs of your customers?
- Talk to Canon Our product specialists, application experts and account managers are here to help. They represent one of the largest wide format portfolios in the industry, from UV flatbed printers and flatbed cutting systems to water based inkjet and unique CrystalPoint and Single-pass systems. We can help you learn the skills to push the boundaries of print and materials to create an outstanding offering for your existing or potential retail customers.

