PRINT FUTURE

Why Inkjet?

The future of productive profitable print

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introduction

Inkjet is very different to both offset and digital toner technology; it is a non-impact printing process where small ink drops are deposited on substrates to create text and images. It has widely been used in home and office desktop printers and for coding and marking applications but now much higher performance inkjet is being adopted by mainstream print companies and packaging converters as an alternative to analogue printing processes.

There are many types of inkjet printing machines on the market that are being used to produce point-of-sale, books, mailings, commercial items, labels, corrugated board and packaging. Inkjet is seen as an enabling technology, allowing print supply chains to be significantly improved by reducing the cost of short runs by printing on demand.

In 2016 the inkjet print and printed packaging market (excluding home and office inkjet, textiles and industrial inkjet decoration) was sized at approximately $65 billion, the equivalent of 443 billion A4 prints. The market has grown dramatically over the past 2 years and growth in all sectors is very positive with inkjet volume poised to increase by an average CAGR of 12.7% between 2016 and 2019.

Until 2008 for all but the ultra high volume applications, there was a straight choice between offset and digital toner production. Toner competed exclusively in the very low volumes of usually under 500 copies and was limited by production speeds, format size and cost per page. Offset dominated the rest of the market and was always preferred for any high quality, colour sensitive work. Inkjet was only used for mono overprinting of transactional documents, labels and packaging all at relatively low resolution. After

Until 2008 for all but the ultra high volume applications, there was a straight choice between offset and digital toner production.

2008 we saw the introduction of high-speed web fed inkjet, which quickly began to compete successfully in the publishing and direct mail markets. It offered variable content production and printing speeds to compete with sheetfed and web offset, which have now increased to over 800ft/min. Its limitations were around print quality and the range of substrates, which can be used with aqueous inks. However over the last 7 years this has driven very rapid inkjet development and a lot of the initial challenges have been overcome. Inkjet is now viewed as a mature and stable process, capable of producing high quality images on a range of different substrates.

where has inkjet come from?

Inkjet has grown exponentially for the production of personalised mailings to print transactional details and direct mail. This is a low cost alternative to laser printing offset pre-printed pages, with full-colour single-pass inkjet saving time and reducing waste. Printing multiple jobs in mail-sorted order can now reduce mailing costs making inkjet even more effective as a production method.

Workflow is the key; to achieving maximum efficiency and reducing cost by eliminating and automating back office systems and reducing manual touch points.

B2 Inkjet is positioned to bridge a gap in the current market for many applications in the publishing and packaging sector. It is capable of producing B2 sheets, which make it much more productive than the majority of digital toner machines and considerably less expensive per page based on running cost and consumables. Producing B2 sheets allows digital inkjet to go head to head in direct comparison with offset litho formats but with the ability to add variable page content and take out the cost of any prepress elements like platemaking.

Where has Inkjet come from?

Although production full colour inkjet is a relatively new process, only introduced in the last decade, the first mention of an inkjet-like device can be traced back as far as 1867. However, the concept was only seriously developed many years later by Elmqvist of Seimens,who patented the first practical break-up ink-jet device in 1951.

In the early 1960s Dr Sweet at Stanford University demonstrated that a stream of ink could be broken into uniform drops applying a pressure wave to an orifice. When the drop break-off mechanism was controlled, an electric charge could be imparted to the drops selectively and reliably. These charged drops were deflected into a gutter for recirculation when passing through the electric field, while uncharged drops would pass directly onto the media to form an image. This was the basis of continuous inkjet printing products.

In the 1970s, IBM licensed the technology and launched a development program to adapt continuous inkjet technology as a computer printer. The IBM 4640 inkjet was introduced in 1976 as a word processing hardcopy-output device.

Around then Professor Hertz and his team at the Swedish Lund Institute of Technology developed several continuous inkjet techniques that had the ability to modulate the ink-flow characteristics for greyscale inkjet. One method was to control the number of drops deposited in each pixel. By varying the number of drops laid down, the amount of ink volume in each pixel was controlled, and the density in each colour was adjusted to create the desired tone.

Many commercial printers and packaging suppliers use wide-format inkjet to produce proofs. The widespread adoption of colour management systems with pigmented inks provides accurate and reproducible methods of proof production for process colour with certification to standards such as GRACol or ISO12647. This has allowed printers to become accustomed to using inkjet in their prepress operations. Many use the

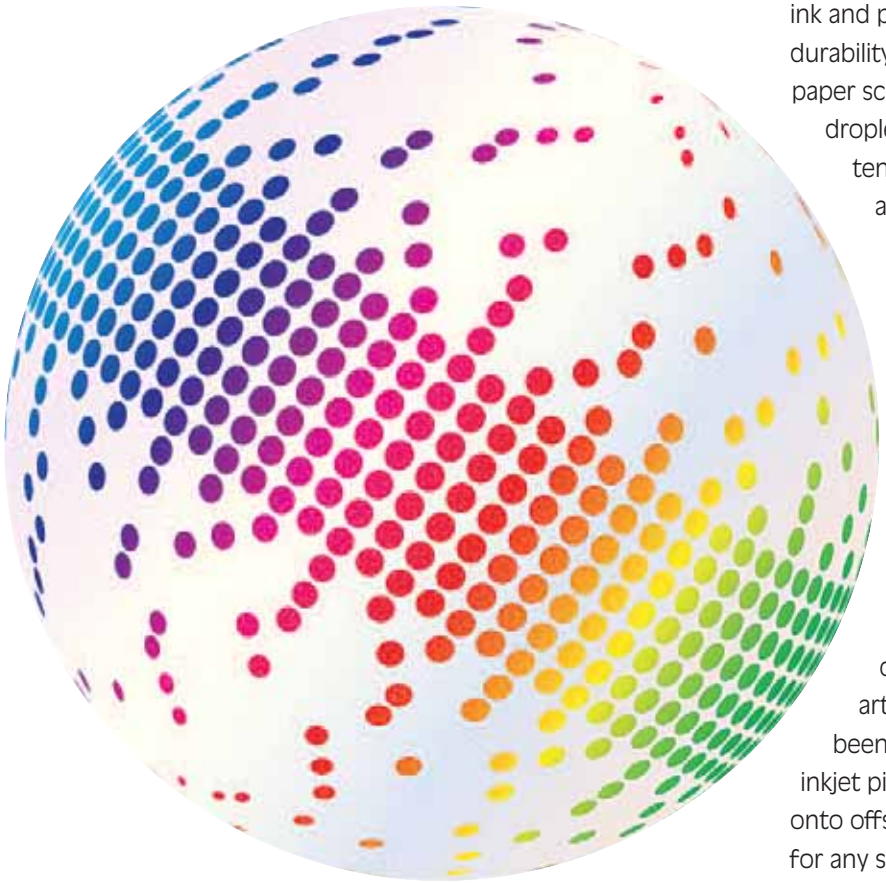
technology to produce short run posters, PoS or other commercial items and pack prototypes on an ad-hoc basis.

At the same time as continuous inkjet was being developed, drop-on-demand methods were also being explored. This technology allowed a wider range of materials to be jetted that do not need to be water based opening up many new applications including ultraviolet curing. Reliability of early inkjet technology remained poor with nozzle clogging, ink bubbles and inconsistency in image quality being the major constraints.

Since the late 1980s, because of their low cost, small size, quiet operation and colour capability, thermal inkjet printers became the printer of choice for home users, dominating the low-end colour printer market. In 2008 the first high speed full colour web fed inkjet press was launched and this created a new market opportunity in digitally printed direct mail, magazines, newspapers and books, that allowed digital to compete more successfully and also complement offset and web offset production. At drupa 2012 sheetfed production inkjet systems were introduced for the first time, to bring the advantages and flexibility of digital with higher productivity to rival sheetfed offset production.

where is inkjet going?

Printers have to become strategic partners with their clients and part of this process is to eliminate barriers and make the process of printing more efficient and less of a hassle.



Where is inkjet going?

We have seen rapid technological developments in inkjet machines with reel fed presses going from 200 ft/min in 2008 to over 800ft/min in 2015. We have seen wider web widths of over a meter being introduced to make presses even more productive. The image quality has been increased significantly to over 1200 dpi, through advancements in inkjet heads, inks and improved colour management control.

Throughout the course of inkjet development the relationship between head, ink and paper determines the quality and durability of the result. Ink developers and paper scientists realised that when a liquid ink droplet contacts the surface of paper, it tends to spread along paper fibre lines as well as penetrate into paper sizing and voids. The spreading of ink droplets may be too excessive and irregular to maintain the resolution required. The penetration of ink into the paper is often too slow to absorb multiple ink drops on the same spot within very short time intervals. The poor colour image quality due to ink spreading and inter-colour bleeding has been critical in the development of graphic arts inkjet applications. This has now been overcome with a new generation of inkjet pigment inks that can print directly onto offset coated papers without the need for any special media or primer coatings. On non-absorbent media, UV curable inks are also providing high quality results. The ability to print directly onto a range of different substrates, has enabled inkjet to be even more competitive with offset from a cost and quality perspective.

Commercial Inkjet printing to date has largely been confined to more specialist, transactional, direct mail and publishing applications produced on high volume inkjet web presses or wide format applications utlising roll fed and flat bed inkjet devices. Since drupa 2012 we have seen the launch of

why b2 inkjet?

a number of B2 sheetfed digital inkjet presses, which have the potential to open up the market to the general commercial printer and provide an alternative business model and cost structure to both toner and offset presses.

Why B2 Inkjet?

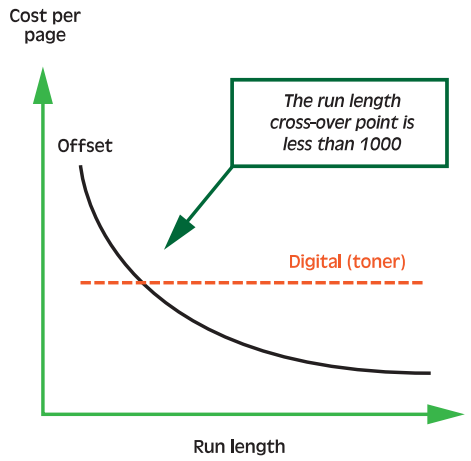
Inkjet versus toner

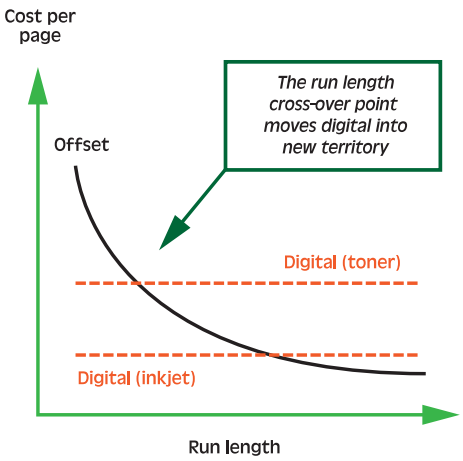
Digital printing in the commercial print market has come a long way in the last twenty years, with toner-based technologies having had the most success in delivering high quality, on demand print. Despite this success, however, the majority of commercial print is still produced using traditional offset presses, largely because toner-based presses have been limited in terms of quality, speed, format size and cost per copy.

Inkjet, on the other hand, is still at the early stages in terms of its impact on commercial printing. The inkjet printing market is forecast to grow to over $90 billion by 2020 and the value of inkjet equipment sales is predicted to grow by 260%. Part of the reason for this forecast growth is that over the last ten years, inkjet head and deposition technologies have evolved to such an extent that speed and quality levels required by the discerning consumers of commercial print have now become a reality. It is inkjet systems that combine printheads with sophisticated control systems and paper handling technologies that are now set to challenge toner-based presses in the quest to meet the evolving demands of commercial print customers.

It's not easy to draw a direct comparison between inkjet and toner, as each technology has its pros and cons.

Fast job turnarounds and print-on-demand are all standard requirements in today's fast moving world, and toner presses remain hugely attractive for their ability to meet





Source: Infotrends

The drive towards smaller readership is influencing the use of digital printing and in turn it is enabling publishers to develop new audiences in B2B and specialist niche markets.

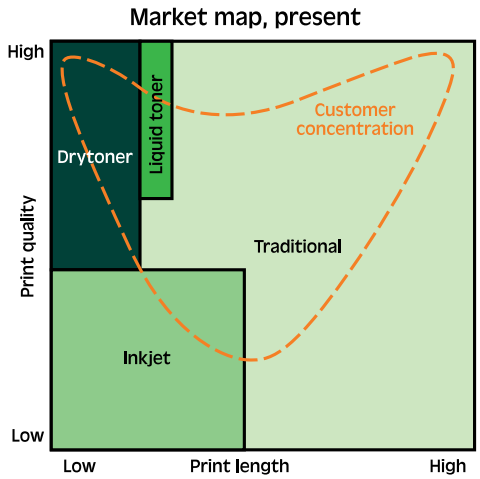
these requirements. As printing technologies evolve, forward-thinking printers should ensure they are prepared for the future and position their businesses with the appropriate technologies to be at the forefront of these developments.

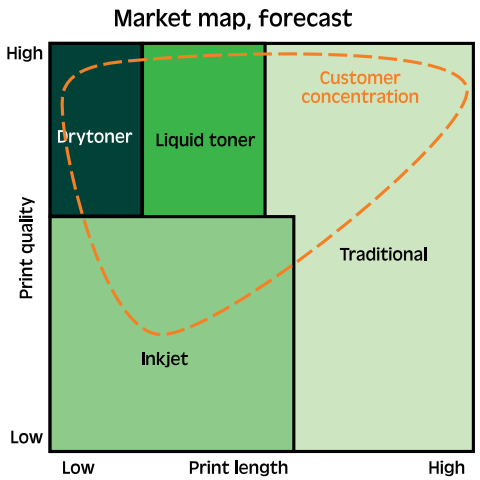
Toner presses are based on a mature technology and it's often hard to differentiate between the output of one press and another. At this stage, development of toner devices is evolutionary rather than revolutionary and the limitations of speed, quality and format size have almost been reached. The major digital R&D developments are happening with inkjet technology, which in the long term has the potential to transform many commercial print applications and disrupt the market positions of toner and offset presses.

Inkjet printing is set to be a game changer in numerous applications, as can be seen from the diagram on page 7, inkjet has a significantly lower cost per page than toner but is now more competitive with offset in longer runs, creating a gap in the market for more productive and cost effective production.

The maps below show the print landscape for current and future traditional and digital print technologies. It is evident that inkjet printing is producing longer run lengths, improving print quality and as a consequence will take a dominant position with its growing market share.

The quality being produced by devices like the KM1 inkjet press is undoubtedly near offset quality and this will allow B2 inkjet to compete successfully against both toner and offset production. This will create a unique market space between current offset and toner production, which can be exploited in a range of different market applications from publishing to packaging. B2 inkjet will provide a compelling proposition for print companies





Source: Printfuture

with digital toner devices looking to be more productive, expand their range of opportunities and compete more effectively with offset. At the same time B2 inkjet will provide a significant advantage for offset printers with a lot of low volume work, to migrate one or more of their offset presses to inkjet.

communications to individuals in both high and low volume and at relatively low cost. Many transactional documents and direct mail include information and marketing messages specific to the recipient. Providing data analytics and insight are being recognised as increasingly important areas for print companies to add revenue and value.

Publishing is a market, which has undergone wholesale transformation through the adoption of digital printing technologies.

Market Opportunities

Market Dynamics

Digital printing is having a different affect on a variety of markets and is creating completely new business models. The growing segmentation of consumer markets is generating an increase in narrowcasting. This means that publications such as magazines become more numerous but have smaller print runs to serve a more limited but highly targeted audience. The drive towards smaller readership is influencing the use of digital printing and in turn it is enabling publishers to develop new audiences in B2B and specialist niche markets. This trend is also enabling high value targeted advertising incorporated in to long print runs. Inserts and advertising sections can be printed digitally and included in offset printed publications.

Digital print and in particular inkjet is now being used in more innovative ways by many print providers. Inkjet is well positioned to print more relevant, targeted

Some large traditional printers are acquiring expertise by buying existing data specialists, while others are partnering or developing their own expertise to broaden their service offering and capture new opportunities and revenue streams through a multichannel approach.

In several applications inkjet print is helping to improve the whole supply chain and in some cases change or create a new business model. It is now vitally important that print can help improve the overall cost effectiveness and efficiency for the print buyer and specifier. The market for photobooks and personalized products is a good example, digital print when linked to an online ordering and design system, has enabled a major new market to develop. This is now expanding into customised cards, calendars, versioned and personalised labels and packaging, which is enabling brands to connect with their customers in a much more engaging and personalised manner.

In publishing and commercial print sectors the biggest trend over many years has been run length reductions as buyers produce fewer copies. Newspaper publishing business models have changed as the online alternatives reduce circulations and advertising revenue. The distribute and print

Mainstream book printing is now being dominated by high-speed web fed inkjet presses capable of printing the equivalent of up to 8,000 A4 prints per minute that can be linked to sophisticated finishing systems to deliver final book blocks.

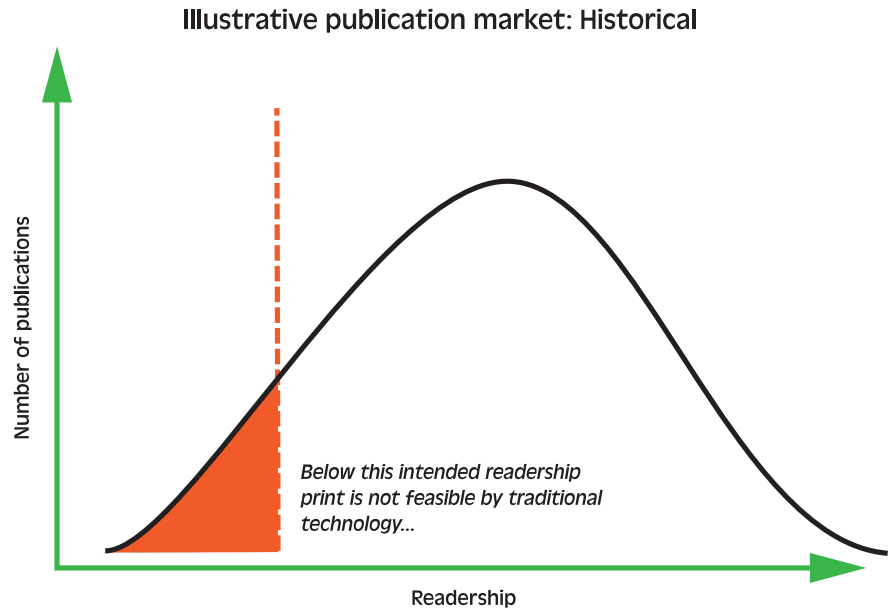
model has grown, with some locations using inkjet to print titles remotely. As the model matures there are opportunities to add value and sell localised advertising. In catalogues there are indications that high volume personalisation can increase sales and maximize financial returns. Magazine publishers are exploring the benefits of adding inkjet sections, with manual production in individual language versions rather than using a higher pagination version with many languages in a single higher run edition.

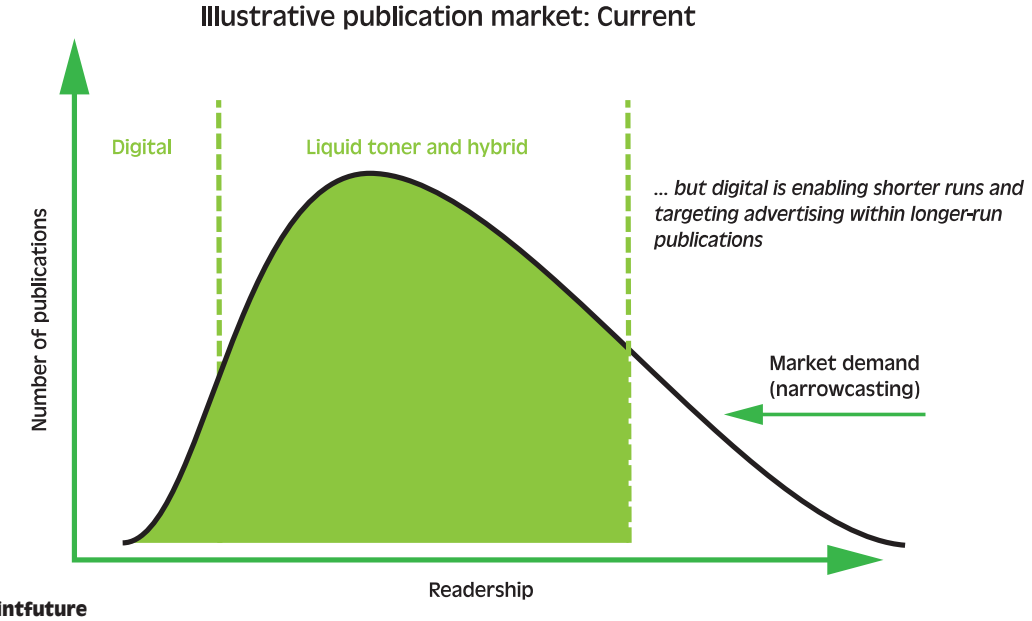
Publishing is a market, which has undergone wholesale transformation through the adoption of digital printing technologies. The business model for books has changed to the market of one; books printed on demand for each order placed online or alternatively in store as you wait. Digital print also provides short run batch production to enable just in time stocks. Offset production is now only used for the very high volume titles on the bestseller list or extremely high quality coffee table books and publications. There has been strong growth in the digital book market between 2009 and 2014 averaging a CAGR of 31.5% as the market grew from $464 million to over $1.8 billion, while print volume grew from 5 billion to over 20 billion A4 prints, in mono, spot and increasingly full colour. Growth will moderate but is still strong between 2014 and 2019, as the market grows to nearly $4 billion.

Education publishers are using digital capabilities to produce special editions of textbooks, mixing established content from several sources with some new material for a particular course. These are printed in very short runs, delivered to a university or college at the start of the academic year. Inkjet printing, combined with sophisticated cutting, gathering and collating systems can deliver book blocks for binding in a single pass, with changes in format and pagination handled on-the-fly. This has allowed printers to produce short runs, in the 500–5,000 range, at the same unit cost as higher runs printed in offset. Publishers would often order large offset print runs, to achieve low unit pricing and in many cases this leads to unsold copies, tying up capital and using warehouse and incurring distribution costs. Estimates of unsold books in the supply chain vary, with 25–30% often estimated for new releases in several categories. With inkjet the ordering pattern can change, with many small runs as needed replacing a large speculative order, and this has taken place to the benefit of both printers and publishers

Mainstream book printing is now being dominated by high-speed web fed inkjet presses capable of printing the equivalent of up to 8,000 A4 prints per minute that can be linked to sophisticated finishing systems to deliver final book blocks. These can produce low quantities of books at a very economical unit price, so publishers do not have to order larger quantities to achieve a low unit price, instead ordering several runs of popular titles. This has helped publishers reduce unsold book stock, while minimising capital tied up in stock and distribution.

The overall global market for digitally printed products is estimated to be approximately $100bn. Documents





Source: Printfuture

represents the largest market, although it is forecast to grow at a slower rate than packaging.

Print suppliers are increasingly realising it is not just the direct ink on paper comparison that is important in determining which print process is used.

Digital Inkjet market drivers

	Digital market size	Digital Maturity	CAGR Growth	Digital Drivers	Barriers
Documents	$15.6bn	Moderate/high	9%	• Technology advances • Reduction in run lengths • New niche markets	• No technology barriers • Market adoption of low run versioning
Labels	$5.9bn	High	21%	• Technology advances • Buyer awareness • Shorter run lengths	• Lack of capability (embossing & metallics) • Uneconomical longer run lengths
Packaging	$0.8bn	Very low	16%	• Technology advances • Brand proliferation	• Not widely accepted • Printing on wide range of substrates • Food contact

Source: Printfuture

Top 10 growth markets for Global Inkjet products – CAGR 2014-19

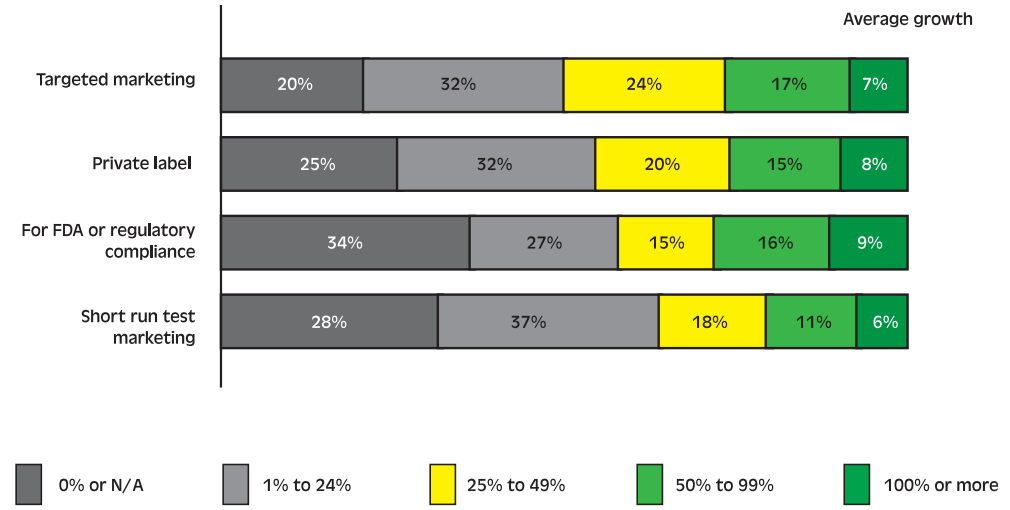
1.	Magazines	54%
2.	Catalogues	26%
3.	Labels	21%
4.	Commercial print	21%
5.	Books	17%
6.	Packaging	16%
7.	Security print	14%
8.	Transactional print	13%
9.	Newspapers	10%
10.	Photobooks	7%

Source: Printfuture

As can be seen from the table above general commercial print has an annual growth rate of 21% and if SME printers are looking to diversify through B2 sheetfed inkjet production catalogues, books, labels and packaging offer good opportunities for future growth.

The transactional documents market currently has a c.63% penetration of digital printing which is expected to increase to c.91% by 2017.This represents one of the highest penetrations of digital printing in any market. However much of the high volume production is on low quality web fed machines, often in black and white but there

Growth in versioning in the next 2 years



Source: Printfuture

is still opportunity for high value Transpromo documents in the B2 Inkjet space.

In catalogues there are indications that high volume personalisation can increase sales and returns. Magazine publishers are exploring the benefits of adding inkjet sections, with manual production in individual language versions rather than using a higher pagination version with many languages in a single higher run edition.

Print suppliers are increasingly realising it is not just the direct ink on paper comparison that is important in determining which print process is used. Inkjet can be used in different ways to analogue alternatives, providing economic advantages to the print buyer by improving their business processes. The other economic driver for print suppliers is the ability to add value to products. This is happening in commercial print, with versioning and personalisation and in finishing with spot varnishing and print enhancement from MGI and similar suppliers. A popular way is to personalise or version content: for example posters, fliers, price lists, menus, invitations, training manuals or event guides.

The proliferation of versions of packaging for consumer products is driving short run printing. In addition, brand owners are becoming more inclined to change their packaging regularly to keep the brand image fresh and keep products front of mind with consumers. Versioning is key in packaging where a single product may have numerous versions and this leads to lower print runs. There may be numerous reasons for this, from translation to other languages, ingredients changes, product offers or to target specific demographics. All brand owners see short run packaging diversification, especially for marketing purposes being a major growth driver. This trend will significantly benefit digital printing and in particular B2 sheetfed inkjet.

Packaging makes up the smallest and most undeveloped market for digital print, but it will be a main area of focus for brand owners, manufacturers and printers over the next 5 years.

why invest in b2 inkjet

Why Invest in B2 Inkjet

The B2 format breaks through the limitations of paper size where most digital electrophotography (EP) production print devices are typically limited to A3+ paper sizes (32.5x47.5cm) for two-up applications. However, some digital EP devices can print longer sheets and some other presses are B3 size (34.75x49.25cm) format.

KM-1 offers a paper size larger than B2 (72.5x57.5cm), which allows for six-up letter size capabilities and other larger applications like posters, book jackets and light packaging applications.

B2-format is a standard industry size and nearly any commercial print job can be produced in this size.

B2-format is a standard industry size and nearly any commercial print job can be produced in this size. This means that B2-format digital presses can cover virtually any application in the commercial printing space, leading to greater versatility. This versatility creates cost-effective business opportunities for new applications, such as short-run pocket folders as well as variable, personalized, or short-run printing of point-of-purchase displays and marketing materials.

Another advantage of the larger sheet size and image area is that B2-format digital presses are much more productive. There are a number of applications today produced on offset presses that are not cost effective due to run lengths that cannot be transferred to a smaller format digital press because of size limitations. With the new B2-format, customers can transfer even more work from their traditional B2-and B1-format offset presses to the B2-format digital press, freeing up press time for longer runs more suitable for a traditional offset press.

Everyone knows that a print job is far from finished when the sheet comes off the press so, how will this new B2-format fit into a finishing workflow? Most commercial printers that would be looking at a B2 digital press would typically have a finishing and bindery workflow that has been created for use with traditional B2 offset presses. The majority of their existing systems can be leveraged to finish the output from digital B2-format presses. The finishing industry's challenge is to develop finishing systems for short-run and on-demand digital printing required for the new B2-format. There are a number of systems in development to meet the needs of digital B2-format service providers, including automated cutting and stacking systems.

For commercial printers used to dealing with B2 sheets in their offset operations, the transition to digital inkjet will be relatively easy. B2 Inkjet is ideal for taking work off similar sized offset equipment and putting it on the digital inkjet devices, thus adding variable data and short-run capabilities, while leaving the longer and/or more quality critical runs on the offset press.

The relative economics of different processes is a key determinant in an investment decision by a print company or packaging converter. As run lengths have fallen and inkjet printers became more reliable and productive so the economic crossover against other print processes has grown to ever-higher runs. Inkjet is widely

the benefits of b2 uv inkjet

used in transactional and direct mail. It has long been used for the personalised portions; increasingly it is being used to print the whole communication.

Print suppliers are increasingly realising it is not just the direct ink on paper comparison that is important in determining which print process is used. Inkjet can be used in different ways to analogue alternatives, providing economic advantages to the print buyer by improving their business processes. The other economic driver for print suppliers is the ability to add value to products.

Inkjet is attracting more development money than any other print process. Printers and converters recognise this fact and are concerned that an investment in an analogue technology may become uncompetitive over the economic life of that asset.

The table below illustrates the drivers for inkjet adoption.

The Benefits of B2 UV inkjet

A productive B2 format digital press fills a gap between existing smaller format digital

Drivers for adopting inkjet

Issue	Summary
Economics	Inkjet is a scalable technology and is becoming more cost effective against analogue at higher volumes and can be used to print on demand to reduce cost and waste
Supply chain benefits	Proven technology in PoS, books and newspapers to provide supply chain efficiencies by reducing inventory and minimum order quantities. It has environmental benefits from using, no plates, having no VOC's and reducing waste. High speed inkjet presses allow jobs to be combined to maximize postal discounts
Added value	Inkjet can provide print enhancement through new inks, varnishes, security features, metallics and flourescents as well as inline finishing for binding and diecutting
Technology developments	New inkjet heads, inks and print systems are constantly being developed to broaden applications in many print and packaging sectors. It is also enabling new business models and applications
End user demands	Big data and improving analytics are allowing inkjet to personalize high volumes of print products from mailing to packaging. Inkjet is now proving to have the lowest total cost of ownership over an increasing range of print volumes and applications

presses, such as ones with a 13"x 19" print frame, and much bigger offset presses.

Short print runs, which B2 digital presses print well, are a challenge for offset presses, so investing in a B2 digital press often is a good complement to existing analogue technology.

Companies that are considering investing in B2 inkjet, the top motivation to do so is higher productivity, followed by improved running costs and larger format size. As the market develops we will also see customers demanding it as they become more familiar with the cost advantages and offset quality that can be produced.

Workflow is a critical component in the print production process and in the case of KM1 it can be integrated directly into the digital front end or connected to an existing offset CTP workflow providing ultimate flexibility. As lead times reduce to 24-48 hour turnaround, it is critical that a variety of different job formats and substrates can be not only printed on demand but also finished immediately after printing. This is where UV inkjet has considerable advantages over offset, toner and other inkjet technologies like aqueous.

Run length and uptime

It is a common assumption that toner-based digital printing systems are ideal for ultra-short runs, with litho for longer runs and inkjet for everything in between.

implementing b2 inkjet

However, this is an over simplification. Toner devices are sold on their ability to handle a particular duty cycle, and this relates to the design of the press, the components that are used and its expected reliability. Some toner devices may only be able to fulfill a duty cycle of up to three hours per day. The design of toner presses is also inherently more complicated, so maintenance regimes and system uptime need to be factored in. So toner presses may be perfect for ultra-short runs, but if the volume of these runs is high, then the reliability and uptime need to be factored in.

Inkjet presses are typically built with offset paper handling systems and are inherently much simpler in their design, so tend to be much more reliable and able to handle a much larger throughput of work, with 2 or 3 shifts per day being typical. From a financial perspective, however, the capital cost of an inkjet press is likely to be much higher than a toner press, so the strategy in terms of production capacity needs to be carefully considered before a decision is made.

Implementing B2 Inkjet

The drivers for the investment in inkjet are predominantly economic, with inkjet providing major cost savings for customers through faster cheaper print. As well as market pull there is an element of technological push as inkjet is developing with continuing improvements in print heads and printing systems, inks and substrates. Inkjet presses and printers are boosting quality, productivity and reliability, making

them increasingly competitive against analogue print alternatives, which are losing out to inkjet in many cases.

From a technology perspective assess existing volumes, run lengths and job formats for offset and digital jobs to get a direct comparison. Work out the breakeven cross over points and assess the amount of work that can be transferred to inkjet. Work out the volume migration from offset and digital, then, calculate the additional volume required to fill the inkjet press. Evaluate your current workflow and finishing equipment to ensure you don't need any additional investment to make inkjet efficient and highly productive.

Although the assessment of technology is important, the development and introduction of new business models is where the major opportunity lies to grow a more profitable business. The rising exploitation of 'big data' by many organisations provides improved consumer insight, segmentation and better analytics for the next generation of highly targeted communications.

To be successful with the installation of a digital B2 press, a great deal of careful planning needs to take place and consideration of a number of different factors. The technology alone even though it may be faster and cheaper, will not ensure long term profitability.

Printers need to understand that business transformation aligned to the right technology creates a new value proposition for customers. Around 90% of print providers are focused obsessively on technology, have low engagement with customers and are subsequently generating low margins. The top 10% of companies that succeed become more customer centric and have highly integrated systems, which creates more

Printers need to understand that business transformation aligned to the right technology creates a new value proposition for customers.

loyalty, a best value proposition that leads to higher margins. When we create a business model that leverages the latest technology and is driven by market and individual customer demands, it becomes market leading and often game changing in a vertical market or niche segment.

Creating a sales and marketing plan to support B2 Inkjet implementation requires – customer profiling, market research, case studies and application samples. Profile your customers and job formats to understand the implications for toner, offset and inkjet production. Profile your existing markets to identify growth opportunities and research new markets like digital packaging to understand what you need to do to successfully enter these sectors.

It is essential for print providers to understand where the value and profit is derived from in their business. List all job types and companies that are won on price alone. Then define your regular sellers, the products and customers that are the cash generators in your business, the ones that give you critical mass and visibility in key markets. Identify all your star customers and products the ones that generate high margins and which need to be protected from the competition. Look at how you differentiate yourself from the competition with high value, innovative or unique products to your company as very few printers have any of these. The key to profiling your products and customers like this is to be clear where you are making money and what an ideal client or product looks like. The ultimate aim is then to produce products and develop clients that fit into the profile of an ideal profitable client. This provides differentiation, customer loyalty and delivers higher margins.

Quick Start Guide – Seven steps to progress your inkjet journey

Here is a quick start guide, which will act as a checklist of the things you need to think about when implementing B2 UV Inkjet.

1. Use the Digital 1234 Assessment Guide to understand where you are in preparation for digital inkjet adoption.

2. Use the Digital 1234 Implementation Guide to help you through the implementation process

3. Create a Business Case for investing in KM1

   • The plan should have clearly defined objectives

   • The strategy and business model behind it should be clear

   • The financials must stack up and have future growth projections and payback

4. Profile your current customers and products to understand the potential for B2 Inkjet in your existing customer base.

5. Do your research and collect information about new growth opportunities and markets that would be receptive to B2 Inkjet.

6. Create a project plan for the implementation to clarify the timescales and the people and resources needed to implement the project.

7. Create a sales and marketing plan – this should help gain business from existing clients and attract new customers. It should have an activity plan, individual responsibilities, KPI's and targets.

As well as this White Paper there is an Implementation Guide and Assessment Guide on B2 Inkjet and numerous other resources from Konica Minolta, which can support your business. In PROKOM the Konica Minolta user community there are a variety of practical guides and implementation tools to help you succeed with:

- **Business planning**
- **Project planning**
- **Workflow and operational improvement**
- **Sales and customer profiling**
- **Marketing planning**
- **Business Intelligence and market segmentation**
- **Financial planning**

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