

# Digital commercial print – the new world order

*Ricoh Business Driver Programme™*

## Market impetus

Commercial print is one of the areas in which the transition from offset to digital print is being most keenly felt. The quality and cost-competitiveness of digital print technology has made it viable for a range of print runs.

Beyond that, digital print's rapid progress will make it the value-adding choice for many new applications in the near-term.

This makes digital print a vital strategic choice for commercial printers looking to position themselves for the future.

## From offset to digital

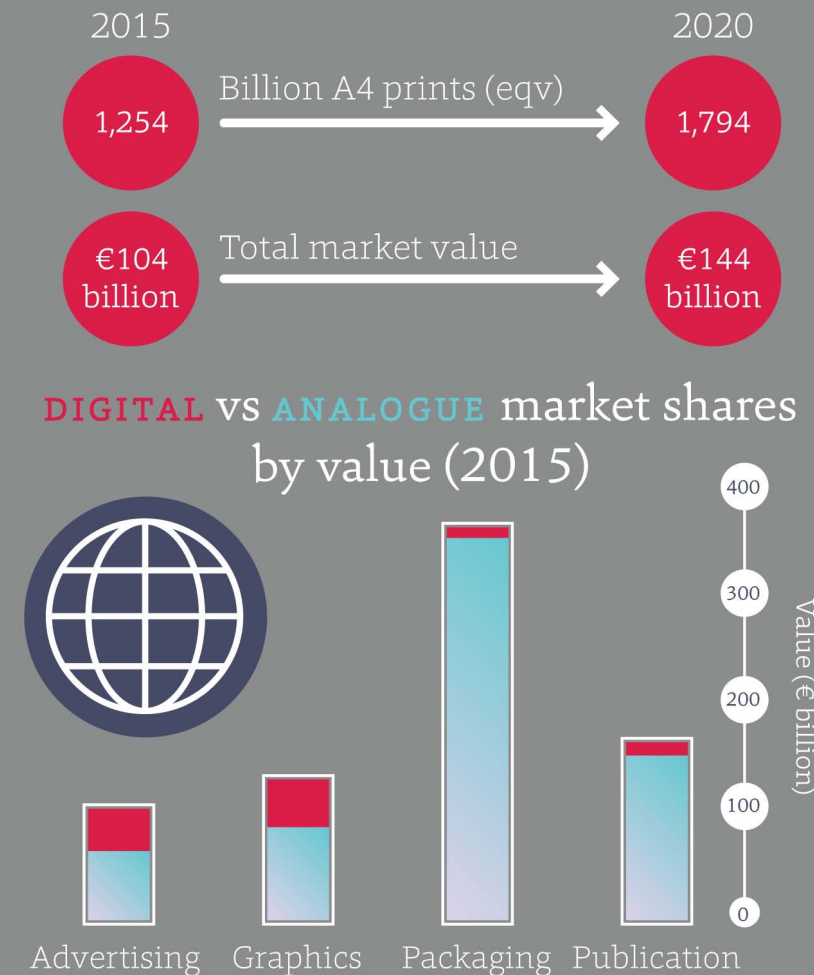
In 2015 digital print accounted for 13.9% of all print and printed packaging in value terms, but just 2.5% of the volume. Digital print is therefore a source of considerably more valuable jobs for printers.

Both the value and volume have grown over the past few years – and the analogue to digital transition is now accelerating.

*There is simply a new level now – our clients are very excited about the increasing quality and the fast delivery available from [our] Ricoh machinery*

Kjetil Sjøeng  
Head of Marketing –  
Merkur (Norway)

## World digital print market



Source: Smithers Pira

Users of digital print are innovating – to offer novel functions and features – that sell at a premium

In 2020, digital will be 17.4% of value and 3.4% of volume for all print and printed packaging.

Digital is growing because it can offer advantages that analogue print cannot provide. Variable data in transactional and direct mail was introduced in the 1970s. As colour digital presses came to market the initial drivers were lowering cost on short runs and quick turnaround.

Advertising print and graphics have a higher proportion of digital print in the overall mix than packaging and publishing, where books are taking off.

This transition from offset to digital, now being felt in commercial print, is going to be driven by continuing technological developments.

Printing technology is continuing to develop for analogue processes; but the major developments are taking place in digital – and particularly inkjet, which is enjoying major investments in R&D on printheads, inks, and printing systems.

Based on this pace of change, there is serious incentive – soon to become an urgent need – for commercial print firms to integrate digital presses into their offerings.

A July 2015 survey by Smithers Pira found that out of over 200 print service providers surveyed worldwide, just over 60% ran digital and analogue equipment, and 13% were exclusively digital.

## Scope to create

Digital print can incorporate variability that makes it more effective than the static alternative.

Users of digital print are innovating applications, and exploring new ways to offer novel functions and features to print buyers that are valued and sell at a premium.

Fifth unit features can be used to provide distinctive and original print designs – or to make colours appear more vibrant from a pristine white background

This scope for creativity is particularly apparent in the growing number of systems that in addition to CMYK offer fifth-unit capability, such as clear or white toner, and special effects; as well as compatibility with an increasingly broad range of substrates.

By 2020, it is likely that fifth units will be widely available, and special effects will be frequently used across commercial print products.

Digital varnishing and print enhancement machines are growing in popularity. There are specialist inkjet-based coating machines that provide digital embellishment to commercial jobs. These capabilities allow print firms to impress their clients with value-adding offerings.

These include metallic effects, where a limited metallic foil is overprinted with transparent inks before a varnish is applied. This results in a 3D hot foil look, with an unlimited range of colours available.

If opaque inks are printed, the result is selective areas of metallic effect on a book cover, carton or other printed item.

Other features include glittering stations, which can combine focused applications of glitter (often with the use of special fluids) with more standard glitter powder waterfalls.

Overall, these fifth unit features can be used to provide distinctive and original print designs – for instance, using clear toner to enhance wording, or to make colours appear more vibrant from a pristine white background. These features can make commercial print products that stand out and are engaging for people.

## Digital diversification

Digital print can substitute for analogue output, generally at lower run lengths and the economic crossover point for this is continuing to rise.

## Using digital just to mimic offset or flexo print is not the best use of the technology

Using digital just to mimic offset or flexo print is not the best use of the technology, though. Leaders in this space are now pursuing producing very high-quality, innovative products with the variable content that buyers value.

As the reliability and quality of digital presses has improved over time, so the share of electrophotography has grown, as more analogue print houses add digital equipment to their production capacity.

This allows printers to provide more services to their customers, and take some of the shorter runs off litho and flexo presses to improve the utilisation of the whole printshop.

Simultaneously new applications have been taken on, supported by the development of specialist digital finishing systems. This has driven steady growth in the digital segment, with rising inkjet volumes now accelerating the trend.

## Inkjet moving into graphics

In previous years, many in the print industry have perceived digital print as not offering the quality necessary to legitimise a transition from offset print in the graphics segment.

This perception of digital capability does not reflect the reality of the new generation of electrophotography and inkjet presses entering the market in 2016. The general perspective is now shifting however, and this is reflected in the growing number of digital adopters.

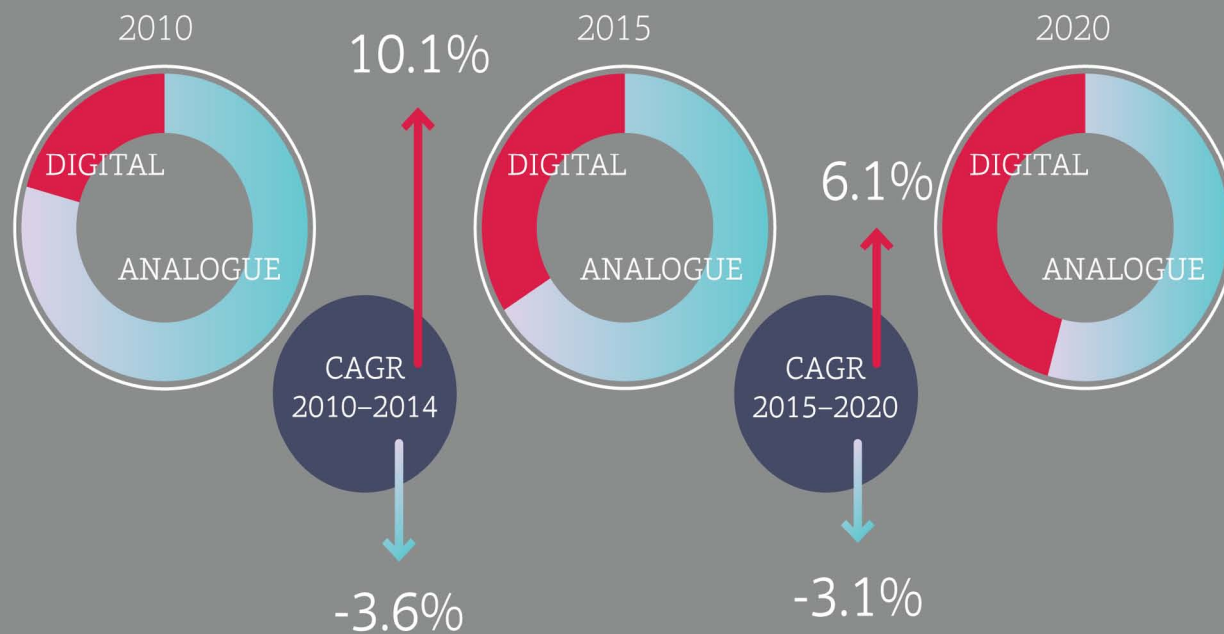
It is also clear that many buyers also do not understand the real situation. There are many print companies that do, and are successfully broadening their services and customer base to build sustainable businesses.

Digital print has seen wide and rapid adoption across a variety of graphics applications; including business stationery, greeting cards, menus, games, fine art reproductions, CD and DVD inserts and calendars.

## Graphics print market

World graphics print market value will remain static 2010–2020 (0% CAGR) at €131 billion

But market shares will shift significantly in favour of **DIGITAL**



Source: Smithers Pira

These first waves of digitally printed graphics products are helping to illustrate the achievable quality and cost-competitive nature of this disruptive technology.

## Connecting with digital work flows

Today all aspects of print job preparation – from concept design, artwork creation, approvals, prepress, printing, finishing and binding, warehousing, and delivery – are computerised and linked via the Internet.

These allow many individuals to collaborate remotely, as processes are increasingly simplified and accelerated by specialist workflow platforms.

There are many specialist systems on the market – usually modular, open automation platforms – designed for printers, publishers, packaging converters and ad agencies. These perform repetitive tasks like receiving, sorting, and processing files automatically.



## End-to-end automation of tasks standardises processes, reduces errors, and frees up resources, saving time and money

At the print company they will manage file receipt and preflight checking, colour management, file optimisation, imposition, raster image processing (RIP), printing and finishing.

Typically these use a standardised job description format (JDF) to link with management information systems (MIS) and production devices; and integrate with databases for stock holding, delivery, and invoicing.

The end-to-end automation of tasks standardises processes, reduces errors, and frees up resources, saving time and money.

Staff resources can thus be redeployed on activities that create added value – such as customer service, creative work, marketing and sales opportunities – or simply concentrated back on to core business services.

Advances in workflow systems are also allowing greater connectivity across print organisations.

New features include project management tools that trigger alarms and pre-set corrective actions; and remote log-in capabilities, allowing employees to manage print administration efficiently on the move.

These workflow changes enable multi-site, dynamic, highly automated workflows in a global environment, with centralised prepress workflows across multiple plant operations, or between customers and their printers.

## Conclusion

The transition from offset to digital is accelerating, and firms that do not plan for it risk falling behind in the coming years.

In the commercial print sector in particular, the versatility of digital print means that an increasing number of jobs can be handled on new systems.

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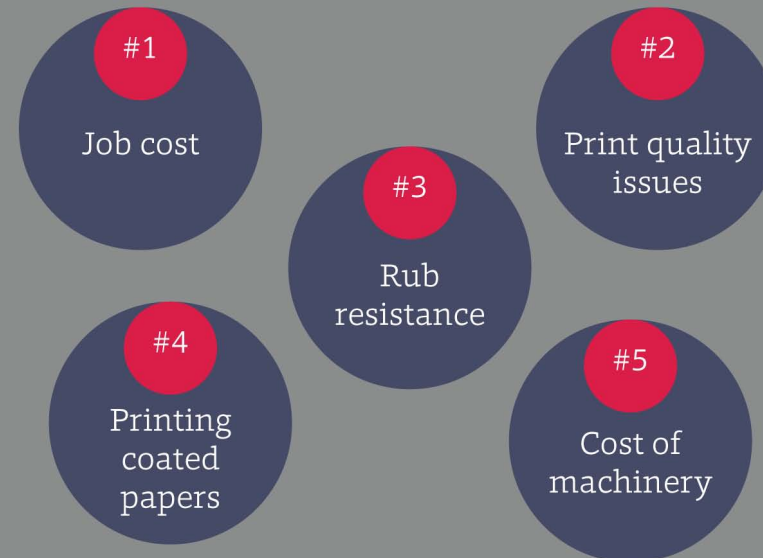
### Top 3 drivers for switching

**DEMAND** for shorter production runs

**IMPROVING** quality on digital presses

**LOW** setup costs

### Top 5 barriers for moving to digital print



Source: Smithers Pira  
Survey 200 printing companies  
(June/July 2015)

This aligns with a broader industry trend for shorter runs as companies appreciate the benefits for better targeting clients via print marketing.

Digital with its reduced set-up times is suited to exploit this demand. Furthermore, ongoing advances are overcoming latent quality issues, meaning toner and inkjet output is increasingly indistinguishable from offset.

These issues were identified as key motivators for investing in digital equipment in a recent Smithers Pira's survey of the print industry.

This is being supplemented by better decorative options for digital – including white or clear toners, tactile features built up with varnishes, metallic effects, and glittering stations. This is allowing print firms to add value to jobs, maintaining a competitive edge on a wide range of commercial jobs.

The trend for enhancement is forecast to continue across all digital platforms – underlining the critical position it has in the future of commercial print.