

# SMITHERS IDENTIFIES FIVE GROWTH AREAS FOR INKJET PRINTING

John Nelson, Editor at Smithers, outlines financial annual growth rates for inkjet in the industrial print sector to 2027



John Nelson is Editor at Smithers

Through the 2020s, inkjet has been and will be the fastest growing print process. The latest forecasting ([www.smithers.com/en-gb/services/market-reports/printing/the-future-of-inkjet-printing-to-2027](http://www.smithers.com/en-gb/services/market-reports/printing/the-future-of-inkjet-printing-to-2027)) from Smithers shows that the value of inkjet-printed graphics, packaging and label work reached €80.5 billion in 2022. This will expand at a compound annual growth rate (CAGR) of 8.6% up to 2027, yielding a market value of €119.7 billion in that year.

For contrast, flexo-print value will increase less, with a 2.5% CAGR for the same period ([www.smithers.com/en-gb/services/market-reports/printing/the-future-of-flexographic-printing-to-2027](http://www.smithers.com/en-gb/services/market-reports/printing/the-future-of-flexographic-printing-to-2027)) and sheetfed litho will be essentially flat at just 0.5% growth globally ([www.smithers.com/en-gb/services/market-reports/printing/the-future-of-global-printing-to-2026](http://www.smithers.com/en-gb/services/market-reports/printing/the-future-of-global-printing-to-2026)).

## VERSATILITY AND CAPACITY

There are several technical advantages that inkjet delivers in these applications. These include its versatility and capacity to print on non-planar substrates, which has also been central to the process' success in industrial print. Indeed, between 2017–2022, inkjet grew faster in these applications than in conventional print.

As the market stabilises post Covid-19, these will continue to provide an additional revenue stream, worth €21.8 billion in 2022, to the broader inkjet market. As with much of conventional print, many industrial markets – such as transportation, fashion and construction – have seen demand fall

temporarily due to Covid-19 disruptions. However, the prospect remains positive. Below, Smithers profiles five of the most important industrial print segments through to 2027.

## TILES AND OTHER CERAMICS

Ceramic-tile printing is a textbook example of a disruptive innovation totally changing the supply side. The enabler was the market acceptance of reliable, single-pass inkjet systems, where recirculating heads allowed reliable performance in the hot, humid and dusty environments of ceramic manufacturing.

**“Tile manufacture totals some 12–13 billion metres<sup>2</sup> of product and approximately 70–75% of this is printed”**

Inkjet print now dominates such work, as a non-impact method allows all the tile to be printed, with no breakages. Tile manufacture totals some 12–13 billion metres<sup>2</sup> of product and approximately 70–75% of this is printed. Beyond tiles, crockery, bathroom, kitchenware and plumbing are adding new revenue streams.

Importantly, most ceramic, inkjet-printing systems have open ink models – users are free to purchase from a variety of ink vendors, so they can select on the basis of price and performance. This competition has made inks affordable with high performance, and overall volumes growing strongly.

## INTERIOR DECOR AND LAMINATES

Printed interior décor, including flooring and surface laminates, were less affected than some industrial segments during the

two years of lockdown. While commercial property sales were impacted, this was countered by more home-improvement work in the private sector. This now includes wider use of bespoke designs, sold to end users via web-to-print businesses, allowing customers to order unique items tailored to their design vision.

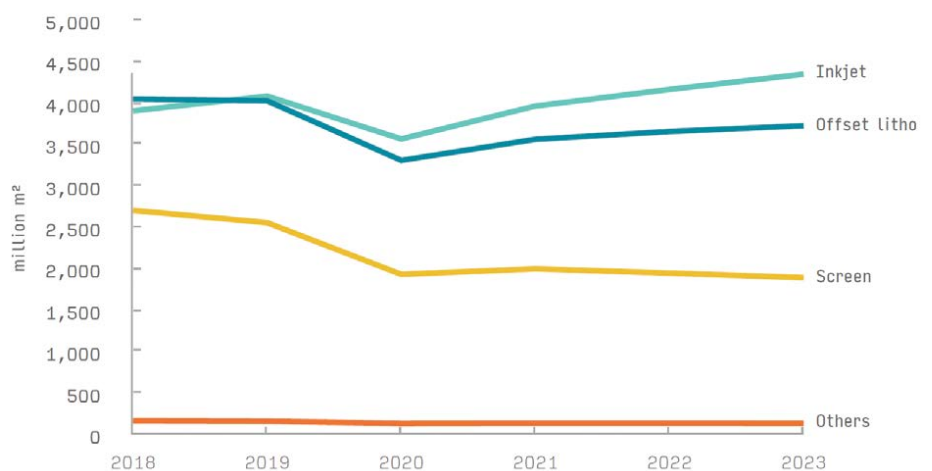
Narrow-web machines are now established for printing thin edge-bands – usually onto plastic and finished strips for furniture and work surfaces – as a flexible, low-cost alternative to analogue printing on

short runs. The use of single-pass, wide-web and sheetfed equipment is now increasing, with companies such as Hymmen, Palis, Barberán, Cefla Finishing, Bürkle, Qres Technologies and Koenig & Bauer selling dedicated high-performance printers.

## GARMENTS AND TEXTILES

Inkjet-printed textiles are forecast to be the fastest growing of all industrial inkjet print segments. The market has seen over a decade of solid growth, but there is still ample room for digital to displace existing analogue print.

Increased purchasing of customised apparel, e-commerce selling and disruption of conventional sales chain all support a wider transition to inkjet, with the installation of more roll-to-roll and direct-to-garment (DTG) presses. Excluding soft signage, inkjet textile



Global industrial inkjet print market value by application, 2017–27 (\$billion, constant 2021 values of printing service)

print worldwide will grow by an annual average of 11.1% over the four years to 2027, as these more productive machines come on stream.

This segment also makes wide use of web-to-print services to offer short run and personalised designs, best illustrated by the profusion of t-shirt printing businesses online. These smaller suppliers are now facing the very real challenge of Amazon with its 'Merch' platform. In clothing, the print-on-demand (POD) model is seen as a major advantage. It prevents stock-outs with more popular sizes and styles printed locally in small quantities, while the higher manufacturing cost is countered by reduced risk for the retailer.

### PRINTED ELECTRONICS

Another potentially disruptive technology is printed electronics which is seeing new interest as the world faces a global shortage of conventional silicon-integrated circuits (semi-conductors). Other print processes are more established for printing electronics – including membrane switches, radio frequency identification (RFID) antennae, circuitry, organic light-emitting diodes (OLED) displays and photovoltaics. However, inkjet is seeing rapid adoption. Use grew at a 12.1% CAGR (by value) from 2017–2022, with participation from companies such as Toppan and Dai Nippon.

### *“The use of single-pass, wide-web and sheetfed equipment is now increasing”*

Inkjet can be used to print a final component with functional inks. But it is more commonly employed to produce masks used in the manufacturing process for displays, circuitry and photovoltaics. Inkjet can produce patterned thin films – a key requirement for organic (flexible) electronics. In addition, specific functions can be added using inkjet printing onto substrates, with existing electronics fabricated using other technologies.

### TRANSPORTATION

A wide array of vehicles, from bicycles to jet liners, can be enhanced with functional and decorative printing with inkjet. Upholstery, carpets, interior, switches, windows, dashboards and instrument panels may be directly printed or decorated with custom decals and transfer prints from inkjet machinery.

### *“Inkjet-printed textiles are forecast to be the fastest growing of all industrial inkjet print segments”*

While some of these commissions are still proofing or prototyping, decoration of parts is now standard with some manufacturers, as is coding and part identification. The future holds many new possibilities for direct printing onto components and even whole road vehicles or aircraft.

### CONCLUSION

The outlook for these and other industrial print markets is available to purchase now in *The Future of Inkjet Printing to 2027* ([www.smithers.com/en-gb/services/market-reports/printing/the-future-of-inkjet-printing-to-2027](http://www.smithers.com/en-gb/services/market-reports/printing/the-future-of-inkjet-printing-to-2027)). These are presented as part of a comprehensive, expertly researched dataset that includes all conventional inkjet-printing, end-use applications, geographic and regional markets, ink volumes and equipment sales from 2017–2027. ■

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