

NAVIGATING THE NEW NORMAL FOR PRINT

How will a generation of work-from-home zoomers be attracted to work in industrial print, if print philosophy is trapped in a 'we'll do it the way we've always done it'? Richard Darling from Ricoh Europe poses this question and investigates potential answers



Richard Darling, Strategic Business Development at Ricoh Europe

Since lockdown the world has moved straight from social distancing to conflict, from masks to military helmets. Most businesses face challenges of component and labour shortages, inflation and economic stresses, with little time for adaptation. Are these problems from supply shortage or increased demand?

Major events, such as pandemics and wars, always trigger and accelerate change. What does this mean for industrial print technology and how should we steer our businesses going forward? How this might evolve is unclear, but there are reasons to be optimistic.

UNIQUE CIRCUMSTANCES

Similar circumstances occurred in the 1920s as a result of World War I and Spanish flu. After 50 million deaths, consumer spending grew due to full employment, high house prices, high demand for holidays and consumer goods and innovation in household technology. Inflation climbed followed by an economic crash and a major reset.

THE CONSEQUENCES OF COVID

Although Putin added scarcity of fuel and staple foods to current world woes, global inflation began long before Russia invaded Ukraine. Governments (mainly European and the USA) pumped \$17 trillion into Covid support. A consumer electronics boom resulted, with shortages of previously

abundant, smart-tech componentry.

Another big scarcity issue is labour. Generation Z aren't joining markets and a 'great resignation' has resulted from unexpectedly high property equity for people in their '50s and life changes prompted by Covid.

Retaining and acquiring knowledge and expertise is challenging, initiating wage inflation and a need to rethink. Home working and flexibility are obviously relevant to all, and making jobs more interesting, or less frustrating and dull, might be helpful.

"A consumer electronics boom resulted, with shortages of previously abundant, smart-tech componentry"

Zoomers are motivated by doing something that matters measured by factors other than just money. They also discern the differences between saying and doing.

SHORTAGES FOR PRINT

Like many other industrial businesses, the production of printing equipment is suffering from shortages. Print technology manufacturing is a tiny part of the big picture scramble for parts, such as microchips, sensors and drive motors. Many reasons have been suggested – a boom in general demand, electric cars with new disruptive consumption, fires in semiconductor factories

and lockdowns in ports and short-term working. In addition, continuity planning from larger organisations is hoovering up stocks. It is estimated that \$9 trillion in inventories have been stockpiled as insurance against shortages and inflation.

AN OVERALL VIEW

Ricoh as both a printer OEM and a supplier of some of the components critical to inkjet OEMs, is well placed to see the situation from all perspectives. Some commodity-

component scarcity has affected the company's ability to meet demand for printers with buying at inflated prices being a necessity for the maintenance of product.

For printheads, planning and procurement of materials and sub-components has usually happened way in advance to feed the continuous production processes involved in this type of manufacturing. Clean rooms have heavy overheads and 'the show must go on', not least to maintain process stability and ultimately product quality. Fortunately, the show is going on. Ricoh industrial printheads are freely available to meet demand which has been at record levels for the last 18 months.



Across industries expert talent is exiting

SUPPLY AND DEMAND

Whatever the cause(s), there are gaps between what OEM buyers need and what they can buy. Prices have been massively inflated with costs rocketing by 10 times or more. Designs using optimum components are redesigned with anything available. Integrators can suffer margin squeeze, cut other costs or overheads, wait and hope the problem goes away or increase the sales prices of final products.

In both the pandemic and what follows, intercontinental-supply-chain models have generally proved unfit for purpose. All

"Production of printing equipment is suffering from shortages"

producers, industrial included, have faced extraordinary challenges and have had an abnormal opportunity to reconsider. Focus has shifted from sourcing at lowest cost to supply security, control and manufacturing closer to consumers.

RISK AND OPPORTUNITY

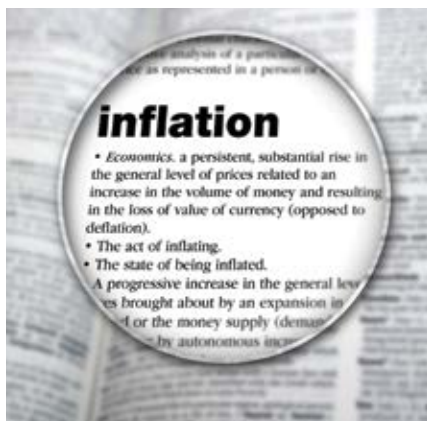
Predicting and planning to provide what consumers want is high risk. Rationalising propositions, limiting choice and compromising products also threaten the loss of markets and customers. Even maintaining the same as always is risky.

We are moving into a 'precision age'.

Consumers want precision, not approximation. 'Made for me' personalisation needs printing, whether for wallpaper, flooring or clothing.

REDUCING WASTE

Traditional print methods and supply models, with push-to-market-ready products plus overruns, are already materially wasteful. Most manufacturers print more than is needed and there are some whole industry segments generating incredible levels of waste. Without production change, more demand for variety can only increase the problem. How and where printed matter is produced needs new capabilities and fresh ideas. Buyers, individuals and organisations in



The combined forces of economic boom and scarcity

the private sector or public, should scrutinise whether or not vendors are precise or wasteful. Some already do.

Commodity resources have suffered dramatic price hikes. It is no longer appropriate to buy theoretically 'cheaply' from halfway round the world, plan many months ahead, burn energy to move goods to market, pile up work-in-progress (WIP) or finished product inventory and hope to sell. Waste is more costly than ever, is not good use of working capital and will not sit well with consumers.

Industrial-scale adoption of digital manufacturing and inkjet equipment, shifting to systems which facilitate the agility and responsiveness to meet real demand is likely to be advantageous. The proviso is that equipment must be built to exploit this technology to address real needs. Equipment must be made to be useful in reforming the way goods are produced.

THE WAY FORWARD

Hard economics drives analogue printers to look at new technology. The same applies to consumers and producers of printed products. Demand for digital printing equipment is high, potentially enabling the production of secure, more local and on-demand items, while avoiding the inefficiencies inherent in other more traditional methods.

"Focus has shifted from sourcing at lowest cost to supply security, control and manufacturing closer to consumers"

In uncertain times, the real costs of traditional manufacturing doctrines can be critically exposed. Wastage comes in many forms, falls into a different accounting pot and is often obscured. Product obsolescence from printed design – discounting to shift product that doesn't precisely meet consumer wishes – represents waste. Inability to supply product to meet market opportunity, or to realise full value, can be excessive.

Inkjet and digital production equipment should be part of the solution with a restructuring to improve consumer product manufacturing. However, systemic shortages of any of the many components involved in building digital printers makes it difficult for OEMs to meet demand. Only a small proportion of operators use inkjet technology at all. What was already ongoing has been accelerated by Covid and some new difficulties have been triggered. The relevance of inkjet technology as part of the tool set is clear.

When integrated appropriately, inkjet can deliver benefit and capability to address issues in this new normal. Inkjet can help to retain supply line security, take or keep control and enhance resilience to shock factors such as pandemics and steep energy cost increases.

Some industry players feel sceptical



Supply chains remain under pressure

about the fragility of inkjet technology. Our experts persist in pushing the limits resulting in less-than-ideal performance.

Ricoh holds the position that functional performance, reliability and dependably long printhead and equipment life, are paramount factors. Good printing to fit the purposes of most, does not require the highest resolution and tiniest drops, chasing clever for the sake of it. Technology that gives chemists the

window to focus on creating inks that do what they need to do on a substrate should be preferable to forcing the need for inks to be modified simply to suit the needs of the fanciest piezo-pumping devices.

CONCLUSION

Initial thinking is entirely consistent with the precision age. What are we trying to solve? Many issues need solutions in whatever new normal lies ahead.

Remembering the characteristics of the young people entering the job market and rapidly becoming the new consumers in this precision age, the level of wastage can influence whether a producer is judged acceptable or not, both as an employer or as a brand from which to buy. In the new normal, no-one wants to hide waste – the cost is too high. ■

Richard Darling is Strategic Business Development at Ricoh Europe

Further information:

Ricoh Europe, London, UK
email: richard.darling@ricoh-europe.com
web: <https://industry.ricoh.com/en/industrialinkjet/>