

# GETTING DOWN TO DATA MANAGEMENT

Inkjet technology is finding its way into the textile industry, but businesses need to be aware of technology and strategy necessities to make it work, says **Steve Knight**

## About the Author

Steve Knight has a background in electronic engineering and has been involved in the development

support, sales and marketing of disruptive technology to industries using imaging technology since 1986. Steve has worked for leading companies in a variety of roles in global positions as well as consulting for numerous companies on the development and launch of digital print equipment.



benefiting the end user.

The digital system relies heavily on electronics, the performance of which has continued to double every two years. Developments in digital screen screening software improve image quality, developments in networking enable the high volume of data to be managed in a more efficient manner, whilst digital storage continues to increase in speed and reducing in cost.

The forthcoming challenge for the textile printer, is to become more tech aware in how they manage a digital production company. Building on their vast knowledge of textile, the digital textile printer will need to embrace IT infrastructure and new methods of managing client relationships. Using a digital printer for short run normal production work offers some advantage, but to gain maximum advantage digital production must be embraced throughout the business and indeed throughout the connecting industries.

The knowledge economy offers new challenges and new opportunities. Offering sample production with 10 different colourways and 10 different scales (ie. 100 different images each with just 2 metres of length), needs to offer no challenge to the digital textile printer. Setting up this process, automating it and enabling trouble free repeatability for re-ordering is critical for business success.

**Continues on page 55**

**W**hen we think of core inkjet technologies, we frequently think of the inkjet printheads and although we see huge gains in performance of each generation of printhead, the total solution contains many different technologies, each contributing to the economic advantage of digital textile print. From software to chemistry, from electronics to economics all are contributing to shifting the balance towards digital production.

As the volume sales of ink increase and the ink chemistry matures we see the economies of scale lower the price to the user; this encourages further investment in ink development and manufacturing, further

Kyocera-based digital-textile print machines are running reactive, acid and disperse dye-sub textile inks through the heads. Textile-pigment systems targeting Kyocera-based machines are a relatively new development and include recent introductions from MS Italy, who showed their MS-JP5 Evo running the Sensient Technologies textile-pigment system at FESPA Cologne in May, and Reggiani, who introduced their own textile-pigment system at SGIA Expo Las Vegas in October 2014.

There are many considerations when developing digital-textile pigment systems for high-production textile machines, including ink formulations, pretreatment technologies and print head/machine developments, all of which we have discussed in past on WTIn.com. One of the key areas is the print head, and heads with an ink recirculation capability offer a number of distinct advantages, preventing settling of pigment inks, improving initial priming and enabling faster nozzle recovery.

Although the impending introduction by Kyocera of a recirculation mode print head is apparently targeting



**Kyocera KJ4C (recirculation model)** – Photo courtesy of Kyocera Fine Ceramics GmbH

a non-aqueous ink market, and not digital textiles, the future development of an aqueous ink model may well be part of its plan and could offer advantages for the textile-pigment printing, particularly in the developing home-textile print market.

## SYSTEMS INTEGRATION ◀

### Continues from page 53

Making the transition needs a clear strategy and roadmap for the business, a reassessment of skill sets and a plan for gaining the knowledge and skills sets required. Equipment and ink prices have reached competitive levels and entry-level equipment is highly affordable. Operating the new equipment is cleaner and easier than traditional screen presses, but managing the digital files, managing the customer's digital archive is a new challenge. Buying a digital printer is just the beginning to becoming a digital production facility.



**Sensient's Christophe Bulliard presenting at IJC 2014.**

Digital textile printing is going to change the supply chain and the traditional business models within the textile industry. In areas where volume and repetition of production are main stream, the analogue printing remains stronger. However, with rapidly changing designs and patterns, different shorter lengths of printing are the driver of the change. Once digital becomes mature in terms of output reliability and stability, the door to textile industry stays wide open.

### The Inkjet Conference 2015

With Drupa as enabling partner, MS Printing as sponsor and ESMA as organiser, The Inkjet Conference returns to take place on 7th and 8th October 2015 in Swissôtel Neuss, Düsseldorf, Germany. Over 20 hours of industrial presentations and technical lectures will take place, including talks by Huntsman on fabric preparation and Sensient focusing on the newest trends in digital textile printing. Matsui Color will introduce the next generation of colorant and among many software companies represented on the conference, EFI – entering the textile sector after the acquisition of Reggiani Macchine – will present their Fiery RIP.