

CROSS-DISCIPLINARY CONVERSATIONS



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With over 400 attendees, more than 50 presentations and exceeding 60 table top exhibitors, the 3rd annual Inkjet Conference, The IJC, organised by ESMA, proved again to be a highly successful event. Preceded by a day of workshops, the 2-day event covered various inkjet print related themes, ranging from print heads, media, inks and software to in-depth studies on raw material, applications and market trends. Notably, digital textile printing has become a steady part of the programme, with speakers offering insights into market trends and applications.

The IJC offered a mix of workshops,

presentations, networking and promotion. In the main networking area, table top exhibitors welcomed visitors to learn more about their offerings. Among those were companies such as event sponsor MS, ink manufacturers Sensient, VelvetJet, Huntsman and Imagico, print head suppliers Ricoh, Seiko Instruments, Xaar and FujiFilm Dimatix and a host of others including well-known system integrators, software developers, component suppliers and printer manufacturers. As an example, NTS Group and LPKF promoted their innovative integrated module for print head alignment and nozzle inspection system resp. glass nozzle plate development for inkjet print heads, while companies such as Techkon, ColorGate, Inca Digital, ImageXpert, Global Inkjet Systems, TTP Meteor and others explained their current offering of products.

Because The IJC covers so many different segments in inkjet printing, it attracts an audience that is eager to learn and look beyond the boundaries of its own expertise. This is surely the most important reason that the conference is acclaimed for its networking opportunities and cross-discipline conversations.

Textile Sessions

The textile oriented sessions included presentations from TexZeppelin, Huntsman, VelvetJet and Matsui. Maybe not so much textile specific, but certainly closely related, were the



Thomas Poetz presenting on the application possibilities of Bordeaux's VelvetJet inks

sessions by Clariant, ColorGate and Opaltone, all pointing out that in the production and supply chain, many factors influence the ultimate quality of inkjet printing. In particular, the choice of base colorants, gamut and profiling.

Dr Marc van Parys kicked off with a recap of the Digital Textile Congress, held at the University of Ghent in September (read the conference report on pp. 46-48). A key take-away from this session: pigment ink is on the rise, even though today, typical textile solutions rely on media specific ink choices (acid, reactive and disperse), while vat inkjet inks may become a future alternative for digital printing on cellulosic substrates. And secondly, that water-based UV curable ink as a choice for multi-purpose printing, including functional treatment of fibres, may prove another driver to switch from traditional to digital print processes. An interesting approach is to jet functional fluids only when needed and only where needed. This could be pre-treatment, post-treatment or enhancing agents such as water repellent or anti-microbial additives.

Thomas Poetz further explained in his presentation how the Bordeaux Velvet Jet product line pushes the digital print possibilities on a wide range of substrates. The obvious benefits of better colour fastness properties and the cross-substrate performance have already been discussed often. This is also true for the down-side of today's levels of rub fastness and print head compatibility. A major concern is the adhesion of pigments to the media and whether this is best solved through a binder as pre-treatment on the fabric, or rather by putting a binder in the ink formulation.

Willem van Daal of Huntsman then addressed some of this with his

presentation that explained the printing on polyester substrates with disperse inks and the printing on polyamide fabrics with acid inks. Van Daal touched the subject of pre-treatments, fastness differences between sublimation and disperse direct formulations and post-treatment pros and cons.

The presentation by Matsui was one that was easily missed, as it was very straightforward and, moreover, quick to end. The main idea covered the combination of a screen-print process and a second digital step, using their patented Dyestone pigments in tandem with DigiAce water based inkjet inks. This approach is of course not new and other suppliers are pushing similar solutions as well. But the key point is that an "either-or" discussion may prevent the industry from embracing cross-disciplinary solutions that, when put together, might offer workflows that incorporate the best of different worlds.

Content variety

Where other sessions and presenters often dove into the very detail of academic and primary research of absorption levels, surface tension, spectral analysis or print head architecture, the textile sessions seemed to prefer the more general overview explanation of the differences between traditional and digital processes.

Voted one of the best speakers at the conference by attendees, Xaar's Angus Condie was one of the four best speakers. His excellent analysis of different print head ink recirculation architectures may not have been directed at those in the textile industry specifically, but his explanation is very relevant to understanding why pigment formulations and single pass systems can hugely benefit from

recirculation heads.

Similarly, Agfa's Marc Graindourze explained the basics of producing and using UV inks, and, while not aiming at textile applications as such, it did provide enough general insights into the challenges and possibilities of the formulation of an ink.

Another notable presentation came from Kodak, highlighting their Ultrastream technology. Today, this continuous inkjet solution is mainly geared towards high volume paper based commercial printing and packaging. However, Kodak actively seeks partners and OEM suppliers to broaden their presence in other industry segments.

Conference conclusion

Attendees have praised The IJC conference for being a balanced mix of education and networking. The latter being what many delegates said to be the most important, since 'cross pollination' of technology and developments may be the catalyst for new industrial solutions. One quote from an attendee summarized it nicely: "Conference likes The IJC will not replace big shows but will become increasingly important. The investment in participation has more value than having bigger booths at less important shows."

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