

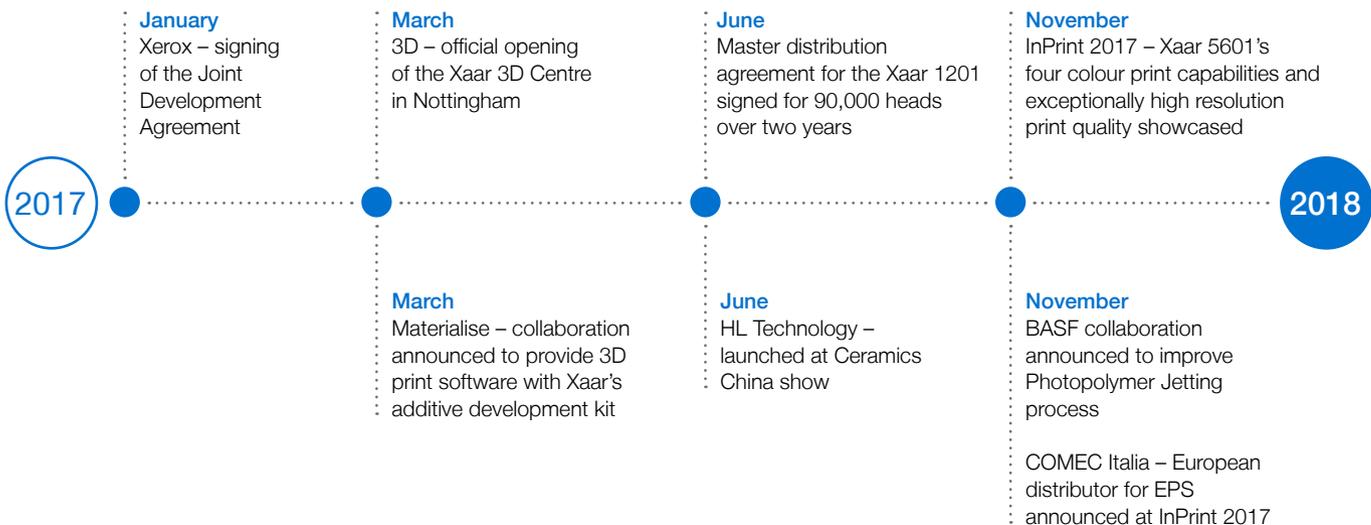
## Chief Executive Officer's report

## CONSISTENT STRATEGY TAKING US FORWARD



We continue to drive towards our 2020 vision with a more diverse and balanced portfolio of products and businesses.

**Doug Edwards**  
Chief Executive Officer



I am pleased to report that our transformation journey is well underway and that new products launched in the last two years and the acquired EPS business accounted for nearly 80% of the Group's total product revenue in 2017.

We are at different stages of commercialising seven new printhead products across a diverse range of markets and applications. We signed a 90,000 unit master distribution agreement for our 1201 printhead of which we have delivered circa 13,000 units since June. The design of our 5601 printhead was frozen in July and development kits shipped to eight major Textiles, Commercial and Package Printing partners. The first product of our partnership with Xerox, the 5501, achieved revenues of £3 million largely in digital printers for textile printing. In other areas of the business we saw a significant increase in revenues from printheads being used in the manufacture of flat panel displays and we are now working with more than a dozen OEMs.

Our Product Printing business EPS, acquired in July 2016, continues to perform to plan with growing revenues from their digital products. We strengthened our European distribution channel for EPS through a partnership with COMEC Italia.

In March we opened our new 3D Centre in Nottingham and, along with the addition of a team based in Copenhagen, we continue to strengthen our position in 3D Printing. This was followed by our strategic partner announcements later in the year with Materialise and BASF. In November we demonstrated our first HSS prototype Xaar 3D printer to a number of potential partners.

In December we announced that we had reached agreement with SII to upgrade and replace their existing licence agreement in exchange for JPY 2.98 billion (circa £20.0 million). We received the first tranche in December 2017 and the balance was settled in Q1 2018. This is significant as it de-risks our future royalty revenue stream.

We have made further progress in our transformation to a more customer-centric organisation, funding additional Go-To-Market resources through efficiency savings elsewhere in the organisation. The slower than anticipated growth in sales of our new products has necessitated this strengthening of our Go-To-Market resources.

Despite the success with our new indirect channels for the 1003 bulk printhead in the replacement market our Ceramics business remains under competitive pressure. The ramp up of our new 2001+ bulk printhead was slower than planned. However, we are now starting to see improved traction helped by the adoption of our HL Technology which was introduced in the middle of 2017.

We continue to drive towards our 2020 vision with a more diverse and balanced portfolio of products and businesses. Progress made against each of the pillars that make up our 2020 vision is described below.

#### Ceramics

Ceramics remained our largest market sector in 2017 and we continue to retain a strong market share with a large proportion of the printer install base still using Xaar printheads. Increased competition has seen our market share and revenues from this sector fall. With the Ceramics market having now reached maturity and nearly all lines converted to digital, the majority of new printer sales are machine replacements or upgrades.

In 2016 we launched two new products aimed largely at responding to the decline in our existing Ceramics products. The launch of the Xaar 1003 printhead has been a success in addressing the existing printer install base. It offers the ability to upgrade existing machines by replacing the Xaar 1002 printheads with one offering improved performance and longer maintenance-free production run times.

Sales of the 2001+ printhead, which was also launched in 2016, have gained traction slowly. Unlike the 1003 it is not backward compatible with existing machines and is therefore targeted solely at new machine installs. With the current level of market maturity and competition OEMs have been slow to invest in new designs and subsequently the 2001+ printhead has been slow to ramp up and unable to address the decline in Xaar's market share of new installs. However, we saw increased sales in both Q4 2017 and early 2018 as we better demonstrated the value proposition of the printhead and leveraged the new HL Technology made available mid-year.

At the Ceramics China show in June we announced our Premier Partner programme and the release of our advanced HL Technology. HL Technology is used to apply effects, such as glosses and lustres, as well as adhesives, once the tiles have been digitally decorated.

#### Product Printing & Packaging

In 2016 we selected two areas to focus on; Product Printing and 3D Printing, and we continue to make good progress in both.

I am delighted to report the ongoing success of the EPS business acquired in July 2016 which has continued to grow, meeting our expectations. The ability of EPS to supply customised and bespoke printing solutions, which are both flexible and cost effective, to a wide variety of market sectors highlights the potential of digital inkjet in product printing. EPS has been able to outperform what is already a fast growing market and one that is still largely analogue. EPS remains predominantly based in North America, with a large growth potential. We plan on investing further in its North American operations and expanding its global reach. At InPrint 2017 EPS announced COMEC Italia as its European distributor for its digital product portfolio.

During 2017 we have made really exciting progress in 3D. At the end of 2016 we hired an experienced group of talented engineers working in Copenhagen, Denmark, to complement the skillset of the team already established in Nottingham. In March 2017 we announced a collaboration with Materialise to provide their market-leading 3D print software with Xaar's additive manufacturing development kit. We then officially opened the Xaar 3D Centre in Nottingham, UK, an event attended by guests from a number of large international businesses including ABB, BAE Systems and Jaguar Land Rover. In November we announced a collaboration with BASF, a world-leading chemical company, to improve the Photopolymer Jetting process which will enable manufacturers to produce 3D parts with enhanced properties at lower costs. We then demonstrated, to a small select group of partners and potential customers, the first HSS prototype Xaar 3D printer designed in conjunction by the Copenhagen and Nottingham teams under the leadership of Professor Neil Hopkinson.

The 5501, our first printhead from our collaboration with Xerox, has contributed meaningful revenues since it was announced in June 2017. The bulk piezo printhead has been added to our portfolio of aqueous printheads, complementing the existing Thin Film printheads the 1201 and the 5601. The 5501 has enabled us to address more of the Textiles market and, in combination with our increased Go-To-Market capabilities, has allowed us to achieve significant revenues in the second half of 2017.

## Chief Executive Officer's report continued

Within the Coding and Marking sector the 501 and 502 printheads have been adopted by major OEMs (Videojet, Engage, RN Mark & Domino) and sales of these are expected to grow further in 2018. Despite the adoption of the 501 and 502 by these major OEMs the Coding and Marking sector has declined from its 2016 position which was helped by one-off Last-Time-Buy arrangements for products manufactured in Sweden.

The Product Printing and Packaging pillar has grown 24% adjusting for the impact of the one-off Last-Time-Buy arrangements in 2016.

### Thin Film

Good progress has been made in Thin Film in 2017 despite being slower than expected.

In the first half of the year we saw substantial sales of the 1201 printhead into the Graphic Arts sector and signed a master distribution agreement for the sale of 90,000 units over a two year period. Sales of the 1201 continued to grow in the second half of the year but were hampered by supply constraints that meant we were unable to fulfil all of the demand. These supply constraints have now been resolved, and with additional capacity coming on stream later in 2018 we expect to achieve further growth in sales of the 1201.

The development programme for our own Thin Film printhead technology passed several key milestones. Working with our manufacturing partner for the 5601 the design was frozen in July. Focus is now on ensuring supply chain reliability and improving our own manufacturing capability in order to ramp up production. At InPrint 2017 we showcased the 5601's four colour print capabilities and its exceptionally high resolution print quality garnering much interest. We have sold a number of 5601 development kits to our key OEM partners who now have, or will be, evaluating the printhead for their next generation of printers. Customer feedback has been very positive and we truly believe we have a printhead which will unlock the digital conversion of very large and established analogue industrial printing markets such as Textiles, Commercial Printing and Packaging.

### Acquisitions and Partnerships

As already noted, we are delighted by the success of our first acquisition as part of the 2020 vision, EPS. We continue to explore opportunities in the Product Printing space and target markets that support our vision.

The first products from the Ricoh and Xerox partnerships have yielded significant sales in 2017 and are expected to grow further in 2018. We strengthened our relationship with Xerox with the announcement of a Joint Development Agreement to develop the next generation of bulk piezo printheads. In 3D we have built partnerships with Materialise and BASF. EPS has partnered with COMEC Italia to establish a European Distribution channel. We collaborated with Meteor Inkjet to produce a development kit and commercial drive electronics for the 1201 printhead that shortens OEMs' Time-to-Market and optimises the printhead performance.

### Product and technology development

Building on the success of 2016 we have continued to deliver new products and technologies to the market. With seven new products launched in the last 24 months we have greatly diversified the portfolio we can offer to both new and existing customers.

Our development team has made significant progress on the 5601 allowing us to demonstrate the capabilities of the printhead and put it in the hands of our partners. The programme team is now focused on supporting full commercialisation of the product in 2018.

We continued our transformation from an internally focused product company to a market and customer lead business, redeploying resources from both operations and R&D to our Go-To-Market functions. As well as investing in our Sales and Marketing group we have established an Applications and Integration team to provide a new layer of technical support to help our customers shorten their development time and Time-to-Market. This strategy has already allowed us to achieve significant revenue from some of our new products.

### People

As part of our transformation strategy we have invested significantly in our people in order to develop a customer focused mind-set and enhance leadership, change management and resilience skills. During 2017 we launched a suite of Learning and Development programmes, collectively called XCEL. This includes a world class programme called Inspired Leaders which was rolled out to managers across the Company, and will be extended to the rest of the workforce in 2018. Inspired Leaders targets the most critical skills needed to transform a workforce's mindset and skill set. XCEL also includes a three year programme for High Potential Development

called GATE which combines hands-on instruction from Senior Executives, a suite of self-assessment tools, group interaction and project work in the most business critical areas within Xaar. We have also implemented Continuous Improvement activities and Six Sigma training across the Company to remove non-value add activities, streamline processes, and enhance our ability to partner with our customers effectively.

I would like to thank all of our staff for their efforts during 2017; we have had to overcome a number of challenges in the year but have taken some important steps forward in achieving our vision.

### Summary and outlook

We are making good progress in transforming Xaar into a more diversified and customer centric Company. Challenges still remain in our legacy business as Ceramics matures and the speed of transition to alternative printhead technologies, such as Thin Film, gain traction. We are well positioned with a more balanced and diverse portfolio of growing new products and businesses. I am particularly pleased that 80% of our product revenues now come from the seven new printhead products and two new businesses we have added in the last 24 months and that excluding Ceramics they have grown 23% in the year. This trend is set to continue with investment in these exciting growth areas.

We remain focused on the long term opportunity, the conversion of well-established analogue manufacturing techniques to digital inkjet solutions and the delivery of our 2020 vision.



**Doug Edwards**  
Chief Executive Officer

21 March 2018