Business performance

> Due to the discussions to divest the remaining shares in Xaar 3D, the business will be classified as an asset held for sale as at 31 December 2020 and the business will no longer be classified as a continuing operation. Xaar's continuing operations, therefore, consist of the Printhead and EPS businesses.

Continuing operations

Revenue for the Group of £48.0 million was in line with management's expectations and whilst this represents a year-on-year decline of £1.4 million (2019: £49.4 million) it is a very pleasing result given the decline in Printhead sales in the second half of 2019 and the impact COVID-19 has had on the EPS business. Group revenues increased from £23.7 million in the first half of the year to £24.3 million in the second half driven by a £1.7 million increase in revenues from the Printhead business.

Revenue from the Americas fell year-on-year across the Group, down £3.6 million (2020: £20.3 million, 2019: £23.9 million), and also fell £1.3 million half-on-half. Printhead revenue declined by £0.6 million to £7.6 million whilst also decreasing £0.2 million half-on-half. Modest growth year-on-year in the 3D Printing and AVM sector was offset by declines in both the Coding & Marking (C&M) and Direct-to-Shape (DTS) sector and the Wide Format Graphics (WFG) and Labels sector. Revenue from the EPS business fell £3.0 million in 2020 to £12.7 million and declined by £1.1 million in the second half of the year.

Performance in Asia, and China in particular, has been very successful in 2020. Revenue grew £1.0 million in the first half of the year to £4.5 million (H2 2019: £3.5 million) and continued to grow in the second half to £5.1 million. This growth has largely been driven by the re-engagement of Chinese Ceramic customers who began to adopt the Xaar 2001 and have now transitioned to the newly launched Xaar 2002 for their new printer builds. Year-on-year revenues have increased from £7.0 million to £9.6 million, a 37% increase. This is a real proof point for the change in strategy, the removal of distribution channels, the implementation of a clear pricing strategy, and more significantly a change in how we interact and support our customers have all helped with the speed of adoption of the Xaar 2002 in China.

Whilst revenue in EMEA was down year-on-year, £18.1 million compared to £18.5 million, we have seen a promising upward trend in revenue since H2 2019. Revenue in the first half of the year increased £1.0 million compared to the previous half to £8.4 million (H2 2019: £7.4 million) and then increased £1.3 million in the second half to £9.7 million. Increases in H1 were driven by the Ceramic sector which stayed flat in H2 whilst increases in H2 were driven by the C&M and Labels sectors.

Printhead revenue increased £1.6 million to £35.3 million (2019: £33.7 million) as we saw revenue increase half-on-half throughout the year. H1 revenue of £16.8 million was up £2.0 million relative to H2 2019 (£14.8 million) with revenues in H2 rising another £1.7 million to £18.5 million. Having hit a low of £4.4 million in H2 2019 the Ceramics & Glass sector has increased half-on-half throughout 2020 to £6.1 million in H1 and £7.7 million in H2. Full year revenues are up 13% at £13.8 million (2019: £12.2 million). Winning back market share with the launch of the Xaar 2002 in the Chinese Ceramics market, and to a lesser extent EMEA, has been a significant driver. We also established a marketing leading position in Glass with the Xaar 2002 and won several accounts in the Glass sector in 2020, with revenue in H2 2020 increasing 144% compared to H2 2019.

The C&M and DTS sector declined 3% year-on-year (2020: £11.5 million. 2019: £11.9 million). Whilst C&M has remained largely flat year-on-year, DTS declined 16% with the majority of the decline taking place in the Americas. With DTS still in its relative infancy, revenue from this sector remains volatile and largely driven by new machines from customers switching their production lines over to a digital solution. We remain confident in our ability to drive the adoption of digital solutions in this sector in the long run. Our current product portfolio, and the ImagineX product roadmap, make the C&M and DTS sector an area for potential growth in the long-term.

WFG and Labels revenue was up 13% at £6.3 million (2019: £5.6 million). As with the Ceramics & Glass sector we have seen improvements half-on-half throughout 2020 with growth in H1 (H1 2020: £2.9 million, H2 2019: £2.8 million) driven by WFG and growth in the second half (H2 2020: £3.4 million) driven by Labels.

3D Printing and Advanced Manufacturing (AVM) have stayed relatively flat year-on-year (2020: £2.5 million, 2019: £2.6 million) with gains in 3D Printing offset by a reduction in revenues from AVM. Similar to DTS, the AVM market for printheads is still relatively small but growing, and revenues can vary year-on-year depending on the number of production lines, or production processes, that are switched over to digital printing. Both 3D Printing and AVM are markets where we are well positioned to take advantage of growth opportunities, but development cycles can be long, therefore, it can take a number of years for a customer to reach full production and ultimately significant demand for printheads.

Table A – Revenue by region – Continuing operations

£m
Americas
Asia
EMEA
Total

Revenues from Packing & Textiles remain modest. Our ability to target this sector effectively is somewhat limited by our current product range. However, advancements in the product portfolio driven by the ImagineX platform should make this large sector more accessible in the future. Full year revenue of £0.9 million was flat year-on-year.

Royalties from the single remaining licensee declined 42% (2020: £0.4 million, 2019: £0.6 million) which is in line with the declining royalty rate. This royalty rate will decline again in both 2021 and 2022 before ceasing altogether thereafter.

Revenue from the EPS business declined by £3.0 million to £12.7 million (2019: £15.7 million) as COVID-19 impacted on a number of markets addressed by their Pad Printing machines and consumables; Ad Speciality and Promotional Products were hit particularly hard. Whilst the first half was helped by a strong order book, particularly on the digital inkjet side, we saw a decline in sales in the second half from both Pad Printing and digital inkjet as companies held off making large capital commitments, and demand for consumables, which declined significantly in Q2, only partially recovered. Despite this we have been able to strengthen the pipeline and order book and are well placed to return to growth in H1 2021 as companies start to invest in capital equipment again and those markets affected by the pandemic, such as Ad Speciality and Promotional Products, start to rebound.

	2020 H1			2020 H2			FY 2020			FY 2019		
	PH	EPS	Total	PH	EPS	Total	PH	EPS	Total	PH	EPS	Total
	3.9	**6.9**	**10.8**	3.7	5.8	9.5	**7.6**	**12.7**	**20.3**	8.2	15.7	23.9
	4.5	**–**	**4.5**	5.1	–	5.1	**9.6**	**–**	**9.6**	7.0	–	7.0
	8.4	**–**	**8.4**	9.7	–	9.7	**18.1**	**–**	**18.1**	18.5	–	18.5
	16.8	**6.9**	**23.7**	18.5	5.8	24.3	**35.3**	**12.7**	**48.0**	33.7	15.7	49.4

Gross profit for the year increased by £0.7 million to £13.0 million (2019: £12.3 million) driven by an increase in the gross margin to 27% (2019: 25%). This was the result of an improvement in the Printhead business unit's gross profit which, whilst helped by increased revenue, was primarily caused by an increase in the gross margin from 22% in 2019 to 27% in 2020. 2019 was characterised by an underutilisation of the factory as throughput was lowered or cut in order to reduce inventory which had reached excessive levels on several product lines. In 2020, whilst we continued to improve our working capital position, and reduced inventory by another £4.5 million (2019: £6.1 million reduction in inventory), the higher level of demand, and the fact finished goods inventory is now at sustainable levels, meant the factory output went up year-on-year. With inventories of finished goods now at sustainable levels the Printhead business is well placed to take advantage of increased demand and utilise its high level of operational gearing to deliver further improvements in the gross margin.

Gross profit for the EPS business declined £1.2 million in the year to £3.4 million (2019: £4.6 million). Whilst gross margins were down year-on-year (2020: 27%, 2019: 30%) the fall in gross profit is largely attributable to the decline in revenue which was down £3.0 million year-on-year. The gross margins for EPS were negatively impacted in the second half by a 22% decline in machine sales as companies focused on maintaining their cash position and put planned capital investment on hold. The gross margins were further impacted by inventory provisions of £0.6 million related to legacy products. Excluding these one-off provisions, gross margins were 31%, up 1% on 2019 despite the lower revenue.

R&D spend of £4.5 million was up £1.4 million on 2019 (2019: £3.1 million).). This reflects the investment in the ImagineX platform which will be central to our long-term growth.

Table B – printhead revenue

£m	2020 H1	2020 H2	FY 2020	FY 2019	Var	Var %
Ceramic & Glass	**6.1**	**7.7**	**13.8**	12.2	1.6	13%
C&M and DTS	**6.0**	**5.5**	**11.5**	11.9	(0.4)	(3%)
WFG & Labels	**2.9**	**3.4**	**6.3**	5.6	0.6	13%
3D Printing & AVM	**1.3**	**1.1**	**2.5**	2.6	(0.2)	(5%)
Packaging & Textiles	**0.4**	**0.5**	**0.9**	0.9	–	1%
Royalties	**0.2**	**0.2**	**0.4**	0.6	(0.3)	(42%)
Total	**16.8**	**18.5**	**35.3**	33.7	1.6	5%

* Figures (£m) and percentages (%) are subject to rounding.

Table C – EPS revenue

£m	2020 H1	2020 H2	FY 2020	FY 2019	Var	Var %
Digital inkjet	**4.0**	**3.2**	**7.2**	6.8	0.4	7%
Pad printing	**2.7**	**2.4**	**5.1**	8.1	(3.0)	(37%)
Other	**0.2**	**0.2**	**0.4**	0.8	(0.4)	(49%)
Total	**6.9**	**5.8**	**12.7**	15.7	(3.0)	(19%)

* Figures (£m) and percentages (%) are subject to rounding.

Sales and marketing spend for the year was £6.0 million (2019: £8.1 million). The decline in spend of £2.1 million year-on-year largely relates to cost savings in the Printhead business unit following the restructuring of the business in the second half of 2019. Further savings were seen in both the Printhead and EPS businesses due to COVID-19 which limited our ability to visit customers and led to the cancellation of the majority of tradeshows which one, or both, businesses would have attended.

General and administrative expenses increased £0.3 million from £7.7 million in 2019 to £8.0 million in 2020.

Impairment reversals on financial assets were £0.9 million (2019: £2.7 million loss). This reversal predominantly relates to a distribution channel used by the Printhead business and the collection of a customer debt previously provided for.

Other operating income in the period of £0.8 million relates to the US Government's COVID-19 support and the Paycheck Protection Program (PPP) loan taken out by the EPS business which is expected to be forgiven in the first half of 2021, having met all qualifying criteria during 2020.

Business performance (cont.)

Restructuring costs of £0.8 million predominantly relate to the final costs in liquidating the legacy Swedish entities and provisions for the dilapidation and exit of the office on the Cambridge Science Park.

The adjusted EBITDA for continuing operations in the year was a £0.1 million profit (2019: £4.9 million loss).

The adjusted loss before tax from continuing operations was £3.9 million, compared to £8.0 million loss in 2019. The performance of the Printhead business improved £4.6 million from a £8.0 million loss in 2019 to a £3.4 million loss in 2020 driven by increased sales, a much improved gross margin, and a reduction in operating expenditure despite increased R&D investment. The EPS business went from a £0.1 million profit in 2019 to a £0.5 million loss in 2020 due to the impact of COVID-19 on revenue, and the write off and provisioning of legacy inventory.

The loss before tax under IFRS was £4.3 million (2019: £10.9 million), £0.4 million higher than adjusted loss before tax. Restructuring costs of £0.8 million, foreign exchange losses on intra-group loans of £0.3 million, and share-based payments of £0.3 million were partially offset by other operating income £0.8 million and an R&D expenditure credit of £0.1 million. Loss per share from continuing operations was 5.7p (2019: loss 18.7p).

Discontinued operations

A £10.3 million loss was recorded in relation to discontinued operations (2019: £57.3 million) with cash outflows for the period of £12.1 million (2019: £17.2 million). The Thin Film business, which was classified as discontinued in 2019, recorded a loss of £3.7 million which primarily relates to inventory commitments and supplier liabilities. All liabilities in regard to the Thin Film business have now been settled. As a result of the intended sale of Xaar 3D, which is assessed as highly probable, that business has been classified as a discontinued operation held for sale. The 3D business recorded a loss of £6.4 million in 2020 (2019: £1.2 million loss). The increased level of losses in the business primarily relate to R&D expenses recognised in the period which increased by £4.5 million with gross R&D expenditure increasing by £1.8 million. In 2019 much of the gross R&D spend was treated as capitalised development, this only ceased at the end of November 2019 and with the amortisation of capitalised R&D commencing in December 2019. The year-on-year change in the net capitalisation/amortisation of R&D was £2.7 million.

Table D – Movement in net cash* (including 3D)

£'000	2020	2019
Cash & Treasury Deposits – Continuing operations	**18,117**	16,177
Cash & Treasury Deposits – 3D operations	**2,120**	9,145
Cash & Treasury Deposits at the end of the year	**20,237**	25,322
Cash & Treasury Deposits at the beginning of the year	**25,322**	27,946
Total Net Cash Outflow	**(5,085)**	(2,624)
Effect of foreign exchange rate changes on cash balances	**57**	211
Decrease in net cash for the Group	**(5,028)**	(2,413)
Consisting of:-		
Total cash inflow from continuing operations	**7,073**	8,405
Cash outflow from Xaar 3D business	**(7,018)**	(4,852)
Xaar 3D - Proceeds from share capital and share sale	**–**	12,002
Net cash outflow from Thin Film operation	**(5,083)**	(17,968)
Decrease in net cash for the Group	**(5,028)**	(2,413)

* Net cash is defined as cash and cash equivalents, plus treasury deposits.

Loss for the year

The loss for the Group was £14.7 million (2019: £71.7 million) with the loss per share of 15.2p (2019: loss 92.5p).

Strong cash focus and improved working capital position

The net cash position remains strong with continuing operations generating £7.1 million of cash.

The Group's continuing operations continue to generate cash with a net increase attributable to continuing operations of £7.1 million for the year (2019: £8.4 million on a like for like basis and £14.8 million total). Due to cash outflow on discontinued operations, total net cash declined in the year £5.1 million (2019: £2.6 million).

Operating cash flows before movements in working capital for continuing operations improved from an outflow of £4.9 million to an inflow of £1.4 million. This was largely due to the improvements in the adjusted EBITDA (2020: £0.1 million, 2019: loss £4.9 million) and reduced expenditure on restructuring following the extensive restructuring of the business in the final part of 2019 (2020: £0.8 million, 2019: £1.5 million). Operating cash flows were further helped by £0.8 million of US Government grants.

As part of the Group's strong cash focus working capital remains a key area. Driven primarily by a £5.1 million reduction in inventory, £6.7 million of cash was released from working capital to give cash generated by operations of £8.1 million (2019: £7.6 million). Factoring in tax receipts of £0.3 million (RDEC related), and expenditure on property, plant and equipment (PPE), intangible assets and lease liabilities, continuing operations generated £7.1 million of cash (2019: £8.4 million). Whilst down year-on-year, 2019 performance was assisted by £2.6 million of income taxes received (£1.6 million of RDEC and a net inflow of £1.0 million corporation tax) and movement in working capital of £12.6 million as the business tried to address the significant excess inventory position at the end of 2018 and the large receivables position with a number of distributors.

Discontinued operations consumed cash of £12.1 million (2019: £17.2 million). The cash outflow from Thin Film operations was £5.1 million (2019: £18.0 million). This was driven primarily by supplier liabilities and the build out of inventory for a small number of customers. With all liabilities now settled and inventory in place, cash flows in future years will be minimal.

Table E – Cash flow table – Continuing operations (excluding 3D)

	2020	2019
aEBITDA	**62**	(4,857)
Restructuring	**(754)**	(1,518)
Depreciation of right of use assets	**1,107**	962
Government grant (PPP loan)	**819**	–
Other	**144**	473
Operating cash flows before movements in working capital	**1,378**	(4,940)
Movement in working capital	**6,735**	12,574
Cash generated by operations	**8,113**	7,634
Income taxes (paid)/received	**351**	2,618
Net cash used in investing and other financing activities	**(1,391)**	(1,847)
Net increase in cash and cash equivalents from continuing operations	**7,073**	8,405
Proceeds from the sale of share in Xaar 3D	**–**	6,372
Total cash inflow to continuing operations	**7,073**	14,777

Cash outflows from the 3D business excluding share issues increased from £4.9 million in 2019 to £7.0 million in 2020. The increase represents the accelerated investment in R&D and go-to-market functions prior to the commercialisation of the 3D printers. In 2019 the investment was offset by £5.6 million from the issue of ordinary share capital which was not repeated in 2020.

Excluding cash from the 3D business, which is now held for sale, net cash increased from £16.2 million in 2019 to £18.1 million in 2020 despite the need to settle the final Thin Film liabilities.

Strong balance sheet

Non-current assets declined £10.8 million in the year from £35.5 million to £24.7 million. This was driven by a reclassification of 3D assets to current assets held for sale (2020: £6.1 million, 2019: £6.7 million), £1.0 million depreciation of right of use assets, and a £2.8 million reduction in PPE and intangible assets as new purchases were controlled in with line with the Group's cash focus and therefore depreciation exceeded capital expenditure.

Current assets, excluding the disposal group assets held for sale, declined £13.9 million from £52.7 million in 2019 to £38.8 million. A significant proportion of this decline is attributable to the reclassification of the 3D business to an asset group held for sale with £4.0 million of current assets at the end of 2020 being reclassified. The remaining £4.4 million decline is primarily as a result of the £5.7 million reduction in inventory across the Printhead and EPS businesses (2020: £10.4 million, 2019: £16.1 million), a £1.4 million reduction in current tax assets to £0.4 million (2019: £1.8 million), a £0.8 million increase in trade debtors and other receivables, and £1.9 million of cash generated by the rest of the business.

The 3D business has been classified as held for sale with £10.2 million of assets reclassified as at the end of 2020.

Current liabilities, excluding liabilities associated with Xaar 3D (held for sale), increased by £0.5 million. Excluding £0.9 million of 3D liabilities at the end of 2019 current liabilities increased £0.4 million. Provisions, which at the end of 2019 primarily related to the Thin Film operation, declined by £2.5 million to £0.4 million (2019: £2.9 million). Lease liabilities decreased from £1.3 million to £1.1 million primarily as a result of the decision to relocate from the Cambridge Science Park to the nearby Cambridge Research Park. These declines were offset by an increase in trade and other payables in relation to the Printhead and EPS businesses of £2.6 million (2020: £9.9 million, 2019: £7.3 million); these increases were primarily driven by increased supplier liabilities and bonus accruals within the Printhead business.

Non-current liabilities, which all mainly relate to lease liabilities recorded under IFRS 16, decreased by £1.0 million in the year.

Dividend

No dividend has been declared for 2020. The Board recognises the importance of regular income to many investors but believes that it would be inappropriate to reinstate payment of dividends before sustainable profits are restored.