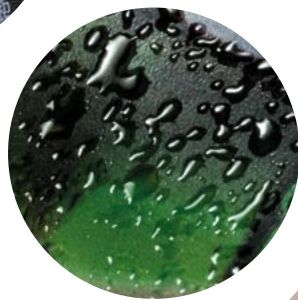


XAAR®

Leading the digital inkjet revolution

Xaar plc
Interim Report 2018

WE ARE XAAR

What we do

We are a world leader in the development of digital inkjet technology. Our technology drives the conversion of analogue printing and manufacturing methods to digital inkjet which is more efficient, more economical and more productive than the traditional methods which have been in use for years. We design and manufacture printheads as well as systems for product decoration and 3D Printing which use our inkjet technology.

Play video

Why we do it

Our purpose is simple – it is to improve supply chain efficiency and to unlock innovation. With Xaar technology our customers and their customers are able to innovate in their manufacturing methods and their products as well as benefit from a shorter supply chain; they can implement more precise and efficient processes, easily produce short batches, take products to market quicker, improve productivity, reduce waste and unlock creativity.

Why we are different

We are the only truly independent inkjet technology company with over 25 years of know how. We offer unrivalled inkjet expertise including technology and printhead design and development, and manufacture highly customised product decoration systems and industrial 3D Printing for volume manufacturing. Our unique technologies and products are the leading enabler for innovation and for driving supply chain efficiencies for many industries.

Our open systems approach delivers more choice to our customers and also encourages market conversion from analogue to digital processes. Our independence enables a flexible, collaborative approach to ensure we focus on our customers' goals.

HIGHLIGHTS

Xaar is a world leader in the development of digital inkjet technology. Our technology drives the conversion of analogue printing and manufacturing methods to digital inkjet which is more efficient, more economical and more productive than the traditional methods which have been in use for years. We design and manufacture printheads as well as systems for product decoration and 3D Printing which use our inkjet technology.

What's in this report?

Financial highlights

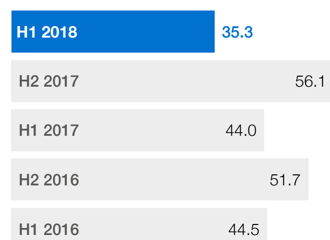
- Revenue in the first half of the year was £35.3 million, £24.9 million excluding license royalties. This represents a decline in underlying revenue of 39% year on year, largely driven by a 69% decline in our legacy Ceramics business but also a slower than anticipated uptake of new products, in particular the Xaar 1201 printhead
- Gross margin of 54% (H1 2017: 47%) including the benefit of the second phase of the Seiko Instruments Inc. (SII) Royalty upgrade and replacement. Product gross margin was 35% (H1 2017: 43%) adversely impacted by the aggressive decline of our legacy business
- Adjusted operating profit margin was 9% (H1 2017: 18%) which incorporates the impact of higher net Research and Development (R&D) investment following completion of the capitalisation of the P4 (Thin Film) platform in August 2017
- Net cash at 30 June 2018 was £36.8 million (31 December 2017: £44.7 million), reflecting continued investment in our Thin Film platform and High Speed Sintering 3D printer technology, and the inventory build due to the low sell through and supply chain effect of lower revenue
- Interim dividend of 1.0 pence per share (2017: 3.4 pence per share) reflects expected cash requirements as the business continues to invest in its technology programmes and the reduction of cash flow contribution from our legacy Ceramics business

Operational and strategic highlights

- **Printhead** – our Bulk and Thin Film technology driven Printhead business. Our Xaar 5601 Thin Film printhead is now under evaluation with a significant number of market leading OEMs across Textiles, Packaging, Commercial Print and Décor. Windmöller & Holscher, a market leader in flexible packaging, announced their adoption of Xaar 5601 for their first generation of digital presses
- **3D Printing** – our High Speed Sintering 3D Printing business. We announced the Xaar 3D joint investment with Stratasys, focussed on delivering a High Speed Sintering printer solution to the additive manufacturing market
- **Product Print Systems** – our Direct-to-Shape printing business, which includes EPS. There is a clear opportunity to develop this business unit through both organic and inorganic growth
- We have implemented cost actions in our legacy Printhead business with expected annualised cost saving of circa £4 million (£2.1 million in 2018)
- To realise the full potential of our Printhead business, we are reviewing strategic options for more extensive partnering to accelerate growth

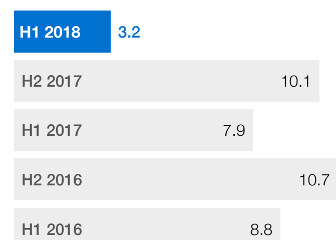
Revenue £m

£35.3m



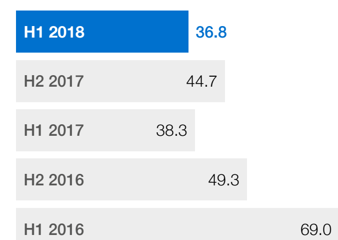
Adjusted profit before tax £m

£3.2m



Net cash balance £m

£36.8m



(Loss)/profit before tax £m

(£1.1m)

Adjusted measures exclude items from the IFRS results, including share-based payment charges, exchange differences relating to the United States and Swedish operations, unrealised gains/losses on derivative financial instruments, research and development expenditure credit, and restructuring costs, per the reconciliation of adjusted financial measures on page 14. Net cash includes cash and cash equivalents and treasury deposits.

Chairman's statement

PROGRESS AND CHANGE

“

During the first half of 2018, we continued to make progress on our strategic initiatives.

Robin Williams
Chairman

During the first half of 2018, we continued to make progress on our strategic initiatives. We announced a partnership with Stratasys in 3D Printing and we have made good progress with our Thin Film technology resulting in a significant number of OEMs evaluating our Xaar 5601 product. However, our financial results were disappointing, reinforcing the strategic imperative previously communicated of being a more diversified business with multiple revenue streams in multiple applications. Our medium term prospects remain positive, with significant upside potential in 3D and Thin Film.

Significant progress has been made in the past three years in reducing our dependence on the 1000 series printhead in the Ceramics market. In 2017, 80% of our revenue was from products launched in the previous two years, or through the acquisition of EPS.

We now review our business in three business units, Printhead, 3D Printing and Product Print Systems. We are satisfied with our strategy in our 3D Printing and our Product Print Systems business units where our focus is on executing that strategy. The Printhead business unit is more challenging as we have seen rapid decline in the legacy Ceramics business while the uptake of new products across all sectors and in particular those using Thin Film technology has been slower than expected. It is the Board's view that the Printhead business would benefit from more extensive partnering to help increase scale and share costs in manufacturing, R&D and routes to market. We have initiated a strategic review of the Printhead business and will update shareholders in due course.

Dividend

In 2014 we announced a sustainable and progressive dividend policy which took into account the Group's future prospects, its underlying profitability and the future cash requirements of the business at the time.

While our capital requirements remain relatively modest over the next few years, we remain committed to investment in Thin Film and next generation Bulk Piezo technology. In addition, the joint investment in 3D announced in July with Stratasys has committed both parties to fund commercialisation of those products.

In order to provide funding at a sustainable rate for these important R&D projects and to reflect the decline in Ceramics product revenues, the Board believes that it is appropriate to re-set the dividend at a lower level. Hence, the Board proposes a dividend of 1.0 pence per share as an interim payment for 2018. The Board will continue to review and monitor the growth requirement and return to our shareholders on a regular basis.

The interim dividend of 1.0 pence per share will be paid on 12 October 2018, with an ex-dividend date of 13 September 2018 to shareholders on the register at close of business on 14 September 2018.

Board changes

There were two changes to the Board in the first half of 2018.On 30 May 2018 we announced that Lily Liu, our Chief Financial Officer, will be leaving the Group on 14 November 2018 to take up a CFO role at Essentra Plc, a FTSE 250 company. Whilst her time at Xaar has been short, on behalf of the Board, I thank Lily for her contribution.

On 9 August 2018, Ted Wiggans, Chief Operations Officer, retired from the Group as planned after seven years and seven months in the business. I thank Ted for his contribution during this period.

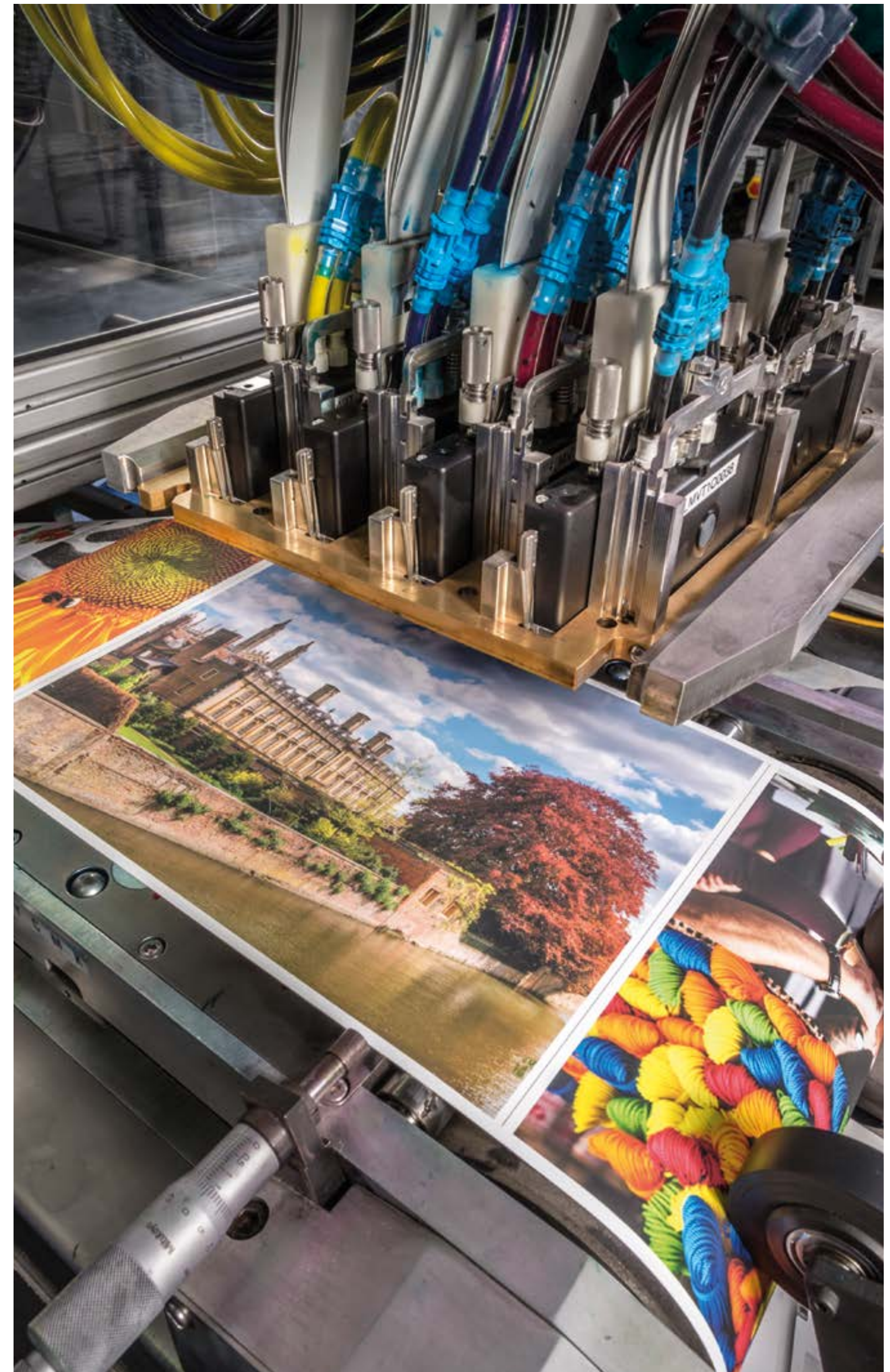
Employees

The Board wishes to thank our employees for their exceptional contribution in terms of effort and skill that they have shown in the year so far. We have had to reduce the employee numbers to reflect the volume decline in legacy products, and we further thank those who have handled this process with professionalism and understanding.

The Board is committed to delivering the potential of the Xaar portfolio to our shareholders, by exploiting our established Bulk activity and the development of all new product areas, in particular Thin Film and 3D.

Robin Williams
Chairman

5 September 2018



Xaar 5601 printheads in action

Chief Executive Officer's report

DIVERSIFIED PORTFOLIO

"Xaar owns world leading technology underpinning a relevant and differentiated set of products.

Doug Edwards
Chief Executive Officer

We are making progress towards delivering our strategic milestones. Although our Ceramics business has witnessed higher than expected decline in revenues, we firmly believe in the potential of our Thin Film Printhead business, our 3D Printing business and our Product Print Systems business. This diversified portfolio has created a more robust business which has reduced the risks inherent with a single product platform business serving a single market application. We have now created a Group of three distinct business units, where Xaar owns world leading technology underpinning a relevant and differentiated set of products and product development programmes.

The aggressive decline of the legacy Ceramics business during the first half of 2018, together with the slower than anticipated uptake of new products, in particular the Xaar 1201, had a significant adverse impact on our profitability. We have taken decisive cost actions in recent months to right-size our legacy business against this difficult backdrop and have initiated a strategic review of our Printhead business to maximize the value generated by both our Bulk and Thin Film technology. Today, our printhead related revenue is still largely derived from the Bulk technology. However we expect our Thin Film technology to grow our market share in Textiles, and lead us into new markets such as Flexible Packaging, Commercial Print and Décor.

Results and business commentary

Revenue for the six months ended 30 June 2018 was £35.3 million (H1 2017: £44.0 million, H2 2017: £56.1 million). Revenue excluding licensee royalties was £24.9 million (H1 2017: £40.5 million, H2 2017: £43.3 million). The revenue contribution from the EPS business was £5.3 million for the first half of 2018 (H1 2017: £6.5 million, H2 2017 £7.5 million).

Analysing the geographic split of our revenue based on the location of our customers (and not necessarily end users), Asia has decreased to 44% (H1 2017: 47%, H2 2017: 54%), EMEA reduced to 31% (H1 2017: 32%, H2 2017: 28%) and the Americas increased, relative to the same period in 2017, to 25% (H1 2017: 21%, H2 2017: 18%).

Sales into Graphic Arts in the first half of 2018 were 40% lower than the same period for 2017, mainly driven by printer integration issues in China for our Thin Film Xaar 1201 printhead during the first half of 2018.

Revenue from Packaging and Product Printing increased by 1% compared to the first six months of 2017; we saw double digit growth from Coding & Marking and Direct-to-Shape sub-segments offset by a reduction of sales at EPS due to the timing of capital goods purchases by customers.

Revenue from the Industrial sector declined by 62% compared to the same period in 2017 due to the aggressive decline of the Ceramics business (a 69% decline), partially offset by strong growth in the Décor sub-segment.

As previously reported, the Ceramics sub-segment has reached maturity with nearly all production capacity now converted to digital technology. We have introduced the Xaar 2001+ printhead which is incentivising OEMs to invest in designing new machines providing an upgrade path for customers. To date we have over 60 Xaar 2001+ installations and there is evidence of increasing traction for this product. Our Bulk printheads, especially the Xaar 1003 and Xaar 2001+ product family, thanks to their robust performance, are desirable for high end applications such as 3D and Flat Panel Display. In this later application we are working with a number of global OEMs.

Profitability in the first half of 2018 was mainly impacted by two factors: the second phase of the SII royalty upgrade and replacement deal announced in December 2017; and the aggressive decline of our legacy Ceramics business which has an adverse impact on our factory recovery. Gross margin was 54% (H1 2017: 47%, H2 2017: 47%); product gross margin was 35% (H1 2017: 43%, H2 2017: 31%), H1 2017 had a favourable product mix effect. Adjusted operating margin was 9% (H1 2017: 18%, H2 2017: 18%).

We continue to invest a substantial amount of resources in R&D particularly in Thin Film, with expenditure before the capitalisation and amortisation of development costs at 24% of revenue in H1 2018 (H1 2017: 22%). Gross expenditure (before capitalisation and amortisation) of R&D was £8.6 million in H1 2018 (H1 2017: £9.7 million). Development expenditure on the High Speed Sintering printer platform of £0.9 million was capitalised in H1 2018 (H1 2017: £4.7 million for Thin Film P4 platform), as required under International Financial Reporting Standards (specifically IAS 38). Amortisation of the Thin Film intangible assets amounted to £0.8 million for the first half of 2018. Total costs capitalised across both programmes to June 2018 (from January 2014) were £33.3 million (net of amortisation: £31.9 million).

Adjusted profit before tax for the period was £3.2 million (H1 2017: £7.9 million). The underlying adjusted profit before tax excluding royalties was a loss of £7.3 million, as a result of low trading volume and the associated adverse impact on the factory recovery. Cost reduction actions were initiated in June 2018 and are now complete.

As part of the regular review on the useful economic life of our fixed assets, against the backdrop of aggressive decline of the Ceramics business, we impaired £3.1 million of assets associated with the manufacturing process; we also extended the life of some key assets to be consistent with industry practice and the product life cycle. The combined effect decreased the depreciation charge by £1.3 million for the first 6 months of 2018.

At 30 June 2018, Xaar's net cash position was £36.8 million (31 December 2017: £44.7 million). In addition to investment in R&D and 3D, working capital levels were high through a higher inventory position as sales volumes fell below expectation.

Strategic development and business units

We have structured our business around three business units:

- **Printheads –** our Bulk and Thin Film technology driven printhead business
- **3D Printing –** our High Speed Sintering 3D Printing business
- **Product Print Systems –** our Direct-to-Shape printing business

Photopolymer Jetting samples printed by Xaar 501 by DP Polar

Printheads

We have a strong established platform in our Bulk piezo business. Decline in Ceramics has been quicker than expected and difficult to predict. However, new products launched into this sector and others such as Packaging, Direct-to-Shape printing, Flat Panel Display and others give our Bulk piezo business a clear future, based on proven technology and ability to jet viscous fluid in high volumes.

Our Thin Film business has been in development by our R&D team for 8 years and is now at the exciting stage of a defined product with an established silicon wafer supplier for the core actuator. Our Huntingdon facility is able to assemble in volume our Xaar 5601 printhead, and there are a significant number of OEMs evaluating this product. Our Thin Film printheads bring a number of advantages to the market such as speed and print definition, and will open up a number of new applications for us. The Thin Film products can jet water-based inks, critical for a growing number of markets, such as Textiles, Packaging, Commercial Print and Décor.

3D Printing
Our teams in Nottingham and Copenhagen have internationally recognised skills in designing and prototyping 3D printing machines which will, when fully commercialised, enable 3D printing of unique polymer components in higher volume than the current short run offerings, using High Speed Sintering technology. Consumer, Aerospace and Leisure are our target markets. Stratasys, one of the world's leading 3D printing firms, has recognised the potential here and has jointly invested in this technology platform. The Group holds an 85% share in the newly formed Xaar 3D Limited, with Stratasys holding a 15% share.

Product Print Systems
EPS has performed well since we acquired it in 2016. EPS brings a new source of income to the Group from the design and production of customised analogue pad printing and digital inkjet systems for printing products, particularly those with irregular shapes. EPS revenue is more predictable than that in the Printhead business, with machine sales made against an order book, with further revenues from ink and printhead consumables following an installation. EPS is particularly skilled in putting together a printhead array with the required electronics, ink flow and mechanical structure for customised applications. The full value of this skillset will be realised when the market for printing Direct-to-Shape, for example on drinks bottles in a high speed filling line, develops further. Aside from its own organic growth, EPS offers the opportunity to serve this substantial market further through M&A.

Vision update
We continue to focus on our long-term opportunities. The exploitation of our established Bulk piezo activity and the development of new product areas, in particular Thin Film and 3D, are the priorities for the Company. The financial upside of our 2020 vision remains in place, but it plainly makes sense to acknowledge that the specific timescale of that year is made unrealistic in light of the speed of decline in our Ceramics business and the longer time taken to bring the new Thin Film products to market. We have three very interesting business units described above and an enviable portfolio of products from fully commercialised to those in development with significant potential to underpin a diversified business and material growth.

Outlook
As outlined in our trading statement on 30 August, underlying trading since the end of June has been, and is expected to continue to be, below the levels previously anticipated. Although the reception of new products has been positive, adoption of the Xaar 1201 printhead in particular has to date been significantly slower than expected, and the rate of decline in Ceramics continues to be aggressive. The Board is reviewing the strategic options for more extensive partnering in the Printhead business.

Doug Edwards
Chief Executive Officer

5 September 2018

High Laydown Technology printed using Xaar 1003 printheads has been used to create tactile effects on labels

DIRECTORS' RESPONSIBILITIES STATEMENT

We confirm that to the best of our knowledge:

(a) the condensed set of financial statements has been prepared in accordance with IAS 34 'Interim Financial Reporting' as adopted by the EU and gives a true and fair view of the assets, liabilities, financial position and loss of the Group

(b) the interim management report includes a fair review of the information required by DTR 4.2.7R:
- (i) an indication of important events that have occurred during the first six months of the financial year and their impact on the condensed set of financial statements, and
- (ii) a description of principal risks and uncertainties for the remaining six months of the year

(c) the interim management report includes a fair review of the information required by DTR 4.2.8R:
- (i) related parties transactions that have taken place in the first six months of the current financial year that have materially affected the financial position or performance of the Group in that period, and
- (ii) any changes in the related parties transactions described in the Annual Report 2017 that could have a material effect on the financial position or performance of the Group in the current period.

By order of the Board

Doug Edwards
Chief Executive Officer

Lily Liu
Chief Financial Officer and Company Secretary

5 September 2018

Condensed consolidated income statement
for the six months ended 30 June 2018

	Notes	**Six months ended 30 June 2018 (unaudited) £'000**	Six months ended 30 June 2017 (unaudited) £'000	Twelve months ended 31 December 2017 (audited) £'000
Revenue	3	**35,329**	43,953	100,142
Cost of sales		**(16,251)**	(23,252)	(53,097)
Gross profit		**19,078**	20,701	47,045
Research and development expenses		**(8,454)**	(4,986)	(12,318)
Research and development expenditure credit		**649**	492	411
Sales and marketing expenses		**(4,324)**	(4,022)	(7,860)
General and administrative expenses		**(3,509)**	(6,063)	(12,627)
Restructuring costs	2	**(4,636)**	(588)	(2,553)
Operating (loss)/profit		**(1,196)**	5,534	12,098
Investment income		**98**	118	192
(Loss)/profit before tax		**(1,098)**	5,652	12,290
Tax	4	**178**	(1,033)	(1,358)
(Loss)/profit for the period attributable to shareholders		**(920)**	4,619	10,932
Earnings per share				
Basic	5	**(1.2p)**	6.0p	14.3p
Diluted	5	**(1.2p)**	5.9p	14.0p

Dividends paid in the period amounted to £5,238,000 or 6.8 pence per share 2017 final dividend (six months to 30 June 2017: £5,132,000 or 6.7 pence per share 2016 final dividend; twelve months to 31 December 2017: £7,728,000 or 10.1 pence per share being 6.7 pence per share 2016 final dividend and 3.4 pence per share 2017 interim dividend).

Condensed consolidated statement of comprehensive income
for the six months ended 30 June 2018

	Six months ended 30 June 2018 (unaudited) £'000	Six months ended 30 June 2017 (unaudited) £'000	Twelve months ended 31 December 2017 (audited) £'000
(Loss)/profit for the period attributable to shareholders	**(920)**	4,619	10,932
Exchange differences on translation of net investment	**63**	(160)	(721)
Tax benefit on share option and restructuring gains	**–**	–	(20)
Other comprehensive income/(loss) for the period	**63**	(160)	(741)
Total comprehensive (loss)/income for the period	**(857)**	4,459	10,191

Condensed consolidated statement of financial position
as at 30 June 2018

	As at 30 June 2018 (unaudited) £'000	As at 31 December 2017 (audited) £'000
Non-current assets		
Goodwill	**5,372**	5,212
Other intangible assets	**32,539**	32,678
Property, plant and equipment	**29,423**	33,471
Receivables	**–**	858
	67,334	72,219
Current assets		
Inventories	**30,054**	19,119
Trade and other receivables	**27,595**	30,303
Current tax asset	**3,574**	3,412
Treasury deposits	**4,784**	753
Cash and cash equivalents	**31,969**	43,944
Derivative financial instruments	**1**	–
	97,977	97,531
Total assets	**165,311**	169,750
Current liabilities		
Trade and other payables	**(18,822)**	(16,583)
Other financial liabilities	**(31)**	(30)
Provisions	**(989)**	(1,911)
	(19,842)	(18,524)
Net current assets	**78,135**	79,007
Non-current liabilities		
Deferred tax liabilities	**(3,351)**	(3,905)
Other financial liabilities	**(136)**	(137)
Total non-current liabilities	**(3,487)**	(4,042)
Total liabilities	**(23,329)**	(22,566)
Net assets	**141,982**	147,184
Equity		
Share capital	**7,833**	7,833
Share premium	**29,328**	29,317
Own shares	**(3,298)**	(3,642)
Other reserves	**15,427**	14,638
Translation reserve	**676**	613
Retained earnings	**92,016**	98,425
Equity attributable to shareholders	**141,982**	147,184
Total equity	**141,982**	147,184

Condensed consolidated statement of changes in equity
for the six months ended 30 June 2018

	Share capital £'000	Share premium £'000	Own shares £'000	Other reserves £'000	Translation reserve £'000	Retained earnings £'000	Total £'000
Balance at 1 January 2017	7,778	27,854	(3,642)	11,891	807	95,768	140,456
Profit for the period	–	–	–	–	–	4,619	4,619
Exchange differences on retranslation of net investment	–	–	–	–	(160)	–	(160)
Total comprehensive (loss)/income for the period	–	–	–	–	(160)	4,619	4,459
Issue of share capital	14	173	–	–	–	–	187
Dividends (note 6)	–	–	–	–	–	(5,132)	(5,132)
Tax on share options	–	–	–	–	–	(31)	(31)
Credit to equity for equity-settled share-based payments	–	–	–	1,625	–	–	1,625
Balance at 30 June 2017	7,792	28,027	(3,642)	13,516	647	95,224	141,564
Balance at 1 January 2018	**7,833**	**29,317**	**(3,642)**	**14,638**	**613**	**98,425**	**147,184**
Loss for the period	**–**	**–**	**–**	**–**	**–**	**(920)**	**(920)**
Exchange differences on retranslation of net investment	**–**	**–**	**–**	**–**	**63**	**–**	**63**
Total comprehensive income/(loss) for the period	**–**	**–**	**–**	**–**	**63**	**(920)**	**(857)**
Issue of share capital	**–**	**11**	**–**	**–**	**–**	**–**	**11**
Own shares sold in the period	**–**	**–**	**344**	**–**	**–**	**(238)**	**106**
Dividends (note 6)	**–**	**–**	**–**	**–**	**–**	**(5,238)**	**(5,238)**
Tax on share options	**–**	**–**	**–**	**–**	**–**	**(13)**	**(13)**
Credit to equity for equity-settled share-based payments	**–**	**–**	**–**	**789**	**–**	**–**	**789**
Balance at 30 June 2018	**7,833**	**29,328**	**(3,298)**	**15,427**	**676**	**92,016**	**141,982**

Condensed consolidated cash flow statement
for the six months ended 30 June 2018

	Notes	**Six months ended 30 June 2018 (unaudited) £'000**	Six months ended 30 June 2017 (unaudited) £'000	Twelve months ended 31 December 2017 (audited) £'000
Net cash from operating activities	8	**167**	(245)	12,473
Investing activities				
Investment income		**100**	91	190
Purchases of property, plant and equipment		**(2,340)**	(2,148)	(5,517)
Redemption of investment		**–**	1,000	1,000
Expenditure on software		**(17)**	(18)	(19)
Expenditure on capitalised product development		**(902)**	(4,655)	(6,451)
Net cash used in investing activities		**(3,159)**	(5,730)	(10,797)
Financing activities				
Dividends paid	6	**(5,238)**	(5,132)	(7,728)
Movement in treasury deposits		**(4,031)**	–	(753)
Proceeds from the sale of ordinary share capital		**106**	–	–
Proceeds from issue of ordinary share capital		**11**	187	1,518
Net cash used in financing activities		**(9,152)**	(4,945)	(6,963)
Net decrease in cash and cash equivalents		**(12,144)**	(10,920)	(5,287)
Effect of foreign exchange rate changes		**169**	(74)	(90)
Cash and cash equivalents at beginning of period		**43,944**	49,321	49,321
Cash and cash equivalents at end of period		**31,969**	38,327	43,944

Cash and cash equivalents (which are presented as a single class of asset on the face of the condensed consolidated statement of financial position) comprise cash at bank and other short term highly liquid investments with a maturity of three months or less. The carrying amount of these assets is approximately equal to their fair value.

Notes to the interim financial information
for the six months ended 30 June 2018

1. Basis of preparation and accounting policies

Basis of preparation

These interim financial statements have been prepared in accordance with the accounting policies set out in the Group's Annual Report and Financial Statements 2017 on pages 94 to 102 (available at www.xaar.com) and were approved by the Board of Directors on 5 September 2018. The interim financial statements for the six months ended 30 June 2018 have been prepared in accordance with IAS 34 'Interim Financial Reporting' as adopted by the European Union. The interim financial statements do not include all the information and disclosures in the annual financial statements and should be read in conjunction with the Group's annual financial statements as at 31 December 2017.

The financial information in these interim financial statements for the six months ended 30 June 2018, does not constitute statutory financial statements as defined in section 434 of the Companies Act 2006. The Group's Annual Report for the year ended 31 December 2017 has been delivered to the Registrar of Companies and the auditor's report on those financial statements was not qualified and did not contain statements made under section 498(2) or (3) of the Companies Act 2006.

The interim financial statements are unaudited but have been reviewed by the auditor Deloitte LLP. The report of the auditor to the Group is set out on page 18.

Significant accounting policies

The accounting policies adopted in the preparation of the interim condensed consolidated financial statements are consistent with those followed in the preparation of the Group's annual financial statements for the year ended 31 December 2017.

Risks and uncertainties

An outline of the key risks and uncertainties faced by the Group is detailed on pages 29 to 33 of the Xaar plc Annual Report and Financial Statements 2017. The Group has identified an increase in risk inherent in the key risk areas of Partnerships in relation to the review of strategic options for more extensive partnering in the Printhead business, and Organisational capability in relation to cost actions taken. It is anticipated that the remaining risk profile will not significantly change for the remainder of the year. Risk is an inherent part of doing business and the strong cash position of the Group leads the Directors to believe that the Group is well placed to manage business risks successfully.

Brexit and other trade barriers

Brexit provides a number of challenges for Xaar, especially in the much talked about 'no deal' scenario. As previously disclosed, the greatest challenge continues to be the likely prolonged period of uncertainty concerning EU workers and migration. Trading with our EU customers could be more complex and we may have to hold more raw material in our factory. Any actual or perceived barriers to free trade are an obvious area of concern for us. Brexit and trade barriers continue to be an integral part of the Company's ongoing risk management and review process.

Going concern

The Group's forecasts and projections, taking account of the disappointing financial results of the first half of 2018 and reasonably possible changes in trading performance, support the conclusion that there is a reasonable expectation that the Group has adequate resources to continue in operational existence for the foreseeable future, a period not less than 12 months from the date of this report. Accordingly, the going concern basis of preparation has been adopted in preparing the interim financial statements.

Changes to estimated useful lives of property, plant and equipment

Following the comprehensive review of property, plant and equipment, the estimated useful lives of a number of assets have been extended. Therefore changes to the depreciation charged so as to write off the cost or valuation of assets, less their residual values, other than assets in the course of construction, over their estimated useful lives, using the straight line method, is now on the following bases:

Leasehold property improvements	Up to 20 years
Plant and machinery	Three to 20 years

Changes to reportable segments

Following changes to the structure of the Group's internal organisation and subsequent changes in the way in which financial and management information is presented to both the Board and the Executive Team, the composition of the Group's reportable segments changed in the six months ended 30 June 2018.

The changes to the Group's organisational structure has followed the acquisition of EPS, and the growth in and progression of 3D. The activities of the Group are managed in three distinct business units with a more focused approach. As a result of these changes, activities are now reported under two new operating segments, 'Printhead' and 'Product Print Systems', while the results of '3D' are presently not material to report separately.

1. Basis of preparation and accounting policies continued

Changes to reportable segments continued

The changes to reported segments can be summarised as follows:

The segment disclosure note for the six months ended 30 June 2017 and twelve months ended 31 December 2017 have been amended as follows:

Six months ended 30 June 2017	As reported £'000	Adjustment £'000	Restated £'000
Revenue			
Product sales, commissions and fees	40,461	(40,461)	–
Royalties	3,492	(3,492)	–
Printhead	–	37,476	37,476
Product Print Systems	–	6,477	6,477
Total revenue	43,953	–	43,953
Result			
Product sales, commissions and fees	3,843	(3,843)	–
Royalties	3,492	(3,492)	–
Printhead	–	6,964	6,964
Product Print Systems	–	371	371
Total segment result	7,335	–	7,335

Twelve months ended 30 June 2017	As reported £'000	Adjustment £'000	Restated £'000
Revenue			
Product sales, commissions and fees	83,758	(83,758)	–
Royalties	16,384	(16,384)	–
Printhead	–	86,169	86,169
Product Print Systems	–	13,973	13,973
Total revenue	100,142	–	100,142
Result			
Product sales, commissions and fees	(687)	687	–
Royalties	15,842	(15,842)	–
Printhead	–	14,628	14,628
Product Print Systems	–	527	527
Total segment result	15,155	–	15,155

2. Reconciliation of adjusted financial measures

	Six months ended 30 June 2018 (unaudited) £'000	Six months ended 30 June 2017 (unaudited) £'000	Twelve months ended 31 December 2017 (audited) £'000
(Loss)/profit before tax	**(1,098)**	5,652	12,290
Share-based payment charges	**656**	1,801	3,057
Exchange differences relating to intra-group transactions	**(377)**	323	523
Gain on derivative financial instruments	**(1)**	–	–
Restructuring costs	**4,636**	588	2,553
Research and development expenditure credit	**(649)**	(492)	(411)
Adjusted profit before tax	**3,167**	7,872	18,012
Capitalised research and development expense and related amortisation	**(114)**	(4,697)	(5,795)
Adjusted profit before tax excluding the impact of IAS 38	**3,053**	3,175	12,217

Share-based payment charges include an IFRS 2 charge for the period of £789,000 (H1 2017: £1,625,000) and the charge relating to National Insurance on outstanding potential share option gains of £133,000 (H1 2017: £176,000). These costs were included in the general and administrative expenses in the Consolidated income statement.

Exchange differences relating to the United States and Swedish operations represent exchange gains or losses recorded in the Consolidated income statement as a result of operating in the United States and Sweden. These costs were included in general and administrative expenses in the Consolidated income statement.

Gain on derivative financial instruments relates to gains and losses made on forward contracts in 2018. These gains were included in the general and administrative expenses in the Consolidated income statement.

Restructuring costs of £4,636,000 in H1 2018 (H1 2017: £588,000) relates mainly to the impairment of fixed assets of £3,126,000, to write down assets to their recoverable amount following an impairment review and testing performed as required by IAS 36. The remainder relates to costs incurred and provisions made in relation to a reorganisation, the closure of the manufacturing facility in Sweden in 2016, and investment related expenditure.

The research and development expenditure credit relates to the corporation tax relief receivable relating to qualifying research and development expenditure. This item is shown on the face of the Consolidated income statement.

Adjusted profit before tax excluding the impact of IAS 38 (capitalisation of development costs) is the measure that is used internally for setting and comparing achievement of the annual bonus target.

	Six months ended 30 June 2018 (unaudited) Pence per share	Six months ended 30 June 2017 (unaudited) Pence per share	Twelve months ended 31 December 2017 (audited) Pence per share
Diluted earnings per share	**(1.2p)**	5.9p	14.0p
Share-based payment charges	**0.9p**	2.3p	3.9p
Exchange differences relating to intra-group transactions	**(0.5p)**	0.4p	0.7p
Gain on derivative financial instruments	**–**	–	–
Restructuring costs	**5.9p**	0.8p	3.3p
Tax effect of adjusting items	**(0.5p)**	(0.3p)	(1.2p)
Adjusted diluted earnings per share	**4.6p**	9.1p	20.7p

This reconciliation is provided to enable a better understanding of the Group's results.

3. Business segments

For management reporting purposes, the Group's operations are analysed according to the two operating segments of 'Printhead' and 'Product Print Systems', while the results of '3D' are presently not material to report separately. These two operating segments are the basis on which the Group reports its primary segment information and on which decisions are made by the Group's Chief Executive Officer and Board of Directors, and resources allocated. The Group's chief operating decision maker is the Chief Executive Officer.

Segment information is presented below:

	Six months ended 30 June 2018 (unaudited) £'000	Six months ended 30 June 2017 (unaudited, restated - note 1) £'000	Twelve months ended 31 December 2017 (audited, restated - note 1) £'000
Revenue			
Printhead	**29,983**	37,476	86,169
Product Print Systems	**5,346**	6,477	13,973
Total revenue	**35,329**	43,953	100,142
Result			
Printhead	**(541)**	6,964	14,628
Product Print Systems	**1**	371	527
Total segment result	**(540)**	7,335	15,155
Net unallocated corporate expense	**(656)**	(1,801)	(3,057)
Operating (loss)/profit	**(1,196)**	5,534	12,098
Investment income	**98**	118	192
(Loss)/profit before tax	**(1,098)**	5,652	12,290
Tax	**178**	(1,033)	(1,358)
(Loss)/profit for the period attributable to shareholders	**(920)**	4,619	10,932

Unallocated corporate expense relates to administrative activities which cannot be directly attributed to any of the principal product groups, consisting of share-based payment charges.

Notes to the interim financial information continued
for the six months ended 30 June 2018

4. Income tax
The major components of income tax expense in the income statement are as follows:

	Six months ended 30 June 2018 (unaudited) £'000	Six months ended 30 June 2017 (unaudited) £'000	Twelve months ended 31 December 2017 (audited) £'000
Current income tax			
Income tax charge	**389**	205	185
Deferred income tax			
Relating to origination and reversal of temporary differences	**(567)**	828	1,173
Income tax (credit)/charge	**(178)**	1,033	1,358

The current income tax charge of £389,000 for the six months ended 30 June 2018 includes tax liabilities relating to prior periods of £355,000.

5. Earnings per Ordinary share – basic and diluted
The calculation of basic and diluted earnings per share is based upon the following data:

	Six months ended 30 June 2018 (unaudited) £'000	Six months ended 30 June 2017 (unaudited) £'000	Twelve months ended 31 December 2017 (audited) £'000
Earnings			
Earnings for the purposes of earnings per share being net (loss)/profit attributable to equity holders of the parent	**(920)**	4,619	10,932
Number of shares			
Weighted average number of Ordinary shares for the purposes of basic earnings per share	**76,891,906**	76,368,152	76,469,128
Effect of dilutive potential Ordinary shares:			
Share options	**1,729,027**	1,897,619	1,441,475
Weighted average number of Ordinary shares for the purposes of diluted earnings per share	**78,620,933**	78,265,771	77,910,603

6. Dividends

	Six months ended 30 June 2018 (unaudited) £'000	Six months ended 30 June 2017 (unaudited) £'000	Twelve months ended 31 December 2017 (audited) £'000
Amounts recognised as distributions to equity holders in the period:			
Final dividend for the year ended 31 December 2017 of 6.8p (2016: 6.7p) per share	**5,238**	5,132	5,126
Interim dividend for the year ended 31 December 2017 of 3.4p per share	**–**	–	2,602
Total distributions to equity holders in the period	**5,238**	5,132	7,728

The interim dividend of 1.0 pence per share has been approved by the Board and will be paid on 12 October 2018 to shareholders on the register at close of business on 14 September 2018. The interim dividend has not been included as a liability at 30 June 2018.

7. Share capital

During the six months ended 30 June 2018 a total of 5,000 new Ordinary shares of 10 pence each were issued under the Company's share option schemes for £11,325.

8. Notes to the cash flow statement

	Six months ended 30 June 2018 (unaudited) £'000	Six months ended 30 June 2017 (unaudited) £'000	Twelve months ended 31 December 2017 (audited) £'000
(Loss)/profit before tax	**(1,098)**	5,652	12,290
Adjustments for:			
Share-based payments	**656**	1,625	3,057
Depreciation of property, plant and equipment	**2,613**	3,842	7,795
Impairment of fixed assets	**3,126**	–	–
Amortisation of intangible assets	**1,061**	192	1,149
Research and development expenditure credit	**(649)**	(492)	(411)
Investment income	**(98)**	(112)	(186)
Foreign exchange (gains)/losses	**(161)**	(245)	32
Loss on disposal of property, plant and equipment	**33**	101	351
(Decrease)/increase in provisions	**(884)**	29	1,133
Operating cash flows before movements in working capital	**4,599**	10,592	25,210
Increase in inventories	**(10,791)**	(5,918)	(5,071)
Decrease/(increase) in receivables	**4,138**	(1,149)	(9,226)
Increase/(decrease) in payables	**2,680**	(741)	1,103
Cash generated by operations	**626**	2,784	12,016
Income taxes (paid)/refunded	**(459)**	(3,029)	457
Net cash from operating activities	**167**	(245)	12,473

9. 3D printing joint investment
On 11 July 2018, the Group invested in Xaar 3D Limited with Stratasys, a global leader in additive manufacturing, in a newly formed company to develop 3D printing solutions based on High Speed Sintering technologies. Xaar 3D Limited will leverage the natural synergies between Xaar and Stratasys, specifically Xaar's technology relating to High Speed Sintering and industrial piezo inkjet printheads, along with the commercial and market expertise of Stratasys. This collaboration commits the Group to place £6 million into the subsidiary for the commercialisation of those products.

The Group hold 85% of Xaar 3D Limited shares with Stratasys holding 15%. In addition, Stratasys has been granted an option to increase its ownership in Xaar 3D Limited to a total of 30%. Xaar 3D Limited will hold all of Xaar's High Speed Sintering assets. The new company's Board will be chaired by Xaar plc Chief Executive Officer, Doug Edwards.

10. Date of approval of interim financial statements
The interim financial statements cover the period 1 January 2018 to 30 June 2018 and were approved by the Board on 5 September 2018.

Further copies of the interim financial statements are available from the Company's registered office, 316 Science Park, Cambridge CB4 0XR, and can be accessed on the Xaar plc website, www.xaar.com.

Independent review report to Xaar plc
for the six months ended 30 June 2018

We have been engaged by the Company to review the condensed set of financial statements in the half-yearly financial report for the six months ended 30 June 2018 which comprises the condensed consolidated income statement, condensed consolidated statement of comprehensive income, condensed consolidated statement of financial position, condensed consolidated statement of changes in equity, condensed consolidated cash flow statement and related notes 1 to 10. We have read the other information contained in the half-yearly financial report and considered whether it contains any apparent misstatements or material inconsistencies with the information in the condensed set of financial statements.

This report is made solely to the Company in accordance with International Standard on Review Engagements (UK and Ireland) 2410 'Review of Interim Financial Information Performed by the Independent Auditor of the Entity' issued by the Auditing Practices Board. Our work has been undertaken so that we might state to the Company those matters we are required to state to it in an independent review report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the Company, for our review work, for this report, or for the conclusions we have formed.

Directors' responsibilities
The half-yearly financial report is the responsibility of, and has been approved by, the Directors. The Directors are responsible for preparing the half-yearly financial report in accordance with the Disclosure and Transparency Rules of the United Kingdom's Financial Conduct Authority.

As disclosed in note 1, the annual financial statements of the Group are prepared in accordance with IFRSs as adopted by the European Union. The condensed set of financial statements included in this half-yearly financial report has been prepared in accordance with International Accounting Standard 34, 'Interim Financial Reporting', as adopted by the European Union.

Our responsibility
Our responsibility is to express to the Company a conclusion on the condensed set of financial statements in the half-yearly financial report based on our review.

Scope of review
We conducted our review in accordance with International Standard on Review Engagements (UK and Ireland) 2410 'Review of Interim Financial Information Performed by the Independent Auditor of the Entity' issued by the Auditing Practices Board for use in the United Kingdom. A review of interim financial information consists of making inquiries, primarily of persons responsible for financial and accounting matters, and applying analytical and other review procedures. A review is substantially less in scope than an audit conducted in accordance with International Standards on Auditing (UK and Ireland) and consequently does not enable us to obtain assurance that we would become aware of all significant matters that might be identified in an audit. Accordingly, we do not express an audit opinion.

Conclusion
Based on our review, nothing has come to our attention that causes us to believe that the condensed set of financial statements in the half-yearly financial report for the six months ended 30 June 2018 is not prepared, in all material respects, in accordance with International Accounting Standard 34 as adopted by the European Union and the Disclosure and Transparency Rules of the United Kingdom's Financial Conduct Authority.

Deloitte LLP
Statutory Auditor
Cambridge, United Kingdom

5 September 2018

Notes

Notes

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