Independent auditor's report

to the members of Xaar plc

Opinion

In our opinion:

- Xaar plc's group financial statements and parent company financial statements (the 'financial statements') give a true and fair view of the state of the group's and of the parent company's affairs as at 31 December 2020 and of the group's loss for the year then ended;
- the group financial statements have been properly prepared in accordance with International Accounting Standards in conformity with the requirements of the Companies Act 2006 and International Financial Reporting Standards adopted pursuant to Regulation (EC) No. 1606/2002 as it applies in the European Union;
- the parent company financial statements have been properly prepared in accordance with United Kingdom Generally Accepted Accounting Practice; and
- the financial statements have been prepared in accordance with the requirements of the Companies Act 2006.

We have audited the financial statements of Xaar plc (the 'parent company') and its subsidiaries (the 'group') for the year ended 31 December 2020 which comprise:

Group	Parent company
Consolidated statement of financial position as at 31 December 2020	Balance sheet as at 31 December 2020
Consolidated income statement for the year then ended	Statement of changes in equity for the year then ended
Consolidated statement of comprehensive income for the year then ended	Related notes 1 to 11 to the financial statements including a summary of significant accounting policies
Consolidated statement of changes in equity for the year then ended	
Consolidated cash flow statement for the year then ended	
Related notes 1 to 38 to the financial statements, including a summary of significant accounting policies	

The financial reporting framework that has been applied in the preparation of the group financial statements is applicable law and International Accounting Standards in conformity with the requirements of the Companies Act 2006 and International Financial Reporting Standards adopted pursuant to Regulation (EC) No. 1606/2002 as it applies in the European Union. The financial reporting framework that has been applied in the preparation of the parent company financial statements is applicable law and United Kingdom Accounting Standards, including FRS 101 "Reduced Disclosure Framework" (United Kingdom Generally Accepted Accounting Practice).

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (UK) (ISAs (UK)) and applicable law. Our responsibilities under those standards are further described in the Auditor's responsibilities for the audit of the financial statements section of our report. We are independent of the group in accordance with the ethical requirements that are relevant to our audit of the financial statements in the UK, including the FRC's Ethical Standard as applied to listed public interest entities, and we have fulfilled our other ethical responsibilities in accordance with these requirements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Conclusions relating to going concern

In auditing the financial statements, we have concluded that the directors use of the going concern basis of accounting in the preparation of the financial statements is appropriate. Our evaluation of the directors' assessment of the group and parent company's ability to continue to adopt the going concern basis of accounting included:

- We understood the process undertaken by management to perform the going concern assessment, including the evaluation of the ongoing impact of COVID-19 on the Group and the Group's access to available sources of liquidity;
- We obtained management's going concern assessment, including the cash flow forecasts for the going concern period to 30 April 2022.
 The Group has modelled a base case which is consistent with the assumptions used in the Group's impairment assessments (adjusted to exclude the consideration expected to be received on the 3D disposal); a downside scenario which assumes the proposed sale of the Xaar 3D business doesn't go ahead; and a reverse stress test based on liquidity in order to determine how much additional downside in trading could be absorbed before the cash and cash equivalents run out. No debt facilities are in place, nor required in any of these scenarios.
- We evaluated the key assumptions underpinning the Group's forecasts. In particular, we compared the trading projections in management's base case and downside scenario to the Group's performance including contracted order book and pipeline since the onset of the COVID-19 pandemic;
- We considered the results of management's reverse stress test scenario and independently calculated what changes to key assumptions would result in the Group having insufficient cash and cash equivalents. We also considered mitigating actions such as reducing non-essential capital expenditure, assessing whether they were within management's control and whether they were supported by the actual mitigation achieved in response to COVID-19, to date. We considered whether the combination of changes to key assumptions could plausibly lead to the Group's liquidity being eliminated within the period assessed;
- · We tested the clerical accuracy of the models used to prepare the Group's going concern assessment; and
- We assessed the appropriateness of the Group's disclosures concerning the going concern basis of preparation.

We observed that whilst the Group reported a loss after tax for the year ended 31 December 2020 of£14.7m (2019: £71.7m), a significant portion of this was the loss from discontinued operations after tax of £10.3m (2019: £57.3m). As set out in Note 37 and the Strategic Update (page 11), the Group are expecting to sell their remaining stake in Xaar 3D, which is the rationale for the two going concern scenarios noted above. The consideration for this transaction has been excluded from both scenarios. The net decrease in cash and cash equivalents for the year ended 31 December 2020 was £4.7m (2019: net increase of £0.3m), resulting in a closing cash and cash equivalents at 31 December 2020 of £20.1m (2019: £24.8m). The Group were debt free at the Balance Sheet date and across the forecast period.

Based on the work we have performed, we have not identified any material uncertainties relating to events or conditions that, individually or collectively, may cast significant doubt on the group and parent company's ability to continue as a going concern over the period to 30 April 2022.

In relation to the group and parent company's reporting on how they have applied the UK Corporate Governance Code, we have nothing material to add or draw attention to in relation to the directors' statement in the financial statements about whether the directors considered it appropriate to adopt the going concern basis of accounting.

Our responsibilities and the responsibilities of the directors with respect to going concern are described in the relevant sections of this report. However, because not all future events or conditions can be predicted, this statement is not a guarantee as to the group's ability to continue as a going concern.

Overview of our audit approach

Audit scope	 We performed an audit of the complete financial information of four components and audit procedures on specific balances for a further seven components. The components where we performed full or specific audit procedures accounted for 100% of Revenue, 100% of adjusted Loss before tax, and 100% of Total assets.
Key audit matters	 Revenue recognition Carrying value of goodwill and intangible assets Recoverability of receivables Consolidation of Xaar 3D Valuation of inventory EPS significant deficiencies
Materiality	Overall group materiality of £240,000 which represents 0.5% of revenue.

Independent auditor's report (cont.)

An overview of the scope of the parent company and group audits

Tailoring the scope

Our assessment of audit risk, our evaluation of materiality and our allocation of performance materiality determine our audit scope for each company within the group. Taken together, this enables us to form an opinion on the consolidated financial statements. We take into account size, risk profile, the organisation of the group and effectiveness of group-wide controls, changes in the business environment and other factors when assessing the level of work to be performed at each company.

In assessing the risk of material misstatement to the group financial statements, and to ensure we had adequate quantitative coverage of significant accounts in the financial statements, of the 14 reporting components of the group, we selected 11 components covering entities within the UK, US and Denmark, which represent the principal business units within the group.

Of the 11 components selected, we performed an audit of the complete financial information of four components ("full scope components") which were selected based on their size or risk characteristics. For the remaining seven components ("specific scope components"), we performed audit procedures on specific accounts within that component that we considered had the potential for the greatest impact on the significant accounts in the financial statements either because of the size of these accounts or their risk profile.

The reporting components where we performed audit procedures accounted for 100% [2019: 100%] of the Group's Revenue, 100% [2019: 100%] of the Group's Adjusted Loss before tax and 100% [2019: 100%] of the Group's Total assets. For the current year, the full scope components contributed 93% [2019: 98%] of the Group's Revenue, 95% [2019: 99%] of the Group's adjusted Loss before tax and 97% [2019: 100%] of the Group's Total assets. The specific scope components contributed 7% [2019: 2%] of the Group's Revenue, 5% [2019: 1%] of the Group's adjusted Loss before tax and 3%[2019: 0%] of the Group's Total assets. The audit scope of these components may not have included testing of all significant accounts of the Group.

The remaining three components were not revenue generating. For these components, we performed other procedures, including analytical review, testing of consolidation journals and intercompany eliminations and foreign currency translation recalculations to respond to any potential risks of material misstatement to the Group financial statements.

Changes from the prior year

There is no significant change in the overall coverage from full and specific scope components. Five components that were designated as full scope in the prior year have been designated as specific scope in the current year. These were designated as full scope in the prior year given we were also engaged as statutory auditor, however as detailed in note 38, the subsidiary audit exemption has been taken in the current year, hence we have only performed the procedures on these components necessary to support the Group audit opinion.

Involvement with component teams

All audit work performed for the purposes of the audit was undertaken by the Group audit team.

Key audit matters

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the financial statements of the current period and include the most significant assessed risks of material misstatement (whether or not due to fraud) that we identified. These matters included those which had the greatest effect on: the overall audit strategy; the allocation of resources in the audit; and directing the efforts of the engagement team. These matters were addressed in the context of our audit of the financial statements as a whole, and in our opinion thereon, and we do not provide a separate opinion on these matters.

Risk

Our response to the risk

Key observations communicated to the Audit Committee

Revenue recognition (£48.0 million – continuing operations, 2019: £49.4 million – continuing operations)

Refer to the Audit Committee Report (page 73); Accounting policies (page 116); and note 5 of the Consolidated Financial Statements (page 127).

Given the difficult trading environment and investor focus on the group's revenue we consider there to be a risk in relation to the manipulation by group management of the amount of revenue recorded. Management reward and incentive schemes based on achieving profit targets may also place pressure on management to manipulate revenue recognition.

As part of the financial statement close process, certain manual adjustments are required to account for contracts with customers. There is risk that the manual adjustments are incorrectly recorded in the period.

Further, in the product print segment, judgement is required to determine whether revenue should be recognised over time or at a point in time. Where revenue is recognised over time, estimation is required to establish how much of the performance obligation has been satisfied and how much is recorded as a contract liability.

We understood the group's revenue recognition policies and how they are applied, including the relevant controls, and performed a walkthrough to validate our understanding.

In respect of the main UK trading entity, which comprised 60% of the group's revenue, we analysed the whole population of transactions from invoicing to cash collection, including adjustments to arrive at revenue recognised in the year. Where the postings did not follow our expectation, we investigated and understood the characteristics of these entries and tested a sample to assess their validity by agreeing the transactions back to source documentation.

We performed tests of detail for a sample of revenue transactions to confirm the transactions had been appropriately recorded in the income statement with reference to IFRS 15 and corroborated that control of the products had been transferred to the customer by:

- analysing the contract and terms of the sale to determine that the group had fulfilled the requirements of the contract;
- confirming revenue could be reliably measured by reference to underlying documentation; and
- confirming collectability of the revenue was reasonably assured by considering recent collection history and the ageing of receivables.

We performed cut-off testing by tracing a sample of revenue items recorded either side of year-end to delivery note to determine whether revenue was recognised in the same period in which the performance obligations have been fulfilled.

We selected a sample of post year-end credit notes to assess whether, where the credit note relates to the audit period, these credit notes were appropriately provided for in the financial statements.

We tested journal entries posted to revenue accounts, applying parameters designed to identify entries that were not in accordance with our expectations. This included analysing and selecting journals for testing which appeared unusual in nature either due to size, preparer or being manually posted. To assess their validity, we verified the journals to originating documentation.

Revenue was recognised in accordance with the Group's accounting policies following the correction of audit adjustments identified in the EPS business and we identified no evidence of management override in respect of inappropriate manual journals recorded in revenue.

In respect of the EPS business and revenue recognised over time we identified a significant deficiency in internal control as summarised in the related Key Audit Matter below.

Independent auditor's report (cont.)

Risk	Our response to the risk	Key observations communicated to the Audit Committee
Revenue recognition (£48.0 million – continuing operations, 2019: £49.4 million – continuing operations)	We performed full and specific scope audit procedures over this risk area in 4 locations which covered 100% of the risk amount.	
continued	Revenue recognised over time For a sample of items, we reviewed the respective sales contract to determine whether the customer:	
	Simultaneously receives and consumes the benefits; or Controls the asset that is being created.	
	 Controls the asset that is being created or enhanced; or Has an enforceable requirement to pay for performance to date 	
	for performance to date. Where any of these criteria are fulfilled, revenue should be recognised over time in accordance with IFRS 15. For these items, we evaluated judgements made by management regarding the expected costs to complete and the timing and recognition of variation orders, by obtaining and reviewing the variation order and comparing the cost assumptions to similar projects. We also verified a sample of actual costs incurred to date through to purchase invoice or timesheet records. Where the criteria have not been fulfilled we confirmed management has recognised revenue at a point in time, when the performance obligation has been achieved. We performed full scope audit procedures over this risk area in 1 location which covered 100% of the risk amount.	

Risk

Our response to the risk

Key observations communicated to the Audit Committee

Carrying value of goodwill and intangible assets (£5.4 million, 2019: £10.9 million)

Refer to the Audit Committee Report (page 73); Accounting policies (page 121); and note 15 of the Consolidated Financial Statements (page 137).

IFRS requires impairment testing to be undertaken when there are indicators that an impairment may exist, and in the case of goodwill at least annually. Given the significant balances in respect of goodwill and recent trading losses, there is a risk that the Group's cash generating units ('CGUs') may not achieve the anticipated business performance to support their respective carrying values.

Judgement is required in estimating the recoverable value of each CGU, including the determination of the future cash flows, long-term growth rates applied to these cash flows, together with the rate at which they are discounted.

We examined management's methodology together with their model for assessing the valuation of goodwill and intangible asset balance to understand the composition of management's future cash flow forecasts, and the process and related controls undertaken to prepare them. This included confirming the underlying cash flows were consistent with the Board approved budget and strategic plan, did not include reorganisations and enhancements not committed at the balance sheet date and assessing the identified CGUs for appropriateness. We also re-performed the calculations in the model to test the mathematical integrity.

We assessed the robustness of the budgeting process and cash flow forecasting models, including consistency with the strategic plans for the group and assessment of historical forecast accuracy and impact of COVID-19 to date and over the forecast period.

We tested the key inputs to management's impairment models by:

- analysing the historical accuracy of budgets to actual results to determine whether forecast cash flows are reliable based on past experience;
- assessing the discount rate used by obtaining the underlying data used in the calculation and benchmarking it against an EY range derived from comparable organisations and market data, involving EY internal specialists to assist us with this assessment; and
- comparing the forecast growth rates to observable market data and challenging whether the forecast growth rates have been appropriately adjusted to reflect the changes in the group's strategy.

We calculated the degree to which the key inputs and assumptions would need to fluctuate before an impairment was triggered and considered the likelihood of this occurring. We performed our own sensitivities on the group's forecasts and determined whether adequate headroom remained.

We assessed whether there were any other indicators of impairment, which would give rise to the impairment of an individual asset.

We audited the related disclosures with reference to the requirements of IAS 36 and confirmed their consistency with the audited impairment models.

We agree with management's conclusion that no impairment of goodwill is required in the current year.

We have concluded that the methodology applied is reasonable, that the forecast period is appropriate and that management's models are mathematically accurate.

The additional sensitivity disclosures in note 14 of the Group financial statements adequately reflect that a reasonably possible change in certain key assumptions could lead to a different conclusion in respect of the recoverability of goodwill.

Independent auditor's report (cont.)

Risk Key observations communicated to Our response to the risk the Audit Committee We did not identify any evidence of material Recoverability of receivables (£6.2 We understood the group's process for million net of provisions of £0.6 million, estimating the expected credit loss provision misstatement related to the carrying value 2019: £6.4 million net of provisions of under IFRS 9 and other specific provisions of receivables. Management continue to £8.0 million) and how they are applied, including apply an appropriate expected credit loss the relevant controls, and performed a provision, plus specific provisions for aged Refer to the Audit Committee Report walkthrough to validate our understanding. balances where there is additional doubt (page 73); Accounting policies (page 122); over the recoverability of the remaining and note 21 of the Consolidated Financial We requested and obtained confirmation of Statements (page 141). receivables balances from key customers and compared their return to the amounts Whilst the majority of aged open balances recorded in the ledger as at 31 December are fully provided, given the extended 2020, investigating any differences and credit terms that were provided to agreeing reconciling items to relevant customers in previous periods, judgement supporting documentation. For any of these is required to establish how much of the customers that did not provide a return, open receivables balance is recoverable. we performed alternative procedures by There is a risk that management's obtaining proof of payment or evidence of judgements and estimates over delivery of the product/service. recoverability are inappropriate, when considering the specific balances and the We selected a sample of receivable balances requirements of IFRS 9. and verified them to cash received post year-end, reflecting either full settlement or payments against an agreed payment plan. We discussed with the credit control team the status of account balances with key customers and the steps being taken to recover overdue balances and assessed whether the accounting provision appropriately reflects the facts and circumstances. We analysed the historical accuracy of the receivables provisions to actual results to determine whether management's forecasting is reliable based on past experience. We assessed the adequacy of management's provision for expected credit losses by reviewing recent historical losses with consideration given to current trading conditions and potential future losses. We recalculated managements provision, testing related inputs as appropriate. We reviewed publicly available information for key customers to identify and evaluate any matters relating to their financial viability that might result in a recoverability risk to the related receivable balance.

Risk Our response to the risk Key observations communicated to the Audit Committee

Consolidation of Xaar 3D

Refer to the Audit Committee Report (page 73); Accounting policies (page 116); and note 22 of the Consolidated Financial Statements (page 144).

Management judgement is required as to whether the Group still controls Xaar 3D Limited and consequently whether the Group should continue to consolidate Xaar 3D in accordance with IFRS 10, given that Stratasys has a 45% shareholding and a call option to purchase the remaining share capital at any point over a three-year period to December 2022.

Further consideration was required as to whether the held for sale classification at the year end impacts upon the control conclusion.

As detailed in note 2, management concluded that the Group continues to control Xaar 3D and should therefore continue to consolidate the business in the Group financial statements.

We have obtained and reviewed management's accounting paper and the signed shareholder agreement setting out their control conclusion as at the year end. We have compared the content of this paper against the requirements of IFRS 10, namely whether Xaar continues to:

- retain power over Xaar 3D;
- be exposed to and have the right to variable returns; and
- have the ability to use its power to affect these returns

As part of these procedures, we considered whether there have been any changes to the relevant activities, including specifically the following areas:

- Whether the written call option was in the money and likelihood of exercise;
- The make-up of the Xaar 3D board;
- The process to make key strategic and operational decisions over the relevant activities; and
- Who the key decision makers are.

We confirmed there were no changes to the supply agreement between Xaar/Xaar 3D and distribution agreement between Xaar 3D/Stratasys.

We agree with management's judgement that Xaar continues to control the 3D business as at 31 December 2020.

Valuation of inventory (£10.4 million including provision of £24.6 million, 2019: £16.2 million including provision of £21.3 million)

Refer to the Audit Committee Report (page 73); Accounting policies (page 122); and note 20 of the Consolidated Financial Statements (page 141).

Given the level of slow moving finished goods, judgement is required to assess the future uptake of new products by customers, the price for which products can be sold, overall success of the sales and marketing strategy and the resulting carrying value recorded in the financial statements. There is a risk that the provision recorded by management does not accurately reflect the level of exposure and that inventory is incorrectly valued.

We understood the group's policies on inventory provisions and how they are applied, including the relevant controls, and performed a walkthrough to validate our understanding.

We obtained calculations to support the standard costs used and performed procedures to assess whether only normal production variances had been capitalised in the year-end inventory balance and material abnormal inefficiencies had been appropriately expensed. We checked that inventory was appropriately revalued to actual cost at the period end.

We performed tests of clerical and mathematical accuracy on management's inventory provision calculations.

We performed procedures to validate the appropriateness of any management judgements applied in calculating inventory provisions.

For a sample of inventory lines, we reviewed post year-end selling prices in comparison to the values assumed in the book values recorded. Where the book value exceeded realisable value, we considered whether management had recorded an appropriate provision.

The inventory provisions have been appropriately updated to reflect the impact of the latest strategic review and resulting future recoverable amount.

In respect of the EPS business and inventory management, we identified a significant deficiency in internal control as summarised in the related Key Audit Matter below.

Independent auditor's report (cont.)

Risk	Our response to the risk	Key observations communicated to the Audit Committee
Valuation of inventory (£10.4 million including provision of £24.6 million, 2019: £16.2 million including provision of £21.3 million) continued	We discussed the latest sales and marketing strategies and considered the implications for the level of provision recorded. This included comparing forecast product usage to customer orders, considering historical usage, historical accuracy of provisioning and understanding management's future plans to utilise the inventory.	
EPS business As disclosed within the Corporate	We executed our planned audit approach over the EPS business. As a result of the audit differences identified we performed	We reported and discussed the deficiencies we identified at EPS with the Audit Committee and made a number of related
Governance Statement on page 70 and	additional procedures to understand the root	
Audit Committee Report on page 74, three significant deficiencies were identified in relation to the EPS business and its controls over:	cause of the issues and to establish whether the audit differences reflected the total error within the account balances impacted. These procedures were supplemented	The sections of the annual report that describe the review of the effectiveness of the entity's risk management and internal
Inventory management and valuation	by additional sample testing and audit	control system and related significant deficiencies in EPS, are materially
Revenue recognised over time and the valuation of accrued income at year end	procedures to test the appropriateness of the revisions made by management to reconciliations.	consistent with the financial statements and our knowledge obtained in the course of
The financial statement close process	We reassessed the materiality applied in our	performing the audit.
These deficiencies were identified as part of the external audit process and	audit of the EPS business and re-assessed the associated aggregation risk.	
manifested themselves in a significant number of audit differences. Adjustments were made to correct for the financial impact of the issues arising from these deficiencies and management have disclosed the deficiencies in accordance	We increased the level of Partner oversight and review of our work over the EPS business to further mitigate the additional risk presented by the identified control deficiencies	
with the UK Corporate Governance Code, however further action is required in 2021 to remediate the underlying process and control issues.	We met with the Board of Directors to understand the process they had undertaken to assess the effectiveness of the risk management and internal control systems and their remediation plans.	
	We reviewed the disclosures made within the Annual Report and Accounts for compliance with the UK Corporate Governance Code and consistency with the	

In the prior year, our auditor's report included a key audit matter in relation to capitalised development costs and COVID-19. Given there were no further capitalised development costs in the current year, this was removed as a key audit matter. Given the continued impact of COVID-19, we have embedded this within the other key audit matters listed above, such as the impairment of goodwill and intangible assets, as opposed to it being a separate key audit matter.

findings from the audit process.

Our application of materiality

We apply the concept of materiality in planning and performing the audit, in evaluating the effect of identified misstatements on the audit and in forming our audit opinion.

Materiality

The magnitude of an omission or misstatement that, individually or in the aggregate, could reasonably be expected to influence the economic decisions of the users of the financial statements. Materiality provides a basis for determining the nature and extent of our audit procedures.

We determined materiality for the Group to be £240,000 (2019: £247,000), which is 0.5% (2019: 0.5%) of revenue. We believe that revenue provides us with the most appropriate basis given it is the main KPI for the Group, whilst the Group reports an adjusted loss before tax.

We determined materiality for the parent Company to be £240,000, which we capped at the group materiality.

During the course of our audit, we reassessed initial materiality and updated for the final result for the year.

Performance materiality

The application of materiality at the individual account or balance level. It is set at an amount to reduce to an appropriately low level the probability that the aggregate of uncorrected and undetected misstatements exceeds materiality.

On the basis of our risk assessments, together with our assessment of the Group's overall control environment, our judgement was that performance materiality was 50% (2019: 50%) of our materiality, being £120,000 (2019: £124,000). We have maintained performance materiality at this percentage reflecting our observations of the Group's systems and processes, susceptibility of the financial statements to management override and historical audit findings.

Audit work at component locations for the purpose of obtaining audit coverage over significant financial statement accounts is undertaken based on a percentage of total performance materiality. The performance materiality set for each component is based on the relative scale and risk of the component to the Group as a whole and our assessment of the risk of misstatement at that component. In the current year, the range of performance materiality allocated to components was £24,000 to £91,000 (2019: £25,000 to £93,000).

Reporting threshold

An amount below which identified misstatements are considered as being clearly trivial.

We agreed with the Audit Committee that we would report to them all uncorrected audit differences in excess of £12,000 (2019: £12,000), which is set at 5% of planning materiality, as well as differences below that threshold that, in our view, warranted reporting on qualitative grounds.

We evaluate any uncorrected misstatements against both the quantitative measures of materiality discussed above and in light of other relevant qualitative considerations in forming our opinion.

Other information

The other information comprises the information included in the annual report other than the financial statements and our auditor's report thereon. The directors are responsible for the other information contained within the annual report.

Our opinion on the financial statements does not cover the other information and, except to the extent otherwise explicitly stated in this report, we do not express any form of assurance conclusion thereon.

Our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the course of the audit or otherwise appears to be materially misstated. If we identify such material inconsistencies or apparent material misstatements, we are required to determine whether there is a material misstatement in the financial statements themselves. If, based on the work we have performed, we conclude that there is a material misstatement of the other information, we are required to report that fact.

We have nothing to report in this regard.

Independent auditor's report (cont.)

Opinions on other matters prescribed by the Companies Act 2006

In our opinion, the part of the directors' remuneration report to be audited has been properly prepared in accordance with the Companies Act 2006.

In our opinion, based on the work undertaken in the course of the audit:

- the information given in the strategic report and the directors' report for the financial year for which the financial statements are prepared is consistent with the financial statements and those reports have been prepared in accordance with applicable legal requirements;
- the information about internal control and risk management systems in relation to financial reporting processes and about share capital structures, given in compliance with rules 7.2.5 and 7.2.6 in the Disclosure Rules and Transparency Rules sourcebook made by the Financial Conduct Authority (the FCA Rules), is consistent with the financial statements and has been prepared in accordance with applicable legal requirements; and
- information about the company's corporate governance statement and practices and about its administrative, management and supervisory bodies and their committees complies with rules 7.2.2, 7.2.3 and 7.2.7 of the FCA Rules.

Matters on which we are required to report by exception

In the light of the knowledge and understanding of the group and the parent company and its environment obtained in the course of the audit, we have not identified material misstatements in:

- the strategic report or the directors' report; or
- the information about internal control and risk management systems in relation to financial reporting processes and about share capital structures, given in compliance with rules 7.2.5 and 7.2.6 of the FCA Rules.

We have nothing to report in respect of the following matters in relation to which the Companies Act 2006 requires us to report to you if, in our opinion:

- adequate accounting records have not been kept by the parent company, or returns adequate for our audit have not been received from branches not visited by us; or
- the parent company financial statements and the part of the Directors' Remuneration Report to be audited are not in agreement with the accounting records and returns; or
- certain disclosures of directors' remuneration specified by law are not made; or
- we have not received all the information and explanations we require for our audit; or
- a Corporate Governance Statement has not been prepared by the company.

Corporate Governance Statement

The Listing Rules require us to review the directors' statement in relation to going concern, longer-term viability and that part of the Corporate Governance Statement relating to the group and company's compliance with the provisions of the UK Corporate Governance Code specified for our review.

Based on the work undertaken as part of our audit, we have concluded that each of the following elements of the Corporate Governance Statement is materially consistent with the financial statements or our knowledge obtained during the audit:

- Directors' statement with regards to the appropriateness of adopting the going concern basis of accounting and any material uncertainties identified set out on page 64;
- Directors' explanation as to their assessment of the company's prospects, the period this assessment covers and why the period is appropriate set out on page 65;
- Directors' statement on fair, balanced and understandable set out on page 51;
- Board's confirmation that it has carried out a robust assessment of the emerging and principal risks set out on page 41;
- The section of the annual report that describes the review of effectiveness of risk management and internal control systems set out on pages 41 and 74; and
- The section describing the work of the Audit Committee set out on page 72.

Responsibilities of directors

As explained more fully in the directors' responsibilities statement set out on page 97, the directors are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view, and for such internal control as the directors determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the directors are responsible for assessing the group and parent company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the directors either intend to liquidate the group or the parent company or to cease operations, or have no realistic alternative but to do so.

Auditor's responsibilities for the audit of the financial statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs (UK) will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

Explanation as to what extent the audit was considered capable of detecting irregularities, including fraud

Irregularities, including fraud, are instances of non-compliance with laws and regulations. We design procedures in line with our responsibilities, outlined above, to detect irregularities, including fraud. The risk of not detecting a material misstatement due to fraud is higher than the risk of not detecting one resulting from error, as fraud may involve deliberate concealment by, for example, forgery or intentional misrepresentations, or through collusion. The extent to which our procedures are capable of detecting irregularities, including fraud is detailed below.

However, the primary responsibility for the prevention and detection of fraud rests with both those charged with governance of the company and management.

Our approach was as follows:

- We obtained an understanding of the legal and regulatory frameworks that are applicable to the group and determined that the most significant are those that relate to the reporting framework (IFRS, FRS 101, the Companies Act 2006 and the UK Corporate Governance Code) and the relevant tax compliance regulations in the jurisdictions in which the Group operates. In addition, we concluded that there are certain significant laws and regulations which may have an effect on the determination of the amounts and disclosures in the financial statements being the Listing Rules of the UK Listing Authority, and those regulations relating to health and safety and employee matters.
- We understood how Xaar plc is complying with those frameworks by making enquiries of management, the Company Secretary, and those responsible for legal and compliance procedures. We corroborated our enquiries through our review of board minutes, papers provided to the Audit Committee, discussion with the Audit Committee and any correspondence received from regulatory bodies.
- We assessed the susceptibility of the Group's financial statements to material misstatement, including how fraud might occur by
 reviewing the Group's risk register, enquiry with management and the Audit Committee during the planning and execution phases of our
 audit. We also considered performance targets and their influence on efforts made by management to manage earnings or influence the
 perceptions of analysts. We considered the programmes and controls that the Group has established to address risks identified, or that
 otherwise prevent, deter and detect fraud and how senior management monitors those programmes and controls. Where the risk was
 considered to be higher, we performed audit procedures to address each identified fraud risk including revenue recognition as discussed
 above. These procedures included testing manual journals and were designed to provide reasonable assurance that the financial
 statements were free from fraud or error.
- Based on this understanding we designed our audit procedures to identify non-compliance with such laws and regulations. Our
 procedures involved journal entry testing, with a focus on manual consolidation journals and journals indicating large or unusual
 transactions based on our understanding of the business; enquiries of the Company Secretary, head of legal, management; and
 focussed testing, as referred to in the key audit matters section above. In addition, we completed procedures to conclude on the
 compliance of the disclosures in the Annual Report and Accounts with the requirements of the relevant accounting standards, UK
 legislation and the UK Corporate Governance Code.

A further description of our responsibilities for the audit of the financial statements is located on the Financial Reporting Council's website at https://www.frc.org.uk/auditorsresponsibilities. This description forms part of our auditor's report.

Independent auditor's report (cont.)

Other matters we are required to address

- Following the recommendation from the Audit Committee we were appointed by the company on 2 June 2020 to audit the financial statements for the year ending 31 December 2020 and subsequent financial periods.
- The period of total uninterrupted engagement including previous renewals and reappointments is 2 years, covering the years ending 2019 and 2020.
- The non-audit services prohibited by the FRC's Ethical Standard were not provided to the group or the parent company and we remain independent of the group and the parent company in conducting the audit.
- The audit opinion is consistent with the additional report to the Audit Committee.

Use of our report

This report is made solely to the company's members, as a body, in accordance with Chapter 3 of Part 16 of the Companies Act 2006. Our audit work has been undertaken so that we might state to the company's members those matters we are required to state to them in an auditor's 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 and the company's members as a body, for our audit work, for this report, or for the opinions we have formed.

Adrian Bennett

Senior statutory auditor for and on behalf of Ernst & Young LLP, Statutory Auditor Cambridge

27 April 2021

Consolidated income statement

for the year ended 31 December 2020

Notes	2020 £'000	Restated 2019 £'000
Revenue 5 Cost of sales	47,984 (34,974)	49,379 (37,089)
Gross profit Research and development expenses Research and development expenditure credit Sales and marketing expenses General and administrative expenses Impairment reversal / (losses) on financial assets	13,010 (4,535) 142 (5,970) (8,022) 946	12,290 (3,081) 29 (8,104) (7,718) (2,715)
Restructuring costs Other operating income Gain on derivative financial liabilities 22, 36	(754) 819 77	(1,519) - (87)
Operating loss Investment income 10 Finance costs for leases 18, 36	(4,287) 47 (82)	(10,905) 65 (97)
Loss before tax Income tax expense 12, 36	(4,322) (52)	(10,937) (3,497)
Loss for the year from continuing operations Loss from discontinued operations after tax 11	(4,374) (10,295)	(14,434) (57,297)
Loss for the year	(14,669)	(71,731)
Attributable to: Owners of the Company Non-controlling interest 35	(11,685) (2,984)	(71,308) (423)
Loss for the year	(14,669)	(71,731)
Loss per share – Total Basic 14 Diluted 14	(15.2p) (15.2p)	(92.5p) (92.5p)
Loss per share – Continuing operations Basic 14 Diluted 14	(5.7p) (5.7p)	(18.7p) (18.7p)

Dividends paid in the year amounted to £nil (2019: £nil).

Consolidated statement of comprehensive income

for the year ended 31 December 2020

Tor the year ended or becomber 2020	Notes	2020 €'000	Restated 2019 £'000
Loss for the year		(14,669)	(71,731)
Items that may be reclassified subsequently to profit or loss:			
Exchange differences on retranslation of net investment		240	(258)
Tax on items taken directly to equity		(5)	-
Other comprehensive income/(loss) for the year		235	(258)
Total comprehensive loss for the year		(14,434)	(71,989)
Total comprehensive loss attributable to:			
Owners of the Company		(11,466)	(71,531)
Non-controlling interests	35	(2,968)	(458)
		(14,434)	(71,989)

Consolidated statement of financial position

as at 31 December 2020

	Notes	2020 £'000	Restated 2019 £'000
Non-current assets			
Goodwill	15	5,152	5,333
Other intangible assets	16	207	5,543
Property, plant and equipment	17	17,147	20,908
Right of use asset	18	2,078	3,561
Deferred tax asset	23	139	130
		24,723	35,475
Current assets	20	40.055	1/ 500
Inventories Trade and other receivables	20 21	10,355	16,530
Current tax asset	21	9,751 425	9,109 1,788
	21	161	522
Treasury deposits Cash and cash equivalents	21	17,956	24,800
Derivative financial instruments	22	17,758	24,000
Assets held for sale	17	43	_
		38,851	52,749
Disposal group assets held for sale	11	9,968	_
		48,819	52,749
Total assets		73,542	88,224
Current liabilities			
Trade and other payables	24	(9,940)	(7,973)
Provisions	25	(357)	(2,947)
Derivative financial instruments	22	(2,919)	(2,996)
Lease liabilities	18	(1,064)	(1,450)
		(14,280)	(15,366)
Liabilities associated with the disposal group	11	(1,589)	_
		(15,869)	(15,366)
Net current assets		32,950	37,383
Non-current liabilities			
Lease liabilities	18	(1,515)	(2,521)
Total non-current liabilities		(1,515)	(2,521)
Total liabilities		(17,384)	(17,887)
Net assets		56,158	70,337
Equity	2.	H 000	F 000
Share capital	26	7,833	7,833
Share premium	27	29,328	29,328
Own shares	28	(1,957)	(2,676)
Translation reserve	29 30	818 21,167	594
Other reserves Retained earnings	30	(4,802)	20,921 7,598
Equity attributable to owners of the Company		52,387	63,598
Non-controlling interest	35	3,771	6,739
Total equity		56,158	70,337
		30,.00	, 0,007

The financial statements of Xaar plc, registered number 3320972, were approved by the Board of Directors and authorised for issue on 27 April 2021. They were signed on its behalf by:

John Mills
Chief Executive Officer

Ian Tichias Chief Financial Officer

Consolidated statement of changes in equity

as at 31 December 2020

	Notes	Share capital £'000	Share premium £'000	Own shares £'000	Other reserves £'000	Translation reserve £'000	Retained earnings £'000	Total £'000	Non- controlling interest £'000	Total equity £'000
Balance at 1 January 2019		7,833	29,328	(3,113)	15,144	817	79,343	129,352	2,026	131,378
Loss for the year		-	-	-	-	-	(71,051)	(71,051)	[423]	(71,474)
Exchange differences on retranslation of net investment		_	_	_	_	(157)	_	(157)	(35)	[192]
Total comprehensive income						(457)	(71 OF1)	(74,000)	(/[0]	(54 / / /)
for the year as reported Correction of error	36	_	_	-	_	(157) (66)	(71,051) (257)	(71,208) (323)	(458) -	(71,666) (323)
Total comprehensive income										
for the year as restated Own shares sold in the year	28	_	-	437	_	(223)	(71,308) (437)	(71,531) -	(458) -	(71,989) -
Credit to equity for equity-settled share-based payments	9	_	-	-	1,111	_	-	1,111	-	1,111
Adjustment arising from change in non-controlling interest		_	_	_	4,666	-	_	4,666	5,171	9,837
Restated total equity at the beginning of the financial year		7,833	29,328	(2,676)	20,921	594	7,598	63,598	6,739	70,337
Loss for the year Tax on items taken directly to equity		-		-	-		(11,685) (5)	(11,685) (5)	(2,984) -	(14,669) (5)
Exchange differences on retranslation of net investment		_	-	_	-	224	_	224	16	240
Total comprehensive income						22/	(11 /00)	(11 ///)	(2.0/0)	(1 / /) /)
for the year Own shares sold in the year Credit to equity for equity-settled	28	-	-	719	-	224	(11,690) (710)	(11,466) 9	(2,968) -	(14,434) 9
share-based payments	9	-		_	246		_	246		246
Balance at 31 December 2020		7,833	29,328	(1,957)	21,167	818	(4,802)	52,387	3,771	56,158

The nature of retained earnings and other reserves in equity is described in note 30.

Consolidated cash flow statement

for the year ended 31 December 2020

	Notes	2020 £'000	2019 €′000
Net cash used in operating activities	31	(2,807)	(9,828)
Investing activities			
Investment income	10	64	103
Treasury deposits withdrawn	21	361	2,755
Purchase of derivative financial instrument		(130)	_
Purchases of property, plant and equipment		(1,098)	(1,071)
Proceeds on disposal of property, plant and equipment		167	_
Expenditure on software		_	(90)
Expenditure on capitalised product development		-	(2,255)
Net cash used in investing activities		(636)	(558)
Financing activities			
Proceeds from non-controlling interest transactions		_	12,003
Payment of lease liabilities and related interest	18	(1,224)	(1,274)
Net cash provided by / (used in) financing activities		(1,224)	10,729
Net increase / (decrease) in cash and cash equivalents		(4,667)	343
Effect of foreign exchange rate changes on cash balances		(57)	(212)
Cash and cash equivalents at beginning of year		24,800	24,669
Cash and cash equivalents at end of year		20,076	24,800
Cash and cash equivalents attributable to assets held for sale	11	2,120	-
Cash and cash equivalents	21	17,956	24,800

Cash and cash equivalents (which are presented as a single class of asset on the face of the 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.

for the year ended 31 December 2020

1. General information

Xaar plc ('the Group') is incorporated in England and Wales under the Companies Act 2006. The address of the registered office is given on the inside back cover. The nature of the Group's operations and its principal activity is set out in the Strategic Report starting on pages 8 to 31.

The Strategic Report can be found on pages 8 to 31.

2. Key sources of estimation uncertainty and critical accounting judgements

The key assumptions concerning the future and other sources of estimation uncertainty at the date of the statement of financial position that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year are as follows:

Accounting judgements – The Group applies judgement in how it applies its accounting policies, which do not involve estimation, which could materially affect the numbers disclosed in these financial statements. The key judgements, without estimation, that could have the most significant effect on the amounts recognised in these financial statements are as follows:

Capitalisation of development costs (accounting judgement) - note 16

As described in note 3, the Group capitalises development expenditure as an intangible asset where the criteria under IAS 38 'Intangible Assets' is met. This requires management to make judgement on when all of the criteria for capitalisation are met and when to cease capitalisation and start amortising the asset. In 2020, total capitalised development additions amounted to £nil (2019: £2,255,000) given capitalisation ceased on Xaar 3D in the prior year and no projects have met the capitalisation criteria in the current year.

Consolidation of Xaar 3D (accounting judgement) - notes 22, 34 and 37

The Group considered the application of IFRS 10 Consolidated Financial Statements. Following this review the Group concluded that it has retained power over the investee, it is both exposed, and has the right, to variable returns, and it has the ability to use its power to affect these returns. This conclusion was drawn on the basis of the current share ownership (55% Xaar), the make-up of the Board (Xaar has a majority position), the terms of the call option that Stratasys holds over the Xaar 3D shares, and the process used to make key strategic and operational decisions including who the key decision makers are.

Based on the option valuation, the Board has concluded that the currently exercisable call option that Stratasys holds over the remaining 45% of Xaar 3D is not substantive as at the reporting date. While certain matters require the consent of Stratasys, management have assessed that these only give protective rights over the relevant activities, which are judged at this time to be the development and commercialisation of the 3D product for it to be produced by a contract manufacturer, an area in which Xaar plc has the expertise.

The proposed amendment of the call option (see note 37 – Non-adjusting post balance sheet event) is subject to shareholder approval, and does not alter the contractual terms in place as at the year end, Xaar plc retains and is exposed to the rights and obligations associated with its shareholding as at that date. As such, the Group has concluded it continues to retain control and should therefore continue to consolidate Xaar 3D at the year end.

Discontinued operations (accounting judgement) - note 11

Following the Board decision in December 2020 to amend the terms of the call option in relation to Xaar 3D the Group considered the application of IFRS 5 'Non-current Assets Held for Sale and Discontinued Operations'.

The 3D business meets the criteria of a discontinued operation per IFRS 5 given it has been previously been reported as a major line of business and the disposal is highly probable in the next 12 months. The Group has a commitment to a plan to sell the asset with an active programme in place to complete the sale, which is expected to achieve a reasonable sale price in relation to its current fair value.

Significant estimates – The preparation of financial statements in conformity with adopted IFRSs requires the use of estimates and assumptions that affect the reported amounts of assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting year. Although these estimates are based on management's best knowledge of the amount, events or actions, actual results ultimately may differ from those estimates. The estimates and underlying assumptions are reviewed on an ongoing basis. The estimates and associated assumptions are based on historical experience and various other factors that are believed to be reasonable under the circumstances. Revisions to accounting estimates are recognised in the period in which the estimate is revised if the revision affects only that period, or in the period of the revision and future periods if the revision affects both current and future periods.

The Directors consider the following to be the key estimates applicable to the financial statements, which have a significant risk of resulting in a material adjustment to the carrying amounts of assets and liabilities within the next financial year or in the longer term:

Xaar 3D option – (estimation uncertainty) – note 22

In December 2019 Xaar 3D Holdings granted Stratasys Solutions Limited an option to acquire the remaining shares in Xaar 3D Limited. This financial liability is measured at fair value. In order to calculate the fair value the Group uses the Black Scholes model. The Black Scholes model uses a number of inputs that require estimation. Whilst the Group uses third party experts to provide these inputs the estimates remain uncertain.

Inventory provision (estimation uncertainty) - note 20

The Group's inventory provision at 31 December 2020 of £24,621,000 (2019: £20,935,000) includes £21,256,000 relating to discontinued operations (2019: £17,815,000) and £3,365,000 from continuing operations (2019: £3,120,000). All assets, including inventory, that relate to the discontinued operations have been valued at the lower of the carrying amount and fair value less cost to sell. Provisions in relation to continued operations have been made based on management's assessment of customer sell through, market conditions, current and potential competitors, and the ageing profile and quantity of the inventory on hand. Furthermore, management has assessed the likely

for the year ended 31 December 2020

time period to sell the inventory and the ability to decrease prices to drive sales.

2. Key sources of estimation uncertainty and critical accounting judgements (cont.)

Credit provision for the allowance of doubtful debts (estimation uncertainty) - note 21

The Group's provision for doubtful debts of £622,000 (2019: £7,959,000) relates to management's assessment of the ageing profile of receivables and the risk of collecting unpaid overdue balances. In making the estimate, management has taken steps to assess the ongoing viability of the customers, the probability and timing of repayment, external factors which may affect the customers' ability to pay and historical data relating to settlement of aged debts.

Impairment of capitalised development costs (estimation uncertainty) – note 16

The Group determines whether capitalised development costs, and all other non-current assets, are impaired at least on an annual basis. This requires an estimation of the 'value-in-use' of the cash-generating units to which the capitalised development costs are allocated. Estimating a value-in-use amount requires management to make an estimate of the expected future cash flows from the cash-generating unit and also to choose a suitable discount rate in order to calculate the present value of those cash flows. The carrying amount of capitalised development costs at 31 December 2020 was £76,000 (2019: £5,166,000).

The value of capitalised development costs in relation to Xaar 3D has been transferred into Assets held for sale.

Impairment of goodwill - Engineered Print Solutions (EPS) (estimation uncertainty) - note 15

The Group tests goodwill annually for impairment or more frequently if there are indications that goodwill might be impaired. Having performed impairment testing, no impairment has been identified and therefore no impairment loss has been recognised in 2020 (2019: Enil). Management has performed sensitivity analysis on its reasonable worst case scenario for the EPS business and it been completed on each key assumption in isolation. This analysis indicates that reasonable changes in the key assumptions on which we have based our determination of the recoverable amount would not cause the carrying amount of goodwill to exceed its recoverable amount.

Revenue recognition - Engineered Print Solutions (EPS) (estimation uncertainty) - note 5

Engineered Print Solutions recognises revenue on the stage of completion of the customer contract and performance obligations in the manufacture of bespoke machinery and equipment for delivery to the customer.

Each month an assessment is undertaken of the work in progress and stage of completion in both supply of individual components and labour hours allocated to the project against the expected project manufacture costs. The revenue determined is recognised upon the proportion and stage of completion of the performance obligations.

This assessment enables an estimate to be undertaken for the expected profitability of the customer contract, costs incurred to date, and costs to complete, but are subject to a level of uncertainty until the work in progress is finalised and the completed machinery is available for final delivery and acceptance by the customer.

The transaction price allocated to partially satisfied and unsatisfied obligations at 31 December 2020 are set out in note 5.

3. Significant accounting policies

Basis of accounting

The Group financial statements have been prepared in accordance with International Accounting Standards (IAS) in conformity with the requirements of the Companies Act 2006 and in accordance with International Financial Reporting Standards (IFRS) adopted pursuant to Regulation (EC) No 1606/2002 as it applies in the European Union. The financial information has been prepared on the basis of all applicable IFRS, including all International Accounting Standards (IAS), Standing Interpretations Committee (SIC) interpretations and International Financial Reporting Interpretations Committee (IFRIC) interpretations issued by the International Accounting Standards Board (IASB) that are applicable to the financial period.

The financial statements have been prepared on the historical cost basis, except for the revaluation of financial instruments. The Group financial statements are presented in Sterling and all values are rounded to the nearest thousand pounds (£'000) except when otherwise indicated. The principal accounting policies adopted are set out below.

Basis of consolidation

The consolidated financial statements incorporate the financial statements of the Company and entities controlled by the Company ('its subsidiaries') made up to 31 December each year. Control is achieved where the Company has the power to govern the financial and operating policies of an investee entity so as to obtain benefits from its activities. An investor controls another entity, an investee, if and only if the investor has all of the following: it has power over the investee, exposure or rights to variable returns from its involvement with the investee, and the ability to use its power over the investee to affect the amount of the investor's returns. To have power, an investor must have existing substantive rights that give it the current ability to direct the relevant activities. The investor reassesses whether it controls an entity if facts and circumstances indicate changes to one or more of the elements of control.

The results of subsidiaries acquired or disposed of during the year are included in the consolidated income statement from the date of acquisition or up to the date of disposal, as appropriate. Where necessary, adjustments are made to the financial statements of subsidiaries to bring the accounting policies used in line with those used by the Group.

All intra-group transactions, balances, income and expenses are eliminated on consolidation. Foreign exchange gains and losses arising on the retranslation of trading balances with subsidiaries with different functional currencies are reported in the income statement.

3. Significant accounting policies (cont.)

Basis of consolidation (cont.)

Non-controlling interests in subsidiaries are identified separately from the Group's equity therein. Those interests of non-controlling shareholders that are present ownership interests entitling their holders to a proportionate share of net assets upon liquidation may initially be measured at fair value or at the non-controlling interests' proportionate share of the fair value of the acquiree's identifiable net assets. The choice of measurement is made on an acquisition-by-acquisition basis.

Profit or loss and each component of other comprehensive income are attributed to the owners of the Company and to the non-controlling interests. Total comprehensive income of subsidiaries is attributed to the owners of the Company and to the non-controlling interests even if this results in the non-controlling interests having a deficit balance.

Changes in the Group's interests in subsidiaries that do not result in a loss of control are accounted for as equity transactions. The carrying amount of the Group's interests and the non-controlling interests are adjusted to reflect the changes in their relative interests in the subsidiaries. Any difference between the amount by which the non-controlling interests are adjusted and the fair value of the consideration paid or received is recognised directly in equity and attributed to the owners of the Company.

Going concern

The Group's business activities, together with the factors likely to affect its future development, performance and position, are set out in the Strategic Report on pages 6 to 19. The Group reported a loss after tax for the year ended 31 December 2020 of £14.7 million, of which £10.3 million related to discontinued operations, being the final costs relating to Thin Film and the Xaar 3D business which is expected to be sold. Notes 21 and 22 include a description of the Group's objectives, policies and processes for managing its capital; its financial risk management objectives; details of its financial instruments and hedging activities; and its exposure to credit risk and liquidity risk. The Group's day to day working capital requirements are expected to be met through the current cash and cash equivalent resources (including Treasury deposits) at the balance sheet date of 31 December 2020 of £18.1 million. The Group was debt free as at 31 December 2020 and across each of the going concern scenarios described below.

Whilst the impact of COVID-19 on the performance of the business over the last year has been not been significant the long-term implications of the spread of the virus remain uncertain making it difficult to determine the impact on the 2021 financial performance. The Board has therefore considered the performance of the different businesses across the Group and each of their funding requirements before performing a number of stress tests. The base going concern case assumes that the disposal of Xaar 3D completes as described in note 37 and the Strategic update on page 11, however excludes the anticipated consideration. Conservatively, a second case which excludes the disposal of Xaar 3D has been applied. In both cases the downturn in revenue across the entire Group required to prevent the business continuing as a going concern would have to be severe and is not plausible given the nature and size of the order book and the trading experience of the Printhead and EPS segments during COVID-19 conditions to date. Notwithstanding this, the Group has further options to mitigate a cash shortfall which have not been factored into the above forecasts, such as staffing reductions, further delaying/ stopping capital and research and development expenditure and aligning performance related pay to actual results.

The Group continues to enjoy a strong cash position and is well positioned to cope with the current situation. The Board remains confident in the long-term future prospects for the Group and its ability to continue as a going concern for the foreseeable future.

The Directors have a reasonable expectation that the Group has adequate resources to continue in operational existence for the foreseeable future, based on the Group's forecasts and projections for the period to 30 April 2022, taking account of reasonably possible changes in trading performance. For this reason, we continue to adopt the going concern basis in preparing the financial statements.

Adjusted financial measures

Adjusted financial measures relate to continuing operations and comprise adjusted profit / (loss) before tax, and adjusted diluted earnings per share. These measures are alternative performance measures ('APMs') which are not defined or specified under the requirements of IFRS. These APMs adjust for recurring and non-recurring items which management consider to have a distorting effect on the underlying results of the Group. These APMs are used in evaluating management's performance and in determining management and executive remuneration. Items adjusted for include share-based payment charges, exchange differences on intra-group transactions, gains and losses on derivative financial instruments, restructuring and investment expenses, other income and the research and development expenditure credit.

Recurring items are adjusted each year irrespective of materiality to ensure consistent treatment, and allow for variation that can occur e.g. due to volatility in share prices in respect of share-based payment charges, or the significant impact of restructuring costs. Net cash includes cash, cash equivalents and treasury deposits. Gross R&D investment represents the cost of research and development on continuing operations in the year. No amounts have been capitalised in the current year, as the criteria have not been achieved.

Business combinations

The acquisition of subsidiaries is accounted for using the acquisition method.

Goodwill arising on acquisition is recognised as an asset and initially measured at cost, being the excess of the sum of consideration transferred, the amount of any non-controlling interests in the acquiree over the net of the acquisition-date fair values of the identifiable assets, liabilities and contingent liabilities recognised. If after reassessment, the Group's interest in the net fair value of the acquiree's identifiable assets, liabilities and contingent liabilities exceeds the cost of the business combination, the excess is recognised immediately in the income statement.

for the year ended 31 December 2020

3. Significant accounting policies (cont.)

Goodwill

Goodwill arising on consolidation is initially recognised as an asset at cost and is subsequently measured at cost less any accumulated impairment losses. Goodwill which is recognised as an asset is reviewed for impairment at least annually. Any impairment is recognised immediately in the income statement and is not subsequently reversed.

For the purposes of impairment testing, goodwill is allocated to each of the Group's cash-generating units expected to benefit from the synergies of the combination. Cash-generating units to which goodwill has been allocated are tested for impairment annually, or more frequently when there is an indication that the unit may be impaired. If the recoverable amount of the cash-generating unit is less than the carrying amount of the unit, the impairment loss is allocated first to reduce the carrying amount of any goodwill allocated to the unit and then to the other assets of the unit pro rata on the basis of the carrying amount of each asset in the unit.

On disposal of the cash-generating unit, the attributable amount of goodwill is included in the determination of the profit or loss on disposal.

Goodwill arising on acquisitions before the date of transition to IFRS has been retained at the previous UK GAAP amounts subject to being tested for impairment at that date. Goodwill written off to reserves under UK GAAP prior to 1998 has not been reinstated and is not included in determining any subsequent profit or loss on disposal.

Revenue recognition

Revenue is measured based on the consideration to which the Group expects to be entitled in a contract with a customer and excludes amounts collected on behalf of third parties. The Group determines whether to recognise revenue, following a five-step process:

- 1. Identifying the contract with a customer;
- 2. Identifying the performance obligations;
- 3. Determining the transaction price;
- 4. Allocating the transaction price to the performance obligations; and
- 5. Recognising revenue when/as performance obligation(s) are satisfied.

Revenue arises from a number of sources but mainly the manufacture and sale of printheads and engineered printing solutions. The Group also licenses intellectual property to third parties as part of royalty based revenue. Revenue is shown net of value-added tax, returns, rebates and discounts and after eliminating sales within the Group.

Revenue from goods and services is recognised in accordance with IFRS 15 when control has been transferred to the customer. For sale of goods and services revenue is recognised at a point in time, unless specific conditions have been satisfied allowing revenue to be recognised over a period of time as identified in the five-step process (above), e.g. where the asset produced doesn't have an alternative use and the Group has an enforceable right to payment for performance completed to date. An input methodology (based on estimated costs) is used when recognising revenue over time. Use has been made of the practical expedient not to recognise a significant financing component where the period between transfer of the good or service and payment is one year or less.

Royalties are recognised on an accruals basis, based on quarterly statements received from each licensee. The royalties arise from the licensee's use of their printheads and our related intellectual property installed in equipment developed by original equipment manufacturers ('OEMs').

A receivable is recognised when the performance obligations are satisfied (e.g. upon shipment, upon delivery as services are rendered or upon completion of service) as this is the point in time that the consideration is unconditional because only the passage of time is required before the payment is due, there will be a reservation of title until payment has been received, but control has been transferred.

Investment income

Investment income is accrued on a time basis, by reference to the principal outstanding and at the effective interest rate applicable, which is the rate that discounts estimated future cash receipts through the expected life of the financial asset to that asset's net carrying amount.

Interest expense

Interest expense on lease liabilities is a component of finance costs which requires to be presented separately in the income statement.

Foreign currencies

The individual financial statements of each Group company are presented in the currency of the primary economic environment in which it operates (its functional currency). For the purpose of the consolidated financial statements, the results and financial position of each Group company are expressed in Sterling, which is the functional currency of the Company and the presentation currency for the consolidated financial statements.

3. Significant accounting policies (cont.)

Foreign currencies (cont.)

Exchange differences arising on the settlement of monetary assets and liabilities, and on the retranslation of monetary assets and liabilities, are included in the income statement for the period.

In order to hedge its exposure to certain foreign exchange risks, the Group may enter into forward contracts (see page 143 for details of the Group's accounting policies in respect of such derivative financial instruments).

Further information can be found on page 143.

For the purposes of presenting consolidated financial statements, the assets and liabilities of the Group's foreign operations are translated at the exchange rates prevailing on the date of the statement of financial position. Income and expense items are translated at the average exchange rates for the period.

Exchange differences arising are recognised in other comprehensive income and taken to the translation reserve. Exchange differences on the translation of net investments are taken to the translation reserve.

When the Group's foreign operations are liquidated or disposed, exchange differences previously recognised through other comprehensive income and the translation reserve will be recycled and recognised through the income statement.

Goodwill and fair value adjustments arising on the acquisition of a foreign entity are treated as assets and liabilities of the foreign entity and translated at the closing rate.

Government and EU grants

Government and EU grants are not recognised until there is reasonable assurance that the Group will comply with the conditions attached to them and that the grant will be received. Government and EU grants relating to research and development are treated as income over the periods necessary to match them with the related costs, or in the case of the Payment Protection Program (PPP) for COVID-19 support provided by the US Government, that it meets the criteria for the loan to be waived and recognised as grant income.

Operating profit/(loss)

Operating profit/(loss) is stated after charging restructuring costs but before investment income and finance costs.

Restructuring costs

Restructuring cost refers to the one-time expenses or infrequent expenses which are incurred by the Company in the process of reorganising its business operations with the motive of the overall improvement of the long-term profitability and working efficiency of the Company.

Retirement benefit costs

Payments to defined contribution retirement benefit schemes are charged as an expense as they fall due. Payments made to state managed retirement benefit schemes are dealt with as payments to defined contribution schemes where the Group's obligations under the schemes are equivalent to those arising in a defined contribution retirement benefit scheme.

Taxation

The tax expense represents the sum of the tax currently payable and deferred tax, including UK corporation tax and foreign tax.

The tax currently payable is based on taxable profit for the year. Taxable profit differs from net profit as reported in the income statement because it excludes items of income or expense that are taxable or deductible in other years and it further excludes items that are never taxable or deductible. The Group's liability for current tax is calculated using tax rates that have been enacted or substantively enacted by the date of the statement of financial position.

Deferred tax is the tax expected to be payable or recoverable on differences between the carrying amounts of assets and liabilities in the financial statements and the corresponding tax bases used in the computation of taxable profit and is accounted for using the statement of financial position liability method. Deferred tax liabilities are generally recognised for all taxable temporary differences and deferred tax assets are recognised to the extent that it is probable that taxable profits will be available against which deductible temporary differences can be utilised. Such assets and liabilities are not recognised if the temporary difference arises from the initial recognition of goodwill or from the initial recognition (other than in a business combination) of other assets and liabilities in a transaction that affects neither the tax profit nor the accounting profit.

Deferred tax liabilities are recognised for taxable temporary differences arising on investments in subsidiaries, except where the Group is able to control the reversal of the temporary difference and it is probable that the temporary difference will not reverse in the foreseeable future.

The carrying amount of deferred tax assets is reviewed at the date of each statement of financial position and reduced to the extent that it is no longer probable that sufficient taxable profits will be available to allow all or part of the asset to be recovered.

Deferred tax is calculated at the enacted or substantively enacted tax rates that are expected to apply in the period when the liability is settled or the asset is realised. Deferred tax is charged or credited in the income statement, except when it relates to items charged or credited directly to equity, in which case the deferred tax is also dealt with in equity.

for the year ended 31 December 2020

3. Significant accounting policies (cont.)

Taxation (cont.)

120

To the extent that the Group receives a tax deduction relating to share-based payment transactions, a deferred tax asset is recognised at the appropriate tax rate on the difference in value between the market price of the underlying equity as at the date of the financial statements and the exercise price of the outstanding share options multiplied by the expired portion of the vesting period. As a result, the deferred tax impact of share options will not be derived directly from the expense reported in the consolidated income statement. Where the deductible difference exceeds the cumulative charge to the consolidated income statement the excess of the associated tax benefit is recorded directly to equity rather than in profit or loss.

Deferred tax assets and liabilities are measured on an undiscounted basis and are offset when there is a legally enforceable right to set off current tax assets against current tax liabilities and when they relate to income taxes levied by the same taxation authority and the Group intends to settle its current tax assets and liabilities on a net basis.

Property, plant and equipment

All property, plant and equipment is shown at original historical cost less accumulated depreciation and any recognised impairment loss.

Assets in the course of construction for production or administrative purposes are carried at cost, less any recognised impairment loss. Depreciation of these assets, on the same basis as other assets in the same class, commences when the assets are ready for their intended use.

Freehold land is not depreciated.

Depreciation is 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, on the following bases:

Leasehold property improvements Shorter of the lease term and 20 years

Plant and machinery Three to 20 years Furniture, fittings and equipment Three to 20 years Buildings Up to 40 years

Assets held under finance leases are depreciated over their expected useful lives on the same basis as owned assets or, where shorter, over the term of the relevant lease.

The gain or loss arising on the disposal of an asset is determined as the difference between the sales proceeds and the carrying amount of the asset and is recognised in income.

Internally generated intangible assets - research and development expenditure

Expenditure on research activities is recognised as an expense in the period in which it is incurred.

In accordance with IAS 38, an internally generated intangible asset arising from the Group's development is recognised only if all of the following conditions are met:

- an asset is created that can be identified (such as software and new processes);
- it is probable that the asset created will generate future economic benefits;
- the development cost of the asset can be measured reliably;
- the project is technically and commercially feasible;
- the Group intends to and has sufficient resources to complete the project; and
- the Group has the ability to use or sell the services and product developed.

Internally generated intangible assets are amortised on a straight-line basis over three to 20 years. Where no internally generated intangible asset can be recognised, development expenditure is recognised as an expense in the period in which it is incurred.

Other intangible assets

Costs incurred in maintaining the patent and trademark portfolio are written off to the income statement as incurred.

Payments in respect of software, and licence rights acquired are capitalised at cost and amortised on a straight-line basis over their estimated useful lives.

Shorter of the licence term and 20 years Licence

Software Three to 15 years

3. Significant accounting policies (cont.)

Impairment of tangible and intangible assets excluding goodwill

At the date of each statement of financial position, the Group reviews the carrying amounts of its tangible and intangible assets to determine whether there is any indication that those assets have suffered an impairment loss. If any such indication exists, the recoverable amount of the asset is estimated in order to determine the extent of the impairment loss (if any). Where the asset does not generate cash flows that are independent from other assets, the Group estimates the recoverable amount of the cash-generating unit to which the asset belongs.

Recoverable amount is the higher of fair value less costs of disposal and value-in-use. In assessing value-in-use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset for which the estimates of future cash flows have not been adjusted.

If the recoverable amount of an asset (or cash-generating unit) is estimated to be less than its carrying amount, the carrying amount of the asset (cash-generating unit) is reduced to its recoverable amount. An impairment loss is recognised as an expense immediately.

Where an impairment loss is subsequently reversed, the carrying amount of the asset (or cash-generating unit) is increased to the revised estimate of its recoverable amount, but so that the increased carrying amount does not exceed the carrying amount that would have been determined had no impairment loss been recognised for the asset (or cash-generating unit) in prior years. A reversal of an impairment loss is recognised as income immediately.

Leases

The Group assesses whether a contract is or contains a lease, at inception of the contract. The Group recognises a right-of-use asset and a corresponding lease liability with respect to all lease arrangements in which it is the lessee, except for short-term leases (defined as leases with a lease term of 12 months or less) and leases of low-value assets. For these leases, the Group recognises the lease payments as an operating expense on a straight-line basis over the term of the lease unless another systematic basis is more representative of the time pattern in which economic benefits from the leased assets are consumed.

The lease liability is initially measured at the present value of the lease payments that are not paid at the commencement date, discounted by using the rate implicit in the lease. If this rate cannot be readily determined, the Group uses its incremental borrowing rate. Generally an incremental borrowing rate approach is applied.

Lease payments included in the measurement of the lease liability comprise:

- fixed lease payments (including in substance fixed payments), less any lease incentives;
- variable lease payments that depend on an index or rate, initially measured using the index or rate at the commencement date;
- the amount expected to be payable by the lessee under residual value guarantees;
- the exercise price of purchase options, if the lessee is reasonably certain to exercise the options;
- payments of penalties for terminating the lease, if the lease term reflects the exercise of an option to terminate the lease.

The lease liability is presented as a separate line in the consolidated statement of financial position.

The lease liability is subsequently measured by increasing the carrying amount to reflect interest on the lease liability (using the effective interest method) and by reducing the carrying amount to reflect the lease payments made.

The Group re-measures the lease liability (and makes a corresponding adjustment to the related right-of-use asset) whenever:

- the lease term has changed or there is a change in the assessment of exercise of a purchase option, in which case the lease liability is re-measured by discounting the revised lease payments using a revised discount rate;
- the lease payments change due to changes in an index or rate or a change in expected payment under a guaranteed residual value, in which cases the lease liability is re-measured by discounting the revised lease payments using the initial discount rate (unless the lease payments change is due to a change in a floating interest rate, in which case a revised discount rate is used);
- a lease contract is modified and the lease modification is not accounted for as a separate lease, in which case the lease liability is remeasured by discounting the revised lease payments using an incremental borrowing rate at the effective date of the modification.

The Group did not make any such adjustments during the periods presented.

The right-of-use assets comprise the initial measurement of the corresponding lease liability, lease payments made at or before the commencement day and any initial direct costs. They are subsequently measured at cost less accumulated depreciation and impairment losses.

Whenever the Group incurs an obligation for costs to dismantle and remove a leased asset, restore the site on which it is located or restore the underlying asset to the condition required by the terms and conditions of the lease, a provision is recognised and measured under IAS 37.

The costs are included in the related right-of-use asset, unless those costs are incurred to produce inventories.

for the year ended 31 December 2020

3. Significant accounting policies (cont.)

Leases (cont.)

122

Right-of-use assets are depreciated over the shorter period of lease term and useful life of the underlying asset. If a lease transfers ownership of the underlying asset or the cost of the right-of-use asset reflects that the Group expects to exercise a purchase option, the related right-of use asset is depreciated over the useful life of the underlying asset. The depreciation starts at the commencement date of the lease. The Group does not have any leases that transfer ownership of the underlying asset. The Group does not have any leases with a purchase option where there is a reasonable expectation that the option will be exercised.

For short-term leases (lease term of 12 months or less) and leases of low-value assets (such as personal computers and office furniture), the Group has opted to recognise a lease expense on a straight-line basis as permitted by IFRS 16. This expense is presented within the consolidated income statement.

Inventories

Inventories are stated at the lower of cost and net realisable value. Cost is calculated using the first in, first out ('FIFO') cost formula, by applying the standard cost methodology, with costs including direct materials, direct labour costs and an attributable proportion of manufacturing overheads based on normal levels of activity that have been incurred in bringing the inventories to their present location and condition. Net realisable value represents the estimated selling price less all estimated costs of completion and costs to be incurred in marketing, selling and distribution. Provision is made for obsolete, slow-moving or defective items where applicable.

Financial instruments

Financial assets and financial liabilities are recognised in the Group's statement of financial position when the Group becomes a party to the contractual provisions of the instrument.

Financial assets and financial liabilities are initially measured at fair value. Transaction costs that are directly attributable to the acquisition or issue of financial assets and financial liabilities are added to or deducted from the fair value of the financial assets or financial liabilities, as appropriate, on initial recognition. Transaction costs directly attributable to the acquisition of financial assets or financial liabilities at fair value through profit or loss are recognised immediately in profit or loss.

Financial assets

All regular way purchases or sales of financial assets are recognised and derecognised on a trade date basis. Regular way purchases or sales are purchases or sales of financial assets that require delivery of assets within the time frame established by regulation or convention in the marketplace.

All recognised financial assets are measured subsequently in their entirety at either amortised cost or fair value, depending on the classification of the financial assets.

In order for a financial asset to be classified and measured at amortised cost or fair value through OCI, it needs to give rise to cash flows that are 'solely payments of principal and interest ('SPPI')' on the principal amount outstanding. This assessment is referred to as the SPPI test and is performed at an instrument level. Financial assets with cash flows that are not SPPI are classified and measured at fair value through profit or loss, irrespective of the business model.

Effective interest method

The effective interest method is a method of calculating the amortised cost of a debt instrument and of allocating interest income over the relevant period. The effective interest rate is the rate that exactly discounts estimated future cash receipts through the life of the debt instrument, or, where appropriate, a shorter period, to the net carrying amount on initial recognition.

Impairment of financial assets

The Group recognises an allowance for expected credit losses ('ECLs') for all debt instruments not held at fair value through profit or loss. ECLs are based on the difference between the contractual cash flows due in accordance with the contract and all the cash flows that the Group expects to receive, discounted at an approximation of the original effective interest rate. The expected cash flows will include cash flows from the sale of collateral held or other credit enhancements that are integral to the contractual terms.

ECLs are recognised in two stages. For credit exposures for which there has not been a significant increase in credit risk since initial recognition. ECLs are provided for credit losses that result from default events that are possible within the next 12 months (a 12-month ECL). For those credit exposures for which there has been a significant increase in credit risk since initial recognition, a loss allowance is required for credit losses expected over the remaining life of the exposure, irrespective of the timing of the default (a lifetime ECL). Trade receivables are recognised using a lifetime ECL approach.

For financial assets carried at amortised cost, the amount of the impairment is the differences between the asset's carrying amount and the present value of the estimated future cash flows, discounted at the financial asset's original effective interest rate.

Derecognition of financial assets

The Group derecognises a financial asset only when the contractual rights to the cash flows from the asset expire, or when it transfers the financial asset and substantially all the risks and rewards of ownership of the asset to another entity. If the Group neither transfers nor retains substantially all the risks and rewards of ownership and continues to control the transferred asset, the Group recognises its retained interest in the asset and an associated liability for amounts it may have to pay. If the Group retains substantially all the risks and rewards of ownership of a transferred financial asset, the Group continues to recognise the financial asset and also recognises a collateralised borrowing for the proceeds received.

3. Significant accounting policies (cont.)

Derecognition of financial assets (cont.)

On derecognition of a financial asset, the difference between the asset's carrying amount and the sum of the consideration received and receivable and the cumulative gain or loss that had been recognised in other comprehensive income and accumulated in equity is recognised in profit or loss.

Financial liabilities and equity

Debt and equity instruments are classified as either financial liabilities or as equity in accordance with the substance of the contractual arrangement.

Financial liabilities

All financial liabilities are measured subsequently at amortised cost using the effective interest method or at fair value through profit or loss (FVTPL).

However, financial liabilities that arise when a transfer of a financial asset does not qualify for derecognition or when the continuing involvement approach applies, and financial guarantee contracts issued by the Group, are measured in accordance with the specific accounting policies set out below:

Financial liabilities are classified at FVTPL when the financial liability is (i) contingent consideration of an acquirer in a business combination, (ii) held for trading or (iii) it is designated as at FVTPL.

Financial liabilities at FVTPL are measured at fair value, with any gains or losses arising on changes in fair value recognised in profit or loss to the extent that they are not part of a designated hedging relationship. The net gain or loss recognised in profit or loss incorporates any interest paid on the financial liability and is included within 'other gains and losses' in profit or loss.

The effective interest method is a method of calculating the amortised cost of a financial liability and of allocating interest expense over the relevant period. The effective interest rate is the rate that exactly discounts estimated future cash payments (including all fees and points paid or received that form an integral part of the effective interest rate, transaction costs and other premiums or discounts) through the expected life of the financial liability, or (where appropriate) a shorter period, to the amortised cost of a financial liability.

Derecognition of financial liabilities

The Group derecognises financial liabilities when, and only when, the Group's obligations are discharged, cancelled or have expired. The difference between the carrying amount of the financial liability derecognised and the consideration paid and payable is recognised in profit and loss.

Derivative financial instruments

The Group's activities expose it primarily to the financial risks of changes in foreign currency exchange rates and interest rates and liquidity

The Group uses derivative financial instruments (primarily foreign currency forward contracts) to hedge its risks associated with foreign currency fluctuations relating to certain firm commitments and forecast transactions.

Derivatives are recognised initially at fair value at the date a derivative contract is entered into and are subsequently remeasured to their fair value at each reporting date. The resulting gain or loss is recognised in profit or loss immediately unless the derivative is designated and effective as a hedging instrument, in which event the timing of the recognition in profit or loss depends on the nature of the hedge relationship.

The written call option that Xaar 3D Holdings granted Stratasys to acquire its remaining 55% shareholding in Xaar 3D in 2019 is a financial liability measured subsequently at fair value at Level 3 fair value measurement. The valuation technique used is the Black-Scholes model. Further detail is included in note 22 - Financial instruments.

A derivative with a positive fair value is recognised as a financial asset whereas a derivative with a negative fair value is recognised as a financial liability. Derivatives are not offset in the financial statements unless the Group has both legal right and intention to offset.

A derivative is presented as a non-current asset or a non-current liability if the remaining maturity of the instrument is more than 12 months and it is not expected to be realised or settled within 12 months. Other derivatives are presented as current assets or current liabilities.

Embedded derivatives

An embedded derivative is a component of a hybrid contract that also includes a non-derivative host with the effect that some of the cash flows of the combined instrument vary in a way similar to a stand-alone derivative.

Derivatives embedded in hybrid contracts with a financial asset host within the scope of IFRS 9 are not separated. The entire hybrid contract is classified and subsequently measured as either amortised cost or fair value as appropriate.

Derivatives embedded in hybrid contracts with hosts that are not financial assets within the scope of IFRS 9 (e.g. financial liabilities) are treated as separate derivatives when they meet the definition of a derivative, their risks and characteristics are not closely related to those of the host contracts and the host contracts are not measured at FVTPL.

If the hybrid contract is a quoted financial liability, instead of separating the embedded derivative, the Group generally designates the whole hybrid contract at FVTPL.

for the year ended 31 December 2020

3. Significant accounting policies (cont.)

Embedded derivatives (cont.)

An embedded derivative is presented as a non-current asset or non-current liability if the remaining maturity of the hybrid instrument to which the embedded derivative relates is more than 12 months and is not expected to be realised or settled within 12 months.

Cash and cash equivalents

Cash and cash equivalents comprise cash on hand and demand deposits and other short-term highly liquid investments that are readily convertible to a known amount of cash with a maturity of three months or less and are subject to an insignificant risk of changes in value.

Treasury deposits

Treasury deposits comprise demand deposits that are convertible to a known amount of cash with an original maturity of between three months and 12 months and are subject to an insignificant risk of changes in value.

Interest-bearing loans and borrowings

Interest-bearing loans and bank overdrafts are measured initially at fair value, net of direct issue costs. Finance charges, including premiums payable on settlement or redemption and direct issue costs, are accounted for on an accrual basis in the income statement using the effective interest rate method and are added to the carrying amount of the instrument to the extent that they are not settled in the period in which they arise.

Equity instruments

Equity instruments issued by the Company are recorded as the proceeds received, net of direct issue costs.

Provisions

Provisions are recognised when the Group has a present obligation as a result of a past event and it is probable that the Group will be required to settle that obligation. Provisions are measured at the Directors' best estimate of the expenditure required to settle the obligation at the date of the statement of financial position and are discounted where the effect of the time value of money is material.

A restructuring provision is recognised when the Group has developed a detailed formal plan for the restructuring and has raised a valid expectation in those affected that it will carry out the restructuring by starting to implement the plan or announcing its main features to those affected by it, and the plan has reached a stage where the decision is unlikely to be reversed. The measurement of a restructuring provision includes only the direct expenditures arising from the restructuring, which are those amounts that are both necessarily entailed by the restructuring and not associated with the ongoing activities of the entity.

Provisions for the expected cost of warranty obligations under contracts with customers and local sale of goods legislation are recognised in the month of sale of the relevant products, at the Directors' best estimate of the expenditure required to settle the Group's obligation.

Share-based payments

The Group has applied the requirements of IFRS 2 'Share-based Payment'. The Group issues equity-settled share-based payments to certain employees. These payments are measured at fair value (excluding the effect of non-market based vesting conditions) at the date of grant. The fair value determined at the grant date of the equity-settled share-based payments is expensed on a straight-line basis over the vesting period, based on the Group's estimate of the shares that will eventually vest based on the satisfaction of non-market based vesting and service conditions.

The fair value of options issued under the Group's Long-Term Incentive Plan is measured using a stochastic (Monte Carlo binomial) model for grants made with market based vesting conditions since 2007. The fair value of all other equity-settled share-based payments is measured using the Black-Scholes pricing model. The expected life used in these models has been adjusted, based on management's best estimate, for the effects of non-transferability, exercise restrictions and behavioural considerations.

SAYE share options granted to employees are treated as cancelled when employees cease to contribute to the scheme. This results in accelerated recognition of the expenses that would have arisen over the remainder of the original vesting period.

3. Significant accounting policies (cont.)

Own shares

Own shares are deducted from equity. No gain or loss is recognised in the income statement on the purchase, sale, issue or cancellation of the Group's own shares.

Non-controlling interests

The transactions with non-controlling interests are accounted for as equity transactions. For purchases of non-controlling interests, the difference between any consideration paid and the relevant share acquired of the carrying value of the net assets of the subsidiary is deducted from equity. Gains or losses on disposals to non-controlling interests are also recorded in equity.

Non-current assets (or disposal groups) held for sale

Non-current assets (or disposal groups) are classified as held for sale if their carrying amount will be recovered principally through a sale transaction rather than through continuing use and a sale is considered highly probable. They are measured at the lower of their carrying amount and fair value less costs to sell, except for assets such as deferred tax assets, assets arising from employee benefits, financial assets and investment property that are carried at fair value and contractual rights under insurance contracts, which are specifically exempt from this requirement.

An impairment loss is recognised for any initial or subsequent write-down of the asset (or disposal group) to fair value less costs to sell. A gain is recognised for any subsequent increases in fair value less costs to sell of an asset (or disposal group), but not in excess of any cumulative impairment loss previously recognised. A gain or loss not previously recognised by the date of the sale of the non-current asset (or disposal group) is recognised at the date of derecognition.

Non-current assets (including those that are part of a disposal group) are not depreciated or amortised while they are classified as held for sale. Interest and other expenses attributable to the liabilities of a disposal group classified as held for sale continue to be recognised.

Non-current assets classified as held for sale and the assets of a disposal group classified as held for sale are presented separately from the other assets in the balance sheet. The liabilities of a disposal group classified as held for sale are presented separately from other liabilities in the balance sheet.

Discontinued operations

A discontinued operation is a component of the Group that has been disposed of and that represents a separate major line of business and is part of a single co-ordinated plan to dispose of such a line of business. The results of discontinued operations are presented separately in the income statement and are shown net of tax.

Where an operation is classified as discontinued, the post-tax results of that operation will be presented as a single line item on the face of the income statement and the cash flows from the discontinued operations will be split between continuing and discontinued operations on the face of the cash flow statement. Comparatives are restated to distinguish between continuing and discontinued operations.

New standards and interpretations not yet adopted

Certain new accounting standards and interpretations have been published that are not mandatory for 31 December 2020 reporting periods and have not been early adopted by the Group. These standards do not have a material impact on the entity in the current or future reporting periods and on foreseeable future transactions.

Other standards

The following new standards, amended standards and interpretations became effective as at 1 January 2020 but did not have a significant impact on the Group's financial statements.

Amendments to IAS 1 and IAS 8 – Definition of material Amendments to IFRS 3 – Definition of a Business Amendments to IFRS 7, IFRS 9 and IAS 39 – Interest Rate Benchmark Reform Revised Conceptual Framework for Financial Reporting

for the year ended 31 December 2020

4. Reconciliation of adjusted financial measures

Note	2020 €'000	Restated 2019 £'000
Loss before tax from continuing operations	(4,322)	(10,937)
Share-based payment charges 9	348	910
Exchange differences on intra-group transactions	347	499
(Gain) / Loss on derivative financial liabilities 22, 36	(77)	87
Restructuring costs	754	1,519
Other operating income 7	(819)	-
Research and development expenditure credit	(142)	(29)
Adjusted loss before tax from continuing operations	(3,911)	(7,952)
Interest income 10	(47)	(65)
Interest charge arising from IFRS 16	82	97
Depreciation of property, plant and equipment 17, 18	3,856	2,970
Amortisation of intangible assets	82	93
Adjusted EBITDA from continuing operations	62	(4,857)

EBITDA is calculated as statutory operating profit before depreciation, amortisation and impairment of property, plant and equipment, intangible assets and goodwill. Adjusted EBITDA is calculated as EBITDA excluding other adjusting items as defined.

Adjusted financial measures are alternative performance measures, which adjust for recurring and non-recurring items that management consider to have a distorting effect on the underlying results of the Group.

Share-based payment charges include the IFRS 2 charge for the period of £242,000 (2019: £1,109,000) and the debit relating to National Insurance on the outstanding potential share option gains of £106,000 (2019: credit £199,000). These costs were included in the general and administrative expenses in the consolidated income statement and exclude the Xaar 3D charge of £5,000 (2019: 2,000).

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

Gain/loss on derivative financial instruments relate to gains and losses made on call option contracts. These amounts are included on the consolidated income statement under (Gain)/loss on derivative financial liabilities.

Restructuring costs of £754,000 (2019: £1,519,000) relate to costs incurred and provisions made in relation to reorganisation. In the prior year, it relates mainly to the 2019 redundancy programme. The calculated impact of the restructuring at corporation tax rate of 19% would be £143,000 (2019: £289,000). The cash related to restructuring is £518,000 (2019: £896,000).

Other operating income of £819,000 (2019: £nil) relates to a forgivable \$1 million loan between Engineered Print Solutions (EPS) and TD bank and is backed by the US Federal Government (Small Business Administration); further details are provided under note 7. The loan was taken out as part of the government backed scheme. The Company considers that it has met the requirements of the waiver, and therefore expects it to be waived the loan has therefore been treated as a government grant under IAS 20. A cash receipt of the same amount was received.

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. Cash receipts of £1,460,000 (2019: £1,587,334) were received in relation to 2018 and 2019 RDEC claims submitted.

	Note	2020 Pence per share	2019 Restated Pence per share
Basis and Diluted earnings (loss) per share from continuing operations	14	(5.7p)	(18.7p)
Share-based payment charges		0.5p	1.2p
Exchange differences on intra-group transactions		0.5p	0.6p
(Gain) / Loss on derivative financial asset		(0.1p)	0.1p
Restructuring costs		1.0p	2.0p
Other operating income		(1.1p)	-
Tax effect of adjusting items		(0.3p)	(0.3p)
Basic and Adjusted diluted earnings (loss) per share from continuing operations	14	(5.2p)	(15.1p)

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

5. Revenue

The Group derives its revenue from contracts with customers for the transfer of goods and services over time and at a point in time in the following major segments. This is consistent with the revenue information that is disclosed for each reportable segment under IFRS 8 Operating Segments in note 6.

Continuing operations	2020 £'000	2019 £'000
Printhead Product Print Systems	35,283 12,701	33,681 15,698
	47,984	49,379

Product Print Systems has contracts with customers where the performance obligations are partially unsatisfied at 31 December 2020. The transaction price allocated to partially satisfied and unsatisfied performance obligations at 31 December 2020 are as set out below. The transaction price allocated to partially satisfied performance obligations have been recognised in the year while the transaction price allocated to partially unsatisfied performance obligations has not been recognised.

Continuing operations	2020 £'000	2019 €'000
Transaction price allocated to partially satisfied performance obligations Transaction price allocated to partially unsatisfied performance obligations	950 956	647 754
Total transaction price for partially completed contracts	1,906	1,401

Management expects that 100% of the transaction price allocated to the unsatisfied contracts as at 31 December 2020 totalling £956,000 will be recognised during the 2021 financial year (2019: £754,000 recognised in 2020).

6. Business and geographical segments

For management reporting purposes, the Group's operations are analysed according to the three operating segments of 'Printhead', 'Product Print Systems', and '3D Printing'. These three 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. Each business unit is run independently of the others and headed by a general manager. The Group's chief operating decision maker is the Chief Executive Officer. There is no aggregation of segments for disclosure purposes.

The Xaar 3D business which we expect to divest in the first half of 2021 has been reclassified as held for sale and discontinued operations, hence the 3D Printing is presented separately in note 11 and the 2019 comparatives has been restated accordingly.

Segment information for continuing operations is presented below:

Year ended 31 December 2020	Printhead £'000	Product Print Systems £'000	Unallocated £'000	Consolidated £'000
Revenue				
Total segment revenue	35,283	12,701	-	47,984
Result				
Adjusted loss from continuing operations before tax	(3,431)	(480)	-	(3,911)
Share-based payment charges	-	-	(348)	(348)
Exchange differences relating to intra-group transactions	(347)	-	-	(347)
Restructuring	(754)	_	_	(754)
Gain on financial instrument	77	_	_	77
Research and development expenditure credit	142	-	_	142
Other operating income	-	819	-	819
Profit / (loss) before tax from continuing operations	(4,313)	339	(348)	(4,322)

Share-based payment charges include the IFRS 2 charge for the period and the charge or credit relating to National Insurance on the outstanding potential share options, excluding the charge attributable to Xaar 3D as discontinued operations £5,000 (2019: £2,000).

for the year ended 31 December 2020

6. Business and geographical segments (cont.)

Year ended 31 December 2019	Product Print Printhead December 2019 £'000 £'000		Unallocated £'000	Restated Consolidated £'000	
Revenue					
Total segment revenue	33,681	3,681 15,698 -		49,379	
Result					
Adjusted loss from continuing operations before tax	(8,019) 67 – – – (910)		_	(7,952)	
Share-based payment charges	_	_	(910)	(910)	
Exchange differences relating to intra-group transactions	(499)	_	_	(499)	
Restructuring	(1,574)	55	-	(1,519)	
Loss on financial instrument	(87)	_	_	(87)	
Research and development expenditure credit	29	_	_	29	
Profit / (Loss) before tax from continuing operations	(10,150)	122	(910)	(10,938)	
Segment assets – Continuing operations					
			2020 £'000	2019 £'000	
Printhead			48,816	58,118	
Product Print Systems			14,487	14,776	
Total assets			63,303	72,894	

 $\label{prop:section} \mbox{Assets are allocated to the segment which has responsibility for their control.}$

No information is provided for segment liabilities as this measure is not provided to the chief operating decision maker.

Other segment information – Continuing operations

		Printhead	Product Print Systems	Unallocated	Consolidated
Year ended 31 December 2020	Notes	£'000	£'000	£'000	£'000
Depreciation and amortisation	16, 17, 18	4,302	367	-	4,669
Impairment of PPE		158	115	-	273
Share-based payment charges	9	-	-	348	348
Capital expenditure	16, 17, 18	957	574	-	1,531

Year ended 31 December 2019	Notes	Printhead £'000	Product Print Systems £'000	Unallocated £'000	Consolidated £'000
Depreciation and amortisation	16, 17, 18	3,701	386	-	4,087
Impairment of PPE		_	_	_	-
Share-based payment charges	9	_	_	910	910
Capital expenditure	16, 17, 18	2,091	198	-	2,289

Payanua from external customers

Non-current assets

6. Business and geographical segments (cont.)

Revenues from major products and services – Continuing operations

	2020 €'000	Restated 2019 £'000
Printhead Product Print Systems	35,283 12,701	33,681 15,698
Consolidated revenue (excluding investment income)	47,984	49,379

Geographical information

The Group operates in three principal geographical areas: EMEA, the Americas and Asia. The Group's revenue from external customers and information about its segments (non-current assets excluding deferred tax assets and other financial assets) by geographical location is detailed below:

		Continuing operations		
	2020 £'000	2019 €'000		
EMEA	18,113	18,473		
Asia				
- China	7,936	5,101		
– Japan	1,235	1,338		
- Other	420	530		
The Americas (including USA)	20,280	23,937		
	47,984	49,379		

Revenues are attributed to geographical areas on the basis of the customer's operating location.

		ton-current assets
	2020 £'000	2019 €'000
EMEA	16,755	27,266
Asia	38	6
The Americas (including USA)	7,791	8,073
	24,584	35,345

Non-current assets, being Goodwill, Other intangible assets, Property, plant and equipment and Right of use assets are attributed to the location where they are situated.

Information about major customers

There are no customers whose revenue exceeds 10% of total revenues from continuing operations during the current and preceding year. No other single customer contributed 10% or more to the Group's revenue in either 2020 or 2019.

Revenue from the top five customers represents 26% of revenues (2019: 23%).

for the year ended 31 December 2020

7. Government grants

The accounting policy in relation to the adopted and applicable treatment of government grants is disclosed in note 3, in accordance with IAS 20 Accounting for Government Grants and Disclosure of Government Assistance.

Xaar plc and its UK based subsidiaries have decided not to take part in any of the Government support schemes arising from the COVID-19 crisis.

- No employees have been placed on furlough and no claims made via the Coronavirus Job Retention Scheme (CJRS)
- No submissions have been made for financial support via either the Coronavirus Business Interruption Loan Scheme (CBILS) or Bounce Back Loan Scheme (BBLS)
- The UK entities operate primarily under a VAT repayment position due to the significant level of export sales, so do not utilise the government scheme in deferring VAT payments
- Xaar 3D Aps based in Denmark has also not taken part in any government support measures in response to COVID-19
- No submission has been made for salary compensation, which could arise due to employees that could otherwise have been fired. No employees have left the business
- Xaar 3D Aps operates in a repayment position for Danish VAT, and like the UK has not utilised the extension available for repayments.

A Xaar group company based in the USA, Engineered Print Solutions (EPS), has taken part in the US Government Loan scheme which has provided a \$1 million Loan (£819k), which under certain provisions linked to maintaining employment and avoiding redundancy can be waived. The company considers that it has met the requirements of the waiver, and therefore expects it to be waived, the Loan has therefore been treated as a government grant. The Group has presented this amount as exceptional income in the consolidated income statement. Government support grants are recognised in the consolidated income statement on a systematic basis over the periods in which the related revenue or expense for which the grants are intended to compensate. Further details are provided under note 4.

8. Loss for the year

Loss for continuing operations in the year has been arrived at after charging/(crediting):

	2020 €'000	Restated 2019 £'000
Research and development expenses (net of capitalised development costs)*	4,535	3,081
Grants towards research and development including the research and development expenditure credit	(142)	(29)
Depreciation of property, plant and equipment	3,400	2,946
Depreciation of right of use asset	1,107	962
Amortisation of capitalised development costs (included in research and development expenses)	82	94
Amortisation of software (included in general and administrative expenses)	81	85
Amortisation of licence (included in general and administrative expenses)	_	_
Loss/(profit) on disposal of property, plant and equipment	99	(18)
Cost of inventories recognised as expense	31,467	34,392
Impairment of other financial assets	946	2,715
Total fees payable to the Company's auditor and its associates	402	213

^{*} Total spend on research and development in 2020, before capitalised and amortised development costs included in note 16, was £4,535,000 [2019: £3,081,000].

Grant income includes £142,000 (2019: £29,000) in respect of the research and development expenditure credit.

Auditor's remuneration

	2020 £'000	2019 £'000
Fees payable to the Company's auditor for the audit of the Company's annual accounts	20	20
Fees payable to the Company's auditor and its associates for other services to the Group		
- The audit of the Company's subsidiaries	272	163
- Prior year overrun	70	_
Total audit fees	362	183
- Interim review	40	30
Total non-audit fees	40	30
Total fees payable for the continuing operations	402	213
Total fees payable for the discontinued operations	38	12
Total fees payable to the Company's auditors and its associates	440	225

8. Loss for the year (cont.)

The Audit Committee has considered the independence of the auditor in relation to non-audit services throughout the year. A description of the work of the Audit Committee is set out in the Corporate Governance statement on pages 72 to 75 and includes an explanation of how auditor's objectivity and independence is safeguarded when non-audit services are provided by the auditor.

9. Staff costs

The average monthly number of persons employed by the Group including Executive Directors was as follows:

	2020 Number	2019 Number
Research and development	78	77
Sales and marketing	47	53
Manufacturing and engineering	193	247
Administration	47	60
	365	437
Their aggregate remuneration comprised:		
Notes	£'000	2019 €'000
Wages and salaries	18,784	21,518
Social security costs	1,752	2,035
Pension costs 33	740	951
Share-based payments	353	912
	21,629	25,416

Share-based payment charges comprise the IFRS 2 charge for the period £246,000 [2019: £1,111,000] and a charge relating to National Insurance on the outstanding potential share option gains £107,000 [2019: £199,000 credit), of which a charge of £5,000 [2019:£2,000] relates to discontinued operations in Xaar 3D.

10. Investment income

	Group	€,000	2020	Group	€,000	Restated 2019
	£'000	3D	Total £'000	£'000	3D	Total £'000
Interest receivable on cash and bank balances, and treasury deposits	47	24	72	65	38	103

Group interest accrued receivable of £8,000 at year end (2019: £nil), Cash interest received at year end was £64,000 (2019: £103,000).

11. Discontinued operations

On 26 September 2019, Xaar announced the cessation of all Thin Film activities. This resulted in an impairment charge of £39,000,000 in the interim 2019 financial statements which is made up of £28,500,000 of intangible assets, £5,400,000 of property, plant and equipment and £5,100,000 of working capital.

The Thin Film business which was discontinued in 2019 incurred costs in 2020 which mainly related to supplier liabilities and inventory for last time buy sales. All liabilities have now been settled and we maintain a small level of inventory which we expect to sell in the first half of 2021. Of the total Group net assets, £271,000 is related to Thin Film which is not included in net assets held for sale.

As detailed in the strategic and financial update the Xaar 3D business which we plan to divest in the first half of 2021 has been reclassified as held for sale and a discontinued operation given the disposal has been assessed as highly probable.

The results of Thin Film and 3D related activities for the year are shown below:

	Thin Film 2020 £'000	3D 2020 €'000	Total 2020 €'000	Thin Film 2019 £'000	3D 2019 €'000	Restated Total 2019 £'000
Revenue	258	734	992	1,586	18	1,604
Expenses	(3,922)	(7,175)	(11,097)	(61,587)	(1,228)	(62,815)
Loss before income tax	(3,664)	(6,441)	(10,105)	(60,001)	(1,210)	(61,211)
Income tax credit	-	(190)	(190)	3,918	(4)	3,914
Loss after income tax from discontinued operation	(3,664)	(6,631)	(10,295)	(56,083)	(1,214)	(57,297)

for the year ended 31 December 2020

11. Discontinued operations (cont.)

	Thin Film 2020 £'000	3D 2020 €'000	Total 2020 £'000	Thin Film 2019 £'000	3D 2019 €'000	Restated Total 2019 £'000
Attributable to: Owners of the Company Non-controlling interest	(3,664)	(3,647) (2,984)	(7,311) (2,984)	(56,083) -	(791) (423)	(56,874) (423)
	(3,664)	(6,631)	(10,295)	(56,083)	(1,214)	(57,297)

The major classes of assets and liabilities of 3D classified as held for sale as at 31 December 2020 are as follows:

	2020 £'000
Assets	
Property, plant and equipment	1,041
Intangible assets	4,649
Deferred tax asset	68
Right of use asset	440
Inventory	919
Debtors	737
Cash and cash equivalents	2,120
Assets held for sale	9,974
Liabilities	
Creditors	(1,115)
Corporate income tax	(6)
Provisions (Warranty & Restructuring)	(11)
IFRS 16 lease liability	(463)
Liabilities associated with the assets held for sale	(1,595)
Net assets associated with disposal group	8,379

The net cash flows incurred by Thin Film and 3D are as follows.

	Thin Film 2020 £'000	3D 2020 €'000	Total 2020 €'000	Thin Film 2019 €'000	3D 2019 €'000	Restated Total 2019 £'000
Net cash outflow from operating activities Net cash outflow from investing activities Net cash inflow/(outflow) from financing activities	(5,058) (25) -	(6,213) (645) (160)	(11,271) (670) (160)	(17,647) (321) -	(2,434) (2,299) 5,511	(20,081) (2,620) 5,511
Net decrease in cash generated from discontinued operations	(5,083)	(7,018)	(12,101)	(17,968)	778	(17,190)

	2020 Pence per share	2019 Restated Pence per share
Earnings (loss) per share		
Basic, loss for the year from discontinued operations	(9.5p)	(73.8p)
Diluted, loss for the year from discontinued operations	(9.5p)	(73.8p)

12. Tax

Total tax calculation:

Notes Notes	2020 £'000	2019 Restated £'000
Current tax – UK Current tax – overseas	159 125	153 113
Amounts under provided in previous years	284 41	266 281
Total current income tax charge	325	547
Deferred tax – origination and reversal Adjustment in respect of prior years	(18) (64)	(1,054) 90
Total deferred tax credit 23	(82)	(964)
Total tax expense / (credit) for the year	242	(417)

The rate of tax for the year, based on the UK standard rate of corporation tax, is 19% (2019: 19%). Taxation for other jurisdictions is calculated at the rates prevailing in the respective jurisdictions.

The Finance Act 2020, which was substantively enacted on 22 July 2020, did not amend the main rate of UK corporation tax, and this remains at 19%. As deferred tax assets and liabilities are measured at the rates that are expected to apply in the periods of the reversal, deferred tax balances at 31 December 2020 have been calculated at the rate at which the relevant balance is expected to be recovered or settled

Following the UK Budget on 2 March 2021, the government has announced that the main rate of corporation tax will remain unchanged until 2023. The impacts of this budget have not been reflected in these financial statements, as they were not substantively enacted at the year end.

The note to the cash flow statement (note 31) shows repayments of tax for £1,466,000 during the year (2019: £3,392,000).

The closing deferred tax liability at 31 December 2019 has been calculated at 19% reflecting the tax rate at which the deferred tax liability is expected to be reversed in future periods. Details on deferred tax assets are disclosed in note 23.

In addition to the amount charged to the income statement and other comprehensive income, the following amounts relating to tax have been recognised directly in equity:

Notes Notes	2020 £'000	2019 £'000
Current tax		
Foreign exchange movement	-	13
	-	13
Deferred tax		
Arising on transactions with equity participants:		
Foreign exchange movement	4	4
	4	4
Total income tax recognised directly in equity	4	17

for the year ended 31 December 2020

12. Tax (cont.)

The charge for the year can be reconciled to the profit per the income statement as follows:

	Notes	2020 €'000	Restated 2019 £'000
(Loss) / profit before tax from continuing activities		(4,322)	(10,937)
Loss before tax from discontinuing activities		(10,105)	(61,211)
Loss before income tax Tax on ordinary activities at standard UK rate of 19% (2019: 19.00%) Effect of:		(14,427) (2,741)	(72,148) (13,708)
Expenses not deductible for tax purposes (Non-taxable) income Effect of different tax rates of subsidiaries operating overseas Effect of change in UK corporation tax rate on deferred tax		883 (171) (15) 7	606 - 43 65
Current year losses not recognised Derecognition of previously recognised deferred tax balances Prior year adjustments		2,303 - (24)	8,364 3,842 371
Total tax expense / (credit) for the year		242	(417)
Income tax expense / (credit) reported in the statement of profit and loss	36	52	3,497
Income tax expense / (credit) attributable to discontinued operations		190	(3,914)
		242	[417]

The expenses not deductible for tax purposes include depreciation on non-qualifying assets, share-based payments, the cessation of operations in Sweden, certain RDEC adjustments and restructuring costs.

The effective tax rate for the year is -1.7% (2019: 0.6%).

13. Dividends

No interim or final dividend was proposed or paid for the year ended 31 December 2020 (31 December 2019: Nil).

14. Earnings per share - basic and diluted

The calculation of basic and diluted earnings per share is based on the following data:

The calculation of basic and diluted earnings per share is based on the following data:	2020 £'000	2019 Restated £'000
Earnings		
Earnings for the purposes of basic earnings per share being net (Loss) attributable to equity holders of the parent	(11,685)	(71,308)
from continuing operations	(4,374)	(14,434)
from discontinued operations	(7,311)	(56,874)
Number of shares Weighted average number of ordinary shares for the purposes of basic earnings per share Effect of dilutive potential ordinary shares: Share options	77,103,593	77,116,331 -
Weighted average number of ordinary shares for the purposes of diluted earnings per share	77,103,593	77,116,331
	2020 Pence per share	2019 Restated Pence per share
Basic Diluted	(15.2p) (15.2p)	(92.5p) (92.5p)
Continuing operations: Basic Diluted	(5.7p) (5.7p)	(18.7p) (18.7p)
Discontinued operations: Basic Diluted	(9.5p) (9.5p)	(73.8p) (73.8p)

Potential ordinary shares are treated as dilutive if their conversion to ordinary shares would decrease earnings per share or increase loss per share. Therefore in 2020 and 2019, the diluted earnings per share is not impacted by the effect of dilutive potential ordinary shares.

The weighted average number of ordinary shares for the purposes of basic earnings per share is calculated after the exclusion of ordinary shares in Xaar plc held by Xaar Trustee Ltd, the Xaar plc ESOP Trust and the matching shares held in trust for the Share Incentive Plan.

For 2020, there were share options granted over 310,100 shares that would not have been included in the diluted earnings per share calculation because they were anti-dilutive at the period end (2019: 978,915 shares that would not have been included).

The performance conditions for LTIP awards over 510,482 shares (2019: 1,733,172 shares) have not been met in the current financial period or are not expected to be met in future financial periods, and therefore the dilutive effect of those shares has not been included in the diluted earnings per share calculation.

for the year ended 31 December 2020

14. Earnings per share - basic and diluted (cont.)

Adjusted earnings per share

This adjusted earnings per share information is considered to provide a fairer representation of the Group's trading performance year on year, as it removes items which, in the Board's opinion, do not reflect the underlying performance of the Group and is a measure used in establishing remuneration.

The calculation of adjusted EPS excluding share-based payment charges, exchange differences relating to intra-group transactions, other operating income and restructuring expenses, is based on the loss on continuing operations of:

	2020 £'000	2019 Restated £'000
Earnings / (loss) on continuing operations for the purposes of basic earnings per share being Net profit / (loss) attributable to equity holders of the parent	(4,374)	[14,434]
Share-based payment charges	348	910
Exchange differences relating to intra-group transactions	347	499
[Gain] / loss on derivative financial assets	(77)	87
Restructuring costs	754	1,519
Other operating income	(819)	-
Tax effect of adjusting items	(217)	(214)
Adjusted (loss) / profit after tax – continuing operations	(4,038)	(11,633)

Tax effect of adjusting items is calculated at current corporation tax rate (19%) less any disallowed tax items.

The denominators used are the same as those detailed above for both basic and diluted earnings per share.

Adjusted earnings per share on continuing operations is earnings per share excluding the items adjusted for as detailed above:

	2020 Pence per share	2019 Restated Pence per share
Adjusted basic Adjusted diluted	(5.2p) (5.2p)	(15.1p) (15.1p)

Adjusted EPS on continuing operations is considered to provide a fairer representation of the Group's trading performance year on year.

15. Goodwill

The carrying amount of goodwill at 31 December 2020 was £5,152,000 (2019: £5,333,000).

Goodwill acquired in a business combination is allocated, at acquisition, to the cash-generating units (CGUs) that are expected to benefit from that business combination. Goodwill arose from the acquisition of Engineered Print Solutions (EPS) in July 2016.

	2020 £'000	2019 £'000
Product Print Systems (a single CGU)		
Balance at the beginning of the year	5,333	5,522
Foreign currency translation	(181)	(189)
Balance at the end of the year	5,152	5,333

Goodwill relates to the acquisition of Engineered Print Solutions in July 2016 (a company incorporated in the USA). As part of the changes to the reportable segments in the prior year, the goodwill stated above is now wholly attributed to Product Print Systems (a single CGU).

The Group tests goodwill annually for impairment or more frequently if there are indications that goodwill might be impaired. Having performed impairment testing, no impairment has been identified and therefore no impairment loss has been recognised in 2020 [2019: £nil].

The recoverable amount of the CGU is determined from a value-in-use calculation. The key assumptions to which the value-in-use calculation is most sensitive are those regarding the expected change in sales, the discount rate used, and the growth rate used as part of the terminal value.

A cash flow forecast was prepared for a period of five years based upon the strategic plan for the business and a terminal value determined using a 2% growth rate in Engineered Print Solutions, based on OECD growth rates.

To evaluate the risk of impairment, the Group risk adjusted its cash flows over the five-year period to reflect the risk that the market recovery may be slower than expected and/or that the Group does not achieve the growth objectives set out in its strategic plan. These risk adjusted cash flows have then been used in the value-in-use calculation. The discount rate applied to the cash flow projections is 10.25% (2019: 12.1%) and reflects external third party advice on the discount rate associated with Engineered Print Solutions. This discount rate is higher than the Group discount rate of 7.70%. The discount rate reflects the risk free rate, equity beta and local market premium as calculated at the year-end. This has reduced year on year, based upon reductions in the risk free rate and to reflect the risk that has already been incorporated in the cash flows. A terminal value was determined using a 2% growth rate in Engineered Print Solutions, based on OECD growth rates.

The recoverable amount calculated on the basis set out above exceeds the carrying value of the EPS CGU by £1.5 million. Sensitivity analysis has been completed on each key assumption (Revenue, Discount Rate and Terminal Value) for the EPS business.

The carrying amount of goodwill would exceed its recoverable amount, when compared to the risk adjusted cash flows, if:

- revenue were to decline by a further \$2 million meaning revenues would not recover to pre-COVID levels until later in 2024/25; or
- the discount rate would need to increase by 0.77%; or
- the terminal value growth rate would need to fall to 0.81% (a reduction of 60%).

for the year ended 31 December 2020

16. Other intangible assets

	Capitalised development costs £'000	Licences acquired £'000	Software £'000	Total £'000
Cost				
At 1 January 2019	41,465	716	3,383	45,564
Additions	2,255	-	90	2,345
Transfer	17	(3)	(2)	12
Exchange movements	-	(4)	_	(4)
Disposals	_	_	(18)	(18)
At 1 January 2020	43,737	709	3,453	47,899
Exchange movements	-	-	(6)	(6)
Assets held for sale	(5,050)	(177)	(10)	(5,237)
At 31 December 2020	38,687	532	3,437	42,656
Amortisation				
At 1 January 2019	9,128	540	3,099	12,767
Charge for the year	923	14	87	1,024
Transfers	26	_	62	88
Disposals	_	_	(17)	(17)
Impairment	28,494	-	_	28,494
At 1 January 2020	38,571	554	3,231	42,356
Charge for the year	587	13	85	685
Exchange movements	-	_	[4]	(4)
Assets held for sale	(547)	(35)	(6)	(588)
At 31 December 2020	38,611	532	3,306	42,449
Carrying amount:	_,		404	•==
At 31 December 2020	76		131	207
At 31 December 2019	5,166	155	222	5,543
-				

Internally generated product development costs relate to the Platform 2, Platform 3 and Platform 4 ranges of printheads and technology. They also include the capitalisation of the product development costs that relate to the High Speed Sintering 3D printer developed by Xaar 3D. Platform 2 and Platform 3 are fully amortised.

Amortisation of Platform 4 commenced in August 2017 and was being amortised over a period of 20 years prior to the decision to cease all Thin Film activities. Following the decision in 2019 to discontinue the Thin Film operation the Platform 4 range has been fully impaired (an impairment of £28,494,000) based on its fair value less costs to sell.

The development of the High Speed Sintering 3D printer was completed in December 2019 at total cost of £5,050,000 and amortisation commenced over a ten-year period. Following the decision to sell the 3D business the cost, and accumulated amortisation of £547,000, have been reclassified as part of an asset group held for sale.

Licences acquired are amortised over their estimated useful lives which is the shorter of the licence term and 20 years. The majority of the remaining licences belong to the 3D business and have been reclassified as part of the asset group held for sale.

The amortisation period for software is three to 15 years and for other product development costs incurred on the Group's product development is three to 20 years.

As at 31 December 2020 the Group had not entered into any contractual commitments for the acquisition of intangible assets.

17. Property, plant and equipment

	Land and buildings £'000	Leasehold property £'000	Plant and machinery £'000	Furniture, fittings and equipment £'000	Assets in the course of construction £'000	Total €'000
Cost						
At 1 January 2019	1,192	13,421	70,734	3,765	2,122	91,234
Additions	-	50	1,421	83	96	1,650
Transfers	532	628	1,111	(182)	(2,102)	(13)
Exchange movements	[41]	(29)	(46)	[16]	(5)	(137)
Disposals	1	(25)	(5,059)	(16)	(3)	(5,102)
At 1 January 2020	1,684	14,045	68,161	3,634	108	87,632
Additions	=	199	1,654	382	16	2,251
Transfer	184	(171)	(737)	_	(69)	(793)
Exchange movements	(57)	(2)	12	(18)	(4)	(69)
Disposals	_	-	[492]	_	_	(492)
Assets held for sale	-	(551)	[1,766]	(6)	(2)	(2,325)
At 31 December 2020	1,811	13,520	66,832	3,992	49	86,204
Depreciation						
At 1 January 2019	64	8,222	52,016	2,888	-	63,190
Charge for the year	17	576	3,089	94	-	3,776
Transfer	242	(480)	(293)	444	-	(87)
Exchange movements	(3)	[1]	(47)	(2)	-	(53)
Disposals	-	(18)	(5,122)	(16)	-	(5,156)
Impairment	-	5	5,049	-	_	5,054
At 1 January 2020	320	8,304	54,692	3,408	-	66,724
Charge for the year	48	569	3,506	101	-	4,224
Transfer	34	(21)	(702)	_	_	(689)
Exchange movements	[14]	(2)	[1]	(17)	_	(34)
Disposals	_	_	(275)	_	_	(275)
Impairment	_	_	391	_	-	391
Assets held for sale	-	(65)	(1,216)	(3)	_	(1,284)
At 31 December 2020	388	8,785	56,395	3,489	-	69,057
Carrying amount						
At 31 December 2020	1,423	4,735	10,437	503	49	17,147
At 31 December 2019	1,364	5,741	13,469	226	108	20,908

Impairments in 2019 of £5,054,000 are almost all in relation to the Thin Film discontinued operation; these assets have been valued at fair value, less costs of disposal of nil. In 2020 the impairments of £391,000 related to the Printhead and EPS businesses with associated assets written down to nil.

The transfer of assets out of property, plant and equipment includes assets belonging to the Printhead business that were reclassified as held for sale. These assets had a net book value (NBV) of £104,000. As at 31 December 2020 machinery with a NBV of £43,000 remained unsold.

Assets with a NBV of £1,041,000 (a cost value of £2,325,000 and depreciation of £1,284,000) belonging to the 3D business have been reclassified as part of the asset group held for sale.

As at 31 December 2020 the Group had entered into contractual commitments for the acquisition of property, plant and equipment amounting to £218,000 (2019: £71,000).

18. Leases

The Group has lease contracts for various items of buildings, equipment and vehicles used in its operations. The Group's obligations under its leases are secured by the lessor's title to the leased assets. Generally, the Group is restricted from assigning and subleasing the leased assets and some contracts require the Group to maintain certain financial ratios.

The Group also has certain leases of machinery with lease terms of 12 months or less and leases of office equipment with low value. The Group applies the 'short-term lease' and 'lease of low-value assets' recognition exemptions for these leases.

for the year ended 31 December 2020

18. Leases (cont.)

Set out below are the carrying amounts of right-of-use assets recognised and the movements during the period:

	Buildings £'000	Equipment £'000	Vehicles £'000	Total £'000
Cost				
At 1 January 2019	12,204	99	16	12,319
Additions	1,494	20	-	1,514
Disposals	(1,692)	-	_	(1,692)
Exchange movements	(28)		_	(28)
At 31 December 2019	11,978	119	16	12,113
Additions	183	-	-	183
Disposals	(172)	(36)	(16)	(224)
Assets held for sale	(885)	_	_	(885)
Exchange movements	18	1	_	19
At 31 December 2020	11,122	84	-	11,206
Depreciation				
At 1 January 2019	9,159	25	8	9,192
Charge for the year	1,025	31	5	1,061
Disposals	(1,686)	_	_	(1,686)
Exchange movements	(15)	-	_	(15)
At 31 December 2019	8,483	56	13	8,552
Charge for the year	1,204	29	3	1,236
Disposals	(167)	(35)	[16]	(218)
Assets held for sale	(445)	_	_	(445)
Exchange movements	3	-	-	3
At 31 December 2020	9,078	50	-	9,128
Carrying amount				
At 31 December 2020	2,044	34	-	2,078
At 31 December 2019	3,495	63	3	3,561

Set out below are the carrying amounts of lease liabilities (included under current and non-current liabilities on the statement of financial position) and the movements during the period:

	2020 €′000	2019 £'000
At 1 January	3,971	3,639
Additions	183	1,507
Accretion of interest	98	110
Payments	[1,224]	(1,274)
Exchange movement	14	(11)
Lease liabilities associated with assets held for sale	(463)	_
At 31 December	2,579	3,971
Current	1,064	1,450
Non-current	1,515	2,521
	2,579	3,971

152

1,485

53 1,224

18. Leases (cont.)

The table below summarises the maturity profile of the Group's lease liabilities based upon the contractual undiscounted payments as at 31 December 2020.

	2020 £'000	2019 €'000
On demand	-	_
Less than three months	222	292
Four to twelve months	645	1,250
One to five years	1,945	2,530
More than five years	-	97
	2,812	4,169
The following are the amounts recognised in profit or loss:		
	2020 £'000	2019 €'000
Depreciation expense of right-of-use assets	1,235	1,061
Interest expense on lease liabilities	98	110

Interest expense on lease liabilities consists of £82,000 (2019: £97,000) reported under continuing operations and £16,000 (2019: £13,000) relating to Xaar 3D business reported under discontinued operations.

19. Subsidiaries

Total amount recognised in profit or loss

A list of the investments in subsidiaries, including the name, country of incorporation and proportion of ownership interest, is given in note 11 to the Company's separate financial statements.

20. Inventories

	2020 £'000	Restated 2019 £'000
Raw materials and consumables	6,356	8,938
Work in progress	1,687	3,258
Finished goods	2,312	4,334
	10,355	16,530

The cost of inventories recognised as an expense includes £3,895,000 (2019: £18,801,000) in respect of inventory write-downs.

Gross stock was £34,976,000 (2019: £37,465,000) with inventory provisions of £24,621,000 (2019: £20,935,000). The provision of £24,621,000 included £21,256,000 in relation to discontinued operations. Inventory for discontinued operations has been recorded at the lower of carrying amount and fair value.

21. Other financial assets

The fair value of all financial assets and financial liabilities approximates their carrying value.

Expense relating to short-term leases (included in administrative expenses)

Trade and other receivables

	2020 £'000	2019 €'000
Amount receivable for the sale of goods Allowance for doubtful debts	6,791 (622)	14,407 (7,959)
Other debtors Prepayments	6,169 2,760 822	6,448 1,634 1,027
	9,751	9,109
Current tax asset	425	1,788

No amounts are expected to be settled in more than 12 months.

for the year ended 31 December 2020

21. Other financial assets (cont.)

Trade receivables

The average credit period taken on sales of goods is 47 days (2019: 48 days). No interest is charged on the receivables for the period agreed in the Requirements Contract or, if not specified or applicable, the first 30 days from the date of the invoice. Thereafter, the Group reserves the right to charge interest at a daily rate of the greater of either 3% per annum above the base rate of the Bank of England from time to time, or the maximum rate of interest allowable under the Late Payment of Commercial Debts (Interest) Act 1998, on all sums outstanding until payment in full is received. Trade receivables over 120 days are provided for based on estimated irrecoverable amounts from the sale of goods, determined by reference to past default experience.

The maximum exposure to credit risk is the carrying amount of the financial assets as disclosed on page 129. Before accepting any new customer, the Group uses an external credit scoring system to assess the potential customer's credit quality and defines credit limits by customer. Credit limits are reviewed at least once per year. Of the trade receivables balance at the end of the year, four customers each represented greater than 5% of the total receivables balance, totalling £1.1 million (2019: £7.5 million). The total due from these customers represents 2% (2019: 15%) of the Group's revenue.

Included in the Group's trade receivables balance are debtors with a carrying amount of £1.8 million (2019: £2.1 million) at the reporting date for which the Group has not provided:

	2020 £'000	2019 £'000
1–30 days overdue	1,168	801
30–60 days overdue	233	434
60–90 days overdue	85	228
90–120 days overdue	266	61
Over 120 days overdue	91	570
Total receivables	1,843	2,094
Movement in the allowance for doubtful debts:		
	2020 £'000	2019 €'000
Balance at the beginning of the year	7,959	5,178
Impairment (reversal) / losses increased	(929)	2,781
Amounts written off as uncollectible	(6,408)	-
Balance at the end of the year	622	7,959

The Group always measures the loss allowance for trade receivables at an amount equal to lifetime ECL. The expected credit losses on trade receivables are estimated using a provision matrix by reference to past default experience of the debtor and an analysis of the debtor's current financial position, adjusted for factors that are specific to the debtors, general economic conditions of the industry in which the debtors operate and an assessment of both the current as well as the forecast direction of conditions at the reporting date. The Group has recognised a loss allowance of 1.0% against all receivables, excluding those with a specific provision against them. Most of the debt over 120 days has been provided in full and relates to a small number of customers where none of the debt is expected to be recovered through normal trading. A provision is made against trade receivables until such time as the Group believes the amount to be irrecoverable (such as the bankruptcy of a customer or emerging market risks, which would render the receivable irrecoverable), after which the trade receivable balance is written off. Amounts written off in the year relate to distributor balances. There is no current enforcement activity on the remaining balance.

Ageing of impaired trade receivables:

	2020 £'000	2019 €'000
Current	19	132
1–30 days overdue	3	45
30–60 days overdue	-	25
60–90 days overdue	-	15
90–120 days overdue	-	361
Over 120 days overdue	600	7,381
Total	622	7,959

The Directors have considered the sensitivity of doubtful debts and a 1% increase on the ECL percentage would equate to an additional £59,000 allowance. The Directors consider that the carrying amount of trade and other receivables approximates their fair value.

21. Other financial assets (cont.)

Treasury deposits

Treasury deposits comprise bank deposits with an original maturity of between three months and 12 months. The carrying amount of these assets approximates their fair value.

	2020 €'000	2019 £'000
Treasury deposits	161	522

Cash and cash equivalents

Cash and cash equivalents comprise cash held by the Group and short-term bank deposits with an original maturity of three months or less. The carrying amount of these assets approximates their fair value.

The analysis of cash and short-term bank deposits is as follows:

	2020 £'000	2019 €'000
Cash	17,956	24,800

The credit risk on liquid funds and derivative financial instruments is limited because the counterparties are banks with high credit ratings assigned by international credit-rating agencies.

22. Financial instruments

Fair value measurements

The following table combines information about:

- classes of financial instruments based on their nature and characteristics;
- the carrying amounts of financial instruments;
- fair values of financial instruments (except financial instruments when carrying amount approximates their fair value); and
- fair value hierarchy levels of financial assets and financial liabilities for which fair value was disclosed.

Fair value hierarchy Levels 1 to 3 are based on the degree to which the fair value is observable:

- Level 1 fair value measurements are those derived from quoted prices (unadjusted) in active markets for identical assets or liabilities;
- Level 2 fair value measurements are those derived from inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly (i.e. as prices) or indirectly (i.e. derived from prices); and
- Level 3 fair value measurements are those derived from valuation techniques that include inputs for the asset or liability that are not based on observable market data (unobservable inputs).

	Financial assets		Fin	ancial liabilities		
2020	FVTPL - designated £'000	FVTPL – mandatorily measured £'000	Amortised cost £'000	FVTPL – mandatorily measured £'000	Amortised cost	Total £'000
Trade and other receivables	-	_	8,928	_	_	8,928
Treasury deposits	-	-	161	-	-	161
Cash and bank balances	_	-	17,956	-	-	17,956
Trade and other payables	_	_	_	_	(9,940)	(9,940)
Derivative financial instrument	160	-	-	(2,919)	-	(2,759)

Additional disclosure for lease liabilities is reported in note 18.

for the year ended 31 December 2020

22. Financial instruments (cont.)

		Financial assets		Financial liabilities			
2019	FVTPL – designated £'000	FVTPL – mandatorily measured £'000	Amortised cost £'000	FVTPL – mandatorily measured £'000	Amortised cost £'000	Total £'000	
Trade and other receivables	_	_	8,082	_	_	8,082	
Treasury deposits	=	-	522	-	-	522	
Cash and bank balances	-	-	24,800	_	-	24,800	
Trade and other payables	=	-	-	_	(7,973)	(7,973)	
Derivative financial instrument	_	_	-	(2,996)	_	(2,996)	

Fair value of the Group's financial assets and financial liabilities that are measured at fair value on a recurring basis

Some of the Group's financial assets and financial liabilities are measured at fair value at the end of each reporting period. The following table gives information about how the fair value of these financial assets and financial liabilities are determined (in particular, the valuation technique(s) and inputs used).

Financial asset/ financial liabilities	Valuation technique(s) and key input(s)	Significant unobservable input(s)	Relationship and sensitivity of unobservable inputs to fair value
Derivative financial instrument (Level 3)	Black-Scholes model. The following variables were taken into consideration: current underlying price of the underlying share, options strikeprice, time until expiration (expressed as a percent of a year), implied volatility of the underlying share and LIBOR.	Underlying price of the share. Volatility of the underlying share.	8% increase / (decrease) would result in a £549,000 increase in the fair value and a £509,000 decrease. 10% increase / (decrease) would result in £301,000 increase in the fair value and £286,000 decrease.

There were no transfers between Level 1 and 2 during the current or prior year.

The only financial liabilities measured subsequently at fair value on Level 3 fair value measurement represent written call options relating to a business combination. In July 2018 Xaar signed an investment agreement with Stratasys Solutions Limited ('Stratasys') which granted Stratasys a 15% share of Xaar 3D Limited ('Xaar 3D') and two written call options to acquire a further 10% and 5%. These options gave Stratasys the right, but not the obligation, to acquire GBP denominated shares in Xaar 3D for a fixed price which was denominated, and to be settled, in USD. At 1 January 2019 the fair value of these options was £936,000. On 4 December 2019 Stratasys exercised the first of the two options granting them a further 10% share in Xaar 3D. At the same time Xaar 3D and Stratasys agreed to extinguish the second option, thereby settling both options in the year. On 4 December 2019 Xaar 3D Holdings sold to Stratasys a 20% share in Xaar 3D. As a consequence Stratasys now owns 45% of Xaar 3D with the remaining 55% owned by Xaar 3D Holdings. As part of the agreement between Xaar 3D Holdings and Stratasys, Xaar 3D Holdings granted Stratasys a written call option to acquire its remaining 55% shareholding in Xaar 3D. As with the original option agreement between Xaar 3D and Stratasys the new options are USD denominated giving rise to a new derivative financial liability. This liability was valued at a fair value of £2,996,000 at 31 December 2019. During 2020 no further issues or settlements took place. The only movement in the year represents the revaluation of the existing option at 31 December 2020. Additional disclosure information is provided in note 35 Non-controlling interest and note 34 Related party transactions.

Balance at 31 December 2020	(2,919)	(2,996)
Total gains or losses – in profit or loss	77	106
Settlements	-	742
Issues	-	(2,908)
Balance at 1 January 2020	(2,996)	(936)
	2020 £'000	2019 £'000

22. Financial instruments (cont.)

Fair value of the Group's financial assets and financial liabilities that are measured at fair value on a recurring basis (continued)

The use of financial derivatives is governed by the Group's policies approved by the Board of Directors, which provides written principles on the use of financial derivatives consistent with the Group's risk management strategy. The Group does not use derivative financial instruments for speculative purposes.

Financial risk management objectives

The Group's policy is to manage the Group's financial risk, secure cost effective funding for the Group's operations and to minimise the adverse effects of fluctuations in the financial markets on the value of the Group's financial assets and liabilities, on reported profitability and on the cash flows of the Group.

The Group finances its activities with a combination of cash and treasury deposits. Other financial assets and liabilities, such as trade debtors and trade creditors, arise directly from the Group's operating activities.

Financial instruments give rise to foreign currency, interest rate, credit and liquidity risk. The Group's management of its exposure to credit risk is discussed in note 21.

The Group's exposure has been calculated with reference to these balances as at the year-end.

Interest rate risk

As the Group currently has no borrowings, its exposure to interest rate risk relates to the interest rate on its cash, cash equivalent and treasury deposit balances. The Group's interest rate risk arises mainly from its funds invested in short-term bank deposits. To mitigate these risks, limits have been set by the Board in relation to maturity period and maximum deposits with any one institution.

If interest rates had been 2% higher/reduced to 0% and all other variables were held constant, the Group's profit for the year ended 31 December 2020 would increase by £0.1 million or decrease by £0.1 million (2019: increase by £0.2 million or decrease by £0.1 million). There would be no effect on equity reserves.

Foreign currency risk

The Group receives approximately 40% of its revenues in US Dollars and 10% of its revenue in Euros, which are partially naturally hedged by supplies in these currencies, but the remainder requires conversion into Sterling in order to fund the remaining costs of the UK operations. The Group has R&D operations in Sweden, and therefore incurs costs and holds cash balances in Swedish Krona. In 2017, the Group had a manufacturing facility in Sweden which was closed in 2016 and legacy working capital balances denominated in Swedish Krona remain in the Group's Swedish companies prior to the dissolution of these entities.

The Group is mainly exposed to foreign currency risk resulting from transactions in US Dollars, Euros and Swedish Krona. The following table demonstrates the Group's sensitivity to a 10% increase and decrease in the Sterling exchange rate against the relevant foreign currencies on the Group's profit before tax and equity (due to changes in the fair value of monetary assets, liabilities and forward currency contracts). 10% represents management's assessment of the reasonably possible movement in exchange rates. The sensitivity analysis includes only outstanding foreign currency denominated monetary items and adjusts their translation at the period end for a 10% change in foreign currency rates. The sensitivity analysis includes inter-company balances within the Group where the denomination of the balance is in a currency other than the functional currency of the debtor or the creditor. A positive number below indicates an increase in profit or equity.

	Euro currency impact		US Dollar currency impact		Swedish Krona currency impact	
	2020 £'000	2019 €'000	2020 £'000	2019 €'000	2020 £'000	2019 £'000
Effect of a 10% increase in relevant exchange rate on:						
Profit or loss	(139)	(90)	(420)	(342)	(107)	(12)
Other equity	_	_	(582)	(227)	_	57
Effect of a 10% decrease in relevant exchange rate on:						
Profit or loss	170	110	514	418	131	15
Other equity	-	-	711	276	-	(48)

Capital risk management

The primary objective of the Group's capital management is to ensure that it maintains a strong credit rating and healthy capital ratios in order to support its business, maximise shareholder value and provide flexibility for value enhancing investments. The Group manages its capital structure and makes adjustments to it in light of changes in economic conditions or as a result of corporate strategy. To maintain or adjust the capital structure, the Group may adjust the dividend payment to shareholders, return capital to shareholders or issue new shares. In addition, any potential value enhancing investments may be funded through additional debt instruments. No changes were made in the objectives, policies or processes during the current or prior year. No dividend is proposed for 2020.

Further information can be found on page 134 (note 13).

The Group monitors capital using a gearing ratio, which is determined as the proportion of debt to equity. Debt is defined as long- and short-term borrowings. Equity includes all capital and reserves of the Group attributable to the equity holders of the parent. The Group's policy for its existing business is to use debt where appropriate, whilst maintaining the gearing ratio at a level under 10%.

for the year ended 31 December 2020

22. Financial instruments (cont.)

Capital risk management (cont.)

The gearing ratio (excluding IFRS 16 leases) at the year-end is as follows:

	£'000	£'000
Net debt	_	_
Total equity	56,158	70,337
Gearing ratio	0%	0%

The Group is not subject to externally imposed capital requirements.

Credit risk management

Credit risk refers to the risk that a counterparty will default on its contractual obligations resulting in financial loss to the Group. The Group has adopted a policy of only dealing with creditworthy counterparties, as a means of mitigating the risk of financial loss from defaults.

Trade receivables consist of a large number of customers, spread across different industries and geographical areas. Ongoing credit evaluation is performed on the financial condition of accounts receivable.

The credit risk on liquid funds is limited because the counterparties are banks with high credit ratings assigned by international credit rating agencies. Additional credit insurance coverage is maintained where appropriate against agreed credit terms with customers.

Liquidity risk

The Group aims to mitigate liquidity risk by managing cash generation by its operations and applying cash collection targets throughout the Group. Investment is carefully controlled, with authorisation limits operating up to Group Board level and cash payback periods applied as part of the investment appraisal process. In this way the Group aims to maintain a good credit rating to facilitate fund raising.

In order to mitigate the Group's liquidity risks, the Group can choose to fund significant fixed asset purchases by finance leases repayable over a period of three to five years dependent on the individual asset being financed and interest-bearing loans.

In its funding strategy, the Group's objective is to maintain a balance between continuity of funding and flexibility through the use of overdrafts, bank loans, finance leases and hire purchase contracts. The Group manages liquidity risk by maintaining adequate reserves and banking facilities by continuously monitoring cash flows and matching the maturity profiles of financial assets and liabilities. Given the current level of cash availability there are currently no overdraft or bank loan facilities arranged with banks either drawn or undrawn.

Non-derivative financial liabilities of £9,940,000 (2019: £7,973,000) comprise trade creditors of £9,940,000. The trade creditors are within current liabilities. The inherent liquidity risk of these financial liabilities is managed within the overall liquidity risk of the Group as described above. The maturity profile of lease liabilities is set out in note 18.

The Group's policy is to invest any excess cash used in managing liquidity in financial instruments exposed to insignificant risk of changes in market value, being placed on interest-bearing deposit with maturities no more than 12 months.

23. Deferred tax

The following are the major deferred tax liabilities and assets recognised by the Group and movements thereon during the current and prior reporting periods:

	Accelerated tax depreciation £'000	Share-based payment £'000	Untaxed reserves £'000	Tax losses £'000	Other temporary difference £'000	Total £'000
At 1 January 2019	5,017	(150)	148	(3,411)	[774]	830
(Credit)/charge to income	(56)	110	[148]	2,829	220	2,955
(Credit)/charge for discontinued operations	(4,256)			-	337	(3,919)
Foreign exchange movement	_	-	-	-	4	4
At 31 December 2019	705	(40)	-	(582)	(213)	(130)
(Credit)/charge to income	55	39	_	(139)	31	[14]
(Credit)/charge for discontinued operations	(68)	-	-	_	-	(68)
Foreign exchange movement	_	_	-	-	4	4
At 31 December 2020	692	(1)	-	(721)	(178)	(208)

Certain deferred tax assets and liabilities have been offset. The following is the analysis of the deferred tax balances (after offset) for financial reporting purposes:

23. Deferred tax (cont.)

	2020 £'000	2019 €'000
Deferred tax assets	208	130
Being: Deferred tax assets from continuing operations Being: Deferred tax assets from discontinued operations	139 68	130

As at 31 December 2020, the Group had unused tax losses of £75.9 million (2019: £65.8 million) available to offset against future profits. As at 31 December 2020 the Group has an unrecognised deferred tax assets in respect of these losses totalling £14.5 million (2019: £11.2 million). These losses may be carried forward indefinitely. As at 31 December 2020, the Group has unused capital losses of £1.1 million (2019: £1.1 million) available for offset against future gains.

No deferred tax asset has been recognised in respect of these capital losses as it is not considered probable that there will be future chargeable gains available. These losses may be carried forward indefinitely.

24. Trade and other payables

	2020 £'000	Restated 2019 £'000
Trade payables and accruals	9,940	7,973

Trade payable and accruals principally comprise amounts outstanding for trade purchases and ongoing costs. The average credit taken for trade purchases is 18 days (2019: 27 days).

The Directors consider that the carrying amount of trade payables approximates to their fair value.

25. Provisions

	Warranty and commercial agreements £'000	Restructuring £'000	Total £'000
At 1 January 2019	207	292	499
Additional provision in the year	206	2,641	2,847
Utilisation of provision	[166]	(233)	(399)
At 1 January 2020	247	2,700	2,947
Additional / (release) provision in the year	71	685	756
Utilisation of provision	(121)	(3,105)	(3,226)
Release of provision	(120)	-	(120)
At 31 December 2020	77	280	357

The warranty and commercial agreements provision represents management's best estimate of the Group's liability related to claims against product warranties or commercial sales agreements. The timing of the utilisation of this provision is uncertain.

Additional restructuring provisions of £685,000 have been added primarily in relation to the strategic review of the business and redundancy programme and have been released within the year; utilisation of £3,105,000 relates to the conclusion of the 2019 and 2020 redundancy programmes. The remaining restructuring provision of £280,000 will be utilised in 2021 and relates to dilapidations.

for the year ended 31 December 2020

26. Share capital

	£'000	£'000
Issued and fully paid:		
78,334,296 (2019: 78,334,296) ordinary shares of 10.0p each	7,833	7,833

The Companies Act 2006 abolished the legal requirement for a Company to have an authorised share capital. The Articles of Association were amended to remove the authorised share capital article following approval via special resolution at the AGM on 19 May 2010.

The movement during the year on the Company's issued and fully paid shares was as follows:

	2020	2019	2020	2019
	Number	Number	£'000	€'000
Balance at 1 January and 31 December	78,334,296	78,334,296	7,833	7,833

The Company has one class of ordinary shares which carry no right to fixed income.

Scheme	Date of grant	Number of shares under option as at 31 December 2020	Number of shares under option as at 31 December 2019	Subscription price per share
Xaar plc 2004 Share Option Plan	22 November 10 1 June 11 1 May 12	- 40,000 90,000	10,000 40,000 90,000	211.0p 250.0p 226.5p
		130,000	140,000	
Xaar plc Share Save Scheme	1 November 16	-	22,676	407.0p
Xaar plc 2017 Share Save Scheme	1 November 17 1 November 18	7,010 116,596	19,351 182,295	344.0p 142.0p
	1 December 19	937,505	1,196,152	34.0p
	2 November 20	702,032	_	102.0p
		1,763,143	1,397,798	
Xaar plc 2013 Share Incentive Plan	17 April 13 16 April 14 14 April 16 13 April 17	6,309 8,866 11,717 5,280 32,172	8,105 11,079 16,206 8,000 43,390	0.0p 0.0p 0.0p 0.0p
Total share options outstanding at 31 December		1,925,315	1,603,864	

26. Share capital (cont.)

Options granted under the Xaar plc 2004 Share Option Plan are ordinarily exercisable within three to ten years after the date of grant. The maximum value of approved options, under the Xaar plc 2004 Share Option Plan, which may be granted to individual employees is £30,000.

Options under the Xaar plc Share Save Scheme are ordinarily exercisable between 36 and 42 months after the date of grant.

Awards under the Xaar plc Share Incentive Plan are ordinarily exercisable between three and five years after the date of grant.

Long-Term Incentive Plan

Performance Share Awards outstanding under the Xaar plc 2007 Long-Term Incentive Plan are as follows:

Date of grant	Number of shares under option as at 31 December 2020	Number of shares under option as at 31 December 2019
3 May 11	4,533	4,533
2 April 12	-	60,417
1 May 12	7,297	66,872
2 April 15	35,933	111,077
28 September 15	3,069	3,695
7 December 15	9,354	9,354
1 April 16	34,645	58,579
11 May 16	4,977	14,019
27 June 16	3,733	8,400
6 September 16	700	700
1 December 16	15,093	15,093
	119,334	352,739

All awards under this scheme are exercisable within three to ten years after the date of grant.

Performance Share Awards have been made under the Xaar plc 2017 Long-Term Incentive Plan as follows:

Date of grant	2020 Number of shares	2019 Number of shares
16 May 17	30,472	194,079
3 April 18	126,735	199,396
1 June 18	-	_
2 April 2019	110.792	127,821
30 April 2019	59,789	80,648
4 October 2019	180,328	180,328
29 April 2020	404,000	_
4 June 2020	535,000	_
1 October 2020	21,000	-
	1,468,116	782,272

All awards under this scheme are exercisable within three to ten years after the date of grant.

27. Share premium account

	2020 £'000	2019 €'000
Balance at 1 January Premium arising on issue of equity shares	29,328 -	29,328 -
Balance at 31 December	29,328	29,328

for the year ended 31 December 2020

28. Own shares

	2020 £'000	2019 €'000
Balance as at 1 January Sold in the year	(2,676) 719	(3,113) 437
Balance at 31 December	(1,957)	(2,676)

Of this balance, £20,000 (2019: £20,000) represents 91,250 ordinary shares in Xaar plc held in trust by Xaar Trustee Ltd. Xaar Trustee Ltd was formed in 1995 to act as trustee to the Employee Benefit Trust established in 1995 to hold shares for the benefit of the employees of the Company and the Group. There has been no movement in the number of shares held in trust by Xaar Trustee Ltd during the year.

The remaining balance of £1,937,000 [2019: £2,656,000] represents the cost of 705,083 [2019: 966,410] shares in Xaar plc purchased in the market at market value and held by the Xaar plc ESOP trust to satisfy options granted under the Company's share option schemes.

The market value of own shares at 31 December 2020 was £1,421,000 (2019: £585,000).

29. Translation reserves

	£,000	€,000
Balance at 1 January	594	817
Exchange differences on retranslation of net investment	224	(157)
Prior year correction (see note 36)	-	(66)
Balance at 31 December	818	594

Exchange differences relating to the translation of the net assets of the Group's foreign operations, which relate to subsidiaries only, from their functional currency into the parent's functional currency, being Sterling, are recognised directly in the translation reserve.

30. Retained earnings and other reserves

	Notes	Merger reserve £'000	Share-based payments £'000	Other reserves £'000	Total other reserves £'000	Retained earnings £'000	Total £'000
Balance at 1 January 2019		1,105	13,554	485	15,144	79,343	94,487
Net loss for the year			-	-	_	(71,051)	(71,051)
Own shares sold in the period			-	-	-	(437)	[437]
Charge to equity for equity-settled share-based payments Adjustment arising from change in non-		_	1,111	-	1,111	-	1,111
controlling interest		-	-	4,666	4,666	_	4,666
Balance at 31 December 2019 as reported		1,105	14,665	5,151	20,921	7,855	28,776
Correction of error	36	_	-	-	-	(257)	(257)
Restated total equity at the beginning of the financial year		1,105	14,665	5,151	20,921	7,598	28,519
Net loss for the year		_	_	_	_	(11,685)	(11,685)
Tax on items taken directly to equity		_	_	_	_	(5)	(5)
Own shares sold in the period		_	_	_	_	(710)	(710)
Charge to equity for equity-settled share-based payments		_	_	246	246	_	246
Balance at 31 December 2020		1,105	14,665	5,397	21,167	(4,802)	16,365

The merger reserve and other reserves are not distributable. The merger reserve represents the share premium account in Xaar Technology Limited.

The share-based payment reserve represents the cumulative charge made under IFRS 2 in relation to share options and LTIP awards. Other reserves represent the non-distributable portion of the dividend received in Xaar plc from Xaar Digital Limited and includes the change in parent equity arising from the transactions with non-controlling interest of Xaar 3D during 2019.

31. Notes to the cash flow statement

	2020 €'000	Restated 2019 £'000
Loss before tax from continuing operations	(4,322)	(10,937)
Loss before tax from discontinued operations	(10,105)	(61,211)
Total loss before tax	(14,427)	[72,148]
Adjustments for:		
Share-based payments	353	912
Depreciation of property, plant and equipment	4,223	3,776
Depreciation of right of use assets	1,236	1,061
Amortisation of intangible assets	685	1,024
Impairment of assets	391	39,013
Research and development expenditure credit	(454)	(2,610)
Investment income	(72)	(103)
Interest expense – finance cost for leases	94	110
Foreign exchange losses	523	447
Gain on re-measurement of derivative liability	(77)	(106)
Profit/(loss) on disposal of property, plant and equipment	99	(18)
Other gains and losses	202	623
(Increase) / decrease in provisions	(2,572)	1,267
Operating cash flows before movements in working capital	(9,796)	(26,752)
Decrease in inventories	4,849	11,805
(Increase) / decrease in receivables	(1,337)	11,059
Increase / (decrease) in payables	2,011	(9,332)
Cash used in operations	(4,273)	[13,220]
Income taxes received	1,466	3,392
Net cash used in operating activities	(2,807)	(9,828)

During the year non-cash investing activity pertains to purchase of property, plant and equipment by the Company on credit amounting to £1,152,000 (2019: £114,000).

From the consolidated cash flow statement net cash (including treasury deposits) generated from continuing operations (excluding proceeds from transactions with non-controlling interest) amounted to £7,073,000 (2019: £8,405,000).

Further information of cash flows from discontinued operations can be found in note 11.

for the year ended 31 December 2020

32. Share-based payments

Equity-settled share option scheme

The Company's share option schemes are open to all employees of the Group. Options are exercisable at a price equal to the average quoted market price of the Company's shares on the date of grant. The standard vesting period is three years.

An option granted under the Xaar plc 2004 Share Option Plan from 2011 onwards will be exercisable over shares with a market value at the date of grant not exceeding a person's annual salary, if at the third anniversary of grant, Xaar plc has achieved positive adjusted profit before tax as shown in the consolidated income statement in the Company's Annual Report and Accounts for any of the three years ending during the vesting period. One third of the shares subject to the option granted rounded to the nearest whole share will vest based on the performance condition being met per year for each of the three years ending in the vesting period. If the adjusted profit before tax as shown in the consolidated income statement in Xaar plc's Annual Report and Accounts for any relevant year is restated before the option becomes exercisable, the restated figure shall, unless the Remuneration Committee determines otherwise, be applied in determining whether the above targets are met. In addition, options shall only become exercisable in respect of any shares if the Committee in its absolute discretion determines that the overall financial performance of Xaar plc over the performance period is satisfactory.

The Xaar 2007 and 2017 Share Save Schemes provides an opportunity to all UK employees to save a set monthly amount (up to £500) over three years towards the exercise of a discounted share option, which is granted at the start of the three years.

The Xaar Share Incentive Plan provides an opportunity for all UK employees to buy shares from their pre-tax remuneration up to the limit permitted by the relevant tax legislation (£1,500 per year for the awards made in 2013 and 2014, £1,800 per year for awards made from 2015) and are awarded additional shares for free on a matching basis; the Company currently operates the plan on the basis of a 1:1 match but may award matching shares up to the maximum ratio permitted by the relevant tax legislation (currently a 2:1 ratio).

Options and awards under the Xaar 2007 and 2017 Share Save Schemes and Xaar Share Incentive Plan are not subject to performance conditions.

If the options remain unexercised after a period of ten years from the date of grant, or 42 months in the case of the Share Save Scheme, or five years in the case of the Share Incentive Plan (being the contractual lives), the options expire. Save as permitted in the share option scheme rules, options ordinarily lapse on an employee leaving the Group.

Details of the share options outstanding during the year are as follows:

	2020		2020			2019
	Number of share options	Weighted average exercise price (£)	Number of share options	Weighted average exercise price (£)		
Outstanding at beginning of year Granted during the year Lapsed during the year Exercised during the year	1,603,864 702,032 (349,323) (31,258)	0.72 1.02 0.94 0.22	1,367,107 1,196,152 (951,559) (7,836)	1.87 0.34 1.91		
Outstanding at the end of the year	1,925,315	0.79	1,603,864	0.72		
Exercisable at the end of the year	162,172	1.87	159,184	2.04		

The weighted average share price at the date of exercise for share options exercised during the period was £1.10 (2019: £0.86). The options outstanding at 31 December 2020 had a weighted average remaining contractual life of three and a half years (2019: three years). In 2020, options were granted on 2 November. The aggregate of the estimated fair values of the options granted on those dates is £0.525 million. In 2019, options were granted on 1 December. The aggregate of the estimated fair values of the options granted on those dates is £0.25 million.

32. Share-based payments (cont.)

Equity-settled share option scheme (cont.)

The inputs into the Black-Scholes model are as follows:

	2020	2019
Weighted average share price	£1.28	£0.43
Weighted average exercise price	£1.02	£0.34
Weighted average expected volatility	74%	61%
Expected life	3.5 years	3 years
Risk-free rate	(0.05)%	0.60%
Weighted average expected dividends	0.00%	0.00%

Expected volatility was determined by calculating the historical volatility of the Group's share price over periods ranging from the previous one to three years. The expected life used in the model has been adjusted, based on management's best estimate, for the effects of non-transferability, exercise restrictions and behavioural considerations.

Long-Term Incentive Plan

The Company's Long-Term Incentive Plan is open to all employees of the Group.

All LTIP share awards granted before 2015 are subject to the achievement of EPS performance conditions and the number of shares that vest will depend on the EPS growth of the Company for the three financial years of the Company commencing on 1 January of the year of grant, as follows:

- (1) None of the awards will vest if the Company's EPS growth does not exceed growth in the Retail Prices Index ('RPI') by at least 4% compound p.a.
- (2) 35% of the awards will vest if the Company's EPS growth exceeds growth in the RPI by at least 4% compound p.a.
- (3) All of the awards will vest if the Company's EPS growth exceeds growth in the RPI by at least 10% compound p.a.
- (4) Awards will vest on a straight-line basis for EPS growth in excess of growth in the RPI of between 4% and 10% compound p.a.

 LTIP share awards granted in 2015 onwards are subject to the achievement of different performance conditions depending on the level of the employee. The number of shares that vest will depend on for the three financial years of the Company commencing on 1 January of the year of grant, and are subject to one, two, three, four or five of the conditions as set out below:
- (1) Absolute cumulative EPS performance over the period, whereby 25% of the awards will vest if the threshold target is achieved, below threshold 0% will vest and up to a maximum of 100% if the maximum EPS target or higher is achieved.
- (2) For 2015 and 2016 grants, TSR relative to FTSE TechMARK All Share Index, whereby 25% of the awards will vest if the median rank in the comparator group is achieved, below median 0% will vest and up to a maximum of 100% if the upper quartile or higher is achieved. For 2017 and 2018 grants, TSR outperformance multiplier determined by comparison to the FTSE Small Cap Index, whereby a performance multiplier of between 116.7% (for upper quartile performance) and 150% or 200% (for upper decile performance) is applied to the base award relating to awards granted with EPS and revenue performance conditions.
- (3) For 2015 and 2016 grants, achievement of positive adjusted profit before tax as shown in the consolidated income statement in the Company's Annual Report and Accounts for any of the three years ending during the vesting period. One third of the shares subject to the option granted, rounded to the nearest whole share, will vest based on the performance condition being met per year for each of the three years ending in the vesting period. If the adjusted profit before tax as shown in the consolidated income statement in Xaar plc's Annual Report and Accounts for any relevant year is restated before the option becomes exercisable, the restated figure shall, unless the Remuneration Committee determines otherwise, be applied in determining whether the above targets are met. In addition, options shall only become exercisable in respect of any shares if the Committee in its absolute discretion determines that the overall financial performance of Xaar plc over the performance period is satisfactory.
- (4) From 2017, revenue growth over the period, whereby 25% of the awards will vest if the threshold target is achieved, below threshold 0% will vest and up to a maximum of 100% if the maximum revenue growth target or higher is achieved.
- (5) From 2018, revenue from new products in the third year in the vesting period, whereby 25% of the awards will vest if the threshold target is achieved, below threshold 0% will vest and up to a maximum of 100% if the maximum revenue target or higher is achieved.
- (6) From 2019, Adjusted Basic EPS over the performance period, whereby 25% of the awards will vest if the threshold target is achieved, below threshold 0% will vest and up to a maximum of 100% if the maximum EPS target or higher is achieved. TSR element over the performance period, whereby 25% of the awards will vest if the median target v comparator group is achieved, below threshold 0% will vest and up to a maximum of 100% if the TSR ranking of the company is ranked in the upper quartile of the comparator group.
- (7) From 2020, Adjusted Profit before tax ('aPBT') over the performance period 100% of the awards will vest if the threshold target is achieved, below threshold target 0% will vest. The threshold target is achieving an adjusted profit before tax measured over the three-year performance period to 31 December 2022.

There are also a number of LTIP share awards granted that are subject to the achievement of different performance conditions for specific individuals, dependent on revenue or profit performance over a set performance period.

In addition, options shall only become exercisable in respect of any shares if the Committee in its absolute discretion determines that the overall financial performance of Xaar plc over the performance period is satisfactory. All awards that will vest will be calculated on a straight-line basis. All awards made under this scheme are exercisable within three to ten years after the date of grant. Save as permitted in the Long-Term Incentive Plan rules, awards lapse on an employee leaving the Group.

for the year ended 31 December 2020

32. Share-based payments (cont.)

Long-Term Incentive Plan (cont.)

Key individuals have previously been invited to participate in a bonus matching scheme where matching LTIP share awards are granted when the employee invests their bonus in Xaar shares and retains ownership of these shares for the duration of the LTIP share award vesting period. The matching share award is a 1 for 1 match on the pre-tax value of the bonus used to acquire bonus investment shares. Matching LTIP share awards are subject to the same performance criteria as all other LTIP awards.

Details of Performance Share Awards outstanding during the year are as follows:

	2020	2019
Awards outstanding at start of year	1,135,011	2,080,009
Granted during the year	963,000	829,149
Lapsed during the year	(275,618)	(1,615,254)
Exercised during the year	(234,943)	(158,893)
Awards outstanding at end of year	1,587,450	1,135,011
Exercisable at the end of the year	149,806	255,948

The weighted average share price at the date of exercise for awards exercised during the period was £0.58 (2019: £0.72). The options outstanding at 31 December 2020 had a weighted average remaining contractual life of nine and a half years (2019: seven years). In 2020, Performance Share Awards were made in April, June and October. The aggregate of the estimated fair values of grants made on those dates is £0.44 million. In 2019, Performance Share Awards were made in April and October. The aggregate of the estimated fair values of grants made on those dates is £0.5 million.

The estimated fair values for grants with non-market based performance conditions were calculated using the Black-Scholes model. The inputs into the Black-Scholes model were as follows:

	2020	2019
Weighted average share price	£0.48	£0.96
Weighted average exercise price	nil	£nil
Weighted average expected volatility	74%	44%
Weighted average expected life	3 years	3 years
Weighted average risk free rate	(0.05)%	0.76%
Weighted average expected dividends	0.00%	0.00%

The estimated fair values for grants with market based performance conditions were calculated using the Monte Carlo model. The inputs into the Monte Carlo model were as follows:

	2020	2019
Weighted average share price	£0.44	£0.79
Weighted average exercise price	nil	£nil
Weighted average expected volatility	72%	56%
Weighted average expected life	3 years	4 years
Weighted average risk free rate	0.04%	0.83%
Weighted average expected dividends	0.00%	0.00%
weighted average expected dividends	0.00%	0.00%

The Group recognised total expenses of £246,000 and £1,111,000 related to all equity-settled share-based payment transactions in 2020 and 2019, respectively.

33. Retirement benefit schemes

Defined contribution schemes

The UK based employees of the Group's UK companies have the option to be members of a defined contribution pension scheme managed by a third party pension provider. For each employee who is a member of the scheme the Company will contribute a fixed percentage of each employee's salary to the scheme. The only obligation of the Group with respect to this scheme is to make the specified contributions.

The total cost charged to the income statement in respect of these schemes during 2020 was £740,000 (2019: £951,000). As at 31 December 2020 contributions of £89,000 (2019: £94,000) due in respect of the current reporting period had not been paid over to the schemes.

34. Related party transactions

Transactions between the Company and its subsidiaries, which are related parties, have been eliminated on consolidation and are not disclosed in this note.

Following the transaction in December 2019 which increased the shareholding owned by Stratasys Solutions Limited ('SSYS') in Xaar 3D Limited to 45%, the shareholding determines that they are a related party to Xaar plc.

- SSYS part exercised its existing option, which was granted to SSYS under the terms of the Initial Transaction in 2018, to acquire additional Xaar 3D Shares in return for a \$4 million investment in Xaar 3D, increasing its shareholding in Xaar 3D to 25%
- Xaar sold to SSYS, 20% of the enlarged share capital of Xaar 3D for \$10 million
- Subsequently, Xaar and SSYS together invested \$3.25 million in Xaar 3D on a fully-preemptive basis as follows:
 - Xaar re-invested \$1.79 million into Xaar 3D by way of an additional share subscription; and
 - SSYS invested \$1.46 million into Xaar 3D by way of an additional share subscription.

Following such share subscriptions, Xaar holds 55% of the enlarged issued share capital of Xaar 3D, and SSYS holds 45% of the enlarged issued share capital of Xaar 3D.

In addition, in 2019 Xaar granted SSYS a call option to acquire its remaining 55% shareholding in Xaar 3D for at least \$33 million (being the greater of \$33 million and 2 x revenue for previous 12 months; the option is exercisable during the three-year period following completion of the Additional Investment Agreement ('Call Option'). Exercising such Call Option will entitle Xaar to receive royalties on products and services sales for up to 15 years, subject to a \$10 million cap. This Call Option is subject to a negotiation for amendment to exercise.

Additional disclosure on the transaction is included in note 22 – Financial instruments, and note 35 – Non-controlling Interest.

During 2020 there were both product sales between Xaar and SSYS, and related party transactions associated with the "go-to-market" functions where SSYS employees have been seconded to Xaar 3D Limited and the costs recharged:

- Sales between Xaar and SSYS in 2020 £636,078 (o/s at year end £237,783)
- Purchases between SSYS and Xaar £2,620 (o/s at year end £nil)
- Employees seconded to Xaar from SSYS £219,201 (accrued at year end)

There were no other transactions during the year with related parties who are not members of the Group.

Remuneration of key management personnel

The actual remuneration of the Directors, who are the key management personnel of the Group, is disclosed in the Directors' Remuneration report. The contractual employee benefits are set out below in aggregate for each of the categories specified in IAS 24 'Related Party Disclosures'.

Further information about the remuneration of individual Directors is provided in the audited part of the Directors' Remuneration report **on pages 87 to 89**.

	2020 £'000	2019 €'000
Short-term employee benefits	1,040	947
Post-employment benefits	29	53
Share-based payments	183	90
	1,252	1,090

for the year ended 31 December 2020

35. Non-controlling interest

Summarised financial information in respect of each of the Group's subsidiaries that has a material non-controlling interest is set out below. The summarised financial information below represents amounts before intra-group eliminations.

The terms of the 2019 call option allow for Stratasys to purchase the remaining 55% of Xaar 3D Ltd for at least \$33 million, which is exercisable at any time within three years of closing. The fair value of the option is a £2.9 million derivative liability and is disclosed further in note 22

The management judgement is that the shareholding and option call held by Stratasys are assessed as having significant influence but does not exercise control over Xaar 3D Ltd and which is therefore subject to consolidation as a subsidiary of Xaar plc. This judgement will be reassessed at each reporting period end.

Stratasys have not consolidated Xaar 3D Limited into their financial statements, presenting their investment under other non-current assets in their consolidated balance sheet.

Xaar 3D Limited

	2020	2019
Statement of financial position	€'000	€,000
Current assets	3,770	10,057
Non-current assets	6,198	6,909
Current liabilities Non-current liabilities	(1,233) (356)	(1,432) (558)
Equity attributable to owners of the Company	8,379	14,976
Non-controlling interests (2020: 45% / 2019: 45%)	3,771	6,739
Income statement and other comprehensive income	2020 £'000	2019 €'000
Revenue	734	18
Expenses	(7,366)	(1,219)
Loss for the year	(6,632)	(1,201)
Loss attributable to owners of the Company	(3,648)	(778)
Loss attributable to the non-controlling interests	(2,984)	(423)
Loss for the year	(6,632)	(1,201)
Total comprehensive loss attributable to owners of the Company	(3,648)	(778)
Total comprehensive loss attributable to the non-controlling interest	(2,968)	(458)
Total comprehensive loss for the year	(6,616)	[1,236]
Cash flow statement	2020 £'000	2019 £'000
Net cash outflow from operating activities Net cash outflow from investing activities	(6,213) (645)	(2,434) (2,299)
Net cash (outflow) / inflow from financing activities	(160)	5,511
Net cash (outflow) / inflow	(7,018)	778
	2020	2010
Non-controlling interest equity	£'000	2019 €'000
Balance at 1 January	6,739	2,028
Effect of initial application of IFRS 16	-	(2)
Adjustment arising from change in non-controlling interest	-	5,171
Share of total comprehensive expense for year	(2,968)	(458)
Balance at 31 December	3,771	6,739

36. Prior period restatement

The financial statements include a prior year restatement in relation to the release of untaxed reserves of £623,000 in XaarJet AB in 2019. This reserve is a Swedish-IFRS GAAP difference and both balance sheet and income statement impacts should have been eliminated on consolidation. The accounting for these untaxed reserves should have no impact on the consolidated Group financial statements as the untaxed reserves are not carried on the Group balance sheet, in accordance with IFRS. However, in 2019 an entry was incorrectly recorded which resulted in a credit of £623,000 to the income statement, with a corresponding reduction to other payables and accruals. A correcting entry has been recorded in these financial statements, as a prior year adjustment to eliminate these entries from the 2019 balance sheet and income statement with a corresponding increase in exceptional costs in 2019 of £623,000 and associated translation reserve impact of £66,000.

Furthermore there was the reversal of an adjustment on intercompany sales which had been made in 2019 in error. The goods had been sold externally by the year end. The adjustment impacts cost of sales (£278,000), general and administrative expenses (£88,000) and inventory (£366,000).

In addition, as required under IFRS the financial statements have been restated to present the assets, liabilities and net income from discontinued operations associated with the planned and ongoing sale of 3D business unit as single lines in the comparative period, which is consistent with the current year presentation (further information and other required disclosures can be found in note 11).

The following tables summarise the impact of the prior year restatement on the financial statements of the Group for year ended 31 December 2019:

Consolidated income statement	Note	As reported 2019 £'000	Untaxed reserve £'000	Inventory £'000	€,000	Restated 2019 £'000
Revenue		49,397	_	_	(18)	49,379
Cost of sales		(37,435)	-	277	69	(37,089)
Gross profit		11,962	_	277	51	12,290
Research and development expenses		(3,502)	-	-	421	(3,081)
Research and development expenditure credit		260	-	-	(231)	29
Sales and marketing expenses		(8,410)	-	-	306	(8,104)
General and administrative expenses		(8,689)	-	89	882	(7,718)
Impairment losses on financial assets		(2,715)	-	-	_	(2,715)
Restructuring costs		(896)	(623)	-	_	(1,519)
Gain on derivative liabilities	22	106	-	-	(193)	(87)
Operating loss		(11,884)	(623)	366	1,236	(10,905)
Investment income	10	103	_	-	(38)	65
Finance costs for leases	18	(110)	-	-	13	(97)
(Loss) / profit before tax		(11,891)	(623)	366	1,211	(10,937)
Income tax (expense) / credit	12	(3,501)	-	-	4	(3,497)
(Loss) / profit for the year from continuing operations		(15,392)	(623)	366	1,215	(14,434)
Loss for the year from discontinued operations		(56,082)	-	-	(1,215)	(57,297)
(Loss) / profit for the year		(71,474)	[623]	366	-	(71,731)
Attributable to (Restated):						
Owners of the Company		(71,051)	(623)	366	_	(71,308)
Non-controlling interests		(423)	-	-	_	[423]
		(71,474)	(623)	366	_	(71,731)
Earnings per share from continuing operations (Restated)		(10 /-)	(0.0~)	0 E	1 0	(10 7)
Basic		(19.4p)	(0.8p)	0.5p	1.0p	(18.7p)
Diluted		(19.4p)	(0.8p)	0.5p	1.0p	(18.7p)

for the year ended 31 December 2020

36. Prior period restatement (cont.)

Consolidated statement of comprehensive income	31-Dec-19 as previously reported £'000	Untaxed reserve £'000	Inventory £'000	31-Dec-19 restated £'000
Loss for the year	[71,474]	(623)	366	(71,731)
Exchange differences on retranslation of net investment	(192)	[66]	-	(258)
Other comprehensive (loss) / income for the year	(192)	[66]	-	(258)
Total comprehensive income for the year	(71,666)	(689)	366	(71,989)
Attributable to (Restated):				
Owners of the Company	(71,208)	(689)	366	(71,531)
Non-controlling interests	(458)	_	-	(458)
	(71,666)	(689)	366	(71,989)
Consolidated statement of financial position	31-Dec-19 as previously reported £'000	Untaxed reserve £'000	Inventory £'000	31-Dec-19 restated £'000
Current assets				
Inventories	16,164	_	366	16,530
Total assets	87,858	_	366	88,224
Current liabilities				
Trade and other payables	(7,284)	(689)	-	(7,973)
Total liabilities	(17,198)	(689)	-	(17,887)
Net assets	70,660	(689)	366	70,337
Equity				
Translation reserve	660	(66)	-	594
Retained earnings	7,855	[623]	366	7,598
Total equity	70,660	(689)	366	70,337

37. Non-adjusting post balance sheet event - 3D Call Option

In the year ended 31 December 2020, the Company invested approximately £7.0 million cash in Xaar 3D. Due to delays caused by the impact of the COVID-19 pandemic on the development of Xaar 3D products, the Directors believe there was a risk that the Xaar 3D programme may take longer than anticipated when it entered into the original Call Option with Stratasys, and subsequently the Company would be required to commit additional funds to Xaar 3D. With further investment anticipated, the Xaar Board has considered all options for the future financing and ownership structure of Xaar 3D, and accordingly has held detailed discussions to sell the remaining stake in Xaar 3D. Terms are still to be finalised and may potentially differ to those of the Call Option originally agreed in 2019.

The terms of any final agreement will be subject to Xaar shareholder approval.

Such an arrangement would provide Xaar 3D with the best opportunity to complete the commercialisation of the HSS product range in the shortest time, would lead to an immediate injection of cash and will enable Xaar to focus on its core business (see Strategy update on page 11).

38. Subsidiary audit exemption

The following companies are exempt from the requirements relating to the audit of individual accounts for the year ended 31 December 2020 by virtue of section 479A of the companies act 2006: XaarJet Limited (03320972), XaarJet (Overseas) Limited (03375961), Xaar Technology Limited (02469592), Xaar Digital Limited (03588121), Xaar Trustee Limited (03025096), Xaar 3D Holdings Limited (11425540), Xaar 3D Limited (11389105).

Company balance sheet

as at 31 December 2020

	Notes	2020 £'000	2019 €'000
Fixed assets			
Right of use asset	3	39	-
Investments	4	82,055	32,893
		82,094	32,893
Current assets			
Debtors	5	5,572	50,159
Cash at bank and in hand		7,051	4,201
		12,623	54,360
Total assets		94,717	87,253
Creditors: amounts falling due within one year			
Trade and other payables	6	(9,280)	[8,646]
Lease liabilities	3	(16)	-
Provisions	7	-	(119)
		(9,296)	(8,765)
Net current assets		3,327	45,595
Total assets less current liabilities		85,421	78,488
Lease liabilities	3	(19)	-
Net assets		85,402	78,488
Capital and reserves			
Called up share capital	9	7,833	7,833
Share premium account	9	29,328	29,328
Other reserves	9	36,723	36,561
Own shares	9	(1,937)	(2,656)
Share-based payment reserve	9	3,520	3,440
Profit and loss account		9,935	3,982
Equity shareholders' funds		85,402	78,488

Xaar plc reported a profit for the financial year ended 31 December 2020 of £6,663,000 (2019: loss of £1,512,000).

As permitted by section 408 of the Companies Act 2006, the Company has elected not to present its own profit and loss account for the year.

The financial statements of Xaar plc, registered number 3320972, were approved by the Board of Directors and authorised for issue on 27 April 2021. They were signed on its behalf by:

John Mills

Chief Executive Officer

lan Tichias

Chief Financial Officer

Company statement of changes in equity

for the year ended 31 December 2020

	Notes	Called up share capital £'000	Share premium account £'000	Other reserves £'000	Own shares £'000	Share-based payments £'000	Profit and loss account £'000	Total €'000
At 1 January 2019		7,833	29,328	35,729	(3,093)	3,160	5,966	78,923
Loss for the financial year		-		-	-	-	(1,512)	(1,512)
Total comprehensive income for the period		-	-	-	-	_	(1,512)	(1,512)
Own shares sold in the period		_	-	_	437	_	_	437
Share option exercises		_	_		-	-	(472)	(472)
Capital contribution for share-based payments	4	_	-	832	_	-	-	832
Share-based payments	10	-	-	-	-	280	-	280
At 31 December 2019		7,833	29,328	36,561	(2,656)	3,440	3,982	78,488
Profit for the financial year		-	-	-	-	-	6,663	6,663
Total comprehensive expense for the period		-	-	-	-	-	6,663	6,663
Own shares sold in the period		_	-	_	719	-	_	719
Share option exercises		_	_	_	-	_	(710)	(710)
Capital contribution for share-based payments	4	-	_	162	_	-	-	162
Share-based payments	10	_	_	-	-	80	-	80
At 31 December 2020		7,833	29,328	36,723	(1,937)	3,520	9,935	85,402

The share premium account and other reserves are non-distributable.

Other reserves represent the profit from the sale of a subsidiary, the non-distributable portion of the dividend received in Xaar plc from Xaar Digital Limited and the capital contribution to investments relating to share-based payments.

The share-based payment reserve represents the cumulative charge made under IFRS 2 in relation to share options and LTIP awards.

Full details of share capital, share premium and own shares are given in notes 26, 27 and 28 to the consolidated financial statements.

Notes to the Company financial statements

for the year ended 31 December 2020

1. Significant accounting policies

Basis of accounting

The separate financial statements of the Company are presented as required by the Companies Act 2006 and in accordance with FRS 101 ('Financial Reporting Standard 101') 'Reduced Disclosure Framework' as issued by the Financial Reporting Council. The results of Xaar plc are included in the consolidated financial statements of Xaar plc.

As permitted by FRS 101, the Company has taken advantage of the disclosure exemptions available under that standard in relation to share-based payments, financial instruments, capital management, presentation of comparative information in respect of certain assets, presentation of a cash flow statement and certain related party transactions.

Where required, equivalent disclosures are given in the consolidated financial statements of Xaar plc.

The financial statements have been prepared under the historical cost convention.

The principal accounting policies adopted are the same as those set out in note 3 of the consolidated financial statements except as noted below. They have all been applied consistently throughout the year and the preceding year.

Share-based payments

The share-based payment reserve represents the cumulative charge made under IFRS 2 in relation to share options and LTIP awards. The costs related to employees contracted with other Group entities are recharged from Xaar plc to the related entity.

Going concern

The Company's business activities, together with the factors likely to affect its future development, performance and position, are set out in the Strategic Report on pages 8 to 31. Notes 21 and 22 to the consolidated financial statements include a description of the Company's objectives, policies and processes for managing its capital; its financial risk management objectives; details of its financial instruments and hedging activities; and its exposure to credit risk and liquidity risk.

After making enquiries, and having regard to the principal risks the Directors have a reasonable expectation that the Company has adequate resources to continue in operational existence for the foreseeable future, the Directors have assessed the Company's forecasts and cash flow projections for the next 12 months, which have undergone reverse stress tests by significantly reducing revenue across the period, and identified cost mitigations. For this reason, we continue to adopt the going concern basis in preparing the financial statements.

Please refer to Directors' report on pages 64 and 65 for going concern.

Investments

Fixed asset investments in subsidiaries are shown at cost less provision for impairment and include capital contributions arising from share-based payments. Each year, the Company carries out impairment tests of its investments which require estimates to be made of the value in use of its CGUs and groups of CGUs. The value in use calculations are dependent on estimates of future cash flows, long-term growth rates and appropriate discount rates to be applied to future cash flows. Having modelled a number of sensitivities, it was concluded that no reasonably foreseeable change in the key assumptions used in the impairment model would result in a significant impairment charge being recorded in the financial statements.

For investments in subsidiaries acquired for consideration, including the issue of shares qualifying for merger relief, cost is measured by reference to the nominal value only of the shares issued. Any premium is ignored. Utilising transition rules, as the merger relief arose from transactions before the introduction of FRS101, the transaction has utilised grandfathering relief rather than recalculating and presenting under appropriate FRS101 treatment.

Dividends

Dividend income is recognised when an irrevocable right to receive payment has been established provided that it is probable that the economic benefits will flow to the Company and the amount of income can be measured reliably.

2. Profit/(loss) for the year

As permitted by section 408 of the Companies Act 2006, the Company has elected not to present its own profit and loss account for the year.

The average number of employees throughout 2020 was 32 (2019: 31). Staff costs amounted to £1.9 million (2019: £1.9 million). Information about the remuneration of Directors is provided in the audited part of the Directors' Remuneration report on page 87. For the remuneration of key management personnel of the Company see note 34 Related party transactions of the consolidated financial statements.

The Directors' Remuneration report can be found on page 87.

The audit fee for the audit of the Company's financial statements in 2020 was £20,000 (2019: £20,000).

The figures for the auditor's remuneration for the Company required by regulation 5(1)(b) of the Companies (Disclosure of Auditor Remuneration and Liability Limitation Agreements) Regulations 2008 are not presented as the consolidated financial statements comply with this regulation on a consolidated basis.

Notes to the Company financial statements (cont.)

for the year ended 31 December 2020

3. Leases

Carrying amount	
At 31 December 2020	(5)
Depreciation At 1 January 2020 Charge for the year Exchange movements	- (6) 1
At 31 December 2020	44
Cost At 1 January 2020 Additions Exchange movements	- 45 (1)
	Building £'000

Set out below are the carrying amounts of lease liabilities (included under interest-bearing loans and borrowings) and the movements during the period:

	2020 £'000
At 1 January	-
Additions	45
Payments	(9)
Exchange movement	(1)
At 31 December	35
Current	16
Non-current	19
	35

The table below summarises the maturity profile of the Group's financial liabilities based upon the contractual undiscounted payments for the year.

	2020 €'000
On demand	_
Less than three months	_
Four to 12 months	17
One to five years	19
More than five years	-
	36

The following are the amounts recognised in profit or loss:

	2020 £'000
Depreciation expense of right-of-use assets	6
Interest expense on lease liabilities	-
Total amount recognised in profit or loss	6

4. Fixed asset investments

	2020 £'000	2019 £'000
Subsidiary undertakings held at cost		
At beginning of the year	32,893	32,062
Additions in the year	49,000	-
Capital contributions arising from share-based payments	162	831
At end of the year	82,055	32,893

The Directors believe that the carrying value of the investments is supported by their underlying net assets.

As described in note 5, an exercise was performed in the year to simplify the intra-group position. This resulted in a capital contribution of £49,000,000, which has been included as an additional investment in the table above.

5. Debtors

	2020 £'000	2019 €'000
Amounts receivable within one year		·
Amounts owed by Group undertakings	5,572	50,159
Amounts receivable after more than one year		
Deferred tax asset (see below)	-	-
	5,572	50,159

Amounts owed by Group undertakings are trading balances and interest is not charged.

During 2020 an exercise took place to simplify the intra-group position and historic trading balances, with certain Group debtors being waived which has been accounted for as a capital contribution.

	2020 £'000	2019 £'000
Deferred tax asset at 1 January Effect of initial application of IFRS 16	-	44 (4)
Restated Deferred tax asset at 1 January	-	40
Deferred tax movement on IFRS 16 Deferred tax movement on share option Deferred tax asset at 31 December	- - -	4 (44) -
Deferred tax asset due after more than one year	-	-

For additional disclosures relating to current and deferred taxation, see notes 12 and 23 to the consolidated financial statements.

Notes to the Company financial statements (cont.)

for the year ended 31 December 2020

6. Creditors

	2020 £'000	2019 €'000
Amounts falling due within one year Amounts owed to Group undertakings	9,124	8,593
Accruals	156	53
	9,280	8,646

Amounts owed to Group undertakings are trading balances under normal commercial terms and interest is not charged.

7. Provisions

	£'000	£.000
At 1 January	119	78
Additional provision in the year	-	119
Utilisation of provision	(119)	-
Release of provision	-	(78)
At 31 December	-	119

Provision movements relate to restructuring costs arising in Xaar plc. Further details of provisions are provided in note 25 to the consolidated financial statements.

8. Dividends

There were no dividends declared or paid during the current and preceding year.

9. Share capital and share premium account

Full details of movements in share capital, share premium account, other reserves, own shares and the share option payment reserve are given in notes 26, 27, 28 and 30 to the consolidated financial statements.

10. Share-based payments

Equity-settled share option scheme

The Company's share option schemes are open to all employees of the Company. Options are exercisable at a price equal to the average quoted market price of the Company's shares on the date of grant. The vesting period is three years. The vesting criteria of these options are disclosed in note 32 to the consolidated financial statements. If the options remain unexercised after a period of ten years from the date of grant, 42 months in the case of the Share Save Scheme, or five years in the case of the Share Incentive Plan, the options expire. Save as permitted in the share option scheme rules, options lapse on an employee leaving the Company.

The weighted average share price at the date of exercise for share options exercised during the period was £0.53 (2019: £1.32). The options outstanding at 31 December 2020 had a weighted average remaining contractual life of two and a half years (2019: three years), and a range of exercise prices between 0 pence and 344 pence (2019: 0 pence and 403 pence).

The performance conditions relating to the above share options and the exercise prices of options outstanding at the year-end are given in note 32 to the consolidated financial statements.

Long-Term Incentive Plan

The Company's Long-Term Incentive Plan is open to all employees of the Company. Vesting of Performance Share Awards made under this scheme is conditional upon the achievement of performance conditions. Full details of the performance conditions are shown in note 32 of the consolidated financial statements. All awards made under this scheme are exercisable within three to ten years after the date of grant. Save as permitted in the Long-Term Incentive Plan rules, awards lapse on an employee leaving the Company.

The weighted average share price at the date of exercise for awards exercised during the period was £0.45 (2019: £0.73). The awards outstanding at 31 December 2020 had a weighted average remaining contractual life of nine years (2019: nine years). All awards have a £nil exercise price.

11. Subsidiary undertakings

The following entities are the subsidiary undertakings of the Company:

Name	Country of incorporation	Address of registered office	Principal activity	Issued and fully paid up share capital	Proportion of ordinary share capital held by the Company
Xaar Technology Limited	England & Wales	Science Park, Cambridge, CB4 0XR	Research and development	4,445,322 ordinary £1 shares	100%
XaarJet Limited	England & Wales	Science Park, Cambridge, CB4 0XR	Manufacturing, research and development and sales and marketing	2 ordinary £1 shares	100%
XaarJet (Overseas) Limited	England & Wales	Science Park, Cambridge, CB4 0XR	Sales and marketing	1 ordinary £1 share	100%
Xaar Trustee Limited ¹	England & Wales	Science Park, Cambridge, CB4 0XR	Trustee	2 ordinary £1 shares	100%
Xaar Digital Limited	England & Wales	Science Park, Cambridge, CB4 0XR	Treasury	100 ordinary £1 shares	100%
Xaar 3D Holdings Limited	England & Wales	Science Park, Cambridge, CB4 0XR	Holding Company	1,100 ordinary shares of £0.01 each	100%
Xaar 3D Limited ²	England & Wales	Science Park, Cambridge, CB4 0XR	Manufacturing, research and development	2,400 ordinary shares of £0.01 each	55%
Xaar 3D ApS³	Denmark	c/o Bygning OBV 028, Otto Busses Vej 7,1. sal., 2450 Kobenhavn SV, Denmark	Research and development	500 ordinary shares of DKK 100 each	55%
Xaar Group AB (in liquidation) ⁴	Sweden	Science Park, Cambridge, CB4 0XR	Holding Company	1,137,000 ordinary shares of SEK 0.09 each	100%
XaarJet AB (in liquidation) ⁴	Sweden	Science Park, Cambridge, CB4 0XR	Manufacturing	1,000 ordinary shares of SEK 100 each	100%
Xaar US Holdings Inc.	USA	1209 Orange Street, Wilmington, New Castle County, Delaware, USA	Holding Company	6,000 shares of common stock \$1 each	100%
Engineered Printing Solutions ⁵	USA	201 Tennis Way, East Dorset, VT 05253, USA	Manufacturing, sales and marketing	100 shares of common stock \$1 each	100%
Xaar Americas Inc. ⁵	USA	1000 Post and Paddock, Suite 405, Grand Prairie, TX 75050, USA	Sales and marketing	10,000 shares of common stock US\$1 each	100%
Xaar Inkjet Technology (Shenzhen) Compan Limited ⁶	China y	Room 409, Floor 4, Building 13, Fuhai Industrial Zone, Fuzhou Avenue, Shenzhen, China	Sales and marketing	-	-

¹ Xaar Trustee Limited shares are held by Xaar 3D Holdings Limited.
2 Xaar 3D Limited shares are held by Xaar 3D Holdings Limited.
3 Xaar 3D ApS shares are held by Xaar 3D Limited.
4 Xaar Group AB and XaarJet AB, companies incorporated in Sweden were liquidated on EGM on 21 December 2020.
5 Xaar Americas Inc and Engineering Printing Solutions are held by Xaar US Holdings Inc.
6 Xaar Inkjet Technology (Shenzhen) was granted a trading licence and legally incorporated in China in December 2020 but no share capital was in issue at year end.

Five year record

	2020 Continuing Operations £'000	2019 Restated Continuing Operations £'000	2018 €`000	2017 €`000	2016 €'000
Summarised consolidated results					
Results					
Revenue	47,984	49,379	60,468	100,142	96,178
Gross profit	13,010	12,290	29,496	47,045	44,667
Adjusted (loss)/profit before tax (note 4)	(3,911)	(7,952)	4,523	18,012	19,482
Adjusted (loss)/profit after tax (note 14)	(4,038)	(11,632)	6,930	16,413	16,587
Adjusted diluted earnings per share (note 4)	(5.2p)	(15.1p)	10.0p	20.7p	21.2p
Dividends pence per share	_	_	1.0p	10.2p	10.0p
Assets employed					
Net cash*	18,117	25,322	27,946	44,697	49,321

^{*} Net cash is made up of cash and cash equivalents, treasury deposits less borrowings and assets held for sale.

Notice of the Annual General Meeting

COVID-19 statement

The health and wellbeing of our colleagues, shareholders and the wider community in which our Company operates is a priority for us. The Directors have carefully considered the impact on the meeting of the constantly evolving COVID-19 situation and the UK Government's restrictions and guidance on, amongst other things, public gatherings and social distancing. As at the date of publication of the notice of the Annual General Meeting, it is anticipated that this year's AGM will be held as a closed meeting. Accordingly, save for the Chairman of the Meeting and such other persons as the Chairman of the Meeting may decide should be admitted for the purposes of forming a quorum, shareholder attendance in person at the AGM will not be permitted.

The Company will continue to closely monitor the developing impact of COVID-19 and the latest legislation and guidance issued by the UK Government. If circumstances evolve such that the Directors consider that, within safety constraints and in accordance with government guidance, arrangements regarding attendance at the Annual General Meeting can change, the Company will notify shareholders as soon as reasonably practicable of any such changes via a Regulatory Information Service and on our website. We encourage shareholders to monitor the Company's website and regulatory news services for any updates in relation to this year's AGM.

Given the uncertainty around whether shareholders will be able to attend the AGM, we strongly recommend that shareholders exercise their votes by submitting their proxy as set out in the Notice of Meeting. This will ensure that your vote will be counted if attendance at the meeting is restricted (which is likely to be the case due to the ongoing COVID-19 restrictions). All shareholders are strongly recommended to vote electronically at www.signalshares.com as your vote will automatically be counted. In addition, should a shareholder have a question that they would have raised at the meeting, we ask that they send it by email to investor.relations@xaar.com before 5.00 pm on 8 June 2021. Answers to the questions will be published on our corporate website (www.xaar.com) after the AGM.

Notice is hereby given that the twenty-fourth Annual General Meeting ('AGM') of Xaar plc (the 'Company') will be held at Xaar plc, Unit 5 Enterprise, 3950 Cambridge Research Park, Beach Drive, Waterbeach, Cambridge, CB25 9PE on Wednesday 16 June 2021 at 9:30am for the following purposes:

Ordinary business

To consider and, if thought fit, pass the following Resolutions which will be proposed as Ordinary Resolutions:

- 1. THAT the Company's annual financial statements for the financial year ended 31 December 2020, together with the Directors' report and auditor's report on those financial statements, be received and adopted.
- 2. THAT Ernst & Young LLP be re-appointed as the Company's auditors to hold office from the conclusion of this meeting until the conclusion of the next general meeting of the Company at which financial statements are laid.
- 3. THAT the Directors be authorised to determine the remuneration of the auditors.
- 4. THAT Dr Robert Mills be re-elected as a Director of the Company.
- 5. THAT Andrew Herbert be re-elected as a Director of the Company.
- 6. THAT Christopher Morgan be re-elected as a Director of the Company.
- 7. THAT Ian Tichias be re-elected as a director of the Company.
- 8. THAT Alison Littley be re-elected as a director of the company.
- 9. THAT the Directors' remuneration report (excluding the Directors' remuneration policy which is set out on pages 78 to 94 of the Annual Report) for the year ended 31 December 2020 be approved.

Special business

To consider and, if thought fit, pass the following Resolutions which will be proposed in the case of Resolution 10 as an Ordinary Resolution and in the case of Resolutions 11 to 13 as Special Resolutions:

- 10. THAT, in substitution for all existing authorities including the authority conferred on the Directors of the Company by Article 4(b) of the Company's Articles of Association, pursuant to and in accordance with section 551 of the Companies Act 2006 ('Act') the Directors of the Company be hereby generally and unconditionally authorised to exercise all powers of the Company to allot equity securities (within the meaning of section 560 of the Act), or grant rights to subscribe for, or convert any security into, shares in the Company ('Rights'):
 - (i) up to an aggregate nominal value of £2,611,143 (being the nominal value of approximately one third of the issued share capital of the Company); and
 - (ii) up to an aggregate nominal value of £5,222,286 (being the nominal value of approximately two thirds of the issued share capital of the Company) (such amount to be reduced by the nominal amount of any equity securities allotted or Rights granted under paragraph (ii)) in connection with an offer by way of a rights issue (as defined in the Listing Rules issued by the Financial Conduct Authority pursuant to Part VI of the Financial Services and Markets Act 2000) or other pre-emptive offer to:
 - (a) the holders of ordinary shares of 10 pence each in the capital of the Company ('ordinary shares') in proportion (as nearly as may be practicable) to the respective numbers of ordinary shares held by them; and
 - (b) holders of other equity securities, as required by the rights of those securities or, subject to such rights, as the Directors otherwise consider necessary, and so that, in each case, the Directors of the Company may impose any limits or restrictions and make any arrangements which they consider necessary or appropriate to deal with treasury shares, fractional entitlements, record dates, legal, regulatory or practical problems in, or under the laws of, any territory or the requirements of any regulatory body or stock exchange or any other matter, such authority to expire on the earlier of the next Annual General Meeting of the Company held after the date on which this resolution becomes unconditional and the date 15 months after the passing of this

Notice of the Annual General Meeting (cont.)

Special business (cont.)

Resolution, save that the Company may at any time before such expiry make any offer(s) or enter into any agreement(s) which would or might require shares to be allotted or Rights to be granted after such expiry and the Directors may allot shares or grant Rights in pursuance of any such offer(s) or agreement(s) as if the authority conferred hereby had not expired. This Resolution revokes and replaces all unexercised authorities previously granted to the Directors to allot shares or grant Rights but without prejudice to any allotment of shares or grant of Rights already made, offered or agreed to be made pursuant to such authorities.

- 11. THAT, subject to the passing of Resolution 10, the Directors of the Company be authorised to allot equity securities (as defined in section 560 of the Act) for cash under the authority conferred by that Resolution and/or to sell ordinary shares held by the Company as treasury shares as if section 561 of the Act did not apply to any such allotment or sale, provided that such authority shall be limited to:
 - (a) the allotment of equity securities in connection with an offer of equity securities (but, in the case of the authority granted under paragraph (ii) of Resolution 10, by way of a rights issue only):
 - (i) to the holders of ordinary shares in proportion (as nearly as may be practicable) to their respective holdings; and
 - (ii) to holders of other equity securities as required by the rights of those securities or as the Directors otherwise consider necessary, but subject to such exclusions or other arrangements as the Directors of the Company may deem necessary or expedient in relation to treasury shares, fractional entitlements, record dates, legal or practical problems in or under the laws of any territory or the requirements of any regulatory body or stock exchange; and
 - (b) the allotment of equity securities or sale of treasury shares (otherwise than pursuant to paragraph (i) of this Resolution) to any person up to an aggregate nominal amount of £391,672.

The authority granted by this Resolution will expire at the conclusion of the Company's next Annual General Meeting after the passing of this Resolution or, if earlier, at the close of business on the date 15 months after the passing of this Resolution, save that the Company may, before such expiry make offers or agreements which would or might require equity securities to be allotted (or treasury shares to be sold) after the authority expires and the Directors of the Company may allot equity securities (or sell treasury shares) in pursuance of any such offer or agreement as if the authority had not expired.

- 12. THAT, subject to the passing of Resolution 10, the directors of the Company be authorised in addition to any authority granted under Resolution 11 to allot equity securities (as defined in section 560 of the Act) for cash under the authority conferred by Resolution 10 and/or to sell ordinary shares held by the Company as treasury shares as if section 561 of the CA 2006 did not apply to any such allotment or sale, provided that such authority shall be:
 - (a) limited to the allotment of equity securities or sale of treasury shares up to an aggregate nominal amount of £391,672; and
 - (b) used only for the purpose of financing (or refinancing, if the authority is to be used within six months after the original transaction) a transaction which the Directors of the Company determine to be an acquisition or other capital investment of a kind contemplated by the Statement of Principles on Disapplying Pre-Emption Rights most recently published by the Pre-Emption Group prior to the date of this notice.
 - The authority granted by this Resolution will expire at the conclusion of the Company's next Annual General Meeting after this Resolution is passed or, if earlier, at the close of business on the date 15 months after the passing of this Resolution, save that the Company may, before such expiry make offers or agreements which would or might require equity securities to be allotted (or treasury shares to be sold) after the authority expires and the Directors of the Company may allot equity securities (or sell treasury shares) in pursuance of any such offer or agreement as if the authority had not expired.
- 13. That the Company be generally and unconditionally authorised for the purposes of section 701 of the Act to make one or more market purchases (within the meaning of section 693(4) of the Act) of ordinary shares provided that:
 - (a) the maximum aggregate number of ordinary shares authorised to be purchased is 11,671,810 (representing 14.9% of the issued ordinary share capital);
 - (b) the minimum price (excluding expenses) which may be paid for an ordinary share is the par value of the shares;
 - (c) the maximum price (excluding expenses) which may be paid for an ordinary share is an amount equal to the higher of (i) 105% of the average of the middle market quotations for an ordinary share as derived from the London Stock Exchange Daily Official List for the five business days immediately preceding the day on which that ordinary share is purchased, and (ii) the higher of the price of the last independent trade and the highest current independent bid on the trading venue where the purchase is carried out;
 - (d) this authority shall expire at the conclusion of the next Annual General Meeting of the Company, or, if earlier, at the close of business on the date which is 15 months after the passing of this Resolution unless renewed, revoked or varied before that time; and
 - (e) the Company may make a contract to purchase ordinary shares under this authority before the expiry of the authority which will or may be executed wholly or partly after the expiry of the authority, and may make a purchase of ordinary shares in pursuance of any such contract.

By order of the Board

Camila Cottage

Company Secretary

Notes

- 1. A member entitled at the meeting may appoint one or more proxies to exercise all or any of the member's rights, to speak at the meeting. A proxy need not be a member of the Company. If a member appoints more than one proxy, each proxy must be appointed to exercise the rights attached to a different share or shares held by the member. If a member wishes to appoint one or more proxies they may do so at www.signalshares.com, if not already registered you will need your Investor code to do so, this can be found on your share certificate. If you need help with voting online, or require a paper proxy form, please contact our Registrar, Link Group by email at enquiries@linkgroup.co.uk, or you may call Link on 0371 664 0391. Calls are charged at the standard geographic rate and will vary by provider. Calls outside the United Kingdom will be charged at the applicable international rate. We are open between 09:00 17:30, Monday to Friday excluding public holidays in England and Wales.
- 2. To be effective, the proxy vote must be submitted at www.signalshares.com so as to have been received by the Company's registrars not less than 48 hours (excluding weekends and public holidays) before the time appointed for the meeting or any adjournment of it. Any power of attorney or other authority under which the proxy is submitted must be returned to the Company's registrars, Link Group, PXS 1, Central Square, 29 Wellington Street, Leeds LS1 4DL. If a paper form of proxy is requested from the registrar, it should be completed and returned to Link Group, PXS 1, Central Square, 29 Wellington Street, Leeds LS1 4DL to be received not less than 48 hours before the time of the meeting.
- 3. Any person to whom this notice is sent who is a person nominated under section 146 of the Companies Act 2006 to enjoy information rights (a 'Nominated Person') may, under an agreement between him/her and the shareholder by whom he/she was nominated, have a right to be appointed (or to have someone else appointed) as a proxy for the Annual General Meeting. If a Nominated Person has no such proxy appointment right or does not wish to exercise it, he/she may, under any such agreement, have a right to give instructions to the shareholder as to the exercise of voting rights.
- **4.** The statement of the rights of shareholders in relation to the appointment of proxies in paragraphs 1 and 2 above does not apply to Nominated Persons. The rights described in these paragraphs can only be exercised by shareholders of the Company.
- 5. In accordance with Regulation 41 of the Uncertified Securities Regulations 2001, the Company specifies that only those members entered on the register of members of the Company as at close of business on 14 June 2021 (or in the event the meeting is adjourned, on the register of members 48 hours before the time of any adjourned meeting) shall be entitled to vote at the meeting in respect of the number of shares registered in their name at that time. Changes to entries on the register of members after close of business on 14 June 2021 (or in the event the meeting is adjourned, on the register of members less than 48 hours before the time of any adjourned meeting) shall be disregarded in determining the rights of any person to vote at the meeting.
- 6. Copies of Directors' service agreements, the terms of appointment of Non-Executive Directors, and the register of Directors' interests kept by the Company under section 808 of the Companies Act 2006 will be available 15 minutes prior to the commencement of the meeting and will remain open and accessible during the continuance of the meeting to any person attending the meeting.
- 7. Biographical details of all Directors offering themselves for re-appointment are set out on pages 56 and 57 of the Annual Report and Accounts.
- 8. Shareholders should note that it is possible that, pursuant to requests made by shareholders of the Company under section 527 of the Companies Act 2006, the Company may be required to publish on a website a statement setting out any matter relating to: (i) the audit of the Company's accounts (including the auditor's report and the conduct of the audit) that are to be laid before the Annual General Meeting; or (ii) any circumstance connected with an auditor of the Company ceasing to hold office since the previous meeting at which annual accounts and reports were laid in accordance with section 437 of the Companies Act 2006. The Company may not require the shareholders requesting any such website publication to pay its expenses in complying with sections 527 or 528 of the Companies Act 2006. Where the Company is required to place a statement on a website under section 527 of the Companies Act 2006, it must forward the statement to the Company's auditor not later than the time when it makes the statement available on the website. The business which may be dealt with at the Annual General Meeting includes any statement that the Company has been required under section 527 of the Companies Act 2006 to publish on a website.

Notice of the Annual General Meeting (cont.)

Notes (cont.)

- 9. In order to facilitate voting by corporate representatives at the meeting, arrangements will be put in place at the meeting so that: [i] if a corporate shareholder has appointed the Chairman of the meeting as its corporate representative to vote on a poll in accordance with the directions of all of the other corporate representatives for that shareholder at the meeting, then on a poll those corporate representatives will give voting directions to the Chairman and the Chairman will vote (or withhold a vote) as corporate representative in accordance with those directions; and (ii) if more than one corporate representative for the same corporate shareholder has not appointed the Chairman of the meeting as its corporate representative, a designated corporate representative will be nominated, from those corporate representatives, who will vote on a poll and the other corporate representatives will give voting directions to that designated corporate representative. Corporate shareholders are referred to in the guidance issued by the Institute of Chartered Secretaries and Administrators on proxies and corporate representatives (www.icsa.org.uk) for further details of this procedure. The guidance includes a sample form of appointment letter if the Chairman is being appointed as described in (i) above.
- 10. CREST members who wish to appoint a proxy or proxies through the CREST electronic proxy appointment service may do so by using the procedures described in the CREST Manual. CREST Personal Members or other CREST sponsored members, and those CREST members who have appointed a service provider(s), should refer to their CREST sponsor or voting service provider(s), who will be able to take the appropriate action on their behalf.
- 11. In order for a proxy appointment or instruction made using the CREST service to be valid, the appropriate CREST message (a 'CREST Proxy Instruction') must be properly authenticated in accordance with CRESTCo's specifications, and must contain the information required for such instruction, as described in the CREST Manual. The message, regardless of whether it constitutes the appointment of a proxy or is an amendment to the instruction given to a previously appointed proxy must, in order to be valid, be transmitted so as to be received by the issuer's agent (ID RA10) by 9:30 am on 14 June 2021. For this purpose, the time of receipt will be taken to be the time (as determined by the timestamp applied to the message by the CREST Application Host) from which the issuer's agent is able to retrieve the message by enquiry to CREST in the manner prescribed by CREST. After this time any change of instructions to proxies appointed through CREST should be communicated to the appointee through other means.
- 12. CREST members and, where applicable, their CREST sponsors, or voting service providers should note that CRESTCo does not make available special procedures in CREST for any particular message. Normal system timings and limitations will, therefore, apply in relation to the input of CREST Proxy Instructions. It is the responsibility of the CREST member concerned to take (or, if the CREST member is a CREST personal member, or sponsored member, or has appointed a voting service provider, to procure that his CREST sponsor or voting service provider(s) take(s)) such action as shall be necessary to ensure that a message is transmitted by means of the CREST system by any particular time. In this connection, CREST members and, where applicable, their CREST sponsors or voting system providers are referred, in particular, to those sections of the CREST Manual concerning practical limitations of the CREST system and timings.
- 13. The Company may treat as invalid a CREST Proxy Instruction in the circumstances set out in Regulation 35(5)(a) of the Uncertificated Securities Regulations 2001 (as amended).
- 14. As at 7.00am on 27 April 2021, the Company's issued share capital comprised 78,334,296 ordinary shares of 10 pence each. Each ordinary share carries the right to one vote at a general meeting of the Company, except for the shares held in trust for the Xaar Share Incentive Plan totalling 73,923 ordinary shares and, therefore, the total number of voting rights in the Company as at 7.00am on 27 April 2021 is 78,260,373.
- 15. Any member has the right to ask questions. The Company must answer any such question relating to the business being dealt with at the meeting but no such answer need be given if: (a) to do so would interfere unduly with the preparation for the meeting or involve the disclosure of confidential information; (b) the answer has already been given on a website in the form of an answer to a question; or (c) it is undesirable in the interests of the Company or the good order of the meeting that the question be answered.
- **16.** You may vote your shares electronically at www.signalshares.com. On the home page, search "Xaar plc" and then log in or register, using your Investor Code. To vote, click on the "Vote Online Now" button.
- 17. A copy of this Notice, and other information required by section 311A of the Companies Act 2006, can be found at www.xaar.com.

Advisors

Registered office

316 Science Park Cambridge CB4 0XR

Registered number 3320972

Company Secretary Camila Cottage

Brokers Investec

30 Gresham Street London, EC2V 7QP

Registered auditor Ernst & Young LLP

Cambridge Business Park Cowley Rd Cambridge CB4 0WZ

Solicitors Mills & Reeve LLP

Botanic House 100 Hills Road Cambridge CB2 1PH

Bankers HSBC Bank plc

63-64 St Andrews Street Cambridge CB2 3BZ

Registrars Link Group

10th Floor Central Square 29 Wellington Street Leeds LS1 4DL

Unsolicited mail:

The Company is obliged by law to make its share register publicly available should a request be received. As a consequence, shareholders may receive unsolicited mail from organisations that use it as a mailing list. Shareholders wishing to limit the amount of such mail should either write to Mailing Preference Service, DMA House, 70 Margaret Street, London W1W 8SS, register online at www.mpsonline. org.uk or call the Mailing Preference Service ('MPS') on +44 (0)845 703 4599. MPS is an independent organisation which offers a free service to the public.

Warning to shareholders – boiler room scams

Each year in the UK, £1.2bn is lost to investment fraud, with the average victim losing around £20,000. What is more, it is estimated that only 10% of the people that become victims of investment fraud actually report it.

Investment scams are becoming ever more sophisticated – designed to look like genuine investments, they are increasingly difficult to spot. They are targeted at those most at risk, typically people in retirement who are actively seeking an investment opportunity.

Protect yourself

1. Reject cold calls

If you have been cold called with an offer to buy or sell shares, it is likely to be a high-risk investment or scam. You should treat the call with extreme caution. The safest thing to do is hang up.

If you are offered unsolicited investment advice, discounted shares, a premium price for shares you own, or free company or research reports, you should get the name of the person and organisation contacting you and take these steps before handing over any money.

2. Check the firm on the Financial Services Register at www.fca.org.uk/register

The Financial Services Register is a public record of all the firms and individuals in the financial services industry that are regulated by the FCA.

Use the details on the Financial Services Register to contact the firm.

3. Get impartial advice

Think about getting impartial financial advice before you hand over any money. Seek advice from someone unconnected to the firm that has approached you.

REMEMBER, if it sounds too good to be true, it probably is!

If you use an unauthorised firm to buy or sell shares or other investments, you will not have access to the Financial Ombudsman Service or Financial Services Compensation Scheme if things go wrong.

Report a scam

If you suspect you have been approached by fraudsters please tell the FCA using the share fraud reporting form at www.fca.org.uk/scams, where you can find out more about investment scams.

You can also call the FCA Consumer Helpline on +44 (0)800 111 6768.

If you have lost money to investment fraud, you should report it to Action Fraud on +44 (0)300 123 2040 or online at www.actionfraud.police.uk.

Find out more at www.fca.org.uk/scamsmart



