Independent auditor's report to the members of Xaar plc

Report on the audit of the financial statements

Opinion

In our opinion:

- 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 2017 and of the Group's profit for the year then ended;
- the Group financial statements have been properly prepared in accordance with International Financial Reporting Standards (IFRSs) as adopted by the European Union;
- the parent Company financial statements have been properly prepared in accordance with United Kingdom Generally Accepted Accounting Practice including Financial Reporting Standard 101 "Reduced Disclosure Framework"; and
- the financial statements have been prepared in accordance with the requirements of the Companies Act 2006 and, as regards the Group financial statements, Article 4 of the IAS Regulation.

We have audited the financial statements of Xaar plc (the 'Company') and its subsidiaries (the 'Group') which comprise:

- the Consolidated income statement;
- the Consolidated statement of comprehensive income;
- the Consolidated statement of financial position;
- the Consolidated statement of changes in equity;
- the Consolidated cash flow statement;
- the related Consolidated notes 1 to 34;
- the Company balance sheet;
- the Company statement of changes in equity; and
- the related Company notes 1 to 10.

The financial reporting framework that has been applied in the preparation of the Group financial statements is applicable law and IFRSs as adopted by the European Union. The financial reporting framework that has been applied in the preparation of the 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 and the Company 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 confirm that, with one exception, no non-audit services prohibited by the FRC's Ethical Standard were provided to the Group or Company. The one exception was that services relating to the preparation of tax forms and support regarding tax inspections were provided to an insignificant overseas affiliate of the Company. The impact of the tax charge of this insignificant affiliate on the Group's tax accounting was immaterial and inconsequential, as was the fee (£6,000), however, in the light of the FRC's view that no services with a direct impact can be provided, this is a breach, albeit insignificant, of the standard. It was concluded in agreement with the Audit Committee that given the size of the services provided and their potential impact, as well as the safeguards in place, the provision of these services did not impact upon our integrity, objectivity and independence as auditor to the Group or the Company.

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

Independent auditor's report to the members of Xaar plc continued

Summary of our audit approach

Key audit matters	The key audit matters that we identified in the current year were: • Customer rebates • Royalty buyout revenue recognition • Capitalisation of internally generated intangible assets • Valuation of new product inventory Within this report, any new key audit matters are identified with and any key audit matters which are the same as the prior year identified with .
Materiality	The materiality that we used in the current year was £0.9 million which was determined based on a blended measure using a combination of profit and asset benchmarks.
Scoping	The scope of our audit was driven by our risk assessment and understanding of the business. This consisted of five components subjected to full scope audits, one component subjected to specific audit procedures and six components subjected to analytical procedures at Group level.
Significant changes in our approach	In the current year we identified two new key audit matters, valuation of new inventory products and royalty buyout revenue recognition, in response to the number of new products launched during the year and a material agreement entered into in December 2017. There have been no other significant changes in our approach in the current year.

Conclusions relating to principal risks, going concern and viability statement

Going concern	We have reviewed the Directors' statement in note 3 to the financial statements about whether they considered it appropriate to adopt the going concern basis of accounting in preparing them and their identification of any material uncertainties to the Group's and Company's ability to continue to do so over a period of at least 12 months from the date of approval of the financial statements. We are required to state whether we have anything material to add or draw attention to in relation to that statement required by Listing Rule 9.8.6R(3) and report if the statement is materially inconsistent with our knowledge obtained in the audit.	**We confirm that we have nothing material to report, add or draw attention to in respect of these matters.**

Principal risks and viability statement	Based solely on reading the Directors' statements and considering whether they were consistent with the knowledge we obtained in the course of the audit, including the knowledge obtained in the evaluation of the Directors' assessment of the Group's and the Company's ability to continue as a going concern, we are required to state whether we have anything material to add or draw attention to in relation to: • the disclosures on pages 29 to 33 that describe the principal risks and explain how they are being managed or mitigated; • the Directors' confirmation on page 48 that they have carried out a robust assessment of the principal risks facing the Group, including those that would threaten its business model, future performance, solvency or liquidity; or • the Directors' explanation on page 48 as to how they have assessed the prospects of the Group, over what period they have done so and why they consider that period to be appropriate, and their statement as to whether they have a reasonable expectation that the Group will be able to continue in operation and meet its liabilities as they fall due over the period of their assessment, including any related disclosures drawing attention to any necessary qualifications or assumptions. We are also required to report whether the Directors' statement relating to the prospects of the Group required by Listing Rule 9.8.6R(3) is materially inconsistent with our knowledge obtained in the audit.	**We confirm that we have nothing material to report, add or draw attention to in respect of these matters.**

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 forming our opinion thereon, and we do not provide a separate opinion on these matters.

In 2016 our report included acquisition fair value accounting as a key audit matter due to the material acquisition made by the Group in that year. This key audit matter is not included in our 2017 report as the Group has not made an acquisition in the current year.

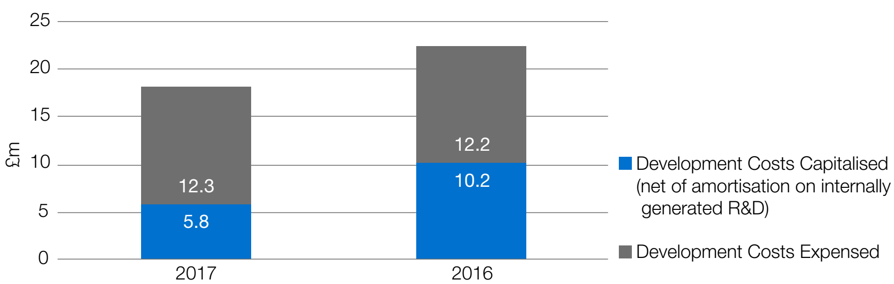
Customer rebates	Our response and observation
Key audit matter description	The Group has volume price agreements with a number of its significant customers. We consider there to be a key audit matter with respect to the accounting for commercial sales agreements with Xaar's significant customers. This is due to the degree of judgement and estimation involved in predicting sales volumes which drives the accounting for commercial sales agreements and the associated revenue in line with IAS 18 and the Group's accounting policy. Given the degree of judgement and estimation involved, we also determined that there was a potential for fraud through possible manipulation of this balance. The accounting policy is disclosed in note 3 to the financial statements. Note 2 to the financial statements provides details of the critical accounting judgements and page 54 provides the Audit Committee's discussion on revenue recognition.
How the scope of our audit responded to the key audit matter	When auditing customer rebates we considered the Group's revenue recognition policy, per International Accounting Standard 18 'Revenue' (IAS 18), to assess whether the revenue recognition policy is compliant and whether the policy has been applied consistently through the year. We performed testing over all significant commercial sales agreements that Xaar has with its major customers by reviewing the terms and conditions of sales, assessing the accounting treatment and reconciling to amounts recognised in the financial statements; also assessing compliance with IAS 18. We performed a retrospective review of prior period accounting estimates in relation to commercial sales agreements to assess the accuracy of management estimates.

Independent auditor's report to the members of Xaar plc continued

Customer rebates continued	Our response and observation
Key observations	Based on the audit procedures performed, we concur that no customer rebate provisions should be recognised. We also concluded that the associated revenue was recognised in line with the Group's accounting policy and IAS 18.

Royal buyout revenue recognition	Our response and observation
Key audit matter description	The Group entered into a patent royalty buyout agreement with a customer in December 2017 for JPY 2.98 billion (circa £20 million). We consider there to be a key audit matter with respect to the accounting for this agreement. This is due to the degree of judgement and estimation involved in fair valuing the patents acquired and determining the timing of revenue recognition in accordance with IAS 18. In accordance with IAS 240 we have considered the presumed fraud risk in revenue recognition in relation to this transaction. The accounting policy is disclosed in note 3 of the financial statements. Note 2 to the financial statements provides details of the critical accounting judgements and page 54 provides the Audit Committee's discussion on revenue recognition.
How the scope of our audit responded to the key audit matter	When auditing the agreement we considered the Group's revenue recognition policy, per International Accounting Standard 18 'Revenue' (IAS 18), to assess whether the revenue had been recognised in accordance with the standard. We evaluated and challenged the assumptions used by management in the fair value model used for allocating consideration to each element. We did this by considering alternative judgements and assumptions that could have been made and through obtaining evidence to support them including analysts' report on Xaar, industry market research and historical royalty trends. In conjunction with our valuation specialists we estimated an appropriate discount rate with reference to market data and compared that to the rate used by management.
Key observations	Based on the audit procedures performed, we concur with the revenue recognised in 2017 in respect of this agreement. We also concluded that the associated revenue was recognised in line with IAS 18.

Capitalisation of internally generated intangible assets	Our response and observation
Key audit matter description	The Group incurred £18.1 million on research and development costs in the year ended 31 December 2017, excluding amortisation on internally generated research and development, (2016: £22.4 million), representing a decrease of 19% from 2016. Xaar management has concluded that there are two development projects meeting the capitalisation criteria in IAS 38 "Intangible Assets" (IAS 38) in the current year. In 2016, there was one project meeting the capitalisation criteria known as the 'P4 platform' in relation to which £5.6 million of development costs have been capitalised during the year (2016: £10.2 million). In the current year management identified a new project meeting the IAS 38 capitalisation criteria known as 'Project Venice', capitalisation commenced from April 2017 and during the year £0.9 million development costs have been capitalised (2016: £nil). Because of the judgements applied in determining whether a product is technically feasible and commercially viable and the complexity of the criteria applied, we consider there to be a key audit matter in relation to development costs being incorrectly accounted for (i.e. capitalised or expensed through the income statement). There is also a key audit matter in relation to the recoverability of capitalised development costs from likely future economic benefits. The accounting policy is disclosed in note 3 to the financial statements. The carrying values of the capitalised development costs are disclosed in note 14 to the financial statements. Note 2 to the financial statements provides details of the critical accounting judgements and page 54 provides the Audit Committee's discussion on capitalisation of internally generated intangible assets.

Capitalisation of internally generated intangible assets continued	Our response and observation
How the scope of our audit responded to the key audit matter	We audited management's accounting treatment of development costs by testing a sample of research and development project costs to assess whether they are accurate and appropriately classified. We discussed the P4 platform, Project Venice and other research and development (R&D) with R&D and operational management, in order for us to assess whether the P4 platform continues to meet and Project Venice met the development criteria during the year and therefore requires capitalisation. We challenged management on the point of capitalisation of Project Venice. We obtained supporting evidence, as described below, to ensure technical feasibility and commercial viability had been demonstrated in April 2017, the point of capitalisation. We also considered whether any other projects have reached the development phase and therefore require capitalisation. For the two capitalised projects we made an assessment of the technical feasibility and likelihood of future economic benefit by reference to product test stage classifications, management's project appraisals, agreements entered into with partners and feedback from partners. In August 2017 the P4 platform stopped being capitalised as the product design was finalised and the first commercial sales of the product began in November 2017, we ensured the point at which P4 costs stopped being capitalised was in line with IAS 38. We also challenged management regarding the useful economic life of the platform of 20 years, the period the product is being amortised over. In making this assessment we have considered the useful economic life (UEL) of previously capitalised technology, competitor benchmarks and capabilities and market reach of the new platform. **Research and development costs capitalised versus expensed**  We obtained revenue and contribution forecast for the capitalised development project and closely examined management estimates included in the forecast with references to industry statistics and historic performance of the Group's other products. Net present value of the forecast contribution was also compared to the carrying value of the capitalised development costs.
Key observations	Based on the audit procedures performed, we concur that management has appropriately applied the principles of IAS 38.

Valuation of new product inventory	Our response and observation
Key audit matter description	Xaar has launched seven new products in the past 24 months. We consider there to be a key audit matter in respect of the valuation of new product inventories. This is due to the degree of judgement and estimation involved in the assumptions used by management such as absorption rates and those costs being absorbed/not being absorbed in order to identify a new product's operating standard cost in line with IAS 2 and the Group's accounting policy when normal production levels might not be well established. The accounting policy is disclosed in note 3 to the financial statements. Note 2 to the financial statements provides details of the critical accounting judgements and page 54 provides the Audit Committee's discussion on inventory valuation.

Valuation of new product inventory continued	Our response and observation
How the scope of our audit responded to the key audit matter	We assessed management's inventory valuation method by auditing the assumptions used in the derivation of the absorption rates, such as the normal level of production outputs, the costs that are required to be absorbed into inventory to ensure the methodology used is in line with the requirements of IAS 2. We performed testing over the assumptions used by management in the derivation of the absorption rates for a sample of new product lines. This included auditing inputs such as the type of costs being absorbed, normal level of production outputs and re-calculating the direct labour cost absorption per unit and the overhead absorption rate used for each new inventory line. We sampled post year-end sale values to ensure new inventory lines held at the year-end were held at the lower of cost and net realisable value (NRV). Where products NRV was less than the NRV we ensured management provided against the products.
Key observations	Based on the audit procedures performed, we concur that management has appropriately applied the principles of IAS 2 in respect of valuing the new inventory lines.

Our application of materiality

We define materiality as the magnitude of misstatement in the financial statements that makes it probable that the economic decisions of a reasonably knowledgeable person would be changed or influenced. We use materiality both in planning the scope of our audit work and in evaluating the results of our work.

Based on our professional judgement, we determined materiality for the financial statements as a whole as follows:

	Group financial statements	Company financial statements
Materiality	£0.9 million (2016: £1.3 million)	£0.7 million (2016: £1.0 million)
Basis for determining materiality	We considered both asset and profit bases in the determination of materiality.	We determined materiality based on 0.5% (2016: 0.7%) of net assets and 5.6% (2016: 5.7%) of profit before tax.
Rationale for the benchmark applied	In addition to a profit-based metric, we incorporated a net asset measure in determining materiality to reflect the significant levels of capitalised research and development costs incurred in recent years. Materiality equates to below 0.6% (2016: 2%) of net assets and 7.5% (2016: 7.3%) of pre-tax profit.	Net assets is considered the most appropriate benchmark as it is the key performance metric for users of the financial statements for Xaar plc company only. Materiality has been capped at £0.7 million for the purpose of the Group audit.

We agreed with the Audit Committee that we would report to the Committee all audit differences in excess of £0.05 million (2016: £0.06 million), as well as differences below that threshold that, in our view, warranted reporting on qualitative grounds. We also report to the Audit Committee on disclosure matters that we identified when assessing the overall presentation of the financial statements.

An overview of the scope of our audit

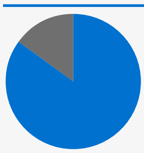
Our Group audit was scoped by obtaining an understanding of the Group and its environment, including Group-wide controls, and assessing the risks of material misstatement at the Group level.

Based on that assessment, we focused our Group audit scope primarily on the audit work at the UK headquarters in Cambridge. Five (2016: two) components were subject to a full scope audit by the Group audit team: Xaar plc, XaarJet Limited, Xaar Technology Limited, XaarJet (Overseas) Limited and Xaar Digital Limited. One (2016: three) components (Engineered Printing Solutions Inc.) was subject to specified audit procedures where the extent of our testing was based on our assessment of the risks of material misstatement and of the materiality of the Group's operations at those components. Six (2016: six) components (Xaar Trustee Limited, Xaar Americas Inc., Xaar Group AB, XaarJet AB, Xaar US Holdings Inc. and Xaar ApS) were subject to a review at the Group level based on our assessment of the materiality of the Group's operations at those components. The same components were subject to full scope audit or specified audit procedures in 2016. All components where our Group audit was focused were audited by the Group team.

The six components subject either to a full audit or specified balance testing account for 85% (2016: 93%) of the Group's revenue, 93% (2016: 93%) of the Group's profit before tax and 96% (2016: 96%) of the Group's net assets. Our audit work for each component was executed at levels of materiality applicable to each individual component which were lower than Group materiality. The component materiality ranges between £0.2 million to £0.8 million (2016: £0.7 million to £1.1 million).

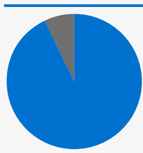
At the parent entity level we also tested the consolidation process and carried out analytical procedures to confirm our conclusion that there were no significant risks of material misstatement of the aggregated financial information of the remaining components not subject to audit or audit of specified account balances.

Revenue



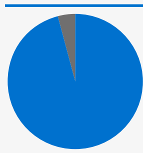
Full scope audit and specified balance testing	85%
Review at Group Level	15%

Profit before tax



Full scope audit and specified balance testing	93%
Review at Group Level	7%

Net assets



Full scope audit and specified balance testing	96%
Review at Group Level	4%

Independent auditor's report to the members of Xaar plc continued

Other information	
The Directors are responsible for the other information. The other information comprises the information included in the Annual Report, other than the financial statements and our auditor's report thereon. Our opinion on the financial statements does not cover the other information and, except to the extent otherwise explicitly stated in our report, we do not express any form of assurance conclusion thereon. In connection with our audit of the financial statements, 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 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 or a material misstatement of the other information. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. In this context, matters that we are specifically required to report to you as uncorrected material misstatements of the other information include where we conclude that: • Fair, balanced and understandable – the statement given by the Directors that they consider the Annual Report and financial statements taken as a whole is fair, balanced and understandable and provides the information necessary for shareholders to assess the Group's performance, business model and strategy, is materially inconsistent with our knowledge obtained in the audit; or • Audit Committee reporting – the section describing the work of the Audit Committee does not appropriately address matters communicated by us to the Audit Committee; or • Directors' statement of compliance with the UK Corporate Governance Code – the parts of the Directors' statement required under the Listing Rules relating to the Company's compliance with the UK Corporate Governance Code containing provisions specified for review by the auditor in accordance with Listing Rule 9.8.10R(2) do not properly disclose a departure from a relevant provision of the UK Corporate Governance Code.	**We have nothing to report in respect of these matters.**

Responsibilities of Directors
As explained more fully in the Directors' responsibilities statement, 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's and the 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 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.

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

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.

Report on other legal and regulatory requirements

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
- the Strategic Report and the Directors' Report have been prepared in accordance with applicable legal requirements.

In the light of the knowledge and understanding of the Group and of the Company and their environment obtained in the course of the audit, we have not identified any material misstatements in the Strategic Report or the Directors' Report.

Matters on which we are required to report by exception

Adequacy of explanations received and accounting records

Under the Companies Act 2006 we are required to report to you if, in our opinion:

- we have not received all the information and explanations we require for our audit; or
- adequate accounting records have not been kept by the Company, or returns adequate for our audit have not been received from branches not visited by us; or
- the Company financial statements are not in agreement with the accounting records and returns.

We have nothing to report in respect of these matters.

Directors' remuneration

Under the Companies Act 2006 we are also required to report if in our opinion certain disclosures of Directors' remuneration have not been made or the part of the Directors' Remuneration Report to be audited is not in agreement with the accounting records and returns.

We have nothing to report in respect of these matters.

Other matters

Auditor tenure

Following the recommendation of the Audit Committee, we were appointed by the Board of Directors of Xaar plc on 24 July 2009 to audit the financial statements for the year ending 31 December 2009 and subsequent financial periods. The period of total uninterrupted engagement including previous renewals and reappointments of the firm is nine years, covering the years ending 2009 to 2017.

Consistency of the audit report with the additional report to the Audit Committee

Our audit opinion is consistent with the additional report to the Audit Committee we are required to provide in accordance with ISAs (UK).

Paul Schofield FCA (Senior statutory auditor)
For and on behalf of Deloitte LLP
Statutory Auditor
Cambridge, United Kingdom

21 March 2018