

**Judges Scientific plc**  
Annual Report and Accounts 2017

*Financial statements*

# Chairman's Statement

For the year ended 31 December 2017

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I am delighted to be able to report record order intake, record revenues, record adjusted pre-tax profit and record earnings per share for the year ended 31 December 2017. Pleasingly, performance has been achieved through both organic growth and contributions from our acquisitions, illustrating the execution of both facets of our strategy. The long-term growth drivers in the scientific instruments industry remain robust and, whilst volatility in short term demand remains a feature within our industry, the climate was in our favour as evidenced by the strong demand for our products observed over the last 18 months.

As well as record financial results, 2017 has been a year of significant progress for the Group and within our businesses. The Group completed its 16<sup>th</sup> acquisition and the two businesses that had experienced lower demand in 2016 returned to normal levels of orders, sales and profitability.

Delivering returns to our shareholders remains the objective of the Group and as such the Board is pleased to be recommending a final dividend of 22.0p, making a total of 32.0p in respect of 2017, a 16.4% increase on the prior year (2016: 27.5p).

## Acquisitions

On 18 July our 51% subsidiary Bordeaux Acquisition Limited ("Bordeaux") acquired 100% of the issued share capital of Crystallon Limited ("Crystallon") for a total consideration of £5.1 million (including an earn-out payment of £0.6 million) plus excess cash; Crystallon is the holding company of Oxford Cryosystems Limited ("Oxford Cryosystems"), a manufacturer of cryogenic cooling systems used for x-ray crystallography and other applications. Simultaneously, Judges purchased an additional 24.5% of the shares in Bordeaux, increasing its shareholding to 75.5%; this was completed at a cost of £1.3 million. The accounts under review include the post-acquisition performance of Oxford Cryosystems, which was in line with the Board's expectation at the time of the transaction.

## Strategy

The Group's strategy is based on creating shareholder returns through highly selective and carefully structured acquisitions, underpinned by diversified, solid and consistent earnings and cash-flows arising from our acquired businesses.

The Group's overall criteria are to acquire small/medium-sized scientific instrument companies, paying a disciplined multiple of earnings and to finance any acquisition ideally through existing cash resources and/or bank borrowings. We are highly selective in acquiring businesses with sustainable profits and cash-flows, in order to obtain immediate and enduring earnings enhancement for our shareholders. It is paramount that acquisitions are completed only when the Directors are satisfied that the target business has sound longstanding strength. As our Group grows it is then able to promptly pay down the acquisition debt, making space to reinvest in further acquisitions, subject always to our prudent approach on gearing.

The underlying market for scientific instruments remains robust and the sector's long-term growth drivers provide comfort that the Group will continue to deliver durable returns for shareholders despite, as we have observed since 2014, the potential for some short-term variability in performance. Long-term market drivers are rooted in the general global expansion of higher education and the need for improved measurement to support the relentless worldwide search for optimisation across science and industry.

## Our team

David Barnbrook, our Chief Operating Officer since 2009 retired from full time duties at the end of 2017 after twelve and a half years with the Group. His contribution has been considerable, as a Board director, as COO and as temporary MD in four subsidiaries. I am sure our shareholders will join the Board in thanking him for his hard work, loyalty and competence and in wishing him a happy retirement. He will continue to chair Scientifica on a part time basis. David's successor, Mark Lavelle joined the Group in November 2017; we are pleased to have found someone with such relevant experience, having spent 15 years with Halma plc, including five years as divisional CEO and we wish Mark great success within Judges.

Our thanks also go out to all our employees for the evident success they have made of their businesses throughout the past 12 months.

Alex Hambro  
Chairman  
19 March 2018

# Strategic Report

## Chief Executive's Report

For the year ended 31 December 2017

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### Performance

#### *Revenues*

Group revenues for the financial year ended 31 December 2017 progressed from £57.3 million to £71.4million, an increase of 24.6%. This reflects Organic growth of 17.7%, the full year contribution of the four businesses acquired during 2016 and the maiden contribution from Oxford Cryosystems which was acquired in July 2017. For the year as a whole and excluding the businesses acquired since 1 January 2016 (this is the meaning of "Organic" in these Report and Accounts), revenues progressed across all regions except the UK, which declined by 15%. The Board believe this may be in part due to the uncertainties affecting research funding since the Brexit referendum. The rest of Europe progressed 20%, USA/Canada 14%, China/Hong Kong 36% and the rest of the World 31%; customers outside the UK appraise the value of what they purchase in currencies other than Sterling and the weakness in Sterling throughout the year assisted the strength of our exports. Country by country, the most impressive increases in absolute terms were in China/Hong Kong (up £2.1 million), in the USA (up £1.8 million) and in India (up £1.3 million thanks to one large order); in Europe, the best performer was Germany (up £0.8 million).

#### *Profits*

Profit before tax and adjusting items progressed 57% to £10.4 million (2016: £6.6 million). Organic operating contribution was up 50% driven by improved demand throughout the Group, including the two businesses that had suffered from low order intake in 2016, and by the very favourable exchange rates prevailing since the Brexit vote. After extensive changes to its management team, the business in the Vacuum division that suffered production and supply chain issues made some progress particularly in the last four months of 2017; much remains to be done and, of course, operating progress takes time to translate into financial performance. All operating subsidiaries combined (including the 2016 acquisitions and Oxford Cryosystems) produced a Return on Total Invested Capital of 20.6% (2016: 15.2%).

The Group has continued to invest in the improvement of its existing products and the development of new products. Investment in research and development amounted to £3.5 million in 2017 (2016: £3.8 million), equivalent to 5.0% of Group revenue, somewhat reduced from the 2016 ratio of 6.6% due to the strength in 2017 sales.

Basic earnings per share before adjusting items advanced by 56% to 131.9p from 84.8p, while fully diluted earnings per share before adjusting items also improved 56% to 130.3p (2016: 83.7p).

#### *Order intake*

The improved demand benefitting the Group since June 2016 continued throughout 2017; this strength was observed across most Group companies and progress was made across all major export zones with Europe up 14%, USA/Canada up 21%, China/Hong Kong up 32% and the rest of the World up 15% whilst the UK was down 9%. This resulted in a 16% increase in Organic order intake compared to 2016. The healthy intake fuelled the improved sales and produced an increased Organic year-end order book of 16.6 weeks (31 December 2016: 14.8 weeks). The total order book at 31 December 2017 including recent acquisitions represented 14.9 weeks of budgeted sales.

#### *Cashflow*

The strong trading performance produced healthy cashflow with cash generated from operations of £10.9 million (2016: £6.2 million). Adjusted net debt as at 31 December 2017, excluding subordinated debt owed to non-controlling shareholders and including sums still due in respect of an acquisition, amounted to £8.0 million (2016: £9.9 million) as cash generation after tax and dividends exceeded the £6.4 million spent on acquisitions.

### Dividends

Your Board is recommending a final dividend of 22.0p per share which, subject to approval at the forthcoming Annual General Meeting on 30 May 2018, will make a total distribution of 32.0p per share in respect of 2017 (2016: 27.5p per share). Despite the proposed 16.4% increase, the total dividend per share is more than four times covered by adjusted earnings per share.

The proposed final dividend, if approved by shareholders, will be payable on 6 July 2018 to shareholders on the register on 8 June 2018 and the shares will go ex-dividend on 7 June 2018.

The Company's shareholders are reminded that a Dividend Reinvestment Plan (DRIP) is in place to enable shareholders to automatically reinvest their dividends in new Judges shares should they so wish.

### Trading environment

The long-term fundamentals supporting demand for scientific instruments remain positive. Market demand is being driven primarily by increased worldwide investment in higher education and a growing trend towards optimisation across science and industry; optimisation requires measurement.

# Strategic Report

## Chief Executive's Report

For the year ended 31 December 2017

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Despite these positive long-term trends, the markets across which Judges and its peers operate are characterised by a degree of shorter-term variability, influenced mostly by government spending, currency fluctuations and the business climate in major trading blocs, particularly the USA and China. In smaller territories, year-on-year comparisons are not necessarily illustrative of performance, partly due to the high value of some individual orders and the long gestation period often occurring before purchasing intentions crystallise into orders and sales. Alongside these external variables the uncertainty in research funding in the UK resulting from Brexit may also have an influence on commercial activity in some of our businesses.

As a large percentage of the Group's sales are overseas, exchange rates have a significant influence on the Group's business: Judges' manufacturing costs are largely denominated in Sterling and most of its revenue originates from countries where the standard of value is the Euro (one quarter of total revenue) or the US Dollar (two thirds of total revenue). The currency movements in the run-up to the Brexit vote and since have had a positive influence (mitigated to an extent by hedging) on our margins and our competitiveness. Current exchange rates during the year have been the most favourable we have seen since 2009 but since the year-end, Sterling has recovered some of the lost ground.

### Acquisitions

As a buy and build group, the acquisition of new businesses is a fundamental feature of Group strategy. Executing this effectively is required to ensure that long-term value is generated for shareholders. In July 2017 Judges acquired Crystallon, the holding company of Oxford Cryosystem for £5.1 million. The acquisition was effected by Judges' subsidiary, Bordeaux, and the Group simultaneously increased its shareholding in Bordeaux from 51% to 75.5% at a cost of £1.3 million. The total spent on both transactions was £6.4 million (excluding payment for excess cash) and each was immediately earnings enhancing. Oxford Cryosystems makes cooling systems for X-Ray Crystallography and it has recently expanded into radiotelescopy by supplying cooling devices for the Meerkat project, a forerunner of the square kilometre array project ("SKA").

The industry in which we operate consists of a multitude of small global niches as highlighted by the diverse nature of the new entrants to our Group. The UK is recognised in this arena as a centre of excellence for product innovation and manufacturing with world-leading businesses. Our Group has built a reputation over the past decade as a worthwhile home for businesses in our sector whose owners wish to sell. We are trusted to act decisively and to complete deals under the initial terms agreed. For the businesses we acquire, the Group offers advice and support wherever necessary, aids in succession planning, and implements robust financial controls. We trust subsidiary management teams with the day-to-day running of their businesses. This has been a successful operating model for the Group, as management teams are given responsibility for the own destinies, as well as an environment in which they can thrive.

### Current trading and prospects

The Group is starting 2018 on solid foundations with a strong order book. Order intake in the first ten weeks has been satisfactory and trading at this early stage is consistent with the Company's target for the year.

Our environment continues to be influenced by global public spending and by currency movements. Sterling has recovered from the abyss of 2017 but is still at levels that are very favourable to local manufacturers heavily engaged in exports; we are well hedged for the current year but further strengthening of Sterling would not be positive.

On the back of the progress made last year, with a healthy order visibility and an increased contribution from Bordeaux and Oxford Cryosystems the Board has confidence in the prospects for a positive year.

David Cicurel  
Chief Executive  
19 March 2018

# Strategic Report

## Finance Director's Report

For the year ended 31 December 2017

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The Group's strategy is based on the acquisition of companies operating in the scientific instruments sector and the continuing generation of profitable performance at its existing subsidiary businesses.

The Group's Key Performance Indicators, which are aligned with the ability to repay acquisition debt and fund dividend payments to shareholders, are earnings per share, operating margins, return on capital and cashflow generation. All four KPIs have improved in 2017 reflecting positive, profitable order intake across the business and its subsequent conversion into cash.

### Revenue

Group revenues increased by 24.6% to £71.4 million (2016: £57.3 million). This strong overall revenue growth included 17.8% organic growth in the year (2016: 2.5%), which was driven by positive performance across our businesses as a whole. The acquisitions executed in 2016 and 2017 performed as expected. The businesses which were impacted by reductions in demand during 2016 recovered satisfactorily in 2017.

The overall revenue growth was driven by performance across both segments. The Materials Sciences segment revenues grew by 21% to £34.1 million, up £5.9 million from £28.2 million in 2016, and Vacuum revenues improved by 28% to £37.3 million (2016: £29.1 million). The Material Sciences segment benefited from the improvement in demand at Armfield as well as good performance across the rest of the trading companies in this segment. The Vacuum segment also saw improvements in general performance coupled with recovery in the business that suffered from lower demand in 2016 and to a lesser degree some improvement from our business with ongoing production issues.

### Profits

Adjusted operating profits increased by 52% in 2017 to £10.9 million (2016: £7.1 million). This improvement was driven by the strong revenue growth and, as a Group that exports more than 85% of our goods, we also benefited from the weakness in Sterling. The two businesses that had performed poorly following weak demand returned to satisfactory performance. As our business has a fairly high fixed cost base, marginal sales will improve operating performance, and consequently operating margins bounced back to 15.3% (2016: 12.5%) aided by improvements across both of our segments. These margins however remain impacted somewhat by our business that is recovering from production issues. Whilst we were pleased that it has made some progress in 2017, more remains to be achieved before it is back to its former position. Adjusted profit before tax was £10.4 million compared to £6.6 million in 2016.

Statutory operating profit increased to £5.7 million from £1.0 million in 2016, and statutory profit before tax was £5.1 million (2016: £0.4 million).

### Adjusting items

The total adjusting items recorded in 2017 were £5.3 million compared to £6.2 million in 2016. Amortisation of intangible assets recognised upon acquisition, as required under IFRS, totalled £4.6 million compared to £5.2 million in 2016 and acquisition costs reduced from £0.7 million in 2016 to £0.3 million reflecting the lower volume of completed acquisitions during 2017.

### Finance costs

Net finance costs (excluding adjusting items) totalled £0.5 million (2016: £0.5 million). Statutory net finance costs were £0.6 million (2016: £0.6 million), the difference is due to the £0.1 million net finance cost of the defined benefit pension scheme acquired with Armfield in 2015.

### Taxation

The Group's tax charge arising from adjusted profit before tax was £1.5 million compared to £0.8 million in 2016. The effective tax rate for adjusted profit is 14.2% (2016: 11.6%). The effective tax rate is influenced by the reducing UK corporation tax rate and by significantly improved claims for research and development tax credits. This year we have performed more successfully in the US and consequently we are paying more tax there compared to 2016 which is why the effective rate is higher than last year. Whilst we remain an SME for R&D tax credits, as the Group has less than 500 employees, the Group, as an investor in R&D, will derive benefit from this scheme.

### Earnings per share

Adjusted basic earnings per share strongly increased by 56% to 131.9p (2016: 84.8p) and adjusted diluted earnings per share improved to 130.3p compared to 83.7p in 2016, an increase of 56%.

Statutory basic earnings per share, after reflecting adjusting items which are influenced by the amortisation of intangible assets arising from recent acquisitions, was 65.6p (2016: 1.3) and statutory diluted earnings per share totalled 64.8p (2016: 1.3p).

# Strategic Report

## Finance Director's Report

For the year ended 31 December 2017

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### Order intake

2017's Organic order intake was strong for the entire year and followed satisfactory order intake in the second half of 2016. Overall organic order intake was up by 16% compared to the small increase of 3% in 2016, and this consistent order intake fuelled 2017's performance and provided a strong order book with which to commence 2018. Your Board considers order intake and the resultant year-end order book as an important bellwether to the Group's ability to achieve its expected results. Our organic order book at 1 January 2018 was a robust 16.6 weeks of budgeted sales (1 January 2017: 14.8 weeks). Total order book which includes our 2017 acquisition of Oxford Cryosystems and the 2016 acquisitions, totalled 14.9 weeks.

### Return on Capital

The Group closely monitors the return it derives on the capital invested in its subsidiaries. At 31 December 2017 the annual rate of Return on Total Invested Capital ("ROTIC") was 20.6% compared with 15.2% at the end of 2016, which is a welcome recovery and reflects improved performance at our businesses.

The annual rate of ROTIC is calculated by comparing attributable earnings excluding central costs, adjusting items and before interest, tax and amortisation ("EBITA") with the investment in plant and equipment, goodwill and unamortised intangibles and net current assets (excluding cash).

ROTIC is influenced by the overall performance of our businesses and the size of, and multiple paid for, acquisitions. We continue to strive to improve ROTIC although we remain cognisant of the downward impact that acquiring businesses at higher multiples has on overall ROTIC.

### Dividends

In relation to the financial year ended 31 December 2017 the Company paid an interim dividend of 10.0p per share in November 2017. The Board is recommending a final dividend of 22.0p per share giving a total dividend for the year of 32.0p per share (2016: 27.5p per share), an increase of 16.4%. Dividend cover is more than four times adjusted earnings per share.

Your Group's policy is to pay a progressively increasing dividend provided the Group retains sufficient cash and borrowing resources with which to pursue its longstanding business acquisition policies.

### Headcount

The Group's total number of employees at year end stood at 456 (2016: 417). The growth in staff during the year was mainly driven by the full year effect of the 2016 acquisitions, the 2017 acquisition of Oxford Cryosystems and growth in manufacturing staff to meet the increased demand.

### Share capital and share options

The Group's issued share capital at 31 December 2017 totalled 6,141,128 Ordinary shares (2016: 6,107,628). The shares issued during 2017 arose from the exercise of share options by various members of staff during the year. See note 23 for further details.

Share options issued during the year under the 2015 scheme totalled 85,792 (2016: 29,500) and the total share options in issue under both the 2005 and 2015 schemes amounted to 306,203 (2016: 268,411).

### Defined benefit pension scheme

The Group has a defined benefit pension scheme which was assumed as part of the acquisition of Armfield in 2015. This scheme has been closed to new members from 2001 and closed to new accrual in 2006. 2017 saw a full actuarial valuation for the scheme and the annual contributions to the scheme were increased by 20% to £0.2 million subject to the next full actuarial valuation in 2020. The Group accounts for postretirement benefits in accordance with IAS 19 Employment Benefits. The Consolidated balance sheet reflects the net deficit on the pension scheme, based on the market value of the assets of the scheme and the valuation of liabilities using year end AA corporate bond yields. At 31 December 2017, the net pension liability was £1.8 million (31 December 2016: £1.8 million). The net liability has remained constant reflecting a decrease in discount rates during 2017 from 2.8% to 2.5% offset by shortening in post-retirement mortality rates and satisfactory returns achieved on fund assets. Armfield takes its responsibility seriously to ensure the pension is adequately funded whilst also continuing to review appropriate deficit control strategies.

# Strategic Report

## Finance Director's Report

For the year ended 31 December 2017

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### Cashflow and net debt

This year's strong trading performance has resulted in cash generated from operations of £10.9 million (2016: £6.2 million). The Group has a strong track record of converting profit into cash, and this is reflected in the improved cash conversion rate of 100% (2016: 87%). Total capital expenditure on property, plant and equipment amounted to £0.7 million compared to £0.8 million in 2016. Year-end cash balances totalled £10.7 million (2016: £7.9 million).

Adjusted net debt at 31 December 2017 reduced to £8.0 million compared with £9.9 million at 31 December 2016. This reduction in net debt resulting from the strong operational performance supports the outlay on the acquisitions (£6.4 million) and dividends (£1.7 million), reflecting the business model we are continuing to deliver. The acquisition of Oxford Cryosystems was financed by a new £4.5 million loan facility for Bordeaux, our majority owned subsidiary. Gearing at 31 December 2017 was 0.73 times adjusted operating profit (31 December 2016: 1.39 times). We remain committed to maintaining a conservative gearing position whilst at the same time taking the opportunities of acquiring strong, sound businesses at disciplined multiples as illustrated over the history of our Group.

The Group's financial position continues to be strong. The existing five-year banking arrangements with Lloyds Bank Corporate Markets which were put in place in December 2014, have enabled the Group to pursue its acquisitive strategy. Our historical acquisition loans were consolidated into one single five-year amortising loan, which is repaid at over £2 million per annum, and a £10.0 million revolving acquisition facility, which following the four acquisitions made in 2016 is drawn to £9.0 million (2016: £9.3 million). We are able to activate the uncommitted and undrawn accordion facility of £10 million with the bank, at any time. We are seeking to renew our banking facilities over the coming months and will update shareholders in due course.

Overall, your Group has had a positive year for acquisitions, with the acquisition of Oxford Cryosystems and the increased shareholding in our majority owned subsidiary, Bordeaux. Adding to this a recovery from the demand and operational challenges faced in 2016, has meant that 2017 returned Judges to its normal trajectory. Your Group remains well placed to continue with its enduring strategy of achieving growth in earnings via selective acquisitions of strong niche businesses in the scientific instruments sector, alongside the ongoing performance of its existing businesses.

Brad Ormsby  
Group Finance Director  
19 March 2018

# Strategic Report

## Principal Risks and Uncertainties

For the year ended 31 December 2017

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### *Acquisitions*

The most significant risk for the Group is that an acquired company does not meet its expected profitability. As an important element of the Group's business strategy is development through acquisition, the Group is also exposed to the risk of insufficient availability of target companies of requisite quality. The Group manages these risks by maintaining relationships with organisations that market appropriate targets and by performing detailed research into potential acquisitions; post-acquisition, the Group provides advice and support to entity management teams as appropriate.

### *Key personnel*

The Group's future success is dependent on its senior management and key personnel and, given the small niche-serving nature of the Group's businesses, there is always a challenge to maintain back-up support in respect of key roles or replace key staff should they leave our organisation. Finding quality executives in our sector is a challenge and it can take a long time to replace and/or to prove the suitability of any new executive. The Group encourages succession planning wherever possible and seeks to provide a positive work environment with opportunities for career growth coupled with appropriate remuneration and, where appropriate, longer-term incentives.

### *Economic conditions*

The Group's customers are internationally located and are often state owned or those whose liquidity are closely linked to government spending. Accordingly, the prevailing uncertainties in the world economy, and particularly the borrowing constraints currently affecting many western nations, represent a risk to the Group's prospects. The Group seeks to trade globally as it operates in small worldwide niches. In the short to medium term, the decision by the UK to leave the EU also creates additional economic uncertainty as it is still not yet clear what impact Brexit will have on the UK economy and our business.

### *R&D and products*

The Group continues to invest in the development of new products to meet the needs of our end customers. There is a risk that our businesses may be unable to develop suitably commercial and technically reliable new products with which to maintain and drive sales performance. There is also a risk that new developments in science will make certain of the Group's products obsolete. The Group maintains a focus on ensuring there are ongoing R&D roadmaps for our businesses and that we continue to invest in well trained and qualified R&D and operations teams to deliver quality, well-engineered products for our customers.

### *Competition*

The Group faces competition across all its businesses and there can be no certainty that each business will achieve the market penetration it seeks. There is also no guarantee that there will be no new competition or new entrant to the market with better products. The Group seeks to mitigate this through detailed market analysis when considering acquisitions and seeks to acquire companies in small global niches. Additionally, the Group continues to listen carefully to its customers' aspirations for product development and, where possible, satisfy those product development requests.

### *Currency and foreign exchange*

The Group exports the large majority of its products, hence it is exposed to fluctuations in exchange rates which may impact on its competitiveness. Brexit has temporarily improved exchange rates but may cause uncertainty and greater volatility in the medium term alongside any wider global economic risk. The Group seeks, so far as is practicable, to mitigate these currency effects via hedging foreign exchange rates. Additional detail is set out in note 25.

On behalf of the Board

David Cicurel  
Director  
19 March 2018  
Company registration number: 04597315

# Corporate Governance Statement

For the year ended 31 December 2017

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## Introduction

I have pleasure in introducing the Corporate Governance Statement. Being AIM quoted, the Company is not required to and does not fully comply with the UK Corporate Governance Code however we recognise that the application of sound corporate governance is essential in the Group's ongoing success. This year we have adopted the principal provisions of the QCA Corporate Governance Code for Small and Mid-Size Quoted Companies ("QCA guidelines") and this report sets out our approach to Judges' governance.

## Board composition

The Board is responsible to the shareholders and sets the Group's strategy for achieving long-term success. It is also ultimately responsible for the management, governance, controls, risk management, direction and performance of the Group.

During the year the Board comprised of three executive Directors plus the Chief Operating Officer designate who was appointed on 15 November 2017 to replace the retiring Chief Operating Officer, together with the Non-Executive Chairman and three further Non-Executive Directors.

Under the QCA guidelines, all Non-Executive Directors are not considered independent by virtue of their tenure, as they have served more than nine years from the date of their first election or were previously an Executive Director of the Company, and hence under the UK Corporate Governance Code the Group is not compliant with the requirement for companies below the FTSE 350 to have least two independent directors. At the same time, the Company considers that all Non-Executive Directors act independently of the Executive management and that the value of their long association with the Company together with their deep understanding of the Group's business model ensures that they are best placed to appropriately police adherence to the Group's strategy, which continues to provide shareholders with long-term market-beating performance.

## Board operation

The Board is responsible for the Company's strategy and for its overall management. The operation of the Board is documented in a formal schedule of matters reserved for its approval, which is reviewed annually. These include (although not exhaustively) matters relating to:

- The Group's strategic aims and objectives;
- The approval of significant acquisitions and expenditure;
- Financial reporting, financial controls and dividend policy;
- The structure, capital and financing of the Group;
- Internal control, risk and the Group's risk appetite;
- Effective communication with shareholders; and
- Any changes to Board membership or structure.

## Board decision-making

The Board has a schedule of matters covering business, financial and operational matters ensuring that all areas of Board responsibility are addressed throughout the year. The Chairman, supported by the Company Secretary, is responsible for ensuring the Directors receive accurate and timely information. The Company Secretary compiles the Board papers which are circulated to Directors in advance of meetings. The Company Secretary prepares and provides minutes of each meeting and every Director is aware of the right to formally minute any concerns.

## Board Meetings

The main Board meets monthly (except in August) in addition to any ad hoc Board meetings that may be required during the year. Non-Executive Directors communicate directly with Executive Directors between formal Board meetings as required.

Directors are expected to attend all meetings of the Board, and the Committees on which they sit, and to devote sufficient time to the Company's affairs to enable them to fulfil their duties as Directors. In the event that Directors are unable to attend a meeting in person they will endeavour to attend via phone, skype or similar arrangement. Where they cannot attend, their comments on papers to be considered at the meeting will be discussed in advance with the Chairman so that their contribution can be included in the wider Board discussion.

# Corporate Governance Statement

For the year ended 31 December 2017

The Directors' attendance at Board and Committee meetings during the year is disclosed in the table below:

	Board	Audit	Remuneration
AR Hambro	11/11	1/1	3/3
DE Cicurel	11/11	—	—
BL Ormsby	11/11	—	—
D Barnbrook	11/11	—	—
MS Lavelle	2/2	—	—
RL Cohen	9/11	3/3	3/3
RJ Elman	9/11	3/3	3/3
GC Reece	11/11	3/3	—

## Board Committees

The Board has delegated specific responsibilities to the Audit and Remuneration Committees, details of which are set out below. As the Board is small, there is no separate nominations committee and consideration of future recommendations for appointments to the Board is considered by a committee of Directors set up at that time. In the recent appointment of Mark Lavelle, a committee of the Chairman, Chief Executive and one other Non-Executive Director was set up to oversee the recruitment process and propose a recommendation to the Board.

Each Committee has written terms of reference setting out its duties, authority and reporting responsibilities. Copies of all the Committee terms of reference are available on the Company's website ([www.judges.uk.com](http://www.judges.uk.com)) or on request from the Company Secretary. The terms of reference of each Committee are kept under continuous review to ensure they remain appropriate to the Group. Each Committee is comprised of three of the Non-Executive Directors of the Company and hence some minor changes were made to Committee membership during 2017 to align with this. The Company Secretary is the secretary of each Committee.

## Audit Committee

The Audit Committee is chaired by Ralph Elman and the other members are Ralph Cohen and Glynn Reece. Alex Hambro stepped down from this Committee during 2017. The Audit Committee has primary responsibility for monitoring the quality of internal controls and ensuring that the financial performance of the Group is properly measured and reported on. It receives and reviews information and reports from the Group's management and Auditor relating to the annual accounts and the accounting and internal control systems in use throughout the Group. It also advises the Board on the appointment of the Auditor, reviews their fees and discusses the nature, scope and results of the audit with the Auditor. The Audit Committee meets at least twice a year and has unrestricted access to the Group's Auditor. The Executive Directors and the Chairman attend the Committee meetings by invitation as required.

The Audit Committee Report on pages 12 to 13 contains more detailed information on the Committee's role.

## Remuneration Committee

The Remuneration Committee is chaired by Alex Hambro. The other members of this Committee are Ralph Cohen and Ralph Elman. Glynn Reece stepped down from this Committee in 2017. The Remuneration Committee reviews the performance of the Executive Directors and makes recommendations to the Board on matters relating to their remuneration and terms of employment. The Remuneration Committee also makes recommendations to the Board on proposals for the granting of share options and other equity incentives pursuant to any share option scheme or equity incentive scheme in operation from time to time. The remuneration and terms and conditions of appointment of the non-executive Directors of the Company are set by the Board. The Chief Executive and Group Finance Director are invited to attend for some parts of the Committee meetings where their input is required although they do not take part in any discussion on their own benefits and remuneration. The Remuneration Committee meets at least once per year.

The Remuneration Report on pages 14 to 17 contains more detailed information on the Committee's role and the Directors' remuneration and fees.

# Corporate Governance Statement

For the year ended 31 December 2017

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## **Board effectiveness**

Biographies of the Board on page 18 set out the skills, knowledge and experience of the Board and this mix of capabilities enables them to constructively challenge strategy and review performance.

### *Induction of New Directors*

New Directors undergo a programme tailored to the existing knowledge and experience of the Director concerned and ensures they develop the requisite knowledge about the Group such that they can contribute fully from an early stage, and this was the case following the appointment of Mark Lavelle in November 2017.

### *Time Commitments*

All Directors are aware of the time required to fulfil the role prior to appointment and have confirmed their ability to meet the required commitment prior to appointment. This requirement is also included in their letters of appointment or service contract. The Board is satisfied that the Chairman and each of the Non-Executive Directors is able to devote sufficient time to the Group.

### *Development*

The Company Secretary ensures that all Directors are made aware of changes in relevant legislation and regulations, with the assistance of the Company's advisers where appropriate. Executive Directors are subject to the Company's performance development review process and will obtain additional professional training as appropriate. During the year the Board received training on the impact of MIFID II from the Group's Nominated Adviser and the evolving effect of the Market Abuse Regulations.

### *External Appointments*

In the appropriate circumstances, the Board may authorise Executive Directors to take Non-Executive positions in other companies and organisations, provided the time commitment does not impact upon the Director's ability to perform their role, since such appointments should widen their experience. The Chairman will approve any such appointment.

### *Conflicts of Interest*

The Board regularly reviews any Directors' conflicts of interest. The Company's Articles of Association provide for the Board to authorise any actual or potential conflicts of interest.

### *Independent Professional Advice*

Directors have access to independent professional advice at the Company's expense. In addition, they have access to the advice and services of the Company Secretary who is responsible to the Board for advice on corporate governance matters.

### *Directors' and Officers' Liability Insurance*

The Company has obtained Directors' and Officers' liability insurance during the year as permitted by the Company's articles.

### *Election of Directors*

In accordance with the Company's Articles of Association, Brad Ormsby and Alex Hambro will retire and offer themselves for re-election at the Annual General Meeting. Mark Lavelle will present himself for appointment.

### *Performance evaluation*

The Chairman meets with each of the Directors and assesses their effectiveness. He is also responsible for the Executive composition of the Board as evidenced through this Chairmanship of the sub-committee which was responsible for the recruitment of the Group's new Chief Operating Officer. The Chief Executive assesses each Executive Director and provides feedback on their performance. This is an informal process and we will take steps to formalise this further over the coming year.

# Corporate Governance Statement

For the year ended 31 December 2017

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## *Internal controls*

The Board has ultimate responsibility for the Group's system of internal control and for reviewing its effectiveness. However, any such system of internal control can provide only reasonable, but not absolute, assurance against material misstatement or loss. The Board considers that the internal controls in place are appropriate for the size, complexity and risk profile of the Group.

The principal components of the Group's internal control system include:

- Overview of the day to day activities of the Group by the Executive Directors;
- All proposed acquisitions are comprehensively reviewed by the Board
- A comprehensive annual budgeting process which is approved by the Board;
- A decentralised organisational structure with defined levels of responsibility for all trading subsidiaries, to encourage principled entrepreneurial behaviour whilst minimising risks;
- Rotational visits by the Board to the trading subsidiaries;
- Detailed monthly reporting of performance against budget and forecast; and
- Central control over key areas such as cash/banking facilities and capital expenditure.

The Group continues to assess and develop its internal control system to ensure compliance with best practice for a Group of its size. The Board considers that the introduction of an internal audit function is not currently appropriate.

## *Relations with Shareholders*

The Group maintains communication with institutional shareholders through individual meetings with Executive Directors, particularly following publication of the Group's interim and full year results. All shareholders are encouraged to attend the Annual General Meeting which is on 30 May 2018 (full details in the Directors' Report on page 21) at which the Group's activities are considered and questions answered. General information about the Group is also available on the Group's website ([www.judges.uk.com](http://www.judges.uk.com)). This includes a Group overview, detailed information about our trading businesses, details of all recent Group announcements and other relevant investor information.

## **Whistleblowing**

The Group has had in place for several years a whistleblowing policy which sets out the formal process by which an employee of the Group may, in confidence, raise concerns about possible improprieties in financial reporting or other matters. Whistleblowing is a standing item on the Board's agenda with updates provided at each meeting. During the year, there were no incidents for consideration.

Alex Hambro  
Chairman  
19 March 2018

# Audit Committee Report

For the year ended 31 December 2017

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On behalf of the Board, I am pleased to present the Audit Committee report for the year ended 31 December 2017.

## Composition of the Committee

The Committee consists of myself (as Chairman), Ralph Cohen and Glynn Reece. The Chairman and Executive Directors may be invited to attend Committee meetings if required. During the year, the Committee met three times, to review the audit findings, the audit plan, and to review audit tender presentations. The Board is satisfied that I, as Chairman of the Committee, have recent and relevant financial experience. I am a Chartered Accountant, I have served as Finance Director in a number of quoted companies and am Non-Executive Director of a number of other companies. Glynn Reece acts as Secretary to the Committee. I report the Committee's deliberations at the next Board meeting and the minutes of each meeting are made available to all members of the Board.

## Responsibilities

The main duties of the Audit Committee are set out in its Terms of Reference, which are available on the Company's website ([www.judges.uk.com](http://www.judges.uk.com)) and are available on request from the Company Secretary. The Committee's main duties are to:

- ensure the integrity of the financial statements (including annual and interim accounts and results announcements);
- review significant financial reporting judgements and the application of accounting policies thereon;
- ensure the Annual Report and Accounts are fair, balanced and understandable and recommend their approval to the Board;
- manage the relationship with the Group's external Auditor and review their suitability and independence;
- negotiate and approve the external Auditor's fee, the scope of their audit and terms of engagement;
- advise on the appointment of external Auditors and to review and monitor the extent of the non-audit services undertaken by the Group's external Auditor;
- review of the risk management and internal control systems;
- review the assessment of going concern; and
- assess the need for an internal audit function;

## Role of the External Auditor

The Audit Committee monitors the relationship with the external Auditor, Grant Thornton LLP, to ensure that auditor independence and objectivity are maintained. As part of its review the Committee also monitors the provision of non-audit services by the external Auditor. An analysis of fees shared between audit and non-audit services is disclosed in note 8 to the Group's financial statements. Non-audit fees charged by Grant Thornton to the Group related to the provision of financial due diligence services to the Group and were less than 100% of the annual audit fee. No issues impacting upon the Auditor's independence were observed or brought to the Committee's attention.

## Tender process

Grant Thornton UK LLP has been the auditor to the Company since 2002. In accordance with best-practice governance, the Board, on the recommendation of the Committee, agreed that it was in the best interests of the Company to commence an external audit tender process during the second half of 2017. Under the direction of Ralph Elman, the following process was carried out on behalf of the Committee:

- a desktop review of external audit providers to AIM was carried out. Based on the review, a number of UK top 10 firms were invited to tender for the external audit;
- a Request for Proposal was issued which set out the timetable and tender process, scope of the work and the key assessment requirements;
- meetings were held between each firm and Judges, including the Group Finance Director and Group Financial Controller;
- meetings were held between the audit partner from each firm and Ralph Elman; and
- completion of scorecards for each firm, focusing on audit quality, strength and experience of the audit team and their fee proposal.

Three audit firms were selected to present to Judges' Audit Committee and, following these presentations, the Audit Committee recommended to the Board that their preference was Grant Thornton UK LLP, the incumbent Auditor. The Board approved the recommendation in November 2017 and the Company is recommending to shareholders at the 2018 AGM the re-appointment of Grant Thornton UK LLP as Auditor of the Company for the financial year commencing 1 January 2018.

## Audit process

The external Auditor prepares an audit plan for its review of the full year financial statements. The audit plan sets out the scope of the audit, specific areas of risk to target and audit timetable. This plan is reviewed and agreed in advance by the Audit Committee. Following its review, the Auditor presented their findings to the Audit Committee for discussion. No major areas of concern were highlighted by the Auditor during the year, however, areas of significant risk and other matters of audit relevance are regularly communicated.

# Audit Committee Report

For the year ended 31 December 2017

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## **Internal Audit**

At present the Group does not have a formal internal audit function and the Committee considers that management is able to derive assurance as to the adequacy and effectiveness of internal controls and risk management procedures without one. This remains under ongoing review.

## **Risk Management and Internal Controls**

As described in the Corporate Governance Statement on pages 8 to 11, the Group has established a framework of risk management and internal control systems and procedures. The Audit Committee is responsible for reviewing the risk management and internal control framework and ensuring that it operates effectively. During the year, the Committee has reviewed the framework and the Committee is satisfied that the internal control systems in place are currently operating effectively.

Ralph Elman  
Audit Committee Chairman  
19 March 2018

# Remuneration Report

For the year ended 31 December 2017

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On behalf of the Board, I am pleased to present the 2017 Directors' Remuneration Report, which sets out the remuneration policy and the Directors' remuneration for the year.

## **Composition of the Committee**

The Committee consists of myself (as Chairman), Ralph Cohen and Ralph Elman. Glynn Reece stepped down from this Committee in 2017. The Chief Executive and Group Finance Director may be invited to attend Committee meetings if required. During the year, the Committee met three times.

## **Executive Director Remuneration policy**

Our remuneration arrangements are designed simply to align the interests of the Executive Directors with shareholders over the short and longer term. The Committee is aware of recent developments in corporate governance and good practice in Executive remuneration and ensures that it is able to benchmark Executive remuneration against similar AIM quoted businesses, in order to attract, motivate and retain high quality individuals who will, over time, contribute to the ongoing success of the Group. No external remuneration consultants are currently utilised to support the Committee's deliberations.

To achieve this the Group provides competitive pay, split between fixed and performance related elements. Remuneration is reviewed annually and the key elements are explained below:

### **Base Salary**

This is set to reflect the market value of the role and the individual's performance and contribution to the Group. Base salary is reviewed annually with any changes applied from 1 January.

### **Pension and other benefits**

The Group provides matching contribution of up to 5% of base salary. Additionally, the Group may provide additional benefits such as private healthcare, car allowance and life assurance.

### **Annual Bonus**

The annual bonus for the Executive Directors is set at 25% of base salary upon achieving annual Earnings per Share targets set within the budget. Additionally, no bonus can be achieved if EPS is below historical high-watermark EPS.

### **Share options**

Share options are issued to incoming Executive Directors and/or in the course of their employment in order to drive sustained long-term sustained performance supporting the creation of shareholder value. Share options are issued at market value and vest over a period of three years, and do not have any further performance criteria.

### **Non-Executive Director Fee Policy**

Non-Executive Director fees are set such that the Chairman and Non-Executive Directors receive a base fee for their respective roles designed to be comparable to similar AIM quoted companies. Further fees are payable for additional services such as Chairmanship of any of the Board's Committees.

Fees payable to the Chairman and Non-Executive Directors are fixed and determined by the Board and are reviewed at least every three years.

### **Key Committee activities in 2017**

The Remuneration Committee operates under the Group's agreed Terms of Reference and determines the Group's remuneration policy in respect of the terms of employment of Executive Directors and their remuneration packages. During the year the committee met three times and its main activities were:

- Benchmarking of and review of Executive Director remuneration arrangements;
- Consideration of a one-off performance incentive for the Chief Operating Officer in respect of his executive chairmanship of one of the Group's trading companies;
- Determining the performance target for the 2018 Executive Director annual bonus arrangements;
- Consideration of the Chief Operating Officer designate's remuneration package; and
- Review of developments in corporate governance and best practice.

# Remuneration Report

For the year ended 31 December 2017

## Service contracts

### Executive Directors

The Executive Directors are all employed on service contracts. These are not of a fixed duration and are terminable by either party giving 12 months' written notice, except that for the first year of Mark Lavelle's employment, his contract is terminable by six months' notice by either party.

<b>Executive Director</b>	<b>Date of Service Contract</b>
David Cicurel	24 December 2002
Brad Ormsby	3 March 2015
Mark Lavelle	15 November 2017

### Non-Executive Directors

The Non-Executive Directors signed letters of appointment with the Company upon appointment for the provision of Non-Executive Directors' services, terminable by three months' written notice given by either party.

<b>Non-Executive Director</b>	<b>Appointment Date</b>
Alex Hambro	24 December 2002
Ralph Elman	25 October 2005
Glynn Reece	24 December 2002
Ralph Cohen	1 May 2015

## Directors' remuneration

The remuneration paid to or receivable by each person who served as a Director during the year was as follows:

	Salary/fees £000	Bonus £000	Pension £000	Benefits £000	2017 total £000	2016 total £000
<b>Non-Executive Directors</b>						
Hon. AR Hambro	40	—	—	—	40	33
Mr RL Cohen	26	—	—	—	26	23
Mr RJ Elman	30	—	—	—	30	23
Mr GC Reece	48	—	—	—	48	48
<b>Executive Directors</b>						
Mr DE Cicurel	166	42	—	5	213	168
Mr BL Ormsby	139	35	7	2	183	146
Mr D Barnbrook (retired 31 December 2017)	134	83	7	17	241	155
Mr MS Lavelle (appointed 15 November 2017)	20	—	—	3	23	—
<b>Total</b>	<b>603</b>	<b>160</b>	<b>14</b>	<b>27</b>	<b>804</b>	<b>596</b>

The 2017 annual bonus of 25% of base salary was awarded to the Executive Directors as a result of exceeding the Earnings per Share target. David Barnbrook earned an additional £50,000 as a result of achieving certain performance targets in respect of his executive chairmanship of one of the Group's trading companies. During the course of 2017 no Directors exercised options over the Ordinary shares of the Company.

# Remuneration Report

For the year ended 31 December 2017

## Implementation of Remuneration Policy for 2018

### Base salary

In the year, the Committee reviewed the base salary of the Executive Directors and considered individual performance, experience and comparable salary rates and proposed the following salaries for 2018:

	2018 £000	2017 £000
DE Cicurel	170	166
BL Ormsby	150	139
MS Lavelle	160	—

### Pension and other benefits

Mark Lavelle receives 5% of his base salary as cash in lieu of contributions into a pension scheme and also receives a car allowance. Brad Ormsby receives matched pension contributions of 5% of his salary.

### Share Options

Mark Lavelle was issued 60,000 share options upon his appointment to the Board of the Company.

### Chairman and Non-Executive Fees

The Chairman and Non-Executive Directors' fees were amended as of 1 January 2017 and fixed for three years as follows:

	2017 £000
Chairman base fee	36
Non-Executive Director base fee	26
Fee for chairing Audit or Remuneration Committee	4

Mr GC Reece is also paid an additional annual fee for corporate secretarial services to the Group totalling £22,000.

### Directors' interests

At 31 December 2017, the Directors had the following beneficial interests in the Company's Ordinary shares of 5p each and options to subscribe for shares:

### Ordinary shares of the Company

	31 December 2017		1 January 2017	
	Shares	Options	Shares	Options
<b>Non-Executive Directors</b>				
Hon. AR Hambro	64,000	—	71,500	—
Mr RL Cohen	64,341	1,775	64,341	1,775
Mr RJ Elman	62,402	—	62,402	—
Mr GC Reece	—	—	—	—
<b>Executive Directors</b>				
Mr DE Cicurel	759,242	9,275	916,833	9,275
Mr BL Ormsby	392	60,000	258	60,000
Mr MS Lavelle	—	60,000	—	—
Mr D Barnbrook (retired 31 December 2017)	15,029	28,325	18,136	28,325

Dividends paid in the year to Directors who hold shares amounted to £306,000 in aggregate (2016: £295,000).

In 2017, the Group continued to award a free "matching share" under the Judges Scientific Share Incentive Plan for every share purchased up to a maximum value of £600 per employee per tax year for all eligible employees who have completed 3 months' service within the Group. The eligibility requirements were amended during 2017 to enable staff to join after 3 months' service instead of 12 months. Shares acquired by Directors, including matching shares, were 136 shares acquired by Mr DE Cicurel (2016: 161 shares), 134 shares were acquired by Mr BL Ormsby (2016: 258 shares) and 143 shares by Mr D Barnbrook (2016: 133 shares).

# Remuneration Report

For the year ended 31 December 2017

## Options over Ordinary shares in the Company

Date of option issue	Number of shares				
	Mr DE Cicurel	Mr MS Lavelle	Mr D Barnbrook	Mr BL Ormsby	Mr RL Cohen
<b>2005 Option Scheme</b>					
28 April 2008 at 124p	—	—	6,550	—	—
23 July 2009 at 92p	—	—	10,000	—	—
9 May 2011 at 470p	—	—	5,000	—	—
25 October 2013 at 1690p	1,775	—	1,775	—	1,775
30 March 2015 at 1437.5p	—	—	—	60,000	—
<b>2015 Option Scheme</b>					
21 October 2015 at 1402.5p	7,500	—	5,000	—	—
23 November 2017 at 1935.0p	—	60,000	—	—	—
	9,275	60,000	28,325	60,000	1,775

Alex Hambro  
Remuneration Committee Chairman  
19 March 2018

# Board of Directors

For the year ended 31 December 2017

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## Our Board

Providing a unique combination of international business, investor and financing experience across public and private markets.

### Hon. Alexander Hambro

#### **Chairman R**

Alex Hambro has been active in the private equity sector both in the UK and the USA for 30 years, during which time he has acted as a principal investor, manager and sponsor of private equity and venture capital management teams.

As well as Judges Scientific plc, Alex is also Chairman of AIM-listed Benchmark Holdings plc, a company engaged in the development of health and vaccine products for the aquaculture industry. In addition to his two AIM company responsibilities, Alex is also Chairman of Bapco Closures Holdings Ltd and a Non-Executive Director of Octopus Apollo VCT plc, Whitley Asset Management Ltd, Crescent Capital Ltd and BACIT (UK) Ltd.

Alex is currently a principal at Welbeck Capital Partners, a specialist investment syndicate that deploys secured convertible loan notes to finance growth opportunities for small-cap AIM companies. He is also Chairman of the Remuneration Committee.

### David Cicurel

#### **Chief Executive**

David Cicurel founded Judges in 2002 having spent much of his career as a turnaround specialist and, subsequently, as an "active value" investor operating with his own funds.

He has been responsible for several corporate recovery exercises including two UK public companies, International Media Communications plc (later known as Continental Foods) and International Communication and Data plc.

### Brad Ormsby

#### **Group Finance Director**

Brad Ormsby is a Chartered Accountant who has significant senior finance and operational experience acquired during nine years at PwC followed by six years at Eurovestech plc, the pan-European development capital fund, and associated companies.

Prior to joining Judges Scientific, Brad was Chief Financial Officer at Kalibrate Technologies plc where he led the company's IPO.

### Mark Lavelle

#### **Chief Operating Officer**

Mark Lavelle gained Sales & Marketing experience with Perkin Elmer, and Finance experience with Bank of America in London and USA, then moved into Industrial general management, most recently with 15 years at Halma plc. At Halma he was Managing Director of two separate businesses (in Medical Devices and Ion Beam Coating), ran Acquisitions for the group, and led two Divisions (Industrial Safety and Water Analysis & UV) comprising a total of 15 companies in UK, Europe, USA and Asia-Pacific. He also had responsibility for Innovation at Halma, and subsequently the group's Indian presence. He has been a Pension trustee for the last 12 years. Mark is a Chemistry graduate of Cambridge University and holds an MBA from INSEAD in France.

### Ralph Cohen

#### **Non-Executive A R**

Ralph Cohen was the Finance Director of Judges Scientific plc for nearly ten years until his retirement in April 2015. He held various senior executive positions within the energy and water divisions of the Paris based Vivendi group between 1981 and 2001, including eight years as Finance Director of a listed subsidiary, followed by positions as Managing Director within that group.

He previously spent nine years at Ernst & Young. Latterly he was the founding partner of MC Consultancy Services, where he was closely associated with major projects, including electricity supply opportunities in Europe and M&A projects.

He is currently the Non-Executive Chairman of the recently AIM-listed Yü Group PLC.

### Ralph Elman

#### **Non-Executive A R**

Ralph Elman is a former Finance Director of quoted companies Paramount plc, Delyn plc and International Communication & Data plc and Finance Director of businesses within GUS plc and RR Donnelley.

Ralph was Senior Partner of accountancy firm Elman Wall and is a Non-Executive Director of a number of private companies. He is Chairman of the Judges Audit Committee.

### Glynn Reece

#### **Non-Executive A**

Glynn Reece is a graduate of Oxford University and a qualified solicitor. Since 1987, he has specialised in providing corporate finance deal origination and advisory services, working for (inter alia) Coopers & Lybrand, Arthur Andersen and CLB, a specialist AIM firm.

He is currently a Proprietor of Carl Reiss Meyer, a business that acts as an arranger of pre-flotation finance for small fast growing companies.

## Committee membership

A      Audit Committee    R      Remuneration Committee

# Directors' report

For the year ended 31 December 2017

The Directors present their report and audited consolidated financial statements for the year ended 31 December 2017. Comparative information is provided for the year ended 31 December 2016.

## Results and dividends

The results for the financial year to 31 December 2017 are set out in the Consolidated Statement of Comprehensive Income. The Company paid an interim dividend of 10.0p per Ordinary share on 3 November 2017. At the forthcoming Annual General Meeting, the Directors will recommend payment of a final dividend for the year of 22.0p per Ordinary share to be paid on Friday 6 July 2018 to shareholders on the register on Friday 8 June 2018. The shares will go ex-dividend on Thursday 7 June 2018. The total dividend proposed for the 2017 financial year will aggregate to 32.0p, an increase of 16.4% (2016: 27.5p).

## Going concern

The consolidated financial statements have been prepared on a going concern basis. The Directors have taken note of guidance issued by the Financial Reporting Council on Going Concern Assessments in determining that this is the appropriate basis of preparation of the financial statements. Adjusted net debt at 31 December 2017 was 32% of equity (31 December 2016: 44%). This reduction in net debt was fuelled by the satisfactory performance of the Group's principal operating companies which generated healthy cashflows, partially offset by the continued execution of the Group's buy and build strategy where a further £6.4 million was allocated to acquiring one further business and also increasing the Group's shareholding in one of its majority-owned businesses. The Group has entered 2018 with a strong order book on the back of improved trading throughout 2017. Whilst the global economic environment remains uncertain, the Directors consider that the Group is appropriately placed to manage its business risks successfully.

The Directors therefore have a reasonable expectation that the Group has adequate resources to continue in operational existence for the foreseeable future. Therefore, they continue to adopt the going concern basis in preparing the Annual Report and Accounts.

## Payment policy

The Group's policy is to agree terms and conditions with suppliers in advance and to pay agreed invoices in accordance with the agreed terms of payment. Creditor days of the Company at the end of the year represented 16 days (2016: 45 days).

## Financial risk management objectives and policies

The Group utilises financial instruments (see note 21), comprising borrowings, cash and cash equivalents and various other items such as trade receivables and payables that arise directly from its operations. The main purpose of these financial instruments is to raise finance for the Group's operations. The main risks arising from the Group's financial instruments relate to interest rates, liquidity, credit and foreign currency exposure. The Directors review and agree policies for managing each of these risks, which are described and evaluated in more detail in note 25 and which are summarised below. Except as stated, the policies have remained unchanged from previous years.

### 1. Interest rate risk

The Group finances its operations through a mixture of bank borrowings, equity and retained profits. With adjusted net debt of £8.0 million at 31 December 2017 (see note 20), exposure to interest rate fluctuations remains a low risk to the Group; however, the Group's loans are subject to interest rate hedges, as described in note 25.

### 2. Liquidity risk

The Group seeks to manage liquidity risk by ensuring that sufficient funds are available to meet foreseeable needs and to invest cash assets safely and profitably. Primarily this is achieved through loans arranged at Group level. Short-term flexibility is achieved through the significant cash balances that the Group currently holds. Additionally, where the Group has already repaid funds into the revolving credit facility, it is able to subsequently redraw these funds should the need arise.

### 3. Credit risk

The Group reviews the credit risk relating to its customers by ensuring, wherever possible, that it deals with long-established trading partners, agents and government/university-backed bodies, where the risk of default is considered low. Where considered appropriate, the Group insists on upfront payment or requires letters of credit to be provided.

### 4. Currency risk

With exports representing a significant proportion of its sales, the main risk area to which the Group is exposed is that of foreign currencies (principally US\$ and Euros). The Group adopts a strategy to hedge against this risk by entering into currency options/forward exchange contracts and/or by maintaining a proportion of its bank loans in these currencies, although this does not represent a hedge under IAS 39. The Directors review the value of this economic hedge on a regular basis. There remains, nevertheless, an ongoing threat to the Group's competitive position in international markets from any sustained period of Sterling strength. Forward and option contracts are entered into in both US\$ and Euros maturing in the subsequent year, aimed at protecting the ensuing year's competitive position and margins from adverse currency movements.

### 5. Cashflow risk

The Group manages its cashflow through a mixture of working capital, bank borrowings, equity and retained profits. With adjusted net debt at 31 December 2017 of £8.0 million (see note 20) and cash and cash equivalents of £10.7 million, the Group's cash position is considered to be a key strength.

# Directors' report

For the year ended 31 December 2017

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## Disabled employees

Applications for employment by disabled persons are given full and fair consideration for accordance with their particular aptitudes and abilities. In the event of employees becoming disabled, every effort is given to retrain them in order that their employment with the Group may continue. It is the policy of the Group that training, career development and promotion opportunities should be available to all employees.

## Directors

The following Directors have held office during the year and until the date of signing this report:

Hon. AR Hambro – Non-Executive Chairman  
Mr DE Cicurel  
Mr BL Ormsby  
Mr MS Lavelle – appointed 15 November 2017  
Mr D Barnbrook – retired 31 December 2017  
Mr RL Cohen – Non-Executive  
Mr RJ Elman – Non-Executive  
Mr GC Reece – Non-Executive

## Statement of Directors' responsibilities

The Directors are responsible for preparing the Annual Report and the financial statements in accordance with applicable law and regulations.

Company law requires the Directors to prepare financial statements for each financial year. Under that law the Directors have elected to prepare the Group consolidated financial statements in accordance with International Financial Reporting Standards as adopted by the European Union (IFRSs) and the parent company financial statements in accordance with United Kingdom Accounting Standards (United Kingdom Generally Accepted Accounting Practice). Under company law the Directors must not approve the financial statements unless they are satisfied that they give a true and fair view of the state of affairs and of the profit or loss of the Group and the parent company for that period.

In preparing each of the Group and parent company financial statements, the Directors are required to:

- select suitable accounting policies and then apply them consistently;
- make judgements and accounting estimates that are reasonable and prudent;
- state whether applicable IFRSs or UK Accounting Standards have been followed, subject to any material departures disclosed and explained; and
- prepare the financial statements on the going concern basis unless it is inappropriate to presume that the Group and the parent company will continue in business.

The Directors are responsible for keeping adequate accounting records that are sufficient to show and explain the parent company's transactions and disclose with reasonable accuracy at any time the financial position of the parent company and the Group and enable them to ensure that the financial statements comply with the Companies Act 2006. They are also generally responsible for taking steps as are reasonably open to them to (i) safeguard the assets of the Group and (ii) prevent and detect fraud and other irregularities.

The Directors are responsible for the maintenance and integrity of the corporate and financial information included on the Company's website. Information published on the website is accessible in many countries and legislation in the United Kingdom governing the preparation and dissemination of financial statements may differ from legislation in other jurisdictions.

## Provision of information to the Auditor

The Directors confirm that:

- so far as each Director is aware, there is no relevant audit information of which the Company's Auditor is unaware; and
- the Directors have taken all the steps that they ought to have taken as Directors in order to make themselves aware of any relevant audit information and to establish that the Auditor is aware of that information.

## Auditor

The Auditor, Grant Thornton UK LLP, has expressed willingness to continue in office. In accordance with section 489(4) of the Companies Act 2006, a resolution to re-appoint Grant Thornton UK LLP will be proposed at the Annual General Meeting.

# Directors' report

For the year ended 31 December 2017

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## **Annual General Meeting**

The Annual General Meeting of the Company will be held on Wednesday 30 May 2018 at 12.00 noon at the Lansdowne Club, 9 Fitzmaurice Place, London W1J 5JD.

On behalf of the Board

**Brad Ormsby**  
*Director*  
**19 March 2018**

Company registration number: 04597315 (England and Wales)

# Independent auditor's report

To the members of Judges Scientific plc

## Opinion

### Our opinion on the financial statements is unmodified

We have audited the financial statements of Judges Scientific plc (the 'parent company') and its subsidiaries (the 'group') for the year ended 31 December 2017, which comprise the Consolidated statement of comprehensive income, the Consolidated and Parent company balance sheets, the Consolidated and Parent company statements of changes in equity, the Consolidated cashflow statement and notes 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 Financial Reporting Standards (IFRSs) as adopted by 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 Financial Reporting Standard 101 'Reduced Disclosures Framework' (United Kingdom Generally Accepted Accounting Practice).

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 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; and
- the financial statements have been prepared in accordance with the requirements of the Companies Act 2006.

## 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 parent 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 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.

## Who we are reporting to

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.

## Conclusions relating to going concern

We have nothing to report in respect of the following matters in relation to which the ISAs (UK) require us to report to you where:

- the directors' use of the going concern basis of accounting in the preparation of the financial statements is not appropriate; or
- the directors have not disclosed in the financial statements any identified material uncertainties that may cast significant doubt about the group's or the parent company's ability to continue to adopt the going concern basis of accounting for a period of at least twelve months from the date when the financial statements are authorised for issue.

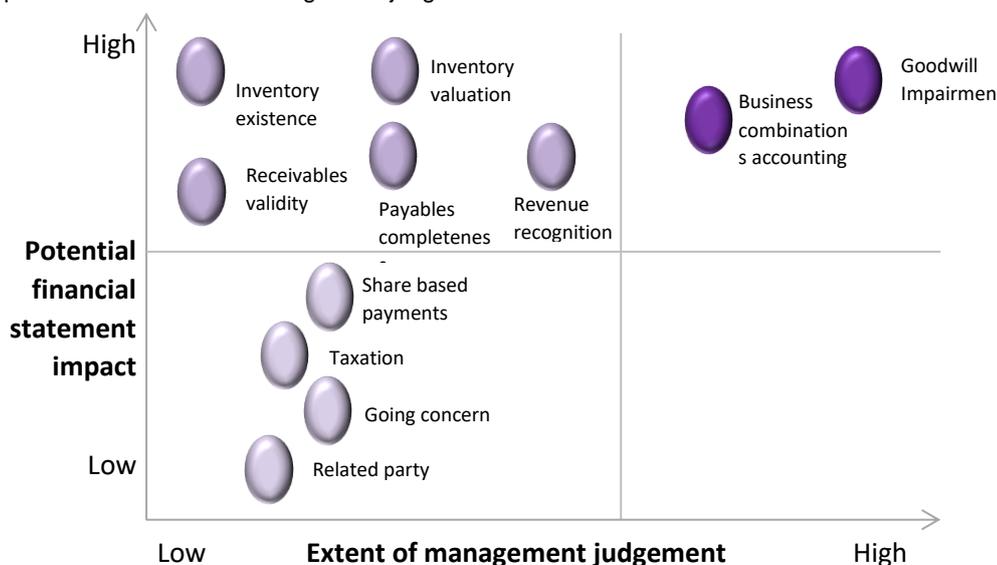


### Overview of our audit approach

- Overall materiality: £364,000, which represents 3.5% of the group's preliminary adjusted profit before tax;
- Key audit matters were identified as goodwill impairment and business combinations accounting; and
- We performed full-scope audit procedures on the financial statements of Judges Scientific plc and on the financial information of all material trading components, excluding Crystallon Limited and Oxford Cryosystems Limited, on which we performed full-scope audit procedures for the year ended 30 November 2017 and targeted procedures for the period ended 31 December 2017, and Armfield Inc. and Scientifica LLC, on which we performed targeted procedures for the year ended 31 December 2017.

### Key audit matters

The graph below depicts the audit risks identified and their relative significance based on the extent of the financial statement impact and the extent of management judgement.



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 that 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.

#### Key Audit Matter - Group

#### How the matter was addressed in the audit - Group

##### Goodwill impairment

There is a risk that goodwill recognised on historical acquisitions may be impaired. An annual impairment review is required in order to assess the carrying value of the acquired goodwill.

Management’s assessment of the potential impairment of the group’s intangible assets incorporated significant judgements in assumptions, such as timing and extent of future profits and cash flows and relevant income-generating units and an estimate of their values in use whilst applying an appropriate discount rate.

We therefore identified the impairment of goodwill as a significant risk, which was one of the most significant assessed risks of material misstatement.

Our audit work included, but was not restricted to:

- Consideration of the appropriateness of the methodology applied by management in their assessment of impairment and the judgements applied;
- Assessing the accounting policy to check it is in accordance with the financial reporting framework;
- Checking of the mathematical accuracy of the impairment models;
- Checking appropriateness of the forecast growth rates;
- Comparison of historical forecasts against actual results;
- Assessing the discount rate applied to future cash flows;
- Performing sensitivity analysis on key assumptions made in calculations; and
- Evaluating the information included in the impairment models through our knowledge of the business and discussions with management.

The group’s accounting policies on goodwill and its impairment are shown in note 2 to the financial statements and related disclosures are included in note 13.

**Key Audit Matter - Group****How the matter was addressed in the audit****- Group****Key observations**

Our testing did not identify any reasons for impairment of goodwill to be recognised within the financial statements and we found no errors in calculations completed.

**Business combinations accounting**

The group has a business model based on acquiring businesses and during the year, one acquisition was made.

There is a risk that the intangible assets and goodwill recognised are not in accordance with International Financial Reporting Standard (IFRS) 3 'Business Combinations'.

Due to the high level of judgements and assumptions necessary to perform valuations of separately identifiable intangible assets arising from the acquisition of a business, and due to the materiality of the assets recognised by the Group as a result, business combinations accounting has been identified as a significant risk, which was one of the most significant assessed risks of material misstatement.

Our audit work included, but was not restricted to:

- Assessment of the accounting for acquisitions in the year to check if it was in accordance with IFRS 3;
- Assessing the accounting policy to check it is in accordance with the financial report framework;
- Using our internal valuations team to assess the valuation models prepared by management in respect of each acquisition, including the basis and methodology adopted for identifying separate intangibles distinct from goodwill;
- Obtaining business combination workings for each acquisition and checking the mathematical accuracy of these, obtaining support for any judgements used by management; and
- Checking appropriateness of discount rates applied.

The group's accounting policy on intangible assets acquired as part of business combinations is shown in note 2 to the financial statements and related disclosures are included in note 27.

**Key observations**

Our testing did not identify any material misstatements in the accounting for business combinations in the year.

Based on our audit work, intangibles recognised in the year as a result of business combinations are in accordance with IFRS 3 in all material respects and we found no errors in the calculations.

**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 in determining the nature, timing and extent of our audit work and in evaluating the results of that work.

Materiality was determined as follows:

<b>Materiality measure</b>	<b>Group</b>	<b>Parent</b>
Financial statements as a whole	Financial statement materiality is £364,000, which is 3.5% of the group's preliminary adjusted profit before tax. We chose not to revise our materiality during the course of the audit once the group's final adjusted profit before tax was known, as it did not differ	Financial statement materiality is £270,000, which is 1% of the parent company's total assets, restricted to 75% of group materiality as it is a component of the group.

	<p>significantly from the preliminary adjusted profit before tax.</p> <p>This benchmark is considered the most appropriate because maximisation of shareholder return is a key measure used by management in assessing performance of the business. This benchmark is unchanged from the prior year.</p> <p>Materiality for the current year is higher than the level that we determined for the year ended 31 December 2016, which reflects the increase in the group's adjusted profit before tax from the prior year.</p>	<p>This benchmark is considered the most appropriate because the parent company is primarily a holding company of investments. This benchmark is unchanged from the prior year.</p> <p>Materiality for the current year is higher than the level that we determined for the year ended 31 December 2016, which reflects the increase in the group's adjusted profit before tax from the prior year.</p>
Performance materiality used to drive the extent of our testing	75% of financial statement materiality	75% of financial statement materiality
Specific materiality	We also determine a lower level of specific materiality for certain areas such as directors' remuneration and related party transactions	We also determine a lower level of specific materiality for certain areas such as directors' remuneration and related party transactions
Communication of misstatements to the audit committee	£18,200 and misstatements below that threshold that, in our view, warrant reporting on qualitative grounds.	£13,500 and misstatements below that threshold that, in our view, warrant reporting on qualitative grounds.

The graph below illustrates how performance materiality interacts with our overall materiality and the tolerance for potential uncorrected misstatements.



### An overview of the scope of our audit

Our audit approach was based on a thorough understanding of the group's business and is risk based. We take into account the size and risk profile of each group component, any changes in the business and other factors when determining the level of work to be performed at each entity, which in particular included the following considerations:

- Judges Scientific plc has centralised processes and controls over the key areas of our audit focus. Whilst Group management are responsible for all judgemental processes and significant risk areas in respect of the consolidated accounts, each trading subsidiary has a decentralised local accounting function which reports to the local subsidiary management who are responsible for the operations and financial management of the subsidiary companies. We have tailored our audit response accordingly with all group audit work undertaken by the group audit team. In assessing the risk of material misstatement to the group financial statements we considered the transactions undertaken by each entity and therefore where the focus of our work was required;
- We performed full scope audit procedures on the financial statements of Judges Scientific plc, and on the financial information of all material trading components, excluding Crystallon Limited, Oxford Cryosystems Limited, Armfield Inc. and Scientifica LLC as detailed in note 4 to the parent company financial statements. We audited the financial information of Crystallon Limited and Oxford Cryosystems Limited for the year ended 30 November 2017. For Crystallon Limited and Oxford Cryosystems Limited for the period ended 31 December 2017 and for Armfield Inc. and Scientifica LLC for the year ended 31 December 2017, we performed targeted procedures to audit material transactions and balances affecting the group financial statements; and
- Our audit approach in the current year is consistent with that for the prior year.

### **Other information**

The directors are responsible for the other information. The other information comprises the information included in the annual report and accounts, 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.

We have nothing to report in this regard.

### **Our opinion on other matters prescribed by the Companies Act 2006 is unmodified**

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.

### **Matters on which we are required to report under the Companies Act 2006**

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.

### **Matters on which we are required to report by exception**

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 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.

### **Responsibilities of directors for the financial statements**

As explained more fully in the statement of directors' responsibilities set out on page 20, 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 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.

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](http://www.frc.org.uk/auditorsresponsibilities). This description forms part of our auditor's report.

Philip Sayers  
Senior Statutory Auditor  
for and on behalf of Grant Thornton UK LLP  
Statutory Auditor, Chartered Accountants  
East Midlands  
19 March 2018

# Consolidated statement of comprehensive income

For the year ended 31 December 2017

	Note	Adjusted £000	Adjusting items £000	2017 Total £000	Adjusted £000	Adjusting items £000	2016 Total £000
<b>Revenue</b>	3	<b>71,360</b>	—	<b>71,360</b>	57,285	—	57,285
Operating costs	3	<b>(60,481)</b>	—	<b>(60,481)</b>	(50,141)	—	(50,141)
<b>Adjusted operating profit</b>	3	<b>10,879</b>	—	<b>10,879</b>	7,144	—	7,144
Adjusting items	4	—	<b>(5,217)</b>	<b>(5,217)</b>	—	(6,153)	(6,153)
<b>Operating profit/(loss)</b>		<b>10,879</b>	<b>(5,217)</b>	<b>5,662</b>	7,144	(6,153)	991
Interest income	9	<b>34</b>	—	<b>34</b>	9	—	9
Interest expense	9	<b>(515)</b>	<b>(60)</b>	<b>(575)</b>	(523)	(60)	(583)
<b>Profit/(loss) before tax</b>		<b>10,398</b>	<b>(5,277)</b>	<b>5,121</b>	6,630	(6,213)	417
Taxation (charge)/credit	10	<b>(1,474)</b>	<b>1,092</b>	<b>(382)</b>	(767)	1,091	324
<b>Profit/(loss) for the year</b>		<b>8,924</b>	<b>(4,185)</b>	<b>4,739</b>	5,863	(5,122)	741
<b>Attributable to:</b>							
Owners of the parent		<b>8,074</b>	<b>(4,061)</b>	<b>4,013</b>	5,173	(5,092)	81
Non-controlling interests		<b>850</b>	<b>(124)</b>	<b>726</b>	690	(30)	660
<b>Profit/(loss) for the year</b>		<b>8,924</b>	<b>(4,185)</b>	<b>4,739</b>	5,863	(5,122)	741
<b>Other comprehensive income</b>							
<b>Items that will not be reclassified subsequently to profit or loss</b>							
Retirement benefits actuarial loss				<b>(195)</b>			(776)
<b>Items that may be reclassified subsequently to profit or loss</b>							
Exchange differences on translation of foreign subsidiaries				<b>(75)</b>			126
<b>Other comprehensive income for the year, net of tax</b>				<b>(270)</b>			(650)
<b>Total comprehensive income for the year</b>				<b>4,469</b>			91
<b>Attributable to:</b>							
Owners of the parent				<b>3,743</b>			(569)
Non-controlling interests				<b>726</b>			660
<b>Earnings per share – adjusted</b>							
Basic	12	<b>131.9</b>			84.8		
Diluted	12	<b>130.3</b>			83.7		
<b>Earnings per share – total</b>							
Basic	12			<b>65.6</b>			1.3
Diluted	12			<b>64.8</b>			1.3

The accompanying notes form an integral part of these consolidated financial statements.

# Consolidated balance sheet

As at 31 December 2017

	Note	2017 £000	2016 £000
<b>ASSETS</b>			
<b>Non-current assets</b>			
Goodwill	13	14,650	13,337
Other intangible assets	14	9,006	9,736
Property, plant and equipment	15	5,344	5,288
Deferred tax assets	16	730	776
		<b>29,730</b>	<b>29,137</b>
<b>Current assets</b>			
Inventories	17	10,380	9,939
Trade and other receivables	18	11,827	11,341
Cash and cash equivalents		10,681	7,909
		<b>32,888</b>	<b>29,189</b>
<b>Total assets</b>		<b>62,618</b>	<b>58,326</b>
<b>LIABILITIES</b>			
<b>Current liabilities</b>			
Trade and other payables	19	(11,972)	(11,682)
Trade and other payables relating to acquisitions		(599)	(1,648)
Borrowings	20	(3,566)	(2,693)
Current tax liabilities		(2,821)	(1,195)
		<b>(18,958)</b>	<b>(17,218)</b>
<b>Non-current liabilities</b>			
Borrowings	20	(14,696)	(13,855)
Deferred tax liabilities	16	(2,087)	(2,310)
Retirement benefit obligations	28	(2,221)	(2,198)
		<b>(19,004)</b>	<b>(18,363)</b>
<b>Total liabilities</b>		<b>(37,962)</b>	<b>(35,581)</b>
<b>Net assets</b>		<b>24,656</b>	<b>22,745</b>
<b>EQUITY</b>			
Share capital	22	307	305
Share premium account		14,529	14,472
Other reserves	24	2,055	2,130
Retained earnings		6,688	4,425
<b>Equity attributable to owners of the parent company</b>		<b>23,579</b>	<b>21,332</b>
<b>Non-controlling interests</b>		<b>1,077</b>	<b>1,413</b>
<b>Total equity</b>		<b>24,656</b>	<b>22,745</b>

The accompanying notes form an integral part of these consolidated financial statements.

The financial statements were approved by the Board on 19 March 2018.

**David Cicurel**  
*Director*

**Brad Ormsby**  
*Director*

# Consolidated statement of changes in equity

For the year ended 31 December 2017

	Share capital £000	Share premium £000	Other reserves £000	Retained earnings £000	Total attributable to owners of the parent £000	Non-controlling interests £000	Total equity £000
<b>At 1 January 2017</b>	305	14,472	2,130	4,425	21,332	1,413	22,745
Dividends	—	—	—	(1,743)	(1,743)	—	(1,743)
Adjustment arising from change in non-controlling interest	—	—	—	(96)	(96)	(1,062)	(1,158)
Issue of share capital	2	57	—	—	59	—	59
Share-based payments	—	—	—	284	284	—	284
<b>Transactions with owners</b>	2	57	—	(1,555)	(1,496)	(1,062)	(2,558)
Profit for the year	—	—	—	4,013	4,013	726	4,739
Retirement benefit actuarial losses	—	—	—	(195)	(195)	—	(195)
Foreign exchange differences	—	—	(75)	—	(75)	—	(75)
<b>Total comprehensive income for the year</b>	—	—	(75)	3,818	3,743	726	4,469
<b>At 31 December 2017</b>	<b>307</b>	<b>14,529</b>	<b>2,055</b>	<b>6,688</b>	<b>23,579</b>	<b>1,077</b>	<b>24,656</b>
<b>At 1 January 2016</b>	305	14,441	2,004	6,532	23,282	802	24,084
Dividends	—	—	—	(1,581)	(1,581)	(49)	(1,630)
Issue of share capital	—	31	—	—	31	—	31
Share-based payments	—	—	—	169	169	—	169
<b>Transactions with owners</b>	—	31	—	(1,412)	(1,381)	(49)	(1,430)
Profit for the year	—	—	—	81	81	660	741
Retirement benefit actuarial losses	—	—	—	(776)	(776)	—	(776)
Foreign exchange differences	—	—	126	—	126	—	126
<b>Total comprehensive income for the year</b>	—	—	126	(695)	(569)	660	91
<b>At 31 December 2016</b>	305	14,472	2,130	4,425	21,332	1,413	22,745

The accompanying notes form an integral part of these consolidated financial statements.

# Consolidated cashflow statement

For the year ended 31 December 2017

	2017 £000	2016 £000
<b>Cashflows from operating activities</b>		
Profit after tax	4,739	741
Adjustments for:		
Financial instruments measured at fair value:		
Hedging contracts	22	21
Share-based payments	284	241
Depreciation	675	592
Amortisation of intangible assets	4,589	5,155
Loss on disposal of property, plant and equipment	54	30
Foreign exchange loss on foreign currency loans	48	166
Interest income	(34)	(9)
Interest expense	515	523
Retirement benefit obligation net finance cost	60	60
Contributions to defined benefit plans	(236)	(198)
Tax expense/(credit) recognised in income statement	382	(324)
Increase in inventories	(25)	(1,442)
Decrease in trade and other receivables	111	620
(Decrease)/increase in trade and other payables	(263)	37
Cash generated from operations	10,921	6,213
Finance costs paid	(482)	(522)
Tax recovered/(paid)	68	(1,080)
<b>Net cash from operating activities</b>	<b>10,507</b>	<b>4,611</b>
<b>Cashflows from investing activities</b>		
Paid on acquisition of new subsidiary	(8,769)	(9,847)
Gross cash inherited on acquisition	1,655	3,714
Acquisition of subsidiaries, net of cash acquired	(7,114)	(6,133)
Paid on the acquisition of trade and certain assets	(11)	(261)
Purchase of property, plant and equipment	(728)	(835)
Interest received	34	9
<b>Net cash used in investing activities</b>	<b>(7,819)</b>	<b>(7,220)</b>
<b>Cashflows from financing activities</b>		
Proceeds from issue of share capital	59	31
Repayments of borrowings	(2,668)	(3,945)
Proceeds from bank loans	4,500	7,545
Repayment of loan notes	—	(117)
Equity dividends paid	(1,743)	(1,581)
Dividends paid – non-controlling interest in subsidiary	—	(49)
<b>Net cash from financing activities</b>	<b>148</b>	<b>1,884</b>
<b>Net change in cash and cash equivalents</b>	<b>2,836</b>	<b>(725)</b>
<b>Cash and cash equivalents at the start of the year</b>	<b>7,909</b>	<b>8,530</b>
<b>Exchange movements</b>	<b>(64)</b>	<b>104</b>
<b>Cash and cash equivalents at the end of the year</b>	<b>10,681</b>	<b>7,909</b>

The accompanying notes form an integral part of these consolidated financial statements.

# Notes to the consolidated financial statements

For the year ended 31 December 2017

## 1. General information

Judges Scientific plc is the ultimate parent company of the Group, whose principal activities comprise the design, manufacture and sale of scientific instruments.

Judges Scientific plc is incorporated and domiciled in the UK and its registered office is 52c Borough High Street, London SE1 1XN.

## 2. Summary of significant accounting policies

### *Basis of preparation*

The consolidated financial statements have been prepared under the historical cost convention except for certain financial instruments which are carried at fair value.

Being quoted on the Alternative Investment Market of the London Stock Exchange, the Company is required to present its consolidated financial statements in accordance with International Financial Reporting Standards (IFRS) as adopted by the European Union. Accordingly, these financial statements have been prepared in accordance with the accounting policies set out below which are based on the IFRS in issue as adopted by the European Union (EU) and in effect at 31 December 2017.

The preparation of financial statements in conformity with IFRS requires the use of certain critical accounting estimates. It also requires management to exercise its judgement in the process of applying the Group's accounting policies. The areas involving a higher degree of judgement or complexity, or areas where assumptions and estimates are significant to the consolidated financial statements, are disclosed under "Use of key accounting estimates and judgements".

### *Changes in accounting policies*

#### *Standards, amendments and interpretations to existing standards that are not yet effective*

At the date of approval of these consolidated financial statements, certain new standards, amendments to and interpretations of existing standards have been published but are not yet effective, and have not been adopted early by the Group including the following:

IFRS 9 'Financial Instruments' (2014) (effective date 1 January 2018) – the new standard introduces extensive changes to IAS 39's guidance on the classification and measurement of financial assets and introduces a new "expected credit loss" model for the impairment of financial assets. IFRS 9 also provides new guidance on the application of hedge accounting. It is not expected that the application of this new standard will cause a material change to the Group's performance.

IFRS 15 'Revenues from Contracts with Customers' (change to IASB effective date 1 January 2018) – this new standard presents new requirements for the recognition of revenue, replacing IAS 18 'Revenue', IAS 11 'Construction Contracts' and several revenue-related Interpretations. The new standard establishes a control-based revenue recognition model and provides additional guidance in many areas not covered in detail under existing IFRSs, including how to account for arrangements with multiple performance obligations, variable pricing, customer refund rights, supplier repurchase options and other common complexities.

The Group has carefully assessed the new standard and considers that the only changes to recognition would be for large, complex instruments which require highly specialised installation. Under the existing revenue standard, these are recognised as revenue upon shipment; however under the new standard, recognition would be deferred until installation was completed. At 31 December 2017 £400,000 of instruments were in the process of installation (31 December 2016: £300,000) such that under the new standard, revenue would have been £100,000 lower in 2017. The cumulative impact on the Statement of Comprehensive Income for the year ended 31 December 2017 would have been a reduction of £50,000.

IFRS 16 'Leases' (effective date 1 January 2019) – this new standard will require the capitalisation of operating leases, such as the Group's building and vehicle leases, as right of use assets with an offsetting financial liability. The current rental charge will be replaced with a combination of depreciation from the asset and an interest charge from the liability. This is expected to cause a material change to the Consolidated Balance Sheet and a material change to the presentation of amounts within the Comprehensive Statement of Income. The Group is reviewing the transition options in relation to adopting IFRS 16.

Management currently anticipates that all of the pronouncements will be adopted in the Group's accounting policies in accordance with each standard's effective date.

### *Consolidation*

The consolidated financial statements include those of the parent company and its subsidiaries. Subsidiaries are entities where the Group is exposed, or has rights, to variable returns from its involvement with the subsidiary and has the ability to effect those returns through its power over the subsidiary. The Group obtains and exercises control through voting rights. Income, expenditure, unrealised gains and intra-group balances arising from transactions within the Group are eliminated. Unrealised losses are also eliminated unless the transaction provides evidence of an impairment of the asset transferred.

The Group uses the purchase method of accounting for the acquisition of a subsidiary. Acquisition consideration is measured at the fair value of the consideration given, equity instruments issued and liabilities incurred or assumed at the date of exchange.

Business combination costs directly attributable to the acquisition are immediately written off through the Statement of Comprehensive Income. Identifiable assets acquired and liabilities and contingent liabilities assumed in a business combination are measured initially at their fair values at the acquisition date irrespective of the extent of any non-controlling interest. The excess of the cost of acquisition over the fair value of the Group's share of the identifiable net assets acquired is recorded as goodwill. If the cost of the acquisition is less than the fair value of the net assets of the subsidiary acquired, the difference is recognised directly in the Statement of Comprehensive Income.

The parent company has taken the merger relief that is required by section 612 of the Companies Act 2006 in respect of the fair value of the consideration received in excess of the nominal value of the equity shares issued in connection with the acquisition of Fire Testing Technology Limited, UHV Design Limited, Scientifica Limited and Armfield Limited.

### **Goodwill**

Goodwill is the difference between the fair value of the consideration paid and the fair value of the net identifiable assets and liabilities acquired in a business combination. Following recognition, it is not amortised; however, it is subject to impairment testing on an annual basis or more frequently if circumstances indicate that the asset may have become impaired and is carried at cost less accumulated impairment losses. Goodwill is allocated to cash-generating units for the purpose of impairment testing.

### **Revenue recognition**

Revenue is measured by reference to the fair value of consideration received or receivable by the Group, excluding value added tax (or similar local sales tax). It is recognised when the amount of revenue and the costs incurred or to be incurred in respect of the transaction can be measured reliably and it is probable that the associated economic benefits will flow to the Group.

Revenue from sales of instruments and spares is recognised at the point at which the risks and rewards of ownership are transferred to the customer. This is usually on despatch; however for sales from overseas subsidiaries, it is when the customer receives the goods.

Revenue from services, such as installation, support, training or consultancy, is recognised once the service has been performed.

Interest income is recognised using the effective interest method which calculates the amortised cost of a financial asset and allocates the interest income over the relevant period. Dividend income is recognised when the shareholder's right to receive payment is established.

### **Segment reporting**

The Group's activities are predominantly in or in support of the design and manufacture of scientific instruments. The Group operates two main operating segments: Materials Sciences and Vacuum. No operating segments have been aggregated.

Operating segments are reported in a manner consistent with internal reporting provided to the Board of Directors, which is responsible for allocating and assessing performance of operating segments, and which is considered to be the Chief Operating Decision Maker. Each segment's range of instruments has its individual requirements in terms of design, manufacture and marketing.

### **Intangible assets acquired as part of a business combination**

In accordance with IFRS 3 'Business Combinations', an intangible asset acquired in a business combination is deemed to have a cost to the Group of its fair value at the acquisition date. The fair value of the intangible asset reflects market expectations about the probability that the future economic benefits embodied in the asset will flow to the Group.

Amortisation charges are included as adjusting items in operating costs in the Statement of Comprehensive Income. Amortisation is provided at rates calculated to write off the cost of each intangible asset over its expected useful life, as follows:

Customer relationships	3 years
Non-competition agreements	2 years
Distribution agreements	Between 2 and 5 years
Research and development	5 years
Sales order backlog	On shipment (this is usually consumed within six months of initial recognition)
Brand and domain names	Between 1 and 5 years

Subsequent to initial recognition, intangible assets are stated at deemed cost less accumulated amortisation.

### **Research and development**

Research and development expenditure is recognised in the Statement of Comprehensive Income as an expense until it can be demonstrated that the conditions for capitalisation under IAS 38 'Intangible Assets' apply.

The criteria for capitalisation include demonstration that the project is technically and commercially feasible, the Group has sufficient resources to complete development and the asset will generate probable future economic benefit.

### **Property, plant and equipment**

Property, plant and equipment is stated at historical cost, less accumulated depreciation.

Disposal of assets: the gain or loss arising on the disposal of an asset is determined as the difference between the disposal proceeds and the carrying amount of the asset and is recognised in the Statement of Comprehensive Income.

Depreciation: provided at annual rates calculated to write off the cost less residual value of each asset over its expected useful life, within the following ranges:

Property	50 years (excluding the estimated cost of land)
Plant and machinery	7 years
Fixtures, fittings and equipment	Between 3 and 7 years
Motor vehicles	4 years
Building improvements	Over the minimum term of the lease

Material residual value estimates and expected useful lives are updated as required but at least annually.

### **Impairment testing of goodwill, other intangible assets and property, plant and equipment**

For the purposes of assessing impairment, assets are grouped at the lowest levels for which there are largely independent cash inflows (cash-generating units). As a result, some assets are tested individually for impairment and some are tested at cash-generating unit level. Goodwill is allocated to those cash-generating units that are expected to benefit from synergies of the related business combination and represent the lowest level within the Group at which management monitors goodwill.

Cash-generating units to which goodwill has been allocated are tested for impairment at least annually. All other individual assets or cash-generating units are tested whenever events or changes in circumstances indicate that the carrying amount may not be recoverable.

An impairment loss is recognised for the amount by which the asset's or cash-generating unit's carrying amount exceeds its recoverable amount. The recoverable amount is the higher of fair value, reflecting market conditions less costs to sell, and value in use. Value in use is based on estimated future cashflows from each cash-generating unit, discounted at a suitable rate in order to calculate the present value of those cashflows. The data used for impairment testing procedures is directly linked to the Group's latest approved budgets, adjusted as necessary to exclude any future restructuring to which the Group is not yet committed. Discount rates are determined individually for each cash-generating unit and reflect their respective risk profiles as assessed by the Directors.

Impairment losses for cash-generating units reduce first the carrying amount of any goodwill allocated to that cash-generating unit. Any remaining impairment loss is charged pro rata to the other assets in the cash-generating unit. With the exception of goodwill, all assets are subsequently reassessed for indications that an impairment loss previously recognised may no longer exist. Impairment charges are included in operating costs in the Statement of Comprehensive Income. An impairment charge that has been recognised is reversed if the cash-generating unit's recoverable amount exceeds its carrying amount.

### **Leases**

For finance leases, where the Group bears substantially all the risks and rewards related to ownership of the leased asset, the related asset is capitalised at the inception of the lease at the fair value of the leased asset or, if lower, the present value of the minimum lease payments. The interest element of leasing payments represents a constant proportion of the capital balance outstanding and is charged to the Statement of Comprehensive Income over the period of the lease. Finance lease obligations are included in financial liabilities net of interest costs.

Operating leases where the lessor retains substantially all of the risks and rewards of ownership are charged to the Statement of Comprehensive Income on a straight-line basis over the lease term. Lease incentives are spread over the term of the lease.

### **Inventories**

Inventories are recorded at the lower of cost and net realisable value. Costs of ordinarily interchangeable items are assigned using the first-in, first-out cost formula. Cost includes materials, direct labour and an attributable proportion of manufacturing overheads based on normal levels of activity.

### **Taxation**

Current tax is the tax currently payable based on taxable profit for the year.

Deferred taxes are calculated using the liability method on temporary differences. Deferred tax is generally provided on the difference between the carrying amounts of assets and liabilities and their tax bases. However, deferred tax is not provided on the initial recognition of goodwill, nor on the initial recognition of an asset or liability unless the related transaction is a business combination or affects tax or accounting profit. Deferred tax on temporary differences associated with shares in subsidiaries is not provided if reversal of those temporary differences can be controlled by the Group and it is probable that reversal will not occur in the foreseeable future. In addition, tax losses available to be carried forward as well as other income tax credits to the Group are assessed for recognition as deferred tax assets.

Deferred tax liabilities are provided in full, with no discounting. Deferred tax assets are recognised to the extent that it is probable that the underlying deductible temporary differences will be able to be offset against future taxable income. Current and deferred tax assets and liabilities are calculated at tax rates that are expected to apply to their respective period of realisation, provided they are enacted or substantively enacted at the balance sheet date.

Changes in deferred tax assets or liabilities are recognised as a component of tax expense in the Statement of Comprehensive Income, except:

- where they relate to items that are charged or credited directly to equity in which case the related deferred tax is also charged or credited directly to equity; or
- where items are recognised in other comprehensive income, in which case the related deferred tax is recognised in other comprehensive income.

### **Share-based employee compensation**

The Group operates equity-settled share-based compensation plans for remuneration of its Directors and employees.

All employee services received in exchange for the grant of any share-based compensation are measured at their fair values. The fair value is appraised at the grant date and excludes the impact of any non-market vesting conditions (e.g. profitability or sales growth targets).

Share-based compensation is recognised as an expense in the Statement of Comprehensive Income with a corresponding credit to other reserves. If vesting periods or other vesting conditions apply, the expense is allocated over the vesting period, based on the best available estimate of the number of share options expected to vest. Non-market vesting conditions are included in assumptions about the number of options that are expected to become exercisable. Estimates are subsequently revised if there is any indication that the number of share options expected to vest differs from previous estimates.

The proceeds received net of any directly attributable transaction costs are credited to share capital and share premium when the options are exercised.

### **Financial assets**

Financial assets consist of loans, receivables, derivatives and investments in subsidiaries.

#### **Cash and cash equivalents**

Cash and cash equivalents comprise cash at bank and in hand and short-term deposits which are subject to an insignificant risk of changes in value.

#### **Trade receivables**

Trade receivables are recognised and carried at the original invoice amount less an allowance for uncollectable amounts. An estimate of uncollectable amounts is made when collection of the full amount is no longer probable. Uncollectable amounts are written off to the Statement of Comprehensive Income when identified.

### **Financial liabilities**

Financial liabilities are obligations to pay cash or other financial assets and are recognised when the Group becomes a party to the contractual provisions of the instrument. Financial liabilities are recorded initially at fair value net of direct issue costs if they are not held at fair value through profit and loss. Derivatives are recorded at fair value through profit or loss. The fair value of derivative financial instruments is determined by reference to active market transactions or using a valuation technique where no active market exists.

All financial liabilities with the exception of interest rate swaps and foreign currency options are recorded at amortised cost using the effective interest method, with interest-related charges recognised as an expense in finance cost in the Statement of Comprehensive Income.

These financial liabilities include trade and other payables and borrowings, including bank loans, subordinated loans and hire purchase commitments. Finance charges, including premiums payable on settlement or redemption and direct issue costs, are charged to the Statement of Comprehensive Income on an accruals basis using the effective interest 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.

Interest rate swaps and foreign currency options are treated as derivative financial instruments and are accounted for at fair value through profit and loss.

A financial liability is derecognised only when the obligation is extinguished, that is, when the obligation is discharged or cancelled or expires.

### **Employee benefits – Defined contribution plans**

The Group operates defined contribution pension schemes for employees and Directors. The assets of the schemes are held by investment managers separately from those of the Group. The contributions payable to these schemes are recorded in the Statement of Comprehensive Income in the accounting period to which they relate.

### **Employee benefits – Defined benefit plans**

The Group operates a funded defined benefit scheme, where payments are made to trustee administered funds. The asset or liability recognised in the consolidated Statement of Financial Position is calculated as the present value of the defined benefit obligation less the fair value of the plan assets, as at the balance sheet date.

The defined benefit obligation is calculated at least triennially by independent actuaries using the projected unit credit method and is determined by discounting the estimated future cash outflows using interest rates of high quality corporate bonds, matched to the currency in which the benefits will be paid, and that have terms to maturity approximating to the terms of the related pension obligation. The plan administration expenses and past service costs or credits are recognised as an operating expense in the consolidated Statement of Comprehensive Income. There is no current service cost. The retirement benefits obligation net finance cost is the change during the year in the net defined benefit liability due to the passage of time and is recognised as an interest expense in the consolidated Statement of Comprehensive Income. The interest rate is based on the yield on high quality corporate bonds. Actuarial gains and losses arising from changes in actuarial assumptions and experience adjustments are recognised in the consolidated Statement of Comprehensive Income in the year which they arise.

### **Foreign currencies**

Transactions in foreign currencies are translated at the exchange rate ruling at the date of the transaction. Monetary assets and liabilities in foreign currencies are translated at the rates of exchange ruling at the balance sheet date. Exchange differences arising on the settlement of monetary items or on translating monetary items at rates different from those at which they were initially recorded are recognised in the Statement of Comprehensive Income in the period in which they arise. In respect of overseas subsidiaries on consolidation, assets and liabilities have been translated at the closing rate and income and expenses have been translated at the average rate over the reporting period. Exchange differences are recorded in other comprehensive income.

### **Dividends**

Final dividend distributions payable to equity shareholders are included in trade and other payables when the dividends are approved in general meeting but not paid prior to the balance sheet date. Interim dividends are recognised in the period in which they are paid.

### **Equity**

Equity comprises the following:

#### *Share capital*

Share capital represents the nominal value of equity shares.

#### *Share premium*

Share premium represents the excess over nominal value of the fair value of consideration received for equity shares, net of expenses of the share issue.

#### *Capital redemption reserve*

Capital redemption reserve represents amounts set aside from retained earnings on conversion of convertible redeemable shares equal to the reduction then arising in the overall nominal value of share capital of all classes.

#### *Merger reserve*

Merger reserve represents the fair value of the consideration received in excess of the nominal value of equity shares issued in connection with acquisitions where the Company has taken the merger relief that is required by section 612 of the Companies Act 2006.

#### *Retained earnings*

Retained earnings represents retained profits and losses.

#### *Revaluation reserve*

Revaluation reserve represents gains and losses due to the revaluation of certain financial assets.

#### *Non-controlling interests*

Non-controlling interests represent retained profits and losses attributable to minority shareholders in subsidiary companies.

### **Adjusting items**

Adjusting items (and their related tax impact) are those which by their size or nature the Directors' consider should be disclosed separately for the purposes of presenting results and earnings per share figures so as to enable users of the financial statements to evaluate more effectively the underlying operating performance of the Group.

### **Provisions**

Provisions are recognised when the Group has a present legal or constructive obligation as a result of a past event, it is likely that an outflow of resource will be required to settle the obligation and that the amount of the probable outflow can be reasonably estimated. Where the Group expects all or some of the obligation to be reimbursed, the reimbursement is recognised as a separate asset to the extent that it is virtually certain to be reimbursed. The expense relating to any provision is presented in the Statement of Comprehensive Income net of any reimbursement.

Provisions are measured at the present value of management's best estimate of the expenditure required to settle the present obligation at the year-end date. If material, provisions are determined by discounting the expected future cashflows using rates that reflect current market assessments of the time value of money.

### **Use of key accounting estimates and judgements**

Many of the amounts included in the consolidated financial statements involve the use of judgement and/or estimation. These judgements and estimates are based on management's best knowledge of the relevant facts and circumstances, having regard to prior experience, but actual results may differ from the amounts included in the consolidated financial statements. Information about such judgements and estimation is contained in the accounting policies and/or the notes to the consolidated financial statements and the key areas are summarised below.

#### *Judgements in applying accounting policies*

- Revenue recognition: The Group makes a judgement whether all of the conditions required for revenues to be recognised in the Statement of Comprehensive Income have been met.
- Fair value assessment of a business combination: Following an acquisition the Group makes an assessment of all assets and liabilities, inclusive of identification of intangible assets and acquired and/or related goodwill. The valuation process for the intangible assets requires a number of judgements to be made regarding future performance of an acquisition, together with other asset-specific factors.

#### *Sources of estimation uncertainty*

- Retirement benefits: The costs and present value of any related pension assets and liabilities depend on factors such as life expectancy of the members, the salary progression of current employees, the returns that plan assets generate and the discount rate used to calculate the present value of the liabilities. The Group uses estimates based on the previous experience and independent external actuarial advice in determining these future cashflows and the discount rate.
- Depreciation: Depreciation rates are based on estimates of the useful lives and residual values of the assets involved.
- Carrying value of intangible assets and goodwill: Estimates are required as to intangible asset carrying values, their useful lives and goodwill carrying value. These are assessed by reference to budgeted profits and cashflows for future periods for the relevant income-generating units and an estimate of their values in use.
- Provisions: Provisions are based on estimates of the expenditure required to settle.

### 3. Segmental analysis

For the year ended 31 December 2017	Note	Materials Sciences £000	Vacuum £000	Unallocated items £000	Total £000
<b>Revenue</b>		<b>34,088</b>	<b>37,272</b>	<b>—</b>	<b>71,360</b>
Operating costs		(26,699)	(31,225)	(2,557)	(60,481)
<b>Adjusted operating profit</b>		<b>7,389</b>	<b>6,047</b>	<b>(2,557)</b>	<b>10,879</b>
Adjusting items	4				(5,217)
<b>Operating profit</b>					<b>5,662</b>
Net interest expense					(541)
<b>Profit before tax</b>					<b>5,121</b>
Income tax charge					(382)
<b>Profit for the year</b>					<b>4,739</b>

For the year ended 31 December 2016	Note	Materials Sciences £000	Vacuum £000	Unallocated items £000	Total £000
<b>Revenue</b>		28,162	29,123	—	57,285
Operating costs		(22,937)	(25,731)	(1,473)	(50,141)
<b>Adjusted operating profit</b>		<b>5,225</b>	<b>3,392</b>	<b>(1,473)</b>	<b>7,144</b>
Adjusting items	4				(6,153)
<b>Operating profit</b>					991
Net interest expense					(574)
<b>Profit before tax</b>					417
Income tax credit					324
<b>Profit for the year</b>					741

Unallocated items relate to the Group's head office costs.

#### Segment assets and liabilities

At 31 December 2017	Materials Sciences £000	Vacuum £000	Unallocated items £000	Total £000
Assets	16,741	22,774	23,103	62,618
Liabilities	(7,274)	(11,677)	(19,011)	(37,962)
Net assets	9,467	11,097	4,092	24,656
Capital expenditure	288	440	—	728
Depreciation	221	419	35	675
Amortisation	2,045	2,544	—	4,589

## Segment assets and liabilities

At 31 December 2016	Materials Sciences £000	Vacuum £000	Unallocated items £000	Total £000
Assets	14,963	22,445	20,918	58,326
Liabilities	(6,622)	(7,482)	(21,477)	(35,581)
Net assets	8,341	14,963	(559)	22,745
Capital expenditure	305	523	7	835
Depreciation	223	289	80	592
Amortisation	2,865	2,290	—	5,155

Unallocated items are borrowings, intangible assets and goodwill arising on acquisition, deferred tax, defined benefit obligations and parent company net assets.

Geographic analysis	Year to 31 December 2017 £000	Year to 31 December 2016 £000
UK (domicile)	9,005	8,732
Rest of Europe	17,784	13,794
North America	18,380	15,489
Rest of the world	26,191	19,270
	<b>71,360</b>	<b>57,285</b>

Segmental revenue is presented on the basis of the destination of the goods where known, otherwise the geographical location of customers is utilised.

No customer makes up more than 10% of the Group's revenues.

### 4. Adjusting items

	2017 £000	2016 £000
Amortisation of intangible assets	4,589	5,155
Financial instruments measured at fair value:		
Hedging contracts	22	21
Share-based payments	284	241
Acquisition costs	322	736
Total adjusting items in operating profit	5,217	6,153
Retirement benefits obligation net interest cost	60	60
Total adjusting items	5,277	6,213
Taxation	(1,092)	(1,091)
Total adjusting items net of tax	4,185	5,122
Attributable to:		
Owners of the parent	4,061	5,092
Non-controlling interest	124	30
	<b>4,185</b>	<b>5,122</b>

## 5. Operating costs

	2017 £000	2016 £000
Raw materials and consumables	29,824	24,217
Other external charges	9,729	7,890
Staff costs	20,253	17,442
Depreciation	675	592
Other operating costs, excluding adjusting items	60,481	50,141
Amortisation of intangible assets	4,589	5,155
Hedging contracts	22	21
Share-based payments	284	241
Acquisition costs	322	736
<b>Total operating costs</b>	<b>65,698</b>	<b>56,294</b>

Research and development expensed in the year totalled £3,534,000 (2016: £3,774,000). This does not include amortisation of research and development intangibles arising on acquisition.

## 6. Remuneration of key senior management

	2017 £000	2016 £000
Short-term employee benefits:		
Salaries including bonuses and social security costs	2,162	1,752
Company car allowance and other benefits	73	77
Total short-term employee benefits	2,235	1,829
Post-employment benefits:		
Defined contribution pension plans	131	121
Total post-employment benefits	131	121
	<b>2,366</b>	<b>1,950</b>

Key management personnel comprise Directors of the parent company and the managing directors of the principal operating companies and totalled 20 (2016: 18).

Remuneration of Directors is disclosed in the Remuneration Report on pages 15 to 16.

## 7. Employees

	2017 £000	2016 £000
<b>Employment costs</b>		
Wages and salaries	17,633	15,243
Social security costs	1,725	1,469
Pension costs	895	730
	<b>20,253</b>	<b>17,442</b>
Share-based payments	284	241
	<b>20,537</b>	<b>17,683</b>

## Average number of employees

	2017 No.	2016 No.
By function:		
Manufacturing	168	139
Sales and administration	271	269
	<b>439</b>	<b>408</b>
By operating segment:		
Materials Sciences group	186	174
Vacuum group	243	225
Head office (includes Non-Executive Directors in both years)	10	9
	<b>439</b>	<b>408</b>

## 8. Operating profit

	2017 £000	2016 £000
Operating profit is stated after charging:		
Fees payable to the Company's auditor:		
for the audit of the Company's annual accounts	33	29
Fees payable to the Company's auditor for other services:		
for the audit of the Company's subsidiaries, pursuant to legislation	118	103
for all other assurance services	41	136
Depreciation	675	592
Amortisation of intangible assets	4,589	5,155
Operating lease rentals – land and property	744	626
Operating lease rentals – vehicles	52	55
Operating lease rentals – other	65	52

## 9. Interest income and expense

	2017 £000	2016 £000
Interest income – short-term bank deposits	34	9
Interest expense – bank loans	(515)	(523)
Retirement benefits obligation net finance cost	(60)	(60)
	<b>(575)</b>	<b>(583)</b>
Net interest expense	<b>(541)</b>	<b>(574)</b>

## 10. Taxation charge/(credit)

	2017 £000	2016 £000
UK corporation tax at 19.25% (2016: 20.00%)		
Current year	1,728	847
Prior years	(767)	(456)
Foreign tax suffered	185	52
	<b>1,146</b>	<b>443</b>
Deferred tax – origination and reversal of temporary differences:		
Current year	(765)	(727)
Prior years	(10)	(21)
Effect of changes in tax rates	11	(19)
	<b>(764)</b>	<b>(767)</b>
Tax on profit for the year – current year	<b>1,159</b>	153
Tax on profit for the year – prior years	<b>(777)</b>	(477)
	<b>382</b>	<b>(324)</b>

### Factors affecting the tax charge for the year:

Profit before tax	5,121	417
Profit before tax multiplied by standard rate of UK corporation tax of 19.25% (2016: 20.00%)	986	83
Share options	(148)	(42)
Provisions and expenditure not deductible for tax purposes	152	116
Changes in tax rates	11	(19)
Overseas tax	81	15
Deferred tax asset not recognised	77	—
Tax on profit for the year – current year	<b>1,159</b>	153
Tax on profit for the year – prior years	<b>(777)</b>	(477)
Total net taxation charge	<b>382</b>	<b>(324)</b>

## 11. Dividends

	2017		2016	
	Pence per share	£000	Pence per share	£000
Second interim dividend for the previous year	—	—	15.9	970
Final dividend for the previous year	18.5	1,130	1.0	61
First interim dividend for the current year	10.0	613	9.0	550
	<b>28.5</b>	<b>1,743</b>	25.9	1,581

The Directors will propose a final dividend of 22.0p per share, amounting to £1,351,000, for payment on 6 July 2018. As the final dividend remains conditional on shareholders' approval at the Annual General Meeting, provision has not been made for this dividend in these consolidated financial statements.

Dividends declared by subsidiaries that are not wholly owned are paid to the non-controlling interest in the period in which they are declared and amounted to £nil in the year (2016: £49,000).

## 12. Earnings per share

	Note	2017 £000	2016 £000
<b>Profit attributable to owners of the parent</b>			
Adjusted profit		<b>8,074</b>	5,173
Adjusting items	4	<b>(4,061)</b>	(5,092)
<b>Profit for the year</b>		<b>4,013</b>	81

		Pence	Pence
<b>Earnings per share – adjusted</b>			
Basic		<b>131.9</b>	84.8
Diluted		<b>130.3</b>	83.7
<b>Earnings per share – total</b>			
Basic		<b>65.6</b>	1.3
Diluted		<b>64.8</b>	1.3

		Number	Number
Issued Ordinary shares at the start of the year		<b>6,107,628</b>	6,098,549
Movement in Ordinary shares during the year	22	<b>33,500</b>	9,079
<b>Issued Ordinary shares at the end of the year</b>		<b>6,141,128</b>	6,107,628
Weighted average number of shares in issue		<b>6,121,643</b>	6,102,463
Dilutive effect of share options		<b>72,786</b>	80,957
<b>Weighted average shares in issue on a diluted basis</b>		<b>6,194,429</b>	6,183,420

Adjusted basic earnings per share is calculated on the adjusted profit, which excludes any adjusting items, attributable to the Company's shareholders divided by the weighted average number of shares in issue during the year.

Adjusted diluted earnings per share is calculated on the adjusted basic earnings per share, adjusted to allow for the issue of Ordinary shares on the assumed conversion of all dilutive options and any other dilutive potential Ordinary shares. The calculation is based on the treasury method prescribed in IAS 33. This calculates the theoretical number of shares that could be purchased at the average middle market price in the period out of the proceeds of the notional exercise of outstanding options. The difference between this theoretical number and the actual number of shares under option is deemed liable to be issued at nil value and represents the dilution.

Total earnings per share are calculated as above whilst substituting total profit for adjusted profit.

### 13. Goodwill

	2017 £000	2016 £000
<b>Cost</b>		
1 January	13,337	10,927
Additions	1,313	2,410
31 December	14,650	13,337

Goodwill is tested annually for impairment by reference to the value in use of the relevant cash-generating units, which are the Group's operating segments. This is calculated on the basis of projected cashflows for five years. These are derived from detailed budgets for the coming year, with subsequent years including revenue and cost growth of 3% per annum and maintained gross margins. The 3% long-term growth rate takes into account both UK and overseas markets. These cashflows are discounted using a weighted average cost of capital of 11.1% (2016: 11.2%) per annum, calculated by reference to year-end data on equity values and interest, dividend and tax rates. The long-term growth rate and discount rate is consistent for all segments on the basis that the businesses operate in similar markets and are exposed to similar risks. The residual value at the end of the five years, computed by reference to projected year six cashflows and discounted, is also included. There was no requirement for any impairment provision at 31 December 2017 (2016: £nil).

The Directors have considered the sensitivity of the key assumptions, including the weighted average cost of capital and long-term growth rates, and have concluded that any possible changes that may be reasonably contemplated in these key assumptions would not result in the value in use falling below the carrying value of goodwill, given the amount of headroom available.

### 14. Other intangible assets

	Distribution agreements £000	Research and development £000	Sales order backlog £000	Brand and domain names £000	Customer relationships £000	Total £000
<b>Gross carrying amount</b>						
1 January 2016	2,656	6,343	4,223	9,549	6,827	29,598
Acquisitions	272	2,132	300	1,486	1,613	5,803
31 December 2016	2,928	8,475	4,523	11,035	8,440	35,401
Acquisitions	555	1,481	225	1,437	192	3,890
Disposal	—	—	—	—	(31)	(31)
<b>31 December 2017</b>	<b>3,483</b>	<b>9,956</b>	<b>4,748</b>	<b>12,472</b>	<b>8,601</b>	<b>39,260</b>
<b>Amortisation</b>						
1 January 2016	1,906	3,440	4,223	4,972	5,969	20,510
Charge for the year	541	1,488	210	1,970	946	5,155
31 December 2016	2,447	4,928	4,433	6,942	6,915	25,665
Charge for the year	430	1,316	315	1,825	703	4,589
<b>31 December 2017</b>	<b>2,877</b>	<b>6,244</b>	<b>4,748</b>	<b>8,767</b>	<b>7,618</b>	<b>30,254</b>
<b>Carrying amount 31 December 2017</b>	<b>606</b>	<b>3,712</b>	<b>—</b>	<b>3,705</b>	<b>983</b>	<b>9,006</b>
Carrying amount 31 December 2016	481	3,547	90	4,093	1,525	9,736
Carrying amount 31 December 2015	750	2,903	—	4,577	858	9,088

## 15. Property, plant and equipment

	Plant and machinery £000	Fixtures, fittings and equipment £000	Motor vehicles £000	Property and building improvements £000	Total £000
<b>Cost</b>					
1 January 2016	771	985	422	4,394	6,572
Additions	124	446	145	120	835
Acquisitions	77	76	—	114	267
Disposals	(41)	(7)	(127)	—	(175)
Exchange differences	17	9	23	—	49
31 December 2016	948	1,509	463	4,628	7,548
Additions	222	389	75	42	728
Acquisitions	57	12	—	—	69
Disposals	(50)	(8)	(82)	—	(140)
Exchange differences	(10)	(6)	(15)	—	(31)
<b>31 December 2017</b>	<b>1,167</b>	<b>1,896</b>	<b>441</b>	<b>4,670</b>	<b>8,174</b>
<b>Accumulated depreciation</b>					
1 January 2016	542	675	181	387	1,785
Charge	116	225	138	113	592
Disposals	(30)	—	(102)	(13)	(145)
Exchange differences	14	£	£	—	2£
31 December 2016	642	906	225	487	2,260
Charge	129	299	115	132	675
Disposals	(49)	(8)	(29)	—	(86)
Exchange differences	(8)	(3)	(8)	—	(19)
<b>31 December 2017</b>	<b>714</b>	<b>1,194</b>	<b>303</b>	<b>619</b>	<b>2,830</b>
<b>Net book value – 31 December 2017</b>	<b>453</b>	<b>702</b>	<b>138</b>	<b>4,051</b>	<b>5,344</b>
Net book value – 31 December 2016	306	603	238	4,141	5,288
Net book value – 31 December 2015	229	310	241	4,007	4,787

The net book value of plant, machinery and vehicles included above held under finance leases and hire purchase contracts amounted to £nil at 31 December 2017 (2016: £23,000).

## 16. Deferred tax

	2017 £000	2016 £000
<b>Assets</b>		
1 January	776	351
Acquisitions in the year (note 27)	—	143
Adjustments in respect of prior years	10	(55)
Movement in Other comprehensive income – Retirement benefits actuarial loss	34	165
Credit to income statement in the year	(194)	81
Credit to equity in the year	104	91
31 December	730	776
<b>Deferred tax balances relate to temporary differences as follows:</b>		
Provisions allowable for tax in subsequent periods	22	64
Share options	289	150
Losses	41	188
Defined benefit obligation	378	374
	730	776
<b>Liabilities</b>		
1 January	2,310	1,922
Acquisitions in the year (note 27)	716	1,130
Adjustments in respect of prior years	—	(75)
Credit to income statement in the year	(939)	(667)
31 December	2,087	2,310
<b>Deferred tax balances relate to temporary differences as follows:</b>		
Accelerated capital allowances	431	475
Intangible assets	1,656	1,835
	2,087	2,310

Deferred tax assets and liabilities are calculated at tax rates that are expected to apply to their respective period of realisation, provided they are enacted or substantively enacted at the balance sheet date. The changes in rate from 20% to 19%, effective from 1 April 2017, and from 19% to 18%, effective from 1 April 2020, were both substantively enacted on 26 October 2015. Subsequently the Finance Act 2016, which was substantively enacted on 6 September 2016, announced that the tax rate would instead reduce to 17% effective from 1 April 2020.

## 17. Inventories

	2017 £000	2016 £000
Raw materials	7,248	6,333
Work in progress	1,668	1,463
Finished goods	1,464	2,143
	10,380	9,939

In 2017, a total of £29,824,000 of inventories was included in the Statement of Comprehensive Income as an expense (2016: £24,217,000). This includes an amount of £413,000 (2016: £54,000) resulting from write-downs of inventories and an amount of £128,000 (2016: £67,000) which is the reversal of previous write-downs. The carrying amount of inventories held at fair value less costs to sell is £497,000 (2016: £767,000). All Group inventories form part of the assets pledged as security in respect of bank loans.

## 18. Trade and other receivables – current

	2017 £000	2016 £000
Trade receivables	9,904	8,737
Other receivables	994	1,400
Prepayments and accrued income	929	1,204
	<b>11,827</b>	<b>11,341</b>

The fair value of receivables approximates to their carrying value. All trade and other receivables have been reviewed for impairment with no material provision being required.

Some of the unimpaired trade receivables were past due at the balance sheet date as follows:

	2017 £000	2016 £000
Not more than three months	1,714	2,466
More than three months but not more than six months	330	359
More than six months but not more than twelve months	57	61
Greater than one year	116	91
	<b>2,217</b>	<b>2,977</b>

Trade and other receivables are denominated in the following currencies:

	2017 £000	2016 £000
Sterling	8,766	7,589
US Dollars	2,389	2,714
Euros	672	1,038
	<b>11,827</b>	<b>11,341</b>

## 19. Trade and other payables – current

	2017 £000	2016 £000
Trade payables	4,398	5,261
Social security and other taxes	954	1,016
Other payables	1,124	749
Accruals and deferred income	5,496	4,656
	<b>11,972</b>	<b>11,682</b>

The fair value of trade and other payables approximates to their carrying value.

## 20. Borrowings

	2017 £000	2016 £000
<b>Current</b>		
Bank loans	3,376	2,306
Subordinated loans	190	379
Net obligations under hire purchase contracts	—	8
	<b>3,566</b>	<b>2,693</b>
<b>Non-current</b>		
Bank loans	14,696	13,852
Net obligations under hire purchase contracts	—	3
	<b>14,696</b>	<b>13,855</b>

There were three bank loans secured on assets of the Group at the start of the year. During the year an additional loan was taken out by our majority owned subsidiary, Bordeaux Acquisition Limited, to fund the acquisition of Crystallon Limited.

The four bank loans are summarised as follows:

- The first loan of £4,482,000 (2016: £6,756,000) is repayable in quarterly instalments over the period ending 31 December 2019 and bears interest at 1.75% to 2.75% (depending upon gearing) above LIBOR-related rates.
- The second loan of £9,001,000 (2016: £9,300,000) is repayable by 31 December 2019 and bears interest at 1.75% to 2.75% (depending upon gearing) above LIBOR-related rates.
- The third loan of £57,000 (2016: £102,000) is repayable in quarterly instalments over the period ending 31 March 2019 and bears interest at 3.75% above LIBOR-related rates.
- The fourth loan of £4,532,000 is repayable in quarterly instalments over the period ending 31 December 2022 and bears interest at 1.75% to 2.75% (depending upon gearing) above LIBOR-related rates.

The subordinated loans were advanced by minority shareholders in Bordeaux Acquisition Limited. They are unsecured, interest free and repayable at the discretion of that company.

Borrowings mature as follows:

31 December 2017	Bank loans £000	Subordinated loan £000	Hire purchase £000	Total £000
Repayable in less than six months	2,008	190	—	2,198
Repayable in months seven to twelve	1,764	—	—	1,764
Current portion of long-term borrowings	3,772	190	—	3,962
Repayable in years one to five	15,120	—	—	15,120
Total borrowings	18,892	190	—	19,082
Less: interest included above	(820)	—	—	(820)
Less: cash and cash equivalents	(10,681)	—	—	(10,681)
<b>Total net debt</b>	<b>7,391</b>	<b>190</b>	<b>—</b>	<b>7,581</b>

### Adjusting items

Subordinated debt to non-controlling shareholders	(190)
Accrued deferred consideration	599
<b>Adjusted net debt</b>	<b>7,990</b>

31 December 2016	Bank loans £000	Subordinated loan £000	Hire purchase £000	Total £000
Repayable in less than six months	1,387	379	5	1,771
Repayable in months seven to twelve	1,352	—	3	1,355
Current portion of long-term borrowings	2,739	379	8	3,126
Repayable in years one to five	14,404	—	3	14,407
<b>Total borrowings</b>	<b>17,143</b>	<b>379</b>	<b>11</b>	<b>17,533</b>
Less: interest included above	(985)	—	—	(985)
Less: cash and cash equivalents	(7,909)	—	—	(7,909)
<b>Total net debt</b>	<b>8,249</b>	<b>379</b>	<b>11</b>	<b>8,639</b>
<b>Adjusting items</b>				
Subordinated debt to non-controlling shareholders				(379)
Accrued deferred consideration				1,648
<b>Adjusted net debt</b>				<b>9,908</b>

A proportion of the Group's bank loans is drawn in foreign currencies to provide a hedge against assets denominated in those currencies. The Sterling equivalent at 31 December 2017 of loans denominated in Euros was £1,265,000 (2016: £1,217,000). These amounts are included in the figures above for bank loans, repayable in years one to five.

## 21. Financial instruments

The Group's policies on treasury management, capital management objectives and financial instruments are given in the Directors' Report commencing on page 19.

### **Fair value of financial instruments**

Financial instruments include the borrowings set out in note 20. The Group enters into derivative financial instruments in order to manage its interest rate and foreign currency exposure. The principal derivatives used include interest rate swaps and foreign currency options. Material changes in the carrying values of these instruments are recognised in the Statement of Comprehensive Income in the periods in which the changes arise. Such recognition is treated as an adjusting item in the Statement of Comprehensive Income where the foreign currency hedge was entered into in order to protect profits in later accounting periods. In such cases, the charge or credit will be reversed out of adjusting items in the accounting period for which the hedge was intended and will be shown in results before adjusting items. All financial instruments denominated in foreign currencies are translated at the rate of exchange ruling at the balance sheet date. The Directors believe that there is no material difference between the book value and fair value of all financial instruments.

### **Borrowing facilities**

The Group has a revolving acquisition facility of £10 million. At 31 December 2017 the Group had drawn £9,001,000 (2016: £9,300,000).

### **Trade payables**

All amounts are short term (all payable within six months) and their carrying values are considered reasonable approximations of fair value. The values are set out in note 19.

### **Fair value hierarchy**

The fair value hierarchy has the following levels:

- Level 1: quoted prices (unadjusted) in active markets for identical assets or liabilities.
- Level 2: 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).
- Level 3: inputs for the asset or liability that are not based on observable market data (unobservable inputs).

The interest rate swaps and foreign currency hedges are measured at fair value in accordance with the fair value hierarchy and are classed as level 2.

	2017 £000	2016 £000
<b>Summary of financial assets and financial liabilities by category</b>		
<b>Financial assets</b>		
Trade and other receivables	10,898	10,137
Cash and cash equivalents	10,681	7,909
<b>Total financial assets</b>	<b>21,579</b>	<b>18,046</b>
<b>Financial liabilities – amortised cost</b>		
Trade payables	4,398	5,261
Accruals and deferred income	5,496	4,656
Other payables	1,124	749
Trade and other payables relating to acquisitions	599	1,648
Current portion of long-term borrowings	3,566	2,693
Long-term borrowings	14,696	13,855
<b>Total financial liabilities</b>	<b>29,879</b>	<b>28,862</b>
<b>Net financial liabilities</b>	<b>8,300</b>	<b>10,816</b>
<b>Non-financial assets and liabilities not within the scope of IAS 39</b>		
Goodwill	14,650	13,337
Other intangible assets	9,006	9,736
Property, plant and equipment	5,344	5,288
Inventories	10,380	9,939
Prepayments and accrued income	929	1,204
Social security and other taxes	(954)	(1,016)
Retirement benefit obligations	(2,221)	(2,198)
Current tax payable	(2,821)	(1,195)
Deferred tax assets	730	776
Deferred tax liabilities	(2,087)	(2,310)
	<b>32,956</b>	<b>33,561</b>
<b>Total equity</b>	<b>24,656</b>	<b>22,745</b>

#### **Financial assets**

The Group's financial assets (which are summarised above) comprise cash and cash equivalents and trade and other receivables.

The amounts derived from these assets and included as interest income in the Statement of Comprehensive Income are £34,000 (2016: £9,000) (see note 9).

Cash and cash equivalents are principally denominated in Sterling and earn interest at floating rates.

#### **Financial liabilities**

The Group's principal financial liabilities are bank loans, trade and other payables and derivative financial instruments. The Group also holds interest rate swaps and foreign currency forward contracts and options:

The costs attributable to these liabilities and included as interest expense in the Statement of Comprehensive Income amounted to £515,000 (2016: £523,000) (see note 9).

A proportion of the bank loans are denominated in foreign currencies to provide a hedge against currency risk on Group assets (see note 20). Foreign exchange losses attributable to bank loans and included as an operating charge in the Statement of Comprehensive Income amounted to £48,000 (2016: £166,000).

## 22. Share capital

	2017 £000	2016 £000
Allotted, called up and fully paid – Ordinary shares of 5p each		
1 January: 6,107,628 shares (2016: 6,098,549)	305	305
Exercise of share options: 33,500 shares (2016: 9,079)	2	—
31 December: 6,141,128 shares (2016: 6,107,628)	307	305

Allotments of Ordinary shares in 2017 were made:

- to satisfy the exercise of 33,500 share options in aggregate on 11 occasions during the year when the share price was within the range of 1502.5p to 2102.5p (2016: exercise of 9,079 share options when the share price was within the range 1285.0p to 1857.5p).

Throughout 2017, the Group continued to award a free “matching share” under the Judges Scientific Share Incentive Plan for every share purchased up to a maximum value of £600 per employee per tax year. During 2017, an average of 97 employees participated in the scheme each month (2016: 85 employees), purchasing 9,690 shares in total, including matching shares (2016: 10,109 shares).

The market price of the Company’s Ordinary shares at 31 December 2017 was 2082.5p. The share price range during the year was 1362.0p to 2115.0p.

## 23. Share-based payments

### Equity share options

At 31 December 2017, options had been granted and remained outstanding in respect of 306,203 Ordinary shares in the Company, all priced by reference to the mid-market price of the shares on the date of grant and all exercisable, following a three-year vesting period, between the third and tenth anniversaries of grant, as below:

	At 1 January 2017 Number	Granted Number	Lapsed Number	Exercised Number	At 31 December 2017 Number	Of which exercisable Number	Weighted average exercise price (p)
2005 Approved Option Scheme	55,447	—	(3,250)	(6,500)	45,697	37,325	922.2
2005 Unapproved Option Scheme	114,664	—	—	(27,000)	87,664	29,750	189.6
2015 Approved Option Scheme	51,575	8,776	(4,510)	—	55,841	—	—
2015 Unapproved Option Scheme	46,725	77,016	(6,740)	—	117,001	—	—
	268,411	85,792	(14,500)	(33,500)	306,203	67,075	

### 2005 Option Scheme

Exercise prices for the year ended 31 December 2017 ranged between 92.0p and 1377.5p per share (2016: between 124.0p and 720.0p per share), with a weighted average remaining contractual life of 5.37 years (2016: 5.52 years).

### 2015 Option Scheme

No options were exercised in the year ended 31 December 2017. The weighted average remaining contractual life is 8.86 years (2016: 8.96 years).

In accordance with IFRS 2, a Black Scholes valuation model has been used. The key assumptions used in the model are as follows:

- interest rate – 0.9%;
- volatility – 29.9%;
- dividend yield – 1.7%; and
- expected life of option – 3.0 years.

The charge for the year ended 31 December 2017 was £284,000 (2016: £241,000).

## 24. Other reserves

	Capital redemption reserve £000	Merger reserve £000	Translation reserve £000	Total £000
<b>Balance at 1 January 2017</b>	<b>23</b>	<b>1,968</b>	<b>139</b>	<b>2,130</b>
Issue of share capital	—	—	—	—
<b>Transactions with owners</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>
Exchange differences on translation of foreign subsidiaries	—	—	(75)	(75)
<b>Total comprehensive income</b>	<b>—</b>	<b>—</b>	<b>(75)</b>	<b>(75)</b>
<b>Balance at 31 December 2017</b>	<b>23</b>	<b>1,968</b>	<b>64</b>	<b>2,055</b>

	Capital redemption reserve £000	Merger reserve £000	Translation reserve £000	Total £000
<b>Balance at 1 January 2016</b>	<b>23</b>	<b>1,968</b>	<b>13</b>	<b>2,004</b>
Issue of share capital	—	—	—	—
<b>Transactions with owners</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>
Exchange differences on translation of foreign subsidiaries	—	—	126	126
<b>Total comprehensive income</b>	<b>—</b>	<b>—</b>	<b>126</b>	<b>126</b>
<b>Balance at 31 December 2016</b>	<b>23</b>	<b>1,968</b>	<b>139</b>	<b>2,130</b>

## 25. Risk management objectives and policies

The Group is exposed to market risks, arising predominantly from currency exposure resulting from its export activities, interest rate fluctuation on its loans and deposits and credit and liquidity risks. Risk management strategies are co-ordinated by the Directors.

### Foreign currency sensitivity

The Group exports a substantial proportion of its sales, frequently denominated in foreign currencies (principally in US\$ and Euros). Exposure to currency rate fluctuations exists from the moment a sales order is confirmed through to the time when the related remittance is converted into Sterling. This exposure is computed monthly (along with offsetting exposure on purchases, generally of minimal amounts) and economically hedged, predominantly through the use of currency forward contracts and options. The net exposure to risk is therefore substantially reduced. This does not, however, represent a hedge under IAS 39. Residual exposure is the difference between the net exposure and the amounts of currency hedges, both translated into Sterling at each measurement date.

	Sterling equivalent of US\$ £000	Sterling equivalent of € £000
<b>31 December 2017</b>		
Amount of foreign currency hedged at year end	<b>3,250</b>	<b>2,765</b>
Residual exposure at year end – long/(short)	<b>4,070</b>	<b>947</b>
Impact on pre-tax profits of a 5% variation in exchange rate on year-end residual exposure	<b>203</b>	<b>47</b>
Impact on equity of a 5% variation in exchange rate on year-end residual exposure	<b>164</b>	<b>38</b>
<b>31 December 2016</b>		
Amount of foreign currency hedged at year end	3,382	3,717
Residual exposure at year end – long/(short)	4,770	(1,516)
Impact on pre-tax profits of a 5% variation in exchange rate on year-end residual exposure	239	76
Impact on equity of a 5% variation in exchange rate on year-end residual exposure	191	61

In addition to the hedging of existing measured foreign currency exposure, the Group seeks to mitigate the impact of currency fluctuations on future trading performance. This was achieved at 31 December 2017 by entering into currency options to sell €2.4 million and \$7.0 million during 2018, at predetermined exchange rates.

The fair value of these financial instruments is a liability of £11,000 (2016: asset £13,000), offset by a fair value liability of £16,000 (2016: £18,000) on interest rate swaps. These transactions have been recognised in these accounts and are held within other receivables.

#### **Interest rate sensitivity**

The Group's interest rate exposure arises in respect of its bank loans, which are LIBOR linked for interest rate purposes, and its surplus funds, which are bank base rate linked. To hedge this risk the Group is party to interest rate swaps at predetermined rates. The fair value of these financial instruments has been recognised in these accounts. The Group's sensitivity to interest rate changes is as follows:

	2017 £000	2016 £000
Unhedged bank loans outstanding at year end	8,787	12,897
Impact on pre-tax profits of a 1% change in LIBOR	88	129
Impact on equity of a 1% change in LIBOR	71	103
Surplus funds at year end	10,681	7,909
Impact on pre-tax profits of a 1% change in bank base rates	107	79
Impact on equity of a 1% change in bank base rates	86	63

#### **Credit risk**

The Group's exposure to credit risk is limited to the carrying amounts of financial assets recognised at the balance sheet date, as follows:

	2017 £000	2016 £000
Cash and cash equivalents	10,681	7,909
Trade and other receivables	10,898	10,137
	<b>21,579</b>	<b>18,046</b>

The Group reviews the credit risk relating to its customers by ensuring wherever possible that it deals with long-established trading partners, and agents and government/university-backed bodies, where the risk of default is considered low. Where considered appropriate, the Group insists on upfront payment and requires letters of credit to be provided. The Directors consider that all the Group's financial assets that are not impaired at each of the reporting dates under review are of good credit quality, including those that are past due (see note 18). None of the financial assets are secured by collateral or other credit enhancements.

Group companies generally trade through overseas agents and credit exposure to an individual agent can be significant at times. At 31 December 2017, no counterparty owed more than 10% of the Group's total trade and other receivables (2016: none).

The credit risk for liquid funds and other short-term financial assets is considered small. The substantial majority of these assets are deposited with Bank of Scotland, part of the Lloyds Banking Group.

#### **Liquidity risk**

Longer-term finance is required to enable the Group to pursue its strategic goal of growing through acquisitions as well as through organic development. This financing need has been satisfied for the foreseeable future by a £10 million revolving acquisition facility advanced by Lloyds Bank Capital Markets together with a £10 million uncommitted accordion facility. The Group's strategy envisages the servicing of this debt to be achieved from the cashflow arising from the businesses acquired. For short and medium-term financial needs, the Group regularly compares its projected requirements with available cash and borrowing facilities.

The periods of maturity of the Group's borrowings are set out in note 20. The maturity of all trade and other payables is within the period of less than six months.

## 26. Operating lease commitments

	2017 £000	2016 £000
<b>Minimum operating lease commitments falling due:</b>		
Within one year – land and property	664	670
Within one year – vehicles	38	45
Within one year – other	20	26
	<b>722</b>	<b>741</b>
Between one and five years – land and property	1,107	1,117
Between one and five years – vehicles	18	54
Between one and five years – other	40	13
	<b>1,165</b>	<b>1,184</b>
Greater than five years – land and property	107	135
<b>Total commitment</b>	<b>1,994</b>	<b>2,060</b>

## 27. Acquisitions

On 18 July 2017, Judges' majority owned subsidiary Bordeaux Acquisition Limited ("Bordeaux") acquired 100% of the issued share capital of Crystallon Limited ("Crystallon"), the holding company of Oxford Cryosystems Limited ("Oxford Cryosystems"). Oxford Cryosystems is based in Long Hanborough, Oxfordshire and manufactures cryogenic cooling systems used for X-Ray crystallography and other applications. Simultaneously with the acquisition of Crystallon, Judges purchased the 24.5% shareholding held by Tracey Edwards in Bordeaux.

### Crystallon

The purchase price of Crystallon amounted to £4.495 million in cash plus an additional payment to reflect any excess cash and working capital over and above the ongoing requirements of the business. This was covered by the cash inherited at the completion date. In addition, an earn-out was payable if Crystallon's adjusted EBITA in the financial year ended 30 November 2017 exceeded £0.899 million, payable at five times such excess, capped at £1.576 million. Crystallon achieved an earn-out of £0.599 million, which was paid in March 2018.

The summary provisional fair value of the cost of this acquisition includes the components stated below:

Consideration	£000
Initial cash consideration	4,495
Deferred consideration*	599
	<b>5,094</b>
Gross cash inherited on acquisition	1,655
Cash retained in the business	(333)
Payment in respect of surplus working capital	1,322
<b>Total consideration</b>	<b>6,416</b>
Acquisition-related transaction costs charged to the income statement	298

\* The deferred consideration of £599,000 was paid in March 2018.

The acquisition of Crystallon was financed by Bordeaux via a new £4.5 million five-year term loan granted by Lloyds Bank Corporate Markets and guaranteed by Judges, with associated transaction costs being funded from Bordeaux's cash resources.

The summary provisional fair values recognised for the assets and liabilities acquired are as follows:

	Book value £000	Fair value adjustments £000	Fair value £000
Property, plant and equipment	70	—	70
Goodwill	365	(365)	—
Intangible assets	—	3,890	3,890
Inventories	416	—	416
Trade and other receivables	597	—	597
Cash and cash equivalents	1,655	—	1,655
<b>Total assets</b>	<b>3,103</b>	<b>3,525</b>	<b>6,628</b>
Deferred tax liabilities	(9)	(716)	(725)
Trade payables	(543)	—	(543)
Current tax liability	(257)	—	(257)
<b>Total liabilities</b>	<b>(809)</b>	<b>(716)</b>	<b>(1,525)</b>
<b>Net identifiable assets and liabilities</b>	<b>2,294</b>	<b>2,809</b>	<b>5,103</b>
Total consideration			6,416
<b>Goodwill recognised</b>			<b>1,313</b>

Management performed a detailed review of each of the acquiree's intangible assets. The intangible assets recognised reflect recognition of acquired customer relationships, the value of the acquired future committed order books, internally generated technology, trademarks, domain names and distributor relationships. A significant amount of the value of the acquired business is attributable to its workforce and sales knowhow. As no assets can be recognised in respect of these factors, they contribute to the goodwill recognised upon acquisition.

The deferred tax liabilities recognised represent the tax effect which will result from the amortisation of the intangible assets, estimated using the tax rate substantively enacted at the balance sheet date and the fair value of the assets.

The acquisitions resulted in a profit after tax (before adjusting items) attributable to owners of the parent company of £274,000 in the period post-acquisition. After amortisation of intangible assets, the contribution to owners of the parent company's results amounted to a loss of £43,000 after tax.

If the acquisitions had been acquired on 1 January 2017, based on pro-forma results, revenue for the Group for the year ended 31 December 2017 would have increased by £2,344,000 and profit after tax (before adjusting items) attributable to owners of the parent company would have increased by £352,000 after allowing for interest costs. After charging amortisation of intangible assets, the pro-forma result would have decreased by £62,000.

#### **Increased shareholding in Bordeaux**

Simultaneously with the acquisition of Crystallon, Judges purchased the 24.5% shareholding held by Tracey Edwards in Bordeaux for a cash consideration of £1.15 million and also her 24.5% share in the shareholders' loan to Bordeaux for its nominal amount of £0.19 million. As a result, Judges increased its ownership of the shares in, and shareholders loans to, Bordeaux from 51% to 75.5%. The transaction was financed from Judges existing cash resources. The acquisition costs for this transaction were £24,000.

As this was an acquisition of an additional shareholding in a majority owned subsidiary (50% of the remaining stake not owned by Judges), the purchase was accounted for by reducing the Non-Controlling Interest as at the date of the acquisition by 50% of its value and the remaining balance recorded through equity reserves.

#### **2015 and 2016 acquisitions**

There have been no amendments to the fair values presented in the 2016 consolidated financial statements. A payment in respect of surplus working capital of £1,598,000 was paid to the vendors of EWB Limited in 2017. This had already been accrued in the 2016 financial statements.

As part of the terms of the 2015 Armfield acquisition, there was a further contingent payment of £360,000 which may have become due if the triennial actuarial valuation of Armfield's defined benefit pension fund as at 31 March 2017 showed a reduction in the yearly contribution required to eliminate its funding deficit. The March 2017 triennial actuarial valuation showed an increase in the yearly contribution required to eliminate the funding deficit, hence the contingent payment of £360,000 was not required to be made.

## **28. Retirement benefit obligations**

### **Defined benefit obligations**

The Group's subsidiary, Armfield Limited, operates a defined benefit scheme for certain of its employees. A full actuarial valuation was carried out as at 31 March 2017 and the retirement benefit liability was independently revalued as at 31 December 2017.

The scheme has been closed to new members from 2001 and closed to new accrual in 2006. The average duration of the plan's liabilities has been calculated to be approximately 17 years. The trustees are drawn partly from Armfield's employees and also from nominees of the Judges Group.

The full actuarial valuation carried out as at 31 March 2017 was in accordance with the scheme funding requirements of the Pensions Act 2004 and the funding of the plan is agreed between Armfield and the pension trustees in line with those requirements. These in particular require the surplus/deficit to be calculated using prudent, as opposed to best estimate, actuarial assumptions. It was agreed with the trustees that contributions be increased to £236,000 per annum to eliminate the deficit over a period of nine years. Previously these annual contributions were £198,000. The next full actuarial valuation will be carried out no later than 31 March 2020. The asset investment strategy is the responsibility of the trustees.

Summary	31 December 2017 £000	31 December 2016 £000	31 December 2015 £000
Fair value of plan assets	5,983	5,759	5,405
Present value of defined benefit obligation	(8,204)	(7,957)	(6,799)
Deficit in scheme	(2,221)	(2,198)	(1,394)
Deferred tax	378	374	279
<b>Net retirement benefit obligation</b>	<b>(1,843)</b>	<b>(1,824)</b>	<b>(1,115)</b>

Changes in the fair value of plan assets	31 December 2017 £000	31 December 2016 £000
1 January	5,759	5,405
Interest income	156	201
Return on plan assets (excluding amounts in interest income)	326	410
Contributions by the Company	236	198
Benefits paid	(494)	(455)
<b>31 December</b>	<b>5,983</b>	<b>5,759</b>

The actual return on plan assets for the year ended 31 December 2017 was £482,000 (2016: £611,000).

Changes in the fair value of defined benefit pension obligations	31 December 2017 £000	31 December 2016 £000
1 January	7,957	6,799
Current service cost	—	—
Expenses	—	—
Interest expense	216	261
Actuarial losses due to scheme experience	187	—
Actuarial gains due to changes in demographic assumptions	(89)	(76)
Actuarial losses/(gains) due to financial assumptions	427	1,428
Benefits paid	(494)	(455)
<b>31 December</b>	<b>8,204</b>	<b>7,957</b>

There were no plan amendments, curtailments or settlements in the above years.

Major categories of plan assets	31 December 2017 £000	31 December 2016 £000	31 December 2015 £000
Quoted equities	3,111	2,114	1,893
Bonds	2,359	3,197	2,898
Property	473	432	438
Cash and other assets	40	16	176
	<b>5,983</b>	<b>5,759</b>	<b>5,405</b>

Principal actuarial assumptions	31 December 2017 %	31 December 2016 %
Discount rate	2.50	2.80
Inflation rate	3.20	3.50
In payment pension increases	3.40	3.50
In deferment pension increases	5.00	5.00

The mortality assumptions used in valuing the liabilities of the plan are based 100% on the standard tables S2PxA, projected using the CMI 2016 model with a 1.00% per annum long-term rate of improvement.

The life expectancies assumed are as follows:

	Life expectancy at age 65 (years)
Male retiring in 2017	21.9
Female retiring in 2017	23.7
Male retiring in 2037	23.0
Female retiring in 2037	25.0

### Sensitivity

The significant actuarial assumptions in determining the defined benefit obligation are the discount rate, the rate of mortality and rate of inflation. Changes to these actuarial assumptions may impact this obligation as follows:

	Change in liabilities £000
Discount rate – decrease by 0.25% per annum	410
Mortality rate – increase of one year in life expectancy	295

The above shows the impact on the defined benefit obligation if the assumptions were changed as shown (assuming all other assumptions remain constant). There is zero sensitivity to inflation due to the nature of the scheme. The sensitivity analysis may not be representative of the actual change in the obligation as it is unlikely that any change in assumption would happen in isolation.

### Risk management

There is a risk that changes in discount rates, price inflation, asset returns and/or mortality assumptions could lead to a materially greater deficit. Given the long-term time horizon of the pension plan cashflows, the assumptions used are uncertain. The assumptions can also be volatile from year to year due to changes in investment market conditions. A higher pension deficit could directly impact the Group's equity valuation and credit rating and may lead to additional funding requirements in future years. Any deficit relative to the actuarial liability for funding purposes, which may differ from the funding position on an accounting basis, will generally be financed over a period that ensures the contributions are reasonably affordable to the Group and in line with local regulations.

## 29. Non-controlling interests

Summarised financial information of the Group's non-controlling interests is set out below:

	2017 £000	2016 £000
Non-current assets	2,170	585
Current assets	7,749	2,472
<b>Total assets</b>	<b>9,919</b>	<b>3,057</b>
Current liabilities	(2,618)	(1,353)
Non-current liabilities	(5,370)	(63)
<b>Total liabilities</b>	<b>(7,988)</b>	<b>(1,416)</b>
<b>Total equity</b>	<b>1,931</b>	<b>1,641</b>
<b>Attributable to:</b>		
Owners of the parent	854	837
Non-controlling interest	1,077	804

	2017 £000	2016 £000
<b>Revenue</b>	<b>8,474</b>	<b>3,867</b>
<b>Profit for the year</b>	<b>1,595</b>	<b>1,109</b>
<b>Attributable to:</b>		
Owners of the parent	869	566
Non-controlling interest	726	543

	2017 £000	2016 £000
Net cash from operating activities	1,574	1,005
Net cash used in investing activities	(55)	(20)
Net cash used in financing activities	(1,412)	(866)
<b>Net cash inflow</b>	<b>107</b>	<b>119</b>

No dividends were paid to the non-controlling interest during the year (2016: £nil).

# Parent company balance sheet

As at 31 December 2017

	Note	2017 £000	2016 £000
<b>Fixed assets</b>			
Tangible assets	3	679	714
Investments in subsidiaries	4	40,611	39,264
		<b>41,290</b>	39,978
<b>Current assets</b>			
Debtors	5	20,925	22,061
		<b>20,925</b>	22,061
<b>Creditors: amounts falling due within one year</b>	6	<b>(6,146)</b>	(8,998)
<b>Net current assets</b>		<b>14,779</b>	13,063
<b>Total assets less current liabilities</b>		<b>56,069</b>	53,041
<b>Creditors: amounts falling due after more than one year</b>	7	<b>(11,223)</b>	(13,796)
<b>Total net assets</b>		<b>44,846</b>	39,245
<b>Capital and reserves</b>			
Called up share capital	9	307	305
Share premium		14,529	14,472
Capital redemption reserve		23	23
Profit and loss account		29,987	24,445
<b>Shareholders' funds</b>		<b>44,846</b>	39,245

In accordance with the exemptions permitted by section 408 of the Companies Act 2006, the profit and loss account of the parent company has not been presented. Profit for the year totalled £7,105,000 (2016: £5,552,000).

These parent company financial statements were approved by the Board on 19 March 2018.

**David Cicurel**  
*Director*

**Brad Ormsby**  
*Director*

# Parent company statement of changes in equity

For the year ended 31 December 2017

	Share capital £000	Share premium £000	Capital redemption reserve £000	Retained earnings £000	Total equity £000
<b>At 1 January 2017</b>	<b>305</b>	<b>14,472</b>	<b>23</b>	<b>24,445</b>	<b>39,245</b>
Dividends	—	—	—	(1,743)	(1,743)
Issue of share capital	2	57	—	—	59
Share-based payments	—	—	—	180	180
<b>Transactions with owners</b>	<b>2</b>	<b>57</b>	<b>—</b>	<b>(1,563)</b>	<b>(1,504)</b>
Profit for the year	—	—	—	7,105	7,105
<b>Total comprehensive income for the year</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>7,105</b>	<b>7,105</b>
<b>At 31 December 2017</b>	<b>307</b>	<b>14,529</b>	<b>23</b>	<b>29,987</b>	<b>44,846</b>
<b>At 1 January 2016</b>	<b>305</b>	<b>14,441</b>	<b>23</b>	<b>20,324</b>	<b>35,093</b>
Dividends	—	—	—	(1,581)	(1,581)
Issue of share capital	—	31	—	—	31
Share-based payments	—	—	—	150	150
<b>Transactions with owners</b>	<b>—</b>	<b>31</b>	<b>—</b>	<b>(1,431)</b>	<b>(1,400)</b>
Profit for the year	—	—	—	5,552	5,552
<b>Total comprehensive income for the year</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>5,552</b>	<b>5,552</b>
<b>At 31 December 2016</b>	<b>305</b>	<b>14,472</b>	<b>23</b>	<b>24,445</b>	<b>39,245</b>

# Notes to the parent company financial statements

For the year ended 31 December 2017

## 1. Statement of compliance

The financial statements were prepared in accordance with FRS 101 'Reduced Disclosure Framework'.

## 2. Summary of significant accounting policies

### **Basis of preparation**

As permitted by FRS 101, for both periods presented, the Company has taken advantage of the disclosure exemptions available under that standard in relation to financial instruments, capital management, presentation of a cashflow statement, share-based payments, fair value measurements, comparative reconciliations for tangible and intangible assets, standards not yet effective, related party transactions with other wholly owned members of the Group, and key management personnel compensation. Equivalent disclosures are, where required, given in the Group accounts of Judges Scientific plc. The Group accounts of Judges Scientific plc are available to the public.

The financial statements have been prepared on the historical cost basis.

### **Use of key accounting estimates and judgements**

Many of the amounts included in the financial statements involve the use of judgement and/or estimation. These judgements and estimates are based on management's best knowledge of the relevant facts and circumstances, having regard to prior experience, but actual results may differ from the amounts included in the financial statements. Information about such judgements and estimates is contained in the accounting policies and/or the notes to the financial statements, and the key areas are summarised below.

### **Sources of estimation uncertainty**

Depreciation rates are based on estimates of the useful lives and residual values of the assets involved.

### **Tangible fixed assets**

Tangible fixed assets are stated at historical cost, less accumulated depreciation.

Depreciation is provided at annual rates calculated to write off the cost less residual value of each asset over its expected useful life at the following rate:

Leasehold improvements	Over the minimum term of the lease
Fixtures, fittings and equipment	Between three and seven years

### **Investments**

Fixed asset investments in subsidiaries are stated at cost less provision for impairment.

### **Taxation**

Current tax is provided at amounts expected to be paid or recovered either directly or through Group relief arrangements.

Deferred tax assets and liabilities are calculated at rates that are expected to apply to their respective period of realisation, provided they are enacted or substantively enacted at the balance sheet date.

### **Employee benefits – defined contribution plans**

The Company operates defined contribution pension schemes for employees and Directors. The assets of the schemes are held by investment managers separately from those of the Group. The contributions payable to these schemes are recorded in the Statement of Comprehensive Income in the accounting period to which they relate.

### **Share-based employee compensation**

The Group operates equity-settled share-based compensation plans for remuneration of its Directors and employees.

All employee services received in exchange for the grant of any share-based compensation are measured at their fair values. The fair value is appraised at the grant date and excludes the impact of any non-market vesting conditions (e.g. profitability or sales growth targets).

Share-based compensation is recognised as an expense in the Statement of Comprehensive Income with a corresponding credit to other reserves. If vesting periods or other vesting conditions apply, the expense is allocated over the vesting period, based on the best available estimate of the number of share options expected to vest. Non-market vesting conditions are included in assumptions about the number of options that are expected to become exercisable. Estimates are subsequently revised if there is any indication that the number of share options expected to vest differs from previous estimates.

The proceeds received net of any directly attributable transaction costs are credited to share capital and share premium when the options are exercised.

### **Foreign currencies**

Monetary assets and liabilities denominated in foreign currencies are translated into Sterling at the rates of exchange prevailing at the balance sheet date. Transactions in foreign currencies are recorded at the rate of exchange prevailing at the date of transaction. All differences are taken to the Statement of Comprehensive Income.

### 3. Tangible assets

	Property and leasehold improvements £000	Fixtures, fittings and equipment £000	Total £000
<b>Cost</b>			
1 January 2017 and 31 December 2017	797	20	817
<b>Depreciation</b>			
1 January 2017	94	9	103
Charge	29	6	35
<b>31 December 2017</b>	<b>123</b>	<b>15</b>	<b>138</b>
<b>Net book value – 31 December 2017</b>	<b>674</b>	<b>5</b>	<b>679</b>
Net book value – 31 December 2016	703	11	714

### 4. Investments in subsidiaries

	2017 £000	2016 £000
<b>Cost</b>		
1 January	<b>39,264</b>	27,936
Additions	<b>1,347</b>	11,450
Repayment of subordinated debt in Bordeaux Acquisition Limited	—	(122)
31 December	<b>40,611</b>	39,264

The addition in the year relates to the acquisition of a further 24.5% of Bordeaux Acquisition Limited.

The Company's subsidiaries at 31 December 2017, all of which are incorporated and domiciled in the United Kingdom (except as stated), are as follows:

Company	Principal activity	Class of shares	% held
Fire Testing Technology Limited	Design and assembly of fire testing instruments	Ordinary £1	100%
PE.fiberoptics Limited	Design and assembly of fibre-optic testing instruments	"A" Ordinary 50p	100% of "A" class, being 51% of total equity
UHV Design Limited	Design and manufacture of instruments used to manipulate objects in ultra high vacuum chambers	Ordinary £1	100%
Aitchee Engineering Limited	Manufacture of engineering parts and finished products	Ordinary £1	100%
Quorum Technologies Limited	Design, manufacture and distribution of instruments that prepare samples for examination in electron microscopes	Ordinary £1	100%
Sircal Instruments (UK) Limited	Design, manufacture and distribution of rare gas purifiers for use in metals analysis	Ordinary £1	100%
Deben UK Limited*	Design and manufacture of devices used to enable or improve the observation of objects under a microscope	Ordinary £1	75.5%
Oxford Cryosystems Limited*	The design, manufacture and marketing of products for crystallography and other markets.	Ordinary £1	75.5%
Global Digital Systems Limited	Design and manufacture of instruments used to test the physical properties of soil and rocks	"A" and "B" Ordinary £1	100%
Scientifica Limited*	Design and manufacture of instruments used in electrophysiology to enable or improve the observation of objects under a microscope	Ordinary £1	100%
Scientifica LLC (USA)*	Sale of instruments used in electrophysiology to enable or improve the observation of objects under a microscope		100%
Bordeaux Acquisition Limited	Holding company	Ordinary £1	75.5%
Crystallon Limited	Holding company	Ordinary £1	75.5%
Armfield Limited	Design and supply of research and training equipment	Ordinary £1	100%
Armfield Technical Education Limited*	Dormant	Ordinary £1	100%
Armfield Inc. (USA)*	Supply of research and training equipment	Common Shares	100%
CoolLED Limited	Design and manufacture of illumination systems for fluorescence microscopy	Ordinary £1	100%
Dia-Stron Limited	Design and manufacture of systems to test the mechanical properties of fibres	Ordinary £1	100%
Dia-Stron Inc. (USA)*	Sale of systems to test the mechanical properties of fibres	Common Shares	100%
EWB Solutions Limited	Design and manufacture of edge-welded bellows	Ordinary £1	100%
Judges Capital Limited	Holding company	Ordinary £1	100%
EM Technologies Limited*	Dormant	Ordinary £1	100%
FTT Scientific Limited*	Dormant	Ordinary £100	100%
GDS Instruments Limited*	Dormant	Ordinary £1	100%
Polaron Instruments Limited*	Dormant	Ordinary £1	100%
Stanton Redcroft Limited*	Dormant	Ordinary £1	100%

\* Indirectly held.

## 5. Debtors

	2017 £000	2016 £000
Amounts owed by Group companies	20,269	21,261
Prepayments and accrued income	432	721
Deferred tax asset (note 8)	224	79
	<b>20,925</b>	<b>22,061</b>

Included in amounts owed by Group companies are:

- the sum of £15,098,000 (2016: £14,349,000) which is repayable on demand at any time after 30 June 2018 provided that all liabilities to third parties falling due on or before that date have been met. These loans are unsecured and bear interest at the rate of 7.5% per annum;
- the sum of £1,500,000 (2016: £1,500,000) which is repayable on demand at any time after 30 June 2018 provided that all liabilities to third parties falling due on or before that date have been met. This loan is unsecured and bears interest at the rate of 5% per annum; and
- a loan to UHV Design Limited, made during 2016 to finance the transfer of Judges House, amounting to £2,615,000 (2016: £2,615,000) which is to be repaid by 2026. This loan is unsecured and bears interest at the rate of 5% per annum.

Except as stated, all amounts are recoverable in less than one year.

## 6. Creditors: amounts falling due within one year

	2017 £000	2016 £000
Bank overdraft	1,317	3,282
Current portion of bank loans	2,260	2,260
Trade and other payables	137	436
Amounts owed to Group companies	502	415
Corporation tax	1,053	321
Social security and other taxes	253	470
Other creditors	262	69
Amounts owed to acquisition creditors	—	1,604
Accruals and deferred income	362	141
	<b>6,146</b>	<b>8,998</b>

## 7. Creditors: amounts falling due after more than one year

	2017 £000	2016 £000
Bank loans	11,223	13,796

Borrowings comprise a bank loan secured on assets of the Group. The loan is repayable in quarterly instalments over the period ending 31 December 2019 and bears interest at 1.75% to 2.75% above LIBOR-related rates, depending upon gearing.

The repayment profile of borrowings is as follows:

	Bank loans £000
Repayable in less than one year	2,503
Repayable in years one to five	11,440
	13,943
Less: interest included above	(460)
	13,483

A proportion of the Company's bank loans is drawn in foreign currencies to provide a hedge against Group assets denominated in those currencies. The Sterling equivalent at 31 December 2017 of loans denominated in Euros was £1,265,000 (2016: £1,216,000). These amounts are included in the figures above for bank loans, repayable in years one to five.

The Company enters into derivative financial instruments in order to manage its interest rate and foreign currency exposure. The principal derivatives used include interest rate swaps and foreign currency forward contracts and options. The fair value of these financial instruments is a liability of £11,000 (2016: asset £13,000), offset by a fair value liability of £16,000 (2016: £18,000) on interest rate swaps. These transactions have been recognised in these accounts and are held within other creditors.

The parent company guarantees bank loans advanced to its 75.5% owned subsidiary, Bordeaux Acquisition Limited, amounting in aggregate at 31 December 2017 to £4,589,000 (2016: £102,000).

## 8. Deferred tax asset

	2017 £000
1 January	79
Credit to income statement	41
Credited to equity	104
31 December	224

Deferred tax is recorded at a rate of 17% and relates to accelerated capital allowances and share options.

## 9. Share capital and share-based payments

Details relating to the parent company's share capital are set out in note 22 to the consolidated financial statements.

## 10. Related party transactions

The Company is exempt under the terms of FRS 101.8 from disclosing transactions with its wholly owned subsidiaries.

Funds were advanced by the Company in 2011 to its 75.5% owned subsidiary, Bordeaux Acquisition Limited, to facilitate the purchase during that year of the entire issued share capital of Deben UK Limited. The amount of £395,000 was outstanding at 31 December 2017 (2016: £395,000). There are no interest or repayment terms to these advances.

Dividends paid in the year to Directors who hold shares amounted to £306,000 in aggregate (2016: £295,000).

## 11. Directors and employees

	2017 £000	2016 £000
<b>Staff costs (including Directors)</b>		
Wages and salaries	1,029	718
Social security costs	129	87
Other pension costs	23	21
	<b>1,181</b>	<b>826</b>
<b>Total Directors' emoluments</b>		
Emoluments	790	582
Defined contribution pension scheme contributions	14	14
	<b>804</b>	<b>596</b>
<b>Emoluments of the highest paid Director</b>		
Emoluments	241	168

During the year, two Directors participated in a defined contribution pension scheme (2016: two).

	2017 Number	2016 Number
<b>Average number of persons employed</b>		
Directors	7	7
Administrative staff	3	2
Total	<b>10</b>	<b>9</b>

# Company information

## **Directors**

The Hon. Alexander Robert Hambro (Non-Executive Chairman)

David Elie Cicurel (Chief Executive)

Bradley Leonard Ormsby (Group Finance Director)

Mark Stephen Lavelle (Chief Operating Officer)

Ralph Leslie Cohen (Non-Executive Director)

Ralph Julian Elman (Non-Executive Director)

Glynn Carl Reece (Non-Executive Director)

## **Company Secretary**

Christopher Talbot

## **Registered Office**

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## **Registrar**

**Capita Asset Services**

The Registry

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## **Stockbroker**

**Shore Capital Stockbrokers Ltd**

Bond Street House

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## **Auditor**

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Statutory Auditor

Chartered Accountants

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## **Bankers**

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## **Solicitors**

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