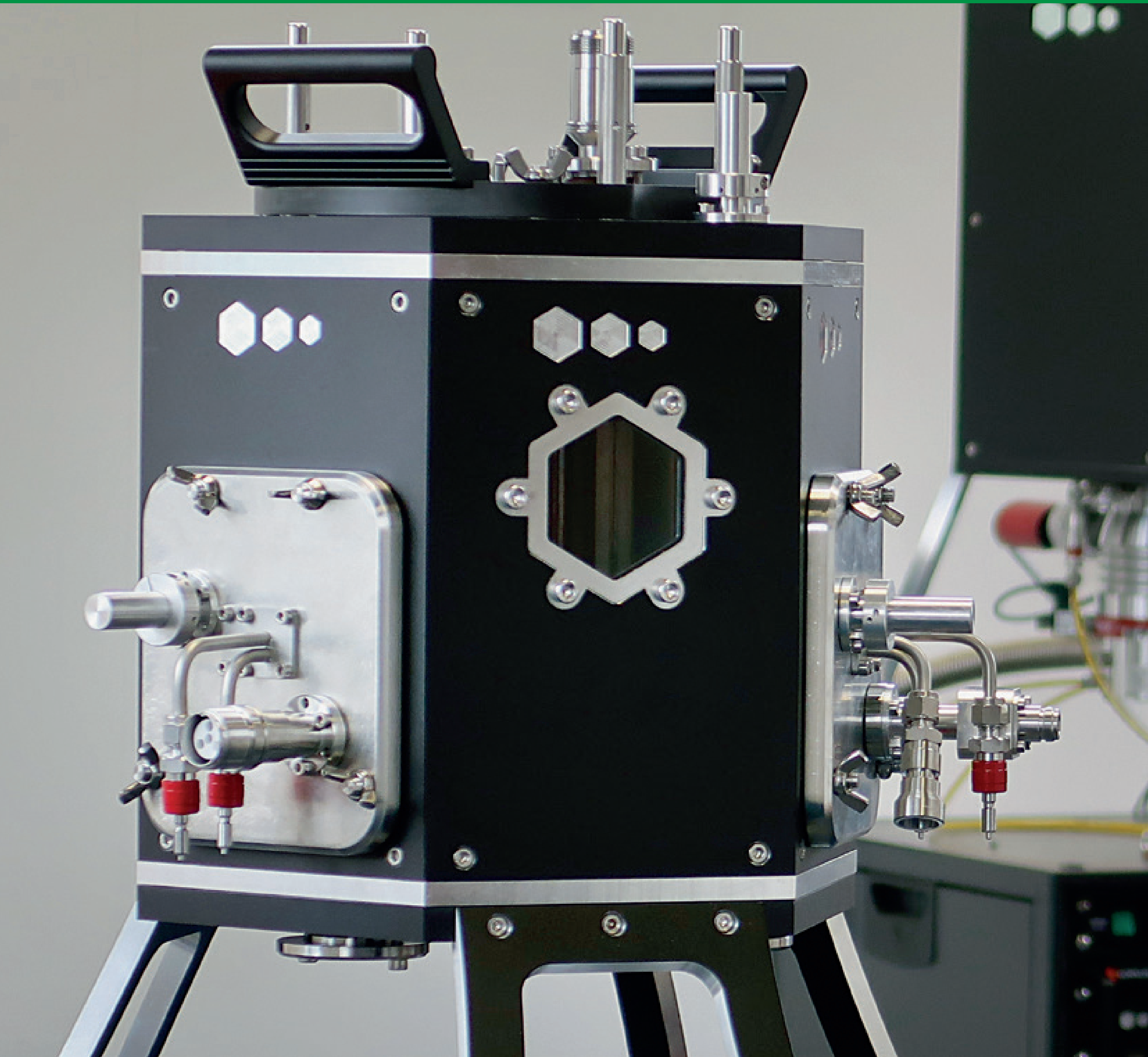
Judges Scientific plc

Annual Report and Accounts 2020



Maintaining resilience

Judges Scientific plc is an AIM-quoted group focused on acquiring and developing companies within the scientific instrument sector. Corporate expansion is being pursued, both through Organic growth within its subsidiary companies and through the acquisition of top-quality businesses with established reputations in worldwide markets.

Cover image: Korvus HEX benchtop thin film deposition system.

This page: CoolLED are delighted that their pE-300^{white} Illumination System was selected for a microscopy setup on the International Space Station, thanks to its high irradiance, high stability and compact size.

Investment case

- Robust business model; pursued with discipline
- Large pool of targets, every acquisition is earnings enhancing; nineteen acquisitions since May 2005
- Strong long-term growth drivers in higher education and process optimisation
- Well diversified by geography and by scientific application
- Management focused on shareholder value – profitability, cash generation, debt reduction, dividend growth and return on capital
- Dividend growth of 10+% for past 15 years, CAGR 23%

Highlights

STRATEGIC REPORT

GOVERNANCE REPORT

FINANCIAL STATEMENTS

For more information visit:
www.judges.uk.com

FINANCIAL HIGHLIGHTS

- Revenues down 3.2% to £79.9 million (2019: £82.5 million), including 12.3% Organic* decline;
- Despite COVID-19 challenges, the Group generated significant profits in every month of 2020;
- Adjusted** operating profit down 17% to £14.4 million (2019: £17.4 million);
  - Statutory operating profit of £10.2 million (2019: £14.1 million);
- Adjusted** basic earnings per share down 20% to 177.2p (2019: 222.5p);
  - Statutory basic earnings per share of 131.1p (2019: 183.1p);
- Final dividend of 38.5p, totalling 55.0p for the year, an increase of 10% (excluding 2019 special dividend); covered 3.2 times by adjusted earnings;
- Organic* order intake down 13.2% compared with 2019;
- Organic* order book at 14.0 weeks (31 December 2019: 13.2 weeks); total order book 15.8 weeks;
- Cash generated from operations of £14.6 million (2019: £19.1 million);
- Adjusted** net debt of £5.7 million as at 31 December 2020 (31 December 2019: £2.0 million);
  - Statutory net debt of £5.7 million at 31 December 2020 (31 December 2019: £0.3 million);
- Cash balances of £15.5 million as at 31 December 2020 (31 December 2019: £14.1 million).

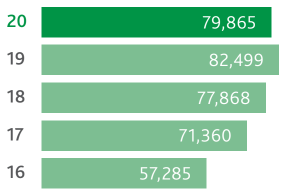
STRATEGIC HIGHLIGHTS

- Heath Scientific acquired on 29 May 2020 for a consideration of £7.3 million plus excess cash;
- Korvus Technology acquired on 19 October 2020 for a consideration of £2.6 million plus a potential £0.4 million earn-out plus excess cash;
- Board strengthened with the appointment of Lushani Kodituwakku as an independent Non-Executive Director.

79,865

Revenue (£000)

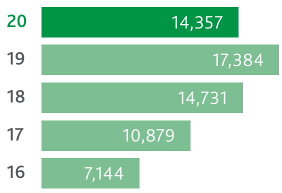
-3.2%



14,357

Adjusted operating profit (£000)

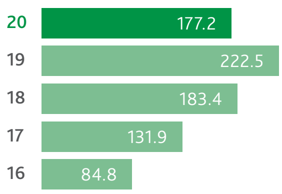
-17%



177.2

Adjusted undiluted basic earnings per share (pence)

-20%



* Organic describes the performance of the Group including businesses acquired prior to 1 January 2019.

** Adjusted earnings figures exclude adjusting items relating to amortisation of acquired intangible assets, acquisition-related costs, share based payments and hedging of risks materialising after the end of the year. Adjusted net debt includes acquisition-related liabilities and excludes subordinated debt owed by subsidiaries to non-controlling shareholders.

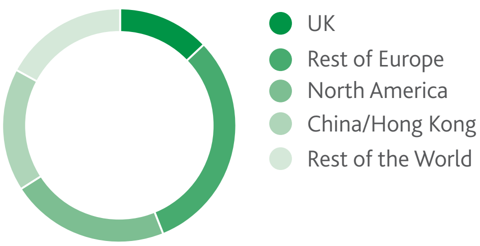
At a glance

Specialist portfolio

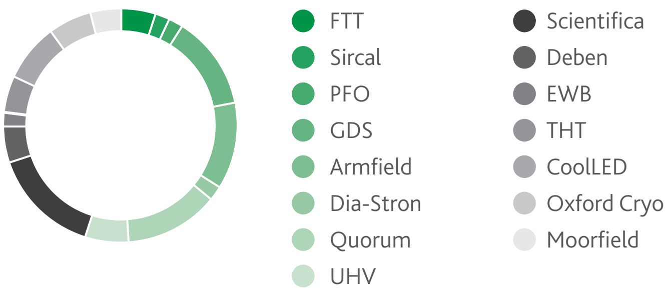
Judges Scientific plc is an AIM-quoted group focused on acquiring and developing companies within the scientific instrument sector. The Group consists of nineteen businesses and maintains a policy of selectively acquiring businesses that generate sustainable profits and cash.

Key statistics

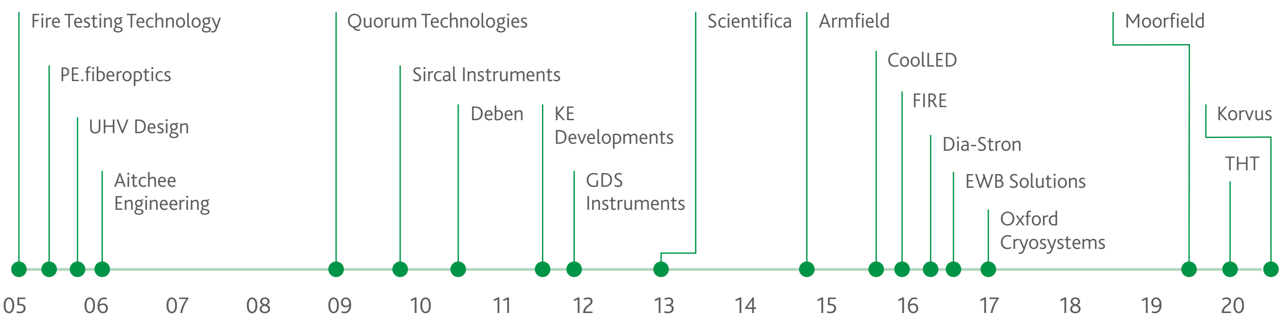
GROUP REVENUE BY GEOGRAPHY



GROUP REVENUE



TIMELINE OF OUR ACQUISITIONS



Our businesses

Dia-Stron's new fibra.one.stress accessory for the best-selling fibra.one instrument to measure dimensional and tensile properties of single fibres.

DIA–STRON

Dia-Stron is the global leader in fibre testing instrumentation.

Our measurement systems provide scientific insights to our customers, being academia or industry, in the cosmetics and composite materials sectors. Our instruments determine fibre properties – mechanical deformations, dimensions, or at the interface – for natural, hair, and technical fibre applications. Dia-Stron automated testing systems serve as essential tools in assessing irregular fibre distributions.

Our purpose-built laboratory supports our customers through contract testing services and enables us to generate data to stay at the forefront of fibre research, connecting with scientific communities around the world.

Sircal designs, manufactures and distributes rare gas purifiers typically for use in metal analysis utilising the Arc/Spark spectrometry technique.

This technique provides qualitative and quantitative analysis of a metallic sample for determination of its purity. The products are sold worldwide to OEM customers (spectrometer manufacturers that use such purifiers in conjunction with their own instruments) or directly to end users such as metal manufacturers and dealers, and test houses.

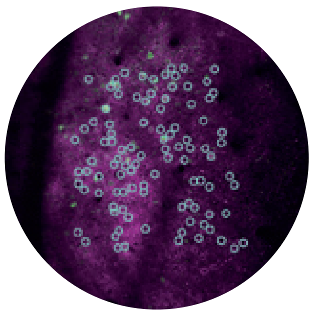
PE.fiberoptics

PE.fiberoptics is a leading manufacturer of test equipment that measures optical and physical properties of optical fibres and cables. Optical fibres are the main medium for long-distance transmission of telecommunication data and form the backbone of the world's internet and telecommunications networks. Our products support the leading fibre and cable manufacturing companies around the world during production and in their quality assurance and R&D laboratories, and we export 95% of our products.

Scientifica

Scientifica is a multi-award winning, globally respected manufacturer of advanced imaging, micro-positioning, and photomanipulation systems for life science research. We develop cutting-edge equipment designed to enhance discoveries in electrophysiology, multiphoton imaging and optogenetics. Our world-class equipment enables researchers to conduct ground-breaking investigations in neuroscience, cardiac research and other areas, leading to advanced understanding of diseases. All equipment is manufactured in the United Kingdom and exported to more than 40 countries worldwide. Our diverse team brings experience from across the globe and from all levels of academic and professional backgrounds.

Scientifica's HoloStim-3D seamlessly integrates with the HyperScope, the award-winning multiphoton imaging system, to enable all-optical interrogation of neural networks with previously unachievable performance. This allows researchers to better understand the roles of neurons and brain circuits, and how they contribute to different behaviours.



At a glance continued

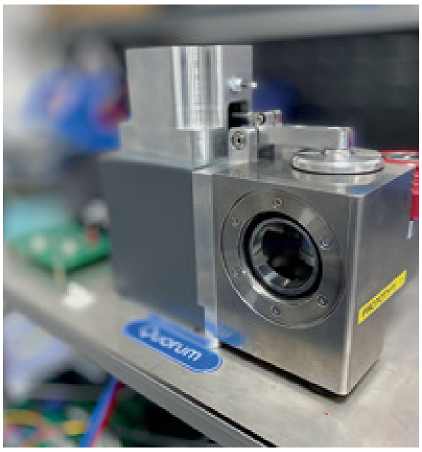
Our businesses continued

Quorum

East Sussex-based Quorum Technologies manufactures market-leading scientific instruments primarily used for electron microscopy (EM) sample preparation. Electron microscopy is a key research tool in almost every area of scientific endeavour, from the fight against coronavirus and other diseases such as cancer, through to food safety and the development of advanced microelectronics and new materials.

Key products:

- Q Series of vacuum coating systems; and
- PP3010T cryo preparation systems for SEM and FIB/SEM.



Quorum adapted its GloQube glow discharge system to make an OEM component for use in a fully automated Cryo-EM vitrification instrument.

EWB Solutions Ltd

EWB Solutions specialises in the design and manufacture of edge-welded metal bellows where a high integrity hermetic seal is required in the presence of an applied movement.

Supplied globally, EWB bellows are produced in a wide range of materials, meeting a variety of life and environmental constraints for applications within a diverse range of industries such as semiconductor processing, particle physics experimentation, material/surface analysis, oncology therapy and petrochemical processing.

UHV Design

UHV Design, founded in 1993, specialises in the design, manufacture and supply of high precision motion, manipulation, heating and cooling (cryogenic) of samples for use in the high and ultra-high vacuum environments for materials research.

Globally, our products are essential in major big physics experiments including:

- high energy particle accelerators such as CERN and SLAC; and
- synchrotron light sources including PSI (Swiss), Argonne (USA) and the UK's own facility, Diamond.

They are also used routinely in laboratory-scale R&D instrumentation focused on new state-of-the-art materials in: semiconductors, photovoltaics, catalysis and bio-compatible materials.

UHV Design's fast precision actuators, used to position beamline diagnostics in particle accelerators.

GDS

www.gdsinstruments.com

GDS designs, develops and manufactures equipment and software used for the computer-controlled testing of soils and rocks. This technology is used to evaluate the mechanical properties that are key in geotechnical and earthquake engineering design.

Services include:

- advanced systems for commercial soil and rock testing laboratories; and
- bespoke systems for university research in the engineering properties of soil and rock.

The GDS Hydraulic Loading Frames are load frames with a hydraulic dynamic actuator mounted on the cross beam for axial stress/strain cyclic dynamic loading. This particular frame has our optional temperature controlled heating and cooling system.

Acquisition Korvus Technology

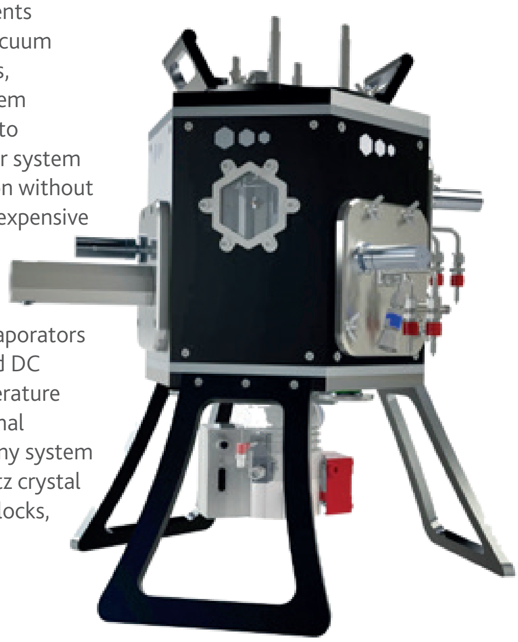
FTT is internationally recognised as the world's leading supplier of fire testing instrumentation and has supplied the majority of leading fire research groups and testing laboratories around the world. Our directors and senior researchers participate in UK, ISO, CEN and ASTM standardisation committees to ensure that our instruments are always compliant. These include committees dealing with construction products, electro-technical products, furnishing products and transport applications for instruments such as the Cone Calorimeter, NBS Smoke Density Chamber, EN 50399 and SBI.

Following a successful launch of the iCone plus in 2013 and iCone mini and classic in 2016, FTT has now released the iCone 2+, marking the beginning of the next generation of the i-series. The iCone 2+ features the latest technology in control and automation, making it the most advanced, reliable and user-friendly cone calorimeter in the world.

Korvus Technology manufactures the HEX Series of benchtop thin film deposition systems. The HEX is used within universities and laboratories worldwide for applications including; research into new materials for battery technology, OLED, nanomaterials, contact metallisation, coating of electrical contacts and EM sample preparation, to name a few.

The HEX system design represents the first major innovation in vacuum system construction in decades, with fully interchangeable system components allowing the user to construct and re-assemble their system in an extremely modular fashion without requiring expert knowledge or expensive design resource. Korvus offers a wide range of deposition instruments to integrate with the HEX, including; E-Beam Evaporators (single and four pocket), RF and DC Sputtering Sources, Low Temperature Organic Evaporators and Thermal Evaporators. There are also many system options available such as; quartz crystal monitoring, high vacuum load locks, various sample stages and glovebox integration.

The HEX's modularity and ease of use make it the ideal tool for any clean room and perfect for thin film teaching and training programmes. Its modular construction allows various key elements to be exposed, discussed and interacted with, enabling student laboratories to fully explore the mechanical, material and growth elements of thin film research and nanomaterials.



Korvus' HEX benchtop thin film deposition system.

Aitchee Engineering is a well-established precision engineering company that can offer high end sheet metalwork, laser cutting and CNC machining. We use state-of-the-art software to take customers' drawings and turn them into manufactured goods in steel, aluminium, stainless steel, yellow metals or plastics. We can supply large batch-work, call off orders and R&D including prototypes; we can also offer manufacturing process assistance and value engineering.

At a glance continued

Our businesses continued

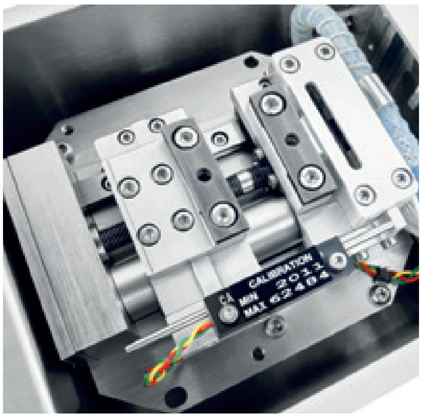
Armfield Limited is a global supplier of equipment for engineering education and research and development systems for the food industry. Typically, Armfield's engineering education and research products are sold into the tertiary education sector. Customers are institutes teaching disciplines in civil, chemical, mechanical and food engineering including vocational schools, technical institutes, specialised engineering universities and training establishments or government bodies such as the Ministry of Defence, Ministry of Education or Petroleum authorities. Armfield's industrial food research products are for the development of beverages, dairy, ingredients, edible oils, flavours, fragrances, liquid foods and nutraceuticals and are sold into the food and pharmaceutical sectors. Customers include start-up companies, established businesses, multinationals and R&D centres of excellence.

Armfield's new FT74XA is the most versatile small scale HTST/UHT system available in the market to date. Utilised by start-up companies through to multinationals the FT74XA enables rapid R&D of new and existing liquid products, facilitating much shorter lead times for market release of the finished commodity.

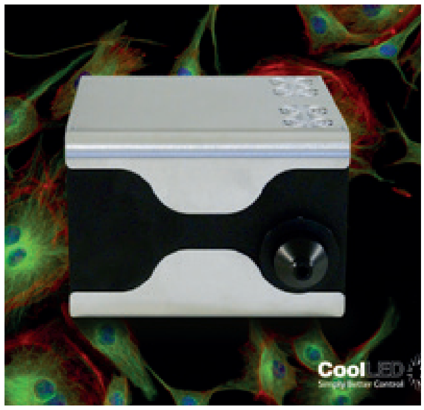
Deben provides innovative tensile testing solutions for in situ applications. Systems are used with SEM, X-ray CT, Optical Microscopes, AFM, XRD and Synchrotrons. Force measurement from 1mN to 20kN and torsion to 100Nm is available. Deben also manufactures SEM detectors and a range of SEM accessories including heating and cooling stages and beam blanking systems for E-Beam lithography.

Product groups:

- in situ tensile and compression testing systems;
- accessories for Scanning Electron Microscopes; and
- detectors for Scanning Electron Microscopes.



Deben's MT1000 Tensile Stage. Manufactured by Deben for Thermo Fisher Scientific, allowing tension, compression and bending of samples at high magnification inside the Phenom XL tabletop SEM.



CoolLED's Amora modular platform is at the heart of its service to OEMs for LED illumination technology.

CoolLED designs and manufactures cutting-edge illumination systems for microscopy and other applications, pioneering the use of LEDs as controllable and environmentally friendly replacements for mercury-based lamps.

Our expertise spans optical engineering and the life sciences, driving the development of our vast product range which includes:

- the award-winning triple-wavelength pE-300 Series for everyday fluorescence microscopy;
- 16-wavelength pE-4000 for high end research;
- pE-340fura for Fura-2 ratiometric calcium imaging; and
- pT-100 for transmitted light imaging techniques.

We continue to push the boundaries with our OEM service and an exciting development plan.

Acquisition Thermal Hazard Technology

THT is a world leader in the design, manufacture and supply of specialised calorimeters for use in the chemical and battery industries. With over 25 years of calorimetry experience and a full range of adiabatic, reaction, and isothermal calorimeters, application areas include process development, optimisation and safety of chemical reactions, and determining performance and safety characteristics of batteries.

THT's products allow measurement of heats of reaction, derivation of kinetic parameters, assessment of maximum safe temperatures, and pressure generation. THT's flagship product, the Accelerating Rate Calorimeter (ARC), is the world's benchmark adiabatic calorimeter and provides full adiabatic runaway information for both temperature and pressure events. More recently, the ARC has been developed and adapted to study safety and performance of Lithium-Ion batteries.

THT's world benchmark battery calorimeter testing system.

Oxford Cryosystems is a market-leading manufacturer of cryogenic devices. Spun out of Oxford University in the 1980s, the company designs and manufactures a range of nitrogen and helium-based low temperature devices which are exported to leading research institutes worldwide. Oxford Cryosystems products are used in fields as diverse as the characterisation of individual molecules to the mapping of deep space.

Oxford Cryosystems' PheniX Front Loader enables fast sample changing for powder crystallographers at 40 Kelvin meaning there is no need to warm and re-cool the system between samples.

Moorfield Nanotechnology designs and manufactures R&D/pilot-scale laboratory systems to a global customer base in academic and industry. Core ranges are vacuum deposition products (MiniLab and nanoPVD) for production of high-quality metal, inorganic and organic films used throughout various high technology fields. Standalone and benchtop models are available, to match budgets and facilities. More recently, the company has expanded into applications in carbon nanomaterials with its range of nanoCVD and nanoETCH tools.

Aside from deposition, the company also supplies portable HEPA-filtered cleanroom solutions through its clean environments division.

Moorfield MiniLab 125 magnetron sputtering system. MiniLab systems provide research-grade thin-film deposition for R&D applications in cutting-edge fields such as 2D materials, organic electronics and renewable energies.

Chairman's Statement

For the year ended 31 December 2020

SUMMARY

- In 2020 the world's economy was dominated by COVID-19 and inevitably Judges wasn't immune with order intake, revenue, profits and cash generation all being impacted.
- The resilience of the Group's business model enabled the completion of two acquisitions: THT in May 2020 and Korvus in October 2020. Despite this past year being the most challenging in terms of trading it was one of the most productive in respect of acquisitions.

"Delivering attractive returns to our shareholders remains the core objective of the Group and as such the Board is pleased to be recommending a final dividend of 38.5p, making a total of 55.0p in respect of 2020, a 10% increase on the prior year."

In 2020 the world's economy was dominated by COVID-19 and inevitably Judges wasn't immune with order intake, revenue, profits and cash generation all being impacted. Over the period the Group prioritised the health and safety of all our colleagues whilst determined to protect both profitability and financial strength without sacrificing the initiatives necessary to secure future progress. All our businesses, under the guidance of our COO and their management teams, swiftly took measures to mitigate the impact of the pandemic; illustrating the importance of good proactive management.

The resilience of the Group's business model enabled the completion of two acquisitions: Heath Scientific, which trades as Thermal Hazard Technology ("THT") in May 2020 and Korvus Technology ("Korvus") in October 2020. Despite this past year being the most challenging in terms of trading it was one of the most productive in respect of acquisitions.

Delivering attractive returns to our shareholders remains the core objective of the Group and as such the Board is pleased to be recommending a final dividend of 38.5p, making a total of 55.0p in respect of 2020, a 10% increase on the prior year (2019: 50.0p excluding the 200.0p special dividend). Since the payment of the first dividend in respect of 2006, regular dividends have grown at a compound annual rate of 23.1% and total dividend distributions have aggregated to over 5 times the 2005 re-admission price of 100p.

Strategy

The Group's strategy remains unchanged and is based on creating shareholder returns through highly selective and carefully structured acquisitions, underpinned by the diversified, solid and growing earnings and cashflows arising from our existing businesses.

The Group's model is to acquire small/medium-sized scientific instrument manufacturers, 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 seeking to acquire businesses with a focus on sustainable profits and cashflows 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 underlying strength with robust and defensible margins. As a result of the dependable growth of our Group, it has been able to promptly reduce debt, generating the financial resources necessary to reinvest in further acquisitions and reward shareholders with a progressively increasing dividend, 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 our shareholders despite the potential for some short-term variability in performance. These long-term market drivers are rooted in the 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

Our 500-strong team worked extremely hard throughout 2020 to keep everybody safe, satisfy the needs of our customers and protect the Group's business. The Board and, I am sure, our shareholders are grateful to all our colleagues for their efforts in this most challenging of environments. In solidarity with those who suffered a reduction in their income as a result of COVID-19, your Directors reduced their own fixed remuneration by an equal average percentage and renounced any increase for 2021.

In September 2020, the Board was delighted to welcome Lushani Kodituwakku as a new independent Non-Executive Director. Lushani is a distinguished strategy consultant. After several successful years with prestigious accountancy and consulting practices, she opened her own consultancy, Luminii Consulting, specialising in commercial due diligence. We are certain that her strategic vision and entrepreneurial experience will be of great value to the Group over the coming years.

Alex Hambro
Chairman
22 March 2021

Chief Executive's Report

For the year ended 31 December 2020

SUMMARY

- The pandemic had an impact on the way in which our businesses operated, to which we responded with the implementation of strict social distancing measures. As a result, all of our factories have remained open and pleasingly almost none of our colleagues have been severely ill.
- Due to the effects of the pandemic, a majority of the Group businesses reduced their contribution but four managed to beat their all-time record profits
- The long-term fundamentals supporting demand for scientific instruments remain positive. Market demand is being driven primarily by the strong worldwide growth in higher education and the enduring pursuit of optimisation across science and industry; optimisation requires measurement.

The outbreak of COVID-19 had a radical effect on the business world. Our Group is fortunate to operate in a sector which does not depend on perishable goods and services or on impulse purchases but rather on actual needs and on well thought-out long-term purchasing decisions; it has however not been immune from the effects of the pandemic. The main impact on the Group has been on order intake which fundamentally drives all other Group key performance metrics.

The pandemic had an impact on the way in which our businesses operated, to which we responded with the implementation of strict social distancing measures. As a result, all of our factories have remained open and pleasingly almost none of our colleagues have been severely ill. In addition, the supply chain issues that we faced at the onset of the pandemic were thankfully not serious and were alleviated by some prudent over-purchasing at an early stage.

Order intake

Order intake was principally hindered by the restrictions on travel, by the closure of universities and by capex freezes imposed by industrial customers. The impossibility of seeing clients and agents face-to-face and the cancellation of scientific conferences and trade shows affected all our businesses to varying degrees. Our sector progressively adapted to the new environment and made extensive use of digital communications and virtual conferences to mitigate the impact of travel bans. We expect that some of these practices will endure after the easing of restrictions.

For the year as a whole, Organic* order intake receded 13%. Following a brutal reduction in April and some improvement in May, bookings recovered but did not reach the level achieved in H2 2019. The poorest performance was recorded in North America (down 26%) followed by the Rest of the World (down 25%) and China/Hong Kong (down 22%); Rest of Europe was up 3% and the UK up 8%. The weakest destinations were the USA, China/Hong Kong and Japan and the strongest were Belgium, the UK and the Netherlands. As a result of healthier intake toward the year end and of more prudent budgeting for 2021, the Organic order book recovered from 10.8 weeks of budgeted sales at the time of our Interim Results in June, to 14.0 weeks at the year end (31 December 2019: 13.2 weeks). Thanks to strong order activity at the new subsidiaries acquired since 1 January 2019, the Group's total order book ended the year at 15.8 weeks.

Revenues

We faced a number of challenges in generating revenues from the order book but thanks to the proactive attitude of all our operating colleagues, they were largely overcome. Deliveries were delayed in various territories due to customers being unable to receive them, but this peaked at the early stages of the pandemic and the impact on revenue for the year was limited. The most problematic activity was installations, severely curtailed by the international travel restrictions; in spite of the Group's effort to satisfy its clients, a number of installations remained outstanding at the year end. The Government's furlough scheme facilitated the retention of a number of our colleagues whilst they were unable to work as a result of the Government measures instituted to fight the pandemic. At the height of the initial lockdown around 100 staff were furloughed and 250 were working from home.

Group revenues for the financial year ended 31 December 2020 receded from £82.5 million to £79.9 million. The Organic* decline of 12.3% was mitigated by the full year contribution from Moorfield (acquired in December 2019) and, for part of the year, from the two acquisitions completed in 2020.

The Group continues to be a strong exporter and is well diversified across the globe, with 22% of the Group's revenues earned in North America, 31% in the Rest of Europe and 17% in China/Hong Kong. Contrary to what might have been expected early in the year, Organic revenues grew strongly in China/Hong Kong (up 18%) but all the other trading zones declined with North America down 32%, the Rest of the World down 18%, the UK down 6% and the Rest of Europe down 3%. The most notable swings were the USA (down £7.5 million) and China/Hong Kong (up £1.7 million); the UK, Japan and Germany reduced by £0.5 million each whilst France and the Netherlands progressed by £0.5 million each.

Profits

The most important driver of Judges' operating margins is volume. The impact of the sudden deceleration of revenues was mitigated by swift action to defer budgeted spending where possible, without jeopardising future new product introductions, by cost reductions, by spontaneous savings on international travel and conferences, and by some compression of the order book.

Profit before tax and adjusting items receded 19% to £13.7 million (2019: £17.0 million). Organic operating contribution was down 20%; a majority of the Group businesses reduced their contribution but four managed to beat their all-time record profits, all achieved in 2019. The operating subsidiaries combined produced a Return on Total Invested Capital of 23.5% (2019: 31.4%). In spite of the COVID-19 challenges, the Group generated significant profits every single month of 2020.

Despite the efforts to preserve profitability, the Group increased its investment in the improvement of its existing products and the development of new products. Investment in research and development amounted to £6.2 million in 2020 (2019: £5.2 million), equivalent to 7.7% of Group revenue (2019: 6.4%).

The setback in pre-tax profits was replicated in earnings per share: Adjusted earnings per share receded by 20% to 177.2p from 222.5p; adjusted fully diluted earnings per share also declined 20% to 173.9p (2019: 218.4p).

* "Organic" in this report describes the performance of the Group excluding Moorfield, THT and Korvus, as they were acquired since 1 January 2019.

Chief Executive's Report continued

For the year ended 31 December 2020

Acquisitions

As a buy and build focused group, the acquisition of new businesses is a fundamental feature of Group strategy. Executing this effectively is key to ensure that long-term value is generated for shareholders. We retain a strict acquisition discipline and are highly selective in relation to both the acquisition cost and long-term quality of any potential addition to our Group.

The industry in which we operate contains a multitude of small global niches, as illustrated 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 strong reputation over the past decade as an ethical, experienced and well-financed buyer and a supportive 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, stimulates intra-group co-operation, participates 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 their own destinies, as well as an environment in which they can thrive.

On 29 May 2020, the Group acquired 100% of the share capital of THT for a total cash consideration of £7.3 million, including a £2.0 million earn-out but excluding excess cash. In the year ended 30 April 2020, THT generated £1.2 million adjusted EBIT. THT makes instruments to measure the heat release of chemical reactions; it is involved in the fast-growing area of Lithium-ion batteries.

On 19 October 2020, the Group acquired 100% of the share capital of Korvus for a cash consideration of £2.6 million plus excess cash. In the year ended 31 March 2020, Korvus generated £0.7 million EBIT; an earn-out capped at £0.4 million will be payable if and to the extent the adjusted EBIT for the current year exceeds this amount. Korvus makes instruments to deposit thin films on surfaces.

During the year, Judges purchased the remaining shares in PE.fiberoptics ("PFO"); the £1.1 million purchase price was covered by the amount of excess cash within PFO, which is now available to the Group. Post-year end, the Group purchased another 12.5% of Bordeaux Acquisition (the holding company for Deben UK and Oxford Cryosystems) for £1.8 million, bringing our ownership to 88%.

Cashflow

In spite of the build-up earlier in the year of precautionary stock and finished products awaiting delivery, and of receivables relating to outstanding installations, cash conversion was satisfactory at 102% (2019: 110%), with cash generated from operations of £14.6 million (2019: £19.1 million). As a result, year-end cash balances increased to £15.5 million from £14.1 million as at 31 December 2019, notwithstanding expenditure of £11.0 million on 2020's acquisitions. Adjusted net debt (excluding subordinated debt owed to non-controlling shareholders but including sums still due in respect of acquisitions) at the year end amounted to £5.7 million (2019: £2.0 million).

Dividends

Your Board is recommending a final dividend of 38.5p per share subject to approval at the forthcoming Annual General Meeting on 26 May 2021, which will make a total distribution of 55.0p per share in respect of 2020 (2019: 50.0p per share, excluding the special dividend). Despite the impact of the pandemic on financial performance in 2020, the total dividend per share is 3.2 times covered by adjusted earnings per share (2019: 4.5 times). Our policy of increasing the dividend by a minimum of 10% per year is only sustainable because there is ample cover.

The proposed final dividend, if approved by shareholders, will be payable on 9 July 2021 to shareholders on the register on 11 June 2021 and the shares will go ex-dividend on 10 June 2021.

The Company's shareholders are reminded that a Dividend Reinvestment Plan ("DRIP") is in place to enable shareholders to automatically reinvest their dividends into additional 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 the strong worldwide growth in higher education and the enduring pursuit of optimisation across science and industry; optimisation requires measurement.

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.

In the medium-term horizon the competing goals, in the various jurisdictions where the Group operates, of stimulating recovery and of reducing exploding government deficits will increase uncertainty in worldwide research funding.

As a large percentage of the Group's revenue is 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; the recent resolution of the Brexit uncertainty has improved the outlook for Sterling but exchange rates remain favourable to our Group.

Outlook

One might have hoped that the comments about COVID-19 were made in the past tense. Sadly, they are not but there are reasons to be positive as worldwide weekly cases halved in the six weeks leading to 20 February 2021 despite regional spikes, even before the acceleration of global vaccinations over the last month.

Our Group has shown its resilience in the face of the pandemic; our sector has been relatively protected and our market has adapted well. As we look ahead, we are starting 2021 with a good order book and a strong financial position although the recovery is still tentative with Organic order intake for the first 10 weeks of the year slightly ahead of the same period last year. Whilst uncertainty around COVID-19 remains, the medium to long-term outlook for the Group remains positive.

David Cicurel
Chief Executive
22 March 2021

Buy and build model

Favourable market

LONG-TERM ORGANIC GROWTH DRIVERS + **LOW CAPITAL USE** + **LARGE DEAL POOL**

Long-term Organic growth trends in science: global higher education and process optimisation

Low working capital and capex requirements

Large pool of potential acquisitions in global niches

Track record of successful acquisitions

- Fragmented market with over 2,000 privately held businesses in the UK
- The UK is a recognised worldwide centre of excellence for scientific instrument development and manufacture
- Large pool of potential acquisitions; Judges is highly selective
- Judges has a strong reputation for being a good acquirer

OUR ACQUISITION STRATEGY POINTS

- Trusted to honour the terms agreed
- Trusted to act quickly with secured funding
- Treats vendors and staff with respect
- No micromanagement post acquisition

Shareholder value

DIVERSE PORTFOLIO → SUSTAINABLE RETURNS → GROWING DIVIDENDS

Strategy

A focused strategy

Develop the Group through a "buy and build" programme of carefully structured acquisitions, supported by long-term Organic individual business development.

1

LEVERAGE EXPERTISE AND CAPITAL

We use our knowledge of the scientific instrument sector to identify and progress suitable acquisition targets. Through longstanding relationships, we leverage our access to capital enabling us to act decisively and in a timely fashion.

2

ACCUMULATE SUSTAINABLE, ESTABLISHED BUSINESS

The companies we acquire have established reputations in worldwide niche markets. Target companies need to meet exacting performance criteria that support sustainable sales, profits and cash generation. We pay three to six times EBIT according to size and borrow up to 2.5 times EBITDA at 2–4% depending on the Group's level of gearing.

3

CREATE AN ENVIRONMENT WHERE BUSINESSES CAN THRIVE

We buy successful businesses with long-term futures. Our approach is to create additional opportunities through guidance, business support, expertise and capital, under an umbrella of robust financial controls.

4

REPAY DEBT AND REINVEST PROFITS IN FURTHER ACQUISITIONS

Core value is created through the repayment of debt used to acquire target companies and Organic sales growth.

THT: as with all acquisitions, THT has an established reputation in a worldwide niche market, and meets exacting perfomance criteria that support sustainable sales, profits and cash generation.

Engaging with our stakeholders

As required by section 172 of the Companies Act, a director of a company must act in the way he or she considers, in good faith, would likely promote the success of the company for the benefit of the shareholders.

In doing so, the director must have regard, amongst other matters, to the following issues:

- Likely consequences of any decisions in the long term;
- Interests of the company's employees;
- Need to foster the company's business relationships with suppliers/customers and others;
- Impact of the company's operations on the community and environment;
- The company's reputation for high standards of business conduct;
- Need to act fairly between members of the company.

The Group's ongoing engagement with stakeholders and consideration of their respective interests in its decision-making process is as described below.

HOW WE ENGAGE

Our Culture

Judges has always espoused a long-term perspective, from its first interaction with a prospective acquisition and thereafter on an ongoing basis. This is part of what makes the Group unique. Despite the short-term challenges arising from the pandemic, no change was made to the strategic outlook and key decisions continued to be made only for the long-term benefit of the Group. Further detail is explained in the Environmental, social and governance ("ESG") statement on page 14.

Shareholders

The primary mechanism for engaging with shareholders is through the Company's AGM and also through the annual cycle of investor meetings held alongside the publication of the Group's financial results for the half year and full year. Further information is disclosed in the Corporate Governance statement on pages 22 to 24.

Customers and suppliers

Our companies operate in global niche markets and hence reputation is key to our ongoing success. Maintaining the strong reputation with our customer base for providing instruments and service of the highest quality is therefore of paramount importance. Likewise, we have long-standing close relationships with our locally situated suppliers, as evidenced via the payment terms on page 29 in the Directors' Report.

Employees

A key to the Group's success has been its engaged workforce. As well-respected local employers within each of our businesses' respective communities, the Group's Directors, alongside our subsidiary management teams, work hard to provide a positive work environment with opportunities for all our staff to grow and achieve their potential. Our management teams have worked hard during this exceptional year to maintain staff wellbeing throughout the pandemic and have changed operating procedures across our businesses to ensure COVID-secure environments for all our staff. As disclosed in the ESG statement on page 14, we are also proud that around forty percent of our staff are shareholders.

Community and environment

Our businesses are proud of their contribution to the local community both as a local employer, supporter of local charitable causes and also of their generally low impact on the environment. More information can be found in the ESG statement on page 14.

Environmental, social and governance

For the year ended 31 December 2020

Our unique culture

At Judges we pride ourselves on our unique culture which enables a successful long-term relationship with every business that joins the Group.

Our culture

Judges' unique culture starts from when we first interact with the vendors of acquisition prospects. We believe that each company that joins our Group is staying for the long term, and therefore we must begin that relationship properly from our first contact with them. We are acquiring successful businesses and we expect them to stay that way, so it is very important that we treat the vendors with respect, and never seek to change the terms of a deal once heads of terms are agreed. We also treat their staff in the same manner showing respect, openness, honesty and integrity in all our actions.

Our businesses have all built a good reputation in their local community, dealing fairly with their own staff, customers and suppliers as well as often being active supporters of local charitable causes. We expect them to continue to do this, understanding that as a public company we must continue to uphold high standards of behaviour. We always encourage decision-making for the long term as we expect that our businesses build for the future, not just for the present.

We also encourage all our employees to act like entrepreneurs and treat the company as if they are its owner. Approximately forty percent of our team are Judges shareholders (205 staff at 31 December 2020), having acquired shares through the Judges Share Incentive Plan, an HMRC approved scheme, which enables our staff to acquire Judges shares from pre-tax earnings; Judges matches our staff's investment up to a certain level.

The environment

Judges recognises that environmental concerns, inclusive of climate change, must be addressed by all businesses across the globe. We recognise that all of our trading activities have an environmental impact. We try to minimise this impact where possible across different aspects of our business. As a manufacturer of niche scientific instruments, we do not have capital-intensive manufacturing. Our instruments are largely for research, to help progress scientific advancement.

The best example we have is at one of our subsidiaries, CoolLED, which manufactures LED illumination systems for use in fluorescence microscopy. Their technology, which uses a small LED as the light source for microscopes, is helping eliminate mercury lamps, a toxic product and which were historically the light source of choice for light microscopes. This newer, safer non-toxic technology is also far superior to the mercury lamp, enabling researchers to generate a higher volume of, and more reliable, results together with reducing wastage of precious test samples in their experiments.

Our businesses continue to seek ways of reducing their energy consumption and the inevitable volume of packaging that we use in transporting our instruments to our customers around the world, by switching to lower energy lighting and more environmental packaging wherever possible.

Health and safety

Health and safety is of paramount importance to the Judges Group and a key priority for our subsidiary management teams. Our employees must be and feel safe at work and we therefore aim to provide a safe and comfortable working environment for them. The Group encourages all its subsidiary companies to seek continuous improvement and promote a strong health and safety culture.

The Group routinely monitors health and safety adherence across our trading subsidiaries. As we operate a decentralised autonomous operating structure, performance is monitored at a Group level with the board of each trading subsidiary directly responsible for compliance with local health and safety regulations. We have also instituted a Group-wide annual independent health and safety review which assesses compliance and provides local management with feedback to continually improve health and safety.

During 2020, we had 7 minor incidents and no significant injuries across all our businesses (2019: 10 minor incidents and no significant injuries). All incidents are followed up with changes to procedures and/or training of our employees as appropriate to prevent recurrence.

Anti-bribery and corruption

Judges has a zero-tolerance policy on bribery and corruption in relation to all business transactions in which the Group is involved. This policy includes the offering or receiving of inappropriate gifts or making payments to influence the outcome of business transactions. We also require customers and suppliers who contract with the Group on our standard business terms to comply with anti-corruption and anti-bribery laws.

Equal opportunities

Judges supports equal opportunity for all our employees and those that wish to join our Group. Our aim is to build a meritocratic work environment where everyone can make the most of their skills and talents, without discrimination or harassment. In the event of a member of staff becoming disabled, every effort is made to ensure that they can continue their employment with the Group with suitable support. It is the Group's policy that disabled people should have access to the same career path, training and promotion opportunities as all other employees.

It is a Group policy to not discriminate against staff or candidates on the basis of age, disability, gender reassignment, marital or civil partner status, pregnancy or maternity, race, colour, nationality, ethnic or national origin, religion or belief, or sex or sexual orientation.

Human rights

Judges Scientific supports the provisions set out in the Modern Slavery Act and endorses the core requirements of the Universal Declaration of Human Rights and the ILO Declaration on Fundamental Principles and Rights at Work. We do not tolerate practices which contravene these international standards. Further information is included within the Judges Modern Slavery statement on our website.

Managing our risks

ACQUISITIONS

Why is it important?

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's growth is also exposed to the risk of insufficient availability of target companies of requisite quality or available within the disciplined price range to which the Group adheres. The emergence of competing acquirers and the arduous search for returns by private equity funds may increase competition for acquisition targets.

What are we doing to mitigate the risk?

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, in order to facilitate their ongoing performance.

COVID-19

Why is it important?

The COVID-19 pandemic continues to impact order intake, deliveries and installations and the Group has sought to create COVID-secure work environments for its staff. The development of vaccines is likely to help resolve this risk over time however, as we are a global group, the return to normality will be dependent on national governments' vaccine rollouts and the absence of new variants.

ECONOMIC CONDITIONS

Why is it important?

The Group's customers are internationally located and are often state owned or those whose liquidity are closely linked to government spending. The stress in the world economy and in public finances, as a result of COVID-19, will affect the Group's prospects. In the short to medium term, individual countries are likely to oscillate between austerity and economic stimulation and this will affect research funding worldwide.

POLITICAL TENSION

Why is it important?

The increasing tension between China and the West and hostilities in other regions of the world could degenerate into open conflicts. This may have a detrimental effect on our ability to trade worldwide.

KEY PERSONNEL

Why is it important?

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, it is always a challenge to maintain back-up support in respect of key roles or to 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.

What are we doing to mitigate the risk?

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 rewards.

Principal risks and uncertainties continued

CURRENCY AND FOREIGN EXCHANGE

Why is it important?	What are we doing to mitigate the risk?
The Group exports the large majority of its products, hence it is exposed to fluctuations in exchange rates which may impact on its competitiveness. The Brexit referendum temporarily improved exchange rates for the Group but post Brexit resolution, Sterling has started to appreciate and this may potentially reduce the Group's competitiveness.	The Group seeks, so far as is practicable, to mitigate currency effects for the financial year via hedging foreign exchange rates. Additional detail is set out in note 27.

R&D AND PRODUCTS

Why is it important?	What are we doing to mitigate the risk?
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 revenue 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

Why is it important?	What are we doing to mitigate the risk?
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.

CYBER SECURITY

Why is it important?	What are we doing to mitigate the risk?
The Group faces the risk of cyber-attacks which could compromise the confidentiality, integrity and availability of IT systems and data. This could impact our ability to respond and deliver to our customers and ultimately affect our reputation and financial performance, including potentially significant financial loss as a result of the effects of ransomware or breach of GDPR.	The Group is partnering with cyber security experts to monitor our resilience to cyber-attacks and also provide early warnings of risks or attempted intrusions.

On behalf of the Board

David Cicurel
Director
22 March 2021

Company registration number: 04597315

Finance Director's Report

For the year ended 31 December 2020

"The Group has four Key Performance Indicators, which are aligned with the ability to reduce acquisition debt and fund dividend payments to shareholders. All four KPIs have unsurprisingly fallen back in 2020 as a result of the impact that COVID-19 has had on performance although this has not stopped the Group from delivering on its acquisition strategy and producing a strongly profitable performance."

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 reduce acquisition debt and fund dividend payments to shareholders, are earnings per share, operating margins, return on invested capital and cash conversion. All four KPIs have unsurprisingly fallen back in 2020 as a result of the impact that COVID-19 has had on performance although this has not stopped the Group from delivering on its acquisition strategy and producing a strongly profitable performance, albeit well below our previous high watermarks.

Revenue

Group revenues decreased by 3.2% to £79.9 million compared with £82.5 million in the prior year. Organic revenues declined by 12.3% (2019: Organic growth of 5.6%) due to COVID-19's impact on order intake and were partially offset by the full year contribution from Moorfield and also from THT and Korvus, the businesses that we acquired in May 2020 and October 2020, respectively.

Across our two segments, Materials Sciences total revenues reduced by £1.6 million to £33.2 million (2019: £34.8 million) whilst Vacuum revenues declined by £1.0 million to £46.7 million (2019: £47.7 million).

Profits

The effect of COVID-19 on revenues flowed through into profitability. Adjusted operating profits reduced by 17.4% to £14.4 million from £17.4 million in 2019 and operating margins declined to 18.0% (2019: 21.1%). Due to the Group's high operational gearing, any reduction in revenue significantly affects profitability, but due to the actions taken by our businesses in controlling costs (particularly around travel and sales and marketing) we were able to partially mitigate this impact on overall performance. The Group also accepted furlough monies from the UK Government on behalf of those employees unable to work due to the lockdown. These were mainly as a result of reduced production due to social distancing but also affected those whose roles required them to travel such as installation and service engineers. Sterling remained weak through 2020 which continued to benefit the Group, although since the start of 2021 and following the completion of a Brexit deal, Sterling has started to strengthen. Adjusted profit before tax was £13.7 million compared to £17.0 million in 2019, a decrease of 19.1%.

Statutory operating profit decreased to £10.2 million (2019: £14.1 million), and statutory profit before tax was £9.5 million compared to £13.6 million in 2019.

Adjusting items

The total pre-tax adjusting items of £4.2 million were recorded in 2020 (2019: £3.3 million). The main constituents were amortisation of intangible assets recognised upon acquisition of £3.2 million (2019: £2.7 million) with the increase arising from the recent acquisitions of Moorfield in December 2019 and THT and Korvus in 2020, and £0.6 million of acquisition costs relating to the two 2020 acquisitions (2019: £0.3 million).

Finance costs

Net finance costs (excluding adjusting items) totalled £0.6 million (2019: £0.4 million). Interest income decreased by £0.1 million as we carried far higher cash balances in 2019 and with higher interest rates. A further £0.1 million related to greater interest charges arising from the additional borrowing required to finance the two acquisitions made during 2020. Statutory net finance costs were £0.7 million (2019: £0.5 million), the £0.1 million difference between the statutory and adjusted figures is attributable to the net finance cost arising from the defined benefit pension scheme acquired with Armfield in 2015.

Finance Director's Report continued

For the year ended 31 December 2020

Taxation

The Group's tax charge arising from adjusted profit before tax was £2.0 million (2019: £2.5 million). The effective tax rate on adjusted profits is 14.8% compared with 14.7% in the prior year. The effective tax rate is influenced by the wider regime of low UK and US corporate tax rates and by claims for UK research and development tax credits. The Group benefits from a tax rate lower than the standard UK corporation rate as we continue to invest heavily in R&D and as we have remained an SME for R&D tax credits. Whilst the Group had less than 500 full-time equivalent employees during 2020 it is likely that we will exceed this amount in 2021 and, over time, move into the large companies R&D scheme which is less generous.

Earnings per share

Adjusted basic earnings per share reduced by 20.4% to 177.2p from 222.5p and adjusted diluted earnings per share was 20.4% lower at 173.9p (2019: 218.4p).

Statutory basic earnings per share, after reflecting adjusting items which are influenced by the amortisation of intangible assets arising from recent acquisitions, was 131.1p (2019: 183.1p) and statutory diluted earnings per share totalled 128.7p (2019: 179.8p).

Order intake

The Group suffered as a consequence of the pandemic with an overall decline of 13.2% in Organic order intake. Order intake dropped steeply during the early stages of the various national lockdowns but recovered somewhat in the second half of the year. This meant that we were able to rebuild a good proportion of the orders that had been used up in the first half of the year and meant that we held a substantial order book at the start of 2021. 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, and whilst the impact of the lower order intake was evident in our trading performance in 2020, the Organic order book at 31 December 2020 was 14.0 weeks of budgeted sales (31 December 2019: 13.2 weeks) although in quantum the order book was £1.7 million lower than at the prior year end. Total order book was 15.8 weeks, including Moorfield, THT and Korvus.

Return on Capital

The Group closely monitors the return it derives on the capital invested in its subsidiaries. The annual rate of Return on Total Invested Capital ("ROTIC") at 31 December 2020 reflected the weaker performance in 2020 and receded to 23.5% compared with 31.4% in 2019. We expect to improve this as those businesses in our Group whose performance was affected by the pandemic seek to return to their previous levels of performance.

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 amounts invested in plant and equipment, net current assets (excluding cash) and unamortised intangible assets and goodwill (as recognised at the initial acquisition date).

ROTIC is influenced by the overall performance of our businesses and the size of, and multiple paid for, acquisitions. We continue to aim for improved ROTIC whilst accepting the downward pressure on overall returns from acquiring businesses at higher multiples.

Dividends

In relation to the financial year ended 31 December 2020 the Company paid an interim dividend of 16.5p per share in November 2020. The Board is recommending a final dividend of 38.5p per share giving a total dividend for the year of 55.0p per share (2019: 50.0p per share), an increase of 10%. Dividend cover is approximately three and a quarter times earnings per share. No special dividends were paid in 2020 (2019: 200.0p per share).

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

Headcount

The Group's full time equivalent ("FTE") employees for 2020 stood at 499 (2019: 466). We expect that FTEs will exceed 500 in 2021, particularly following the acquisitions of THT in May 2020 and Korvus in October 2020.

Share capital and share options

The Group's issued share capital at 31 December 2020 totalled 6,299,163 Ordinary shares (2019: 6,226,291). The shares issued during 2020 arose from the exercise of share options by various members of staff during the year.

Share options issued during the year under the 2015 scheme totalled 6,151 (2019: 13,905) and the total share options in issue at the year end under both the 2005 and 2015 schemes amounted to 160,026 (2019: 228,300).

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. A new triennial full actuarial valuation was performed in 2020 and following this valuation, the annual contributions to the scheme have been increased to £0.4 million as a result of increases to the pension scheme deficit. The Group accounts for post-retirement 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 2020, the pension liability (net of deferred tax) was £2.7 million (31 December 2019: £1.7 million). The net liability has increased due to a sizeable reduction in discount rates during 2020 from 2.1% to 1.4%, lengthening in mortality rates and also increases in inflation. These increases in the pension liability were only slightly offset by growth in the fund's assets. Armfield takes its responsibility seriously to ensure the pension is adequately funded whilst also continuing to review appropriate deficit control strategies.

Cashflow and net debt

Whilst we have had a challenging year's trading, the Group continued to deliver strong cash generation with cash generated from operations of £14.6 million (2019: £19.1 million). The Group's excellent track record of converting profit into cash is reflected in the high conversion rate of adjusted operating profit into cash of 102% (2019: 110%) even if this figure was mildly impacted by an increase in receivables, where at year end we were holding £1.8 million more short-term overdue receivables (less than six months overdue) largely due to the Group's inability to travel to, and complete, installations and training across the globe and consequently be paid upon completion. Total capital expenditure on property, plant and equipment amounted to £1.3 million (2019: £1.3 million). The figure is inflated due to £0.3 million spent on purchasing Moorfield's property at the start of 2020 and otherwise reflects the prudence throughout the year in avoiding non-essential capital expenditure to preserve cash. Year-end cash balances totalled £15.5 million compared to £14.1 million in 2019.

The Group finished 2020 with adjusted net debt of £5.7 million compared to £2.0 million of adjusted net debt at the end of 2019. Statutory net debt was £5.7 million (2019: statutory net debt of £0.3 million).

The small increase in our net debt is as a result of continuing to deliver on our strategy with capital allocated to acquiring THT in May 2020 for £7.3 million, Korvus in October 2020 for £2.6 million, together with £1.1 million spent in making PE. fiberoptics a wholly owned subsidiary of Judges. This significant investment in the future of our Group was more than covered by the cash generated in 2020 thanks to the efforts by all our team to deliver good profitability in a very tough year and also convert that into cash. We were therefore able to continue our policy of paying progressively increasing dividends to shareholders (£3.2 million in 2020) and finished 2020 still in a conservative position. Gearing, calculated as the proportion of adjusted net debt compared to adjusted operating profit, at 31 December 2020 was 0.40 times (2019: 0.12 times) and 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 both this year and across the history of our Group.

The Group's financial position continues to be a strength and we have suitable banking facilities to support inorganic growth. Our Group bank facility with Lloyds Banking Group (the "Bank") is for an aggregate £35.0 million consisting of a £10.0 million term loan ("Term Loan"), a committed £20.0 million revolving credit facility ("RCF") plus a £5.0 million accordion facility, which can be drawn at the discretion of the Bank; the facility expires in April 2023 ("the Borrowing Term"). The Term Loan amortises on a straight-line basis via quarterly payments and the RCF is repayable in a bullet at the end of the Borrowing Term. In November 2020 the accordion facility was activated and consequently this increased the committed RCF to £25.0 million.

During the year, the Bank agreed to repurpose £5.0 million of the RCF as a working capital buffer which the Group drew down in the first half of the year. This was repaid in December 2020 as we had sufficient cash reserves for the foreseeable future.

The existing lending facilities via Bordeaux Acquisition ("Bordeaux"), the Group's majority owned subsidiary, which owns Deben UK and Oxford Cryosystems, remain unchanged.

At the year end the Term Loan had reduced to £4.5 million (2019: £6.5 million) and the RCF was drawn down to £15.0 million (2019: £5.2 million), with £10.0 million available to drawdown for future acquisitions. At 31 December 2020, the Bordeaux loan had also reduced to £1.7 million (2019: £2.6 million).

The ongoing long-term support of the Bank continues to provide the Group with significant capacity to finance acquisitions in support of the Group's buy and build strategy.

Overall, and despite the challenges that the pandemic has caused, the Group has delivered a good performance given the circumstances and it remains well placed, with a strong balance sheet and significant available borrowing capacity, to continue its 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
22 March 2021

Board of Directors

Our Board

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

Hon. Alexander Hambro
Chairman

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

In addition to his responsibilities at Judges Scientific plc, Alex is also Chairman of OTAQ plc, Falanx Group Ltd and IWP Holdings Ltd; and a Non-Executive Director of Octopus Apollo VCT plc, Whitley Asset Management Ltd and Time Partners Ltd.

Alex is a founder partner of Welbeck Capital Partners LLP, a specialist investment syndicate that deploys secured convertible loan notes to finance growth opportunities primarily for small-cap listed companies.

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 in 2015, 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 and marketing experience with PerkinElmer, and finance experience with Bank of America in London and the 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 the UK, Europe, the 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 the University of Cambridge and holds an MBA from INSEAD in France.

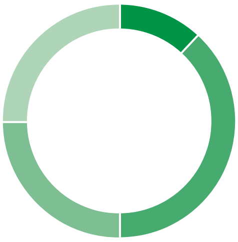
Lushani Kodituwakku
Non-Executive

Lushani is the founder and CEO of Luminii Consulting, a consulting firm specialising in strategy, Commercial Due Diligence ("CDD") and value creation. Lushani has over 20 years' experience in advising corporates, private equity and banks on their investments and growth strategy across UK, Europe, and USA. She founded Luminii in 2017 after setting up and heading the Grant Thornton Strategy and CDD team in 2008 and holding various other senior roles with KPMG, Frost & Sullivan, PMSI and Neovian Partners.

Lushani holds a Bachelor of Science (BSc) in Economics with first-class honours, and a Master of Research (MRes) in Management and Organisational Behaviour.

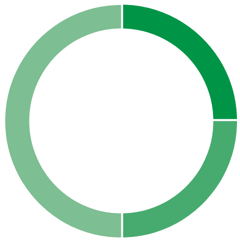
She is an Independent Director and is a member of the Remuneration Committee.

Board composition

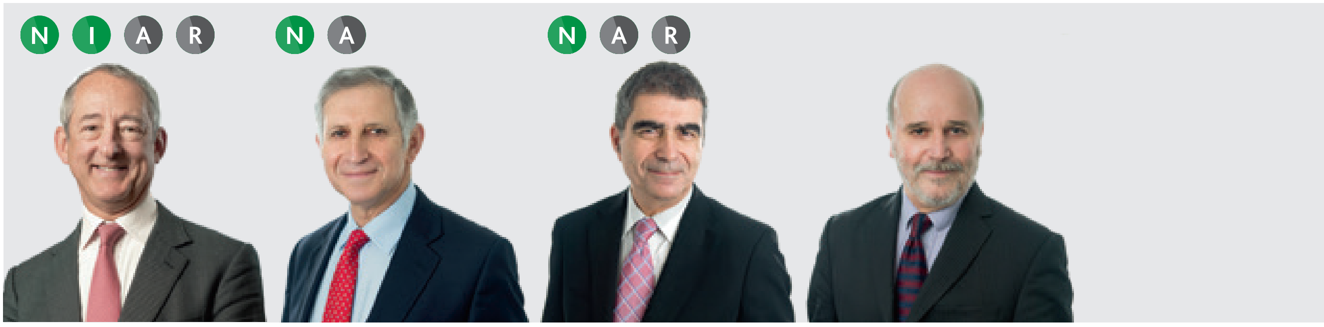


- Chairman 1
- Executive Directors 3
- Non-Executive Directors 2
- Independent Non-Executive Directors 2

Board tenure



- 0–3 years 2
- 4–7 years 2
- 8+ years 4



Charles Holroyd
Non-Executive

Charles Holroyd has a BSc in Electrical and Electronics Engineering from the University of Bristol and an MBA from INSEAD. He is a Chartered Engineer and a Fellow of the Institution of Engineering and Technology. Charles has held senior management positions within a number of publicly quoted companies. Most recently Charles worked at Oxford Instruments plc, which he joined in 1999 and where he served on the board from 2005 until 2013 and was responsible for group business development including M&A activities.

He is the Senior Independent Director and is Chairman of the Remuneration Committee.

Ralph Cohen
Non-Executive

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.

Ralph Elman
Non-Executive

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
Company Secretary

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

- E Executive
- N Non-Executive
- I Independent
- A Audit Committee
- R Remuneration Committee

Corporate Governance Statement

For the year ended 31 December 2020

"In accordance with the requirements of being AIM quoted we recognise that the application of sound corporate governance is essential in the Group's ongoing success."

Introduction

I have pleasure in introducing the Corporate Governance Statement.
In accordance with the requirements of being AIM quoted we recognise that the application of sound corporate governance is essential to the Group's ongoing success and adopt the principal provisions of the QCA Corporate Governance Code for Small and Mid-Size Quoted Companies published in April 2018 ("QCA guidelines"). This report sets out our approach to Judges' corporate governance in accordance with AIM rule 26, also documented in the Investors section of the Judges website.

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.

The year commenced with the Board comprising three Executive Directors, together with the Non-Executive Chairman and three further Non-Executive Directors, supported by the Company Secretary. On 23 September 2020 Mrs Lushani Kodituwakku was appointed as a second independent Non-Executive Director.

Lushani is the founder and CEO of Luminii Consulting, a consulting firm specialising in strategy, Commercial Due Diligence ("CDD") and value creation. She founded Luminii in 2017 after setting up and heading the Grant Thornton Strategy and CDD team in 2008 and holding various other senior roles with KPMG, Frost & Sullivan, PMSI and Neovian Partners. She also holds a Bachelor of Science (BSc) in Economics with first-class honours, and a Master of Research (MRes) in Management and Organisational Behaviour.

The Group now has two independent Non-Executive Directors in accordance with the QCA guidelines. All other Non-Executive Directors are not considered independent under the QCA guidelines by virtue of the duration 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. At the same time, the Company considers that these Non-Executive Directors in practice act independently of the Executive management and that the value of their long association with the Company alongside their deep understanding of the Group's business model ensures that they are best placed to appropriately oversee adherence to the Group's enduring 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 approval of the Group's annual budget;
- 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 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 necessary.

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, Microsoft Teams or similar arrangement. In a normal year, Board meetings are held at the Group's head office or rotated around the Group's operating companies so that the Board are able to meet local management, however due to the COVID-19 pandemic, the majority of board meetings in 2020 had to be held remotely using Microsoft Teams. When Directors 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.

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

	Board	Audit	Remuneration*
Hon. AR Hambro	12/12	—	—
DE Cicurel	12/12	—	—
BL Ormsby	12/12	—	—
MS Lavelle	12/12	—	—
CJA Holroyd	12/12	6/6	3/3
L Kodituwakku	3/3	—	3/3
RL Cohen	12/12	6/6	—
RJ Elman	12/12	6/6	3/3

* Seven informal meetings were also held to approve adjustments to monthly Executive Director remuneration.

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 any consideration of recommendations for appointments to the Board is considered by a specific committee of Directors set up at that time.

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) 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. 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 Charles Holroyd. 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, internal audit function and Auditor relating to the annual financial statements 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 page 25 contains more detailed information on the Committee's role.

Remuneration Committee

The Remuneration Committee is chaired by Charles Holroyd, the Senior Independent Non-Executive Director. The other members of this Committee are Ralph Elman and Lushani Kodituwakku. Alex Hambro stepped down from the Committee following Lushani's appointment, ensuring that the Remuneration Committee included a majority of independent Non-Executive Directors. 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 26 to 28 contains more detailed information on the Committee's role and the Directors' remuneration and fees.

Board effectiveness

Biographies of the Board on pages 20 and 21 set out the skills, knowledge and experience of the Board. This mix of capabilities enables them to constructively challenge strategy and review performance. All Directors undertake ongoing training sessions to ensure they retain relevant skills to execute their roles.

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. Lushani was provided with training by our Nominated Advisor together with an induction programme of meeting with all Board members and also the managing directors of our key subsidiaries. Due to the pandemic all these meetings were held over video conferencing rather than in person.

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.

Corporate Governance Statement continued

For the year ended 31 December 2020

Board effectiveness continued

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.

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, Alex Hambro, Brad Ormsby and Mark Lavelle will retire and offer themselves for re-election at the Annual General Meeting.

In addition, Lushani Kodituwakku who was appointed by the Board on 23 September 2020 will offer herself for re-election at the Annual General Meeting.

Performance evaluation

The Chairman discusses with each of the Non-Executive Directors their ongoing effectiveness. He is also responsible for the Executive composition of the Board. The Chief Executive assesses each Executive Director and provides informal feedback on their performance on a timely basis.

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;
- central control over key areas such as cash/banking facilities; capital expenditure and cyber security; and
- an internal audit function which, on a rotational basis, reviews each of the Group's trading subsidiaries and seeks to ensure consistent application of the Group's policies.

The Group continues to assess and develop its internal control system to ensure compliance with best practice for a Group of its size.

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. The Group's results presentations are recorded on video and are available on the Judges website for all shareholders to view. Additionally, the Group operates a twice-yearly site visit (although due to COVID these were unable to be operated in 2020), where a group of significant shareholders/ potential shareholders are shown around a number of the Group's subsidiaries to view their operations and meet with the local management. All shareholders are also encouraged to attend the Annual General Meeting which is on 26 May 2021 (full details in the Directors' Report on page 30). This is the main opportunity for all shareholders to meet with all the Executive and Non-Executive Directors and where 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). This includes a Group overview, detailed information about our trading businesses (including short videos introduced by each subsidiary managing director), 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 any 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 2020 no matters were raised.

Alex Hambro
Chairman
22 March 2021

Audit Committee Report

For the year ended 31 December 2020

On behalf of the Board, I am pleased to present the Audit Committee Report for the year ended 31 December 2020.

Composition of the Committee

The Committee consists of myself (as Chairman), Ralph Cohen and Charles Holroyd. The Group's Executive and other Non-Executive Directors may be invited to attend Committee meetings. During the year, the Committee met six times, to undertake our responsibilities as set out below and, in particular, review the audit and interim findings, approve the audit plan and agree a formal internal audit approach for 2020 and beyond. 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 as 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) 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 the risk management and internal control systems;
- review the assessment of going concern; and
- assess the approach of the internal audit function and review its reporting to the Committee.

Role of the external Auditor

The Audit Committee monitors the relationship with the external Auditor, Grant Thornton UK 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 UK LLP to the Group include the provision of financial due diligence services to the Group and were less than 100% of the annual audit fee. As disclosed in last year's Audit Committee Report, the Group has adopted a policy to restrict work of the Auditor to audit only from 31 December 2020 to align with future regulation. No issues impacting upon the Auditor's independence were observed or brought to the Committee's attention.

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 presents their findings to the Audit Committee for discussion. No matters of significant concern relating to either the Group's internal controls or accounting practices were highlighted by the Auditor during the year, however, possible areas of significant risk and other matters of audit relevance are regularly communicated.

Internal audit

The scope of the internal audit work performed in 2020 was determined following feedback from the 2019 audit, and also via selection of subsidiary undertakings chosen through a selective process. The scope of the internal audit work in 2020 focused on specific reviews at three of the Group's subsidiaries (including Moorfield Nanotechnology which was acquired in 2019) and provisioning for slow-moving stock across the Group. No material issues were noted as part of this review.

The Committee agreed a new internal audit approach during 2020 with an expectation that every one of the Group's trading subsidiaries will receive an internal audit review at least once every four years, with each new material subsidiary receiving an internal audit within twelve months of joining the Judges group.

The Committee considers that management is generally able to derive assurance as to the adequacy and effectiveness of internal controls and risk management procedures but that the internal audit work performed provides additional assurance.

Risk management and internal controls

As described in the Corporate Governance Statement on pages 22 to 24, 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 initiated a review procedure to be satisfied that the appropriate internal control systems are in place. Comfort on internal control systems currently operating effectively has been obtained both from internal and external audits.

Ralph Elman
Audit Committee Chairman
22 March 2021

Remuneration Report

For the year ended 31 December 2020

On behalf of the Board, I am pleased to present the 2020 Directors' Remuneration Report, which sets out the remuneration policy and the Directors' remuneration for the year. Whilst there is no statutory requirement for this report to be produced, the Remuneration Committee consider that providing this report is good practice, transparent and beneficial for shareholders.

Composition of the Committee

The Committee consists of myself (as Committee Chairman), Lushani Kodituwakku and Ralph Elman. Lushani replaced Alex Hambro, who stepped down from the Committee, shortly after she joined the Judges Board. The Chief Executive and Group Finance Director may be invited to attend Committee meetings if required.

Executive Director remuneration policy

Our remuneration arrangements are designed 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 have been engaged to support the Committee's deliberations.

To achieve our goal of alignment between shareholders and the Executive Directors, the Group provides competitive pay, split between fixed and performance-related elements. Overall 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 a matching contribution of up to 5% of base salary, consistent with that offered to employees within the Group. Additionally, the Group may provide additional market-competitive 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 annual budget. The Judges policy for achieving an annual bonus has historically included a preclusion to earning a bonus if earnings per share is below a historical high watermark. As a result of the pandemic and its impact on the Group's performance, the Remuneration Committee has agreed to waive this requirement, on an exceptional basis, for 2021.

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 performance supporting the creation of shareholder value. Share options are issued at market value and vest over a period of three years. All share option awards to Executive Directors now have a performance condition of at least 6% compound annual growth of earnings per share over the three-year vesting period in order for them to be exercisable with the Executive Directors being able to "bank" one third of the award each year subject to meeting this annual requirement.

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 chairing 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 2020

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 held three meetings for regular Committee business and six special monthly meetings approving reductions in the remuneration of the Executive Directors to mirror the COVID-19 related pay reductions experienced by Group employees. Its main activities were:

- approval of Executive Directors' bonuses relating to 2019;
- determining adjustments to the Executive Directors' base salaries in light of the pandemic;
- benchmarking of and review of Executive Director remuneration arrangements for 2021;
- determining the performance target for the 2021 Executive Director annual bonus arrangements;
- determining appropriate performance conditions for Executive Director share options; and
- review of developments in corporate governance and best practice.

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.

Executive Director	Date of service contract
DE Cicurel	24 December 2002
BL Ormsby	3 March 2015
MS 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.

Non-Executive Director	Appointment date
Hon. AR Hambro	24 December 2002
RJ Elman	25 October 2005
RL Cohen	1 May 2015
CJA Holroyd	1 June 2018
L Kodituwakku	23 September 2020

Directors' remuneration (audited)

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	2020 total £000	Salary/fees £000	Bonus £000	Pension £000	Benefits £000	2019 total £000
Non-Executive Directors										
Hon. AR Hambro	**39**	—	—	—	**39**	36	—	—	—	36
CJA Holroyd	**34**	—	—	—	**34**	30	—	—	—	30
RL Cohen	**29**	—	—	—	**29**	26	—	—	—	26
RJ Elman	**34**	—	—	—	**34**	30	—	—	—	30
L Kodituwakku	**8**	—	—	—	**8**	—	—	—	—	—
Executive Directors										
DE Cicurel	**195**	—	—	**5**	**200**	190	48	—	5	243
BL Ormsby	**175**	—	**3**	**8**	**186**	166	42	8	2	218
MS Lavelle	**214**	—	—	**17**	**231**	172	43	—	18	233
Total	**728**	—	**3**	**30**	**761**	650	133	8	25	816

No annual bonus was earned for 2020 as a result of not exceeding the earnings per share target (2019: 25% of base salary was awarded). During 2020 one Director exercised options over the Ordinary shares of the Company realising a gain on exercise of £1,084,000 (2019: no Directors).

Implementation of remuneration policy for 2021

Base salary

During the year, and reflecting the challenges faced by the COVID pandemic, the Committee approved monthly reductions to the Executive Directors' fixed remuneration in proportion with reductions experienced by Group employees. The Non-Executive Directors all accepted matching reductions in their own fees.

The Committee also reviewed the base salary of the Executive Directors and considered individual performance, experience and comparable market rates. This benchmarking exercise noted that the Executive Directors' base salaries were below their benchmark however given the lower performance in 2020 and challenging macro-economic conditions, it was considered appropriate that base salaries remain at the 2020 level. The base salaries are as follows:

	2020 £000	2019 £000
DE Cicurel	**200**	200
BL Ormsby	**180**	180
MS Lavelle	**220**	220

Pension and other benefits

Mark Lavelle receives 5% of his base salary as cash in lieu of contributions into a pension scheme. He previously received a car allowance however this has been commuted into his base salary for 2020.

Brad Ormsby receives 5% of his base salary partly as matched pension contributions into a pension scheme and partly as cash in lieu of contributions.

Share options

As noted in last year's report, the Remuneration Committee had agreed to issue each of the Executive Directors 1,000 share options with a performance condition of 6% compound growth in earnings per share. Given the impact of the COVID pandemic and a prolonged close period due to 2020's acquisitions, these share options were issued on 3 November 2020.

A further issue of 20,000 options have been awarded by the Remuneration Committee to each of the Executive Directors to retain and incentivise them. Vesting of these options after three years is subject to the achievement of an adjusted earnings per share target for 2021 of 200p, with 10% compound growth in adjusted earnings per share over this target in 2022 and 2023 respectively.

Chairman and Non-Executive fees

The Chairman and Non-Executive Directors' fees were updated as of 1 January 2020 and fixed for three years as follows:

	£000
Chairman base fee	40
Non-Executive Director base fee	30
Fee for chairing Audit or Remuneration Committee	5

Chief Executive remuneration Level

The new pay ratio regulations for large UK listed companies came into force at the start of 2019. Whilst we, as an AIM-quoted group, are not required to adhere to these regulations, the Remuneration Committee felt it important to provide additional disclosure in line with most of the regulations to enable comparison of the Chief Executive's total remuneration for 2020.

	2020 £000	2019 £000
Chief Executive total remuneration	**200**	243
Upper quartile UK employee total remuneration	**51**	49
Median UK employee total remuneration	**38**	36
Lower quartile UK employee total remuneration	**29**	28

Remuneration Report continued

For the year ended 31 December 2020

Directors' interests

At 31 December 2020, 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 2020		1 January 2020	
	Shares	Options	Shares	Options
Non-Executive Directors				
Hon. AR Hambro	**62,000**	**—**	64,000	—
RL Cohen	**64,341**	**1,775**	64,341	1,775
RJ Elman	**62,778**	**—**	62,512	—
CJA Holroyd	**2,016**	**—**	2,016	—
Executive Directors				
DE Cicurel*	**759,458**	**10,275**	759,411	9,275
BL Ormsby	**3,754**	**1,000**	2,677	30,000
MS Lavelle	**295**	**61,000**	247	60,000

* Includes non-beneficial interest in the 50,000 shares held by Shoftim Charitable Trust (2019: 44,000 shares).

Dividends paid in the year to Directors who hold shares amounted to £492,000 in aggregate (2019: £2,320,000).

In 2020, 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 three months' service within the Group. Shares acquired by Directors, including matching shares, were 47 shares acquired by David Cicurel (2019: 72 shares), 47 shares by Brad Ormsby (2019: 72 shares) and 48 shares by Mark Lavelle (2019: 72 shares).

Options over Ordinary shares in the Company

	Number of shares			
Date of option issue	DE Cicurel	MS Lavelle	BL Ormsby	RL Cohen
2005 Option Scheme				
28 April 2008 at 124p	—	—	—	—
23 July 2009 at 92p	—	—	—	—
9 May 2011 at 470p	—	—	—	—
25 October 2013 at 1690p	1,775	—	—	1,775
30 March 2015 at 1437.5p	—	—	—	—
2015 Option Scheme				
21 October 2015 at 1402.5p	7,500	—	—	—
23 November 2017 at 1935.0p	—	60,000	—	—
3 November 2020 at 5200.0p*	1,000	1,000	1,000	—
	10,275	61,000	1,000	1,775

* These share options were issued with a performance condition of 6% compound growth in earnings per share.

Post-Year End Option Issue

On 8 January 2021, 20,000 options were awarded by the Remuneration Committee at an exercise price of 6580p per share to each of the Executive Directors to retain and incentivise them. Vesting of the options after three years is subject to the achievement of an adjusted earnings per share target for 2021, with 10% compound growth in adjusted earnings per share over the target in 2022 and 2023 respectively.

Charles Holroyd
Remuneration Committee Chairman
22 March 2021

Directors' Report

For the year ended 31 December 2020

The Directors present their report and audited consolidated financial statements for the year ended 31 December 2020. Comparative information is provided for the year ended 31 December 2019.

The Directors present their report and audited consolidated financial statements for the year ended 31 December 2020. Comparative information is provided for the year ended 31 December 2019.

Results and dividends

The results for the financial year to 31 December 2020 are set out in the Consolidated Statement of Comprehensive Income. The Company paid an interim dividend of 16.5p per Ordinary share on 6 November 2020. At the forthcoming Annual General Meeting, the Directors will recommend payment of a final dividend for the year of 38.5p per Ordinary share to be paid on Friday 9 July 2021 to shareholders on the register on Friday 11 June 2021. The shares will go ex-dividend on Thursday 10 June 2021. The total dividend proposed for the 2020 financial year will aggregate to 55.0p, an increase of 10% (2019: 50.0p). No special dividends were paid in 2020 (2019: Special dividend of 200.0p per Ordinary share).

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. The Group ended 2020 with adjusted net debt of £5.7 million (equal to 17.2% of equity) compared to adjusted net debt of £2.0 million at 31 December 2019. This small increase in net debt was as a result of the continued execution of the Group's strategy of acquiring sustainably profitable companies, where we allocated £11 million for the acquisitions of THT (£7.3 million), Korvus (£2.6 million) and the remaining shares in PE.fiberoptics (£1.1 million). Further outlays were also made via dividends to our shareholders (£3.2 million), paying our fair share of tax (£2.4 million) and ongoing investment into capital expenditure (£1.3 million). This significant outlay was largely offset by the consistent cash generation arising from satisfactory performance of the Group's principal operating companies albeit arising from a lower level of financial profitability than the prior year due to the 13% reduction in Organic order intake in 2020.

COVID was a significant challenge throughout most of 2020, putting pressure on our forward order book in the middle of the year as orders receded, particularly in April 2020, however order intake improved thereafter and the Group was able to rebuild much of the volume of the order book such that the Group entered 2021 with, on average across our businesses, over three months of future orders. The Group is in a strong financial position with high cash balances, low gearing and a solid future order book enabling it to face the challenge of the continued uncertain global economic environment due to COVID-19. The Directors have planned for reasonably foreseeable worsening scenarios including a repetition of the same level of reduction in orders in 2021 as happened in 2020 which would not cause any significant challenges to the Group's continued existence.

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

Future developments

The Company will continue to execute its business model, which includes acquiring suitable businesses, helping them continue to perform profitably and investing in their product ranges, in the same manner to which it has operated each year.

Research and development

The Company spent £6.2 million in 2020 (2019: £5.2 million) on a mixture of development of new products, amendments to existing products and other routine activities such as updating products due to obsolescence of parts or faults.

Engagement with stakeholders

The Company engages with all its stakeholders as disclosed in the Section 172 statement on page 13. The Group's payment 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 11 days (2019: 12 days).

Advice and insurance

This is disclosed in the Corporate Governance Statement on page 24.

Financial risk management objectives and policies

The Group utilises financial instruments (see note 23), 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 27 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 £5.7 million (31 December 2019: £2.0 million) (see note 21), 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 27.

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.

Directors' Report continued

For the year ended 31 December 2020

Financial risk management objectives and policies continued

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 Dollars 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 as appropriate, although this strategy does not represent hedging under IFRS 9. The Directors review the value of this economic hedging 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 Dollars 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 of £5.7 million (31 December 2019: £2.0 million) (see note 21) and cash and cash equivalents of £15.5 million, the Group's cash position is considered to be a key strength.

Streamlined energy and carbon reporting ("SECR")

The Group does not report under SECR as none of its subsidiary undertakings are large companies. The parent company is exempt from reporting as it is a low energy user consuming less than 40MWh per annum.

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
DE Cicurel
BL Ormsby
MS Lavelle
CJA Holroyd – Non-Executive
L Kodituwakku – Non-Executive (appointed 23 September 2020)
RL Cohen – Non-Executive
RJ Elman – 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 accounting standards in conformity with the requirements of the Companies Act 2006 (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 in the financial statements; 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 responsible for safeguarding the assets of the Group and for taking reasonable steps for the prevention and detection of 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.

Annual General Meeting

The Annual General Meeting of the Company will be held on Wednesday 26 May 2021 at 12.00 noon. The venue will be announced closer to the date of the meeting depending on the latest Government restrictions in place at that time.

On behalf of the Board

Brad Ormsby
Director
22 March 2021

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 2020, 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 accounting standards in conformity with the requirements of the Companies Act 2006. 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 Disclosure 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 2020 and of the group's profit for the year then ended;
- the group financial statements have been properly prepared in accordance with international accounting standards in conformity with the requirements of the Companies Act 2006;
- 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.

Conclusions relating to going concern

We are responsible for concluding on the appropriateness of the directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the group's and the parent company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify the auditor's opinion. Our conclusions are based on the audit evidence obtained up to the date of our report. However, future events or conditions may cause the group or the parent company to cease to continue as a going concern.

A description of our evaluation of management's assessment of the ability to continue to adopt the going concern basis of accounting, and the key observations arising with respect to that evaluation is included in the Key Audit Matters section of our report.

Based on the work we have performed, we have not identified any material uncertainties relating to events or conditions that, individually or collectively, may cast significant doubt on the group's and the parent company's ability to continue as a going concern for a period of at least twelve months from when the financial statements are authorised for issue.

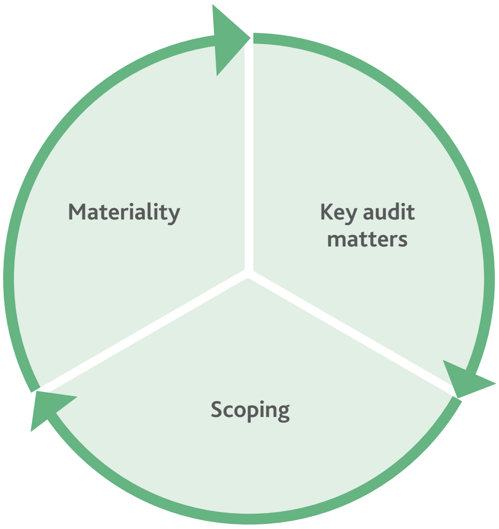
In auditing the financial statements, we have concluded that the directors' use of the going concern basis of accounting in the preparation of the financial statements is appropriate.

The responsibilities of the directors with respect to going concern are described in the 'Responsibilities of directors for the financial statements' section of this report.

Independent auditor's report continued

To the members of Judges Scientific plc

Our approach to the audit



Overview of our audit approach

Overall materiality:

Group: £475,000, which represents approximately 5% of the group's profit before tax.

Parent company: £356,000, which represents 1% of the parent company's total assets, capped at its component materiality, being 75% of group materiality.

Key audit matters for the Group were identified as:

- Goodwill impairment (same as previous year); and
- Valuation of intangibles on a business combination (same as previous year); and
- Going concern assumption (new).

Key audit matters for the parent company were identified as:

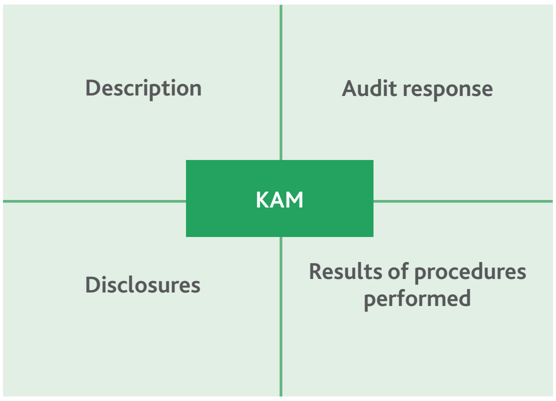
- Investments valuation (new).

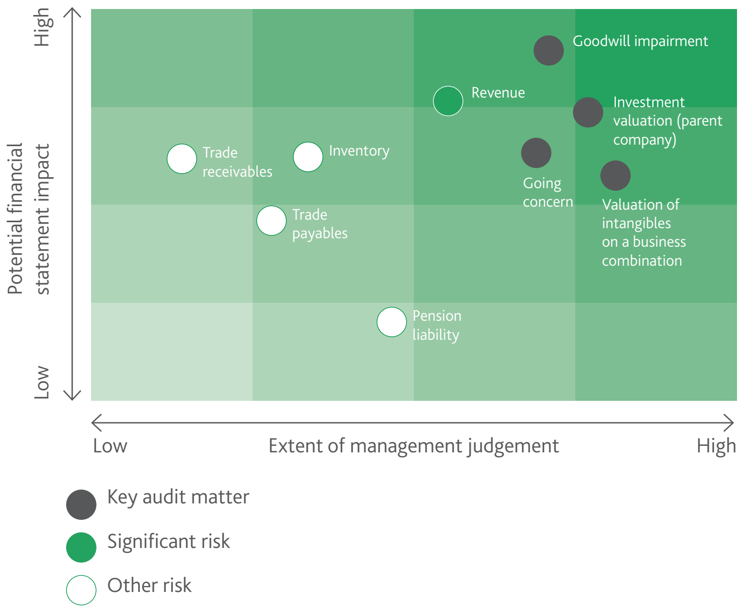
All of the key audit matters that were identified in our auditor's report for the year 31 December 2019 have been reported as key audit matters in our current year's report.

We performed audits of the financial information of Judges Scientific plc and of the financial information of all UK components using component materiality (full scope audit procedures). We performed specified audit procedures on the financial information of the other components as detailed in the 'An overview of the scope of our audit' section below. Full scope audit procedures gave a coverage of 95% over the group's total assets, 100% over the group's revenue and 92% over the group's profit before tax.

Key audit matters

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the financial statements of the current period and include the most significant assessed risks of material misstatement (whether or not due to fraud) that we identified. These matters included those 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 matters continued

Key Audit Matter – Group	How our scope addressed the matter – Group

Goodwill impairment
We identified Goodwill impairment as one of the most significant assessed risks of material misstatement due to error.
The carrying value of goodwill is £18,713,000 (2019: £15,265,000).
There is a risk that goodwill recognised on historical acquisitions may be impaired. In accordance with International Accounting Standard (IAS) 36 'Impairment of Assets', goodwill is tested annually for impairment by reference to the value in use of the relevant cash generating units.
Management's assessment of the potential impairment of the group's goodwill incorporates 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, and could be susceptible to management bias.
Relevant disclosures in the Annual Report and Accounts 2020
• Financial statements:
  • Note 2, Summary of significant account policies – Goodwill
  • Note 2, Summary of significant accounting policies – Use of key accounting estimates and judgements
  • Note 13, Goodwill
	In responding to the key audit matter, we performed the following audit procedures:
	• Assessing the accounting policy to check it is in accordance with the financial reporting framework, including IAS 36;
	• Obtaining management's impairment assessment for each cash generating unit, which are based on discounted cash flow models;
	• Checking of the mathematical accuracy of the impairment models;
	• Evaluating the key assumptions including growth rates and discounts rates applied. This included consultation with our internal valuation specialists to corroborate key assumptions such as discount rate and growth rate to external sources for comparable companies;
	• Critically reviewing management's assessment of the potential impact that COVID-19 has on future cashflows based on the financial performance in the year and current order book;
	• Testing the accuracy of management's historical forecasting through a comparison of budget to actual data and historical variance trends;
	• Performing sensitivity analysis on key assumptions made in calculations to determine whether a reasonable possible change in assumptions would trigger an impairment; and
	• Evaluating the information included in management's impairment models through our knowledge of the business and discussions with management.
	Results of procedures performed
	We identified no errors in management's assessment which would result in an impairment and no reasonably possible change in any key assumption used in management's models which would result in the carrying value of any cash generating unit being materially in excess of its recoverable amount.

Valuation of intangibles arising on a business combination
The group's business model is to acquire and develop a portfolio of scientific instrument businesses. During the year, two acquisitions were made.
Due to the materiality of the intangible assets and goodwill recognised by the group as a result of the two business combinations in the year, the valuation of the intangibles arising is identified as one of the most significant assessed risks of material misstatement due to error.
There is a risk that the intangible assets, including goodwill, are not recognised in accordance with IFRS 3 'Business Combinations'.
There is significant judgement and complexity involved in the allocation of excess consideration over net assets acquired between separable intangible assets and remaining goodwill which could be subject to management bias.
Relevant disclosures in the Annual Report and Accounts 2020
• Financial statements:
  • Note 2, Summary of significant accounting policies – Consolidation
  • Note 2, Summary of significant accounting policies – Use of key accounting estimates and judgements
  • Note 28, Acquisitions
	In responding to the key audit matter, we performed the following audit procedures:
	• Assessing the accounting for acquisitions in the year to check if it was in accordance with the financial reporting framework, including IFRS 3;
	• Obtaining the business combination workings for the acquisition prepared by management's expert, checking its mathematical accuracy, and understanding basis of the judgements made such as future forecast growth, discount rate applied and tax rate;
	• Agreeing significant inputs used in the models to budgets, historic data and other support documentation;
	• Testing of the opening balance sheet of each acquired entity;
	• Using our internal valuations team to help inform our assessment of the valuation models prepared by management's expert in respect of the acquisition, including the basis and methodology adopted for identifying separate intangibles distinct from goodwill;
	• Using our internal valuations team to check the appropriateness of discount rates and growth rates applied to external sources for comparable companies; and
	• Assessing whether the disclosures made are in accordance with the financial reporting framework.
	Results of procedures performed
	Based on our audit work, we are satisfied that the assumptions made in management's assessment to identify and value intangibles arising on the business combinations are appropriate.

Independent auditor's report continued

To the members of Judges Scientific plc

Key audit matters continued

Key Audit Matter – Group

Going concern assumption

We have identified a key audit matter related to going concern as one of the most significant assessed risks of material misstatement due to fraud and error as a result of the judgement required to conclude whether there is a material uncertainty related to going concern.

Covid-19 and Brexit are the most significant economic events for the UK, and at the date of this report there is an unprecedented level of uncertainty as to the ultimate impact of these events on the group. In undertaking their assessment of going concern for the group the directors considered the impact of these current economic factors in their forecast future performance of the group and anticipated cash flows, including:

- the current financing available to the group and associated debt covenants;
- the potential impact on revenues generated from customers including a scenario whereby there is a repetition of the same level of reduction in orders in 2021 as in 2020.

The directors have applied sensitivities to their forecasts and performed a reverse stress test of the group's liquidity. The results of these sensitivity analyses have been considered by the directors in forming their conclusion.

Under the various sensitivity scenarios analysed, the group did not breach any of its debt covenants in the forecast period.

The directors have concluded, based on the various scenarios developed, that the group has sufficient resources available to meet its liabilities as they fall due and have concluded that there are no material uncertainties around the going concern assumptions.

Relevant disclosures in the Annual Report and Accounts 2020

- Financial statements:
  - Note 2, Summary of significant account policies – Going concern

How our scope addressed the matter – Group

In responding to the key audit matter, we performed the following audit procedures:

- Obtaining management's base case cash flow forecasts covering the period to 31 March 2022, assessing how these cash flow forecasts were compiled and evaluating supporting information, including budgets and order book;
- Assessing the accuracy of management's historical forecasting by comparing management's forecasts for 2020 and 2019 to the actual results for the periods and considering the impact on the base case cash flow forecast;
- Performing an analysis on the base case forecasts, assessing the impact of changes in key assumptions on the cash flow forecasts and the headroom on debt covenants, including the sensitivity scenarios prepared by management. We considered whether the assumptions are consistent with our understanding of the business derived from other detailed audit work undertaken;
- Agreeing with management a reverse stress test to identify the scenario which would result in a breach in covenants in the assessment period and assessing the probability of such a scenario and identifying the mitigating factors available to management if necessary; and
- Assessing the adequacy of related disclosures within the annual report.

Results of procedures performed

Based on our audit work, we are satisfied that the assumptions made in management's assessment of the use of the going concern basis in preparation of financial statements were appropriate.

Key audit matters continued

Key Audit Matter – Parent company	How our scope addressed the matter – Parent company

Investments valuation
We identified Investments valuation as one of the most significant assessed risks of material misstatement due to error.
There is a risk that investments in subsidiaries on historical acquisitions may be impaired. In accordance with International Accounting Standard (IAS) 36 'Impairment of Assets', assets should be considered for indicators of impairment, and if indicators exist, the valuation should be assessed by reference to the value in use of the relevant cash-generating units.
Management's assessment of the potential impairment of the parent company's investment in subsidiaries incorporates 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 and is also subject to management bias.
Relevant disclosures in the Annual Report and Accounts 2020
• Parent company financial statements:
  • Note 2, Summary of significant account policies – Consolidation
  • Note 2, Summary of significant accounting policies – Use of key accounting estimates and judgements
  • Note 5, Investments in subsidiaries
	In responding to the key audit matter, we performed the following audit procedures:
	• Obtaining management's assessment of impairment indicators based on performance and confirming that all subsidiaries were included in this review;
	• Comparing the carrying amount of all investments with the net assets and the expected value of the business based on discounted cash flow models prepared by management;
	• Where impairment indicators existed, evaluating the key assumptions used to determine recoverable value including growth rates and discounts rates; and
	• Checking management's models used to assess impairment of investments were consistent with the results of our audit over subsidiaries' profits and forecasts used for the impairment of goodwill and going concern assessment.
	Results of procedures performed
	Based on our audit work, we are satisfied that management's assessment of investments valuation was appropriate.

Our application of materiality

We apply the concept of materiality both in planning and performing the audit, and in evaluating the effect of identified misstatements on the audit and of uncorrected misstatements, if any, on the financial statements and in forming the opinion in the auditor's report.

Materiality was determined as follows:

Materiality measure	Group	Parent company
Materiality for financial statements as a whole	We define materiality as the magnitude of misstatement in the financial statements that, individually or in the aggregate, could reasonably be expected to influence the economic decisions of the users of these financial statements. We use materiality in determining the nature, timing and extent of our audit work.	
Materiality threshold	£475,000 which is approximately 5% of the group's profit before tax.	£356,000 which is 1% of the parent company's total assets, capped at its component materiality, being 75% of group materiality.

Independent auditor's report continued

To the members of Judges Scientific plc

Our application of materiality continued

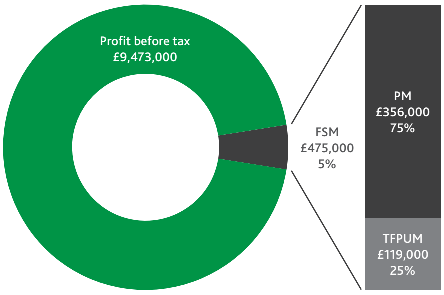
Materiality measure	Group	Parent company
Significant judgements made by auditor in determining the materiality	In determining materiality, we made the following significant judgements: • the selection of an appropriate benchmark; • the selection of an appropriate percentage to apply to that benchmark; and • the consideration of other qualitative factors. We have consistently used profit before tax as the most appropriate benchmark because maximisation of shareholder return is a key measure used by management in assessing performance of the business. The chosen percentage applied to the benchmark is consistent with the previous year and in line with industry practice. We did not believe a reduction to the percentage was necessary based on consideration of other risk factors. Materiality for the current year is lower than the level that we determined for the year ended 31 December 2019 to reflect the reduction in profit before tax.	In determining materiality, we made the following significant judgements: • the selection of an appropriate benchmark; and • the selection of an appropriate percentage to apply to that benchmark; and • the consideration of other qualitative factors. We have consistently used total assets as the most appropriate benchmark because the parent company is primarily a holding company of investments and other assets. The chosen percentage applied to the benchmark is consistent with the previous year and in line with industry practice. We did not believe a reduction to the percentage was necessary based on consideration of other risk factors. Materiality for the current year is lower than the level that we determined for the year ended 31 December 2019 to reflect the decrease in group materiality, and the capping referred to above.
Significant revision(s) of materiality threshold that were made as the audit progressed	We calculated materiality during the planning stage of the audit based on projected profit before tax and then during the course of our audit, we re-assessed initial materiality based on actual profit before tax for the year ended 31 December 2020 which resulted in an increase in materiality and adjusted our audit procedures accordingly.	We calculated materiality during the planning stage of the audit based on capping the materiality at 75% of the group. During the course of our audit, we re-assessed initial materiality based on the group's actual revised materiality (as referred to left) and adjusted our audit procedures accordingly.
Performance materiality used to drive the extent of our testing	We set performance materiality at an amount less than materiality for the financial statements as a whole to reduce to an appropriately low level the probability that the aggregate of uncorrected and undetected misstatements exceeds materiality for the financial statements as a whole.	
Performance materiality threshold	£356,000 which is 75% of financial statement materiality.	£267,000 which is 75% of financial statement materiality.
Significant judgements made by auditor in determining the performance materiality	In determining materiality, we made the following significant judgements: • Our experience with auditing the financial statements of the group – the effect in the current year of previously identified and uncorrected misstatements.	In determining materiality, we made the following significant judgements: • Our experience with auditing the financial statements of the group – the effect in the current year of previously identified and uncorrected misstatements.
Significant revision(s) of performance materiality threshold that were made as the audit progressed	The performance materiality threshold percentage did not change during the course of the audit but the overall threshold increase as a result of an increase in materiality, as referred to above.	The performance materiality threshold percentage did not change during the course of the audit but the overall threshold increase as a result of an increase in materiality, as referred to above.
Specific materiality	We determine specific materiality for one or more particular classes of transactions, account balances or disclosures for which misstatements of lesser amounts than materiality for the financial statements as a whole could reasonably be expected to influence the economic decisions of users taken on the basis of the financial statements.	
Specific materiality threshold	We determined a lower level of specific materiality for the following areas: • directors' remuneration; and • related party transactions.	We determined a lower level of specific materiality for the following areas: • directors' remuneration; and • related party transactions.

Our application of materiality continued

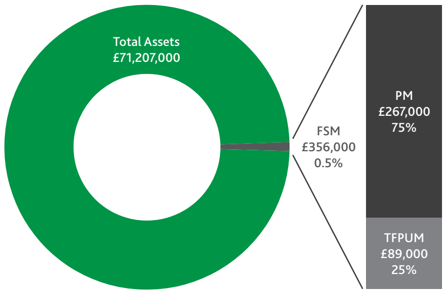
Materiality measure	Group	Parent company
Communication of misstatements to the audit committee	We determine a threshold for reporting unadjusted differences to the audit committee.	
Threshold for communication	£23,750 and misstatements below that threshold that, in our view, warrant reporting on qualitative grounds.	£17,800 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.

Overall materiality – Group



Overall materiality – Parent company



FSM: Financial statements materiality, PM: Performance materiality, TFPUM: Tolerance for potential uncorrected misstatements

An overview of the scope of our audit

We performed a risk-based audit that requires an understanding of the group's and the parent company's business and in particular matters related to:

Understanding the group, its components, and their environments, including group-wide controls

- Judges Scientific plc group management are responsible for the consolidation, acquisition accounting, impairment, treasury and going concern assessment whilst 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 audit work undertaken by the group audit team. In assessing the risk of material misstatement of the group financial statements we considered the transactions undertaken by each entity and therefore where the focus of our work was required;

Identifying significant components

- We performed full scope audit procedures on the financial statements of Judges Scientific plc, and we completed full scope audit procedures on the financial information of each UK trading subsidiary except Korvus Technology Limited which was acquired in the year. The other components were Korvus Technology Limited, on which we performed specified audit procedures on the acquisition and year end balance sheet and the four overseas components, Armfield Inc., Scientifica LLC, Dia-Stron Inc. and Thermal Hazard Technology Inc., on which we performed specified audit procedures to audit material transactions and balances affecting the group financial statements; and

Performance of our audit

Audit approach	No. of components	% coverage total assets	% coverage revenue	% coverage PBT
Full-scope audit	17	95%	89%	92%
Specified audit procedures	5	-%	11%	-%

Changes in approach from previous period

- Our audit approach in the current year is consistent with that of the prior year.

Independent auditor's report continued

To the members of Judges Scientific plc

Other information

The directors are responsible for the other information. The other information comprises the information included in the annual report, other than the financial statements and our auditor's report thereon. Our opinion on the financial statements does not cover the other information and, except to the extent otherwise explicitly stated in our report, we do not express any form of assurance conclusion thereon.

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

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.

Matter 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 directors' responsibilities statement, the directors are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view, and for such internal control as the directors determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the directors are responsible for assessing the group's and the 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. This description forms part of our auditor's report.

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

Irregularities, including fraud, are instances of non-compliance with laws and regulations. We design procedures in line with our responsibilities, outlined above, to detect material misstatements in respect of irregularities, including fraud. Owing to the inherent limitations of an audit, there is an unavoidable risk that material misstatements in the financial statements may not be detected, even though the audit is properly planned and performed in accordance with the ISAs (UK).

Auditor's responsibilities for the audit of the financial statements continued

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

The extent to which our procedures are capable of detecting irregularities, including fraud is detailed below:

- We obtained an understanding of the legal and regulatory frameworks applicable to the parent company, the group and industry in which they operate. We determined that the following laws and regulations were most significant: IFRS, Companies Act 2006 and UK tax compliance regulations which is the principal jurisdiction in which the group operates. In addition, we concluded that there are certain significant laws and regulations that may have an effect on the determination of the amounts and disclosures in the financial statements and those laws and regulations relate to employee matters;
- We understood how the parent company and the group is complying with those legal and regulatory frameworks by making inquiries to management. We corroborated our inquiries through our review of board minutes and papers provided to the Audit Committee;
- We assessed the susceptibility of the parent company's and group's financial statements to material misstatement, including how fraud might occur. Audit procedures performed by the group engagement team included:
  - identifying and assessing the design effectiveness of controls management has in place to prevent and detect fraud;
  - challenging assumptions and judgements made by management in its significant accounting estimates;
  - utilising a valuation specialist to assess management's impairment calculation;
  - identifying and testing journal entries, in particular any journal entries posted with unusual account combinations; and
  - assessing the extent of compliance with the relevant laws and regulations as part of our procedures on the related financial statement item.
- These audit procedures were designed to provide reasonable assurance that the financial statements were free from fraud or error. However, detecting irregularities that result from fraud is inherently more difficult than detecting those that result from error, as those irregularities that result from fraud may involve collusion, deliberate concealment, forgery or intentional misrepresentations.
- The assessment of the appropriateness of the collective competence and capabilities of the engagement team included consideration of the engagement team's:
  - understanding of, and practical experience with, audit engagements of a similar nature and complexity through appropriate training and participation; and
  - knowledge of the industry in which the client operates.
- Team communications in respect of potential non-compliance with laws and regulations and fraud included the potential for fraud in revenue and management over ride of controls.
- In assessing the potential risks of material misstatement, we obtained an understanding of:
  - the parent company's and the group's operations, including the nature of its revenue sources, products and services and of its objectives and strategies to understand the classes of transactions, account balances, expected financial statement disclosures and business risks that may result in risks of material misstatement; and
  - the parent company's and the group's control environment, including:
    - the policies and procedures implemented to comply with financial reporting requirements, including the adequacy of the training to inform staff of financial reporting changes; and
    - the adequacy of procedures for authorisation of transactions and internal review procedures over the parent company and the group's transactions.

Use of our report

This report is made solely to the company's members, as a body, in accordance with Chapter 3 of Part 16 of the Companies Act 2006. Our audit work has been undertaken so that we might state to the company's members those matters we are required to state to them in an auditor's report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the company and the company's members as a body, for our audit work, for this report, or for the opinions we have formed.

Alison Seekings

Senior Statutory Auditor
for and on behalf of Grant Thornton UK LLP
Statutory Auditor, Chartered Accountants
Leicester
22 March 2021

Consolidated statement of comprehensive income

For the year ended 31 December 2020

	Note	Adjusted £000	Adjusting items £000	2020 Total £000	Adjusted £000	Adjusting items £000	2019 Total £000
Revenue	3	79,865	—	79,865	82,499	—	82,499
Operating costs	3,4,5	(65,508)	(4,191)	(69,699)	(65,115)	(3,274)	(68,389)
Operating profit/(loss)		14,357	(4,191)	10,166	17,384	(3,274)	14,110
Interest income	9	14	—	14	101	—	101
Interest expense	9	(654)	(53)	(707)	(532)	(48)	(580)
Profit/(loss) before tax		13,717	(4,244)	9,473	16,953	(3,322)	13,631
Taxation (charge)/credit	10	(2,029)	1,204	(825)	(2,484)	707	(1,777)
Profit/(loss) for the year		11,688	(3,040)	8,648	14,469	(2,615)	11,854
Attributable to:							
Owners of the parent		11,108	(2,888)	8,220	13,828	(2,446)	11,382
Non-controlling interests		580	(152)	428	641	(169)	472
Profit/(loss) for the year		11,688	(3,040)	8,648	14,469	(2,615)	11,854
Other comprehensive income							
Items that will not be reclassified subsequently to profit or loss							
Retirement benefits actuarial loss				(1,092)			(375)
Items that may be reclassified subsequently to profit or loss							
Exchange differences on translation of foreign subsidiaries				(82)			(62)
Other comprehensive income for the year, net of tax				(1,174)			(437)
Total comprehensive income for the year				7,474			11,417
Attributable to:							
Owners of the parent				7,046			10,945
Non-controlling interests				428			472

	Note	2020 Pence	2020 Pence	2019 Pence	2019 Pence
Earnings per share – adjusted					
Basic	12	177.2		222.5	
Diluted	12	173.9		218.4	
Earnings per share – total					
Basic	12		131.1		183.1
Diluted	12		128.7		179.8

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

Consolidated balance sheet

As at 31 December 2020

	Note	2020 £000	2019 £000
ASSETS			
Non-current assets			
Goodwill	13	**18,713**	15,265
Other intangible assets	14	**6,909**	4,458
Property, plant and equipment	15	**6,678**	6,107
Right-of-use leased assets	16	**5,125**	4,428
Deferred tax assets	17	**2,153**	1,873
		39,578	32,131
Current assets			
Inventories	18	**12,585**	12,543
Trade and other receivables	19	**14,340**	11,814
Cash and cash equivalents		**15,523**	14,123
		42,448	38,480
Total assets		**82,026**	70,611
LIABILITIES			
Current liabilities			
Trade and other payables	20	**(15,828)**	(15,322)
Trade and other payables relating to acquisitions		**—**	(1,896)
Borrowings	21	**(3,857)**	(3,051)
Right-of-use lease liabilities	22	**(947)**	(757)
Current tax liabilities		**(1,539)**	(2,258)
		(22,171)	(23,284)
Non-current liabilities			
Borrowings	21	**(17,358)**	(11,399)
Right-of-use lease liabilities	22	**(4,209)**	(3,689)
Deferred tax liabilities	17	**(1,945)**	(1,447)
Retirement benefit obligations	29	**(3,295)**	(2,100)
		(26,807)	(18,635)
Total liabilities		**(48,978)**	(41,919)
Net assets		**33,048**	28,692
EQUITY			
Share capital	24	**315**	311
Share premium account		**16,429**	15,453
Other reserves	26	**1,977**	2,059
Retained earnings		**13,469**	10,048
Equity attributable to owners of the parent company		**32,190**	27,871
Non-controlling interests	30	**858**	821
Total equity		**33,048**	28,692

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

The financial statements were approved by the Board on 22 March 2021.

David Cicurel
Director

Brad Ormsby
Director

Consolidated statement of changes in equity

For the year ended 31 December 2020

	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
At 1 January 2020	311	15,453	2,059	10,048	27,871	821	28,692
Dividends	—	—	—	(3,231)	(3,231)	—	(3,231)
Adjustment arising from change in non-controlling interest	—	—	—	(680)	(680)	(391)	(1,071)
Issue of share capital	4	976	—	—	980	—	980
Deferred tax on share-based payments	—	—	—	(113)	(113)	—	(113)
Share-based payments	—	—	—	317	317	—	317
Transactions with owners	4	976	—	(3,707)	(2,727)	(391)	(3,118)
Profit for the year	—	—	—	8,220	8,220	428	8,648
Retirement benefit actuarial loss	—	—	—	(1,092)	(1,092)	—	(1,092)
Foreign exchange differences	—	—	(82)	—	(82)	—	(82)
Total comprehensive income for the year	—	—	(82)	7,128	7,046	428	7,474
At 31 December 2020	**315**	**16,429**	**1,977**	**13,469**	**32,190**	**858**	**33,048**
At 1 January 2019	310	15,164	2,121	13,049	30,644	562	31,206
Dividends	—	—	—	(15,126)	(15,126)	—	(15,126)
Adjustment arising from change in non-controlling interest	—	—	—	(204)	(204)	(213)	(417)
Issue of share capital	1	289	—	—	290	—	290
Deferred tax on share-based payments	—	—	—	1,027	1,027	—	1,027
Share-based payments	—	—	—	295	295	—	295
Transactions with owners	1	289	—	(14,008)	(13,718)	(213)	(13,931)
Profit for the year	—	—	—	11,382	11,382	472	11,854
Retirement benefit actuarial loss	—	—	—	(375)	(375)	—	(375)
Foreign exchange differences	—	—	(62)	—	(62)	—	(62)
Total comprehensive income for the year	—	—	(62)	11,007	10,945	472	11,417
At 31 December 2019	311	15,453	2,059	10,048	27,871	821	28,692

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

Consolidated cashflow statement

For the year ended 31 December 2020

	2020 £000	2019 £000
Cashflows from operating activities		
Profit after tax	8,648	11,854
Adjustments for:		
Financial instruments measured at fair value: hedging contracts	72	(37)
Share-based payments	317	295
Depreciation of property, plant and equipment	926	771
Depreciation of right-of-use leased assets	935	863
Amortisation of intangible assets	3,179	2,739
(Profit)/loss on disposal of property, plant and equipment	(4)	1
Charge on exit from right-of-use leases	—	39
Interest income	(14)	(101)
Interest expense	464	397
Interest payable on right-of-use lease liabilities	190	135
Retirement benefit obligation net finance cost	53	48
Contributions to defined benefit plans	(236)	(236)
Tax expense recognised in the Consolidated Statement of Comprehensive Income	825	1,777
Decrease/(increase) in inventories	1,099	(1,794)
(Increase)/decrease in trade and other receivables	(1,232)	1,566
(Decrease)/Increase in trade and other payables	(598)	763
Cash generated from operations	14,624	19,080
Tax paid	(2,377)	(2,205)
Net cash from operating activities	12,247	16,875
Cashflows from investing activities		
Paid on acquisition of subsidiaries	(8,857)	(2,288)
Payment of deferred consideration	(3,922)	—
Gross cash inherited on acquisition	1,363	2,201
Acquisition of subsidiaries, net of cash acquired	(11,416)	(87)
Purchase of property, plant and equipment	(1,268)	(1,303)
Proceeds on disposal of property, plant and equipment	14	22
Interest received	14	101
Net cash used in investing activities	(12,656)	(1,267)
Cashflows from financing activities		
Proceeds from issue of share capital	980	290
Finance costs paid	(468)	(393)
Repayments of borrowings*	(7,857)	(2,868)
Repayment of subordinated loan notes	(190)	—
Repayments of right-of-use lease liabilities	(1,108)	(926)
Proceeds from bank loans*	14,816	2,288
Equity dividends paid	(3,231)	(15,126)
Paid on acquisition of non-controlling interest in subsidiary	(1,071)	(417)
Net cash used in financing activities	1,871	(17,152)
Net change in cash and cash equivalents	1,462	(1,544)
Cash and cash equivalents at the start of the year	14,123	15,727
Exchange movements	(62)	(60)
Cash and cash equivalents at the end of the year	15,523	14,123

* Includes £5,000,000 borrowed as working capital buffer and subsequently repaid in 2020.

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

Notes to the consolidated financial statements

For the year ended 31 December 2020

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 accounting standards in conformity with the requirements of the Companies Act 2006 (IFRS). Accordingly, these financial statements have been prepared in accordance with the accounting policies set out below which are based on the aforementioned IFRS and in effect at 31 December 2020.

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".

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. The Group ended 2020 with adjusted net debt of £5.7 million (equal to 17.2% of equity) compared to adjusted net debt of £2.0 million at 31 December 2019. This small increase in net debt was as a result of the continued execution of the Group's strategy of acquiring sustainably profitable companies, where we allocated £11 million for the acquisitions of THT (£7.3 million), Korvus (£2.6 million) and the remaining shares in PE.fiberoptics (£1.1 million). Further outlays were also made via dividends to our shareholders (£3.2 million), paying our fair share of tax (£2.4 million) and ongoing investment into capital expenditure (£1.3 million). This significant outlay was largely offset by the consistent cash generation arising from satisfactory performance of the Group's principal operating companies albeit arising from a lower level of financial profitability than the prior year due to the 13% reduction in Organic order intake in 2020.

The Directors have considered the impact of the COVID-19 pandemic, and a summary of the implications is included in the Chairman's Statement. The Group is in a strong financial position with high cash balances, low gearing and a solid future order book enabling it to face the challenge of the continued uncertain global economic environment due to COVID-19. The Directors have planned for reasonably foreseeable worsening scenarios including a repetition of the same level of reduction in orders in 2021 as happened in 2020 which would not cause any significant challenges to the Group's continued existence.

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

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. None of these pronouncements have been adopted early by the Group, and they have not been disclosed as they are not expected to have a material impact on the Group's financial statements. Management anticipates that all relevant pronouncements will be adopted for the first period beginning on or after their 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 affect 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 Consolidated 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 Consolidated Statement of Comprehensive Income.

2. Summary of significant accounting policies continued

Consolidation continued

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

In accordance with IFRS 15 Revenues from Contracts with Customers, 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), in exchange for transferring the promised goods or services to the customer. The consideration is allocated to each separate performance obligation that is identified in a sales contract, based on stand-alone selling prices. Sales of instruments and spares, and sales of services, such as non-specialised installation, extended warranty, maintenance, training or consultancy, are assessed to be separate performance obligations.

Revenue is recognised when (or as) the Group satisfies the identified performance obligation. For sales of instruments, spares and installation, the performance obligation is satisfied at a point in time; for revenue from other services, the performance obligation is satisfied over time. As the period of time between payment and performance is less than one year, the Group does not adjust revenue for the effects of financing.

Revenue from sales of instruments and spares is recognised at the point at which the customer obtains control of the asset. This is usually on despatch of the instrument; however, for sales from overseas subsidiaries, it is when the customer receives the goods. Revenue from installations is recognised at the point at which the installation is completed. For large, complex instruments which require highly specialised installation, revenue from both the instrument and installation is recognised at the point at which installation is completed.

Revenue from extended warranty and maintenance contracts is recognised rateably as the performance obligation to the customer is satisfied.

Receipts from customers for instruments, either part or in full, in advance of their date of shipping are recognised within accruals and payments-on-account within note 20.

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 Executive 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 Consolidated 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:

Acquired customer relationships	3 years
Acquired non-competition agreements	2 years
Acquired distribution agreements	Between 2 and 5 years
Acquired technology	5 years
Acquired sales order backlog	On shipment (this is usually consumed within six months of initial recognition)
Acquired brand and domain names	Between 1 and 5 years

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

Notes to the consolidated financial statements continued

For the year ended 31 December 2020

2. Summary of significant accounting policies continued

Research and development

Research and development expenditure is recognised in the Consolidated 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.

Depreciation is 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.

Where an asset is disposed, the gain or loss arising on the disposal is determined as the difference between the disposal proceeds and the carrying amount of the asset and is recognised in the Consolidated Statement of Comprehensive Income.

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 Consolidated 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

Any contract entered into, which contains an identified asset, whose use the Group has the right to direct throughout the period of the lease, and the right to obtain substantially all of the economic benefits from, is accounted for as a lease. At the lease commencement date, the Group recognises a right-of-use leased asset and a lease liability on the balance sheet. The lease liability is measured at the present value of the total lease payments due, discounted using the interest rate implicit in the lease if readily available, or at the Group's incremental borrowing rate. The right-of-use asset is measured at cost, being the lease liability, plus any initial direct costs incurred by the Group, or lease payments made in advance of the commencement date.

Right-of-use assets are depreciated on a straight-line basis to the end of the lease term.

The Group assesses the right-of-use asset for impairment when such indicators exist. Lease liabilities are remeasured to reflect any reassessment or modification of the lease – when the lease liability is remeasured, the corresponding adjustment is reflected in the right-of-use leased asset, or in the Consolidated Statement of Comprehensive Income if the asset is already reduced to zero.

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.

2. Summary of significant accounting policies continued

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 Consolidated 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 Consolidated 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 share 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 and derivatives.

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 a provision for uncollectable amounts. An estimate of uncollectable amounts is made on initial recognition of each receivable and updated should collection of the amount become no longer probable. The Group uses historical experience and external information to determine the need for, and quantum of, any such provision. Uncollectable amounts are written off to the Consolidated 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 Consolidated Statement of Comprehensive Income.

These financial liabilities include trade and other payables and borrowings, including bank loans, subordinated loans and right-of-use lease liabilities. Finance charges, including premiums payable on settlement or redemption and direct issue costs, are charged to the Consolidated 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.

Notes to the consolidated financial statements continued

For the year ended 31 December 2020

2. Summary of significant accounting policies continued

Financial liabilities continued

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 Consolidated 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 Balance Sheet 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 Consolidated Statement of Comprehensive Income in the period in which they arise. In respect of overseas subsidiaries on consolidation, assets and liabilities are translated at the closing rate and income and expenses are translated at the average rate over the reporting period. Exchange differences are recorded in other comprehensive income.

Other income

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.

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 and equity-settled share-based payment credits.

Non-controlling interests

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

2. Summary of significant accounting policies continued

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 Consolidated 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.

Government grants

Government grants are recognised at their fair value in the Consolidated Statement of Comprehensive Income over the same period as the costs to which the grants relate, and is only recognised once there is a reasonable assurance that the Company has complied with the conditions of the grant and that the grant will be received.

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

- ***Fair value assessment of a business combination:*** Following an acquisition the Group makes an assessment of all assets and liabilities, inclusive of making judgements on the identification of specific intangible assets which are recognised separately from goodwill. These include items such as brand names and customer lists, to which value is first attributed at the time of acquisition. 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. In order to estimate the fair value of separately identifiable assets in business combinations certain judgements must be made about future trading performance, royalty rates and customer attrition rates. Where acquisitions are significant, appropriate advice is sought from professional advisers before making such allocations. The fair values of assets and liabilities acquired in business combinations are disclosed in note 28 and the carrying values of separately identifiable intangible assets initially measured at fair value are disclosed in note 14.

- ***Capitalisation of development costs:*** Expenditure incurred in the development of major new products is capitalised as internally generated intangible assets only when it has been judged that strict criteria are met, specifically in relation to the products' technical feasibility and commercial viability (the ability to generate probable future economic benefits for the Group). The assessment of technical feasibility and future commercial viability of development projects requires significant judgement particularly around whether a product in development will have a sufficient appeal to its niche market and also the level of marketplace competition. No major new projects were considered to meet the capitalisation criteria during 2020.

Sources of estimation uncertainty

- ***Retirement benefits:*** Determining the value of the future defined benefit obligation involves significant estimates in respect of the assumptions used to calculate present values. These include future mortality, discount rate and inflation. The Group uses previous experience and independent actuarial advice to select the values for critical estimates. See note 29 for additional information.

- ***Carrying value of goodwill:*** In carrying out impairment reviews of goodwill, a number of significant assumptions have to be made when preparing cashflow projections to determine the value in use of the asset or cash-generating unit (CGU). These include the future rate of market growth, discount rates, the market demand for the products acquired and the future profitability of acquired businesses or products. If actual results differ or changes in expectations arise, impairment charges may be required which would adversely impact the statutory results. Further information can be found in note 13.

Notes to the consolidated financial statements continued

For the year ended 31 December 2020

3. Segmental analysis

For the year ended 31 December 2020	Note	Materials Sciences £000	Vacuum £000	Unallocated items £000	Total £000
Revenue		**33,210**	**46,655**	**—**	**79,865**
Operating costs		**(28,341)**	**(34,564)**	**(2,603)**	**(65,508)**
Adjusted operating profit		**4,869**	**12,091**	**(2,603)**	**14,357**
Adjusting items	4				**(4,191)**
Operating profit					**10,166**
Net interest expense					**(693)**
Profit before tax					**9,473**
Income tax charge					**(825)**
Profit for the year					**8,648**

For the year ended 31 December 2019	Note	Materials Sciences £000	Vacuum £000	Unallocated items £000	Total £000
Revenue		34,819	47,680	—	82,499
Operating costs		(27,169)	(35,569)	(2,377)	(65,115)
Adjusted operating profit		7,650	12,111	(2,377)	17,384
Adjusting items	4				(3,274)
Operating profit					14,110
Net interest expense					(479)
Profit before tax					13,631
Income tax charge					(1,777)
Profit for the year					11,854

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

Segment assets and liabilities

At 31 December 2020	Materials Sciences £000	Vacuum £000	Unallocated items £000	Total £000
Assets	**23,566**	**31,713**	**26,747**	**82,026**
Liabilities	**(11,468)**	**(11,702)**	**(25,808)**	**(48,978)**
Net assets	**12,098**	**20,011**	**939**	**33,048**
Capital expenditure	**355**	**902**	**11**	**1,268**
Depreciation of property, plant and equipment	**285**	**591**	**50**	**926**
Depreciation of right-of-use leased assets	**465**	**413**	**57**	**935**
Amortisation	**1,345**	**1,834**	**—**	**3,179**

At 31 December 2019	Materials Sciences £000	Vacuum £000	Unallocated items £000	Total £000
Assets	20,392	30,351	19,868	70,611
Liabilities	(10,357)	(17,027)	(14,535)	(41,919)
Net assets	10,035	13,324	5,333	28,692
Capital expenditure	411	836	56	1,303
Depreciation of property, plant and equipment	189	552	30	771
Depreciation of right-of-use leased assets	410	399	54	863
Amortisation	1,209	1,530	—	2,739

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

3. Segmental analysis continued

Analysis by geographical areas

Geographic analysis	Revenue Year to 31 December 2020 £000	Revenue Year to 31 December 2019 £000	Non-current assets Year to 31 December 2020 £000	Non-current assets Year to 31 December 2019 £000
UK (domicile)	**10,167**	9,690	**39,288**	32,067
Rest of Europe	**24,784**	23,418	**—**	—
North America	**17,289**	24,459	**290**	64
China/Hong Kong	**13,721**	9,487	**—**	—
Rest of the World	**13,904**	15,445	**—**	—
	79,865	82,499	**39,578**	32,131

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

	2020 £000	2019 £000
Amortisation of intangible assets	**3,179**	2,739
Financial instruments measured at fair value: hedging contracts	**72**	(37)
Share-based payments	**317**	295
Employment taxes arising from share-based payments	**64**	—
Acquisition costs	**559**	277
Total adjusting items in operating profit	**4,191**	3,274
Retirement benefits obligation net interest cost	**53**	48
Total adjusting items	**4,244**	3,322
Taxation	**(1,204)**	(707)
Total adjusting items net of tax	**3,040**	2,615
Attributable to:		
Owners of the parent	**2,888**	2,446
Non-controlling interest	**152**	169
	3,040	2,615

5. Operating costs

	2020 £000	2019 £000
Raw materials and consumables	**31,013**	30,696
Other external charges	**8,478**	8,789
Staff costs	**24,994**	23,996
Government grants	**(838)**	—
Depreciation of property, plant and equipment	**926**	771
Depreciation of right-of-use leased assets	**935**	863
Other operating costs, excluding adjusting items	**65,508**	65,115
Amortisation of intangible assets	**3,179**	2,739
Hedging contracts	**72**	(37)
Share-based payments	**317**	295
Employment taxes arising from share-based payments	**64**	—
Acquisition costs	**559**	277
Total operating costs	**69,699**	68,389

Research and development expensed in the year totalled £6,185,000 (2019: £5,247,000). Income from government grants of £838,000 (2019: £nil) relates to claims made under the UK Government's Coronavirus Job Retention Scheme.

Notes to the consolidated financial statements continued

For the year ended 31 December 2020

6. Remuneration of key senior management

	2020 £000	2019 £000
Short-term employee benefits:		
Salaries including bonuses and social security costs	2,448	2,452
Company car allowance and other benefits	92	89
Total short-term employee benefits	2,540	2,541
Post-employment benefits:		
Defined contribution pension plans	99	87
Total post-employment benefits	99	87
	2,639	2,628

Key management personnel comprise Directors of the parent company and the managing directors of the principal operating companies and totalled 23 (2019: 20).

Remuneration of Directors is disclosed in the Remuneration Report on pages 26 to 28.

7. Employees

Employment costs

	2020 £000	2019 £000
Wages and salaries	21,898	21,003
Social security costs	2,049	2,009
Pension costs	1,047	984
	24,994	23,996
Share-based payments	317	295
	25,311	24,291

Average number of employees

	2020 No.	2019 No.
By function:		
Manufacturing	216	198
Sales and administration	296	299
	512	497
By operating segment:		
Materials Sciences	225	219
Vacuum	277	268
Head office (includes Non-Executive Directors in both years)	10	10
	512	497

8. Operating profit

	2020 £000	2019 £000
Operating profit is stated after charging:		
Fees payable to the Company's auditor:		
for the audit of the Company's annual accounts	**31**	31
Fees payable to the Company's auditor for other services:		
for the audit of the Company's subsidiaries, pursuant to legislation	**198**	159
for audit-related assurance services	**5**	5
for other assurance services	**9**	10
for corporate finance services	**40**	30
for other non-audit services	**—**	19
Depreciation of property, plant and equipment	**926**	771
Depreciation of right-of-use fixed assets	**935**	863
Amortisation of intangible assets	**3,179**	2,739

9. Interest income and expense

	2020 £000	2019 £000
Interest income – short-term bank deposits	**14**	101
Interest expense – bank loans	**(464)**	(397)
Interest expense – payable on right-of-use lease liabilities	**(190)**	(135)
Retirement benefits obligation net finance cost	**(53)**	(48)
	(707)	(580)
Net interest expense	**(693)**	(479)

10. Taxation charge/(credit)

	2020 £000	2019 £000
UK corporation tax at 19% (2019: 19%)		
Current year	**1,907**	2,719
Prior years	**(565)**	(772)
Foreign tax suffered	**102**	198
	1,444	2,145

The prior year's current tax adjustments represent claims for UK Research and Development tax credits which are primarily under the SME scheme.

Notes to the consolidated financial statements continued

For the year ended 31 December 2020

10. Taxation charge/(credit) continued

Deferred tax – origination and reversal of temporary differences:		
Current year	**(607)**	(437)
Prior years	**(130)**	21
Effect of changes in tax rates	**118**	48
	(619)	(368)
Tax on profit for the year – current year	**1,520**	2,528
Tax on profit for the year – prior years	**(695)**	(751)
	825	1,777
Factors affecting the tax charge for the year:		
Profit before tax	**9,473**	13,631
Profit before tax multiplied by standard rate of UK corporation tax of 19% (2019: 19%)	**1,800**	2,590
Share options	**(468)**	(125)
Provisions and expenditure not deductible for tax purposes	**102**	10
Changes in tax rates	**118**	46
Overseas tax	**7**	42
Utilisation of previously unrecognised losses	**(39)**	(35)
Tax on profit for the year – current year	**1,520**	2,528
Tax on profit for the year – prior years	**(695)**	(751)
Total net taxation charge	**825**	1,777

11. Dividends

	2020		2019	
	Pence per share	**£000**	Pence per share	£000
Final dividend for the previous year	**35.0**	**2,195**	28.0	1,742
Interim dividend for the current year	**16.5**	**1,036**	15.0	933
Total final and interim dividend	**51.5**	**3,231**	43.0	2,675
Special dividend	**—**	**—**	200.0	12,451
	51.5	**3,231**	243.0	15,126

The Directors will propose a final dividend of 38.5p per share, amounting to £2,425,000, for payment on 9 July 2021. 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.

12. Earnings per share

	Note	**2020 £000**	2019 £000
Profit attributable to owners of the parent			
Adjusted profit		**11,108**	13,828
Adjusting items	4	**(2,888)**	(2,446)
Profit for the year		**8,220**	11,382

	Pence	Pence
Earnings per share – adjusted		
Basic	**177.2**	222.5
Diluted	**173.9**	218.4
Earnings per share – total		
Basic	**131.1**	183.1
Diluted	**128.7**	179.8

12. Earnings per share continued

	Note	Number	Number
Issued Ordinary shares at the start of the year		**6,226,291**	6,196,678
Movement in Ordinary shares during the year	24	**72,872**	29,613
Issued Ordinary shares at the end of the year		**6,299,163**	6,226,291
Weighted average number of shares in issue		**6,269,437**	6,215,817
Dilutive effect of share options		**117,551**	115,517
Weighted average shares in issue on a diluted basis		**6,386,988**	6,331,334

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 share 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

	2020 £000	2019 £000
Cost		
1 January	**15,265**	14,650
Acquisitions (note 28)	**3,448**	615
31 December	**18,713**	15,265

Goodwill of £10,428,000 relates to the Material Sciences segment and £8,285,000 to the Vacuum segment. Goodwill is tested annually for impairment by reference to the value in use of each of the relevant cash-generating units it is allocated to and aggregated for disclosure purposes into the respective operating segments. The value in use is calculated on the basis of projected cashflows for five years. 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 2020 (2019: £nil). The key assumptions in determining the value in use are:

Revenue and margins: These are derived from the detailed 2021 budgets which are built up with reference to markets and product categories and projected margins reflect historical performance and the expected impact of efforts to improve operational efficiency, whilst reflecting the need to operate within the constraints of the COVID-19 pandemic and local government guidelines.

Discount rate: Cashflows are discounted using a pre-tax discount rate of 11.5% (2019: 10.8%) per annum, calculated by reference to year-end data on equity values and interest, dividend and tax rates.

Long-term growth rates: 3% long-term revenue growth rate takes into account both UK and overseas markets and the 3% cost growth broadly aligns with inflation, and enables gross margins to be maintained.

The long-term growth rate and discount rate are consistent for all cash-generating units on the basis that the businesses operate in similar markets and are exposed to similar risks.

The Directors have considered the sensitivity of the key assumptions, including the discount rate 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, and the conservative nature of the assumptions.

Notes to the consolidated financial statements continued

For the year ended 31 December 2020

14. Other intangible assets

	Acquired distribution agreements £000	Acquired technology £000	Acquired sales order backlog £000	Acquired brand and domain names £000	Acquired customer relationships £000	Total £000
Gross carrying amount						
1 January 2019	3,483	9,956	4,748	12,472	8,601	39,260
Acquisitions	301	583	159	302	479	1,824
31 December 2019	3,784	10,539	4,907	12,774	9,080	41,084
Acquisitions (note 28)	—	2,100	500	830	2,200	5,630
31 December 2020	**3,784**	**12,639**	**5,407**	**13,604**	**11,280**	**46,714**
Amortisation						
1 January 2019	3,173	7,498	4,748	10,237	8,231	33,887
Charge for the year	211	1,114	40	1,029	345	2,739
31 December 2019	3,384	8,612	4,788	11,266	8,576	36,626
Charge for the year	208	1,057	586	772	556	3,179
31 December 2020	**3,592**	**9,669**	**5,374**	**12,038**	**9,132**	**39,805**
Carrying amount 31 December 2020	**192**	**2,970**	**33**	**1,566**	**2,148**	**6,909**
Carrying amount 31 December 2019	400	1,927	119	1,508	504	4,458
Carrying amount 31 December 2018	310	2,458	—	2,235	370	5,373

15. Property, plant and equipment

	Plant and machinery £000	Fixtures, fittings and equipment £000	Motor vehicles £000	Property and building improvements £000	Total £000
Cost					
1 January 2019	1,500	2,337	484	4,732	9,053
Additions	418	529	24	332	1,303
Acquisitions	6	50	12	9	77
Disposals	(14)	(318)	(251)	(38)	(621)
Exchange differences	—	(7)	(6)	—	(13)
31 December 2019	1,910	2,591	263	5,035	9,799
Additions	231	563	84	390	1,268
Acquisitions (note 28)	5	114	17	103	239
Disposals	(32)	—	(43)	—	(75)
Exchange differences	—	(6)	(6)	—	(12)
31 December 2020	**2,114**	**3,262**	**315**	**5,528**	**11,219**
Accumulated depreciation					
1 January 2019	846	1,539	396	748	3,529
Charge for the year	193	370	71	137	771
Disposals	(14)	(306)	(248)	(30)	(598)
Exchange differences	—	(6)	(4)	—	(10)
31 December 2019	1,025	1,597	215	855	3,692
Charge for the year	252	439	39	196	926
Disposals	(22)	—	(43)	—	(65)
Exchange differences	—	(6)	(6)	—	(12)
31 December 2020	**1,255**	**2,030**	**205**	**1,051**	**4,541**
Net book value – 31 December 2020	**859**	**1,232**	**110**	**4,477**	**6,678**
Net book value – 31 December 2019	885	994	48	4,180	6,107
Net book value – 31 December 2018	654	798	88	3,984	5,524

16. Right-of-use leased assets

	Plant and machinery £000	Fixtures, fittings and equipment £000	Motor vehicles £000	Property £000	Total £000
Cost					
1 January 2019	—	—	—	—	—
Recognition of right-of-use assets on adoption of IFRS 16	114	84	56	2,751	3,005
New leases	—	62	25	3,031	3,118
Exit from leases	—	—	—	(1,040)	(1,040)
Exchange differences	—	—	—	(1)	(1)
31 December 2019	114	146	81	4,741	5,082
New leases	—	18	—	1,313	1,331
Acquisitions (note 28)	—	—	—	319	319
Exit from leases	—	—	—	(265)	(265)
Remeasurement of leases	—	—	—	(3)	(3)
Exchange differences	—	—	—	(1)	(1)
31 December 2020	**114**	**164**	**81**	**6,104**	**6,463**
Accumulated depreciation					
1 January 2019	—	—	—	—	—
Charge for the year	33	29	25	776	863
Exit from leases	—	—	—	(208)	(208)
Exchange differences	—	—	—	(1)	(1)
31 December 2019	33	29	25	567	654
Charge for the year	33	38	29	835	935
Acquisitions (note 28)	—	—	—	15	15
Exit from leases	—	—	—	(265)	(265)
Exchange differences	—	—	—	(1)	(1)
31 December 2020	**66**	**67**	**54**	**1,151**	**1,338**
Net book value – 31 December 2020	**48**	**97**	**27**	**4,953**	**5,125**
Net book value – 31 December 2019	81	117	56	4,174	4,428

Right-of-use lease liabilities are disclosed in note 22.

Notes to the consolidated financial statements continued

For the year ended 31 December 2020

17. Deferred tax

	2020 £000	2019 £000
Assets		
1 January	**1,873**	719
Acquisitions in the year (note 28)	**87**	20
Adjustments in respect of prior years	**—**	(12)
Movement in other comprehensive income – retirement benefits actuarial loss	**286**	81
Credit to the Consolidated Statement of Comprehensive Income in the year	**20**	38
(Charge)/credit to equity in the year	**(113)**	1,027
31 December	**2,153**	1,873
Deferred tax balances relate to temporary differences as follows:		
Provisions allowable for tax in subsequent periods	**210**	106
Share options	**1,317**	1,409
Defined benefit obligation	**626**	358
	2,153	1,873
Liabilities		
1 January	**1,447**	1,477
Acquisitions in the year (note 28)	**1,097**	312
Adjustments in respect of prior years	**(130)**	9
Credit to the Consolidated Statement of Comprehensive Income in the year	**(469)**	(351)
31 December	**1,945**	1,447
Deferred tax balances relate to temporary differences as follows:		
Accelerated capital allowances	**632**	531
Intangible assets	**1,313**	916
	1,945	1,447

Deferred tax is recognised at 19% (2019: 17%) being the UK tax rate substantively enacted from 1 April 2020.

18. Inventories

	2020 £000	2019 £000
Raw materials	**8,726**	8,084
Work in progress	**2,341**	2,348
Finished goods	**1,518**	2,111
	12,585	12,543

In 2020, a total of £31,013,000 of inventories was included in the Consolidated Statement of Comprehensive Income as an expense (2019: £30,696,000). This includes an amount of £557,000 (2019: £250,000) resulting from write-downs of inventories and an amount of £138,000 (2019: £52,000) which is the reversal of previous write-downs. The carrying amount of inventories held at fair value less costs to sell is £457,000 (2019: £515,000). All Group inventories form part of the assets pledged as security in respect of bank loans.

19. Trade and other receivables – current

	2020 £000	2019 £000
Trade receivables	**11,843**	9,593
Other receivables	**1,196**	931
Prepayments	**1,301**	1,290
	14,340	11,814

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

19. Trade and other receivables – current continued

Trade receivables which were past due at the balance sheet date are analysed as follows:

	2020 £000	2019 £000
Not more than three months	3,595	2,157
More than three months but not more than six months	735	356
More than six months but not more than twelve months	219	364
Greater than one year	56	86
	4,605	2,963

Trade and other receivables are denominated in the following currencies:

	2020 £000	2019 £000
Sterling	9,398	8,040
US Dollars	3,170	2,775
Euros	1,772	999
	14,340	11,814

20. Trade and other payables – current

	2020 £000	2019 £000
Trade payables	5,907	5,531
Social security and other taxes	972	667
Other payables	1,436	1,690
Accruals and payments-on-account	7,513	7,434
	15,828	15,322

The fair value of trade and other payables approximates to their carrying value. Payments-on-account, which relate to receipts from customers for instruments in advance of their shipment, amount to £3,957,000 (2019: £3,541,000). All such shipments are expected to be fulfilled within 12 months and £3,541,000 of the opening payments-on-account balance has been included in revenue in 2020.

21. Borrowings

	2020 £000	2019 £000
Current		
Bank loans	3,857	2,861
Subordinated loans	—	190
	3,857	3,051
Non-current		
Bank loans	17,358	11,399
	17,358	11,399

The movement in borrowings over the year was as follows:

	2020 £000	2019 £000
At 1 January	14,450	15,026
Proceeds from drawdown of loans*	14,816	2,288
Repayment of loans*	(7,857)	(2,868)
Repayment of subordinated loans	(190)	—
Interest payable	464	397
Interest paid	(468)	(393)
At 31 December	21,215	14,450

* Includes £5,000,000 borrowed as working capital buffer and subsequently repaid in 2020.

Notes to the consolidated financial statements continued

For the year ended 31 December 2020

21. Borrowings continued

In April 2018, the Group entered into new banking facilities (the "Facility") replacing its existing banking arrangements with Lloyds Banking Group. The Facility is for an aggregate £35.0 million consisting of a £10.0 million term loan, a committed £20.0 million revolving credit facility ("RCF") plus a £5.0 million accordion facility, which can be drawn at the bank's discretion. The Facility has a five-year term ("Borrowing Term") with covenants and interest consistent with the previous bank facilities. The term loan amortises over the Borrowing Term by quarterly instalments. The RCF is repayable in a bullet at the end of the Borrowing Term. The existing facilities via Bordeaux Acquisition Limited, the Group's 75.5% owned subsidiary, remain unchanged. In November 2020, the Group activated the £5.0 million accordion facility, bringing the overall RCF £25.0 million.

At the year end, the Group's three bank loans are summarised as follows:

- The first loan of £4,500,000 (2019: £6,500,000) is repayable in quarterly instalments over the period ending 31 March 2023 and bears interest at 1.6% to 2.75% (depending upon gearing) above LIBOR-related rates.
- The second loan of £15,000,000 (2019: £5,188,000) is repayable by 31 March 2023 and bears interest at 1.75% to 2.75% (depending upon gearing) above LIBOR-related rates. The increase relates to the acquisitions of Thermal Hazard Technology Limited in May 2020 and Korvus Technology Limited in October 2020 (see note 28).
- The third loan of £1,715,000 (2019: £2,572,000) 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 previously advanced by non-controlling shareholders in Bordeaux Acquisition Limited were repaid in full in December 2020.

Borrowings mature as follows:

31 December 2020	Bank loans £000	Subordinated loan £000	Total £000
Repayable in less than six months	2,115	—	2,115
Repayable in months seven to twelve	2,100	—	2,100
Current portion of long-term borrowings	4,215	—	4,215
Repayable in years one to five	17,704	—	17,704
Total borrowings	21,919	—	21,919
Less: interest included above	(704)	—	(704)
Less: cash and cash equivalents	(15,523)	—	(15,523)
Total net debt	5,692	—	5,692

31 December 2019	Bank loans £000	Subordinated loan £000	Total £000
Repayable in less than six months	1,614	190	1,804
Repayable in months seven to twelve	1,593	—	1,593
Current portion of long-term borrowings	3,207	190	3,397
Repayable in years one to five	11,896	—	11,896
Total borrowings	15,103	190	15,293
Less: interest included above	(843)	—	(843)
Less: cash and cash equivalents	(14,123)	—	(14,123)
Total net debt	137	190	327
Adjusting items			
Subordinated debt to non-controlling shareholders			(190)
Accrued deferred consideration			1,896
Adjusted net debt			2,033

22. Right-of-use lease liabilities

The movement in the right-of-use lease liabilities over the year was as follows:

	2020 £000	2019 £000
At 1 January	4,446	—
Recognition of right-of-use lease liabilities on adoption of IFRS 16	—	2,912
New leases (note 16)	1,331	3,118
Lease liabilities acquired on acquisition (note 28)	302	—
Remeasurement of lease liabilities	(5)	—
Interest payable (note 9)	190	135
Exits from leases	—	(793)
Repayments of lease liabilities	(1,108)	(926)
At 31 December	5,156	4,446

Right-of-use lease assets are disclosed in note 16.

Lease liabilities mature as follows:

	2020 £000	2019 £000
Minimum right-of-use lease liabilities falling due		
Within one year – land and property	1,038	818
Within one year – vehicles	30	29
Within one year – plant and machinery	34	34
Within one year – fixtures, fittings and equipment	36	37
	1,138	918
Between one and five years – land and property	3,245	2,315
Between one and five years – vehicles	22	31
Between one and five years – plant and machinery	17	52
Between one and five years – fixtures, fittings and equipment	57	94
	3,341	2,492
Greater than five years – land and property	1,425	1,769
Total commitment	5,904	5,179
Less: finance charges included above	(748)	(733)
Net present value of lease liabilities	5,156	4,446
Current	947	757
Non-current	4,209	3,689

23. Financial instruments

The Group's policies on treasury management, capital management objectives and financial instruments are given in the Directors' Report commencing on page 29.

Fair value of financial instruments

Financial instruments include the borrowings set out in note 21. The Group enters into derivative financial instruments in order to manage its interest rate and foreign currency exposure. The principal derivatives used include foreign currency options and interest rate swaps. Material changes in the carrying values of these instruments are recognised in the Consolidated Statement of Comprehensive Income in the periods in which the changes arise. Such recognition is treated as an adjusting item in the Consolidated 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 £25.0 million. At 31 December 2020 the Group had drawn £15,000,000 (2019: £5,188,000).

Notes to the consolidated financial statements continued

For the year ended 31 December 2020

23. Financial instruments continued

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 20.

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.

	2020 £000	2019 £000
Summary of financial assets and financial liabilities by category		
Financial assets		
Trade and other receivables	**13,039**	10,524
Cash and cash equivalents	**15,523**	14,123
Total financial assets	**28,562**	24,647
Financial liabilities – amortised cost		
Trade payables	**(5,907)**	(5,531)
Accruals	**(3,556)**	(3,893)
Other payables	**(1,318)**	(1,644)
Trade and other payables relating to acquisitions	**—**	(1,896)
Right-of-use lease liabilities	**(5,156)**	(4,446)
Current portion of long-term borrowings	**(3,857)**	(3,051)
Long-term borrowings	**(17,358)**	(11,399)
Financial liabilities – fair value		
Derivative financial instruments	**(118)**	(46)
Total financial liabilities	**(37,270)**	(31,906)
Net financial (liabilities)/assets	**(8,708)**	(7,259)
Non-financial assets and liabilities		
Goodwill	**18,713**	15,265
Other intangible assets	**6,909**	4,458
Property, plant and equipment	**6,678**	6,107
Right-of-use leased assets	**5,125**	4,428
Inventories	**12,585**	12,543
Prepayments	**1,301**	1,290
Social security and other taxes	**(972)**	(667)
Retirement benefit obligations	**(3,295)**	(2,100)
Payments-on-account	**(3,957)**	(3,541)
Current tax payable	**(1,539)**	(2,258)
Deferred tax assets	**2,153**	1,873
Deferred tax liabilities	**(1,945)**	(1,447)
	41,756	35,951
Total equity	**33,048**	28,692

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 Consolidated Statement of Comprehensive Income are £14,000 (2019: £101,000) (see note 9).

23. Financial instruments continued

Financial assets continued

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 Consolidated Statement of Comprehensive Income amounted to £654,000 (2019: £532,000) (see note 9).

24. Share capital

	2020 £000	2019 £000
Allotted, called up and fully paid – Ordinary shares of 5p each		
1 January: 6,226,291 shares (2019: 6,196,678 shares)	311	310
Exercise of share options: 72,872 shares (2019: 29,613 shares)	4	1
31 December: 6,299,163 shares (2019: 6,226,291 shares)	315	311

Allotments of Ordinary shares in 2020 were made to satisfy the exercise of 72,872 share options in aggregate on 28 occasions during the year when the share price was within the range of 4300p to 6300p (2019: exercise of 29,613 share options when the share price was within the range 2660p to 5040p).

Throughout 2020, the Group continued to award a free "matching share" under the Judges Scientific plc Share Incentive Plan for every share purchased up to a maximum value of £600 per employee per tax year. During 2020, an average of 163 employees participated in the scheme each month (2019: 135 employees), purchasing 6,122 shares in total, including matching shares (2019: 6,999 shares). At 31 December 2020, there were 205 employee shareholders in this Share Incentive Plan.

The market price of the Company's Ordinary shares at 31 December 2020 was 6380p. The share price range during the year was 3400p to 6460p.

25. Share-based payments

Equity share options

At 31 December 2020, options had been granted and remained outstanding in respect of 160,026 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 2020 Number	Granted Number	Lapsed Number	Exercised Number	At 31 December 2020 Number	Of which exercisable Number	Weighted average exercise price (p)
2005 Approved Option Scheme	25,425	—	(750)	(9,175)	15,500	15,500	1146.8
2005 Unapproved Option Scheme	43,200	—	—	(38,000)	5,200	5,200	1233.8
2015 Approved Option Scheme	34,149	3,157	(803)	(8,687)	27,816	18,116	1534.2
2015 Unapproved Option Scheme	125,526	2,994	—	(17,010)	111,510	96,065	1599.6
	228,300	6,151	(1,553)	(72,872)	160,026	134,881	

2005 Option Scheme

Exercise prices for the year ended 31 December 2020 ranged between 470.0p and 1473.0p per share (2019: between 92.0p and 2317.5p per share). The unexercised options have a weighted average remaining contractual life of 2.02 years (2019: 3.84 years).

2015 Option Scheme

Exercise prices for the year ended 31 December 2020 ranged between 1402.5p and 2025.0p per share (2019: between 1402.5p and 1715.0p per share). The unexercised options have a weighted average remaining contractual life of 6.49 years (2019: 7.19 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 – 1.0%;
- historical volatility – 29.7%;
- dividend yield – 1.0%; and
- expected life of option – 5.0 years.

Notes to the consolidated financial statements continued

For the year ended 31 December 2020

25. Share-based payments continued

Growth reward plan

The Group has an annual scheme for subsidiary management whereby upon achievement of certain compound growth targets they will receive Judges shares. Any award, which is accounted for as equity settled, will be deferred for three years, consistent with the vesting of share options.

The total share-based payment charge for the year ended 31 December 2020 was £317,000 (2019: £295,000).

26. Other reserves

	Capital redemption reserve £000	Merger reserve £000	Translation reserve £000	Total £000
Balance at 1 January 2020	**23**	**1,968**	**68**	**2,059**
Issue of share capital	—	—	—	—
Transactions with owners	—	—	—	—
Exchange differences on translation of foreign subsidiaries	—	—	**(82)**	**(82)**
Total comprehensive income	—	—	**(82)**	**(82)**
Balance at 31 December 2020	**23**	**1,968**	**(14)**	**1,977**

	Capital redemption reserve £000	Merger reserve £000	Translation reserve £000	Total £000
Balance at 1 January 2019	23	1,968	130	2,121
Issue of share capital	—	—	—	—
Transactions with owners	—	—	—	—
Exchange differences on translation of foreign subsidiaries	—	—	(62)	(62)
Total comprehensive income	—	—	(62)	(62)
Balance at 31 December 2019	23	1,968	68	2,059

27. 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 Dollars 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 IFRS 9.

The table below summarises the foreign currency hedged at year end, and which is expected to be settled within the first four months of 2021. Residual exposure is the difference between the net exposure and the amounts of currency hedges, both translated into Sterling at each measurement date.

31 December 2020	Sterling equivalent of US$ £000	Sterling equivalent of € £000
Amount of foreign currency hedged at year end	**3,250**	**1,500**
Residual exposure at year end – long/(short)	**524**	**473**
Impact on pre-tax profits of a 5% variation in exchange rate on year-end residual exposure	**26**	**24**
Impact on equity of a 5% variation in exchange rate on year-end residual exposure	**21**	**19**

27. Risk management objectives and policies continued

Foreign currency sensitivity continued

31 December 2019	Sterling equivalent of US$ £000	Sterling equivalent of € £000
Amount of foreign currency hedged at year end	3,250	1,500
Residual exposure at year end – long/(short)	656	(117)
Impact on pre-tax profits of a 5% variation in exchange rate on year-end residual exposure	33	(6)
Impact on equity of a 5% variation in exchange rate on year-end residual exposure	27	(5)

In addition to the hedging of this foreign currency exposure, the Group seeks to mitigate the impact of currency fluctuations on future trading performance. This was achieved at 31 December 2020 by entering into currency options to sell €2.6 million and $6.4 million for the rest of 2021, at predetermined exchange rates.

The fair value of the hedging financial instruments is a liability of £67,000 (2019: £20,000).

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 cash, 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 and the fair value of interest rate swaps is a liability of £50,000 (2019: liability of £26,000). The Group's sensitivity to interest rate changes is as follows:

	2020 £000	2019 £000
Unhedged bank loans outstanding at year end	14,500	6,688
Impact on pre-tax profits of a 1% change in LIBOR	145	67
Impact on equity of a 1% change in LIBOR	117	54
Cash at year end	15,523	14,123
Impact on pre-tax profits of a 1% change in bank base rates	155	141
Impact on equity of a 1% change in bank base rates	126	114

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:

	2020 £000	2019 £000
Cash and cash equivalents	15,523	14,123
Trade and other receivables	13,039	10,524
	28,562	24,647

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 monitor the ageing of trade receivable to identify balances where there is no reasonable expectation of recovery (see note 19). None of the financial assets are secured by collateral or other credit enhancements.

Group companies generally trade through overseas agents and distributors, and credit exposure to an individual agent or distributor can be significant at times. At 31 December 2020, no counterparty owed more than 10% of the Group's total trade and other receivables (2019: 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 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 requirement for financing is satisfied for the foreseeable future by a £20.0 million revolving acquisition facility together with a £5.0 million uncommitted accordion facility provided by Lloyds Banking Group. 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 21. The maturity of all trade and other payables is within the period of less than six months.

Notes to the consolidated financial statements continued

For the year ended 31 December 2020

28. Acquisitions

Acquisition of Heath Scientific Company Limited

On 29 May 2020 the Company acquired 100% of the issued share capital of Heath Scientific Company Limited, together with its wholly owned subsidiaries Thermal Hazard Technology Limited and THT Inc. ("THT"). THT is based in Bletchley, Buckinghamshire and specialises in the design and manufacture of scientific instruments focusing on calorimeters that are principally used to quantify thermal properties of lithium batteries as well as other reactive chemicals and materials.

The initial purchase price of THT, paid in cash at completion, amounted to £5.3 million. Additionally, an earn-out was payable based on THT's adjusted EBIT in the year to 30 April 2020, capped at £2.0 million, together with an amount to reflect any excess cash and working capital over and above the ongoing requirements of the business. The earn-out was achieved in full and the excess cash was covered by cash inherited at the completion date. Both amounts were paid in August 2020.

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

Consideration	£000
Initial cash consideration	5,274
Earn-out	2,026
	7,300
Gross cash inherited on acquisition	969
Cash retained in the business	(226)
Payment in respect of surplus working capital	743
Total consideration	8,043
Acquisition-related transaction costs charged to the Consolidated Statement of Comprehensive Income	384

The acquisition of THT was financed via drawdown from the Group's £35.0 million acquisition facility from Lloyds Bank Corporate Markets.

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

	Book value £000	Accounting policy alignments £000	Fair value adjustments £000	Fair value £000
Intangible assets	—	—	4,250	4,250
Property, plant and equipment	263	(39)	—	224
Right-of-use leased assets	—	267	—	267
Deferred tax assets	—	—	77	77
Inventories	992	—	(62)	930
Trade and other receivables	1,126	—	(232)	894
Cash and cash equivalents	969	—	—	969
Total assets	3,350	228	4,033	7,611
Deferred tax liabilities	(27)	—	(808)	(835)
Trade payables	(788)	—	(111)	(899)
Right-of-use lease liabilities	—	(267)	—	(267)
Current tax liability	(99)	—	—	(99)
Total liabilities	(914)	(267)	(919)	(2,100)
Net identifiable assets and liabilities	2,436	(39)	3,114	5,511
Total consideration				8,043
Goodwill recognised				2,532

The intangible assets recognised reflect recognition of acquired customer relationships, the value of the acquired future committed order book, acquired technology together with brand and domain names. A significant amount of the value of the acquired business is attributable to its workforce and sales knowhow and contributes to the goodwill recognised upon acquisition. This goodwill has been allocated to the Materials Sciences segment.

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. Additional fair value adjustments include stock, doubtful debt, commission and warranty provisions together with any related deferred tax. Adjustments to property, plant and equipment and right-of-use assets and liabilities were made to align with Group accounting policies.

28. Acquisitions continued

Acquisition of Heath Scientific Company Limited continued

This acquisition resulted in a profit after tax (before adjusting items) attributable to owners of the parent company of £400,000 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 £395,000 after tax.

If the acquisition had completed on 1 January 2020, based on pro-forma results, revenue for the Group for the year ended 31 December 2020 would have increased by a further £2,100,000 and profit after tax (before adjusting items) attributable to the owners of the parent company would have increased by a further £360,000 after allowing for interest costs. Amortisation of intangible assets on a pro-forma basis from 1 January 2020 to the date of acquisition would have been £645,000.

Acquisition of Korvus Technology Limited

On 19 October 2020 the Company acquired 100% of the issued share capital of Korvus Technology Limited ("Korvus"). Korvus is based in Tavistock, Devon, and specialises in the design and manufacture of vapour deposition systems used to coat materials with thin films and are used for academic and industrial research.

The initial purchase price of Korvus, paid in cash at completion, amounted to £2.6 million. Additionally, an earn-out of up to £0.4 million is payable based on Korvus' adjusted EBIT in the year to 31 March 2021, together with an amount to reflect any excess cash and working capital over and above the ongoing requirements of the business. The excess cash was covered by cash inherited at the completion date and was paid in December 2020.

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

Consideration	£000
Initial cash consideration	2,640
Earn-out	—
	2,640
Gross cash inherited on acquisition	394
Cash retained in the business	(194)
Payment in respect of surplus working capital	200
Total consideration	2,840
Acquisition-related transaction costs charged to the Consolidated Statement of Comprehensive Income	175

The acquisition of Korvus was primarily financed via drawdown from the Group's £35 million acquisition facility from Lloyds Bank Corporate Markets.

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

	Book value £000	Accounting policy alignments £000	Fair value adjustments £000	Fair value £000
Intangible assets	—	—	1,380	1,380
Property, plant and equipment	15	—	—	15
Right-of-use leased assets	—	37	—	37
Deferred tax assets	—	—	10	10
Inventories	264	—	(53)	211
Trade and other receivables	403	(3)	—	400
Cash and cash equivalents	394	—	—	394
Total assets	1,076	34	1,337	2,447
Deferred tax liabilities	—	—	(262)	(262)
Trade payables	(49)	—	—	(49)
Right-of-use lease liabilities	—	(35)	—	(35)
Current tax liability	(177)	—	—	(177)
Total liabilities	(226)	(35)	(262)	(523)
Net identifiable assets and liabilities	850	(1)	1,075	1,924
Total consideration				2,840
Goodwill recognised				916

Notes to the consolidated financial statements continued

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28. Acquisitions continued

Acquisition of Korvus Technology Limited continued

Intangible assets recognised were acquired customer relationships, the value of the acquired future committed order book, acquired technology and Korvus' brand. The goodwill recognised, inclusive of the workforce and knowhow, has been allocated to the Vacuum Sciences segment.

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. A further fair value adjustment was made to inventory provisions together with the related deferred tax. Adjustments to property, plant and equipment and right-of-use assets and liabilities were made to align with Group accounting policies.

This acquisition resulted in a profit after tax (before adjusting items) attributable to owners of the parent company of £136,000 in the period post-acquisition. After amortisation of intangible assets, the contribution to owners of the parent company's results amounted to a profit of £39,000 after tax.

If the acquisition had completed on 1 January 2020, based on pro-forma results, revenue for the Group for the year ended 31 December 2020 would have increased by a further £1,000,000 and profit after tax (before adjusting items) attributable to the owners of the parent company would have increased by a further £375,000 after allowing for interest costs. Amortisation of intangible assets on a pro-forma basis from 1 January 2020 to the date of acquisition would have been £245,000.

Increased shareholding in PE.fiberoptics Limited

On 31 March 2020, Judges purchased the remaining 25.5% minority shareholding held in PE.fiberoptics Limited ("PFO") for a cash consideration of £1.1 million. As a result, Judges increased its ownership of the shares in PFO from 74.5% to 100%. The transaction was financed from Judges existing cash resources.

As this acquisition results in the entity becoming a wholly owned subsidiary, the purchase was accounted for by reducing the Non-Controlling Interest as at the date of the acquisition to £nil, and the remaining balance recorded through equity reserves.

Acquisition of Moorfield Nanotechnology Limited

No changes were made to the provisional acquisition accounting as presented in the 2019 Annual Report and Accounts.

Post balance sheet increase of shareholding in Bordeaux Acquisition Limited

On 16 February 2021, Judges acquired 12.5% of the shares in Bordeaux Acquisition Limited for a cash consideration of £1.8 million, increasing its shareholding from 75.5% to 88%. The transaction was financed from Judges existing cash resources.

29. 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 2020 and the retirement benefit liability was independently revalued as at 31 December 2020. 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 19 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 2020 was in accordance with the scheme funding requirements of the Pensions Act 2004 and the funding of the plan is agreed between Armfield Limited 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 annual contributions be increased to £400,000 with a 2.5% annual inflationary increase thereafter to eliminate the existing deficit over a period of nine years. The next full actuarial valuation will be carried out no later than 31 March 2023. The asset investment strategy is the responsibility of the trustees. There were four insured pensions which were not separately valued as part of the recent valuation. These pensions, which do not affect the overall valuation as they are a liability with a fully insured offsetting asset, are considered by the independent actuary to consist of a maximum of 3% of the total scheme liabilities.

Summary	**31 December 2020 £000**	31 December 2019 £000	31 December 2018 £000
Fair value of plan assets	**6,874**	6,349	5,612
Present value of defined benefit obligation	**(10,169)**	(8,449)	(7,448)
Deficit in scheme	**(3,295)**	(2,100)	(1,836)
Deferred tax	**626**	357	312
Net retirement benefit obligation	**(2,669)**	(1,743)	(1,524)

29. Retirement benefit obligations continued

Defined benefit obligations continued

Changes in the fair value of plan assets	31 December 2020 £000	31 December 2019 £000
1 January	6,349	5,612
Interest income	134	158
Return on plan assets (excluding amounts in interest income)	322	505
Contributions by the Company	236	236
Expenses	(1)	—
Benefits paid	(166)	(162)
31 December	6,874	6,349

The actual return on plan assets for the year ended 31 December 2020 was £456,000 (2019: £663,000).

Changes in the fair value of defined benefit pension obligations	31 December 2020 £000	31 December 2019 £000
1 January	8,449	7,448
Current service cost	—	—
Past service cost	10	—
Expenses	—	—
Interest expense	176	206
Actuarial losses due to scheme experience	136	—
Actuarial losses/(gains) due to changes in demographic assumptions	211	(82)
Actuarial losses due to financial assumptions	1,353	1,039
Benefits paid	(166)	(162)
31 December	10,169	8,449

There were no plan amendments, curtailments or settlements in the above years. The estimated Guaranteed Minimum Pension ("GMP") equalisation impact, which would equalise for the different effects of GMPs between men and women, is expected to have no material impact on the defined benefit obligation above.

Major categories of plan assets	31 December 2020 £000	31 December 2019 £000	31 December 2018 £000
Quoted equities	3,570	3,423	2,801
Bonds	2,598	2,421	2,276
Property	498	495	494
Cash and other assets	208	10	41
	6,874	6,349	5,612

Principal actuarial assumptions	31 December 2020 %	31 December 2019 %
Discount rate	1.35	2.10
Inflation rate (RPI)	3.10	3.00
Inflation rate (CPI)	2.30	2.10
In payment pension increases	3.35	3.30
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 S3PxA, projected using the CMI 2019 model with a 1.25% per annum long-term rate of improvement for males and a 1.00% per annum long-term rate of improvement for females.

The life expectancies assumed are as follows:

	Life expectancy at age 65 (years)
Male retiring in 2020	22.1
Female retiring in 2020	24.2
Male retiring in 2040	23.4
Female retiring in 2040	25.4

Notes to the consolidated financial statements continued

For the year ended 31 December 2020

29. Retirement benefit obligations continued

Sensitivity

The significant actuarial assumptions in determining the defined benefit obligation are the discount rate, the rate of mortality and the 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	500
Inflation rate – increase by 0.25% per annum	91
Mortality rate – increase of one year in life expectancy	456

The above shows the impact on the defined benefit obligation if the assumptions were changed as shown (assuming all other assumptions remain constant). 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.

30. Non-controlling interests

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

	2020 £000	2019 £000
Non-current assets	425	1,224
Current assets	6,184	7,515
Total assets	6,609	8,739
Current liabilities	(2,135)	(3,522)
Non-current liabilities	(972)	(1,933)
Total liabilities	(3,107)	(5,455)
Total equity	3,502	3,284
Attributable to:		
Owners of the parent	2,644	2,463
Non-controlling interest	858	821

	2020 £000	2019 £000
Revenue	8,901	11,518
Profit for the year	1,747	1,856
Attributable to:		
Owners of the parent	1,319	1,384
Non-controlling interest	428	472

	2020 £000	2019 £000
Net cash from operating activities	2,346	3,645
Net cash used in investing activities	(79)	(98)
Net cash used in financing activities	(1,026)	(1,506)
Net cash inflow/(outflow)	1,241	2,041

Parent company balance sheet

As at 31 December 2020

	Note	2020 £000	2019 £000
Fixed assets			
Tangible assets	3	632	671
Right-of-use leased assets	4	233	275
Investments in subsidiaries	5	51,980	40,611
		52,845	41,557
Current assets			
Debtors	6	18,362	21,841
Cash and cash equivalents		—	—
		18,362	21,841
Creditors: amounts falling due within one year	7	(6,690)	(6,529)
Right-of-use lease liabilities falling due within one year	9	(59)	(54)
Net current assets		11,613	15,258
Total assets less current liabilities		64,458	56,815
Creditors: amounts falling due after more than one year	8	(16,500)	(9,684)
Right-of-use lease liabilities falling due after more than one year	9	(183)	(227)
Total net assets		47,775	46,904
Capital and reserves			
Called up share capital	11	315	311
Share premium		16,429	15,453
Capital redemption reserve		23	23
Retained earnings		31,008	31,117
Shareholders' funds		47,775	46,904

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

In accordance with the exemptions permitted by section 408 of the Companies Act 2006, the Statement of Comprehensive Income of the parent company has not been presented. Profit for the year totalled £2,918,000 (2019: £8,634,000).

These parent company financial statements were approved by the Board on 22 March 2021.

David Cicurel
Director

Brad Ormsby
Director

Parent company statement of changes in equity

For the year ended 31 December 2020

	Share capital £000	Share premium £000	Capital redemption reserve £000	Retained earnings £000	Total equity £000
At 1 January 2020	**311**	**15,453**	**23**	**31,117**	**46,904**
Dividends	—	—	—	(3,231)	(3,231)
Issue of share capital	4	976	—	—	980
Deferred tax on share-based payments	—	—	—	(113)	(113)
Share-based payments	—	—	—	317	317
Transactions with owners	**4**	**976**	**—**	**(3,027)**	**(2,047)**
Profit for the year	—	—	—	2,918	2,918
Total comprehensive income for the year	**—**	**—**	**—**	**2,918**	**2,918**
At 31 December 2020	**315**	**16,429**	**23**	**31,008**	**47,775**
At 1 January 2019	310	15,164	23	36,287	51,784
Dividends	—	—	—	(15,126)	(15,126)
Issue of share capital	1	289	—	—	290
Deferred tax on share-based payments	—	—	—	1,027	1,027
Share-based payments	—	—	—	295	295
Transactions with owners	1	289	—	(13,804)	(13,514)
Profit for the year	—	—	—	8,634	8,634
Total comprehensive income for the year	—	—	—	8,634	8,634
At 31 December 2019	311	15,453	23	31,117	46,904

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

Notes to the parent company financial statements

For the year ended 31 December 2020

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 publicly available Group accounts of Judges Scientific plc.

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

The carrying value of investments is assessed based on the current trading performance, the expected future performance and net assets of the investment.

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

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 Company. 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 Company 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.

Notes to the parent company financial statements continued

For the year ended 31 December 2020

2. Summary of significant accounting policies continued

Financial assets

Financial assets consist of loans, debtors, 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.

Debtors

Debtors are recognised and carried at the original invoice amount less an allowance for uncollectable amounts. An estimate of uncollectable amounts is made upon initial recognition of the debtor, and also when collection of the amount is no longer probable. Uncollectable amounts are written off to the Statement of Comprehensive Income when identified.

Investments

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

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 creditors 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.

Leases

Any contract entered into, which contains an identified asset, whose use the Company has the right to direct throughout the period of the lease, and the right to obtain substantially all of the economic benefits from, is accounted for as a lease. At lease commencement date, the Company recognises a right-of-use leased asset and a lease liability on the balance sheet. The lease liability is measured at the present value of the total lease payments due, discounted using the interest rate implicit in the lease if readily available, or at the Group's incremental borrowing rate. The right-of-use asset is measured at cost, being the lease liability, plus any initial direct costs incurred by the Group, or lease payments made in advance of the commencement date.

Right-of-use assets are depreciated on a straight-line basis to the end of the lease term.

The Company assesses the right-of-use asset for impairment when such indicators exist. Lease liabilities are remeasured to reflect any reassessment or modification of the lease – when the lease liability is remeasured, the corresponding adjustment is reflected in the right-of-use leased asset, or in the Statement of Comprehensive Income if the asset is already reduced to zero.

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.

Retained earnings

Retained earnings represents retained profits and losses.

2. Summary of significant accounting policies continued

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. Dividend income is recognised when the shareholder's right to receive payment is established.

3. Tangible assets

	Property and leasehold improvements £000	Fixtures, fittings and equipment £000	Total £000
Cost			
1 January 2020	797	76	873
Additions	—	11	11
31 December 2020	**797**	**87**	**884**
Depreciation			
1 January 2020	181	21	202
Charge for the year	29	21	50
31 December 2020	**210**	**42**	**252**
Net book value – 31 December 2020	**587**	**45**	**632**
Net book value – 31 December 2019	616	55	671

4. Right-of-use leased assets

	Land and property £000	Fixtures, fittings and equipment £000	Total £000
Cost			
1 January 2020	329	—	329
Additions	—	18	18
31 December 2020	**329**	**18**	**347**
Depreciation			
1 January 2020	54	—	54
Remeasurement of lease liability	3	—	3
Charge for the year	54	3	57
31 December 2020	**111**	**3**	**114**
Net book value – 31 December 2020	**218**	**15**	**233**
Net book value – 31 December 2019	275	—	275

5. Investments in subsidiaries

	2020 £000	2019 £000
Cost		
1 January	**40,611**	40,611
Additions	**11,953**	—
Repayment of subordinated debt in Bordeaux Acquisition Limited	**(584)**	—
31 December	**51,980**	40,611

Notes to the parent company financial statements continued

For the year ended 31 December 2020

5. Investments in subsidiaries continued

The Company's subsidiaries at 31 December 2020, 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" and "C" Ordinary 1p	100%
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%
Moorfield Nanotechnology Limited*	Design, manufacture and distribution of instruments that prepare samples for examination in electron microscopes	Ordinary £1	100%
Sircal Instruments (U.K.) 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 to enable observation of objects under a microscope	Ordinary £1	75.5%
Oxford Cryosystems Limited*	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 Company 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%
Thermal Hazard Technology Limited	Design and manufacture of calorimeters	Ordinary £1	100%
Thermal Hazard Technology Inc. (USA)*	Sale of calorimeters	Common Shares	100%
Korvus Technology Limited	Design and manufacture of deposition systems	Ordinary £1	100%
Judges Capital Limited	Holding company	Ordinary £1	100%
Heath Scientific Company Limited*	Dormant	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.

The head office for each of the UK subsidiaries is 52c Borough High Street, London SE1 1XN. The address for each of the US subsidiaries is 9 Trenton–Lakewood Road, Clarksburg, NJ 08510, USA.

6. Debtors

	2020 £000	2019 £000
Amounts owed by Group companies	**16,440**	19,768
Prepayments and accrued income	**657**	709
Deferred tax asset (note 10)	**1,265**	1,364
	18,362	21,841

Included in amounts owed by Group companies are:

- the sum of £13,686,000 (2019: £16,218,000) which is repayable on demand at any time after 30 June 2021 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;
- the sum of £1,085,000 (2019: £1,588,000) which is repayable on demand at any time after 30 June 2021 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;
- the sum of £651,000 (2019: £1,351,000) 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. In accordance with IFRS 9, expected credit losses for amounts due from subsidiaries has been determined at inception. There has been no significant increase in credit risk associated with the amounts due since initial recognition. The intercompany balance is expected to be recovered from the operating cashflows of the underlying subsidiary entities.

7. Creditors: amounts falling due within one year

	2020 £000	2019 £000
Bank overdraft	**1,868**	2,663
Current portion of bank loans	**3,000**	2,005
Trade and other payables	**333**	334
Amounts owed to Group companies	**82**	—
Corporation tax	**63**	243
Social security and other taxes	**309**	261
Other creditors	**417**	266
Accruals and deferred income	**618**	757
	6,690	6,529

8. Creditors: amounts falling due after more than one year

	2020 £000	2019 £000
Bank loans	**16,500**	9,684

The bank loans are detailed in note 21 of the consolidated financial statements of the Group.

The repayment profile of borrowings is as follows

	Bank loans £000
Repayable in less than one year	3,322
Repayable in years one to five	16,833
	20,155
Less: interest included above	655
	19,500

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 £67,000 (2019: £20,000), in addition to a fair value liability of £50,000 (2019: liability of £26,000) on interest rate swaps. These transactions have been recognised in these accounts and are held within other creditors.

The parent company guarantees a bank loan advanced to its 75.5% owned subsidiary, Bordeaux Acquisition Limited, amounting to £1,715,000 at 31 December 2020 (2019: £2,572,000).

Notes to the parent company financial statements continued

For the year ended 31 December 2020

9. Right-of-use lease liabilities

The movement in the right-of-use lease liability over the year was as follows:

	2020 £000	2019 £000
At 1 January 2020	281	—
Recognition of right-of-use lease liabilities on adoption of IFRS 16	—	332
New leases	18	—
Interest payable	10	23
Remeasurement of lease liabilities	(4)	—
Repayments of lease liabilities	(63)	(74)
At 31 December 2020	242	281

Lease liabilities mature as follows:

	2020 £000	2019 £000
Minimum right-of-use lease liabilities falling due		
Within one year – land and property	63	63
Within one year – fixtures, fittings and equipment	4	—
	67	63
Between one and five years – land and property	178	241
Between one and five years – fixtures, fittings and equipment	12	—
	190	241
Total commitment	257	304
Less: finance charges included above	(15)	(23)
Net present value of lease liabilities	242	281
Current	59	54
Non-current	183	227

10. Deferred tax asset

	2020 £000
1 January	1,364
Credit to the Statement of Comprehensive Income	14
Credited to equity	(113)
31 December	1,265

Deferred tax is recorded at a rate of 19% and relates to accelerated capital allowances and share options.

11. Share capital and share-based payments

Details relating to the parent company's share capital are set out in notes 24 and 25 to the consolidated financial statements.

12. 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 loan was repaid in full during 2020 (2019: £190,000 outstanding). There were no interest or repayment terms to these advances.

Dividends paid in the year to Directors who hold shares amounted to £492,000 in aggregate (2019: £2,320,000).

13. Directors and employees

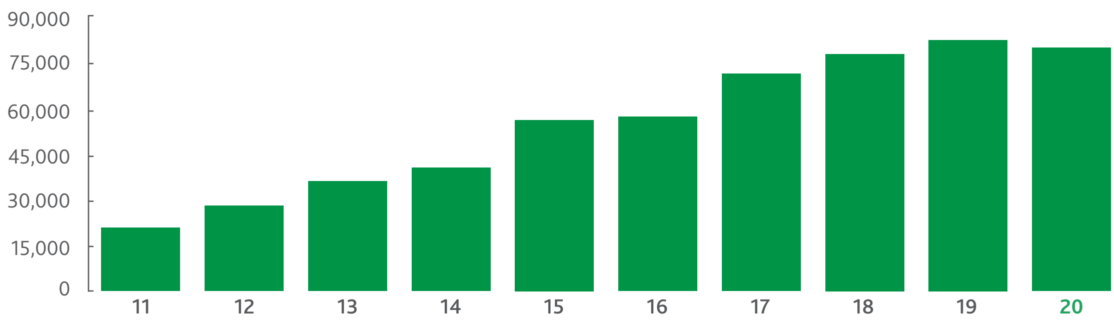
	2020 £000	2019 £000
Staff costs (including Directors)		
Wages and salaries	943	1,100
Social security costs	104	140
Other pension costs	10	14
	1,057	1,254
Total Directors' emoluments		
Emoluments	758	808
Defined contribution pension scheme contributions	3	8
	761	816
Emoluments of the highest paid Director		
Emoluments	231	243

During the year, one Director participated in a defined contribution pension scheme (2019: one).

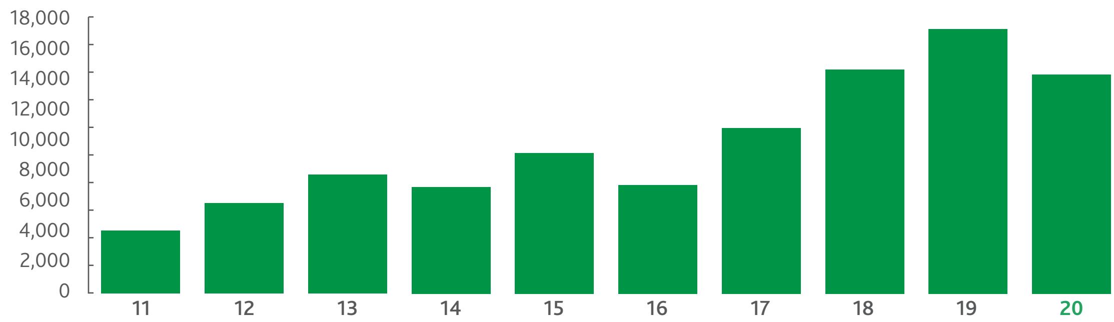
	2020 Number	2019 Number
Average number of persons employed		
Directors	7	7
Administrative staff	3	3
Total	10	10

Ten year financial history

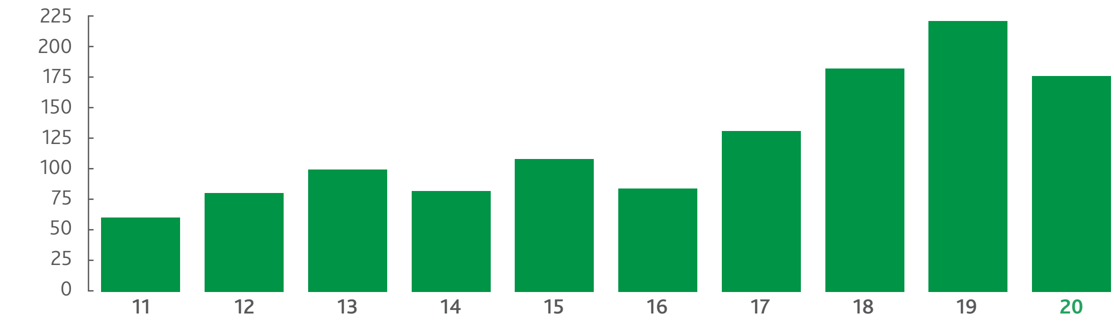
Revenue (£000)



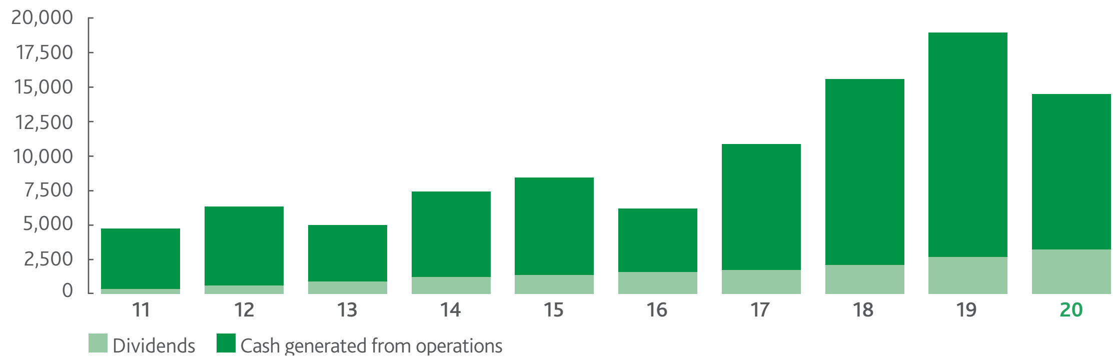
Adjusted operating profit (£000)



Adjusted undiluted basic earnings per share (pence)



Cash generated from operations and dividends (£000)



Dividends exclude the special dividend paid in December 2019.

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)
Charles John Arthur Holroyd (Non-Executive Director)
Lushani Kodituwakku (Non-Executive Director)

Company Secretary

Glynn Carl Reece

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Statutory Auditor
Chartered Accountants
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Solicitors

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