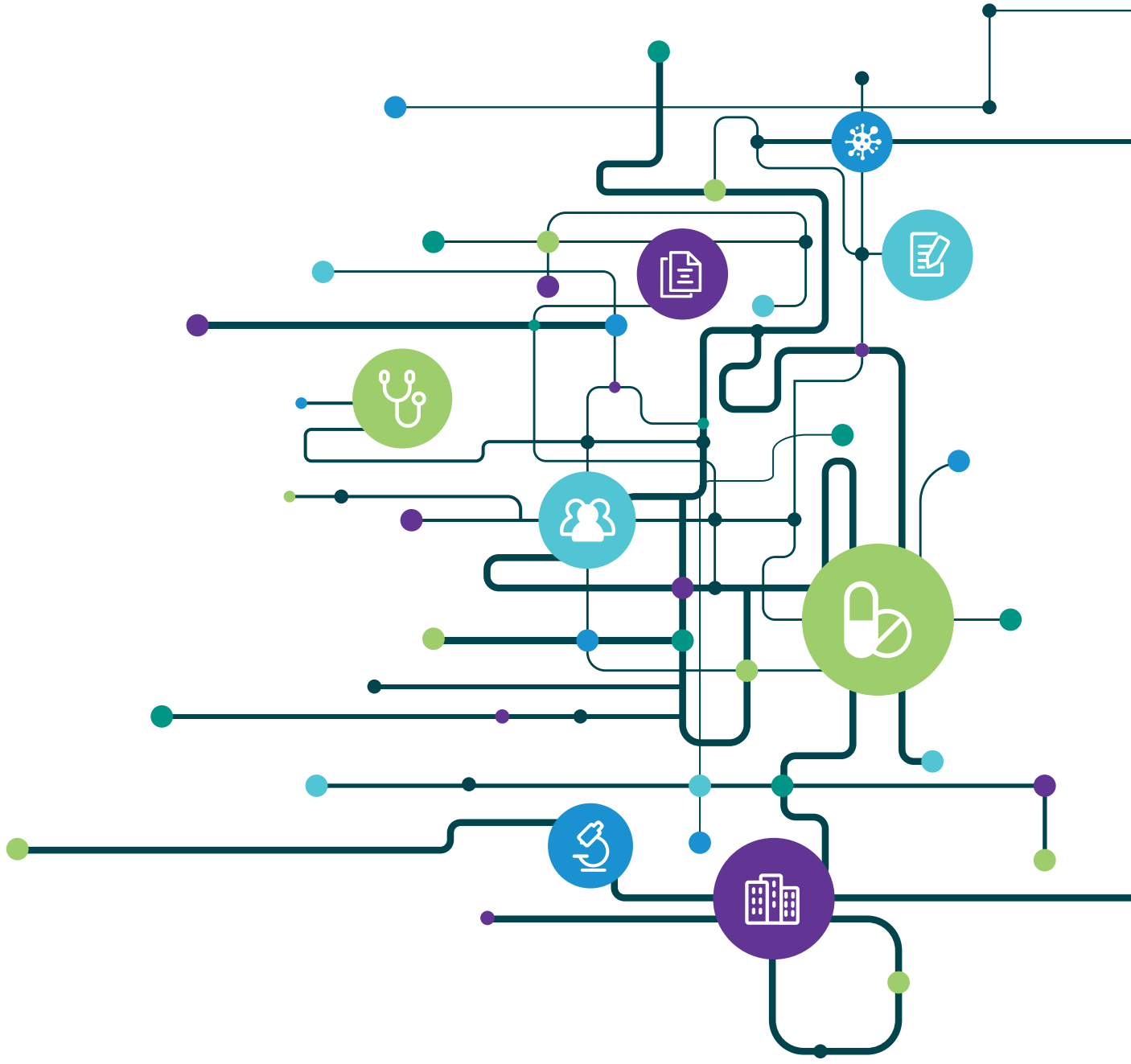
Annual Report 2019

ICON plc and Subsidiaries



Registered number 145835

Directors' Report and Consolidated Financial Statements

Directors' and Other Information

Directors	Ciaran Murray (Irish – Non-Executive Chairman) Dr. Steve Cutler (Australian – Chief Executive Officer) Rónán Murphy (Irish – Non-Executive) Prof. Hugh Brady (Irish – Non-Executive) Dr. John Climax (Irish – Non-Executive) Joan Garahy (Irish – Non-Executive) Prof. William Hall (Irish – Non-Executive) Eugene McCague (Irish – Non-Executive) Julie O'Neill (Irish – Non-Executive) Mary Pendergast (American – Non-Executive)
Company secretary	Diarmaid Cunningham
Registered office	South County Business Park Leopardstown Dublin 18
Auditor	KPMG 1 Stokes Place St. Stephen's Green Dublin 2
Solicitors	A & L Goodbody International Financial Services Centre North Wall Quay Dublin 1 Cahill Gordon & Reindel LLP 80 Pine Street New York NY 10005 USA
Registrars	Computershare Investor Services (Ireland) Limited 3100 Lake Drive Citywest Business Campus Dublin 24
Bankers	Citibank Canada Square Canary Wharf London E14 5LB United Kingdom JP Morgan Chase Bank N.A. 4 New York Plaza New York NY 10004 USA

Directors' Report

The Directors present their report and audited Consolidated and Company Financial Statements of ICON plc ("the Company" or "ICON"), a public limited company incorporated in the Republic of Ireland, and its subsidiary undertakings ("the Subsidiaries", with the Company and the Subsidiaries being together ("the Group") for the year ended 31 December 2019.

The Company's ordinary shares are traded on the NASDAQ market. The Company is considered a foreign private issuer in the US and accordingly it is not subject to the same ongoing regulatory requirements as a US registered company with a primary listing on the NASDAQ market.

These Consolidated and Company Financial Statements (together "the financial statements") for the year ended 31 December 2019 are prepared in accordance with IFRS as adopted by the EU and meet the reporting requirements pursuant to Irish Company Law. In addition to the Consolidated Financial Statements contained in this annual report, we also prepare separate consolidated financial statements on Form 20-F pursuant to the rules and regulations of the U.S. Securities and Exchange Commission ("SEC") and in accordance with accounting principles generally accepted in the United States (U.S. GAAP). The Form 20-F (under U.S. GAAP) is a separate document, a copy of which may be obtained from the Company's website www.iconplc.com. IFRS differs in certain respects from U.S. GAAP, details of which are set out on pages 139 to 142 of this annual report.

Principal activities, business review and future developments

The Group is a clinical research organisation ("CRO"), providing outsourced development services on a global basis to the pharmaceutical, biotechnology and medical device industries. The Group specialises in the strategic development, management and analysis of programmes that support all stages of the clinical development process from compound selection to Phase I-IV clinical studies. The Group's mission is to accelerate the development of drugs and devices that save lives and improve the quality of life. Our vision is to be the Global CRO partner of choice in drug development by delivering best in class information, solutions and performance in clinical and outcomes research.

Headquartered in Dublin, Ireland, the Group began operations in 1990 and has expanded the business predominately through internal growth, together with a number of strategic acquisitions to enhance its capabilities and expertise in certain areas of the clinical development process. Its principal executive office is located at: South County Business Park, Leopardstown, Dublin 18, Republic of Ireland. The contact telephone number of this office is +353 1 291 2000.

The Group believes that it is one of a select number of CROs with the expertise and capability to conduct clinical trials in most major therapeutic areas on a global basis and has the operational flexibility to provide development services on a stand alone basis or as part of an integrated "full service" solution. At 31 December 2019, the Group had approximately 14,650 employees, in 97 locations in 40 countries. During the year ended 31 December 2019, the Group derived approximately 31.8%, 58.5% and 9.7% of its revenue in the United States, Europe and Rest of World, respectively.

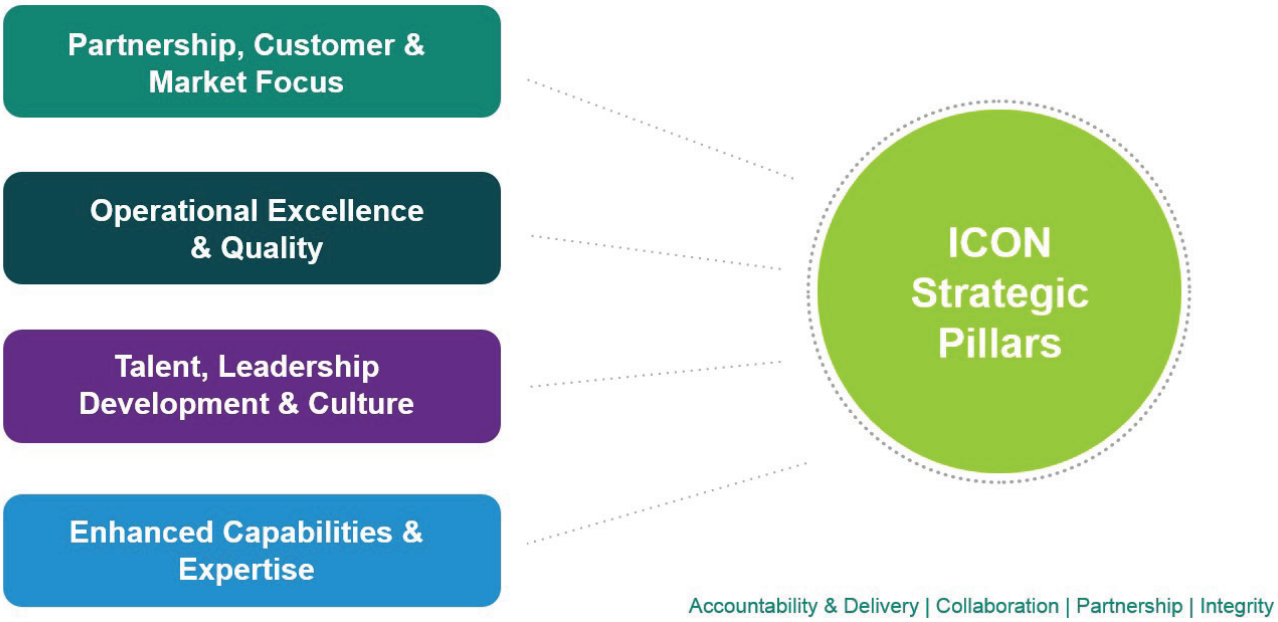
We have achieved strong growth since our foundation, as a global provider of outsourced development and commercialisation services to pharmaceutical, biotechnology, medical device and government and public health organisations. We focus our innovation on those factors that are critical to our clients - reducing time to market, reducing cost and increasing quality. Our global team has extensive experience in a broad range of therapeutic areas. ICON has been recognised as one of the world's leading Contract Research Organizations ("CROs") through a number of high-profile industry awards.

As our market has evolved, biopharmaceutical companies are tackling productivity challenges, increasing budget constraints and greater demands to demonstrate product value; all of which are placing increased pressure on their revenues and levels of profitability. However these trends have generally been positive for CROs, as increased outsourcing has been adopted by these companies as they seek to create greater efficiencies in their development processes, convert previously fixed costs to variable, and accelerate time to market for new treatments.

One consequence of the drive to accelerate time to market will be increased emphasis on making existing drug development phases more seamless, through the use of techniques such as adaptive trial designs to filter the most promising compounds and test these in parallel in several therapeutic indications or with other drug combinations.

Regulatory and reimbursement pressures will increase the emphasis on late stage (post marketing) research, while increasing requirements to demonstrate the economic value of new treatments. As a result, outcomes and comparative effectiveness research will most likely be required in order to secure on-going product reimbursement. Furthermore, we believe advances in molecular biology and genetics will drive further growth in innovation in the long term which in turn should create further growth opportunities for both biopharma companies and their outsource development partners.

We expect that continued outsourcing will be a core strategy of clients in the near term as they respond to the increased pressures on their revenues and profitability. Larger clients were the first to form strategic partnerships with global CROs in an effort to reduce the number of outsource partners with whom they engage and to reduce inefficiencies in their current drug development models. More recently we have seen the increasing adoption of this partner model with mid-tier pharmaceutical and biotechnology firms as they also seek to drive development efficiencies. As outsourcing penetration increases, we believe clients may seek a greater level of integration of service offerings from CROs, although some will continue to purchase services on a stand-alone basis. Creating greater connectivity and "seamlessness" between our services and the sharing of "real-time" clinical, operational and "real world" data with clients will therefore become increasingly important for CROs. ICON will seek to benefit from this increased outsourcing by clients to grow our business by increasing market share with our existing client base and adding new clients within the Phase I-IV outsourced development services market; the aim being to ensure we will be considered for all major Phase I-IV projects.



Our strategy is focused on the following areas:

Partnerships, Customers and Markets

We continue to focus on expanding and deepening our partnerships with existing customers, while also developing new customer relationships. Strategic client relationships will increasingly manifest themselves in many different forms. Many of these relationships will require innovative forms of collaboration across ICON service areas and departments and will therefore require increased flexibility to offer services on both a standalone functional basis and as part of a fully integrated service solution. To support this objective, we continue to evolve our collaboration and delivery models, invest in technology that will enable closer data integration across our service areas and enhance our project and programme management capabilities.

We continue to enhance our capabilities through both organic service development and targeted acquisitions, to meet the evolving needs of both existing and new clients. During the year, the Group acquired MMD, MeDiNova and Symphony who will enhance ICON's capabilities across multiple platforms and strengthen our value proposition to clients; particularly in our laboratory and site network services.

ICON has a focused patient, site and data strategy, which is helping us to improve site identification, study placement and patient recruitment and retention. A successful element of our strategy has been our integrated site network made up of PMG, MeDiNova and Symphony and our ability to grow alliances with third party sites and healthcare institutions in the US and Europe. These acquisitions further enhance ICON's site network in the US and EMEA and strengthen our patient recruitment capabilities to help recruit patients into studies faster.

We continue to target growth in under-penetrated CRO market segments, outsourcing penetration within medical device companies has lagged that of bio-pharma firms but is beginning to accelerate. EU Regulatory reform enacted in 2017 is a further catalyst to growth in this segment as it included stricter requirements to perform clinical evaluations and post sale surveillance.

Operational Excellence and Quality

We continue to enhance our operating processes and delivery models to gain competitive advantage.

Our proprietary ICONIK platform, which integrates clinical data across multiple systems allows us to access clinical and real world data to enhance protocol design, profile match patients to trials. It also facilitates collection of real-time data during the trial process enabling better decision making and project execution. The platform uses data and evidence based research to develop solutions that engage investigators and patients more effectively to improve patient recruitment and retention.

ADDPLAN is part of the ICONIK Informatics Hub. The software provides industry leading statistical design, simulation and analysis for adaptive clinical trials, from phase I to IV and helps our customers identify the most promising drug candidates earlier in the development process and in parallel test these across several therapeutic indications and with other drug combinations. ADDPLAN is used by regulatory agencies (FDA, EMA (Europe) and PMDA (Japan), top pharmaceuticals, medical device companies, and academia.

Finding and engaging suitable patients to conduct clinical trials is one of the biggest issues facing the drug development industry today. Less than 1% of the US population participates in clinical trials and the performance of investigative sites that do take part in research is uneven, hard to predict and many trials do not meet the initial recruitment goals. The current market challenge in patient enrolment creates an opportunity for ICON to differentiate its service offering and we are working to reduce patient recruitment times through enhanced site and investigator selection based on key performance metrics and through use of our proprietary Firecrest technology which is used to train and support sites during the development process. Our PMG, MeDiNova and Symphony site network alliances enhanced our ability to enrol patients onto the clinical studies we perform. We have also developed strategic alliances with investigator site groups and health care systems in all major global research markets. In partnership with others we are pioneering patient recruitment solutions that leverage cognitive computing to transform clinical trial matching and allow a data-driven approach to deliver the right patients for trials. One Search is our intuitive, integrated workflow and interrogation tool that enables access to multiple data sources and provides the visualization and tools necessary for optimum site identification based on ICON and industry data of capability, experience and performance. Scoring on enrolment performance, speed of start-up and quality supports better site selection.

Quality project execution underpins all that we do and we have an ongoing focus on developing our people and processes to continue to enhance our service delivery. We are also deploying supporting technologies which we believe will enable faster and deeper insights into the quality of trial data.

We are focused on operational excellence across our support functions and we operate a global business support infrastructure across functions including finance, information technology, facilities, human resources and legal. This enables us to enhance the service levels across these support areas whilst driving down the costs of the service provision.

Talent, Leadership Development and Culture

At the core of our strategy is our people. Within ICON we have highly qualified and experienced teams, the majority of whom have third level educational qualifications. The need to develop and retain this expertise and talent within the organisation is fundamental in enabling us to be the global CRO partner of choice for our customers. We have invested in creating an innovative learning environment delivered through ICON's training and development group, who have formed an industry leading collaboration with University College Dublin. This enables ICON to provide customised management and development programmes for global employees. These programmes are focused on leadership development for those people management roles and specific technical training in competencies that are core to our business, such as project and programme management and clinical research associate development. We continue to invest to refine and develop these programmes.

Our learning and development programmes are complemented by advanced people development practices which incorporate rigorous, analytics based screening in the hiring process, global career frameworks, pay for performance aligned to our strategy, and on-going talent review and succession planning.

Our leadership and talent programmes contribute to the enhanced retention of our employees, better project deliverables for our customers and the enhanced financial performance of the business.

Enhance Capabilities & Expertise

To meet the evolving needs of our clients we continue to enhance our capabilities through both organic service development and targeted acquisitions. During 2018 and 2019, we continued to enhance our scientific and therapeutic expertise to support our customers in specific areas including oncology, orphan and rare diseases, CNS, dermatology, infectious disease and womens health.

We have continued to invest in building our capabilities in the gathering, analysis and application of real world patient data within both the clinical trial and post-trial observational study environments. Alongside expanding internal capabilities, we continue to develop innovative partnerships with providers of real world data including EHR4CR and Trinetx. During 2018, we signed an agreement with Intel to deploy the Intel® Pharma Analytics Platform for use in clinical trials. The Intel platform is an artificial intelligence solution that enables remote monitoring and continuous capture of clinical data from study subjects using sensors and wearable devices and can apply machine learning techniques to objectively measure symptoms and quantify the impact of new therapies.

We continued to enhance our site and patient recruitment capabilities with the acquisitions of MeDiNova and Symphony during the year along with the 2018 expansion of the PMG Research network through a partnership with the Du Page Medical Group. DuPage is the largest independent, multi-specialty physician group in the Chicagoland area with access to more than 700 physicians in over 50 clinical specialties ranging from primary to specialty care in areas such as cardiology and oncology. Through this agreement PMG assumed the research infrastructure at DuPage providing expanded investigator and patient access and bringing clinical research as a care option to the communities served.

Applied Innovation

Innovation at ICON is focused on the factors that are critical to our clients. We develop integrated technologies to significantly enhance the efficiency and productivity of clients' drug and device development programmes, providing true transparency across all areas of a study.

ICON is focused on applying innovation that can help our customers improve their development outcomes. We are focusing this innovation in three critical areas; improving clinical trial design and execution; faster and more predictable patient recruitment; and evolving clinical trials to be more patient centric which includes data collection and analysis directly from patient's digital devices. Our approach to developing solutions to these challenges incorporates partnering with best in class technology providers but is also supported by a suite of differentiated ICON proprietary technologies.

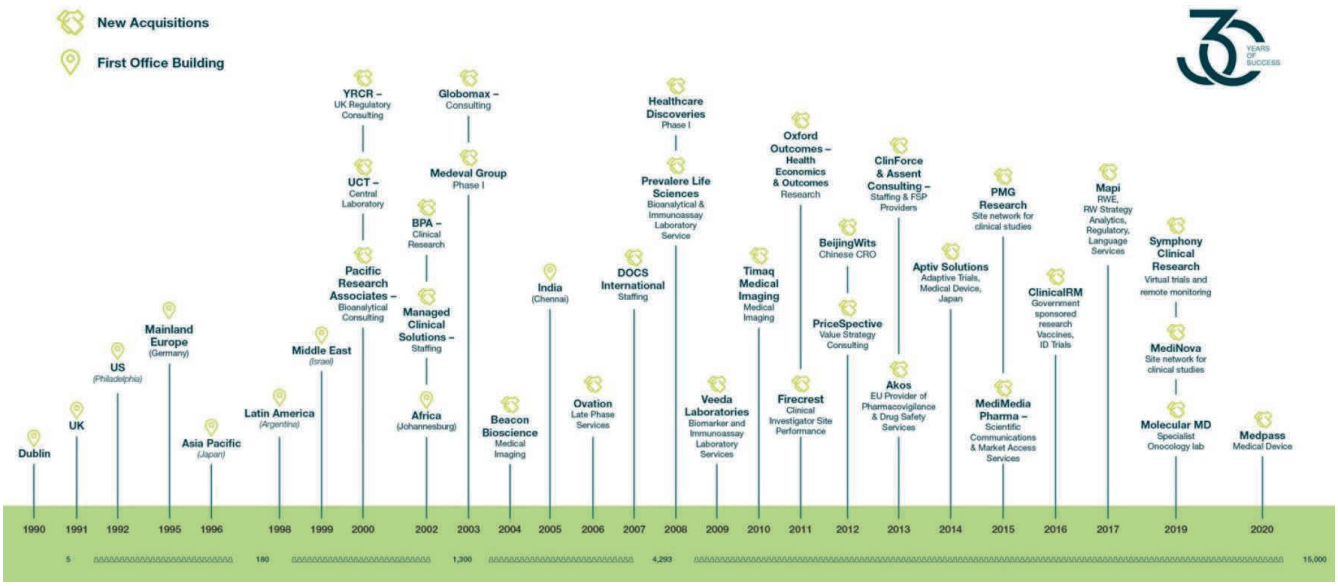
In addition to our ICONIK platform and ADDPLAN software, Firecrest; ICON's proprietary comprehensive site performance management system, is a web-based solution which enables accurate study information, including protocol information, training manuals and case report forms, to be rolled out quickly and simultaneously to investigative sites. It allows site behavior to be tracked to ensure training is understood, procedures are being followed and that timelines and study parameters are met. It can significantly reduce the number of data queries originated from investigator sites.

Alongside the application of these technology solutions we are also focused on innovation through the redesign and where appropriate the automation of current clinical trial processes.

Principal activities of the Company and Group

The principal activity of ICON plc ("the Company") is to act as a holding Company. The Company also operates branch offices, ICON Italy in Milan, ICON Poland in Warsaw, ICON Latvia in Riga and ICON Lithuania in Vilnius. These branches provide contract research services to the pharmaceutical industry.

Acquisition activity



On 24 September 2019, a subsidiary of the Company, ICON Clinical Research LLC, acquired a 100% interest in CRN Holdings, LLC (trading as Symphony Clinical Research ("Symphony")). Founded in 2003 and operating from its headquarters in Illinois, USA and Gdansk, Poland, Symphony is a leading provider of at-home trial services and site support services from study start-up to closeout for Phase I-IV global studies. Symphony will grow ICON's patient recruitment capabilities globally and complements ICON's site network in the USA, PMG Research and the recently acquired site network in EMEA, MeDiNova. The initial consideration to acquire the 100% interest was cash of $35.0 million and contingent consideration of $2.5 million payable in 2020.

On 23 May 2019, a subsidiary of the Company, ICON Clinical Research (U.K.) Limited, acquired a majority shareholding in MeDiNova, a site network with research sites in key markets in Europe and Africa, and has the right to acquire the remaining shares in the company during 2020. The vendors also have a right to sell the remaining shares exclusively to ICON during 2020. The initial consideration to acquire the majority shareholding was cash of $39.3 million and contingent consideration of $14.8 million. The contingent consideration was paid in October 2019. The acquisition further enhances ICON's patient recruitment capabilities in EMEA and complements ICON's existing site network in the USA, PMG Research.

On 25 January 2019, a subsidiary of the Company, ICON Laboratory Services, Inc., acquired 100% of the share capital of MolecularMD Corp. ("MMD"). The consideration was $42.2 million. MMD is a molecular diagnostic speciality laboratory that enables the development and commercialisation of precision medicines in oncology. It is a recognised leader in the analytical development and clinical validation of molecular diagnostic assays. It offers a comprehensive test menu in immuno-oncology development and services also include companion diagnostic development services. The acquisition enhances ICON's laboratory offering in molecular diagnostic testing and brings to ICON expanded testing platforms, including next generation sequencing, and immunohistochemistry (IHC).

On 27 July 2017, a subsidiary of the Company, ICON Clinicial Research Limited acquired Mapi Development SAS ('Mapi') and its subsidaries ("Mapi Group"). Mapi Group has over 40 years of experience supporting Life-Science companies as the world leading Patient-Centered Research Company in commercialising novel treatments through Real-World Evidence, Strategic Regulatory Services, Pharmacovigilance, Market Access and Language Services. Mapi Group is the premier provider of Health Research and Commercialisation services to Life-Science companies enabling Market Authorisation, Market Access and Market Adoption of novel therapeutics. Cash outflows on acquisition were $145.8 million. The acquisition of Mapi Group strengthens ICON's existing commercialisation and outcomes research business adding significant commercialisation presence, analytics, real world evidence generation and strategic regulatory services.

Future developments

Please see *note 31 Subsequent events* for details of events in the period from year-end to the approval of the financial statements.

In 2020, the Group looks forward to continuing to expand through organic growth, together with strategic acquisitions to enhance its expertise and capabilities in certain areas of the clinical development process and to continue to deliver on the Company's mission to accelerate the development of drugs and devices that save lives and improve the quality of life.

Results and dividends

The results for the year are as shown on page 28 of these financial statements. The Directors do not propose the payment of a dividend for the year ended 31 December 2019.

The following table sets forth for the periods indicated certain financial data as a percentage of revenue and the percentage change in these items compared to the prior period, being the key performance indicators used by management. The trends illustrated in the following table may not be indicative of future results.

	Year ended 31 December 2019	Year ended 31 December 2018	Percentage change in period
	As a percentage of revenue		
Revenue	100%	100%	8.1 %
Direct costs (excluding exceptional items)	70.3%	70.0%	8.7 %
Other operating expenses (excluding exceptional items)	14.2%	15.0%	1.6 %
Operating profit (excluding exceptional items)	15.5%	15.0%	11.9 %
Exceptional items (before taxation)	0.0%	0.5%	(100.0)%
Operating profit (including exceptional items)	15.5%	14.5%	15.6 %

Twelve months ended 31 December 2019 compared to twelve months ended 31 December 2018

Revenue

	Year Ended 31 December		Change	
(dollars in thousands)	2019	2018	$	%
Revenue	$ 2,805,839	$ 2,595,777	$ 210,062	8.1%

Revenue for the year ended 31 December 2019 increased by $210.1 million, or 8.1%, to $2,805.8 million from $2,595.8 million for the year ended 31 December 2018. For the year ended 31 December 2019 we derived approximately 31.8%, 58.5% and 9.7% of our revenue in the United States, Europe and Rest of World, respectively.

Direct costs

	Year Ended 31 December		
(dollars in thousands)	**2019**	**2018**	**Change**
Direct costs (excluding exceptional items)	$ 1,973,621	$ 1,816,270	$ 157,351
% of revenue (excluding exceptional items)	70.3%	70.0%	8.7%
Direct costs (including exceptional items)	$ 1,973,621	$ 1,826,287	$ 147,334
% of revenue (including exceptional items)	70.3%	70.4%	8.1%

Direct costs for the year ended 31 December 2019 increased by $157.4 million, or 8.7%, to $1,973.6 million from $1,816.3 million for the year ended 31 December 2018 (excluding exceptional items). Direct costs consist primarily of investigator and other reimbursable costs, compensation, associated fringe benefits and share based compensation expense for project-related employees and other direct project driven costs. The increase in direct costs during the year relates to increases in third party investigator and other reimbursable costs, an increase in direct project related costs and personnel related expenditure. The increase in other direct costs (excluding exceptional items) during the period arose due to an increase in headcount and a corresponding increase in personnel related expenditure of $55.7 million combined with an increase in other direct project related costs of $1.8 million, increases in laboratory costs of $0.5 million, partly offset by a decrease in travel related costs of $0.4 million. As a percentage of gross revenue, direct costs have increased to 70.3% compared to 70.0% for the year ended 31 December 2018 (excluding exceptional items).

Other Operating Expenses

	Year Ended 31 December		
(dollars in thousands)	**2019**	**2018**	**Change**
Other operating expenses (excluding exceptional items)	$ 396,087	$ 389,899	$ 6,188
% of revenue (excluding exceptional items)	14.2%	15.0%	1.6%
Other operating expenses (including exceptional items)	$ 396,087	$ 392,372	$ 3,715
% of revenue (including exceptional items)	14.2%	15.1%	0.9%

Other operating expenses for the year ended 31 December 2019 increased by $6.2 million, or 1.6%, to $396.1 million compared to $389.9 million for the year ended 31 December 2018 (excluding exceptional items). Other operating costs are primarily comprised of compensation, related fringe benefits, share compensation expense for non project related employees, recruitment expenses, recruitment expenditure, professional service costs, advertising costs and all costs related to facilities and information systems. As a percentage of revenue, other operating expenses decreased to 14.2% of revenue, compared to 15.0% of revenue for the year ended December 31, 2018 (excluding exceptional items). During the year, general overhead costs net of foreign exchange costs increased by $8.1 million, acquisition costs increased by $3.3 million, marketing fees increased by $1.1 million, personnel related costs increased by $0.4 million, depreciation and amortisation decreased by $4.4 million, facilities related costs decreased by $1.4 million and professional fees decreased by $1.0 million.

Restructuring

There were no new restructuring plans implemented during the year ended 31 December 2019 (31 December 2018: charge of $12.5 million).

Operating profit

	Year Ended 31 December		
(dollars in thousands)	**2019**	**2018**	**Change**
Operating profit (excluding exceptional items)	$ 436,131	$ 389,608	$ 46,523
% of revenue (excluding exceptional items)	15.5%	15.0%	11.9%
Operating profit (including exceptional items)	$ 436,131	$ 377,118	$ 59,013
% of revenue (including exceptional items)	15.5%	14.5%	15.6%

Operating profit increased by $46.5 million, or 11.9%, to $436.1 million for the year ended 31 December 2019 from $389.6 million for the year ended 31 December 2018 ($377.1 million including exceptional items). As a percentage of revenue, operating profit increased to 15.5% of revenues for year ended 31 December 2019 compared to 15.0% of revenues for year ended 31 December 2018 (14.5% including exceptional items).

Financing income and expense

	Year Ended 31 December		Change	
(dollars in thousands)	**2019**	**2018**	**$**	**%**
Financing income	$ 6,859	$ 4,759	$ 2,100	44.1%
Financing expense	$ (24,625)	$ (13,502)	$ 11,123	82.4%

Financing expense for the period increased to $24.6 million for the year ended 31 December 2019 from $13.5 million for the year ended 31 December 2018. This is due to the inclusion of the financing costs of $2.6 million on adoption of IFRS 16 *Leases* and the remeasurement of the gross obligation under put option of $8.7 million. Financing income for the year increased to $6.9 million for the year ended 31 December 2019 from $4.8 million for the year ended 31 December 2018. This is due to the increase in cash and cash equivalents of $520.3 million at 31 December 2019 from $395.9 million at 31 December 2018.

Income tax expense

	Year Ended 31 December		Change	
(dollars in thousands)	**2019**	**2018**	**$**	**%**
Income tax expense (excluding exceptional items)	$ 57,332	$ 47,011	$ 10,321	22.0%
Effective income tax rate (excluding exceptional items)	13.7%	12.3%		

Income tax expense for the period increased to $57.3 million for the year ended 31 December 2019 from $47.0 million for the year ended 31 December 2018. The Group's effective tax rate for the year ended 31 December 2019 was 13.7% compared with 12.4% (12.3% excluding the effect of exceptional items) for the year ended 31 December 2018. The Group's effective tax rate is principally a function of the distribution of pre-tax profits in the territories in which it operates.

Risks and uncertainties

Under Irish Company Law (Section 327 of the Companies Act 2014 'the Companies Act'), the Directors are required to give a description of the principal risks and uncertainties which it faced at 31 December 2019. Details of the principal risks and uncertainties facing the Group are set out in Appendix A of this annual report and form an integral part of the Directors' Report.

Financial risk management

Group financial risk management is governed by policies and guidelines which are reviewed and approved annually by the Board of Directors. These policies and guidelines primarily cover foreign exchange risk, credit risk, liquidity risk and interest rate risk. The principal objective of these policies and guidelines is the minimisation of financial risk at reasonable cost. The Group's financial instruments comprise cash and cash equivalents, current asset investments, finance lease obligations and negotiated debt facilities. The main purpose of these financial instruments is to fund the working capital requirements of the Group, the cost of new acquisitions and continued growth. The Group also uses derivative financial instruments to reduce exposure to fluctuations in foreign exchange rates. The principal financial risk facing the Group is currency rate risk. Other financial risks include interest rate risk, credit risk and liquidity risk. Further details of which are set out in *note 26* to the Consolidated Financial Statements and *note 11* to the Company Financial Statements. The Group does not undertake any trading activity in financial instruments nor does it enter into any leveraged derivative transactions. The Group treasury function centrally manages the Group's funding and liquidity requirements.

Financing

The Group maintains both committed and uncommitted credit lines with its relationship banks. On 15 December 2015, the Company issued through its subsidiary ICON Investments Five Unlimited Company (the "Issuer") Senior Notes for aggregate gross proceeds of $350 million through a private placement. The interest rate on the Senior Notes was fixed at 3.64% and is payable semi-annually. The Senior Notes are guaranteed by ICON plc. The Senior Notes may be redeemed, at the Issuer's option, at any time prior to maturity, at par plus a make whole premium, together with accrued and unpaid interest, if any, to the redemption date. The terms of the notes are set forth in the Note Purchase and Guarantee Agreement, dated as of 15 December 2015, by and among the Issuer, ICON plc and the purchasers named therein ("Note Purchase and Guarantee Agreement"). The Notes have not been, and will not be, registered under the Securities Act of 1933, as amended, and may not be offered or sold in the United States absent registration or an applicable exemption from registration requirements.

The Group entered into an interest rate hedge in anticipation of the drawdown of the Senior Notes the proceeds of which were received in November 2015. During the year ended 31 December 2015, cash proceeds of $4.6 million representing the realised gain on the interest rate hedge was received on maturity in November 2015 and recorded within other comprehensive income. The realised gain is amortised to the Consolidated Statement of Profit and Loss over the term of the hedge resulting in an offset to the interest payable expense on the notes. This interest rate hedge qualified for hedge accounting under IAS 39. The effective rate on the 5 year Senior Notes is fixed at 3.37%.

The senior notes are due for repayment in December 2020. We regularly evaluate our debt arrangements, as well as market conditions, and during the year we will explore the opportunity to modify our existing arrangements or pursue additional financing arrangements that may result in the issuance of new debt securities by us or our affiliates.

Subsequent events

Details of subsequent events are set out in *note 31* to the Consolidated Financial Statements.

Directors and Secretary

The members of the Board of Directors during the year are included in *note 9* to the Consolidated Financial Statements.

The following table sets forth information concerning the composition of the Company's Board committees as of 31 December 2019:

Name	Position
Ciaran Murray	Non Executive Chairman and Director
Dr. Steve Cutler [(1)(5)]	Chief Executive Officer and Director
Rónán Murphy [(2)(3)(5)]	Director
Professor Hugh Brady [(3)]	Director
Dr. John Climax	Director
Joan Garahy [(2)(4)]	Director
Professor William Hall [(2)(4)]	Director
Eugene McCague [(3)(4)]	Director
Julie O'Neill	Director
Mary Pendergast [(2)]	Director

(1) Executive Officer of the Company.
(2) Member of Compensation and Organisation Committee.
(3) Member of Audit Committee.
(4) Member of Nominating and Governance Committee.
(5) Member of Execution Committee.

Details required by Companies Act 2014, section 329, of Directors' interests in the Group's shares are set out in *note 9* to the Consolidated Financial Statements. Mr Declan McKeon and Professor Dermot Kelleher resigned as directors on 23 July 2019. Ms Julie O'Neill was appointed as a director on 23 July 2019. All other Directors served for the entire year.

Directors' remuneration

Details of the Directors' remuneration and interests are set out in *notes 3* and *9* to the Consolidated Financial Statements.

Directors' power to purchase and allot company shares

Subject to the provisions of the Companies Act 2014, the Company may purchase any of its own shares. Every contract for the purchase of shares, or under which the Company may become entitled or obliged to purchase shares in the Company shall be authorised by a special resolution of the Company. The Company may cancel any shares so purchased or may hold them as treasury shares or re-issue them.

A resolution was passed at the Company's Annual General Meeting ("AGM") on 22 July 2016, which authorised the Directors to purchase (buyback) up to 10% of the outstanding shares in the Company. This authorisation was renewed at the Company's AGM on each of 25 July 2017, 24 July 2018 and 23 July 2019. On 3 October 2016, the Company commenced a share buyback programme of up to $400 million. The share buyback programme was completed during the year ended 31 December 2018 with a total of 4,026,576 ordinary shares redeemed for a total consideration of $372.1 million. On 8 January 2019, the Company commenced a further share buyback programme of up to 1.0 million ordinary shares which was completed during the year ended 31 December 2019. These shares were redeemed by the Company for a total consideration of $141.6 million. On 22 October 2019, the Company commenced a further share buyback programme. At 31 December 2019, 35,100 ordinary shares were redeemed by the Company under this programme for a total consideration of $5.3 million.

All ordinary shares that are redeemed under the buyback programme will be cancelled in accordance with the constitutional documents of the Company and the nominal value of these shares transferred to an undenominated capital fund as required under Irish Company law.

Rights and Obligations attaching to the Company's shares

The authorised share capital of the Company is €6,000,000 divided into 100,000,000 ordinary shares of €0.06 at 31 December 2019. Holders of ordinary shares will be entitled to receive such dividends as may be recommended by the Board of Directors of the Company and approved by the shareholders and/or such interim dividends as the Board of Directors of the Company may decide. On liquidation or a winding up of the Company, all assets available for distribution will be paid out to the holders of the Company's ordinary shares. Holders of ordinary shares have no conversion or redemption rights. On a show of hands, every holder of an ordinary share present in person or proxy at a general meeting of shareholders shall have one vote with no individual having more than one vote.

Change of control

Certain of the Group's customer contracts allow the customer to terminate the contract in the event of a change in control of the Company.

The Group has negotiated a banking facility with a number of financial institutions, details of which are set out in *note 23* to the Consolidated Financial Statements. This facility requires repayment in the event that the Company becomes controlled by any person or persons acting in concert by whom it was not controlled at the date the facility was entered into.

Furthermore certain Group companies have entered capital grant agreements with the Irish government agency, Enterprise Ireland, whereby the Group covenants that the controlling interest in the Company will not change without Enterprise Ireland's prior written consent, which will not be unreasonably withheld.

Additionally, the Company's share option and restricted share unit plans contain change in control provisions which provide for the acceleration of the vesting and exercisability of outstanding options and awards of restricted share units in the event that a change in control occurs with respect to the Company.

Corporate Governance

The Company is listed on the NASDAQ Global Select Market. The Company complies with the corporate governance listing requirements under the NASDAQ marketplace rules. NASDAQ may provide exemptions from certain NASDAQ corporate governance standards to a foreign private issuer in certain circumstances provided that the foreign private issuer properly notifies NASDAQ and makes the required disclosure except to the extent that such exemptions would be contrary to United States federal securities laws.

The exemptions that the Company relies on, and the practices the Company adheres to, are as follows:

- The Company is exempt from provisions set forth in NASDAQ Rule 5620(c), which requires each issuer (other than limited partnerships) to provide for a quorum in its by-laws for any meeting of the holders of common stock, which shall in no case be less than 33.33% of the outstanding shares of the issuer's common voting stock. The Company's Constitution requires that only 3 members be present, in person or by proxy, at a shareholder meeting to constitute a quorum. This quorum requirement is in accordance with Irish law and generally accepted business practices in Ireland.

- The Company is exempt from provisions set forth in NASDAQ Rule 5635(c) which requires (other than for certain specified exceptions) shareholder approval prior to the establishment or material amendment of a stock option or purchase plan or other equity compensation arrangement made or materially amended, pursuant to which stock may be acquired by officers, directors, employees or consultants. Irish law does not require shareholder approval with respect to equity compensation arrangements. Accordingly, the 2019 Consultants and Directors
  Restricted Share Unit Plan, the 2013 Employees Restricted Share Unit Plan and the amendments to the Employee Share Option Plan 2008 and Consultants Share Option Plan 2008 were adopted by the Board of Directors without shareholder approval.

- The Company is exempt from provisions set forth in NASDAQ Rule 5605(b)(2), which requires independent Directors to hold regularly scheduled meetings at which only independent Directors are present. Irish law does not require independent directors to hold regularly scheduled meetings at which only independent Directors are present. The Company holds regularly scheduled meetings which all of the Directors may attend and the Lead Independent Director may call meetings of the independent directors and non-employee directors of the Board, as appropriate, in accordance with the Lead Independent Director Charter.

The Company's practices with regard to these requirements are not prohibited by Irish law.

Audit Committee

The Audit Committee meets a minimum of four times a year. It reviews the quarterly and annual financial statements, the effectiveness of the system of internal control (including the arrangement for the Company's employees to raise concerns in confidence about financial inappropriateness) and recommends the appointment and removal of the external auditors. It monitors the adequacy of internal accounting practices and addresses all issues raised and recommendations made by the external auditors. The Audit Committee pre-approves all audit and non-audit services provided to the Company by its external auditors on a quarterly basis. The Audit Committee, on a case by case basis, may approve additional services not covered by the quarterly pre-approval, as the need for such services arises. The Audit Committee reviews all services which are provided by the external auditor to review the independence and objectivity of the external auditor, taking into consideration relevant professional and regulatory requirements. The Chief Financial Officer, the Head of Internal Audit, the General Counsel and the external auditors normally attend all meetings of the Audit Committee and have direct access to the Committee Chairman at all times. At 31 December 2019, the Audit Committee was comprised of three independent Directors: Rónán Murphy (Chairperson), Professor Hugh Brady and Eugene McCague. Declan McKeon stepped down as Chairperson and Rónán Murphy assumed the position of Chairperson with effect from 19 February 2019. Declan McKeon stepped down as member of the Committee on 22 July 2019.

Significant shareholdings

The Company has been notified of the following shareholdings in excess of 3% of the issued share capital of the Company as at 31 December 2019:

Name	%	Number of Shares
Wellington Management Company LLP	7.09	3,800,959
WCM Investment Management	6.79	3,643,211
ClearBridge Investments, LLC	4.99	2,675,763
Renaissance Technologies LLC	4.38	2,347,059
AllianceBernstein LP	4.06	2,177,170
Acadian Asset Management LLC	3.93	2,108,952
EARNEST Partners LLC	3.83	2,053,089
Comgest S.A.	3.28	1,760,847
Wasatch Global Investors Inc.	3.02	1,618,371
Oddo BHF Asset Management S.A.S.	3.01	1,611,710
All Directors and Officers as a group [(1)]	2.38	1,278,374

[(1)] Includes 449,372 ordinary shares issuable upon the exercise of stock options granted by the Company, 46,439 restricted stock units ("RSUs") awarded by the Company to directors, officers and other key employees and 126,726 performance share units ("PSUs") awarded by the Company to Directors, officers and other key employees. Of the issued PSUs, performance conditions will determine how many of them vest and, if performance targets are exceeded, additional PSUs will be issued and vest in accordance with the terms of the relevant PSU award.

Subsidiary undertakings

The information required by the Companies Act in relation to subsidiary undertakings is presented in *note 32 Subsidiary undertakings* to the Consolidated Financial Statements.

Political donations

The Group made no disclosable political donations in the period.

Going concern

The Directors have a reasonable expectation that the Group has adequate resources to continue in operation for the foreseeable future. For this reason, the Group continues to adopt the going concern basis in preparing the financial statements.

Accounting records

The Directors are responsible for ensuring that adequate accounting records as outlined in Section 281-285 of the Companies Act, are kept by the Company. The Directors are also responsible for the preparation of the Annual Report. The Directors have appointed professionally qualified accounting personnel with appropriate expertise and have provided adequate resources to the finance function in order to ensure that those requirements are met. The accounting records of the Company are maintained at the Group's principal executive offices at its registered office at Leopardstown, Dublin 18.

Statement of relevant audit information

The Directors believe that they have taken all steps necessary to make themselves aware of any relevant audit information and have established that the Company's statutory auditors are aware of that information. In so far as they are aware, there is no relevant audit information of which the Company's statutory auditors are unaware.

Disclosure of non-financial information

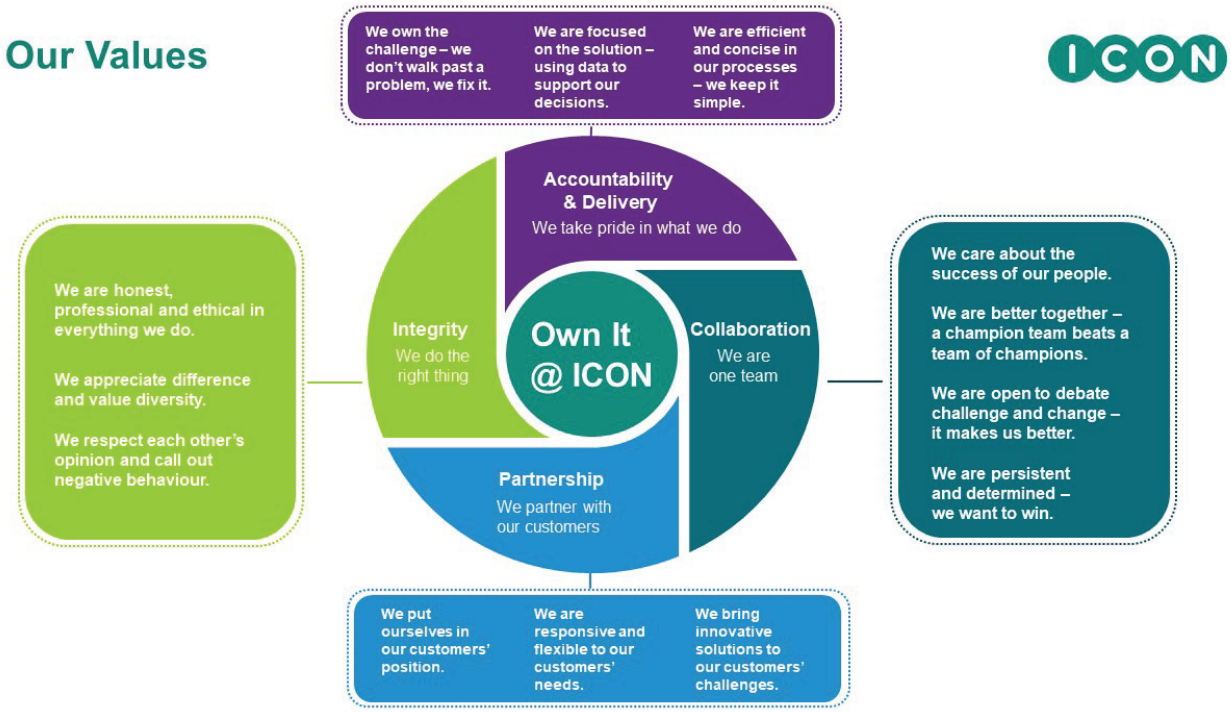
The European Union (Disclosure of Non-Financial and Diversity Information by certain large undertakings and groups) Regulations 2017 require disclosure of certain non-financial information by certain large undertakings and groups.

We have sought to address the requirements of the legislation in the sections following.

Business Model

Our mission is to help our customers accelerate the development of drugs and devices that save lives and improve the quality of life. We help our customers deliver life-changing medicines by being innovative in our solutions, collaborative in how we work as teams, accountable for the results we achieve and committed to doing the right thing for our customers and the patients they serve.

Our business model is described in the 'Principal activities, business review and future developments' section of the Directors' Report.



Our core values underpin our mission and drive a culture and mind-set of ownership at ICON. "Own it @ ICON" is how we define our culture. Our culture of ownership connects us to the core values at the heart of the Company and helps us differentiate how we work with our customers to achieve their goals.

Our values are:

- Accountability & delivery: We take pride in what we do
- Collaboration: We are one team
- Partnership: We partner with our customers
- Integrity: We do the right thing

Our values underpin how we work together to deliver on our mission to help our customers accelerate the development of drugs and devices that save lives and improve the quality of life. These values and our Code of Ethical Conduct, which underpins these values, form the core of everything we do. It applies to all officers, directors, employees, consultants and agents globally. All employees and temporary workers are mandated to complete global ethics training.

1. Environmental matters

ICON is committed to delivering excellence and care to the communities in which we operate

During 2019, ICON established an Environmental, Social, and Governance Committee ('ESG Committee'). The ESG Committee is chaired by the Chief Administrative Officer ('CAO') of the Group. The CAO is responsible for reporting to the ICON leadership team and Board on ESG matters.

The purpose of the ESG Committee is to support the Company's on-going commitment to the environment, social matters, health and safety, corporate social responsibility, corporate governance, sustainability and other public policy matters relevant to the Company.

The ESG Committee is a cross-functional management committee of the Company with representation from facilities, corporate communications, finance, legal, investor relations and human resources departments. The Committee assists and supports executive management and the Board of the Company in;

- determining and setting the strategy relating to ESG matters and
- developing, implementing and monitoring initiatives and policies based on that strategy

ICON is committed to delivering excellence and care to the communities in which we operate. This includes conducting our business in an environmentally sustainable manner as set out in our Global Code of Ethical Conduct. We achieve this by managing and improving our environmental performance across all business activities. Our employees, directors, officers, contractors, and temporary workers are expected to support our sustainability objectives.

As a Clinical Research Organization, we recognize the impact of how we operate on the environment in the following key areas:

- energy use;
- waste generation;
- emissions to air/water;
- water use;
- transport; and
- procurement.

Our Global Environmental Management Policy and Environmental Management Plan were approved during 2018. Our Environmental Management Plan and Performance Statement sets out the environmental actions and targets we will carry out to ensure compliance with our Global Environmental Management Policy and to engage our employees in supporting our objectives for continued improvement. Our Environmental Performance Statement is available to employees and our customers. The plan sets out our commitment to conducting our business in an environmentally sustainable manner by managing and improving our environmental performance across all business activities. Our plan sets out our initiatives and goals for the next four years.

Responsibilities for the implementation of our objectives and co-ordination of our sustainability efforts and reporting on progress to the executive leadership is led by our facilities team, reporting to our Global Chief Administrative Officer and General Counsel, with input from our procurement, global legal, corporate communications and human resources teams through our ESG Committee.

We track, calculate and report our carbon footprint and use the information available to continue to improve our processes and reduce our impact. We follow the Greenhouse Gas (GHG) Protocol Corporate Standard, which is the global corporate accounting and reporting standard for calculating carbon emissions. We have more than 80 facilities globally which operate in office buildings, where the primary energy consumption is electricity for light and heating, ventilation and air conditioning systems. Our central laboratories also operate laboratory instruments.

Where we have direct control over the buildings we operate, we ensure energy efficient lighting solutions. Where we do not have direct control over our facilities, we work with our landlords and other stakeholders to encourage energy efficient lighting solutions. We also work hard to extend the useful life of our equipment and ensure appropriate disposal of assets when decommissioned.

Our people are expected to support our waste management and disposal programmes and one of the goals of our environmental management policy is to reduce our impact. During 2018 we commenced the development of a global waste management system, which has been maintained during 2019.

Reflecting our continued commitment to sustainable practices, we have included an annual 'sustainability month' in our calendar since 2017. The focus of the month is to promote best practices and highlight sustainable activities across all of our offices and locations. This focus together with the introduction of increased recycling facilities at our key sites contributed to our objectives to reduce waste during 2019. We continue to work to increase the number of our offices engaging in waste reduction strategies in all areas. We have replaced disposable coffee cups with reusable alternatives and developed objectives relating to reduced paper consumption through the use of electronic documents and signatures.

We actively promote the use of technology and teleconferencing facilities in our efforts to reduce travel and commuting activities. During sustainability month, our people were encouraged to car share and utilize public transport. We include air travel miles in our carbon footprint monitoring.

Our internal portals include a MyICON page on Environment and Sustainability which reflects policy, practice, promotions and updates on our commitment to sustainability.

We also require our suppliers to abide by our Global Supplier Code of Conduct which includes a commitment to comply with applicable environmental laws and regulations, our expectations around waste management and sustainable use of resources.

Principal risks

Although the risks associated with environmental matters are actively monitored, ICON does not believe these risks meet the threshold of a principal risk for our business.

2. Social and Employee matters

Our Corporate Social Responsibility ('CSR') initiatives are aligned with ICON's values

ICON supports a variety of CSR programmes. Our programmes aim to make a positive difference to the communities in which we work and live and also recognise the enthusiasm and creativity of our people in their efforts to give something back to their communities.

Our CSR activities are focused on two core areas:

- Supporting education & building closer ties between industry & academia; and
- Improving the welfare of people in the communities in which we live.

Supporting education & building closer ties between industry & academia

ICON is a strong supporter of bridging the ties between industry and academia and inspiring the next generation of business and scientific leaders.

- **Benefactor through the Centuries of Trinity College Dublin** - In February 2020, ICON was recognised as a benefactor of Trinity College Dublin in recognition of the creation of the ICON McKeon Research Fellowship in Motor Neuron Disease in recognition of Declan McKeon, former Board member, acting Chairman, Lead Independent Director and Chair of the ICON Audit committee. The ICON-McKeon Research Fellow in MND will carry out research in the areas of machine-learning and artificial intelligence to derive insights from multimodal clinical, imaging neuro-electric signaling, in the context of the neurodegenerative disease of ALS.

- **Strategic Partnership with University College Dublin.** ICON has been engaged in a strategic partnership with UCD since 2012, which has been heralded as a model for industry-academia collaboration.

- **Scholarships supporting female GAA players.** ICON has a partnership with the Women's Gaelic Players Association, whereby we provide ICON-GPA Life Sciences Scholarships to inter-county football and camogie players engaged in undergraduate and post-graduate life sciences courses. ICON also provides mentoring to players to help them on their career journeys.

- **Partnership with Junior Achievement to inspire schoolchildren.** ICON supports our people who take time out of their working day over a period of 5 weeks to deliver Junior Achievement educational programmes. Junior Achievement encourages young people to remain in education and teaches them the skills they need to succeed in a changing world. Our volunteers teach primary and secondary level students valuable business, STEM and entrepreneurship skills that will stand them in good stead as they progress through education and beyond.

- **Science Gallery Founding Partner**. ICON has been a lead corporate supporter of the Science Gallery at Trinity College Dublin since its inception in 2008. Science Gallery aims to inspire and transform curious minds through engagement with science.

Improving the welfare of people in the communities in which we live

ICON employees across the world are making a positive difference to their communities. We support causes that are important to our employees and have a number of programmes that support the welfare of people in our local communities. These include:

- **Corporate donations to employee-nominated charities.** In 2019, ICON supported 10 charities across the world which are supporting people living in poverty, who are suffering from a variety of diseases, are the victims of domestic violence, or natural disasters. Over the last five years, ICON has supported over 60 charities across the world.

- **Donations in support of employee fundraising.** ICON employees raise significant amounts for a variety of charities each year through in-house fundraising events. ICON recognizes the enormous effort and creativity of our employees who fundraise for causes that are important to them by supplementing monies raised through ICON's Charitable Donation Programme.

At the core of our strategy is our people

As set-out above, one of our four strategic pillars is '*Talent, Leadership Development and Culture*'. Within ICON we have highly qualified and experienced teams, the majority of whom have third level educational qualifications. The need to develop and retain this expertise and talent within the organization is fundamental in enabling us to be the global CRO partner of choice for our customers.

The training and development of our staff is a key focus for us

We have a comprehensive curriculum in place to support our people in their roles. We have invested in creating an innovative learning environment delivered through ICON's training and development group.

All of our people are required to complete mandatory training in key areas which support our values and our way of working. They include (but are not limited to) the following areas:

- Global ethics compliance;
- Data protection and procedures;
- IT security;
- Confidentiality and maintaining communications; and
- Social media usage.

We have a well-established Graduate Development Programme for our clinical teams, which now runs in the US, China, Japan, Korea and also Australia where we take recent graduates and prepare them for careers in clinical monitoring and data management.

We also have formed a collaboration with University College Dublin which enables ICON to provide customised management and development programmes for global employees. These programmes are focused on leadership development for those people in management roles and specific technical training in competencies that are core to our business, such as project and programme management and clinical research associate development.

Our learning and development programmes are complemented by advanced people development practices which incorporate rigorous analytics based screening in the hiring process, global career frameworks, pay for performance aligned to our strategy, and on-going talent review and succession planning.

Our leadership and talent programmes contribute to the enhanced retention of our employees, better project deliverables for our customers and the enhanced financial performance of the business.

Individual development is supported through formal learning with our personal effectiveness series and via access to our Career Hub portal. Our people can access a wealth of learning materials including courses, resources, toolkits, library items and blogs to support the development of key competencies and improving their eligibility for future roles through these tools. Career Hub also allows employees to understand and explore possible career paths and career opportunities available to them across the organization and provides full transparency to all levels, skills and capabilities required for every role in ICON.

ICON is proud of this investment in our people. This investment translated to approximately four days training for each person during 2019.

We are also committed to supporting the career aspirations of our people. Approximately 30% of all roles are filled internally.

As an organisation we are keen to hear directly from our employees

Biennially we conduct a global employee engagement survey. Our most recent survey was conducted in October 2018 and had an 88% response rate. There are two key measures which we track closely. The first is Employee Engagement which scored well at 70%, and was on par with the General Industry benchmark. The second is Employee Enablement, which also scored at 70%, 3% above the General Industry benchmark. After each survey we engage in action planning with our people to address areas they have highlighted as important for improvement. The last five years have shown a positive trend for both our engagement and enablement scores. We completed an updated pulse survey during 2019 and a further global employee engagement survey will be completed in 2020.

Difference drives innovative thinking and is critical to our success

We believe difference drives innovative thinking, which is critical to our customers, and as a global company with approximately 14,650 employees in 40 countries, we encourage diversity of all kinds. We have grown rapidly, increasing our headcount by more than fifty percent over the past 7 years. As a truly global operation, we are deliberately structured as international teams so that we can support the delivery of our customers' clinical development programmes across multiple geographies. Recruitment, selection and promotion decisions are merit-based and in line with the principles of reaching a wider talent pool and equal opportunity.

Building an inclusive workplace

We believe that difference drives innovative thinking and therefore is critical to our success. During 2019 we established the ICON Diversity & Inclusion Steering Group. This Steering Group is comprised of six members of our Group executive team. The executive leaders are supported by senior members of our human resources group.

At ICON, our leadership team sees diversity and inclusion in the workplace as at the core of how we work. We recognize the importance of ensuring it is built into every aspect of the talent and employee life cycle. The three core principles which are grounded in our values are;

- **Diversity** - we value difference of gender, race, ethnicity, culture and experience. We believe diversity of thought is what drives high performing teams to create better solutions and deliver better outcomes for our customers.

- **Equality** - we ensure all employees are treated fairly and equitably with no barriers to career opportunities. We are committed to equal opportunities for all employees and reflect this in our policies and practices.

- **Inclusion** - we are a values-driven organisation that promotes dignity and respect in all interactions with our customers, our teams and each other. We take pride in our collaborative and inclusive culture where everyone can bring their best selves to their work and deliver the best performance for our customers and patients.

The Executive leadership group defined areas of focus for our Diversity & Inclusion agenda for 2019, which continue into 2020 and against which success will be measured. These key areas of focus are around talent management, country level inclusion policies, reward, training, communications and a renewed focus on culture.

Our immediate areas of focus around driving inclusion and diversity include:

- **Training and Development** - Under our Diversity and Inclusion Programme, we train all our people leaders to understand unconscious bias and similarity bias and also how to encourage diversity of thought and foster inclusion in their teams. Our diversity and inclusion initiatives were launched at our Company wide Wake up to Culture day during 2019. The fundamentals will be embedded into all people leader programmes, and reflect the values upon which we assess performance behaviours.

- **Talent** - We recognise that more diversity in senior leadership increases organizational performance. In 2019 we launched our global Senior Director Leadership Programme in addition to our Vice President High Potential programme for those people who have been identified as High Performing & High Potential Leaders. These programmes focus on core organisational skills that will enable these individuals to increase their readiness for promotion, as well as create a strong internal network of senior leaders who feel empowered to take hold of their careers. These programmes will help build and support our development of a diverse and inclusive group of future leaders from within and complements existing senior level programmes already in existence in the organisation. Early in 2020, our top 100 employees attended 'Inclusive Leadership training'. This training will be rolled out to our wider employee group from 2020.

- **Recruitment and progression -** We continue to strive to source the best talent in our industry from across the world to fill the highly specialised roles required to help bring new drugs to market. Our most senior roles are truly global in nature. Since 2018, we have mandated gender balanced short lists for senior leadership appointments across the organisation in all markets in which we are located.

- **Retention** - We offer flexible working arrangements that help our people achieve balance. Approximately 45% of our employees work remotely. We also support and facilitate part time working arrangements. Approximately 16% of our people work part-time. We have a bonus programme for all employees linked to individual and company performance and also operate a global recognition programme where peer to peer recognition and awards take place for employees who go the extra mile. We also recognise and reward employees who reach significant service milestones within the company.

- **Reward -** The information relating to pay decisions is hosted through core technology, enabling our people leaders and employees direct access to information which informs and supports equitable and consistent decision making. We have made significant investment in organisation design structures, tools and communications which ensures that we have a gender neutral approach to pay decisions. We pay male and female employees equally for the same or equivalent work. We have worked hard to structure our pay principles to ensure that gender is not a factor in how we deliver rewards.

- **Partnership with Trinity Centre for People with Intellectual Disabilities ('TCPID')** - In 2019, we entered into a partnership with the Trinity Centre for people with intellectual disabilities. The TCPID situated within the School of Education, Trinity College Dublin, aims to promote the inclusion of people with intellectual disabilities in education and society. The Centre provides people who have intellectual disabilities with the opportunity to participate in a higher education programme designed to enhance their capacity to fully participate in society as independent adults. The 2-year education programme includes work placements and internships to enable students to experience and participate in the work environment.

Principal risks

For further details on risks relating to employee matters refer to Appendix A: Risk Factors.

Human rights

ICON is committed to acting ethically and with integrity in all our business dealings

We are committed to human rights and the adoption and pursuit of compliance with the United Nations Guiding Principles on Human Rights. Our business model and our policies are intended to fully comply with applicable human rights legislation in the countries in which we operate. ICON's Global Supplier Code of Conduct also addresses our zero tolerance stance to slavery and human trafficking. ICON is completely opposed to slavery and human trafficking and will not knowingly support or conduct business with any organisation involved in such activities. ICON does not employ anyone below the minimum employment age in the jurisdictions in which we operate.

In our Anti-Slavery and Human Trafficking Statement, we set out the measures we are taking to prevent modern slavery in our supply chains, in addition to our own operations. A copy of our Anti-Slavery and Human Trafficking Statement is available on our website at https://investor.iconplc.com.

Principal Risks

The risks associated with human rights abuses are actively monitored, however we do not believe these risks meet the threshold of a principal risk for our business.

Anti-bribery and Corruption

Our anti-bribery/anti-corruption programme ('ABAC Programme') is a key element of our compliance policy framework, with principles and requirements based on the underlying principal that we do not tolerate bribery or any other form of corruption or fraud. ICON and all ICON directors, employees, consultants and agents ("Covered Persons") must act in compliance with international laws and regulations relating to bribery, corruption and illicit payments including, the US Foreign Corrupt Practices Act and the UK Bribery Act 2010.

In April 2018, ICON was awarded the ISO 37001:2016 certification for its Anti-Bribery Management System having established, implemented, maintained, reviewed and improved an Anti-Bribery Management System that can prevent, detect and mitigate the risk of bribery. Our programme is designed to ensure our compliance with anti-corruption laws, including due diligence, training, policies, procedures, and internal controls.

There are a number of policies and codes that make up the ABAC Management system including the Global Code of Ethical Conduct, the Global Anti Corruption Compliance Policy, the Ethics Line Charter and the Global Supplier Code of Conduct (together "the Codes"). The Codes are available on our website at https://investor.iconplc.com. All ICON employees are required to complete ICON's annual Ethics online training, which incorporates the key principles of each of the Codes. The Global Code of Ethical Conduct addresses the core principles underpinning the behaviour required of all Covered Persons in our internal interactions with each other and our external dealings with patients, clients, health care professionals, regulators, investors, vendors and other third parties. Violations of the Codes may result in a variety of corrective actions and in some cases may result in disciplinary action up to and including termination of employment.

Bribery and corruption remains a business risk as we conduct our business across the globe and enter into partnerships and collaborations. There is no certainty that all employees and third party business partners (including our vendors, suppliers, agents, contractors, and other partners) will comply with anti-bribery laws. When working with third parties, we are committed to working with only those who embrace high standards of ethical behaviour consistent with our own. Bribery and corruption risks are a focus of our third-party diligence and management process. We hold our suppliers accountable for meeting their contractual obligations with ICON, including commitments that are made with regard to our Global Supplier Code of Conduct and regulatory compliance. Contract non-compliance can result in termination of the business relationship with the supplier and exclusion from future business with ICON.

Suspected violations of the Codes may be reported on a confidential (or anonymous, where permitted) basis in accordance with our Ethics Line Charter through ICON's Ethics Line. ICON has open door, anti-retaliation policies in place to encourage and protect individuals who raise a concern. Ethics line reports are reported to the Board of ICON plc as appropriate. The Internal Audit team conducts ABAC programme audits. Internal Audits focus on testing for compliance and design effectiveness of the overall ABAC programme, Internal Audit incorporates an assessment of ABAC measures in all audits, as appropriate. In this approach, bribery and corruption risks are incorporated into the risk assessment and scoping process of each audit.

Principal risks

For further details on risks relating to anti-corruption refer to Appendix A: Risk Factors on page 143.

Directors' compliance statement

The Directors, in accordance with Section 225(2) of the Companies Act 2014, acknowledge that they are responsible for securing the Company's compliance with its relevant obligations as defined within the Companies Act, 2014 (hereinafter called the relevant obligations).

The Directors confirm that:

- a compliance policy statement has been drawn up setting out the Company's policies with regard to such compliance;
- appropriate arrangements and structures that, in their opinion, are designed to secure material compliance with the Company's relevant obligations, have been put in place; and
- a review has been conducted, during the financial year, of the arrangements and structures that have been put in place to secure the Company's compliance with the relevant obligations.

Auditor

In accordance with Section 383(2) of the Companies Act 2014, KPMG, Chartered Accountants, will continue in office.

On behalf of the Board

Steve Cutler	Rónán Murphy	21 April 2020
Chief Executive Officer	*Director*	

Statement of Directors' Responsibilities in respect of the Directors' report and the financial statements

The directors are responsible for preparing the annual report and the Group and Company financial statements in accordance with applicable law and regulations.

Company law requires the directors to prepare the Group and Company financial statements for each financial year. The directors have elected to prepare the Group and Company financial statements in accordance with IFRS as adopted by the EU and as applied in accordance with the Companies Act 2014.

Under company law the directors must not approve the Group and Company financial statements unless they are satisfied that they give a true and fair view of the assets, liabilities and financial position of the Group and Company and of the Group's profit or loss for that year. In preparing the Group and Company financial statements, the directors are required to:

- select suitable accounting policies and then apply them consistently;
- make judgements and estimates that are reasonable and prudent;
- state whether applicable Accounting Standards have been followed, subject to any material departures disclosed and explained in the financial statements;
- assess the Group and Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern; and
- use the going concern basis of accounting unless they either intend to liquidate the Group or Company or to cease operations, or have no realistic alternative but to do so.

The directors are responsible for keeping adequate accounting records which disclose with reasonable accuracy at any time the assets, liabilities, financial position of the Group and Company and profit or loss of the Group and which enable them to ensure that the financial statements comply with the provision of the Companies Act 2014. They are responsible for such internal controls as they determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error, and have general responsible for safeguarding the assets of the Company and the Group, and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities. The directors are also responsible for preparing a directors' report that complies with the requirements of the Companies Act 2014.

The directors are responsible for the maintenance and integrity of the corporate and financial information included on the Company's website. Legislation in the Republic of Ireland governing the preparation and dissemination of financial statements may differ from legislation in other jurisdictions.

On behalf of the Board

Steve Cutler	Rónán Murphy
Chief Executive Officer	*Director*

Report on the audit of the financial statements

Opinion

We have audited the financial statements of ICON plc ('the Company') and subsidiaries (together, "the Group") for the year ended 31 December 2019, set out on pages 28 to 138, which comprise the Consolidated Statement of Profit and Loss, Consolidated Statement of Comprehensive Income, Consolidated and Company Statements of Financial Position, Consolidated and Company Statements of Changes in Equity, Consolidated and Company Statements of Cash Flows and related notes, including the summary of significant accounting policies set out in note 1.The financial reporting framework that has been applied in their preparation is Irish Law and International Financial Reporting Standards (IFRS) as adopted by the European Union.

In our opinion:

- the Consolidated Financial Statements give a true and fair view of the assets, liabilities and financial position of the Group as at 31 December 2019 and of the Group's profit for the year then ended;
- the Company Statement of Financial Position gives a true and fair view of the assets, liabilities and financial position of the Company as at 31 December 2019;
- the Consolidated Financial Statements have been properly prepared in accordance with IFRS as adopted by the European Union;
- the Company Financial Statements have been properly prepared in accordance with IFRS as adopted by the European Union, as applied in accordance with the provisions of the Companies Act 2014; and
- the Consolidated Financial Statements and Company Financial Statements have been properly prepared in accordance with the requirements of the Companies Act 2014.

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (Ireland) (ISAs (Ireland)) 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 have fulfilled our ethical responsibilities under, and we remained independent of the Group in accordance with ethical requirements that are relevant to our audit of financial statements in Ireland, including the Ethical Standard issued by the Irish Auditing and Accounting Supervisory Authority (IAASA), as applied to listed entities.

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

Key audit matters: our assessment of risks of material misstatement

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

In arriving at our audit opinion above, the key audit matter was as follows:

Evaluation of progress towards completion and realisable contract value related to revenue recognition for clinical trial service contracts

As described in note 1, significant accounting policies, and in note 2, segmental information, the Group's revenues were US $2,806 million for the year ended 31 December 2019 (2018: US$2,596 million). A significant portion of this revenue relates to clinical trial service revenue. Clinical trial service revenue is recognised over time using an input measure, being total project costs (inclusive of third-party costs).

The key audit matter

Clinical trial service revenue is recognised using project costs incurred to date relative to total estimated costs to complete to measure progress towards satisfying the Company's performance obligation. Contracts generally contain provisions for renegotiation in the event of changes in the scope, nature, duration or volume of services of the contract. Renegotiated amounts are recognised as revenue by revision to the total contract value arising as a result of the change order. Furthermore, the transaction price is determined by adjusting the contract or change order value to reflect a realisable contract value.

We identified the evaluation of progress towards completion and realisable contract value related to revenue recognition for clinical trial services contracts as a key audit matter. Complex and subjective auditor judgement was required to evaluate the Company's estimate regarding the direct costs and costs that will be incurred by third parties to complete the contracts, based on historical experience and estimated realisable contract values on clinical trial service contracts.

How the matter was addressed in our audit

Our audit procedures included, amongst others:

We tested the operarting effectiveness of certain internal controls over the Company's revenue recognition for the clinical trial service contracts process. These included controls over the development of the estimated direct costs and costs that will be incurred by third parties to complete the contracts and estimated realisable contract values.

We tested the estimated costs to complete and the realisable contract values for a sample of clinical trial service contracts, by evaluating:

- Actual direct costs incurred, both during the year and life-to-date, to assess the consistency with the estimated direct costs for that time period. We compared actual direct costs incurred to source timesheet data and hourly rates to underlying contractual terms;
- Third-party costs incurred, to assess the consistency with the estimated third-party costs for that time period. We compared third-party costs incurred to invoices received;
- Findings from interviews with operational personnel of the Company to evaluate progress to date, the estimate of remaining costs to be incurred and factors impacting the amount of time and cost to complete the sampled contracts, including the assessment of the nature and complexity of the work to be performed;
- Correspondence, if any, between the Company and the customer for the sampled contracts as part of our evaluation of contract progress;
- Changes to estimated costs, including the amount and timing of the changes; and
- The basis for the realisable contract value assumptions and challenging these assumptions. We confirmed contract terms with customers and assessed the realisable contract values by comparing the assumptions to underlying records, including final contract invoices received.

We also evaluated the Company's ability to accurately estimate costs to complete and realisable contract values, by comparing historical estimates developed at contract inception to actual results for a sample of contracts.

Our procedures in respect of this risk were performed as planned. We found that the estimates and judgements used in determining the progress towards completion and realisable contract value related to revenue recognition for clinical trial services contracts were appropriate.

Parent Company key audit matters

Due to the nature of the Parent Company's activities, there are no key audit matters that we are required to communicate in accordance with ISAs (Ireland).

Our application of materiality and an overview of the scope of our audit

Materiality for the Group Financial Statements as a whole was set at US$20 million (2018: US$17.5 million). Materiality for the Company Financial Statements was set at US$9.5 million (2018: US$8 million).

For the Group, materiality has been calculated as 5% of the benchmark of expected Group profit before tax (this estimated amount was based on earnings guidance available at the planning stage of the audit), which we have determined in our professional judgement, to be one of the principal benchmarks within the financial statements relevant to members of the Company in assessing the financial performance of the Group. For the Parent Company, materiality has been calculated based on 1% of the benchmark of total assets.

We report to the Audit Committee all corrected and uncorrected audit misstatements we identified through our audit in excess of US$1.0 million (Group) and US$0.5 million (Company), in addition to other audit misstatements below that threshold that we believe warranted reporting on qualitative grounds.

The structure of the Group's finance function is such that the majority of transactions and balances are accounted for by the central Group finance team. We performed comprehensive audit procedures, including those in relation to the significant risk set out above, on those transactions accounted for at Group level. Our audit covered 98% of total Group revenue and 98% of total Group assets, including 100% of the Parent Company's revenue and total assets.

All audit procedures were undertaken by the Group audit team.

We have nothing to report on going concern

We are required to report to you if we have concluded that the use of the going concern basis of accounting is inappropriate or there is an undisclosed material uncertainty that may cast significant doubt over the use of that basis for a period of at least twelve months from the date of approval of the financial statements. We have nothing to report in these respects.

Other information

The directors are responsible for the other information presented in the Annual Report together with the financial statements. The other information comprises the information included in the directors' report. The financial statements and our auditor's report thereon do not comprise part of the other information. Our opinion on the financial statements does not cover the other information and, accordingly, we do not express an audit opinion or, except as explicitly stated below, any form of assurance conclusion thereon.

Our responsibility is to read the other information and, in doing so, consider whether, based on our financial statements audit work, the information therein is materially misstated or inconsistent with the financial statements or our audit knowledge. Based solely on that work we have not identified material misstatements in the other information.

Based solely on our work on the other information, we report that, in those parts of the directors' report specified for our consideration:

- we have not identified material misstatements in the directors' report;
- in our opinion, the information given in the directors' report is consistent with the financial statements;
- in our opinion, the directors' report has been prepared in accordance with the Companies Act 2014.

Our opinions on other matters prescribed by the Companies Act 2014 are unmodified

We have obtained all the information and explanations which we consider necessary for the purpose of our audit.

In our opinion, the accounting records of the Company were sufficient to permit the financial statements to be readily and properly audited and the Company's financial statements are in agreement with the accounting records.

We have nothing to report on other matters on which we are required to report by exception

The Companies Act 2014 requires us to report to you if, in our opinion, the disclosures of directors' remuneration and transactions required by Sections 305 to 312 of the Act are not made.

The Companies Act 2014 also requires us to report to you if, in our opinion, the Company has not provided the information required by section 5(2) to (7) of the European Union (Disclosure of Non-Financial and Diversity Information by certain large undertakings and groups) Regulations 2017 for the year ended 31 December 2018 as required by the European Union (Disclosure of Non-Financial and Diversity Information by certain large undertakings and groups) (amendment) Regulations 2018.

Respective responsibilities and restrictions on use

Directors' responsibilities

As explained more fully in their statement set out on page 23, the directors are responsible for: the preparation of the financial statements including being satisfied that they give a true and fair view; such internal control as they determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error; assessing the Group and 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 they either intend to liquidate the Group or 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 (Ireland) 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 fuller description of our responsibilities is provided on IAASA's website at https://www.iaasa.ie/getmedia/b2389013-1cf6-458b-9b8f-a98202dc9c3a/Description_of_auditors_responsiblities_for_audit.pdf.

The purpose of our audit work and to whom we owe our responsibilities

Our report is made solely to the Company's members, as a body, in accordance with Section 391 of the Companies Act 2014. 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 our report, or for the opinions we have formed.

Emer McGrath
for and on behalf of
KPMG
Chartered Accountants, Statutory Audit Firm
1 Stokes Place
St. Stephen's Green
Dublin 2
Ireland

22 April 2020

Consolidated Statement of Profit and Loss

for the year ended 31 December 2019

		31 December 2019	31 December 2018 Excluding Exceptional items	31 December 2018 (Note 8) Exceptional items	31 December 2018 Including Exceptional items
Continuing Operations	***Note***	**$'000**	$'000	$'000	$'000
Revenue	*2*	**2,805,839**	2,595,777	—	2,595,777
Direct costs		**(1,973,621)**	(1,816,270)	(10,017)	(1,826,287)
Other operating expenses		**(396,087)**	(389,899)	(2,473)	(392,372)
Operating profit		**436,131**	389,608	(12,490)	377,118
Financing income	*4*	**6,859**	4,759	—	4,759
Financing expense	*5*	**(24,625)**	(13,502)	—	(13,502)
Profit before taxation	*3*	**418,365**	380,865	(12,490)	368,375
Income tax expense	*6*	**(57,332)**	(47,011)	1,453	(45,558)
Profit for the financial year		**361,033**	333,854	(11,037)	322,817
Profit for the financial year is attributable to:					
Owners of the Company	*25*	**359,163**	333,854	(11,037)	322,817
Noncontrolling interest	*25*	**1,870**	—	—	—
Profit for the financial year attributable to the Group		**361,033**	333,854	(11,037)	322,817
Earnings per ordinary share					
Basic	*7*	**6.70**			5.96
Diluted	*7*	**6.64**			5.90

On behalf of the Board

Steve Cutler	Rónán Murphy
Chief Executive Officer	*Director*

Consolidated Statement of Comprehensive Income

for the year ended 31 December 2019

	Note	31 December 2019	31 December 2018
		$'000	$'000
Other Comprehensive Income			
Items that will not be reclassified to profit or loss:			
Re-measurement of defined benefit liability	*10*	**(2,407)**	2,640
Total items that will not be reclassified to profit or loss		**(2,407)**	2,640
Items that are or may be reclassified subsequently to profit or loss, net of tax:			
Currency translation differences	*25*	**(1,313)**	(26,522)
Currency impact on long-term funding	*25*	**(2,710)**	(4,834)
Unrealised capital gain/(loss) on investments	*25*	**681**	(155)
Amortisation of interest rate hedge	*25*	**(923)**	(923)
Cash flow hedges - effective portion of changes in fair value	*25*	**—**	(1,036)
Total items that are or may be reclassified to profit or loss		**(4,265)**	(33,470)
Other comprehensive loss for the year, net of tax		**(6,672)**	(30,830)
Profit for the financial year		**361,033**	322,817
Total comprehensive income for the financial year		**354,361**	291,987
Attributable to:			
Equity holders of the Company		**352,491**	291,987
Noncontrolling interest		**1,870**	**—**
Total comprehensive income for the financial year		**354,361**	291,987

On behalf of the Board

Steve Cutler	Rónán Murphy
Chief Executive Officer	*Director*

Consolidated Statement of Financial Position

as at 31 December 2019

	Note	31 December 2019	31 December 2018
ASSETS		**$'000**	$'000
Non-current assets			
Property, plant and equipment	*12*	**104,257**	103,710
Right-of-use assets	*27*	**103,962**	**—**
Intangible assets – goodwill and other	*13*	**1,025,903**	879,283
Other non-current assets	*17*	**24,741**	20,778
Financial assets	*18*	**10,053**	6,963
Deferred tax assets	*6*	**34,755**	31,665
Total non-current assets		**1,303,671**	1,042,399
Current assets			
Inventories	*15*	**3,181**	2,274
Accounts receivable	*16*	**527,708**	414,791
Unbilled revenue	*16*	**422,769**	362,926
Other current assets	*17*	**70,325**	68,734
Current taxes receivable		**40,989**	39,468
Current asset investments	*18*	**49,628**	59,910
Cash and cash equivalents	*19*	**520,309**	395,851
Total current assets		**1,634,909**	1,343,954
Total assets		**2,938,580**	2,386,353
EQUITY			
Share capital	*24*	**4,635**	4,658
Share premium		**305,228**	283,629
Other undenominated capital	*25*	**1,052**	983
Share-based payment reserve	*25*	**174,230**	173,326
Other reserves	*25*	**10,874**	11,868
Foreign currency translation reserve	*25*	**(71,492)**	(67,469)
Current asset investments - fair value reserve	*25*	**231**	(450)
Put option in noncontrolling interest shares	*25*	**(38,482)**	—
Retained earnings	*25*	**1,220,871**	979,834
Total equity attributable to the owners of the Company		**1,607,147**	
Noncontrolling interest	*25*	**34,462**	—
Total equity attributable to the owners of the Company and noncontrolling interest		**1,641,609**	1,386,379
LIABILITIES			
Non-current liabilities			
Non-current bank credit lines and loan facilities	*23*	**—**	349,264
Non-current lease liabilities	*27*	**76,593**	**—**
Non-current other liabilities	*20*	**17,899**	13,022
Non-current provisions	*21*	**405**	1,301
Deferred tax liabilities	*6*	**9,296**	8,213
Total non-current liabilities		**104,193**	371,800
Current liabilities			
Accounts payable		**24,050**	13,288
Unearned revenue	*16*	**366,988**	274,468
Accrued and other liabilities	*20*	**422,036**	309,943
Provisions	*21*	**3,732**	7,200
Current tax payable		**26,332**	23,275
Current bank credit lines and loan facilities	*23*	**349,640**	—
Total current liabilities		**1,192,778**	628,174
Total liabilities		**1,296,971**	999,974
Total equity attributable to the owners of the company and noncontrolling interest and liabilities		**2,938,580**	2,386,353

On behalf of the Board

Steve Cutler	Rónán Murphy
Chief Executive Officer	*Director*

Consolidated Statement of Changes in Equity

for the year ended 31 December 2019

	Number of shares	Share Capital	Share Premium	Other Undenominated Capital	Share-based Payment Reserve	Other Reserves	Currency Reserve	Financial assets at fair value through other comprehensive income reserve	Put option in noncontrolling interest shares	Retained Earnings	Sub total	Noncontrolling interest	Total
		$'000	$'000	$'000	$'000	$'000	$'000	$'000	$'000	$'000	$'000	$'000	$'000
Balance at 1 January 2019	**53,971,706**	**4,658**	**283,629**	**983**	**173,326**	**11,868**	**(67,469)**	**(450)**	**—**	**979,834**	**1,386,379**	**—**	**1,386,379**
Profit for the year attributable to the Group	—	—	—	—	—	—	—	—	—	359,163	359,163	—	359,163
Profit for the year attributable to redeemable noncontrolling interest	—	—	—	—	—	—	—	—	—	—	—	1,870	1,870
Other Comprehensive Income:											—		
Foreign currency translation	—	—	—	—	—	—	(1,313)	—	—	—	(1,313)	—	(1,313)
Currency impact on long-term funding	—	—	—	—	—	—	(2,710)	—	—	—	(2,710)	—	(2,710)
Cash flow hedge	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrealised fair value movements on investments	—	—	—	—	—	—	—	681	—	—	681	—	681
Re-measurement of defined benefit liability	—	—	—	—	—	—	—	—	—	(2,407)	(2,407)	—	(2,407)
Tax benefit on defined benefit pension contributions	—	—	—	—	—	—	—	—	—	—	—	—	—
Amortisation of interest rate hedge	—	—	—	—	—	(923)	—	—	—	—	(923)	—	(923)
Total other comprehensive income	—	—	—	—	—	(923)	(4,023)	681	—	(2,407)	(6,672)	—	(6,672)
Total comprehensive income for the year	—	—	—	—	—	(923)	(4,023)	681	—	356,756	352,491	1,870	354,361
Transactions with owners, recorded directly in equity											—		
Share-based payment	—	—	—	—	25,800	—	—	—	—	—	25,800	—	25,800
Exercise of share options	329,870	22	21,599	—	—	—	—	—	—	—	21,621	—	21,621
Transfer of exercised and expired share–based awards	—	—	—	—	(31,261)	—	—	—	—	31,261	—	—	—
Issue of restricted share units/ performance share units	355,730	24	—	—	—	—	—	—	—	—	24	—	24
Share issue costs	—	—	—	—	—	—	—	—	—	(13)	(13)	—	(13)
Repurchase of ordinary shares	(1,035,100)	(69)	—	69	—	—	—	—	—	(146,931)	(146,931)	—	(146,931)
Share repurchase costs	—	—	—	—	—	—	—	—	—	(107)	(107)	—	(107)
Tax benefit excess on exercise of options	—	—	—	—	7,046	—	—	—	—	—	7,046	—	7,046
Deferred tax movement on unexercised options	—	—	—	—	(681)	—	—	—	—	—	(681)	—	(681)
Acquisition of noncontrolling interest	—	—	—	—	—	—	—	—	—	—	—	32,592	32,592
Put option on noncontrolling interest shares	—	—	—	—	—	—	—	—	(38,482)	—	(38,482)	—	(38,482)
Non-distributable reserves	—	—	—	—	—	(71)	—	—	—	71	—	—	—
Total contributions by and distributions to owners	(349,500)	(23)	21,599	69	904	(71)	—	—	(38,482)	(115,719)	(131,723)	32,592	(99,131)
Balance at 31 December 2019	**53,622,206**	**4,635**	**305,228**	**1,052**	**174,230**	**10,874**	**(71,492)**	**231**	**(38,482)**	**1,220,871**	**1,607,147**	**34,462**	**1,641,609**

Consolidated Statement of Changes in Equity

for the year ended 31 December 2018

	Number of shares	Share Capital	Share Premium	Other Undenominated Capital	Share-based Payment Reserve	Other Reserves	Currency Reserve	Financial assets at fair value through other comprehensive income reserve	Retained Earnings	Total
		$'000	$'000	$'000	$'000	$'000	$'000	$'000	$'000	$'000
Balance at 31 December 2017	**54,081,601**	**4,664**	**266,852**	**912**	**187,840**	**11,029**	**(35,077)**	**(295)**	**794,331**	**1,230,256**
Cumulative effect adjustment from adoption of IFRS 15	—	—	—	—	—	—	—	—	(48,104)	**(48,104)**
Balance at 1 January 2018	54,081,601	4,664	266,852	912	187,840	11,029	(35,077)	(295)	746,227	1,182,152
Profit for the year	—	—	—	—	—	—	—	—	322,817	322,817
Other Comprehensive Income:										
Foreign currency translation	—	—	—	—	—	—	(26,522)	—	—	(26,522)
Currency impact on long-term funding	—	—	—	—	—	—	(4,834)	—	—	(4,834)
Cash flow hedge	—	—	—	—	—	—	(1,036)	—	—	(1,036)
Unrealised fair value movements on investments	—	—	—	—	—	—	—	(155)	—	(155)
Re-measurement of defined benefit liability	—	—	—	—	—	—	—	—	2,640	2,640
Tax benefit on defined benefit pension contributions	—	—	—	—	—	—	—	—	—	—
Amortisation of interest rate hedge	—	—	—	—	—	(923)	—	—	—	(923)
Total other comprehensive income	—	—	—	—	—	(923)	(32,392)	(155)	2,640	(30,830)
Total comprehensive income for the year	—	—	—	—	—	(923)	(32,392)	(155)	325,457	291,987
Transactions with owners, recorded directly in equity										
Share-based payment	—	—	—	—	28,009	—	—	—	—	28,009
Exercise of share options	408,699	29	16,777	—	—	—	—	—	—	16,806
Transfer of exercised and expired share–based awards	—	—	—	—	(38,954)	—	—	—	38,954	—
Issue of restricted share units/ performance share units	489,568	36	—	—	—	—	—	—	—	36
Share issue costs	—	—	—	—	—	—	—	—	(16)	(16)
Repurchase of ordinary shares	(1,008,162)	(71)	—	71	—	—	—	—	(128,960)	(128,960)
Share repurchase costs	—	—	—	—	—	—	—	—	(66)	(66)
Tax benefit excess on exercise of options	—	—	—	—	4,626	—	—	—	—	4,626
Deferred tax movement on unexercised options	—	—	—	—	(8,195)	—	—	—	—	(8,195)
Non-distributable reserves	—	—	—	—	—	1,762	—	—	(1,762)	—
Total contributions by and distributions to owners	(109,895)	(6)	16,777	71	(14,514)	1,762	—	—	(91,850)	(87,760)
Balance at 31 December 2018	**53,971,706**	**4,658**	**283,629**	**983**	**173,326**	**11,868**	**(67,469)**	**(450)**	**979,834**	**1,386,379**

Further details of the reserves above are detailed in note 25

Consolidated Statement of Cash Flows

for the year ended 31 December 2019

	Note	Year Ended 31 December 2019	Year ended 31 December 2018
		$'000	$'000
Profit for the financial year		**361,033**	322,817
Adjustments to reconcile net income to net cash generated from operating activities			
Loss on disposal of property, plant and equipment		**346**	70
Depreciation of property, plant and equipment	12	**19,597**	19,996
Depreciation of right-of-use assets	27	**31,387**	—
Amortisation of intangible assets	13	**41,953**	45,920
Amortisation of grants	22	**(44)**	(47)
Interest on short term investments	18	**(1,065)**	(1,329)
Realised gain on sale of current asset investments	18	**(55)**	(56)
Fair value movement on put option	25	**8,723**	—
Interest on lease liabilities	5	**2,626**	—
Loss/(gain) on re-measurement of long-term financial assets	18	**800**	(800)
Amortisation of gain on interest rate hedge	5	**(923)**	(923)
Amortisation of deferred financing costs	5	**540**	812
Share based payment	11	**25,886**	28,059
Financing income	4	**(6,859)**	(4,759)
Financing expense	5	**13,659**	13,613
Defined benefit pension service costs	10	**222**	263
Defined benefit pension finance costs	10	**82**	137
Defined benefit past service cost	10	**—**	(8)
Income tax expense	6	**57,332**	45,558
Operating cash inflow before changes in working capital		**555,240**	469,323
Increase in accounts receivable		**(101,545)**	(37,557)
Increase in unbilled revenue		**(55,790)**	(98,510)
(Increase)/decrease in other current assets		**(1)**	342
(Increase)/decrease in other non current assets		**(2,912)**	856
Increase in inventory		**(906)**	(38)
Increase/(decrease) in accounts payable		**3,440**	(5,067)
Increase/(decrease) in unearned revenue		**86,567**	(6,253)
Decrease in accrued and other liabilities and provisions		**(9,642)**	(29,613)
Increase/(decrease) in non current other liabilities and provisions		**817**	(1,813)
Cash provided by operations		**475,268**	291,670
Income taxes paid		**(29,836)**	(18,558)
Employer contribution defined benefit pension scheme	10	**(237)**	(263)
Interest received		**6,796**	4,224
Interest paid		**(13,059)**	(13,060)
Net cash inflow from operating activities		**438,932**	264,013
Investing activities			
Purchase of property, plant and equipment		**(19,330)**	(20,760)
Purchase of intangible assets		**(31,315)**	(27,637)
Purchase of subsidiary undertakings		**(131,272)**	(1,645)
Cash acquired with subsidiary undertakings		**11,697**	—
Sale/maturity of current asset investments		**21,686**	99,865
Purchase of current asset investments		**(9,603)**	(80,956)
Purchase of investments in equity - long term		**(3,890)**	(6,163)
Net cash used in investing activities		**(162,027)**	(37,296)
Financing activities			
Financing costs		**—**	(823)
Payment of lease liabilities		**(33,437)**	—
Tax benefit from the exercise of share options		**7,046**	4,626
Proceeds from exercise of share options, RSUs and PSUs		**21,645**	16,842
Share issuance costs		**(13)**	(16)
Repurchase of ordinary shares		**(146,931)**	(128,960)
Share repurchase costs		**(107)**	(66)
Net cash used in financing activities		**(151,797)**	(108,397)
Net increase in cash and cash equivalents		**125,108**	118,320
Effect of exchange rate changes		**(650)**	(5,328)
Cash and cash equivalents at start of year		**395,851**	282,859
Cash and cash equivalents at end of year		**520,309**	395,851

1. Basis of preparation and statement of accounting policies

Statement of compliance

The Group Financial Statements have been prepared in accordance with International Financial Reporting Standards ("IFRS") issued by the International Accounting Standards Board ("IASB") as adopted by the European Union ("EU") that are effective for financial year ending 31 December 2019 , and with those parts of the Companies Act 2014 applicable to companies reporting under IFRS. The Company Financial Statements have been prepared in accordance with IFRS as adopted by the EU, as applied in accordance with the Companies Act 2014 applicable to companies reporting under IFRS. IFRS adopted by the EU differs in certain respects from IFRS issued by the IASB. Reference to the IFRS hereafter refers to IFRS adopted by the EU. A Company that publishes its Group and Company Financial Statements together, can take advantage of the exemption in Section 304 of the Companies Act 2014 from presenting to its members a Company Statement of Profit and Loss and Company Statement of Comprehensive Income and related notes.

Basis of preparation

The Group and Company Financial Statements are presented in United States dollars ("U.S. dollars") and all values are rounded to the nearest thousand ($'000), except where otherwise indicated. They are prepared on the historical cost basis, except for the measurement at fair value on date of grant of share options, the pension plan assets, the put/call options over noncontrolling interest, other investments and financial assets. Other than the new and amended standard adopted by the group, accounting policies are applied consistently with the prior year.

New and amended standards adopted by the group

The Group has applied the following standards and amendments for the first time for the annual reporting period commencing 1 January 2019:

- IFRS 16 *Leases*
- Amendments to IFRS 9 *Prepayment Features with Negative Compensation*
- Amendments to IAS 28 *Long-term Interests in Associates and Joint Ventures*
- Annual Improvements to IFRS *Standards 2015–2017*
- Amendments to IAS 19 *Employee Benefits Plan Amendment, Curtailment or Settlement*
- IFRIC 23 *Uncertainty over Income Tax Treatments*

In the current year, the Group has applied IFRS 16 (as issued by the IASB in January 2016) that is effective for annual periods that begin on or after 1 January 2019.

IFRS 16 introduces new or amended requirements with respect to lease accounting. It introduces significant changes to lessee accounting by removing the distinction between operating and finance leases and requiring the recognition of a right-of-use asset and a lease liability at commencement for all leases, except for short-term leases and leases of low value assets. In contrast to lessee accounting, the requirements for lessor accounting have remained largely unchanged. Certain adjustments were made following the adoption of IFRS 16. The impact of these changes are disclosed in *note 34 Impact of New Accounting Policy*.

The date of initial application of IFRS 16 for the Group is 1 January 2019.

The Group has applied IFRS 16 using the cumulative effect adjustment approach, with no restatement of the comparative information which means information for the year ended 31 December 2018 continues to reflect the requirements of IAS 17 *Leases*.

The other amendments listed above did not have any impact on the amounts recognised in prior periods or the current period. See accounting policies section below for additional information.

New and amended standards and interpretations effective after 2019

Certain new accounting standards and interpretations have been published that are not mandatory for 31 December 2019 reporting periods and have not been early adopted by the Group.

1. Basis of preparation and statement of accounting policies (continued)

These include the following:

- IFRS 17 Insurance Contracts
- IFRS 10 and IAS 28 (amendments) Sale or Contribution of Assets between an Investor and its Associate or Joint Venture
- Amendments to IFRS 3 Definition of a business
- Amendments to IAS 1 and IAS 8 Definition of material
- Conceptual Framework Amendments to References to the Conceptual Framework in IFRS Standards

The directors do not expect that the adoption of the Standards listed above will have a material impact on the financial statements of the Group in future periods.

Critical accounting judgements and key sources of estimation uncertainty

The preparation of Consolidated Financial Statements requires management to make estimates and judgements that affect the reported amounts of assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reported period.

Estimates and judgements are based on historical experience and on other factors that are reasonable under current circumstances. Actual results may differ from these estimates if these assumptions prove to be incorrect or if conditions develop other than as assumed for the purposes of such estimates. The estimates and underlying assumptions are reviewed on an ongoing basis. The following are the critical judgements, apart from those involving estimations (which are presented separately below), that the directors have made in the process of applying the Group's accounting policies and that have the most significant effect on the amounts recognised in financial statements.

Revenue Recognition

The Company primarily earns revenues by providing a number of different services to its customers. These services, which are integral elements of the clinical development process, include clinical trials management, consulting, contract staffing, and laboratory services. Contracts range in duration from a number of months to several years.

ICON adopted IFRS 15 in the prior year using the cumulative effect transition method. Under this transition method, ICON applied the new standard as at the date of initial application (i.e. 1 January 2018), without restatement of comparative amounts. The cumulative effect of initially applying the new standard (to revenue, costs and tax) is recorded as an adjustment to the opening balance of equity at the date of initial application. The standard requires application of five steps: (1) identify the contract(s) with a customer; (2) identify the performance obligation in the contract; (3) determine the transaction price; (4) allocate the transaction price to the performance obligations in the contract; and (5) recognise revenue when (or as) the entity satisfies the performance obligation.

Revenue Recognition - Clinical trial service revenue

The most significant impact of application of the standard relates to our assessment of performance obligations and percentage of completion in respect of our clinical trial service revenue. Under IFRS 15, a clinical trial service is a single performance obligation satisfied over time i.e. the full service obligation in respect of a clinical trial (including those services performed by investigators and other parties) is considered a single performance obligation. Promises offered to the customer are not distinct within the context of the contract. ICON is the contract principal in respect of both direct services and in the use of third parties (principally investigator services) that support the clinical research project. The transaction price is determined by reference to the contract or change order value (total service revenue and pass-through/reimbursable expenses) adjusted downwards to reflect a realisable contract value. Revenue is recognised as the single performance obligation is satisfied. The progress towards completion for clinical service contracts is measured based on an input measure being project costs incurred as a proportion of total project costs (inclusive of third party costs) at each reporting period.

Revenue Recognition - Contracting services revenue

The Company has availed of the practical expedient which results in recognition of revenue on a right to invoice basis. Application of the practical expedient reflects the right to consideration from the customer in an amount that corresponds directly with the value to the customer of the performance completion to date. This reflects hours performed by contract staff.

1. Basis of preparation and statement of accounting policies (continued)

Revenue Recognition - Consulting services revenue

We have concluded that our consulting services contracts represent a single performance obligation satisfied over time. The transaction price is determined by reference to contract or change order value. Revenue is recognised as the performance obligation is satisfied. The progress towards completion for consulting contracts is measured based on total project inputs (time) at each reporting period.

Revenue Recognition - Laboratory services revenue

Revenue is recognised when, or as, obligations under the terms of a contract are satisfied, which occurs when control of the products or services are transferred to the customer. Revenue for laboratory services is measured as the amount of consideration we expect to receive in exchange for transferring products or services. Where contracts with customers contain multiple performance obligations, the transaction price is allocated to each performance obligation based on the estimated relative selling price of the promised good or service. Service revenue is recognised over time as the services are delivered to the customer based on the extent of progress towards completion of the performance obligation. The determination of the methodology to measure progress requires judgement and is based on the nature of services provided. This requires an assessment of the transfer of value to the customer. The right to invoice measure of progress is generally related to rate per unit contracts, as the extent of progress towards completion is measured based on discrete service or time-based increments, such as samples tested or labour hours incurred. Revenue is recorded in the amount invoiced since that amounts corresponds to the value of the Company's performance and the transfer of value to the customer.

Accounting policies

The following accounting policies have been applied consistently in dealing with items which are considered material in relation to the Group’s Financial Statements.

Basis of consolidation

The Group Financial Statements consolidate the financial statements of ICON plc and its subsidiaries. Subsidiaries are consolidated from the date on which control is transferred to the Group and cease to be consolidated from the date on which control is transferred out of the Group. The Group controls an entity when it is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. Financial statements of subsidiaries are prepared for the same reporting year as the Company and where necessary, adjustments are made to the results of subsidiaries to bring their accounting policies into line with those used by the Group. The Group will continue to prepare the individual statutory financial statements of subsidiary companies under GAAP applicable in their country of incorporation but adjustments have been made to the results and financial position of such companies to bring their accounting policies into line with those of the Group.

All intercompany balances and transactions, including unrealised profits arising from inter-group transactions, have been eliminated in full. Unrealised losses are eliminated in the same manner as unrealised gains except to the extent that there is evidence of impairment.

Foreign currency translation

The presentation and functional currency of the Company is US dollars ($). The presentation currency of the Group is US dollars ($). The determination of the USD as the functional currency of the Company reflects consideration of the primary and secondary indicators as set out in IAS 21. The directors considered in particular the currency in which funds from financing activities are generated (debt and equity) and the currency in which receipts from operating activities are usually retained. This assessment is consistent with the assessment that the functional currencies of the main subsidiary trading entities are USD. The Company Financial Statements are presented in US dollars. Results and cash flows of non-dollar denominated undertakings are translated into dollars at the actual exchange rates at the transaction dates or average exchange rates for the year where this is a reasonable approximation.

The related statements of financial position are translated at the rates of exchange ruling at the reporting date. Goodwill and fair value adjustments arising on acquisition of a foreign operation are regarded as assets and liabilities of the foreign operation, are expressed in the functional currency of the foreign operation and are recorded at the exchange rate at the date of the transaction, and subsequently retranslated at the applicable closing rates. Adjustments arising on translation of the results of non-dollar undertakings at average rates, and on the restatement of the opening net assets at closing rates, are recorded in the translation reserve within equity.

1. Basis of preparation and statement of accounting policies (continued)

Transactions in currencies different to the functional currencies of operations are recorded at the rate of exchange ruling at the date of the transaction. Monetary assets and liabilities denominated in foreign currencies are retranslated into the functional currency at the rate of exchange at the reporting date. All translation differences, with the exception of translation differences on long term intercompany balances in the Consolidated Financial Statements where repayment is not foreseen, are recorded in the Consolidated Statement of Profit and Loss. Translation differences on long term intercompany balances, in the Consolidated Financial Statements, where repayment is not foreseen are recorded within other comprehensive income in the Statement of Comprehensive Income.

On disposal of a foreign operation, accumulated currency translation differences, together with any exchange differences on foreign currency borrowings that provide a hedge of the net investment are recognised in the Consolidated Statement of Profit and Loss as part of the overall gain or loss on disposal.

The principal exchange rates used for the translation of results, cash flows and statements of financial position into US dollars were as follows:

	Average		Year end	
	31 December 2019	31 December 2018	**31 December 2019**	31 December 2018
Euro 1:$	**1.1183**	1.1846	**1.1213**	1.1467
Pound Sterling 1:$	**1.2735**	1.3401	**1.3257**	1.2754

Property, plant and equipment

Items of property, plant and equipment are stated at cost less accumulated depreciation and any provisions for impairment losses. Depreciation is calculated to write off the original cost of property, plant and equipment less its estimated residual value over its expected useful life on a straight line basis. Residual values and useful lives of property, plant and equipment are reviewed and adjusted if appropriate at each reporting date. At present it is estimated that all items of property, plant and equipment have no residual value. The estimated useful lives applied in determining the charge to depreciation are as follows:

	Years
Buildings	40
Computer equipment	2-8
Office furniture and fixtures	8
Laboratory equipment	5
Motor vehicles	5

Leasehold improvements are amortised using the straight-line method over the estimated useful life of the asset or the lease term, whichever is shorter.

On disposal of property, plant and equipment the cost and related accumulated depreciation and impairments are removed from the financial statements and the net amount, less any proceeds, is taken to the Consolidated Statement of Profit and Loss.

The carrying amounts of the Group's property, plant and equipment are reviewed at each reporting date to determine whether there is any indicator of impairment. Where such an indicator exists an impairment review is carried out. An impairment loss is recognised whenever the carrying amount of an asset or its cash generation unit exceeds its recoverable amount. Impairment losses are recognised in the Consolidated Statement of Profit and Loss.

Subsequent costs are included in an asset's carrying amount or recognised as a separate asset, as appropriate, only when it is probable that future economic benefits associated with the item will flow to the Group and the cost of the replaced item can be measured reliably. All other repair and maintenance costs are charged to the Consolidated Statement of Profit and Loss during the financial period in which they are incurred.

1. Basis of preparation and statement of accounting policies (continued)

IFRS 16 - Right-of-use assets and lease liabilities (year ended 31 December 2019)

The Group applied IFRS 16 using the cumulative effect adjustment approach. Under this transition method, ICON has applied the new standard as at the date of initial application (i.e. 1 January 2019), without restatement of comparative period amounts. The cumulative effect of applying the new standard is recorded as an adjustment to the opening Consolidated Statement of Financial Position as at the date of initial application (see *note 34 - Impact of change in accounting policies* for further details). The comparative information has not been adjusted and therefore continues to be reported under IAS 17.

IFRS 16 requires lessees to recognise the rights and obligations resulting from virtually all leases on the Consolidated Statements of Financial Position as right-of-use (ROU) assets with corresponding lease liabilities. Prior to the application of IFRS 16, costs in respect of operating leases were charged to the Consolidated Statements of Profit and Loss on a straight-line basis over the lease term while finance leases, if any, were depreciated on the same basis as property, plant and equipment.

ICON determines if an arrangement is a lease at inception. Leases are included in right-of-use assets, accrued and other liabilities and non-current lease liabilities on our Consolidated Statements of Financial Position. The right-of-use assets comprise the initial measurement of the corresponding lease liability, plus lease payments made at or before the commencement day and any initial direct costs, less any lease incentives received. They are subsequently measured at cost less accumulated depreciation and impairment losses. Right-of-use assets are depreciated over the lease term.

The right-of-use assets are presented as a separate line in the consolidated statement of financial position. The Group applies IAS 36 to determine whether a right-of-use asset is impaired and accounts for any identified impairment loss as described in the 'Property, Plant and Equipment' policy.

Lease liabilities are recognized based on the present value of future minimum lease payments over the lease term at commencement date or date of transition with the interest element of the finance lease charged to financing expense.

As most of ICON's leases do not provide an implicit rate, IFRS 16 allows for the use of an incremental borrowing rate as an appropriate discount rate to apply to the lease liability. The discount rate used is based on the rate of traded corporate bonds available at the commencement date adjusted for country risk, liquidity and lease term.

Current lease liabilities are included in accrued and other liabilities in the Consolidated Statement of Financial Position and non-current lease liabilities are presented as a separate line. The lease liability is subsequently measured by increasing the carrying amount to reflect interest on the lease liability (using the effective interest method) and by reducing the carrying amount to reflect the lease payments made.

Lease terms may also include options to extend or terminate. Such options are actively reviewed and adjustments to the ROU asset and lease liability are made when it is reasonably certain the option will be exercised.

As a practical expedient, IFRS 16 permits a lessee not to separate non-lease components, and instead account for any lease and associated non-lease components as a single arrangement. The Group has not used this practical expedient. ICON accounts for lease and non-lease components separately with lease components flowing through the Consolidated Statements of Financial Position and non-lease components expensed directly to the Consolidated Statements of Profit and Loss.

The Group has elected to account for short-term leases using the practical expedient. Instead of recognising a right-of-use asset and lease liability, the payments in relation to these are recognised as an expense in the Consolidated Statement of Profit and Loss on a straight-line basis over the lease term.

In some cases, ICON enters into sublease agreements and becomes both a lessee and a lessor for the same underlying asset. When the Group is an intermediate lessor, it accounts for the head lease and the sub-lease as two separate contracts. Subleases are accounted for in the same way as other leases. The sub-lease is classified as a finance or operating lease by reference to the right-of-use asset arising from the head lease.

IAS 17 - Leases (year ended 31 December 2018)

The lease accounting policy applied in preparation of the results for the year ended 31 December 2018 and previously reflected the application of IAS 17. Under this accounting policy, costs in respect of operating leases are charged to the Consolidated Statements of Profit and Loss on a straight line basis over the lease term. Assets acquired under finance leases are included in the Consolidated Statements of Financial Position at the present value of the future minimum lease payments and are depreciated over the shorter of the lease term and their remaining useful lives. The corresponding liabilities are recorded in the Consolidated Statements of Financial Position and the interest element of the capital lease rental is charged to financing expense.

1. Basis of preparation and statement of accounting policies (continued)

Business combinations

Business combinations are accounted for using the acquisition method when control is transferred to the Group. The consideration transferred is measured at fair value, as are the identifiable assets acquired and liabilities assumed. Where a business combination agreement provides for an adjustment to the cost of the acquisition which is contingent upon future events, the amount of the estimated adjustment is recognised on the acquisition date at the acquisition date fair value of this contingent consideration. The accounting treatment of any changes to this estimate in subsequent periods will depend on the classification of the contingent consideration. If the contingent consideration is classified as equity it shall not be re-measured and the settlement shall be accounted for within equity. If the contingent consideration is classified as a liability any adjustments to the assessment of contingent consideration determined as at acquisition date will be accounted for through the Consolidated Statement of Profit and Loss, as the liability is measured at fair value at each reporting date.

The assets, liabilities and contingent liabilities of businesses acquired are measured at their fair values at the date of acquisition. In the case of a business combination which is completed in stages, the fair values of the identifiable assets, liabilities and contingent liabilities are re-determined at the date of each transaction until control is obtained. When the initial accounting for a business combination is determined provisionally, any subsequent adjustments to the provisional values allocated to the identifiable assets, liabilities and contingent liabilities are made within twelve months of the acquisition date and presented as adjustments to the original acquisition accounting. Acquisition costs are expensed as incurred.

Goodwill

The Group measures goodwill at the acquisition date as the fair value of the consideration transferred plus the recognised amount of any non-controlling interests in the acquiree, if the business combination is achieved in stages, the fair value of the pre-existing equity interest in the acquiree, less the net recognised amount (generally fair value) of the identifiable assets acquired and liabilities assumed. Goodwill on the acquisition of subsidiaries is included in ‘intangible assets – goodwill and other’.

At the acquisition date, any goodwill acquired is allocated to the cash-generating units expected to benefit from the combination's synergies. Impairment is determined by assessing the recoverable amount of the cash-generating unit to which the goodwill relates. Where goodwill forms part of a cash-generating unit and part of the operation within that unit is disposed of, the goodwill associated with the operation disposed of is included in the carrying amount of the operation when determining the gain or loss on disposal of the operation. Goodwill disposed of in this circumstance is measured on the basis of the relative values of the operation disposed of and the proportion of the cash-generating unit retained.

Following initial recognition, goodwill is measured at cost less any accumulated impairment losses. Goodwill is reviewed for impairment annually or more frequently if events or changes in circumstances indicate that the carrying value may be impaired.

Intangible assets

Other intangible assets are stated at cost less accumulated amortisation and impairment losses. Useful lives of intangibles are reviewed and adjusted if appropriate at each reporting date. Amortisation is charged to the Consolidated Statement of Profit and Loss on a straight line basis over the estimated useful lives of intangible assets, currently estimated as follows:

	Years
Computer software	2-8
Customer relationships	7-16
Order backlog	1-9
Brand	5
Technology asset	8
Non-compete arrangements	5
Patient database	7

Impairment
The Group assessed at the end of each reporting period whether there was objective evidence that a financial asset or group of financial assets was impaired. A financial asset or a group of financial assets was impaired and impairment losses were incurred only if there was objective evidence of impairment as a result of one or more events that occurred after the initial recognition of the asset (a 'loss event') and that loss event (or events) had an impact on the estimated future cash flows of the financial asset or group of financial assets that could be reliably estimated.

1. Basis of preparation and statement of accounting policies (continued)

Impairment losses in respect of other non-financial assets, other than goodwill, are reversed if there has been a change in the estimates used to determine recoverable amount. Impairment losses are reversed only to the extent that the carrying amount of the asset does not exceed the carrying value that would have been determined, net of depreciation or amortisation, if no impairment loss had been recognised. Impairment losses in respect of goodwill are not reversed.

Inventories

Inventories, which comprise laboratory inventories, are stated at the lower of cost and net realisable value. Cost is based on the first-in, first-out principle and includes all expenditure incurred in acquiring the inventories and bringing them to their present location and condition. Cost in the case of raw materials comprises the purchase price and attributable costs, less trade discounts. Net realisable value is the estimated selling price in the ordinary course of business, less selling expenses.

Accounts payable

Trade and other payables are presented as current liabilities unless payment is not due within 12 months after the reporting period. They are recognised initially at fair value and subsequently measured at amortised cost using the effective interest rate method.

Government grants

Government grants received that compensate the Group for the cost of an asset are recognised in the Consolidated Statement of Financial Position initially as deferred income when there is reasonable assurance that it will be received and that the Group will comply with the conditions attaching to it. Such grants are recognised in the Consolidated Statement of Profit and Loss over the useful economic life of the asset which is consistent with the depreciation policy of the relevant asset.

Grants that compensate the Group for expenses incurred are recognised in the Consolidated Statement of Profit and Loss in the same periods in which the expenditure to which they relate is charged.

Under grant agreements amounts received may become repayable in full or in part should certain circumstances specified within the grant agreements occur, including downsizing by the Group, disposing of the related assets, ceasing to carry on its business or the appointment of a receiver over any of its assets. The Group has not recognised any such loss contingency having assessed as remote the likelihood of these events arising.

Provisions

A provision is recognised in the Consolidated Statement of Financial Position when the Group has a present or legal or constructive obligation as a result of a past event, and it is probable that an outflow of economic benefits will be required to settle the obligation. If the effect of the time value of money is material, provisions are determined by discounting the expected future cash flows at a pre-tax rate that reflects the time value of money and, where appropriate, the risks specific to the liability. Where discounting is used, the increase in the provision due to the passage of time is recognised as a finance cost.

A provision for restructuring is recognised when the Group has approved a detailed and formal restructuring plan, and the restructuring has either commenced or has been announced publicly. Future operating costs are not provided for.

A provision for onerous contracts is recognised when the expected benefits to be derived by the Group from a contract are lower than the unavoidable cost of meeting its obligations under the contract.

Financial Instruments

IFRS 9 - *Financial Instruments (effective from 1 January 2018)*. It addresses the classification, measurement and de-recognition of financial assets and financial liabilities, introduces a new impairment model for financial assets and new rules for hedge accounting. Adoption of IFRS 9 did not have any impact on the amounts recognised in the Group's financial statements

The Group assesses the business models and contractual cash flows which apply to its financial assets and classified the assets into the appropriate IFRS 9 categories accordingly.

1. Basis of preparation and statement of accounting policies (continued)

Financial asset category	Classification and measurement under IFRS 9	Classification test outcomes
Cash and cash equivalents Trade receivables	Financial assets at fair value (initial recognition) followed by amortised cost net of impairments (subsequent measurement).	Business model test result: hold to collect contractual cash flows. Cash flow characteristics test result: solely payments of principal and interest.
Current asset investments	Short-term financial assets at fair value (initial recognition) either through OCI or profit or loss	See details below
Non-current financial assets	Long-term financial assets at fair value through profit or loss	See details below
Contingent consideration	Fair value through profit or loss.	Business model test result: hold to collect contractual cash flows. Cash flow characteristics test result: potential variability in future payments results in changes to fair value.

As outlined above, the classification requirements under IFRS 9 did not impact the measurement or carrying amount of financial assets at 1 January 2018.

(a) Cash and cash equivalents

Cash and cash equivalents include cash and highly liquid investments with original maturities of three months or less and are stated at fair value on initial recognition followed by amortised cost, which approximates fair value.

(b) Trade receivables

The Group's financial assets measured at amortised cost, the most significant of which are trade receivables and unbilled receivables, are subject to IFRS 9's expected credit loss model.

For trade receivables and unbilled revenue, the Group applies the simplified approach permitted by IFRS 9, which requires expected lifetime losses to be recognised from initial recognition of the receivables. See notes 16, 26 and 34 for further details. The expected credit losses on these financial assets are estimated based on the Group's historical credit loss experience, adjusted for factors that are specific to the debtors, general economic conditions and an assessment of both the current, as well as the forecast direction of conditions, at the reporting date.

The Group writes off a financial asset when there is information indicating that the debtor is in severe financial difficulty and there is no realistic prospect of recovery, e.g. when the debtor has been placed under liquidation or has entered into bankruptcy proceedings. Financial assets written off may still be subject to enforcement activities under the Group's recovery procedures, taking into account legal advice where appropriate. Any recoveries made are recognised in profit or loss.

(c) Current asset investments and non-current financial assets

The Group classifies its financial assets in the following measurement categories:

- those to be measured subsequently at fair value through OCI
- those to be measured subsequently at fair value through profit or loss and
- those to be measured at amortised cost.

The classification depends on the entity's business model for managing financial assets and the contractual terms of the cash flows.

At initial recognition, the Group measures a financial asset at its fair value plus, in the case of a financial asset not at fair value through profit or loss (FVPL), transaction costs that are directly attributable to the acquisition of the financial asset. Transaction costs of financial assets carried at FVPL are expensed in profit or loss.

1. Basis of preparation and statement of accounting policies (continued)

For assets measured at fair value, gains and losses will either be recorded in profit or loss or OCI. For investments in equity instruments that are not held for trading, this will depend on whether the Group has made an irrevocable election at the time of initial recognition to account for the equity investment at fair value through other comprehensive income (FVOCI).

The Group reclassifies debt investments when and only when its business model for managing those assets changes.

Purchases or sales of financial assets are recognised on trade date, the date the Group commits to purchase or sell the asset. Financial assets are de-recognised when the rights to receive cash flows from the financial assets have expired or have been transferred and the group has transferred substantially all the risks and rewards of ownership.

Subsequent measurement of debt instruments depends on the Group's business model for managing the asset and the cash flow characteristics of the asset.

There are three measurement categories into which the Group classifies its financial instruments:

- Amortised cost: Assets that are held for collection of contractual cash flows where those cash flows represent solely payments of principal and interest are measured at amortised cost. Interest income from these financial assets is included in finance income using the effective interest rate method. Any gain or loss arising on derecognition is recognised directly in profit or loss and presented in other gains/(losses) together with foreign exchange gains and losses.

- FVOCI: Assets that are held for collection of contractual cash flows and for selling the financial assets, where the assets' cash flows represent solely payments of principal and interest, are measured at FVOCI. Movements in the carrying amount are taken through OCI, except for the recognition of impairment gains or loss. When the financial asset is derecognised, the cumulative gain or loss previously recognised in OCI is reclassified from equity to profit or loss and recognised in other gains/(losses). Interest income from these financial assets is included in finance income using the effective interest rate method.

- FVPL: Assets that do not meet the criteria for amortised cost or FVOCI are measured at FVPL. A gain or loss on a debt investment that is subsequently measured at FVPL is recognised in profit or loss.

The Group assesses on a forward looking basis the expected credit losses associated with its debt instruments carried at amortised cost. The impairment methodology applied depends on whether there has been a significant increase in credit risk.

(d) Interest bearing loans and borrowings

Borrowings are initially recognised at fair value, net of transaction costs incurred. Borrowings are subsequently measured at amortised cost. Subsequent to initial recognition, current and non-current interest bearing loans and borrowings are measured at amortised cost with any difference between cost and redemption value being recognised in the Consolidated Statement of Profit and Loss over the period of the borrowings on an effective interest rate basis. Fees paid on the establishment of loan facilities are recognised as transaction costs of the loan to the extent that it is probable that some or all of the facility will be drawn down. In this case, the fee is deferred until draw down will occur. Where there is no evidence that it is probable that some or all of the facility will be drawn down, the fee is capitalised as a prepayment and amortised over the period of the facility to which it relates.

Borrowings are classified as current liabilities unless the Group has an unconditional right to defer settlement of the liability for at least 12 months after the reporting date.

Borrowings are removed from the Consolidated Statement of Financial Position when the obligation specified in the contract is discharged, cancelled or expired. The difference between the carrying amount of a financial liability that has been extinguished or transferred to another party and the consideration paid, including any non-cash assets transferred or liabilities assumed, is recognised in profit or loss as other income or finance costs.

(e) Derivative financial instruments and hedging

Derivatives are initially recognised at fair value on the date a derivative contract is entered into and are subsequently remeasured to their fair value at the end of each reporting period. The accounting for subsequent changes in fair value depends on whether the derivative is designated as a hedging instrument, and if so, the nature of the item being hedged.

1. Basis of preparation and statement of accounting policies (continued)

The Group designates certain derivatives as either:

- hedges of the fair value of recognised assets or liabilities or a firm commitment (fair value hedges)
- hedges of a particular risk associated with the cash flows of recognised assets and liabilities and highly probable forecast transactions (cash flow hedges), or
- hedges of a net investment in a foreign operation (net investment hedges).

At inception of the hedge relationship, the Group documents the economic relationship between hedging instruments and hedged items including whether changes in the cash flows of the hedging instruments are expected to offset changes in the cash flows of hedged items. The Group documents its risk management objective and strategy for undertaking its hedge transactions.

The fair value of derivative financial instruments designated in hedge relationships are disclosed in note 26. Movements in the hedging reserve in shareholders' equity are shown in shareholders' equity. The full fair value of a hedging derivative is classified as a non-current asset or liability when the remaining maturity of the hedged item is more than 12 months. It is classified as a current asset or liability when the remaining maturity of the hedged item is less than 12 months.

Cash flow hedges that qualify for hedge accounting

The effective portion of changes in the fair value of derivatives that are designated and qualify as cash flow hedges is recognised in the cash flow hedge reserve within equity. The gain or loss relating to the ineffective portion is recognised immediately in profit or loss, within other gains/(losses).

Gains or losses relating to the effective portion of the change in intrinsic value of the options are recognised in the cash flow hedge reserve within equity. The changes in the time value of the options that relate to the hedged item are recognised within OCI in the costs of hedging reserve within equity.

When a hedging instrument expires or is sold or terminated, or when a hedge no longer meets the criteria for hedge accounting, any cumulative deferred gain or loss and deferred costs of hedging in equity at that time remains in equity until the forecast transaction occurs.

Changes in the fair value of any derivative instrument that does not qualify for hedge accounting are recognised immediately in profit or loss.

There were no open derivative transactions at 31 December 2019 or 31 December 2018.

In October 2015, the Group entered into an interest rate hedge in respect of the planned issuance of the Senior Notes in December 2015. The interest rate hedge matured in November 2015 when the interest rate on the Senior Notes was fixed. The interest rate hedge was considered an effective hedge on application of the provisions of IAS 39 and continues to be considered effective on application of the provisions of IFRS 9. The cash proceeds, representing the realised gain on the interest rate hedge were received on maturity in November 2015. The gain, representing the instrument’s fair value at maturity was recorded in Other Comprehensive Income and is being amortised to the Consolidated Statement of Profit and Loss over the term of the Senior Notes.

(f) Investments in subsidiaries - Company

Investments in subsidiary undertakings are stated at cost less any accumulated impairment and are reviewed for impairment if there are indicators that the carrying value may not be recoverable.

Intercompany loans receivable and payable are initially recognised at fair value. These are subsequently measured at amortised cost, less any loss allowance, calculated on an expected credit loss basis.

Share capital

Ordinary shares are classified as equity. Incremental costs directly attributable to the issue of new shares or options are shown in equity as a deduction, net of tax, from the proceeds.

Where ordinary shares are re-purchased by the Company they are cancelled and the nominal value of the shares is transferred to other un-denominated capital within equity.

1. Basis of preparation and statement of accounting policies (continued)

Noncontrolling interest

ICON acquired a majority ownership interest in MeDiNova. Included in the purchase agreement are put and call option arrangements with the noncontrolling interest holders that require (put option) or enable (call option) ICON to purchase the remaining minority ownership at a future date at a price which is dependant on the future results of the company. ICON does not have present access to the returns of the noncontrolling interest and this is retained by the noncontrolling interest holders. The noncontrolling interest is recorded at its fair value at the acquisition date in equity.

The financial liability for the noncontrolling interest put option is recognised at the present value of the amount payable upon exercise of the option. On initial recognition, the corresponding debit relating to the financial liability is made to equity attributable to the Company within the category 'put option in noncontrolling interest shares'. The financial asset relating to the call option meets the definition of a derivative under IFRS 9 and has been measured at fair value through the profit and loss in accordance with IFRS 9.

All subsequent changes in the carrying amount of the financial liability that result from the remeasurement of the present value of the amount payable upon exercise of the noncontrolling interest put option are recognised in the profit or loss attributable to the Company.

The noncontrolling interest continues to be recognised within equity until the noncontrolling interest call/put option is exercised. The carrying amount of noncontrolling interest changes due to allocations of profit or loss, allocations of changes in other comprehensive income and dividends declared for the reporting period.

The Company allocates a share of net income to the noncontrolling interest holders based on percentage ownership.

Employee benefits

(a) Pension and other post-employment benefits
Certain companies within the Group operate defined contribution pension plans. A defined contribution plan is a pension plan under which the Group pays fixed contributions into a separate entity. The Group has no legal or constructive obligations to pay further contributions if the fund does not hold sufficient assets to pay all employees the benefits relating to employee service in the current and prior periods. Contributions to defined contribution pension plans are expensed as incurred.

The Group operates defined benefit pension plans for certain of its United Kingdom and Swiss employees through subsidiary companies. A defined benefit plan is a pension plan that is not a defined contribution plan. Typically defined benefit plans define the amount of pension benefit that an employee will receive on retirement, usually dependent on one or more factors such as age, years of service and compensation. Obligations for contributions to defined benefit contribution pension plans are recognised as an expense in the Consolidated Statement of Profit and Loss as service is received from the relevant employees.

The Group’s net obligation in respect of the defined benefit pension plans is calculated separately by estimating the amount of future benefit that employees have earned in return for their service in the current and prior periods. This benefit is discounted to determine its present value, and the fair value of plan assets deducted. The discount rate used in respect of the UK scheme is the yield at the reporting date on the iBoxx corporate bond over 15 years plus 10 basis points. The discount rate used in respect of the Swiss scheme is determined by the Swiss corporate bond yields at the reporting date. The calculation is performed by a qualified actuary using the projected unit credit method. The net finance income/cost are recorded in operating costs in the Consolidated Statement of Profit and Loss. When benefits of a plan are improved, the portion of the increased benefit relating to the past service by employees is recognised as an expense in the Consolidated Statement of Profit and Loss on a straight line basis over the average period until the benefits become vested. To the extent that the benefits vest immediately, the expense is recognised immediately in the Consolidated Statement of Profit and Loss.

1. Basis of preparation and statement of accounting policies (continued)

(b) Share-based payments
Share-based payments comprise options to acquire ordinary shares in the Company, RSUs and PSUs in the form of ordinary share entitlements after a certain period of time. These are awarded to certain key employees and Directors of the Group based on service conditions such as term of employment and individual performance. The fair value of options, RSUs and PSUs granted is recognised as an employee expense with a corresponding increase in equity. The fair value is measured at grant date and spread over the period during which the Directors and other employees become unconditionally entitled to the options, RSUs or PSUs. The fair value of options granted is measured using a binomial lattice model, taking into account the terms and conditions upon which the options were granted. The fair value of RSUs and PSUs is equal to the market price of a share at date of grant. The total amount to be expensed is determined by reference to the fair value of the options, RSUs or PSUs granted, excluding the impact of any non-market service and performance vesting conditions (for example profitability, sales growth targets). There are no such non-market vesting conditions during the year ended 31 December 2019 in relation to options, RSUs or PSUs that are expected to vest. The amount recognised as an expense is adjusted to reflect the actual number of share options, RSUs or PSUs that vest.

Forfeitures are estimated on the date of grant and revised if actual or expected forfeiture activity differs materially from original estimates.

Share-based payment expense is recognised over the requisite service period for awards of equity instruments to employees based on the grant date fair value of those awards expected to ultimately vest.

Share-based payments – Company

The Company operates a number of share-based payment plans the details of which are presented in *note 11 Share-based Payments* to the Consolidated Financial Statements. The share-based payment expense associated with the share-based payment plans is recognised by the entity which receives services in exchange for the share-based compensation.

The Statement of Profit and Loss of the Company is charged with the expense related to the services received by the Company. The remaining portions of the share-based payments represent a contribution to Company's subsidiaries and are added to the carrying amount of those investments. Under an agreement, with certain subsidiaries, on the date of exercise the Company is paid an amount equal to the fair value of the ordinary shares issued that is in excess of the award exercise price with such amount reducing the Company's investment in its subsidiaries. The net effect of the grant date fair value of the Company's share-based compensation to employees of the Company's subsidiaries and recharges received from those subsidiaries is presented as a movement in financial fixed assets (see *note 3 Investment in subsidiaries*, to the Company only financial statements).

Direct costs

Direct costs consist of compensation, associated employee benefits and share-based payments for project-related employees and other direct project-related costs. Reimbursable expenses are included within direct costs on adoption of IFRS 15.

Other operating expenses

Other operating expenses consist of compensation, associated employee benefits and share-based payments for non-project-related employees and other indirect costs associated with the business. Other operating expenses also include depreciation expense and the amortisation of intangible assets.

Exceptional items

The Company has used the term "exceptional" to describe certain items which, in management's view, warrant separate disclosure by virtue of their size or incidence, or due to the fact that certain gains or losses are determined to be non-recurring in nature. Exceptional items may include restructuring, significant impairments, and material changes in estimates.

Research and development credits

Research and development credits that are provided under the income tax law of the jurisdictions in which the Group operates generally are recognised as a reduction of income tax expense. However, certain tax jurisdictions provide refundable credits that are not dependent on the Group's ongoing tax status or tax position. In these circumstances the credits are recognised in the Consolidated Statement of Profit and Loss in the same periods in which the expenditure to which they relate to is charged as a deduction against the related expense.

1. Basis of preparation and statement of accounting policies (continued)

Financing income

Interest income is recognised in the Consolidated Statement of Profit and Loss as it accrues using the effective interest rate method and includes interest receivable on investments.

Financing expense

Financing expense comprises interest payable on borrowings calculated using the effective interest rate method, finance charges on leases, foreign exchange gains and losses on bank loans, non-cash finance charges in respect of contingent consideration and gains and losses on hedging instruments that are recognised in the Consolidated Statement of Profit and Loss.

Financing expense also includes fees paid on the establishment of loan facilities which are recognised as transaction costs of the loan to the extent that it is probable that some or all of the facility will be drawn down. These fees are deferred and recognised in the Statement of Financial Position and are then amortised to the Consolidated Statement of Profit and Loss over the term the facility is available to the Group.

Income tax

Income tax expense in the Consolidated Statement of Profit and Loss represents the sum of income tax currently payable and deferred income tax.

Income tax currently payable is based on taxable profit for the year. Taxable profit differs from net profit as reported in the Consolidated Statement of Profit and Loss because it excludes items of income or expense that are taxable or deductible in other years and further excludes items that are not taxable or deductible. The Group's liability for income tax is calculated using rates that have been enacted or substantively enacted at the reporting date. Income tax is recognised in the Consolidated Statement of Profit and Loss except to the extent that it relates to items recognised directly in equity.

Deferred income tax is provided, using the liability method, on all differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for taxation purposes except those arising from non-deductible goodwill or on initial recognition of an asset or liability which affects neither accounting nor taxable profit.

Deferred income tax assets and liabilities are measured at the tax rates that are expected to apply in the year when the asset is expected to be realised or the liability to be settled.

Deferred tax assets are recognised for all deductible differences, carry forward of unused tax credits and unused tax losses, to the extent that it is probable that taxable profit will be available against which the deductible temporary differences and the carry forward of unused tax credits and unused tax losses can be utilised. The carrying amount of deferred income tax assets is reviewed at each reporting date and reduced to the extent that it is no longer probable that sufficient taxable profit would be available to allow all or part of the deferred income tax asset to be utilised.

Earnings per ordinary share

Basic earnings per share is computed by dividing the profit for the financial year attributable to ordinary shareholders of the Company by the weighted average number of ordinary shares outstanding during the financial period.

Diluted net income per ordinary share is computed by adjusting the weighted average number of ordinary shares outstanding during the period for all potentially dilutive ordinary shares outstanding during the period and adjusting net income for any changes in income or loss that would result from the conversion of such potential ordinary shares. There is no difference in net income used for basic and diluted net income per ordinary share.

1. Basis of preparation and statement of accounting policies (continued)

Segment reporting

An operating segment is a component of the Group that engages in business activities from which it may earn revenues and incur expenses, including revenues and expenses that relate to transactions with any of the Group's other components. The Group determines and presents operating segments based on the information that internally is provided to the Chief Executive Officer (CEO) and Chief Financial Officer (CFO) who together are considered the Group's chief operating decision makers, the 'CODM' . An operating segment's operating results are reviewed regularly by the CODM to make decisions about resources to be allocated to the segment and assess its performance, and for which discrete financial information is available.

Segment results that are reported to the CODM include items directly attributable to a segment as well as those that can be allocated on a reasonable basis. Segment capital expenditure is the total cost incurred during the period to acquire property, plant and equipment and intangible assets other than goodwill.

2. Segmental information

The Group is a clinical research organisation ("CRO"), providing outsourced development services on a global basis to the pharmaceutical, biotechnology and medical device industries. It specialises in the strategic development, management and analysis of programmes that support all stages of the clinical development process - from compound selection to Phase I-IV clinical studies. The Group has expanded predominately through internal growth, together with a number of strategic acquisitions to enhance its expertise and capabilities in certain areas of the clinical development process. The Group has the expertise and capability to conduct clinical trials in most major therapeutic areas on a global basis and has the operational flexibility to provide development services on a stand-alone basis or as part of an integrated "full service" solution. These services, which are integral elements of the clinical development process, include clinical trials management, biometric activities, consulting, imaging, contract staffing, informatics and laboratory services.

The Company determines and presents operating segments based on the information that is internally provided to the chief operating decision maker, together the ('CODM') in accordance with IFRS 8 *Operating Segments.* The Company determined that the CODM was comprised of the Chief Executive Officer and the Chief Financial Officer.

The Company operates as one business segment, which is the provision of outsourced development services on a global basis to the pharmaceutical, biotechnology and medical devices industries.

The Group's listing for its shares is the NASDAQ market in the United States. Consequently, information reviewed by the chief operating decision makers is prepared in accordance with US generally accepted accounting principles ("US GAAP") however the information presented below is prepared in accordance with IFRS reporting standards. Reconciliations of the Group's profit for the financial year and shareholders' equity from US GAAP to IFRS are set out on pages 139 to 142 of this report. The Company's areas of operation outside of Ireland include the United States, United Kingdom, Belgium, Bulgaria, France, Germany, Italy, Spain, Poland, Portugal, Czech Republic, Hungary, Israel, Latvia, Romania, Russia, Serbia, Sweden, The Netherlands, Turkey, Ukraine, Canada, Mexico, Argentina, Brazil, Chile, Colombia, Peru, India, China (including Hong Kong), Japan, Singapore, South Korea,The Philippines, Taiwan, Thailand, Australia, New Zealand, and South Africa.

Geographical segment information

	Year ended 31 December 2019	Year ended 31 December 2018
	$'000	$'000
Revenue		
Ireland (1)*	**1,252,834**	1,066,200
Rest of Europe (19)*	**388,916**	379,883
United States (1)*	**892,497**	894,978
Rest of World (19)*	**271,592**	254,716
Total	**2,805,839**	2,595,777

**denotes number of countries*

2. Segmental information (continued)

	Year ended 31 December 2019	Year ended 31 December 2018
	$'000	$'000
Non-current assets*		
Ireland	**242,761**	241,309
Europe	**419,101**	305,786
United States	**556,558**	445,569
Rest of World	**85,251**	49,735
Total	**1,303,671**	1,042,399

**Including right-of-use assets ($104.0 million) in respect of the year ended 31 December 2019.*

Major customers
Revenue from our largest customer for year ended 31 December 2019 was 12.5% compared to 13.6% for the year ended 31 December 2018. The second largest customer accounted for 10.2% of the Group's revenue for the year ended 31 December 2019.

3. Profit before taxation

Profit before taxation is stated after charging the following:

	Year ended 31 December 2019			Year ended 31 December 2018		
	Statutory auditor	**Affiliated firms**	**Total**	Statutory auditor	Affiliated firms	Total
	$'000	**$'000**	**$'000**	$'000	$'000	$'000
Auditor's remuneration:						
Audit fees [1] [2]	**1,345**	**—**	**1,345**	1,515	—	1,515
Other assurance fees [3]	**30**	**103**	**133**	53	93	146
Tax advisory fees [4]	**633**	**222**	**855**	500	142	642
Other non-audit fees [5]	**384**	**—**	**384**	40	—	40
Total fees	**2,392**	**325**	**2,717**	2,108	235	2,343

[1] *Audit fees include annual audit fees for ICON plc.*
[2] *Audit fees for the Company for the year are set at $30,000 (2018: $30,000)*
[3] *Other assurance fees principally consist of fees for the audit of remaining subsidiaries and fees for the audit of the financial statements of employee benefit plans.*
[4] *Tax advisory fees are for tax compliance and tax advisory services.*
[5] *Other non-audit fees principally consist of fees for financial due diligence.*

Directors' remuneration disclosures as required by Section 305 of the Companies Act 2014 are set out below:

	Year ended 31 December 2019	Year ended 31 December 2018
	$'000	$'000
Directors' emoluments		
Emoluments	**3,214**	3,618
Benefits under long-term incentive schemes	**3,955**	1,730
Gain on exercise of share options	**16,907**	20,798
Pension contributions (defined contribution)	**178**	203

Further details regarding Directors' shareholdings, share options and compensation are shown in *note 9 – Payroll and related benefits.*

3. Profit before taxation (*continued*)

Retirement benefits accrue to one Director (2018: two Directors) under a defined contribution scheme.

Included in the benefits under long-term incentive scheme are amounts relating to share entitlements, the calculation of which was based on the share-based payment charge calculated under IFRS 2 *Share Based Payments*.

	Year ended 31 December 2019	Year ended 31 December 2018
	$'000	$'000
Depreciation and amortisation		
Depreciation of property, plant and equipment (note12)	**19,597**	19,996
Depreciation of right-of-use assets (note 27)	**31,387**	**—**
Amortisation of intangible assets (note13)	**41,953**	45,920
Total depreciation and amortisation	**92,937**	65,916
Loss on sale of property, plant & equipment	**346**	70

	Year ended 31 December 2018
	$'000
Operating lease rentals	
Premises	36,383
Motor vehicles	3,227
Plant and equipment	680
Total operating lease rentals *	**40,290**

** Operating lease rentals above reflects costs pursuant to IAS 17 and includes rate expenses incurred during the year.*

4. Financing income

	Year ended 31 December 2019	Year ended 31 December 2018
	$'000	$'000
Interest receivable	**6,859**	4,759
Total finance income	**6,859**	4,759

All of the above relate to items not at fair value through profit and loss.

5. Financing expense

	Year ended 31 December 2019	Year ended 31 December 2018
	$'000	$'000
Interest and facility fees on bank overdraft and Senior Notes		
- repayable within 5 years, not by installments*	**13,659**	13,613
Remeasurement of gross obligation under put option	**8,723**	**—**
Interest on lease liabilities	**2,626**	**—**
Facility fees (including amortisation)	**540**	812
Amortisation of gain on interest rate hedge	**(923)**	(923)
Total finance expense	**24,625**	13,502

**The interest rate on the Senior Notes is fixed at 3.64%. Costs directly related to the Senior Notes are amortised over the term.*

All of the above (other than remeasurement of gross obligation under put option) relate to items not at fair value through profit and loss.

6. Income tax expense

The components of the current and deferred tax expense for the years ended 31 December 2019 and 2018 were as follows:

	Year ended 31 December 2019	Year ended 31 December 2018
	$'000	$'000
Current tax expense		
Current year		
- Ireland	**36,150**	26,898
- Other	**24,959**	17,127
	61,109	44,025
Deferred tax expense/ (credit)		
Origination and reversal of temporary differences	**(2,556)**	2,584
Over provided in prior years	**(1,221)**	(1,051)
Total income tax expense in profit and loss	**57,332**	45,558
Tax recognised directly in equity		
Deferred tax recognised directly in equity	**862**	8,195
Current tax recognised directly in equity	**(7,229)**	(4,626)
Total tax recognised in equity	**(6,367)**	3,569
Income tax recognised in other comprehensive income		
Fair value of cash flow hedge	—	(148)
Tax impact of pension contributions	—	—
Tax on currency impact on long term funding	**25**	119
Total income tax recognised in other comprehensive income	**25**	**(29)**

The total tax expense of $57.3 million and $45.6 million for the years ended 31 December 2019 and 31 December 2018 respectively, reflects tax at standard rates on taxable profits in the jurisdictions in which the Group operates, foreign withholding tax and the availability of tax losses.

The deferred tax charge of $2.6 million for the year ended 31 December 2019 and the deferred tax charge of $2.6 million for the year ended 31 December 2018, relates to deferred tax arising in respect of net operating losses and temporary differences in capital items, the timing of certain goodwill amortisation on US acquisitions and the timing of tax deductions available relating to the Group's share-based compensation schemes. No deferred tax asset has been recognised on the defined benefit pension scheme as it is not probable that sufficient taxable profit will be available against which the deductible temporary difference can be utilised, with the exception of pension contributions made in the UK during 2017, the tax benefit for which has been recognised in other comprehensive income.

6. Income tax expense (*continued*)

A reconciliation of the expected tax expense, computed by applying the standard Irish tax rate to income before tax to the actual tax expense, is as follows:

	Year ended 31 December 2019	Year ended 31 December 2018
	$'000	$'000
Profit before tax	**418,365**	368,375
Irish standard tax rate	**12.5%**	12.5%
Taxes at Irish standard tax rate	**52,296**	46,047
Under/(Over) provision in respect to prior years	**(1,221)**	(1,051)
Foreign and other income taxed at higher rates	**7,109**	7,648
Effect of change in tax rates	**359**	(147)
Increase/(decrease) in unrecognised tax benefits	**(1,273)**	(5,423)
Losses for which no benefit has been recognised	**(10)**	5,667
Research and development tax incentives	**(893)**	(1,243)
Impact of stock compensation	**(1,003)**	(4,701)
Other	**1,968**	(1,239)
Tax expense on profit for the year	**57,332**	45,558

The net deferred tax asset at 31 December 2019 and 31 December 2018 was as follows:

	Year ended 31 December 2019	Year ended 31 December 2018
	$'000	$'000
Deferred taxation assets		
Net operating losses carried forward	**11,774**	3,615
Accrued expenses	**24,830**	23,754
Property, plant and equipment	**5,195**	4,855
Deferred revenue	**3,933**	5,681
Deferred compensation	**2,744**	2,197
Share-based payment	**23,082**	24,578
Other	**682**	2
Total deferred taxation assets	**72,240**	64,682
Less: offset against deferred tax liabilities	**(37,485)**	(33,017)
Deferred tax asset disclosed on Consolidated Statement of Financial Position	**34,755**	31,665

6. Income tax expense (*continued*)

	Year ended 31 December 2019	Year ended 31 December 2018
Deferred taxation liabilities	**$'000**	$'000
Property, plant and equipment	**1,102**	981
Goodwill and related assets	**27,590**	25,149
Other intangible assets	**11,805**	9,397
Accruals to cash method adjustment	**6,284**	5,703
Total deferred taxation liabilities	**46,781**	41,230
Less: offset against deferred tax assets	**(37,485)**	(33,017)
Deferred tax liability disclosed on Consolidated Statement of Financial Position	**9,296**	8,213
Net deferred taxation asset	**25,459**	23,452

The movement in temporary differences during the year ended 31 December 2019 was as follows:

	Balance 1 January 2019	Recognised in Income	Recognised on Acquisition	Recognised in Other Comprehensive Income	Recognised in Equity	Balance 31 December 2019
	$'000	**$'000**	**$'000**	**$'000**	**$'000**	**$'000**
Deferred taxation assets						
Net operating loss carry forwards	**3,615**	3,680	4,479	—	—	**11,774**
Accrued expenses	**23,754**	1,139	120	(183)	—	**24,830**
Property, plant and equipment	**4,855**	220	120	—	—	**5,195**
Deferred compensation	**2,197**	547	—	—	—	**2,744**
Share-based payment	**24,578**	(817)	—	—	(679)	**23,082**
Deferred revenue	**5,681**	(2,060)	312	—	—	**3,933**
Other	**2**	625	55	—	—	**682**
Total deferred taxation assets	**64,682**	**3,334**	**5,086**	**(183)**	**(679)**	**72,240**
Deferred taxation liabilities						
Property, plant and equipment	**981**	27	94	—	—	**1,102**
Goodwill on acquisition	**25,149**	2,441	—	—	—	**27,590**
Accruals to cash method adjustment	**5,703**	540	—	—	41 *	**6,284**
Other intangible assets	**9,397**	(2,240)	4,648	—	—	**11,805**
Total deferred taxation liabilities	**41,230**	**768**	**4,742**	**—**	**41**	**46,781**
Net deferred taxation asset/ (liability)	**23,452**	**2,566**	**344**	**(183)**	**(720)**	**25,459**

**These adjustments relate to foreign currency translation on the deferred tax liabilities.*

6. Income tax expense (*continued*)

The movement in temporary differences during the year ended 31 December 2018 was as follows:

	Balance 1 January 2018	Recognised in Income	Recognised on Acquisition	Recognised in Other Comprehensive Income	Recognised in Equity	Balance 31 December 2018
	$'000	$'000	$'000	$'000	$'000	$'000
Deferred taxation assets						
Net operating loss carry forwards	**3,402**	407	—	(194)	—	**3,615**
Accrued expenses	**23,627**	127	—	—	—	**23,754**
Property, plant and equipment	**3,989**	866	—	—	—	**4,855**
Deferred compensation	**2,548**	(351)	—	—	—	**2,197**
Share-based payment	**31,044**	1,729	—	—	(8,195)	**24,578**
Deferred revenue	**6,872** *	(1,191)	—	—	—	**5,681**
Other	**740**	(738)	—	—	—	**2**
Total deferred taxation assets	**72,222**	**849**	**—**	**(194)**	**(8,195)**	**64,682**
Deferred taxation liabilities						
Property, plant and equipment	**1,139**	(158)	—	—	—	**981**
Goodwill on acquisition	**22,655**	2,494	—	—	—	**25,149**
Accruals to cash method adjustment	**4,139**	1,349	—	—	215 **	**5,703**
Other intangible assets	**11,801**	(2,404)	—	—	—	**9,397**
Total deferred taxation liabilities	**39,734**	**1,281**	**—**	**—**	**215**	**41,230**
Net deferred taxation asset/ (liability)	**32,488**	**(432)**	**—**	**(194)**	**(8,410)**	**23,452**

**The balance at 1 January 2018 includes the effect of initially applying IFRS 15.*
***These adjustments relate to foreign currency translation on the deferred tax liabilities.*

Unrecognised deferred tax assets

Deferred tax assets relating to the following net operating losses have not been recognised to the extent that it is considered unlikely that a benefit will be received in the future.

At 31 December 2019, non-US subsidiaries had operating loss carry-forwards for income tax purposes that may be carried forward indefinitely, available to offset against future taxable income, if any, of approximately $37.9 million (31 December 2018: $70.0 million). At 31 December 2019, non–US subsidiaries also had additional operating loss carry forwards of $15.8 million which are due to expire between 2020 and 2026 and operating loss carry forwards of $19.1 million which are due to expire between 2027 and 2036.

At 31 December 2019, U.S. subsidiaries also had excess disallowed interest carry-forwards of $10.5 million. These carry-forwards are available for offset against future taxable income in the event that the U.S. subsidiaries have excess capacity for interest deduction in future tax years.

In total, the Group has unrecognised deferred tax assets of $28.1 million at 31 December 2019 and $27.4 million at 31 December 2018. The Group has not recognised these remaining deferred tax assets because it believes that it is more likely than not that the losses and other deferred tax assets will not be utilised given their history of operating losses.

6. Income tax expense (*continued*)

Unrecognised deferred tax liabilities

The Company has recognised a deferred tax liability of $5.4 million (2018: $4.9 million) for investments in foreign subsidiaries where the Company does not consider the earnings to be indefinitely reinvested. For the deferred tax liability not recognised in respect of temporary differences related to investments in foreign subsidiaries which are considered to be indefinitely reinvested, it is not practicable to calculate the exact unrecognised deferred tax liability, however it is not expected to be material as Ireland allows a tax credit in respect of distributions from foreign subsidiaries at the statutory tax rate in the jurisdiction of the subsidiary so that no material tax liability would be expected to arise in Ireland in the event these earnings were ever remitted. In addition, withholding taxes applicable to remittances from foreign subsidiaries would not be expected to be material given Ireland's tax treaty network and the EU parent subsidiary directive.

7. Earnings per share

The following table sets forth the computation for basic and diluted net earnings per share for the year ended 31 December 2019:

	31 December 2019	31 December 2018	31 December 2018	31 December 2018
	$'000	$'000	$'000	$'000
		Excluding Exceptional items	Exceptional items	Including Exceptional items
Numerator computations				
Basic and diluted earnings per share				
Profit for the period	**361,033**	333,854	(11,037)	322,817
Profit attributable to equity holders	**361,033**	333,854	(11,037)	322,817
Denominator computations		**Number of Shares**		
Weighted average number of ordinary shares outstanding – basic	**53,859,537**	54,118,764	54,118,764	54,118,764
Effect of dilutive potential ordinary shares	**499,015**	620,574	620,574	620,574
Weighted average number of ordinary shares outstanding - diluted	**54,358,552**	54,739,338	54,739,338	54,739,338
Earnings per Share	**$**	$	$	$
Basic earnings per ordinary share	**6.70**	6.16	(0.20)	5.96
Diluted earnings per ordinary share	**6.64**	6.10	(0.20)	5.90

The Company had 123,997 anti-dilutive shares in issue at 31 December 2019 comprised of 94,665 options and 29,332 PSUs (31 December 2018: 204,553).

8. Exceptional items

Exceptional items are comprised of the following:

	Year ended 31 December 2019	Year ended 31 December 2018
	$'000	$'000
Restructuring charges	—	12,490
Income tax	—	(1,453)
Exceptional items (net)	—	11,037

No restructuring charge was recognised during the year ended 31 December 2019.

Prior Period Restructuring Charges

A restructuring charge of $12.5 million was recognised during the year ended 31 December 2018, under a restructuring plan adopted following a review of operations. The restructuring plan reflected resource rationalisation across the business to improve resource utilisation resulting in a charge of $9.7 million and office consolidation resulting in the recognition of an onerous lease obligation of $2.8 million. No additional charge was recorded during the twelve months ended 31 December 2019.

	Workforce reductions	Onerous Lease	Total
	$'000	**$'000**	**$'000**
Total provision recognised	9,684	2,806	12,490
Utilisation	(5,399)	(672)	(6,071)
Provision at 31 December 2018	4,285	2,134	6,419
Utilisation	(3,554)	(1,228)	(4,782)
Provision at 31 December 2019	731	906	1,637

A restructuring charge of $7.8 million was recognised during the year ended 31 December 2017, under a restructuring plan adopted following a review of operations. The restructuring plan reflected resource rationalisation across the business to improve resource utilisation. No additional charge was recorded during the twelve months ended 31 December 2019.

	Workforce reductions
	$'000
Restructuring charges	7,753
Utilisation	(4,656)
Provision at 31 December 2017	3,097
Utilisation	(1,015)
Provision at 31 December 2018	2,082
Utilisation	(2,082)
Provision at 31 December 2019	—

9. Payroll and related benefits

Payroll costs

The aggregate payroll costs of employees of the Group for the year ended 31 December 2019 were as follows:

	Note	**Year ended 31 December 2019**	Year ended 31 December 2018
		$'000	$'000
Wages and salaries		**1,040,268**	994,169
Social welfare costs		**147,850**	141,906
Pension costs for defined contribution pension schemes	*10*	**42,952**	40,773
Pension costs for defined benefit pension schemes	*10*	**304**	392
Termination benefits	*8*	**—**	9,684
Share-based payment*	*11*	**25,886**	28,059
Total charge to income		**1,257,260**	1,214,983
Re-measurement of post-employment benefit obligations	*10*	**2,407**	(2,640)
Total payroll and related benefit costs		**1,259,667**	1,212,343

** IFRS 2 requires that the fair value of share options, restricted share units or performance share units is amortised over the vesting period of the award.*

Average employee numbers

The average number of employees, including executive Directors, employed by the Group during the year ended 31 December 2019 was as follows:

	Year ended 31 December 2019	Year ended 31 December 2018
Marketing	**190**	192
Administration	**1,782**	1,578
Clinical research	**11,622**	11,249
Laboratory	**653**	557
Total	**14,247**	13,576

Directors' remuneration

Remuneration policy

The Compensation and Organisation Committee seeks to achieve the following goals with the Company's executive compensation programmes: to attract, motivate and retain key executives and to reward executives for value creation. The Committee seeks to foster a performance-oriented environment by ensuring that a significant portion of each executive's cash and equity compensation is based on the achievement of performance targets that are important to the Company and its shareholders.

The Company's executive compensation programme has three main elements: base salary, a bonus plan and equity incentives in the form of share related awards granted under the Company's equity incentive plans. All elements of key executives' compensation are determined by the Compensation and Organisation Committee based on the achievement of the Group's and individual performance objectives.

9. Payroll and related benefits (*continued*)

Non-Executive Directors' remuneration

Non-Executive Directors are remunerated by way of Directors' fees and are also eligible for participation in the share equity incentive schemes. During 2019, each Non-Executive Director (excluding the Board Chairman) was paid an annual retainer of $65,000 and additional fees for Board Committee service.

Mr. Murray's Executive Chairman term expired on 12 May 2018 and he transitioned to the role of Non-Executive Chairman. The arrangements with the Non-Executive Chairman of the Board provide for payment of €300,000 (translated at average rate for the year: $335,490) annually.

Mr. Rónán Murphy was appointed as Lead Independent Director with effect from 1 January 2019. He received an additional fee of $25,000 for this role.

Non-Executive Directors are not eligible for performance related cash bonuses and no pension contributions are made on their behalf. The Compensation and Organisation Committee sets non-Executive remuneration.

Executive Directors' and Key Executive Officers' remuneration

Total cash compensation is divided into a base salary portion and a bonus incentive portion. The Committee targets total cash compensation with regard to healthcare/ biopharmaceutical companies of similar market capitalisation and peer CRO companies, adjusted upward or downward based on individual performance and experience and level of responsibility. The Compensation and Organisation Committee believes that the higher the executive's level of responsibility within the Company, the greater the percentage of the executive's compensation that should be tied to the Company's performance. Target bonus incentive for executive officers range between 50% and 100% with actual pay outs for 2019 ranging from 40% to 85% of salary based on group and individual performance.

A total bonus of $1.2 million was awarded to the following individuals; Dr. Steve Cutler, Chief Executive Officer ($0.9 million) and Mr. Brendan Brennan, Chief Financial Officer ($0.3 million) to reflect their contribution to the performance of the Company during 2019. These amounts were approved by the Compensation and Organisation Committee and have been paid during the year ended 31 December 2020.

The Company's executives are eligible to receive equity incentives, including stock options, restricted share units and performance share units, granted under the Company's equity incentive plans. If executives receive equity incentive grants, they are normally approved annually at the first scheduled meeting of the Committee in the fiscal year. The grant date is determined by the Committee, and grants are awarded at the closing price on the day of grant. Newly hired executives may receive sign-on grants. In addition, the Committee may, in its discretion, issue additional equity incentive awards to executives if the Committee determines such awards are necessary to ensure appropriate incentives are in place. The number of equity awards granted to each participant is determined primarily by the Committee at the start of each year based on peer groups and advice from independent compensation consultants.

All executive officers are eligible to participate in pension plans. The Company's contributions are generally a fixed percentage of their annual compensation, supplementing contributions by the executive. The Company has the discretion to make additional contributions if deemed appropriate by the Committee. Contributions to this plan are recorded as an expense in the Consolidated Statement of Operations.

The Directors, Executive Officers and Company Secretary have the following interests, all of which are beneficial, other than as stated, in the shares and share options of the Company or other Group companies at the following dates:

9. Payroll and related benefits (*continued*)

		Interest at 31 December 2019		Interest at 31 December 2018	
Name	**Name of company and description of shares**	**Number of shares**	**Options**	Number of shares	Options
Ciaran Murray	ICON plc				
	Ordinary Shares €0.06	**—**	**58,646**	—	133,259
Dr. Steve Cutler	ICON plc				
	Ordinary Shares €0.06	**30,686**	**149,098**	40,424	165,328
Brendan Brennan	ICON plc				
	Ordinary Shares €0.06	**14,640**	**72,295**	9,199	73,472
Rónán Murphy	ICON plc				
	Ordinary Shares €0.06	**—**	**11,160**	—	12,698
Professor Hugh Brady	ICON plc				
	Ordinary Shares €0.06	**—**	**10,841**	—	43,255
Dr. John Climax	ICON plc				
	Ordinary Shares €0.06	**610,511**	**47,755**	685,011	47,755
Joan Garahy	ICON plc				
	Ordinary Shares €0.06	**—**	**5,005**	—	5,005
Professor William Hall	ICON plc				
	Ordinary Shares €0.06	**—**	**10,841**	—	23,495
Eugene McCague	ICON plc				
	Ordinary Shares €0.06	**—**	**5,005**	—	5,005
Julie O'Neill	ICON plc				
	Ordinary Shares €0.06	**—**	**—**	—	—
Mary Pendergast	ICON plc				
	Ordinary Shares €0.06	**—**	**43,255**	—	43,255
Diarmaid Cunningham	ICON plc				
	Ordinary Shares €0.06	**—**	**35,471**	—	34,398

9. Payroll and related benefits (*continued*)

Further details regarding the above share options are as follows:

Name	Options	Exercise price	Grant date	Expiry date
Ciaran Murray*	45,948	$71.95	4 March 2016	4 March 2024
	7,693	$90.03	19 May 2017	19 May 2025
	5,005	$125.74	18 May 2018	18 May 2026
Dr. Steve Cutler	6,789	$48.67	17 March 2014	17 March 2022
	12,500	$68.39	18 March 2015	18 March 2023
	12,254	$71.95	4 March 2016	4 March 2024
	37,733	$83.47	3 March 2017	3 March 2025
	39,483	$115.11	3 March 2018	3 March 2026
	40,339	$140.38	3 March 2019	3 March 2027
Brendan Brennan	15,813	$32.37	1 May 2013	1 May 2021
	10,285	$68.39	18 March 2015	18 March 2023
	13,611	$71.95	4 March 2016	4 March 2024
	14,206	$83.47	3 March 2017	3 March 2025
	9,584	$115.11	3 March 2018	3 March 2026
	8,796	$140.38	3 March 2019	3 March 2027
Rónán Murphy	6,155	$90.03	19 May 2017	19 May 2025
	5,005	$125.74	18 May 2018	18 May 2026
Professor Hugh Brady	2,000	$68.39	18 March 2015	18 March 2023
	4,224	$65.60	20 May 2016	20 May 2024
	4,617	$90.03	19 May 2017	19 May 2025
Dr. John Climax	2,000	$22.30	27 April 2012	27 April 2020
	2,500	$32.37	1 May 2013	1 May 2021
	10,000	$40.83	23 May 2014	23 May 2022
	10,000	$68.39	18 March 2015	18 March 2023
	10,557	$65.60	20 May 2016	20 May 2024
	7,693	$90.03	19 May 2017	19 May 2025
	5,005	$125.74	18 May 2018	18 May 2026
Joan Garahy	5,005	$125.74	18 May 2018	18 May 2026
Professor William Hall	2,000	$68.39	18 March 2015	18 March 2023
	4,224	$65.60	20 May 2016	20 May 2024
	4,617	$90.03	19 May 2017	19 May 2025
Eugene McCague	5,005	$125.74	18 May 2018	18 May 2026
Julie O'Neill	—	$—	—	—

9. Payroll and related benefits (*continued*)

Name	Options	Exercise price	Grant date	Expiry date
Mary Pendergast	10,000	$40.83	23 May 2014	23 May 2022
	10,000	$68.39	18 March 2015	18 March 2023
	10,557	$65.60	20 May 2016	20 May 2024
	7,693	$90.03	19 May 2017	19 May 2025
	5,005	$125.74	18 May 2018	18 May 2026
Diarmaid Cunningham	519	$47.03	3 March 2014	3 March 2022
	1,115	$48.67	17 March 2014	17 March 2022
	3,750	$68.39	18 March 2015	18 March 2023
	9,189	$71.95	4 March 2016	4 March 2024
	8,188	$83.47	3 March 2017	3 March 2025
	7,211	$115.11	3 March 2018	3 March 2026
	5,499	$140.38	3 March 2019	3 March 2027

* In February 2018, the Board approved the appointment of Mr. Murray as non-Executive Chairman of the Board of Directors with effect from 12 May 2018. Mr. Murray ceased to be an employee of the Company as of this date. Mr. Murray was granted and held ordinary share options, Restricted Share units and Performance Share units as Chief Financial Officer, Chief Executive Officer and Executive Chairman. The vesting of the Ordinary Share Options and Restricted Share Units which were unvested on Mr. Murray ceasing to be an ICON plc employee (12 May 2018) were accelerated and the outstanding Ordinary Share Options and Restricted Share Units vested on that date. The unvested Performance Share Units with vesting dates between 12 May 2018 and March 2019 were forfeit on Mr. Murray ceasing to be an ICON plc employee on 12 May 2018.

9. Payroll and related benefits (*continued*)

The following Restricted Share Units ("RSUs") and Performance Share Units ("PSUs") have been awarded to the Directors, Executive Officer and Company Secretary:

Name	RSUs	Award date	Vesting Date	PSUs[1]	Award Date	Vesting date
Ciaran Murray	1,454	17 May 2019	17 May 2020			
Dr. Steve Cutler	5,272	3 March 2017	3 March 2020	18,449	3 March 2017	3 March 2020
	4,299	3 March 2018	3 March 2020	15,050	3 March 2018	3 March 2021
	3,578	3 March 2019	3 March 2020	12,526	3 March 2019	3 March 2022
	4,302	3 March 2018	3 March 2021			
	3,578	3 March 2019	3 March 2021			
	3,581	3 March 2019	3 March 2022			
Brendan Brennan	1,192	3 March 2017	3 March 2020	4,167	3 March 2017	3 March 2020
	1,009	3 March 2018	3 March 2020	3,532	3 March 2018	3 March 2021
	780	3 March 2019	3 March 2020	2,731	3 March 2019	3 March 2022
	1,010	3 March 2018	3 March 2021			
	780	3 March 2019	3 March 2021			
	781	3 March 2019	3 March 2022			
Rónán Murphy	1,454	17 May 2019	17 May 2020			
Professor Hugh Brady	1,454	17 May 2019	17 May 2020			
Dr. John Climax	1,454	17 May 2019	17 May 2020			
Joan Garahy	1,454	17 May 2019	17 May 2020			
Professor William Hall	1,454	17 May 2019	17 May 2020			
Eugene McCague	1,454	17 May 2019	17 May 2020			
Julie O'Neill	1,066	9 August 2019	17 May 2020			
Mary Pendergast	1,454	17 May 2019	17 May 2020			
Diarmaid Cunningham	859	3 March 2017	3 March 2020	3,002	3 March 2017	3 March 2020
	627	3 March 2018	3 March 2020	2,199	3 March 2018	3 March 2021
	487	3 March 2019	3 March 2020	1,707	3 March 2019	3 March 2022
	630	3 March 2018	3 March 2021			
	487	3 March 2019	3 March 2021			
	489	3 March 2019	3 March 2022			

(1) *Of the issued PSUs, performance conditions will determine how many of them vest and, if performance targets are exceeded, additional PSUs will be issued and vest in accordance with the terms of the relevant PSU award. The PSUs vest based on service and specified EPS targets over the periods 2017 – 2019, 2018 – 2020 and 2019 – 2021. Depending on the actual amount of EPS from 2017 to 2021, up to a maximum of 63,363 additional PSUs may also be granted to Dr. Steve Cutler, Mr. Brendan Brennan and Mr. Diarmaid Cunningham.*

9. Payroll and related benefits (*continued*)

Details of transactions entered into by the Directors, Executive Officers and Company Secretary in shares and share options of the Company during the year ended 31 December 2019 were as follows:

Share options exercised and sold

Name	Number of Share Options	Average exercise price	Average Vest price
Ciaran Murray	74,613	$57.69	$139.72
Dr. Steve Cutler	56,569	$83.21	$145.20
Brendan Brennan	9,973	$61.83	$135.49
Rónán Murphy	1,538	$90.03	$163.80
Hugh Brady	32,414	$70.25	$158.13
William Hall	12,654	$88.88	$139.68
Dermot Kelleher	12,335	$62.49	$150.99
Declan McKeon	23,495	$83.18	$148.65
Diarmaid Cunningham	4,426	$65.15	$135.31

Shares sold

	Number of Shares	Average Sales Price
Dr. John Climax	74,500	$157.65

RSUs vested

	Number of Shares	Average Vest Price
Dr. Steve Cutler	54,507	$138.82
Brendan Brennan	22,166	$138.68
Diarmaid Cunningham	14,966	$138.68

Shares (vested RSUs) sold

	Number of Shares	Average Sales Price
Dr. Steve Cutler	64,245	$140.25
Brendan Brennan	16,725	$141.96
Diarmaid Cunningham	14,966	$141.28

The market price of the Company's ordinary shares during the year ended 31 December 2019 moved in the range of $121.30 to $172.23 (year ended 31 December 2018: in the range of $101.22 to $155.33). The closing share price at 31 December 2019 was $172.23 (at 31 December 2018: $129.21).

9. Payroll and related benefits (*continued*)

Summary compensation table - Year ended 31 December 2019

Name	Year	Salary	Company pension contribution	Performance related compensation	All other compensation	Subtotal	Share-based payments ****	Directors' fees	Total compensation
		$'000	$'000	$'000	$'000	$'000	$'000	$'000	$'000
Ciaran Murray	2019	—	—	—	—	—	173	343	516
Steve Cutler	2019	1,112	178	949	31	2,270	5,371	44	7,685
Rónán Murphy*	2019	—	—	—	—	—	208	122	330
Hugh Brady	2019	—	—	—	—	—	243	77	320
John Climax	2019	—	—	—	—	—	243	65	308
Joan Garahy	2019	—	—	—	—	—	173	96	269
William Hall	2019	—	—	—	—	—	243	94	337
Dermot Kelleher**	2019	—	—	—	—	—	225	37	262
Eugene McCague	2019	—	—	—	—	—	173	87	260
Declan McKeon**	2019	—	—	—	—	—	225	51	276
Julie O'Neill***	2019	—	—	—	—	—	84	29	113
Mary Pendergast	2019	—	—	—	—	—	243	77	320
Total	**2019**	**1,112**	**178**	**949**	**31**	**2,270**	**7,604**	**1,122**	**10,996**

*Appointed as Lead Independent Director on 1 January 2019.

**Retired as Lead Independent Director on 1 January 2019. Retired from the Board at the AGM on 23 July 2019.

***Appointed to the Board on 23 July 2019.

****Share-based payments is the IFRS 2 expense related to share options, RSUs and PSUs. The aggregate amount of the gains earned by the Directors on the exercise of share options during the financial year is disclosed in *Note 3 Profit before taxation* under *'Directors' emoluments'.*

9. Payroll and related benefits (*continued*)

Summary compensation table - Year ended 31 December 2018

Name	Year	Salary	Company pension contribution	Performance related compensation	All other compensation	Subtotal	Share-based payments ***	Directors' fees	Total compensation
		$'000	$'000	$'000	$'000	$'000	$'000	$'000	$'000
Ciaran Murray*	2018	135	17	—	5	157	(1,450)	232	(1,061)
Steve Cutler	2018	1,100	186	1,100	195	2,581	5,258	44	7,883
Rónán Murphy	2018	—	—	—	—	—	105	102	207
Hugh Brady	2018	—	—	—	—	—	173	73	246
John Climax	2018	—	—	—	—	—	173	65	238
Joan Garahy	2018	—	—	—	—	—	45	82	127
Dermot Kelleher	2018	—	—	—	—	—	173	69	242
Ronan Lambe **	2018	—	—	—	—	—	249	36	285
William Hall	2018	—	—	—	—	—	174	102	276
Eugene McCague	2018	—	—	—	—	—	45	73	118
Declan McKeon	2018	—	—	—	—	—	173	127	300
Mary Pendergast	2018	—	—	—	—	—	173	78	251
Total	**2018**	**1,235**	**203**	**1,100**	**200**	**2,738**	**5,291**	**1,083**	**9,112**

*Appointed as Executive Chairman on 1 March 2017 and non-Executive Chairman from 12 May 2018. The vesting of the Ordinary Share Options and Restricted Share Units which were unvested on Mr. Murray ceasing to be an ICON plc employee (12 May 2018) were accelerated and the outstanding Ordinary Share Options and Restricted Share Units vested on that date. The unvested Performance Share Units with vesting dates between 12 May 2018 and March 2019 were forfeit on Mr. Murray ceasing to be an ICON plc employee on 12 May 2018.

**Retired from the Board at the AGM on 24 July 2018.

***Share-based payments is the IFRS 2 expense related to share options, RSUs and PSUs. The aggregate amount of the gains earned by the Directors on the exercise of share options during the financial year is disclosed in *Note 3 Profit before taxation* under *'Directors' emoluments'*.

10. Retirement benefit obligations

The Group operates a number of defined contribution schemes and two defined benefit pension schemes. The Group accounts for pensions in accordance with IAS 19R *Employee Benefits* ("IAS 19R").

(i) Defined Contribution Schemes

Certain employees of the Group are eligible to participate in a defined contribution plan (the "Plan"). Participants in the Plan may elect to defer a portion of their pre-tax earnings into a pension plan, which is run by an independent party. The Group matches each participant's contributions typically at 8% of the participant's annual compensation. Contributions to this plan are recorded as a remuneration expense in the Consolidated Statement of Profit and Loss. Contributions for the year ended 31 December 2019 and year ended 31 December 2018 were $26,483,000 and $25,241,000 respectively.

10. Retirement benefit obligations (*continued*)

The Group's United States operations maintain a retirement plan (the "U.S. Plan") that qualifies as a deferred salary arrangement under Section 401(k) of the Internal Revenue Code. Participants in the U.S. Plan may elect to defer a portion of their pre-tax earnings, up to the Internal Revenue Service annual contribution limit. The Group matches participant's contributions up to 3% and matches 50% of participant's contributions thereafter to a maximum Company contribution of 4.5% of the participant's annual compensation. Contributions to the U.S. Plan are recorded, in the year contributed, as an expense in the Consolidated Statement of Profit and Loss. Contributions for the year ended 31 December 2019 and year ended 31 December 2018 were $16,469,000 and $15,532,000 respectively.

(ii) Defined Benefit Plans

ICON Development Solutions Limited defined benefit pension plan

One of the Group's subsidiaries, ICON Development Solutions Limited, which was acquired by the Group in 2003, operates a defined benefit pension plan in the United Kingdom for certain of its employees, which is now closed to new members.

The plan is managed externally and the related pension costs and liabilities are assessed in accordance with the advice of a professionally qualified actuary. Plan assets at 31 December 2019 and 31 December 2018 consist of units held in independently administered funds.

Financial assumptions

The following assumptions were used in determining the fair value of the plan assets and the present value of the projected benefit obligation at 31 December 2019:

	31 December 2019	31 December 2018
Discount rate	**2.10%**	2.90%
Inflation rate	**2.80%**	3.20%
Future pension increases	**2.70%**	3.10%
Future salary increases	**3.30%**	3.70%

A single discount rate is used which, when used to discount the projected benefit cashflows underlying a pension scheme with a 26 year duration, gives the same result as a full AA corporate bond yield curve.

The following assumptions were used at the commencement of the year in determining the net periodic pension cost for the year ended 31 December 2019:

	31 December 2019	31 December 2018
Discount rate	**2.90%**	2.50%
Future salary increases	**3.70%**	3.70%

10. Retirement benefit obligations (*continued*)

Mortality assumptions

Assumptions regarding mortality experience are set based on actuarial advice in accordance with published statistics and experience. The mortality assumptions adopted at 31 December 2019 are 100% of the standard tables S2PxA, Year of Birth, no age rating for males and females, projected using CMI_2018 converging to 1.00% p.a.. These imply the following life expectancies, for persons retiring at age 62:

	31 December 2019	31 December 2018
Male retiring in 2019	**24.3 years**	24.7 years
Female retiring in 2019	**26.3 years**	26.7 years
Male retiring in 2039	**25.4 years**	26.2 years
Female retiring in 2039	**27.5 years**	28.3 years

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Funding status

	Year ended 31 December 2019	Year ended 31 December 2018
	$'000	**$'000**
Projected benefit obligation	**(37,036)**	(30,045)
Fair value of plan assets	**32,016**	27,297
Non-current other liabilities (note 20)	**(5,020)**	(2,748)

Movement in the net benefit obligation recognised in non-current other liabilities was as follows:

	Present Value of Obligations	**Fair Value of Plan Assets**	**Total**
	$'000	**$'000**	**$'000**
At 1 January 2019	(30,045)	27,297	(2,748)
Current service costs	(107)	—	(107)
Interest expense/(income)	(867)	790	(77)
Past service cost	—	—	—
Expenses	—	—	—
	(31,019)	**28,087**	**(2,932)**
Re-measurements			
Experience adjustment	—	2,714	2,714
Gain or loss from change in demographic assumptions	872	—	872
Gain or loss from change in financial assumptions	(5,628)	—	(5,628)
Experience gain or loss	—	—	—
	(4,756)	**2,714**	**(2,042)**
Exchange differences	(1,414)	1,220	(194)
Contributions:			
- Employers	—	148	148
- Plan participants	(24)	24	—
Benefit payments	177	(177)	—
	153	**(5)**	**148**
At 31 December 2019	**(37,036)**	**32,016**	**(5,020)**

10. Retirement benefit obligations (*continued*)

	Present Value of Obligations	Fair Value of Plan Assets	Total
	$'000	**$'000**	**$'000**
At 1 January 2018	(37,759)	32,423	(5,336)
Current service costs	(125)	—	(125)
Interest expense/(income)	(899)	768	(131)
Past service cost	—	—	—
Expenses	—	—	—
	(38,783)	**33,191**	**(5,592)**
Re-measurements			
Experience adjustment	—	(1,355)	(1,355)
Gain or loss from change in demographic assumptions	200	—	200
Gain or loss from change in financial assumptions	3,313	—	3,313
Experience gain or loss	350	—	350
	3,863	**(1,355)**	**2,508**
Exchange differences	1,836	(1,654)	182
Contributions:			
- Employers	—	154	154
- Plan participants	(24)	24	—
Benefit payments	3,063	(3,063)	—
	3,039	**(2,885)**	**154**
At 31 December 2018	**(30,045)**	**27,297**	**(2,748)**

Re-measurements are recognised in the Consolidated Statement of Comprehensive Income as follows:

	Year ended 31 December 2019	Year ended 31 December 2018
	$'000	$'000
Return on plan assets (excl. amounts included in interest income/expense)	**2,714**	(1,355)
Gain or loss from change in demographic assumptions	**872**	200
Gain or loss from change in financial assumptions	**(5,628)**	3,313
Experience gain or loss	**—**	350
Comprehensive income at end of year	**(2,042)**	2,508

Defined benefit pension expense recognised in the Consolidated Statement of Profit and Loss was as follows:

	Year ended 31 December 2019	Year ended 31 December 2018
	$'000	$'000
Current service cost recognised in profit or loss	**107**	125
Net interest expense recognised in profit or loss	**77**	131
Expenses	**—**	—
Net periodic pension cost	**184**	256

10. Retirement benefit obligations (*continued*)

Plan Assets Fair Value

The fair value of plan assets at 31 December 2019 is analysed as follows:

	31 December 2019	31 December 2018
	$'000	$'000
Unit funds	**32,016**	27,297

The plan's assets do not include any of the Group's own financial instruments, nor any property occupied by, or other assets used by the Group.

At 31 December 2019 the long-term expected rate of return on cash is determined by reference to traditional corporate bond rates at the latest reporting date. The long-term expected returns on traditional corporate and government bonds are determined by reference to corporate bond yields and gilt yields respectively at the reporting date. The long-term expected returns on equities is based on the rate of return on government bonds with an allowance for out-performance. The long-term expected return on high yield bonds, secured loans and multi asset credit is based on the return on traditional corporate bonds with an allowance for out-performance.

The underlying asset split of the funds at 31 December 2019 and 31 December 2018 was as follows:

	31 December 2019	31 December 2018
Corporate Bonds (including 50% high yield bonds)	**40.00 %**	25.00 %
Equities	**21.00 %**	— %
Secured Loans and Multi Asset Credit	**39.00 %**	— %
Gilts	**— %**	71.00 %
Cash	**— %**	4.00 %

The assets of the scheme are held on an investment platform with Mobius Life Limited which invests in a number of investment funds with Legal & General, Stone Harbor, Investec and Barings. The overall investment strategy is that approximately 20% of investments are in world equities, corporate bonds, high yield bonds, multi-asset credit fund and senior secured loans. There is no self-investment in employer related assets.

Sensitivity assumptions

The sensitivity of the defined benefit obligation to changes in the weighted principal assumptions is:

	Change in Assumption	**Change in Liabilities**
Discount Rate	Decrease of 0.25% p.a.	Increase by 6.3%
Rate of Inflation	Increase of 0.25% p.a.	Increase by 1.6%
Rate of Salary Growth	Increase of 0.25% p.a.	Increase by 0.2%
Rate of Mortality	Increase in life expectancy of 1 year	Increase by 3.6%

The sensitivities shown above are approximate. Each sensitivity considers one change in isolation. The inflation sensitivity includes the impact of changes to the assumptions for revaluation, pension increases and salary growth.

The plan typically exposes the Company to actuarial risks such as investment risk, interest rate risk, salary growth risk, mortality risk and longevity risk. A decrease in corporate bond yields, a rise in inflation or an increase in life expectancy would result in an increase to plan liabilities. This would detrimentally impact the Statement of Financial Position and may give rise to increased charges in future Statements of Profit and Loss. This effect would be partially offset by an increase in the value of the plan's bond holdings, and in qualifying death in service insurance policies that cover mortality risk. Additionally, caps on inflationary increases are in place to protect the plan against extreme inflation.

10. Retirement benefit obligations (*continued*)

Cash flows and Maturity Profiles

The Group expects to contribute approximately $0.2 million of normal contribution to the defined benefit pension scheme for the year ended 31 December 2020. The average duration of the defined benefit obligation at the period ending 31 December 2019 is 26 years.

Aptiv Solutions Pension Scheme

On 7 May 2014, the Company acquired 100% of the common stock of Aptiv Solutions ("Aptiv"). The acquisition of Aptiv was accounted for as a business combination in accordance with IFRS 3 Business Combinations. The Company has a defined benefit plan covering its employees in Switzerland as mandated by the Swiss government. Benefits are based on the employee's years of service and compensation. Benefits are paid directly by the Company when they become due, in conformity with the funding requirements of applicable government regulations. The plan is managed externally and the related pension costs and liabilities are assessed in accordance with the advice of a professionally qualified actuary. Plan assets at 31 December 2019 and 31 December 2018 consist of units held in independently administered funds.

Financial assumptions

The following assumptions were used in determining the fair value of the plan assets and the present value of the projected benefit obligation at 31 December 2019:

	31 December 2019	31 December 2018
Discount rate	**0.30%**	0.80%
Inflation rate	**1.00%**	1.00%
Future pension increases	**0.00%**	0.00%
Future salary increases	**2.00%**	2.00%

The discount rate is determined by reference to Swiss corporate bond yields at the reporting date.

The following assumptions were used at the commencement of the year in determining the net periodic pension cost for the year ended 31 December 2019:

	31 December 2019	31 December 2018
Discount rate	**0.80%**	0.80%
Future salary increases	**2.00%**	2.00%

Mortality assumptions

Assumptions regarding mortality experience are set based on actuarial advice in accordance with published statistics and experience. The mortality assumptions adopted at 31 December 2019 are determined using the BVG 2015 generational table, where the mortality rates are projected forward for each individual based on their date of birth to reflect expected future mortality improvements. The allowance for future improvements in mortality is using the CMI projection model with a long-term trend rate of 1.25%. These tables imply the following life expectancies, for males retiring at age 65 and females retiring at age 64:

	31 December 2019	31 December 2018
Male retiring in 2019	**21.5 years**	21.5 years
Female retiring in 2019	**23.7 years**	23.7 years
Male retiring in 2039	**22.8 years**	22.8 years
Female retiring in 2039	**25.3 years**	25.3 years

10. Retirement benefit obligations (*continued*)

Funding status

	31 December 2019	31 December 2018
	$'000	**$'000**
Projected benefit obligation	**(7,047)**	(5,279)
Fair value of plan assets	**6,014**	4,707
Non-current other liabilities (note 20)	**(1,033)**	(572)

Movement in the net benefit obligation recognised in non-current other liabilities was as follows:

	Present Value of Obligations	**Fair Value of Plan Assets**	**Total**
	$'000	**$'000**	**$'000**
At 1 January 2019	(5,279)	4,707	(572)
Current service costs	(115)	—	(115)
Interest expense/(income)	(40)	35	(5)
	(5,434)	**4,742**	**(692)**
Re-measurements			
Experience adjustment	—	1,114	1,114
Gain or loss from change in financial assumptions	(519)	—	(519)
Experience gain or loss	(960)	—	(960)
	(1,479)	**1,114**	**(365)**
Exchange differences	(139)	74	(65)
Contributions:			
- Employers	—	89	89
- Plan participants	(67)	67	—
Benefit payments	72	(72)	—
	5	**84**	**89**
At 31 December 2019	**(7,047)**	**6,014**	**(1,033)**

10. Retirement benefit obligations (*continued*)

	Present Value of Obligations	Fair Value of Plan Assets	Total
	$'000	**$'000**	**$'000**
At 1 January 2018	(5,927)	5,202	(725)
Current service costs	(138)	—	(138)
Interest expense/(income)	(47)	41	(6)
Past service cost	8	—	8
	(6,104)	**5,243**	**(861)**
Re-measurements			
Experience adjustment	—	(240)	(240)
Gain or loss from change in demographic assumptions	360	—	360
Experience gain or loss	12	—	12
	372	**(240)**	**132**
Exchange differences	50	(2)	48
Contributions:			
- Employers	—	109	109
- Plan participants	(83)	83	—
Benefit payments	486	(486)	—
	403	**(294)**	**109**
At 31 December 2018	**(5,279)**	**4,707**	**(572)**

Re-measurements are recognised in the Consolidated Statement of Comprehensive Income as follows:

	Year ended 31 December 2019	Year ended 31 December 2018
	$'000	$'000
Return on Plan Assets (excl. amounts included in interest income/expense)	**1,114**	(240)
Gain or loss from change in demographic assumptions	**—**	360
Gain or loss from change in financial assumptions	**(519)**	**—**
Experience gain or loss	**(960)**	12
Comprehensive income at end of year	**(365)**	132

Defined benefit pension expense recognised in the Consolidated Statement of Profit and Loss was as follows:

	Year ended 31 December 2019	Year ended 31 December 2018
	$'000	**$'000**
Current service cost recognised in profit or loss	**115**	138
Net interest expense recognised in profit or loss	**5**	6
Past service cost	**—**	(8)
Net periodic pension cost	**120**	136

10. Retirement benefit obligations (*continued*)

Plan Assets Fair Value

The fair value of plan assets at 31 December 2019 is analysed as follows:

	31 December 2019	31 December 2018
	$'000	$'000
Unit funds	**6,014**	4,707

The assets of the scheme are invested in an insured plan with Swiss Life and held in a combination of debt securities, equity securities and in real estate. There is no self-investment in employer related assets.

Sensitivity assumptions

The sensitivity of the defined benefit obligation to changes in the weighted principal assumptions is:

	Change in Assumption	**Change in Liabilities**
Discount Rate	Decrease of 0.25% p.a.	Increase by 4.4%
Rate of Salary Growth	Increase of 0.25% p.a.	Increase by 0.2%
Rate of Mortality	Decrease in mortality rate of 1.00% p.a.	Increase by 0.2%

The sensitivities shown above are approximate. Each sensitivity considers one change in isolation. The inflation sensitivity includes the impact of changes to the assumptions for revaluation, pension increases and salary growth. The average duration of the defined benefit obligation at the period ending 31 December 2019 is 17 years.

The plan typically exposes the Company to actuarial risks such as investment risk, interest rate risk, salary growth risk, mortality risk and longevity risk. A decrease in corporate bond yields, a rise in inflation or an increase in life expectancy would result in an increase to plan liabilities. This would detrimentally impact the Balance Sheet position and may give rise to increased charges in future Statements of Profit and Loss. This effect would be partially offset by an increase in the value of the plan's bond holdings, and in qualifying death in service insurance policies that cover mortality risk. Additionally, caps on inflationary increases are in place to protect the plan against extreme inflation.

11. Share-based payment

Share Options

On 21 July 2008 the Company adopted the Employee Share Option Plan 2008 (the "2008 Employee Plan") pursuant to which the Compensation and Organisation Committee of the Company's Board of Directors may grant options to any employee, or any director holding a salaried office or employment with the Company or a Subsidiary for the purchase of ordinary shares. On the same date, the Company also adopted the Consultants Share Option Plan 2008 (the "2008 Consultants Plan"), pursuant to which the Compensation and Organisation Committee of the Company's Board of Directors may grant options to any consultant, adviser or non-Executive Director retained by the Company or any Subsidiary for the purchase of ordinary shares.

On 14 February 2017 both the 2008 Employee Plan and the 2008 Consultants Plan (together the "2008 Option Plans") were amended and restated in order to increase the number of options that can be issued under the 2008 Consultants Plan from 0.4 million to 1 million and to extend the date for options to be granted under the 2008 Option Plans.

An aggregate of 6.0 million ordinary shares have been reserved under the 2008 Employee Plan, as reduced by any shares issued or to be issued pursuant to options granted under the 2008 Consultants Plan, under which a limit of 1 million shares applies. Further, the maximum number of ordinary shares with respect to which options may be granted under the 2008 Employee Option Plan, during any calendar year to any employee shall be 0.4 million ordinary shares. There is no individual limit under the 2008 Consultants Plan. No options may be granted under the 2008 Option Plans after 14 February 2027.

Each option granted under the 2008 Employees Plan or the 2008 Consultants Plan (together the "2008 Option plans") will be evidenced by a Stock Option Agreement between the optionee and the Company. The exercise price will be specified in each Stock Option Agreement, however option prices will not be less than 100% of the fair market value of an ordinary share on the date the option is granted.

11. Share-based payments (*continued*)

On 17 January 2003 the Company adopted the Share Option Plan 2003 ("the 2003 Plan"), pursuant to which the Compensation and Organisation Committee of the Company's Board of Directors could grant options to employees of the Company or its subsidiaries for the purchase of ordinary shares. Each grant of an option under the 2003 Plan was to be evidenced by a Stock Option Agreement between the individual and the Company. The exercise price was to be specified in each Stock Option Agreement; however option prices could not be less than 100% of the fair market value of an ordinary share on the date the option was granted.

An aggregate of 6.0 million ordinary shares were reserved under the 2003 Plan; and, in no event could the number of ordinary shares that may be issued pursuant to options awarded under the 2003 Plan exceed 10% of the outstanding shares, as defined in the 2003 Plan, at the time of the grant. Further, the maximum number of ordinary shares with respect to which options could be granted under the 2003 Plan during any calendar year to any employee was 0.4 million ordinary shares. The 2003 Share Option Plan expired on 17 January 2013. No new options may be granted under this plan.

Share option awards are granted with an exercise price equal to the market price of the Company's ordinary shares at date of grant. Share options typically vest over a period of five years from date of grant and expire eight years from date of grant. Share options granted to non-executive directors during 2018 vest over 12 months and expire eight years from the date of grant. The maximum contractual term of options outstanding at 31 December 2018 is eight years.

Set out below is a summary of the total number of options outstanding and number of options available to grant under each plan as at 31 December 2019:

	Outstanding		**Available to Grant**	
	31 December 2019	31 December 2018	**31 December 2019**	31 December 2018
2003 Stock Option Plan	**14,818**	28,939	**—**	—
2008 Stock Option Plans	**641,289**	891,807	**3,121,866**	3,187,397
Total	**656,107**	920,746	**3,121,866**	3,187,397

The 2003 Share Option Plan expired on 17 January 2013 and no further options may be granted under this plan.

The total number of share options outstanding and exercisable at 31 December 2019 is as follows:

	Number of Options	**Weighted Average Exercise Price**
Outstanding at 31 December 2017	1,171,393	$56.02
Granted	167,557	$118.90
Exercised	(408,699)	$41.12
Forfeited	(9,505)	$32.35
Outstanding at 31 December 2018	920,746	$74.32
Granted	97,112	$140.13
Exercised	(329,870)	$65.54
Forfeited	(31,881)	$88.12
Outstanding at 31 December 2019	**656,107**	**$87.80**
Exercisable at 31 December 2019	**298,077**	**$68.72**

The weighted average intrinsic value of the Company's shares on date of exercise of share options during the year ended 31 December 2019 was $79.51 (31 December 2018: $93.36).

11. Share-based payments (*continued*)

At 31 December 2019, the range of exercise prices and weighted average remaining contractual life of outstanding and exercisable options was as follows:

Options Outstanding				Options Exercisable	
Range Exercise Price	Number of Shares	Weighted Average Remaining Contractual Life	Weighted Average Exercise Price	Number of Shares	Weighted Average Exercise Price
$ 22.30	35,405	0.32		35,405	
$ 23.66	31	0.57		31	
$ 26.71	450	0.69		450	
$ 32.37	18,313	1.33		18,313	
$ 36.22	645	1.46		645	
$ 37.90	920	1.93		920	
$ 40.83	22,740	2.39		22,740	
$ 47.03	2,757	2.17		2,757	
$ 48.67	10,128	2.21		10,128	
$ 65.60	34,342	4.38		14,646	
$ 66.47	3,445	3.39		2,096	
$ 68.39	61,847	3.18		38,351	
$ 71.95	100,123	4.17		68,595	
$ 83.47	89,308	5.17		16,578	
$ 90.03	52,082	5.38		23,594	
$ 115.11	87,636	6.17		6,868	
$ 125.74	41,270	6.38		35,960	
$ 137.47	8,378	7.38		—	
$ 140.38	86,287	7.17		—	
$22.30 - $140.38	**656,107**	**4.76**	**$ 87.80**	**298,077**	**$ 68.72**

Share option fair values

The weighted average grant date fair value of share options granted by the Company during the year ended 31 December 2019 was $38.95 based on the following grants:

Grant Date	Number of Shares	Weighted Average Exercise Price
3 Mar 19	88,734	$140.38
17 May 19	8,378	$137.47
	97,112	**$140.13**

Share option fair values

The weighted average grant date fair value of share options granted by the Company during the year ended 31 December 2018 was $31.74 based on the following grants:

Grant Date	Number of Shares	Weighted Average Exercise Price
3 Mar 18	107,794	$115.11
18 May 18	59,763	$125.74
	167,557	$118.90

11. Share-based payments (*continued*)

Fair value of share options – Assumptions

The fair values of options granted during the year ended 31 December 2019 and the year ended 31 December 2018 were calculated using a binomial option-pricing-model, using the following assumptions:

	Year ended 31 December 2019	Year ended 31 December 2018
Weighted average share price	**$140.13**	$118.90
Weighted average exercise price	**$140.13**	$118.90
Expected volatility [1]	**25.0%**	25.0%
Expected dividend yield	**—**	—
Risk-free rate [2]	**2.2%-2.7%**	2.8%-3.0%
Rate of forced early exercise	**10% p.a.**	10% p.a.
Minimum gain for voluntary early exercise	**25% of exercise price**	25% of exercise price
Rate of voluntary early exercise at minimum gain	**75% per annum**	75% per annum

(1) Expected volatility has been determined based upon the volatility of the Company's share price over a period which is commensurate with the expected term of the options granted.
(2) Risk-free rate is dependent on the grant date.

Restricted share units

On 23 April 2013 the Company adopted the 2013 Employees Restricted Share Unit and Performance Share Unit Plan (the "2013 RSU Plan") pursuant to which the Compensation and Organisation Committee of the Company's Board of Directors may select any employee, or any Director holding a salaried office or employment with the Company, or a Subsidiary to receive an award under the plan. On 11 May 2015 the 2013 RSU Plan was amended and restated in order to increase the number of shares that can be issued under the RSU Plan by 2.5 million shares. Accordingly, an aggregate of 4.1 million ordinary shares have been reserved for issuance under the 2013 RSU Plan. The shares are awarded at zero cost and vest over a service period. Awards under the 2013 RSU Plan may be settled in cash or shares at the option of the Company.

On 30 April 2019 the Company approved the 2019 Consultants and Directors Restricted Share Unit Plan (the "2019 Consultants RSU Plan"), which was effective as of 16 May 2019, pursuant to which the Compensation and Organisation Committee of the Company's Board of Directors may select any consultant, adviser or non-executive Director retained by the Company, or a Subsidiary to receive an award under the plan. 250,000 ordinary shares have been reserved for issuance under the 2019 Consultants RSU Plan. The awards are at par value and vest over a service period. Awards granted to non-executive directors in May 2019 vest over twelve months.

The Company has awarded RSUs and PSUs to certain key individuals of the Group. The fair value of RSUs is based on the share price at the date of grant, with the expense spread over the vesting period. The following table summarises RSU and PSU activity for the year ended 31 December 2019:

	RSU Outstanding Number of Shares	**Weighted Average Grant Date Fair Value**	**PSU Outstanding Number of Shares**	**Weighted Average Grant Date Fair Value**
Outstanding at 31 December 2018	534,677	$89.50	251,053	$85.95
Awarded	160,237	$138.33	60,182	$140.13
Shares Vested	(238,960)	$69.19	(118,611)	$71.45
Forfeited	(66,054)	$107.03	(16,635)	$91.94
Outstanding at 31 December 2019	**389,900**	**$119.07**	**175,989**	**$110.79**

The PSUs vest based on service and specified EPS targets over the period 2017 – 2019, 2018 - 2020 and 2019 - 2021. Further PSUs up to a total of 75,615 PSUs may also be awarded depending upon actual EPS outturn from 2017 to 2021.

11. Share-based payments (*continued*)

Share-based payment expense

Operating profit for the year ended 31 December 2019 is stated after charging $25.9 million in respect of share-based payment expense. Share-based payment expense has been allocated as follows:

	Year ended 31 December 2019	Year ended 31 December 2018
	$'000	$'000
Direct costs	**14,263**	15,460
Other operating expenses	**11,623**	12,599
Total	**25,886**	28,059

12. Property, Plant and Equipment

	Land	Buildings	Leasehold improvements	Computer equipment	Office furniture & fixtures	Laboratory equipment	Motor vehicles	Total
	$'000	$'000	$'000	$'000	$'000	$'000	$'000	$'000
Cost								
At 1 January 2019	4,574	70,111	33,475	122,150	72,649	24,917	8	327,884
Additions	—	61	2,878	7,321	6,537	2,461	72	19,330
Disposals	—	—	(499)	(687)	(2,030)	(125)	(18)	(3,359)
Acquisition	—	10	301	98	781	1,330	33	2,553
Foreign exchange movement	—	(647)	(302)	(651)	(546)	(117)	1	(2,262)
At 31 December 2019	**4,574**	**69,535**	**35,853**	**128,231**	**77,391**	**28,466**	**96**	**344,146**
Depreciation								
At 1 January 2019	—	19,312	27,731	103,931	55,216	17,984	—	224,174
Charge for year	—	2,129	1,199	8,988	4,770	2,490	21	19,597
Eliminated on disposal	—	—	(499)	(662)	(1,521)	(125)	(18)	(2,825)
Foreign exchange movement	—	(290)	(273)	(228)	(241)	(23)	(2)	(1,057)
At 31 December 2019	**—**	**21,151**	**28,158**	**112,029**	**58,224**	**20,326**	**1**	**239,889**
Net book value								
At 31 December 2019	**4,574**	**48,384**	**7,695**	**16,202**	**19,167**	**8,140**	**95**	**104,257**
At 31 December 2018	4,574	50,799	5,744	18,219	17,433	6,933	8	103,710

Depreciation expense of $19.6 million has been charged to “other operating expenses” in the Consolidated Statement of Profit and Loss.

12. Property, Plant and Equipment *(continued)*

	Land	Buildings	Leasehold improvements	Computer equipment	Office furniture & fixtures	Laboratory equipment	Motor vehicles	Total
	$'000	$'000	$'000	$'000	$'000	$'000	$'000	$'000
Cost								
At 1 January 2018	4,402	71,009	34,805	113,498	68,934	23,742	16	316,406
Additions	—	49	451	12,828	5,780	1,652	—	20,760
Disposals	—	—	(38)	(1,443)	(202)	(116)	—	(1,799)
Arising on acquisition	—	1,462	—	—	—	—	—	1,462
Foreign exchange movement	172	(2,409)	(1,743)	(2,733)	(1,863)	(361)	(8)	(8,945)
At 31 December 2018	**4,574**	**70,111**	**33,475**	**122,150**	**72,649**	**24,917**	**8**	**327,884**
Depreciation								
At 1 January 2018	—	18,486	26,812	96,947	52,735	16,324	2	211,306
Charge for year	—	1,484	2,078	10,409	3,898	2,127	—	19,996
Eliminated on disposal	—	—	(26)	(1,174)	(158)	(116)	—	(1,474)
Foreign exchange movement	—	(658)	(1,133)	(2,251)	(1,259)	(351)	(2)	(5,654)
At 31 December 2018	**—**	**19,312**	**27,731**	**103,931**	**55,216**	**17,984**	**—**	**224,174**
Net book value								
At 31 December 2018	**4,574**	**50,799**	**5,744**	**18,219**	**17,433**	**6,933**	**8**	**103,710**
At 31 December 2017	4,402	52,523	7,993	16,551	16,199	7,418	14	105,100

Depreciation expense of $20.0 million has been charged to “other operating expenses” in the Consolidated Statement of Profit and Loss.

13. Intangible assets – goodwill and other

	Computer Software	Customer Relationships	Volunteer List	Order Backlog	Technology Asset	Trade Name and Non-Competes	Patient Database	Goodwill	Total
	$'000	$'000	$'000	$'000	$'000	$'000	$'000	$'000	$'000
Cost									
At 1 January 2019	244,238	111,993	1,325	30,609	8,982	2,988	—	770,269	1,170,404
Additions	31,315	—	—	—	—	—	—	—	31,315
Disposal	(197)	—	—	—	—	—	—	—	(197)
Acquisitions	378	22,570	—	5,098	—	—	2,542	126,932	157,520
Foreign exchange movement	(103)	(270)	—	(271)	(200)	(25)	71	(22)	(820)
At 31 December 2019	**275,631**	**134,293**	**1,325**	**35,436**	**8,782**	**2,963**	**2,613**	**897,179**	**1,358,222**
Amortisation									
At 1 January 2019	189,279	67,946	1,325	20,609	8,982	2,980	—	—	291,121
Amortised in the year	26,006	12,526	—	3,205	—	—	216	—	41,953
Disposal	(130)	—	—	—	—	—	—	—	(130)
Foreign exchange movement	(354)	(18)	—	(43)	(200)	(25)	15	—	(625)
At 31 December 2019	**214,801**	**80,454**	**1,325**	**23,771**	**8,782**	**2,955**	**231**	**—**	**332,319**
Net book value									
At 31 December 2019	**60,830**	**53,839**	**—**	**11,665**	**—**	**8**	**2,382**	**897,179**	**1,025,903**
At 31 December 2018	54,959	44,047	—	10,000	—	8	—	770,269	879,283

Amortisation expense of $42.0 million has been charged to 'other operating expenses' in the Consolidated Statement of Profit and Loss.

13. Intangible assets - goodwill and other *(continued)*

	Computer Software	Customer Relationships	Volunteer List	Order Backlog	Technology Asset	Trade Name and Non-Competes	Goodwill	Total
	$'000	$'000	$'000	$'000	$'000	$'000	$'000	$'000
Cost								
At 1 January 2018	217,722	121,288	1,325	24,442	9,404	3,044	783,066	1,160,291
Additions	27,637	—	—	—	—	—	—	27,637
Disposal	(466)	—	—	—	—	—	—	(466)
Prior period acquisition	—	(7,775)	—	6,874	—	—	1,048	147
Foreign exchange movement	(655)	(1,520)	—	(707)	(422)	(56)	(13,845)	(17,205)
At 31 December 2018	**244,238**	**111,993**	**1,325**	**30,609**	**8,982**	**2,988**	**770,269**	**1,170,404**
Amortisation								
At 1 January 2018	159,772	56,935	1,325	19,467	8,143	2,003	—	247,645
Amortised in the year	30,564	11,738	—	1,342	1,243	1,033	—	45,920
Disposal	(466)	—	—	—	—	—	—	(466)
Foreign exchange movement	(591)	(727)	—	(200)	(404)	(56)	—	(1,978)
At 31 December 2018	**189,279**	**67,946**	**1,325**	**20,609**	**8,982**	**2,980**	**—**	**291,121**
Net book value								
At 31 December 2018	**54,959**	**44,047**	**—**	**10,000**	**—**	**8**	**770,269**	**879,283**
At 31 December 2017	57,950	64,353	—	4,975	1,261	1,041	783,066	912,646

Amortisation expense of $45.9 million has been charged to 'other operating expenses' in the Consolidated Statement of Profit and Loss.

13. Intangible assets - goodwill and other *(continued)*

Impairment review of goodwill

Goodwill acquired through business combinations has been allocated to the Group's clinical research cash-generating unit ("CGU"). The CGU identified represents the lowest level within the Group at which goodwill is monitored and are not larger than the operating segment determined in accordance with IFRS 8 *Operating Segments*.

The Group has identified one CGU in accordance with the provisions of IAS 36 *Impairment of Assets* as follows:

	31 December 2019	31 December 2018
	$'000	$'000
Goodwill		
Clinical research	**897,179**	770,269
	897,179	770,269

Impairment testing methodology and results

Goodwill is subject to impairment testing on an annual basis or more frequently if facts or circumstances warrant such a review.

The recoverable amount of the CGU is determined using a value-in-use computation based upon discounted net present value cash flow projections for the CGU. The cash flow projections are for a period of five years forward together with a terminal value calculated in accordance with the Gordon growth model. In calculating the terminal value a long-term growth rate of 2% has been applied to the estimated maintainable cash flow in the terminal year.

Management's estimates of future cash flows are based upon current budgets and strategic plans and are reflective of anticipated growth rates within the CRO industry, expected growth in the Group's market share and reflective of past experience. Key assumptions applied in determining expected future cash flows for these plans include management's estimate of future profitability, replacement capital expenditure requirements, trade working capital investment needs and tax considerations. The Group's cash flow projections are adjusted each year for actual and expected changes in performance.

The following assumptions were applied in determining the five year projected cash flows of the Clinical Research CGU at 31 December 2019:

	31 December 2019	31 December 2018
Expected revenue growth rate	**6%**	6%
Expected growth rate for operating costs	**5.5%**	5.5%
Expected effective tax rate	**14%**	12%
Expected movement in creditors	**5.5%**	5.5%
Expected days sales outstanding	**72 days**	67 days
Expected capital expenditure growth rate	**2%**	2%
Discount rate	**6.3%**	10%

**Days sales outstanding (DSO) is a a measure of the number of days in the period that the company takes to collect revenue. DSO is calculated based on trade debtors less unearned revenue divided by gross revenue multiplied by number of days in the period.*

13. Intangible assets - goodwill and other *(continued)*

Expected revenue growth and the expected growth in operating costs are determined based upon the expected growth rates used in preparing the Group's budgets and strategic plans. In estimating budget revenue, consideration is given to current levels of backlog (i.e. the value of new business awards not yet recognised in revenue) and the estimated timeframe over which this is expected to be recognised within revenue, together with an estimate of revenue expected to be generated from new awards not currently within backlog. In estimating revenue from new awards consideration is given to current RFP (request for proposals) volumes, expected growth rates in both the CRO industry and the Group's market share, and of past experience. In estimating budgeted operating costs, consideration is given to required staffing levels, project related costs, facility and information technology costs and other costs. Staff costs and project related costs generally increase in line with revenue and are therefore estimated based on revenue growth expectations, while facility and information costs and other costs are relatively fixed and are therefore projected based upon a lower growth rate. An expected long term average tax rate of 12% has been applied in determining the projected after tax cash flows.

Working capital investment needs are determined based upon anticipated increases in the Group's debtors and creditors. Debtors are expected to increase in line with increases in the Group's DSO. DSO is generally a function of both the timing of contract fee instalments over a study or trial duration and credit terms afforded to individual customers. The DSO used in conducting the impairment review is reflective of current and anticipated trends in the Group's DSO. Expected long term DSOs for the Group are anticipated to be in the range of 65 to 75 days. Creditors are expected to increase in line with operating costs. Capital expenditure is expected to increase in line with the Group's projected capital expenditure investment targets.

A pre-tax discount rate of 6.3% (2018: 10%) has been applied to the projected cash flows of the CGU in determining its value-in-use. This rate is reflective of both the time value of money and risks specific to the CGU. The discount rate is based upon the Group's weighted average cost of capital which has been determined by applying the Group's long term optimal capital structure to its costs of debt and cost of equity. The Group's cost of debt has been calculated by applying an appropriate margin over the risk free interest rate. The Group's cost of equity has been calculated using the capital asset pricing model and includes an appropriate equity risk premium over the available risk free interest rate.

The excess of the value-in-use of the CGU at 31 December 2019, based on the assumptions above, has been calculated as follows:

	31 December 2019	31 December 2018
	$'m	$'m
Value-in use (present value of future cash flows)	**12,145**	5,506
Carrying amount of the Clinical Research CGU	**(2,038)**	(1,736)
Excess of value-in-use over carrying value	**10,107**	3,770

Sensitivity Analysis

A sensitivity analysis to determine if reasonable changes in key assumptions could lead to an impairment was conducted at 31 December 2019 using the following revised assumptions:

	31 December 2019	31 December 2018
Expected revenue growth rate	**4 %**	4 %
Expected growth rate for operating costs	**3.5 %**	3.5 %
Expected capital expenditure growth rate	**1 %**	1 %
Discount rate	**9.3 %**	13 %

**All other inputs remained constant.*

13. Intangible assets - goodwill and other *(continued)*

The revised excess of the value-in-use of the CGU at 31 December 2019, using the alternative assumptions above, has been calculated as follows:

	31 December 2019	31 December 2018
	$'m	$'m
Revised value-in use (present value of future cash flows)	**6,759**	3,866
Carrying amount of the Clinical Research CGU	**(2,038)**	(1,736)
Revised excess of value-in-use over carrying value	**4,721**	2,130

As the excess of the recoverable amount over the carrying value of the cash generating unit was maintained despite changes in key assumptions, management have concluded that no reasonable change in key assumptions would result in an impairment of the CGU.

14. Business combinations

The acquisitions below have been accounted for as business combinations in accordance with the revised IFRS 3 *Business Combinations*:

(a) Acquisition of Symphony

On 24 September 2019 a subsidiary of the Company, ICON Clinical Research LLC, acquired a 100% interest in Symphony. Symphony is a leading provider of at-home trial services and site support services. The acquisition of Symphony further enhances our site & patient services offering. The acquisition resulted in the recognition of goodwill of $23.1 million.

The acquisition of Symphony has been accounted for as a business combination in accordance with IFRS 3 '*Business Combinations*'. The Company has made a provisional assessment of the fair value of assets acquired and liabilities assumed as at that date.

	24 September 2019
	(in thousands)
Cash & cash equivalents	$ 3,292
Property, plant and equipment	257
Operating right of use assets	820
Goodwill *	23,072
Customer relationships **	7,975
Order backlog **	2,140
Computer Software	307
Accounts receivable	3,579
Unbilled revenue	186
Prepayments and other current assets	181
Other receivables	6
Accounts payable	(799)
Unearned revenue	(1,446)
Other liabilities	(933)
Current lease liabilities	(289)
Non-current lease liabilities	(531)
Net assets acquired	$ 37,817
Cash outflows	$ 34,976
Contingent consideration payable	2,500
Working capital adjustment payable	341
Total consideration	$ 37,817

*Goodwill represents the acquisition of an established workforce and the capability to provide at-home trial services and site support solutions. The full amount of the goodwill recognised is expected to be deductible for income tax purposes.
**The Company has made an estimate of separate intangible assets acquired, being customer relationships and order book assets. The fair value of Symphony's intangible assets has been measured provisionally, pending receipt of a final independent valuation. This assessment will be finalised within 12 months of the date of acquisition.

14. Business combinations *(continued)*

The contingent consideration is based on revenue targets set for the Company to the period ending 31 March 2020. The fair value of the contingent consideration on acquisition was $2.5 million based on an income approach. The payment of contingent consideration will be in the range of zero to a maximum of $2.5 million. Due to the short term nature of the contingent consideration, no discounting has been applied. There has been no movement in the value of the contingent consideration from the date of acquisition to the year ended 31 December 2019. As the fair value measure is based on significant inputs that are not observable in the market, the contingent consideration meets the definition of a level 3 financial instrument under IFRS 13. The inputs that are not observable in the market are the expected revenue of the Company to the period ending 31 March 2020 and the probability of achievement of this revenue target by the Company. A positive or negative movement of these inputs by 10% would not result in a material change to the contingent consideration balance at 31 December 2019.

If new information obtained within one year of the date of acquisition about facts and circumstances that existed at the date of acquisition identifies adjustments to the above amounts, or any additional amounts that existed at the date of acquisition, then the accounting for the acquisition will be revised.

The carrying values of accounts receivable, prepayments and other current assets above are carried at amortised cost and assumed to be approximate to their fair values due to the short term nature of these balances. There is no evidence that the Group will not be able to collect all amounts due.

Since 24 September 2019, Symphony has earned revenue of $4.5 million and profit of $1.0 million in the year ended 31 December 2019. The proforma effect of the Symphony acquisition if completed on 1 January 2018 would have resulted in revenue and profit for the fiscal years ending 31 December 2019 and 31 December 2018 as follows:

	Year Ended	
	2019	2018
	(in thousands)	
Revenue	$ 2,818,280	$ 2,609,233
Profit for the year	$ 363,683	$ 324,832

b) Acquisition of MeDiNova

On 23 May 2019 a subsidiary of the Company, ICON Clinical Research (U.K.) Limited acquired a 60% majority shareholding in MeDiNova, a site network with research sites in key markets in Europe and Africa. ICON has the right to acquire the remaining shares in the company during 2020. The vendors also have a right to sell the remaining shares to ICON during 2020. The acquisition further enhances ICON's patient recruitment capabilities in EMEA and complements ICON's existing site network in the US, PMG Research. The acquisition resulted in the recognition of goodwill of $81.4 million.

The acquisition of MeDiNova has been accounted for as a business combination in accordance with IFRS 3 '*Business Combinations*'. The Company has made a provisional assessment of the fair value of assets acquired and liabilities assumed as at that date.

14. Business combinations *(continued)*

	23 May 2019
	(in thousands)
Cash & cash equivalents	$ 7,719
Property, plant and equipment	670
Operating right of use assets	1,558
Goodwill *	81,430
Customer relationships **	3,887
Order backlog **	171
Patient database **	2,542
Accounts receivable	3,488
Unbilled revenue	4,272
Other receivables	819
Prepayments and other current assets	406
Accounts payable	(5,484)
Unearned revenue	(5,796)
Other liabilities	(6,622)
Current lease liabilities	(430)
Non-current lease liabilities	(1,128)
Non-current deferred tax liability	(1,226)
Net assets acquired	$ 86,276
Cash outflows	$ 54,123
Working capital adjustment receivable	(439)
Noncontrolling interest ***	32,592
Total consideration (including noncontrolling interest)	$ 86,276

*Goodwill represents the acquisition of an established workforce and access to a broad site network in Europe and Africa. None of the goodwill recognised is expected to be deductible for income tax purposes.

**The Company has made an estimate of separate intangible assets acquired, being customer relationships, order book assets and patient database. This assessment will be finalised within 12 months of the date of acquisition. The fair value of MeDiNova's intangible assets has been measured provisionally, pending receipt of a final independent valuation.

***The fair value of the noncontrolling interest on 23 May 2019 was $32.6 million which was estimated by applying an income based approach. The valuation approach used was based on the future earnings of the Company times an appropriate earnings multiple. Redemption of the noncontrolling interest will be based on the Company's earnings to 31 March 2020.

If new information obtained within one year of the date of acquisition about facts and circumstances that existed at the date of acquisition identifies adjustments to the above amounts, or any additional amounts that existed at the date of acquisition, then the accounting for the acquisition will be revised.

The carrying values of accounts receivable, prepayments and other current assets above are carried at amortised cost and assumed to be approximate to their fair values due to the short term nature of these balances. There is no evidence that the Group will not be able to collect all amounts due.

Since 23 May 2019, MeDiNova has earned revenue of $6.5 million (after elimination of intercompany revenue from ICON) and net income of $4.7 million in the year ended 31 December 2019. The proforma effect of the MeDiNova acquisition if completed on 1 January 2018 would have resulted in revenue and profit for the fiscal years ending 31 December, 2019 and 31 December 2018 as follows:

	Year Ended	
	2019	2018
	(in thousands)	
Revenue	$ 2,807,788	$ 2,599,091
Profit for the year	$ 363,026	$ 323,920

14. Business combinations *(continued)*

(c) Acquisition of MMD

On 25 January 2019 a subsidiary of the Company, ICON Laboratory Services, Inc. acquired 100% of the share capital of MMD. MMD is a molecular diagnostic specialty laboratory that enables the development and commercialisation of precision medicines in oncology. The acquisition resulted in the recognition of goodwill of $22.4 million.

The acquisition of MMD has been accounted for as a business combination in accordance with IFRS 3 '*Business Combinations*'. The Company made an assessment of the fair value of assets acquired and liabilities assumed as at that date. The following table summarises the Company's fair values of the assets acquired and liabilities assumed:

		25 January 2019
		(in thousands)
Cash & cash equivalent	$	686
Property, plant and equipment		1,626
Operating right of use assets		2,866
Goodwill *		22,430
Customer relationships *		10,708
Order backlog *		2,787
Computer Software		71
Accounts receivable		3,100
Unbilled revenue		2,421
Other receivables		43
Prepayments and other current assets		908
Deferred tax asset		1,568
Accounts payable		(1,280)
Unearned revenue		(540)
Other liabilities		(1,232)
Current lease liabilities		(699)
Non-current lease liabilities		(2,167)
Non-current other liabilities		(1,123)
Net assets acquired	$	42,173
Cash outflows	$	42,349
Working capital adjustment		(176)
Total consideration	$	42,173

*Goodwill represents the acquisition of an established workforce with experience in molecular diagnostic speciality laboratory services and commercialisation of precision medicines in oncology. None of the goodwill recognised is expected to be deductible for income tax purposes. In finalising the goodwill on acquisition of MMD in the twelve month period from acquisition, fair value adjustments were made which resulted in increases in unbilled revenue ($2.1 million), deferred tax asset ($3.7 million), accounts payable ($0.6 million) and other liabilities ($0.1 million) and decreases in property, plant and equipment ($0.1 million) and unearned revenue ($0.9 million). Customer relationship and order backlog assets were also finalised.

The carrying values of accounts receivable, prepayments and other current assets above are carried at amortised cost and assumed to be approximate to their fair values due to the short term nature of these balances. There is no evidence that the Group will not be able to collect all amounts due.

Since 25 January 2019, MMD has earned revenue of $17.9 million and net income of $1.1 million in the year ended 31 December 2019. The proforma effect of the MMD acquisition if completed on 1 January 2018 would have resulted in revenue and profit for the fiscal years ending 31 December 2019 and 31 December 2018 as follows:

14. Business combinations *(continued)*

	Year Ended	
	2019	2018
	(in thousands)	
Revenue	$ 2,806,908	$ 2,612,346
Profit for the year	$ 360,977	$ 321,859

(d) Acquisition of Mapi Group

On 27 July 2017, a subsidiary of the Company, ICON Clinical Research Limited, acquired Mapi Group. Mapi Group is a leading patient-centred health outcomes research and commercialisation company. Cash outflows on acquisition were $145.8 million. The acquisition resulted in the recognition of goodwill of $130.3 million.

The acquisition of Mapi has been accounted for as a business combination in accordance with IFRS 3 *Business Combinations*. The following table summarises the provisional estimates of the fair values of the assets acquired and liabilities assumed:

	27 July 2017
	$'000
Cash	19,649
Property, plant and equipment	4,872
Goodwill*	130,270
Order backlog	13,012
Customer relationships	18,392
Accounts receivable	15,874
Unbilled revenue	6,984
Prepayments and other current assets	2,587
Other receivables	1,430
Income taxes receivable	4,262
Accounts payable	(2,994)
Unearned revenue	(31,445)
Other liabilities	(24,952)
Non-current other liabilities	(1,061)
Non-current deferred tax liability	(11,104)
Net assets acquired	145,776
Cash consideration	144,131
Working capital adjustment	1,645
Total consideration	145,776

*Goodwill represents the acquisition of an established workforce with experience in late phase commercialisation, analytics, real world evidence generation and strategic regulatory services in clinical trial services for biologics, drugs and devices. Goodwill related to the business acquired is not tax deductible. In finalising the goodwill on acquisition of Mapi in the twelve month period from acquisition, fair value adjustments were made which resulted in increases in other liabilities ($3.9 million), plant and equipment ($1.7 million), accounts receivable ($1.7 million) and income taxes receivable ($1.5 million) and decreases in unbilled revenue ($4.8 million), prepayments and other current assets ($1.9 million), other receivables ($1.0 million), payments on account ($2.6 million) and non-current deferred tax liability ($9.1 million). Customer relationships and order backlog assets were also finalised.

14. Business combinations *(continued)*

The carrying values of accounts receivable, prepayments and other current assets above are carried at amortised cost and assumed to be approximate to their fair values due to the short term nature of these balances. There is no evidence that the Group will not be able to collect all amounts due.

The proforma effect of the Mapi acquisition if completed on 1 January 2016 would have resulted in revenue and profit for the fiscal years ending 31 December 2017 and 31 December 2016 as follows:

	Year ended 31 December 2017	Year ended 31 December 2016
	$'000	$'000
Revenue	**1,811,018**	1,750,643
Profit for the year	**276,359**	268,882

15. Inventories

	31 December 2019	31 December 2018
	$'000	$'000
Laboratory inventories	**3,181**	2,274

The cost of inventories is recognised as an expense and included in direct costs in the Consolidated Statement of Profit and Loss. $34.3 million (2018: $33.8 million) was charged to the Consolidated Statement of Profit and Loss for the year ended 31 December 2019.

16. Accounts receivable, unbilled services (contract assets) and unearned revenue (contract liabilities)

	31 December 2019	31 December 2018
	$'000	$'000
Accounts receivable	**535,088**	423,680
Less allowance for credit losses	**(7,380)**	(8,889)
Accounts receivable, net	**527,708**	414,791

Accounts receivables are amounts due from customers for services performed in the ordinary course of business. They are generally due for settlement within 30-90 days and therefore are all classified as current. Accounts receivable are recognised initially at the amount of consideration that is unconditional. Accounts receivable balances do not contain significant financing components. The Group holds the accounts receivable with the objective to collect the contractual cash flows and therefore measures them subsequently at amortised cost.

Due to the short-term nature of the current receivables, their carrying amount is considered to be the same as their fair value.

16. Accounts receivable, unbilled services (contract assets) and unearned revenue (contract liabilities) (*continued*)

Impairment of financial assets

The closing loss allowance for trade receivables and contract assets as at 31 December 2019 reconcile to the opening loss allowances as follows:

	31 December 2019	31 December 2018
	$'000	$'000
Balance at start of year - calculated under IAS 39	**8,889**	8,930
Adjustment to loss allowance as at 1 January 2018 - calculated under IFRS 9*	**—**	—
Receivables written off during the year as uncollectible	**—**	(995)
Increase in loss allowance recognised in profit or loss during the year	**1,691**	3,083
Unused amount reversed	**(3,226)**	(2,355)
Foreign currency translation	**26**	226
Balance at end of year	**7,380**	8,889

**The restatement on transition to IFRS 9 as a result of applying the expected credit risk model was immaterial.*

The Group considered that there was evidence of impairment if any of the following indicators were present:

- significant financial difficulties of the debtor
- probability that the debtor will enter a financial restructuring process, and
- default or late payment

The Group's estimate of expected credit losses considers historical credit loss information that is adjusted, where necessary, for current conditions and reasonable and supportable forecasts. Historical credit loss experience provides the basis for the estimation of expected credit losses. The Group's receivables and unbilled services are predominantly due from large and mid-tier pharmaceutical and biotechnology companies that share similar risk characteristics. The Group monitors their portfolio of receivables and unbilled services for any deterioration in current or expected credit quality (for example expected delinquency level), and adjusts the allowance for credit losses as required. Receivables for which an impairment provision was recognised were written off against the provision when there was no expectation of recovering additional cash.

At 31 December 2019, the Group maintained an impairment provision of $7.4 million (2018: $8.9 million).

All receivables are due within twelve months of the year ended 31 December 2019.

Further analysis of Group's accounts receivable balances at 31 December 2019 is as follows:

	Gross accounts receivable	Gross accounts receivable
	2019	2018
	$'000	$'000
Not past due	**438,472**	319,190
Past due 0 to 30 days	**48,657**	54,656
Past due 31 to 60 days	**12,779**	15,422
Past due 61+ days	**35,180**	34,412
Accounts receivable	**535,088**	423,680

16. Accounts receivable, unbilled services (contract assets) and unearned revenue (contract liabilities) (*continued*)

The carrying amounts of the Group's accounts receivables are denominated in the following currencies:

	31 December 2019	31 December 2018
	$'000	$'000
Currency		
US Dollar	**403,759**	306,819
Euro	**86,133**	82,320
Sterling	**15,077**	9,584
Other currencies	**22,739**	16,068
Total	**527,708**	414,791

Accounts receivables and unbilled revenue are as follows:

	31 December 2019	31 December 2018
	$'000	$'000
Billed services (accounts receivable)	**535,088**	423,680
Unbilled services (unbilled revenue)	**422,769**	362,926
Trade accounts receivable and unbilled revenue	**957,857**	786,606
Allowance for for credit losses	**(7,380)**	(8,889)
Trade accounts receivable and unbilled revenue, net	**950,477**	777,717

Unbilled services and unearned revenue (contract assets and liabilities) were as follows:

	31 December 2019	31 December 2018	**$ Change**	**% Change**
	$'000	$'000		
Unbilled services (unbilled revenue)	**422,769**	362,926	59,843	16.5 %
Unearned revenue (payments on account)	**(366,988)**	(274,468)	(92,520)	33.7 %
	55,781	88,458	(32,677)	(36.9)%

Timing may differ between the satisfaction of performance obligations and the invoicing and collection of amounts related to our contracts with customers. We record assets for amounts related to performance obligations that are satisfied but not yet billed and/or collected. These assets are recorded as unbilled receivables and therefore contract assets rather than accounts receivables when receipt of the consideration is conditional on something other than the passage of time. Liabilities are recorded for amounts that are collected in advance of the satisfaction of performance obligations.

Unbilled services/revenue balances arise where invoicing or billing is based on the timing of agreed milestones related to service contracts for clinical research. Contractual billing arrangements in respect of certain reimbursable expenses (principally investigators) require billing by the investigator to the Company prior to billing by the Company to the customer.

The most significant impact of application of IFRS 15 for the first time at 1 January 2018 was the measurement of a clinical trial service as a single performance obligation recognised over time. We concluded that ICON is the contract principal in respect of both direct services and in the use of third parties (principally investigator services) that support a clinical trial. The progress towards completion for clinical service contracts is measured based on total project costs (including reimbursable costs). Reimbursable expenses are included within direct costs on adoption of IFRS 15 and are recorded based on activity undertaken by the third party. Amounts owed to investigators and others in respect of reimbursable expenses was $142.6 million at 31 December 2019 and $85.6 million at 31 December 2018 (see *note 20 Accrued and Other liabilities*).

16. Accounts receivable, unbilled services (contract assets) and unearned revenue (contract liabilities) (*continued*)

Payments on account or unearned revenue increased by $92.5 million resulting in an decrease of $32.7 million in the net balance of unbilled services and unearned revenue between 31 December 2018 and 31 December 2019. These fluctuations are primarily due to timing of payments and invoicing related to the Group's clinical trial management contracts. Billings and payments are established by contractual provisions including predetermined payment schedules which may or may not correspond to the timing of the transfer of control of the Company's services under the contract. Unbilled services arise from long-term contract when a cost-based input method of revenue recognition is applied and revenue recognised exceeds the amount billed to the customer.

The credit loss expense recognised on the Group's receivables and unbilled services was $0.4 million (2018: $0.7 million) for the twelve months ended 31 December 2019.

As of 31 December 2019 approximately $5.3 billion (2018: $5.3 billion) of revenue is expected to be recognised in the future in respect of unsatisfied performance obligations. The Company expects to recognise revenue on approximately 48% (2018: 40%) of the unrealised performance obligation over the next 12 months, with the remainder recognised thereafter over the duration of the customer contracts.

17. Other assets

	31 December 2019	31 December 2018
	$'000	$'000
Non-current other assets		
Lease deposits	**8,717**	7,706
Deferred employee savings scheme assets	**16,024**	13,072
Total	**24,741**	20,778

Lease deposits paid in respect of certain premises leased by the Group are refundable on expiry of the related leases. Discounting of the non-current element has not been applied because the discount would be immaterial. However, discounting may apply in the future if the non-current element becomes significant such that the discounting impact would be material.

	31 December 2019	31 December 2018
	$'000	$'000
Other current assets		
Personnel related prepayments	**903**	431
Facility and information system related prepayments	**23,886**	20,632
General overhead prepayments	**8,602**	8,863
Sales tax recoverable	**14,665**	16,289
Other receivables	**22,269**	22,519
Total	**70,325**	68,734

Other current assets do not contain any impaired assets. The maximum exposure to credit risk at the reporting date is the carrying value of each receivable, other than prepayments which do not have credit risk. The Group does not hold any collateral as security.

18. Financial asset investments

(a) Current asset investments - fair value through OCI

	31 December 2019	31 December 2018
	$'000	$'000
At start of year	**59,910**	77,589
Additions	**9,603**	80,956
Disposals/maturities	**(21,686)**	(99,865)
Interest on short term investments	**1,065**	1,329
Gain/(loss) on investments	**736**	(99)
At end of year	**49,628**	59,910

Current asset investments are reported at fair value, with gains or losses recorded in other comprehensive income. The gain on short term investments recognised during the year ended 31 December 2019 includes an unrealised gain of $0.7 million (2018: unrealised loss of $0.2 million). Current asset investments comprise highly liquid investments with maturities of greater than three months and minimum "A-" rated fixed and floating rate securities.

(b) Non-current financial assets - fair value through profit or loss

The Company entered into subscription agreements with a number of funds. Capital totalling $10.1 million had been advanced under the terms of the subscription agreements at 31 December 2019 (2018: $6.2 million). The Company determined that the interests in the funds meet the definition of equity securities without readily determinable fair values. There was a decrease in fair value of $0.8 million (2018: increase in fair value of $0.8 million) recognised in profit for the financial year during the year bringing the carrying value of the subscriptions to $10.1 million at 31 December 2019 (2018: $7.0 million). The Company had committed to future investments of $22.5 million in respect of these funds.

19. Cash and cash equivalents

	31 December 2019	31 December 2018
	$'000	$'000
Cash at bank and in hand	**185,455**	160,378
Short term deposits	**334,854**	235,473
Cash and cash equivalents	**520,309**	395,851

20. Accrued and other liabilities

	31 December 2019	31 December 2018
	$'000	$'000
Non-current other liabilities		
Personnel related liabilities	**289**	333
Deferred government grants (note 22)	**813**	877
Retirement benefit plan net obligation (note 10)	**6,053**	3,320
Deferred employee savings scheme liabilities	**10,292**	8,061
Other liabilities	**452**	431
Total	**17,899**	13,022

Deferred employee savings scheme liabilities are payable more than 5 years from the reporting date (see *note 26 Financial instruments)*. Discounting of the non-current element has not been applied because the impact would be immaterial. However, discounting may apply in the future if the non-current element becomes significant such that the discounting impact would be material.

	31 December 2019	31 December 2018
	$'000	$'000
Current accrued and other liabilities		
Personnel related liabilities	**157,146**	171,866
Facility and information system related liabilities	**11,138**	14,012
General overhead liabilities*	**174,131**	118,844
Gross obligation under put option	**47,205**	—
Lease liabilities (note 27)	**28,320**	—
Other liabilities	**4,051**	5,179
Short term government grants (note 22)	**45**	42
Total	**422,036**	309,943

*includes amounts due to third parties in respect of accrued reimbursable expenses of $142.6 million at 31 December 2019 and $85.6 million at 31 December 2018.

21. Provisions

	31 December 2019	31 December 2018
	$'000	$'000
Non-current other liabilities		
Restructuring provision (note 8)	**405**	1,301
Total	**405**	1,301

	31 December 2019	31 December 2018
	$'000	$'000
Current liabilities		
Contingent consideration (note 14)	**2,500**	—
Restructuring provision (note 8)	**1,232**	7,200
Total	**3,732**	7,200

22. Deferred government grants

	31 December 2019	31 December 2018
	$'000	$'000
At beginning of year	**919**	1,001
Amortised during the year	**(44)**	(47)
Foreign exchange movement	**(17)**	(35)
At end of year	**858**	919
Current (note 20)	**45**	42
Non-current (note 20)	**813**	877
Total	**858**	919

Under grant agreements amounts received may become repayable in full or in part should certain circumstances specified within the grant agreements occur, including downsizing by the Group, disposing of the related assets, ceasing to carry on its business or the appointment of a receiver over any of its assets.

23. Bank credit lines and loan facilities

Reconciliation of opening to closing net debt:

	Balance 1 Jan 2019	Drawn down	Repaid	Net cash inflow	Other non-cash adjustments	Balance 31 Dec 2019
Net cash and cash equivalents	395,851	—	—	125,108	(650)	520,309
Financial assets at fair value through other comprehensive income	59,910	—	—	(12,028)	1,746	49,628
Private placement notes	(349,264)	—	—	—	(376)	(349,640)
	106,497	—	—	**113,080**	**720**	**220,297**

On 12 March 2018, the Company entered into a five year committed multi-currency Revolving Credit Facility for $150.0 million with Citibank, JP Morgan, Santander, HSBC Bank and Morgan Stanley International (“Revolving Credit Facility”). Each bank subject to the agreement has committed $30.0 million to the facility, with equal terms and conditions in place with all institutions. The facility is guaranteed by ICON plc. The facility replaces the $100.0 million facility which was entered into in June 2014 due to mature in June 2019. The facility bears interest at LIBOR plus a margin. We continue to monitor the phasing out of LIBOR which is currently scheduled for 2021. We have engaged with our lenders on the implications of the change. In the absence of an agreed new rate, documents continue to be negotiated using LIBOR. We will continue to engage with our lenders in respect of the requirement for a new rate and seek an amendment letter at that point. No amounts were drawn at 31 December 2019 or at 31 December 2018, in respect of the Revolving Credit Facility. Amounts available to the Group under the facility at 31 December 2019 and at 31 December 2018 were $150.0 million.

On 15 December 2015 the Company issued, through its subsidiary ICON Investment Five Unlimited Company (the "Issuer"), Senior Notes for aggregate gross proceeds of $350 million. The Senior Notes will mature on 15 December 2020. Interest payable is fixed at 3.64% and is payable semi-annually on the Senior Notes on each 15 June and 15 December which commenced on 15 June 2016. The Senior Notes are guaranteed by ICON plc. The Senior Notes may be redeemed, at the Issuer's option, at any time prior to maturity, at par plus a make whole premium, together with accrued and unpaid interest, if any, to the redemption date. The terms of the notes are set forth in the Note Purchase and Guarantee Agreement, dated as of 15 December 2015, by and among the Issuer, ICON plc and the purchasers named therein (“Note Purchase and Guarantee Agreement”). The Issuer used the proceeds from the sale of the Senior Notes to repay the existing $350 million bridge facility. The Senior Notes are presented net of related financing costs on the Consolidated Statement of Financial Position ($349.6 million at 31 December 2019).

The Note Purchase and Guarantee Agreement includes certain financial covenants that require compliance with a consolidated leverage ratio, a minimum EBIT to consolidated net interest charge ratio and a maximum amount of priority debt. The financial covenants are defined in the Note Purchase and Guarantee Agreement.

The Senior Notes and the Revolving Credit Facility credit agreements also include certain customary covenants that restrict the Group’s ability to enter into certain transactions or events including:

- incur or assume liens or additional debt;
- dispose of assets;
- engage in mergers or reorganisations; or
- enter into certain types of transactions with affiliates.

24. Share capital

Group and Company

Authorised share capital:	**No. of Ordinary Shares**
Ordinary shares of par value €0.06	100,000,000

	31 December 2019	31 December 2018
	$'000	$'000
Allotted, called up and fully paid		
53,622,206 (31 December 2018: 53,971,706) ordinary shares of €0.06 each	**4,635**	4,658
Issued, fully paid share capital		
At beginning of year	**4,658**	4,664
Employee share options exercised	**22**	29
Restricted share units/ performance share units	**24**	36
Repurchase of ordinary shares	**(69)**	(71)
At end of year	**4,635**	4,658

Holders of ordinary shares will be entitled to receive such dividends as may be recommended by the Board of Directors of the Company and approved by the Shareholders and/or such interim dividends as the Board of Directors of the Company may decide. On liquidation or a winding up of the Company, the par value of the ordinary shares will be repaid out of the assets available for distribution among the holders of the ordinary shares of the Company. Holders of ordinary shares have no conversion or redemption rights. On a show of hands, every holder of an ordinary share present in person or proxy at a general meeting of shareholders shall have one vote, for each ordinary share held with no individual having more than one vote.

During the year ended 31 December 2019, 329,870 options were exercised by employees at an average exercise price of $65.54 per share for total proceeds of $21.6 million. During the year ended 31 December 2019, 237,119 ordinary shares were issued in respect of certain RSUs and 118,611 ordinary shares were issued in respect of PSUs previously awarded by the Company.

During the year ended 31 December 2018, 408,699 options were exercised by employees at an average exercise price of $41.12 per share for total proceeds of $16.8 million. During the year ended 31 December 2018, 273,742 ordinary shares were issued in respect of certain RSUs and 215,826 ordinary shares were issued in respect of PSUs previously awarded by the Company.

Share repurchase programme

A resolution was passed at the Company's Annual General Meeting ("AGM") on 22 July 2016, which authorised the Directors to purchase (buyback) up to 10% of the outstanding shares in the Company. This authorisation was renewed at the Company's AGM on each of 25 July 2017, 24 July 2018 and 23 July 23 2019. On 3 October 2016, the Company commenced a share buyback programme of up to $400 million. The share buyback programme was completed during the year ended 31 December 2018 with a total of 4,026,576 ordinary shares redeemed by the Company for a total consideration of $372.1 million. On 8 January 2019, the Company commenced a further share buyback programme of up to 1.0 million ordinary shares which was completed during the year ended 31 December 2019. These shares were redeemed by the Company for a total consideration of $141.6 million. On 22 October 2019 the Company commenced a further share buyback programme. At 31 December 2019, 35,100 ordinary shares were redeemed by the Company under this programme for a total consideration of $5.3 million.

All ordinary shares that were redeemed under the buyback programme were cancelled in accordance with the Constitution of the Company and the nominal value of these shares transferred to other undenominated capital as required under Irish Company law.

24. Share capital (continued)

Under the repurchase programme, a broker purchased the Company's shares from time to time on the open market or in privately negotiated transactions in accordance with agreed terms and limitations. The programme was designed to allow share repurchases during periods when the Company would ordinarily not be permitted to do so because it may be in possession of material non-public or price-sensitive information, applicable insider trading laws or self-imposed trading blackout periods. The Company's instructions to the broker were irrevocable and the trading decisions in respect of the repurchase programme were made independently of and uninfluenced by the Company. The Company confirms that on entering the share repurchase plans it had no material non-public, price-sensitive or inside information regarding the Company or its securities. Furthermore, the Company will not enter into additional plans whilst in possession of such information. The timing and actual number of shares acquired by way of the redemption will be dependent on market conditions, legal and regulatory requirements and the other terms and limitations contained in the programme. In addition, acquisitions under the programme may be suspended or discontinued in certain circumstances in accordance with the agreed terms. Therefore, there can be no assurance as to the timing or number of shares that may be acquired under the programme.

25. Capital and reserves

	31 December 2019	31 December 2018
	$'000	$'000
Share-based payment reserve	**174,230**	173,326
Other undenominated capital	**1,052**	983
Other reserves	**10,874**	11,868
Foreign currency translation reserve	**(71,492)**	(67,469)
Current asset investment – fair value reserve	**231**	(450)
Put option in noncontrolling interest shares	**(38,482)**	—
Retained earnings	**1,220,871**	979,834
Subtotal	**1,297,284**	1,098,092
Noncontrolling interest	**34,462**	—
Total	**1,331,746**	1,098,092

Share-based payment reserve
The share-based payment reserve is used to account for share-based payments. The fair value of share-based payments is expensed to the Consolidated Statement of Profit and Loss over the period the related services are received, with a corresponding increase in equity. At 31 December 2019 the Group has recognised a cumulative charge for share-based payments of $263.5 million net of deferred tax (2018: $238.5 million). The Group has also recognised a cumulative credit of $47.7 million (2018: $40.6 million) in reserves for the current and deferred tax effects of the tax benefits relating to the exercise of employee share options in excess of related cumulative compensation expense. The Group has reclassified a cumulative credit of $137.0 million (2018: $105.8 million) to retained earnings in respect of exercised and expired share-based awards.

Other undenominated capital
Other undenominated capital comprises the nominal value of shares repurchased and cancelled by the Group and transferred from share capital to other undenominated capital as required under Irish Company Law. During the year ended 31 December 2019, 1,035,100 (31 December 2018: 1,008,162) ordinary shares were repurchased and cancelled by the Group.

25. Capital and reserves (*continued*)

Other reserves

The Group has recognised a non-distributable reserve of $3.1 million in accordance with agreements made between the Group and Enterprise Ireland, an Irish government agency. The requirement for these non-distributable reserves will expire between the period 2022 and 2023. In 2005 the Group also recognised a capital contribution of $6.1 million being the fair value of outstanding ordinary shares transferred to Mr Peter Gray, formerly Vice Chairman of the Board of Directors and formerly Chief Executive Officer, by founding Directors, Dr. John Climax and Dr. Ronan Lambe.

On 5 October 2015, the Company entered into an interest rate hedge in respect of the planned issuance of the Senior Notes in December 2015. The interest rate hedge matured on 17 November 2015 when the interest rate on the Senior Notes was fixed. The cash proceeds ($4.6 million), representing the realised gain on the interest rate hedge was received on maturity in November 2015 and is recorded in Other Reserves. The realised gain will be amortised to the Consolidated Statement of Profit and Loss, net against interest payable, over the period of the Senior Notes. As of 31 December 2019, $3.7 million was amortised to the Consolidated Statement of Profit and Loss (2018: $2.8 million).

Currency reserve

The currency reserve comprises all foreign exchange differences arising from the translation of the financial statements of foreign currency denominated operations of the Group since 1 June 2004, the date of transition to IFRS. As at 31 December 2019, this amounted to a cumulative loss of $63.7 million (2018: loss of $62.4 million). In addition the Group has recognised a cumulative loss for the currency impact of long term funding amounting to $4.4 million at 31 December 2019 (2018: loss of $1.7 million) and a cumulative charge of $3.4 million (2018: charge $3.4 million) for the related tax on the currency impact on long term funding.

During the year ended 31 December 2017, we entered into forward foreign currency contracts in respect of identified exposure arising from euro payments. At 31 December 2019, $Nil was recognised in reserves in respect of the value of the contracts.

Current asset investments – fair value reserve

The current asset investment – fair value reserve comprises unrealised fair value gains and losses on current asset investments. The Group has recognised a cumulative gain during the year ended 31 December 2019 of $0.2 million (2018: loss of $0.5 million). Unrealised gains and losses are reclassified to the Consolidated Statement of Profit and Loss on disposal or impairment of the related asset.

Share premium

Share premium is the difference between the nominal value of shares and the value of consideration for shares issued.

Noncontrolling interest

ICON acquired a majority ownership interest in MeDiNova during 2019. Included in the purchase agreement are put and call option arrangements with the noncontrolling interest holders that require (put option) or enable (call option) ICON to purchase the remaining minority ownership at a future date. The noncontrolling interest is recorded at its fair value at the acquisition date in equity. The noncontrolling interest continues to be recognised within equity until the noncontrolling interest call/put option is exercised. The carrying amount of noncontrolling interest changes due to allocations of profit or loss, allocations of changes in other comprehensive income and dividends declared for the reporting period. The Company allocates a share of net income to the noncontrolling interest holders based on percentage ownership. In the year ended 31 December 2019, the company allocated $1.9 million of profit to the noncontrolling interest holders.

Put option in noncontrolling interest shares

The financial liability for the noncontrolling interest put option is recognised at the present value of the amount payable upon exercise of the option. On initial recognition, the corresponding debit relating to the financial liability is made to equity attributable to the Company within the category 'put option in noncontrolling interest shares'. For the year ended 31 December 2019, upon initial recognition the company recognised a financial liability of $38.5 million resulting in an equivalent balance within this equity account. Subsequent changes to the carrying amount of the liability are recorded in the Consolidated Statement of Profit and Loss.

Retained earnings

In addition to the profit for the financial year the Group has also recognised the re-measurement of the defined benefit pension scheme in this reserve. In 2019, the Group recognised a re-measurement on the defined benefit pension scheme of $(2.4) million (31 December 2018: a re-measurement of $2.6 million). In 2019, the Group recognised share issue costs of $(0.1) million in this reserve. The Group has recognised a credit of $31.3 million (2018: credit of $39.0 million) in respect of exercised and expired share-based awards that have been transferred from the share based payment reserve. During the year, the Group also participated in a share buyback programme. During the year ended 31 December 2019, the Group redeemed a total of 1,035,100 ordinary shares for total consideration of $146.9 million (2018: 1,008,162 ordinary shares were redeemed by the Group for a total consideration of $129.0 million), see *note 24 Share Capital* for further detail.

26. Financial instruments

The Board of Directors have overall responsibility for the establishment and oversight of the Group's risk managementframework. The Group is exposed to various financial risks in the normal course of its business. The principle financial risks to which it is exposed include credit risks related to the creditworthiness of its customers and counterparties, with which it invests surplus cash funds, liquidity risk associated with the availability of sufficient capital resources, foreign currency risks, including both translation and transaction risk, and interest rate risk.

The Group's risk management policies are established to identify and analyse the risks faced by the Group, to set appropriate risk limits and controls, and to monitor risks and adherence to limits. Risk management policies and systems are reviewed regularly to reflect changes in market conditions and the Group's activities. The Group, through its training and management standards and procedures, aims to develop a disciplined and constructive control environment in which all employees understand their roles and obligations. The Audit Committee of the Board oversees how management monitors compliance with the Group's risk management policies and procedures and reviews the adequacy of the risk management framework in relation to the risks faced by the Group.

Credit risk
Credit risk arises from cash and cash equivalents, contractual cash flows of debt investments carried at fair value through other comprehensive income and at fair value through profit or loss, favourable derivative financial instruments and deposits with banks and financial institutions, as well as credit exposures to customers, including outstanding accounts receivable and unbilled receivables.

Credit risk is managed on a group basis. For banks and financial institutions, independently rated parties with a minimum rating of BBB+ for overnight maturities and a minimum of A- for any bank deposits greater than overnight and up to three months.

Current asset investments (recorded at fair value through other comprehensive income) comprise investments with maturities of greater than three months. The minimum ratings required for investment are as follows: bank deposits (A-), money market funds (AAA), liquidity funds (AAA) and fixed rate corporate bonds or floating rate notes (A- non-financial, AA-financial).

The Group's exposure to credit risk arises predominately in respect of the credit risk assessment of customers. Customer credit risk is managed through application of credit procedures, in particular through risk assessment of new customers, through assessment of credit quality, taking into account its financial position, past experience and other factors. The compliance with credit terms is regularly monitored by line management.

Contract terms may range from several weeks to several years depending on the nature of the work to be performed. Contracts are generally fixed price or unit based. In most cases, a portion of the contract fee is paid at the time the study or trial is started. The balance of the contract fee is generally billable in instalments over the study or trial duration and may be based on the delivery of certain performance targets or "milestones" or, based on units delivered, or on a fixed monthly payment schedule such as patient enrolment or database delivery.

Where customers request changes in the scope of a trial or in the services to be provided, a change order or amendment is issued which may result either in an increase or decrease in the contract value.

The Group also contracts on a "fee-for-service" or "time and materials" basis.

During the course of a study, the Group will generally incur reimbursable expenses. Reimbursable expenses are typically estimated and budgeted within the contract and are generally invoiced on a monthly basis based on actual expenses incurred. Reimbursable expenses include payments to investigators, travel and accommodation costs and various other expenses incurred over the course of the clinical trial which are fully reimbursable by the client.

Most of the Group's contracts are terminable immediately by the customer with justifiable cause or with 30 to 90 days notice without cause. In the event of termination, the Group is usually entitled to all sums owed for work performed through the notice of termination and certain costs associated with termination of the study. Termination or delay in the performance of a contract occurs for various reasons, including, but not limited to, unexpected or undesired results, production problems resulting in shortages of the drug, adverse patient reactions to the drug, the client's decision to de-emphasise a particular trial, inadequate patient enrollment or investigator recruitment.

The Group's top five customers accounted for approximately 37.6% and 39.5% of revenue during the years ended 31 December 2019 and 31 December 2018 respectively. During the year ended 31 December 2019 12.5% of the Group's revenues were derived from its top customer (2018: 13.6%). The second largest customer accounted for 10.2% of the Group's revenue for the year ended 31 December 2019. The addition of new customer accounts, particularly large and mid-tier pharma customers and biotech customers have resulted in a reduction in this concentration of revenues from our top five customers.

26. Financial instruments *(continued)*

The maximum exposure of credit risk pertaining to customers is the carrying value of accounts receivable and unbilled revenue balances. The carrying value of accounts receivable and unbilled revenue balances, by geographic region, at 31 December 2019 was as follows:

	Accounts Receivable		Unbilled Revenue	
	31 December 2019	31 December 2018	**31 December 2019**	31 December 2018
	$'000	$'000	**$'000**	$'000
Europe	**459,479**	336,141	**325,260**	283,595
United States	**58,577**	71,321	**84,827**	71,537
Rest of World	**9,652**	7,329	**12,682**	7,794
Total	**527,708**	414,791	**422,769**	362,926

The Group has four types of financial assets that are subject to the expected credit loss model:

- trade receivables (billed amounts) for services provided to customers
- unbilled receivables (contract assets) for services provided to customers
- cash and cash equivalents

Trade receivables and contract assets
The Group applies the IFRS 9 simplified approach to measuring expected credit losses which uses a lifetime expected loss allowance for all trade receivables and contract assets.

To measure the expected credit losses, trade receivables and contract assets have been grouped based on shared credit risk characteristics and the days past due. The contract assets relate to unbilled work in progress and have substantially the same risk characteristics as the trade receivables for the same types of contracts. The Group has therefore concluded that the expected loss rates for trade receivables are a reasonable approximation for the loss rates for the contract assets.

The expected loss rates are based on the payment profiles of revenue over a period of 36 months before 31 December 2019 or 1 January 2019 respectively and the corresponding historical credit losses experienced within this period. The historical loss rates are adjusted to reflect current and forward looking information on macroeconomic factors affecting the ability of the customers to settle receivables. See *note 16 - Accounts receivable and contract balances* for assessment of the allowance for credit losses as at 1 January 2019 and 31 December 2019 (on adoption of IFRS 9) for both trade receivables and contract assets.

Trade receivables and contract assets are written off when there is no reasonable expectation of recovery. Indicators that there is no reasonable expectation of recovery include, amongst others, the failure of a debtor to engage in a repayment plan with the group, and a failure to make contractual payments for a period of greater than 120 days past due. Impairment losses on trade receivables and contract assets are presented as net impairment losses within operating profit. Subsequent recoveries of amounts previously written off are credited against the same line item.

Liquid and capital resources
The Group's liquid and capital resources at 31 December 2019 were as follows:

	31 December 2019	31 December 2018
	$'000	$'000
Current asset investments (note 18)	**49,628**	59,910
Cash and cash equivalents (note 19)	**520,309**	395,851
Total liquid resources	**569,937**	455,761
Shareholders' equity	**1,641,609**	1,386,379

26. Financial instruments *(continued)*

The principal operating cash requirements of the Group include payment of salaries, office rents, travel expenditures and payments to investigators. Other cash requirements include capital expenditures for facilities and information system enhancements and cash required to fund acquisitions and other growth opportunities. The CRO industry is generally not capital intensive. The Group primarily finances its operations and growth through cash flows from operations, together with amounts drawn under negotiated facilities as required.

The Group's primary objectives in managing its liquid and capital resources are as follows:

- to maintain adequate resources to fund its continued operations,
- to ensure availability of sufficient resources to sustain future development and growth of the business,
- to maintain sufficient resources to mitigate risks and unforeseen events which may arise.

The Group manages risks associated with liquid and capital resources through ongoing monitoring of actual and forecast cash balances and by reviewing the existing and future cash requirements of the business. It ensures that sufficient headroom is available under the Group's existing negotiated facilities and negotiates additional facilities as required. Details of the Group's negotiated facilities are set out in *note 23 Bank Credit Lines and Loan Facilities.* There were no funds drawn under the Revolving Credit Facility at 31 December 2019. The Group may raise additional finance through the issuance of ordinary shares or debt as required.

The Revolving Credit Facility bears interest at LIBOR plus a margin. The facility bears interest at LIBOR plus a margin. We continue to monitor the phasing out of LIBOR which is currently scheduled for 2021. We have engaged with our lenders on the implications of the change. In the absence of an agreed new rate, documents continue to be negotiated using LIBOR. We will continue to engage with our lenders in respect of the requirement for a new rate and seek an amendment letter at that point. There were no amounts drawn on the Revolving Credit Facility at 31 December 2019. The Company is therefore subject to interest rate volatility in respect of any future draw down on the Revolving Credit Facility or in respect of any future issuances of debt. The interest rate in respect of the $350 million Senior Notes is fixed at 3.64% for the five year term of the agreement.

The following table sets out details of the maturity of the Group's financial liabilities into the relevant maturity groupings based on the remaining period from the financial year end date to contractual maturity date:

Year ended 31 December 2019

	Carrying amount	Contractual cash flows	6 months or less	6-12 months	1-2 years	2-5 years	More than 5 years
	$'000	$'000	$'000	$'000	$'000	$'000	$'000
Senior Notes	(349,640)	(350,000)	—	(350,000)	—	—	—
Interest on Senior Notes	(566)	(12,740)	(6,370)	(6,370)	—	—	—
Non-current lease liabilities	(76,593)	(84,904)	—	—	(25,315)	(42,325)	(17,264)
Non-current other liabilities*	(11,033)	(11,033)	(91)	(93)	(126)	(136)	(10,589)
Accounts payable	(24,050)	(24,050)	(24,050)	—	—	—	—
Contingent consideration payable	(2,500)	(2,500)	(2,500)	—	—	—	—
Gross obligation under put option	(47,205)	(47,205)	(47,205)	—	—	—	—
Accrued and other liabilities*	(421,425)	(421,425)	(407,265)	(14,160)	—	—	—
	(933,012)	**(953,857)**	**(487,481)**	**(370,623)**	**(25,441)**	**(42,461)**	**(27,853)**

26. Financial instruments *(continued)*

Year ended 31 December 2018

	Carrying amount	Contractual cash flows	6 months or less	6-12 months	1-2 years	2-5 years	More than 5 years
	$'000	**$'000**	**$'000**	**$'000**	**$'000**	**$'000**	**$'000**
Senior Notes	(349,264)	(350,000)	—	—	(350,000)	—	—
Interest on Senior Notes	(566)	(25,480)	(6,370)	(6,370)	(12,740)	—	—
Non-current other liabilities*	(8,818)	(8,818)	(414)	—	(9)	—	(8,395)
Accounts payable	(13,288)	(13,288)	(13,288)	—	—	—	—
Accrued and other liabilities*	(309,901)	(309,901)	(309,901)	—	—	—	—
	(681,837)	**(707,487)**	**(329,973)**	**(6,370)**	**(362,749)**	**—**	**(8,395)**

**Non-current other liabilities above excludes retirement plan net benefit obligation (2019: $6.1 million and 2018: $3.3 million) and deferred government grants (2019: $0.8 million and 2018: $0.9 million). Accrued and other liabilities excludes interest on senior notes presented separately above and deferred government grants (2019: $45,000 and 2018: $42,000).*

Foreign currency risk

The Group is subject to a number of foreign currency risks given the global nature of its operations. The principal foreign currency risks to which the business is subject includes both foreign currency translation risk and foreign currency transaction risk. Although domiciled in Ireland, the Group presents its results in U.S. dollars. As a consequence the results of non-U.S. based operations, when translated into U.S. dollars, could be affected by fluctuations in exchange rates between the U.S. dollar and the currencies of those operations.

The Group is also subject to foreign currency transaction exposures as the currency in which contracts are priced can be different from the currencies in which costs relating to those contracts are incurred. The Group's operations in the United States are not materially exposed to such currency differences as the majority of revenues and costs are in U.S. dollars. However, outside the United States the multinational nature of the Group's activities means that contracts are usually priced in a single currency, most often U.S. dollars, Euros or pounds Sterling, while costs arise in a number of currencies, depending on, among other things, which of the Group's offices provide staff for the contract and the location of investigator sites.

Although many such contracts benefit from some degree of natural hedging due to the matching of contract revenues and costs in the same currency, where costs are incurred in currencies other than those in which contracts are priced, fluctuations in the relative value of those currencies could have a material effect on the results of the Group's operations. The Group regularly reviews its foreign currency exposures and usually negotiates currency fluctuation clauses in its contracts which allow for price negotiation if certain exchange rate triggers occur.
The following significant exchange rates applied during the year:

	Average Rate		Closing Rate	
	2019	2018	**2019**	2018
Euro 1:$	**1.1183**	1.1846	**1.1213**	1.1467
Pound Sterling 1:$	**1.2735**	1.3401	**1.3257**	1.2754

A simultaneous ten percent strengthening or weakening of the US Dollar, Euro and Sterling against all other currencies (which remained constant) would have increased or decreased profit by $1.1 million, $12.7 million and $5.8 million respectively (31 December 2018: $0.9 million, $1.9 million and $0.2 million respectively) as a consequence of the retranslation of foreign currency denominated financial assets and liabilities at those dates. This change in profit is excluding the effect of foreign currency denominated long term loans.

26. Financial instruments *(continued)*

Interest rate risk

The Group is exposed to interest rate risk in respect of its cash and cash equivalents, current asset investments and amounts drawn under negotiated facilities which are subject to variable rates of interest. Funds drawn under the private placement bond are subject to fixed rates until 2020. As the Group does not account for these fixed rate liabilities at fair value through profit or loss, any change in market interest rates has no effect on the profit or loss. The Group's treasury function actively manages its available cash resources and invests significant cash balances in various financial instruments to try to ensure optimum returns for the Group's surplus cash balances. Financial instruments are classified either as cash and cash equivalents or current asset investments depending upon the maturity of the related investment. The Group may be subject to interest rate risk in respect of interest rate changes on amounts invested. The Group manages interest rate risk in respect of these balances by monitoring the composition of the Group's investment portfolio on an ongoing basis having regard to current market interest rates and future trends.

In addition to interest rate risk on surplus cash balances invested, the Group may also be subject to interest rate risk on amounts drawn under negotiated facilities which are subject to variable rates of interest. Details of the Group's negotiated facility are set out in *note 23 Bank Credit Lines and Loan Facilities* at 31 December 2019. The Group manages interest rate risk in respect of amounts under negotiated facilities through ongoing monitoring of actual and forecast cash balances, reviewing existing and future cash requirements of the business and by reviewing existing levels of borrowings having regard to current market interest rates and future trends. There are no amounts drawn under the Group's revolving credit facility at 31 December 2019.

In December 2015 the Group issued $350 million in the private placement market, the rate on these Senior Notes is fixed at 3.64% for the five year term. The interest rate is further reduced by an interest rate cash flow hedge which was entered into in advance of the rate fixing date. This cash flow hedge was deemed to be fully effective in accordance with IAS 39 *Financial Instruments: Recognition and Measurement* (it is also considered to be effective in accordance with IFRS 9 from 1 January 2018). The realised gain related to this derivative is recorded within comprehensive income and is amortised over the life of the Senior Notes. The effective rate, reflecting the benefit of the gain on the cash flow hedge, on our 5 year Senior Notes is fixed at 3.37%.

The sensitivity analysis below represents the revised amount following the hypothetical change in our interest income and interest expense based on an immediate 1% movement in market interest rates.

	Interest Income		**Interest Expense**	
	2019	2018	**2019**	2018
	$'000	$'000	**$'000**	$'000
As reported	**6,859**	4,759	**15,902**	13,502
1% Increase	**11,165**	8,155	**15,902 ***	13,502
1% Decrease	**2,537**	1,372	**15,902 ***	13,502

**No variable debt drawn down during the year ended 31 December 2019 or 31 December 2018.*

Fair values

Certain financial instruments are measured in the Statement of Financial Position at fair value using a fair value hierarchy of valuation inputs. The hierarchy prioritises the inputs into three levels based on the extent to which inputs used in measuring fair value are observable in the market. Each fair value measurement is reported in one of three levels, which is determined by the lowest level input that is significant to the fair value measurement in its entirety. These levels are:

Level 1: Inputs are based upon unadjusted quoted prices for identical instruments traded in active markets.

Level 2: Inputs are based upon quoted prices for similar instruments in active markets, quoted prices for identical or similar instruments in markets that are not active and model-based valuation techniques for which all significant assumptions are observable in the market or can be corroborated by observable market data for substantially the full term of the assets or liabilities.

Level 3: Inputs are generally unobservable and typically reflect management's estimates of assumptions that market participants would use in pricing the asset or liability.

26. Financial instruments *(continued)*

The fair value of financial assets together with the carrying amounts shown in the Statement of Financial Position is as follows:

	31 December 2019	**31 December 2019**	**31 December 2019**	31 December 2018	31 December 2018	31 December 2018
	Carrying Amount	**Fair Value Level 1**	**Fair Value Level 3**	Carrying Amount	Fair Value Level 1	Fair Value Level 3
	$'000	**$'000**	**$'000**	$'000	$'000	$'000
Financial assets measured at fair value						
Financial assets at fair value through other comprehensive income	**49,628**	**49,628**	**—**	59,910	59,910	—
Financial assets at fair value through profit and loss	**10,053**	**—**	**10,053**	6,963	—	6,963
	59,681	**49,628**	**10,053**	66,873	59,910	6,963

The carrying values of accounts receivable (less provision for loss), unbilled revenue (contract assets), other current assets, cash and cash equivalents and other non-current assets are carried at amortised cost and assumed to be approximate to their fair values due to the short term nature of these balances. As such their fair values have not been disclosed.

Current asset investments carried at fair value result in gains or losses being recognised in the Consolidated Statement of Comprehensive Income. The fair value of current asset investments is their market price at the financial year end date. They are measured on the basis of Level 1 inputs.

Long-term financial assets carried at fair value result in gains or losses being recognised in the Consolidated Statement of Comprehensive Income. The fair value of long-term financial assets meet the definition of equity securities without readily determinable fair values.

The Group's Senior Notes (private placement debt) is carried at $350.0 million (prior to related financing costs). The carrying value at 31 December 2019, closely approximates fair value.

The gross obligation under the put option is recorded at the present value of the expected redemption amount which is assumed to approximate fair value.

The carrying values of accounts payable, accrued and other liabilities and provisions (excluding contingent consideration) and other non-current liabilities are carried at amortised cost and assumed to be approximate to their fair values.

Each category of asset and liability has remained within the same level of hierarchy as the prior year as there has been no change in the extent to which the inputs used in measuring fair value are or are not observable within the market.

26. Financial instruments *(continued)*

The following table shows reconciliation from the opening balances to the closing balances for Level 3 fair values:

	Long-term financial assets	**Contingent consideration payable**	**Gross obligation under put option**	Long-term financial assets	Contingent consideration	Gross obligation under put option
	2019	**2019**	**2019**	2018	2018	2018
	$'000	**$'000**	**$'000**	$'000	$'000	$'000
Opening balance	**6,963**	**—**	**—**	—	—	—
Additions/payments made during the year	**3,890**	**—**	**—**	6,163	—	—
Contingent consideration in respect of a business combination (note 14)	**—**	**2,500**	**—**	—	—	—
Put option in noncontrolling interest shares	**—**	**—**	**38,482**			—
(Charge)/ credit to the Statement of Comprehensive Income	**(800)**	**—**	**—**	800	—	—
Charge to the Statement of Profit and Loss	**—**	**—**	**8,723**	—	—	—
Closing balance	**10,053**	**2,500**	**47,205**	6,963	—	—

The Group also holds a call option asset over the noncontrolling interest shares which is a level 3 financial instrument. This asset was entered into during the year. The value of the call option at inception and at 31 December 2019 is immaterial.

There have been no transfers between level 1/2 financial instruments and level 3 financial instruments during the current or prior financial year.

The following table shows the valuation techniques used in measuring Level 3 fair values, as well as significant unobservable inputs used:

26. Financial instruments *(continued)*

Type	Valuation Technique	Significant Unobservable Inputs	Inter-relationship between significant unobservable inputs and fair value measurement
Contingent Consideration	The valuation model considers the estimated future cash flows of the entity.	Forecast future cash flows Probability in achieving cash flow forecasts	The estimated fair value would increase (decrease) if the forecasted future cash flows were higher (lower) or if the entity missed agreed targets.
Long-term financial assets	The valuation model is based on the NAV of the fund as prepared by an independent appraiser to prepare a fair value assessment of investment assets each year.	The interest on the fund are not traded on an exchange, or data is not published in respect of the funds.	The valuation is based on the NAV of the fund as prepared by an independent appraiser.
Gross obligation under put option	The valuation model is based on the present value of cash flows of the entity.	Forecast future cash flows Probability in achieving cash flow forecasts	The estimated fair value would increase (decrease) if the forecasted future cash flows were higher (lower).
Call option asset over noncontrolling interest shares	The valuation model is based on the financial benefit to the Group possessing the option to acquire the shares compared to acquiring the shares at the market rate.	Earnings multiple	If the earnings multiple became less than the market rate then the fair value of the option would increase.

27. Leases

Right-of-use assets

The Group has recorded the following for right-of-use assets:

	Premises	Equipment	Motor vehicles	Total
	$'000	$'000	$'000	$'000
Depreciation charge for the year	28,070	1,102	2,215	31,387
Right-of-use assets at 31 December 2019	98,226	3,015	2,721	103,962

Additions to right-of-use assets during 2019 were $29.5 million.

The weighted average remaining lease term at 31 December 2019 was 5.19 years.

Lease liabilities

Total lease payments for the year ended 31 December 2019 were 33.4 million.

27. Leases *(continued)*

Future minimum lease payments under non-cancelable leases as of 31 December 2019 were as follows:

	31 December 2019 $'000
2020	**28,320**
2021	**25,315**
2022	**19,433**
2023	**14,053**
2024	**8,839**
Thereafter	**17,264**
Total future minimum lease payments	**113,224**
Lease imputed interest	**(8,311)**
Total	**104,913**

Lease liabilities are presented as current and non-current. Lease liabilities of $28.3 million have been included in accrued and other liabilities as at 31 December 2019.

Amounts recognised in profit or loss

The following amounts were recognised in profit and loss:

	31 December 2019 $'000
Depreciation of right-of-use assets	**31,387**
Interest on lease liabilities	**2,626**

Of the total cost of $34.0 million incurred in the year ended 31 December 2019, $29.0 million is recorded within other operating expenses, $2.4 million is recorded within direct costs and $2.6 million is recorded within financing expense. During 2019, the Group had income from sub-leases of $1.8 million.

During the year ended 31 December 2019, the Group did not incur any costs related to variable lease payments or short-term leases.

28. Commitments and contingencies

(a) Capital commitments

The following capital commitments for the purchase of property, plant, equipment and computer software were authorised by the Group at 31 December 2019:

	31 December 2019	31 December 2018
	$'000	$'000
Contracted for	**12,810**	11,057
Total	**12,810**	11,057

28. Commitments and contingencies *(continued)*

(b) Guarantees

Where the Group enters into financial guarantee contracts to guarantee the indebtedness of other companies within the Group, the Group considers these to be insurance arrangements and accounts for them as such. The Group treats the guarantee contract as a contingent liability until such time as it becomes probable that the Group will be required to make a payment under that guarantee. As set out in *note 23 Bank credit lines and loan facilities*, the Senior Notes are guaranteed by ICON plc.

The Company has guaranteed all of the commitments and liabilities referred to in Section 357(1) (b) of the Companies Act 2014 in respect of the whole of the financial year ending 31 December 2019 for the subsidiary companies listed below. These subsidiaries are availing of the exemption under Section 357 of the Companies Act 2014 not to file statutory financial statements.

- ICON Clinical Research Limited
- DOCS Resourcing Limited
- ICON Holdings Unlimited Company
- Timpani Unlimited Company
- ICON Clinical Research Property Holdings (Ireland) Limited
- ICON Clinical Research Property Development (Ireland) Limited
- ICON Holdings Clinical Research International Limited
- ICON Clinical International Unlimited Company
- ICON Investments Four Unlimited Company
- ICON Investments Five Unlimited Company

(c) Contractual obligations

The following represents Group contractual obligations and commercial commitments as at 31 December 2019:

	Payments due by period			
	Total	**Less than 1 year**	**1 to 5 years**	**More than 5 years**
	$'000	**$'000**	**$'000**	**$'000**
Capital commitments	12,810	12,810	—	—
Total contractual obligations	**12,810**	**12,810**	**—**	**—**

The Group expects to spend approximately $55 million in the next 12 months on further investments in information technology, the expansion of existing facilities and the addition of new offices. The Group believes that it will be able to fund additional foreseeable cash needs for the next twelve months from cash flow from operations and existing cash balances. In the future, the Group may consider acquiring businesses to enhance service offerings and global presence. Any such acquisitions may require additional external financing and the Group may, from time to time, seek to obtain funds from public or private issues of equity or debt securities. There can be no assurance that such financing will be available on terms acceptable to the Group.

The Company entered into subscription agreements with a number of funds (see *note 18 Financial asset investments*). Capital totalling $10.1 million had been advanced under the terms of the subscription agreements at 31 December 2019 (2018: $6.2 million). The Company had committed to future investments of $22.5 million in respect of these funds. The timing of the commitment is not specified in the subscription agreements.

29. Litigation

The Group is not party to any litigation or other legal proceedings that the Group believes could reasonably be expected to have a material adverse effect on the Group's business, results of operations and financial position.

30. Related parties

(i) *Transactions with Directors and Executive Officers*

The total compensation of the Directors and Executive Officers (key management remuneration) for the years ended 31 December 2019 and 2018 was as follows:

	Year ended 31 December 2019	Year ended 31 December 2018
	$'000	$'000
Salary and fees	**2,772**	2,876
Bonus	**1,220**	1,423
Other benefits	**57**	228
Pension contributions	**245**	273
Share-based payments	**8,955**	6,849
Total	**13,249**	11,649

Details of ordinary shares, share options, RSUs and PSUs held by the Directors and Executive Officers and details of transactions entered into by Directors and Key Executive Officers in shares and share options of the Company during the year ended 31 December 2019 are set out in *note 9 Payroll and related benefits*.

(ii) *Other related party transactions*

Subsidiaries of the Company earned revenue of $95,000 (2018: $633,000) from DS Biopharma Limited (formerly Dignity Sciences Limited) during the year. Dr. John Climax is Chief Executive Officer and both Dr. John Climax and Dr. Ronan Lambe are Directors and shareholders of DS Biopharma Limited. $36,000 was recorded as due from DS Biopharma Limited at 31 December 2019 (2018: $338,000). Dr Ronan Lambe resigned as a Director of ICON plc on 24 July 2018. The contract terms were agreed on an arm's length basis.

During the year ended 31 December 2017, personal expenses totaling $178,000 were settled by the Company on behalf of Mr. Ciaran Murray. Payment was received in advance from Mr. Murray in respect of these expenses. The Company transferred ownership of an asset at fair value ($77,000) to Mr. Ciaran Murray effective 1 November 2017. Payment was received in full in January 2018.
On 22 July 2016, Mr. Thomas Lynch retired as a Director of the Company, having previously resigned as Chairman of the Company in March 2016. The terms of the consultancy agreement expired on 31 July 2019. A charge of $151,360 was recorded during 2019 in respect of consultancy services provided by a company controlled by Mr. Lynch (2018: $274,519). The terms of the consultancy agreement expired on 31 July 2019. There were no amounts due to Mr. Lynch at 31 December 2019 (2018: $64,000).

31. Subsequent events

The Group has evaluated subsequent events from the balance sheet date through 21 April 2020, the date at which the consolidated financial statements were approved. The following items were identified;

On 14 January 2020, the Company announced a share buyback programme of up to 1.0 million to be executed opportunistically during 2020 depending on cash commitments. All ordinary shares that are redeemed under the buyback programme will be cancelled in accordance with the constitutional documents of the Company and the nominal value of these shares transferred to an undenominated capital fund as required under Irish Company law.

On 22 January 2020 a subsidiary of the Company, ICON Investments Limited acquired 100% of the equity share capital of Medpass Group Limited. The initial consideration on acquisition is $46.9 million. The opening balance sheet remains under preparation and our initial estimate of the net assets of the Medpass Group is approximately $5.0 million. MedPass is the leading European medical device CRO, regulatory and reimbursement consultancy that specialises in medical device development and market access. The acquisition of MedPass further enhances ICON's Medical Device and Diagnostic Research Services through the addition of new regulatory and clinical capabilities in Europe. The integration of MedPass's services brings expertise in complex class 3 medical devices, interventional cardiology and structural heart devices.

31. Subsequent events *(continued)*

On March 9, 2020, ICON exercised their option to call the outstanding shares in the noncontrolling interest to take 100% ownership of MeDiNova.

In the period since year-end, as a result of the global spread of COVID-19, the Company has begun to experience a negative impact on our operations. At this point in time, there continues to be significant uncertainty relating to the potential effect of COVID-19 on our business. We have experienced restrictions on our ability to ensure laboratory samples are collected and analysed on time, our ability to monitor our clinical trials, on the ability of patients or other service providers to travel, and our ability to travel, as a result of the outbreak. The impact has resulted in a requirement to increase investment in impact prevention and increased operating costs. As it is a non-adjusting post balance sheet event, the events as they have unfolded in the period since year-end do not result in any adjustment to the carrying value of assets or liabilities as at 31 December 2019 or on our results in the year-ended 31 December 2019 as a result of the outbreak.

The Company has determined that there are no other items to disclose.

32. Subsidiary undertakings

As at 31 December 2019 the Group had the following principal subsidiary undertakings:

Name	Registered Office	Nature of business	Proportion held by Group
ICON Clinical Research, S.A.	Cecilia Grierson 255, Floor 6 City of Buenos Aires C1107CPE Argentina	Clinical research services	100%
ICON Clinical Research PTY Limited	Suite 201, Level 2, 2-4 Lyon Park Road, North Ryde, NSW 2113 Australia	Clinical research services	100%*
ICON Clinical Research Austria GmbH	Pyrkergasse 10/6, 1190 Vienna, Austria	Clinical research services	100%
DOCS International Belgium N.V.	Interleuvenlaan 62, 3001 Heverlee, Belgium	Clinical research services	100%
ICON Pesquisas Clínicas LTDA.	Av. Ibirapuera 2332, Torre II 4º Andar, São Paulo, SP, Brazil CEP 04028-003	Clinical research services	100%*
ICON Clinical Research EOOD	2A, Saborna Str., 4th floor, Sofia – 1000, Republic of Bulgaria	Clinical research services	100%
ICON Clinical Research (Canada) Inc.	7405 Trans-Canada Highway, Suite 300 Saint-Laurent, Quebec, H4T 1Z2 Canada	Clinical research services	100%

32. Subsidiary undertakings (*continued*)

Name	Registered Office	Nature of business	Proportion held by Group
Oxford Outcomes LTD.	19th Floor, 885 West Georgia Street, Vancouver BC, V6C 3H4 Canada	Clinical research services	100%
Mapi Life Sciences Canada Inc.***	4 Innovation Drive, Dundas, Ontario L9H 7P3, Canada	Clinical research services	100%
ICON Chile Limitada	Huerfanos 770, Piso 4, Oficina 402, Santiago, Chile	Clinical research services	100%
ICON Clinical Research (Beijing No.2) Co., Ltd	Room 335, No.8, An Ning Zhuang East Road, Haidian District, Beijing, China	Clinical research services	100%
ICON Clinical Research (Beijing) Co., Ltd	Floor 1-3, Building No. 3, No. 8 Hongda North Road, Beijing Economic - Technologies Development Zone, Beijing, China	Clinical research services	100%
Ispitivanja ICON d.o.o (ICON Research Ltd.)	Zagreb, Radnicka cesta 80, Croatia	Clinical research services	100%
ICON Clinical Research s.r.o.	V parku 2335/20, Praha 4 - Chodov, PSČ 148 00 Czech Republic	Clinical research services	100%
DOCS International Nordic Countries A/S	c/o Husen Advokater, Bryggernes Plads, 2 sal, 1799 København V, Denmark	Clinical research services	100%
DOCS International Finland Oy	Mannerheimintie 12B, 00100 Helsinki, Finland	Clinical research services	100%
DOCS International France S.A.S.	55 Avenue des Champs Pierreux, Immeuble le Capitole, 92000 Nanterre, France	Clinical research services	100%

32. Subsidiary undertakings (*continued*)

Name	Registered Office	Nature of business	Proportion held by Group
ICON Clinical Research S.A.R.L.	55 Avenue des Champs Pierreux, Immeuble le Capitole, 92000 Nanterre, France	Clinical research services	100%
Mapi Développement SAS	27 rue de la Villette, 69003 Lyon, France	Clinical research services	100%
Mapi Research Trust****	27 rue de la Villette, 69003 Lyon, France	Clinical research services	100%
Mapi SAS	27 rue de la Villette, 69003 Lyon, France	Clinical research services	100%
DOCS International Germany GmbH	Konrad-Zuse-Platz 11 81829 München Germany	Clinical research services	100%
ICON Clinical Research GmbH	Heinrich-Hertz-Straße 26, 63225, Langen, Hessen, Germany	Clinical research services	100%
ICON Clinical Research Hong Kong Limited	Unit 4333 & 4335C, 43/F, AIA Tower, 183 Electric Road, North Point, Hong Kong	Clinical research services	100%
ICON Klinikai Kutató Korlátolt Felelősségű Társaság (ICON Clinical Research Limited Liability Company)	1037 Budapest, Szépvölgyi út 39., Hungary	Clinical research services	100%
ICON Clinical Research India Private Limited	CHENNAI ONE IT PARK ITE/ ITES SEZ North Block Block B, 4th Floor, Thoraipakkam Chennai Tamil Nadu-TN 600097 India	Clinical research services	100%
DOCS Resourcing Limited	South County Business Park, Leopardstown, Dublin 18, Republic of Ireland	Clinical research services	100%
ICON (LR) Limited	South County Business Park, Leopardstown, Dublin 18, Republic of Ireland	Clinical research services	100%

32. Subsidiary undertakings (*continued*)

Name	Registered Office	Nature of business	Proportion held by Group
ICON Clinical International Unlimited Company	South County Business Park, Leopardstown, Dublin 18, Republic of Ireland	Clinical research services	100%
ICON Clinical Research Limited	South County Business Park, Leopardstown, Dublin 18, Republic of Ireland	Clinical research services	100%*
ICON Clinical Research Property Development (Ireland) Limited	South County Business Park, Leopardstown, Dublin 18, Republic of Ireland	Property management company	100%*
ICON Global Treasury Limited	South County Business Park, Leopardstown, Dublin 18, Republic of Ireland	Treasury Company	100%
ICON Holdings Unlimited Company	South County Business Park, Leopardstown, Dublin 18, Republic of Ireland	Investment holding company	100%*
ICON Holdings Clinical Research International Limited	South County Business Park, Leopardstown, Dublin 18, Republic of Ireland	Investment holding company	100%
ICON Investments Five Unlimited Company	South County Business Park, Leopardstown, Dublin 18, Republic of Ireland	Investment holding and financing company	100%*
ICON Investments Four Unlimited Company	South County Business Park, Leopardstown, Dublin 18, Republic of Ireland	Investment holding and financing company	100%*
ICON Clinical Research Israel LTD.	6 Haba'al Shem Tov st., North Industrial Area, Lod, Israel, 7128906	Clinical research services	100%
DOCS Italia S.R.L.	Via Benigno Crespi, 23, 20159 Milano, Italy	Clinical research services	100%
ICON Japan K.K.	4-3-9 Toranomon, Minato-ku Tokyo, Japan	Clinical research services	100%*
ICON Investments Limited	SG Hambros House 18 Esplanade St Helier JE4 8RT Jersey	Investment holding company	100%*

32. Subsidiary undertakings (*continued*)

Name	Registered Office	Nature of business	Proportion held by Group
ICON Clinical Research Korea Yuhan Hoesa	142 Taeheran-ro Gangnam-gu, 18th Floor (Yeoksam-dong, Capital Tower) Seoul Republic of Korea	Clinical research services	100%
ICON CRO Malaysia SDN. BHD.	Level 11, 1 Sentral, Jalan Travers, Kuala Lumpur Sentral, 50470 Kuala Lumpur, Malaysia	Clinical research services	100%
ICON Clinical Research México, S.A. de C.V.	Av. Barranca del Muerto 329 3rd Floor, Col. San Jose Insugentes, 03900 Mexico D.F.	Clinical research services	100%
DOCS Insourcing B.V.	Boeing Avenue 62-68, 1119PE Schiphol-Rijk, Netherlands	Clinical research services	100%
DOCS International B.V.	Boeing Avenue 62-68, 1119PE Schiphol-Rijk, Netherlands	Clinical research services	100%
ICON Contracting Solutions Holdings B.V.	Boeing Avenue 62-68 1119PE Schiphol-Rijk The Netherlands	Clinical research services	100%
ICON Clinical Research (New Zealand) Limited	Plaza Level, 41 Shortland Street, Auckland, New Zealand 1010	Clinical research services	100%
ICON Clinical Research Peru S.A.	Av. Paseo de la Republica 5895, Oficina 606, Miraflores, Lima 18, Peru	Clinical research services	100%
ICON Clinical Research Services Philippines, Inc.	24th Floor Salcedo Towers, 169 H.V. Dela Costa Street, Salcedo Village, Makati City, Philippines 1227	Clinical research services	100%
DOCS International Poland Sp. z o.o.	Ul. Grojecka 5, 02-019 Warsaw, Poland	Clinical research services	100%
ICON Clinical Research Sp. z o.o.	Al. Jerozolimskie 56C, 00-803, Warsaw, Poland	Clinical research services	100%*

32. Subsidiary undertakings (*continued*)

Name	Registered Office	Nature of business	Proportion held by Group
Symphony Clinical Research Sp. z.o.o.	ul. Potokowa 26, 80-283 Gdansk, Poland.	Clinical research services	100%
ICON Clinical Research S.R.L.	Calea Floreasca, Nr 133-137, Et. 3, Bucuruesti, Sector 1, Romania	Clinical research services	100%
ICON Clinical Research (Rus) LLC	24D Smolnaya Street, Moscow, 125445, Russian Federation	Clinical research services	100%
ICON Clinical Research d.o.o. Beograd	4th Floor, Bulevar Zorana Djindjica 64a, 11070 Belgrade, Serbia	Clinical research services	100%
ICON Clinical Research (Pte) Limited	30 Loyang Way, #02/12, Loyang Industrial Estate, 508769, Singapore	Clinical research services	100%
ICON Clinical Research Slovakia, s.r.o.	Suché mýto 1, 811 03 Bratislava, Slovak Republic	Clinical research services	100%
MeDiNova Merc Clinical Research (SA) Pty Limited**	11 Dolerite Crescent, Aerorand, Middelburg, Mpumalanga 1050, South Africa.	Clinical research services	60%
ICON Clinical Research España, S.L.	Calle Josep Pla, Numero 2, Torre Diagonal Mar, Piso 11, Modulo 1, Barcelona, Spain	Clinical research services	100%
MeDiNova Investigacion y Desarrollo S.L.	Calle Marques de Valdavia 103, Portal 5, 28100 Alcobendas, Madrid, Spain.	Clinical research services	100%
DOCS International Sweden AB	Building B, Floor 10 Klarabergsviadukten 90 111 64 Stockholm Sweden	Clinical research services	100%
DOCS International Switzerland GmbH	c/o Experfina AG Picassoplatz 8 4052 Basel Switzerland	Clinical research services	100%
ICON Clinical Research (Switzerland) GmbH	c/o Experfina AG Picassoplatz 8 4052 Basel Switzerland	Clinical research services	100%
ICON Clinical Research Taiwan Limited	2F, No. 96, Sec. 1, Chien Kou North Road, Taipei 10495, Taiwan, R.O.C.	Clinical research services	100%

32. Subsidiary undertakings (*continued*)

Name	Registered Office	Nature of business	Proportion held by Group
ICON Clinical Research (Thailand) Limited	1 Empire Tower, 24th Floor, Unit 2408, South Sathorn Road, Yannawa, Sathorn, Bangkok, 10120 Thailand	Clinical research services	100%
ICON Ankara Klinik Arastirma Dis Ticaret Anonim Sirketi	Sogutozu mah, Eskisehir Yolu Cad.2176., SK No.9, Posta Kodu: 06510, Cankaya Ankara, Turkey	Clinical research services	100%
DOCS International UK Limited	Concept House, 6 Stoneycroft Rise, Chandlers Ford, Eastleigh, Hampshire, SO53 3LD United Kingdom	Clinical research services	100%
ICON Development Solutions Limited	Concept House, 6 Stoneycroft Rise, Chandlers Ford, Eastleigh, Hampshire, SO53 3LD United Kingdom	Clinical research services	100%
DOCS Ukraine LLC	4th Floor, St. Poleva 24, Kiev, Ukraine, 03056	Clinical research services	100%
ICON Clinical Research LLC	4th Floor, St. Poleva 24, Kiev, Ukraine, 03056	Clinical research services	100%
ICON Clinical Research (U.K.) Limited	Concept House, 6 Stoneycroft Rise Chandlers Ford, Eastleigh, Hampshire, SO53 3LD United Kingdom	Clinical research services	100%
Mapi Life Sciences UK Limited	Concept House, 6 Stoneycroft Rise Chandlers Ford, Eastleigh, Hampshire, SO53 3LD United Kingdom	Clinical research services	100%
VSK (Kenilworth) Limited**	Concept House, 6 Stoneycroft Rise, Chandlers Ford, Eastleigh, Hampshire, SO53 3LD, United Kingdom.	Clinical research services	60%

32. Subsidiary undertakings (*continued*)

Name	Registered Office	Nature of business	Proportion held by Group
MeDiNova Limited**	Concept House, 6 Stoneycroft Rise, Chandlers Ford, Eastleigh, Hampshire, SO53 3LD, United Kingdom.	Clinical research services	60%
MeDiNova Lakeside Clinical Research Limited**	Concept House, 6 Stoneycroft Rise, Chandlers Ford, Eastleigh, Hampshire, SO53 3LD, United Kingdom.	Clinical research services	60%
MeDiNova Merc (UK) Limited**	Concept House, 6 Stoneycroft Rise, Chandlers Ford, Eastleigh, Hampshire, SO53 3LD, United Kingdom.	Clinical research services	60%
Improving Treatments Limited**	Concept House, 6 Stoneycroft Rise, Chandlers Ford, Eastleigh, Hampshire, SO53 3LD, United Kingdom.	Clinical research services	60%
ICON Early Phase Services, LLC	8307 Gault Lane, San Antonio, TX 78209-1015 USA	Clinical research services	100%
Beacon Bioscience, Inc	2100 Pennbrook Parkway, North Wales, PA 19454 USA	Clinical research services	100%
C4 MedSolutions, LLC	19 West College Ave Suite 100 Yardley, PA 19067	Clinical research services	100%
CHC Group, LLC	19 West College Ave Suite 100 Yardley, PA 19067	Clinical research services	100%
Global Pharmaceutical Strategies Group, LLC	19 West College Ave Suite 100 Yardley, PA 19067	Clinical research services	100%
ICON Clinical Research LLC	19 West College Ave Suite 100 Yardley, PA 19067	Clinical research services	100%

32. Subsidiary undertakings (*continued*)

Name	Registered Office	Nature of business	Proportion held by Group
ICON Laboratory Services, Inc.	123 Smith Street, Farmingdale, NY 11735 USA	Clinical research services	100%
ICON US Holdings Inc.	2100 Pennbrook Parkway, North Wales, PA 19454 USA	Clinical research services	100%
Mapi USA, Inc.	2343 Alexandria Drive, Suite 100, Lexington, Kentucky 40504	Clinical research services	100%
MMMM Group, LLC	19 West College Ave Suite 100 Yardley, PA 19067	Clinical research services	100%
MMMM Consulting, LLC	19 West College Ave Suite 100 Yardley, PA 19067	Clinical research services	100%
MolecularMD Corp.	1341 SW Custer Drive Portland OR 97219 United States	Clinical research services	100%
PriceSpective LLC	2100 Pennbrook Parkway, North Wales, PA 19454 USA	Clinical research services	100%
PubsHub LLC	19 West College Ave Suite 100 Yardley, PA 19067	Clinical research services	100%
PMG Research of Christie Clinic, LLC	101 West University Avenue, Champaign, IL 61820 USA	Clinical research services	100%
DOCS Global, Inc.	2100 Pennbrook Parkway, North Wales, PA 19454 USA	Clinical research services	100%
Managed Care Strategic Solutions, L.L.C.	19 West College Ave Suite 100 Yardley, PA 19067	Clinical research services	100%
PMG Research of Charlotte, LLC	1700 Abbey Place, Suite 201, Charlotte, North Carolina 28209 USA	Clinical research services	100%

32. Subsidiary undertakings (*continued*)

Name	Registered Office	Nature of business	Proportion held by Group
PMG Research of Hickory, LLC	221 13th Ave Place NW Suite 201 Hickory North Carolina 28601 United States	Clinical research services	100%
PMG Research of Raleigh, LLC	3521 Haworth Drive, Suite 100, Raleigh, North Carolina 27609 USA	Clinical research services	100%
PMG Research of Rocky Mount, LLC	901 N. Winstead Avenue, Rocky Mount, North Carolina 27804 USA	Clinical research services	100%
PMG Research of Salisbury, LLC	410 Mocksville Avenue, Salisbury, North Carolina 28144 USA	Clinical research services	100%
PMG Research of Wilmington, LLC	1907 Tradd Court, Wilmington, North Carolina 28401 USA	Clinical research services	100%
PMG Research of Winston-Salem, LLC	1901 S. Hawthorne Road, Suite 306, Winston-Salem, North Carolina 27103 USA	Clinical research services	100%
PMG Research, Inc.	4505 Country Club Rd., Suite 110, Winston-Salem, NC 27104 USA	Clinical research services	100%
Complete Healthcare Communications LLC	19 West College Ave Suite 100 Yardley, PA 19067	Clinical research services	100%
Complete Publication Solutions, LLC	19 West College Ave Suite 100 Yardley, PA 19067	Clinical research services	100%
CRN Holdings, LLC	700 Deerpath Drive Vernon Hills IL 60061-1801 United States	Clinical research services	100%

32. Subsidiary undertakings (*continued*)

Name	Registered Office	Nature of business	Proportion held by Group
Clinical Resource Network, LLC	700 Deerpath Drive Vernon Hills IL 60061-1801 United States	Clinical research services	100%
CRN North America, LLC	700 Deerpath Drive Vernon Hills IL 60061-1801 United States	Clinical research services	100%
PMG Research of Charleston, LLC	180 Wingo Way, Suite 203, Mt. Pleasant, South Carolina 29464 USA	Clinical research services	100%
PMG Research of Bristol, LLC	1958 West State Street, Bristol, Tennessee 37620 USA	Clinical research services	100%
Addplan Inc	2100 Pennbrook Parkway, North Wales, Montgomery County, PA 19454 United States	Clinical research services	100%
ICON Government and Public Health Solutions, Inc.	1265 Ridge Road, Hinckley, OH 44233 United States	Clinical research services	100%

* majority of which is held directly
**MeDiNova Entities - ICON acquired a majority interest in MeDiNova in May 2019 and have a right to acquire the remaining interest in 2020 (see note 14 Business Combinations for details)
***Mapi Life Sciences Canada Inc, changed its name to ICON Life Sciences Canada Inc. with effect from 1 February 2020.
**** Mapi Research Trust is an association, its members are ICON Subsidiary entities.

33. Disaggregation of Revenue

Revenue disaggregated by customer profile is as follows:

	Year ended 31 December 2019	Year ended 31 December 2018
	$'000	$'000
Top client	**350,287**	352,335
Clients 2-5	**704,963**	671,723
Clients 6-10	**347,832**	385,741
Clients 11-25	**529,713**	461,351
Other	**873,044**	724,627
Total	**2,805,839**	2,595,777

Our customers have similar profiles and economic characteristics, and therefore have similar degrees of risk and growth opportunities.

34. Impact of change in accounting policies

Adoption of IFRS 16

IFRS 16 supersedes IAS 17 and requires that lessees recognise rights and obligations from virtually all leases (other than leases that meet the definition of a short-term lease) on their Statements of Financial Position as right-of-use assets with corresponding lease liabilities.

ICON adopted IFRS 16 as of 1 January 2019 under the cumulative effect adjustment approach. Under this transition method, IFRS 16 is applied from 1 January 2019 without restatement of comparative period amounts. Results for the years ended 31 December 2018 are therefore presented under IAS 17. Pursuant to certain practical expedients available as part of adopting IFRS 16, ICON has not reassessed whether existing or expired contracts are or contain leases or whether unamortised initial direct costs meet the new definition of initial direct costs under IFRS 16. Additionally, ICON has elected to use hindsight in determining the lease term and in assessing impairment of ROU assets, if any.

Impact on lessee accounting

(i) Former operating leases

IFRS 16 changes how the Group accounts for leases previously classified as operating leases under IAS 17, which were off balance sheet.

Applying IFRS 16, for all leases (except as noted below), the Group:

a. Recognises right-of-use assets and lease liabilities in the Consolidated Statement of Financial Position, initially measured at the present value of the future lease payments;

b. Recognises depreciation of right-of-use assets and interest on lease liabilities in the Consolidated Statement of Profit or Loss;

c. Separates the total amount of cash paid into a principal portion (presented within financing activities) and interest (presented within financing activities) in the Consolidated Statement of Cash Flows.

Lease incentives (e.g. rent-free period) are recognised as part of the measurement of the right-of-use assets and lease liabilities whereas under IAS 17 they resulted in the recognition of a lease incentive, amortised as a reduction of rental expenses generally on a straight-line basis.

Under IFRS 16, right-of-use assets are tested for impairment in accordance with IAS 36.
For short-term leases (lease term of 12 months or less) the Group has opted to recognise a lease expense on a straight-line basis as permitted by IFRS 16. This expense is presented within 'other operating expenses' in the Consolidated Statement of Profit or Loss.

(ii) Former finance leases

The main differences between IFRS 16 and IAS 17 with respect to contracts formerly classified as finance leases is the measurement of the residual value guarantees provided by the lessee to the lessor. IFRS 16 requires that the Group recognises as part of its lease liability only the amount expected to be payable under a residual value guarantee, rather than the maximum amount guaranteed as required by IAS 17. This change did not have a material effect on the Group's consolidated financial statements.

Impact on lessor accounting

IFRS 16 does not change substantially how a lessor accounts for leases. Under IFRS 16, a lessor continues to classify leases as either finance leases or operating leases and account for those two types of leases differently.

Under IFRS 16, an intermediate lessor accounts for the head lease and the sub-lease as two separate contracts. The intermediate lessor is required to classify the sub-lease as a finance or operating lease by reference to the right-of-use asset arising from the head lease (and not by reference to the underlying asset as was the case under IAS 17).

Impact to the Group

Lease liabilities and right-of-use assets have been recorded on the Consolidated Statements of Financial Position as at 1 January 2019 of $106.5 million. There is no impact of adopting IFRS 16 on opening retained earnings at 1 January 2019.

When measuring lease liabilities, the Group discounted lease payments using its incremental borrowing rate at 1 January 2019. The weighted-average rate applied is 3.12%.

34. Impact of change in accounting policies *(continued)*

The following table shows the operating lease commitments disclosed applying IAS 17 at 31 December 2018, discounted using the incremental borrowing rate at the date of initial application and the lease liabilities recognised in the Statement of Financial Position at the date of initial application.

	1 January 2019
	$'000
Operating lease commitment at 31 December 2018 as disclosed in the Group's Consolidated Financial Statements	126,583
Discounting using the incremental borrowing rate at 1 January 2019	(9,963)
Subleases excluded from operating lease commitment	(6,139)
Lease liabilities related to future commitments	(1,322)
Payments not included in discounted liability under IFRS 16 (1)	(1,022)
Other	(1,598)
Lease liabilities recognised at 1 January 2019	106,539

(1) non lease components

Adoption of IFRS 15 (adopted in prior year ended 31 December 2018)

The Group adopted IFRS 15 with a date of initial application of 1 January 2018. The revenue recognition accounting policy applied in preparation of the results for the twelve months ended 31 December 2019 and 31 December 2018 therefore reflects application of IFRS 15. ICON has elected to adopt the standard using the cumulative effect transition method. Under this transition method, ICON has applied the new standard as at the date of initial application (i.e. 1 January 2018), without restatement of comparative amounts for the twelve months ended 31 December 2017. The cumulative effect of initially applying the new standard (to revenue, costs and tax) is recorded as an adjustment to the opening balance of equity at the date of initial application.

The new standard requires application of five steps: (1) identify the contract(s) with a customer; (2) identify the performance obligation in the contract; (3) determine the transaction price; (4) allocate the transaction price to the performance obligations in the contract; and (5) recognise revenue when (or as) the entity satisfies the performance obligation.

The most significant impact of application of the standard relates to our assessment of performance and percentage of completion in respect of our clinical trial service revenue. Prior to application of IFRS 15, the revenue attributable to performance was determined based on both input and output methods of measurement. We have concluded that under the new standard, a clinical trial service is a single performance obligation satisfied over time i.e. the full service obligation in respect of a clinical trial (including those services performed by investigators and other parties) is considered a single performance obligation. Promises offered to the customer are not distinct within the context of the contract. We have concluded that ICON is the contract principal in respect of both direct services and in the use of third parties (principally investigator services) that support the clinical research project. The transaction price is determined by reference to the contract or change order value (total service revenue and pass-through/ reimbursable expenses) adjusted downwards to reflect a realisable contract value. Revenue is recognised as the single performance obligation is satisfied. The progress towards completion for clinical service contracts is measured based on an input measure being total project costs (inclusive of third party costs) incurred as a percentage of total project costs, at each reporting period.

Incremental costs of obtaining a contract were also considered on adoption of IFRS 15. Commission costs of $12 million were recognised as an asset on the Consolidated Statement of Financial Position in respect of those contracts that exceed one year. Where commission costs relate to contracts that are less than one year, the practical expedient is applied as the amortisation period of the asset which would arise on deferral would be one year or less.

A deferred tax asset of $6.9 million was recognised in respect of the timing differences arising from the cumulative impact of non tax adjustments recorded on adoption of IFRS 15. These are expected to reverse in future periods.

Adoption of IFRS 15 resulted in a net reduction in unbilled revenue of $42.0 million, a net reduction in payments on account of $59.0 million and an increase in accruals relating to reimbursable expenses of $84.3 million. Commission costs of $12 million were recognised as an asset on the Consolidated Statement of Financial Position and a deferred tax asset of $6.9 million was recognised in respect of the timing differences arising from the cumulative impact of non-tax adjustments recorded on adoption of IFRS 15.

34. Impact of change in accounting policies *(continued)*

Adoption of IFRS 9 (adopted in prior year ended 31 December 2018)

IFRS 9 was adopted with effect from 1 January 2018. IFRS 9 was adopted without restating comparative information. The adoption of IFRS 9 (including the new impairment rules) did not give rise to a material impact on balances reported at 31 December 2018 or 31 December 2019.

The Group's primary statements reflect the changes in classification required by IFRS 9 including:

- Current asset investments are classified as financial assets at FVOCI reflecting the measurement basis;
- Long-term equity investments are classified as financial assets at fair value through profit or loss;
- Expected credit loss assessment in respect of trade and other receivables are identified in Note 16 and Note 26. The identified impairment loss was immaterial;
- While cash and cash equivalents are also subject to the impairment requirements of IFRS 9, the identified impairment loss was immaterial; and
- The impairment loss identified on application of the expected credit risk model to debt instruments was immaterial.

Accounting policy changes identified on adoption of IFRS 9 are reflected in *note 1 Basis of preparation and statement of accounting policies*.

There was no impact on the designation of open hedging arrangements at 1 January 2018 arising on adoption of IFRS 9.

35. Approval of financial statements

The Board of Directors approved these financial statements on 21 April 2020.

Company Statement of Financial Position

for the year ended 31 December 2019

	Note	31 December 2019	31 December 2018
		$'000	$'000
ASSETS			
Non-current assets			
Property, plant and equipment	*1*	**609**	691
Right-of-use assets	*9*	**4,286**	—
Intangible assets	*2*	**75**	102
Investment in subsidiaries	*3*	**241,366**	264,347
Other non-current assets		**36**	37
Deferred tax asset	*4*	**421**	451
Total non-current assets		**246,793**	265,628
Current assets			
Other current assets	*5*	**1,714**	2,138
Amounts due from subsidiary undertakings	*6*	**554,169**	430,810
Current taxes receivable		**19**	673
Cash and cash equivalents		**176,299**	100,048
Total current assets		**732,201**	533,669
Total assets		**978,994**	799,297
EQUITY			
Share capital		**4,635**	4,658
Share premium		**305,228**	283,629
Other undenominated capital		**1,052**	983
Share based payment reserve		**128,747**	134,208
Other reserves		**(107,467)**	(107,464)
Retained earnings		**623,368**	465,110
Attributable to equity holders		**955,563**	781,124
Total equity		**955,563**	781,124
LIABILITIES			
Non-current liabilities			
Non-current other liabilities	*7*	**8,586**	2,533
Non-current deferred tax liability		**—**	—
Total non-current liabilities		**8,586**	2,533
Current liabilities			
Accounts payable		**—**	56
Amounts due to subsidiary undertakings	*6*	**2,916**	2,969
Accrued and other liabilities	*7*	**11,749**	11,907
Current taxes payable		**180**	708
		14,845	15,640
Total liabilities		**23,431**	18,173
Total equity and liabilities		**978,994**	799,297

On behalf of the Board

Steve Cutler	Rónán Murphy
Chief Executive Officer	*Director*

Company Statement of Changes in Equity

for the year ended 31 December 2019

	Number of shares	Share Capital	Share Premium	Other Undenominated Capital	Share Based Payment Reserve	Other Reserve	Currency Reserve	Retained Earnings	Total Equity
		$'000	$'000	$'000	$'000	$'000	$'000	$'000	$'000
Balance at 1 January 2019	**53,971,706**	**4,658**	**283,629**	**983**	**134,208**	**6,071**	**(113,535)**	**465,110**	**781,124**
Total comprehensive income for the year									
Profit for the year	—	—	—	—	—	—	—	274,048	274,048
Other comprehensive income									
Foreign currency translation	—	—	—	—	—	—	(3)	—	(3)
Total other comprehensive income	—	—	—	—	—	—	(3)	—	(3)
Total comprehensive income for the year	—	—	—	—	—	—	(3)	274,048	274,045
Transactions with owners, recorded directly in equity									
Share based payment	—	—	—	—	25,800	—	—	—	25,800
Exercise of share options	329,870	22	21,599	—	—	—	—	—	21,621
Share issue costs	—	—	—	—	—	—	—	(13)	(13)
Issue of restricted share units	355,730	24	—	—	—	—	—	—	24
Repurchase of ordinary shares	(1,035,100)	(69)	—	69	—	—	—	(146,931)	(146,931)
Share repurchase costs	—	—	—	—	—	—	—	(107)	(107)
Transfer of exercised and expired share based awards	—	—	—	—	(31,261)	—	—	31,261	—
Total contributions by and distributions to owners	(349,500)	(23)	21,599	69	(5,461)	—	—	(115,790)	(99,606)
Balance at 31 December 2019	**53,622,206**	**4,635**	**305,228**	**1,052**	**128,747**	**6,071**	**(113,538)**	**623,368**	**955,563**

As permitted by section 504 of the Companies Act 2014, the Company has not presented a Company Statement of Profit and Loss. The profit for the 2019 financial year of the Company amounted to $274,048,000 (2018: profit $165,912,000).

Company Statement of Changes in Equity

for the year ended 31 December 2018

	Number of shares	Share Capital	Share Premium	Other Undenominated Capital	Share-based Payment Reserve	Other Reserve	Currency Reserve	Retained Earnings	Total Equity
		$'000	$'000	$'000	$'000	$'000	$'000	$'000	$'000
Balance at 1 January 2018	**54,081,601**	**4,664**	**266,852**	**912**	**145,153**	**6,071**	**(113,403)**	**389,286**	**699,535**
Total comprehensive income for the year									
Profit for the year	—	—	—	—	—	—	—	165,912	165,912
Other comprehensive income									
Foreign currency translation	—	—	—	—	—	—	(132)	—	(132)
Total other comprehensive income	—	—	—	—	—	—	(132)	—	(132)
Total comprehensive income for the year	—	—	—	—	—	—	(132)	165,912	165,780
Transactions with owners, recorded directly in equity									
Share-based payment	—	—	—	—	28,009	—	—	—	28,009
Exercise of share options	408,699	29	16,777	—	—	—	—	—	16,806
Share issue costs	—	—	—	—	—	—	—	(16)	(16)
Issue of restricted share units	489,568	36	—	—	—	—	—	—	36
Repurchase of ordinary shares	(1,008,162)	(71)	—	71	—	—	—	(128,960)	(128,960)
Share repurchase costs	—	—	—	—	—	—	—	(66)	(66)
Transfer of exercised and expired share-based awards	—	—	—	—	(38,954)	—	—	38,954	—
Total contributions by and distributions to owners	(109,895)	(6)	16,777	71	(10,945)	—	—	(90,088)	(84,191)
Balance at 31 December 2018	**53,971,706**	**4,658**	**283,629**	**983**	**134,208**	**6,071**	**(113,535)**	**465,110**	**781,124**

As permitted by section 504 of the Companies Act 2014, the Company has not presented a Company Statement of Profit and Loss. The profit for the 2018 financial year of the Company amounted to $165,912,0000 (2017: profit $24,233,000).

Company Statement of Cash Flows

for the year ended 31 December 2019

	Note	Year ended 31 December 2019	Year ended 31 December 2018
		$'000	$'000
Profit for the financial year		**274,048**	165,912
Adjustments to reconcile net income to net cash generated from operating activities			
Depreciation of property, plant and equipment	*1*	**181**	355
Depreciation of right-of-use assets	*9*	**1,511**	—
Amortisation of intangible assets	*2*	**31**	54
Interest on lease liabilities	*9*	**22**	—
Share-based payment		**6,375**	7,405
Operating cash inflow before changes in working capital		**282,168**	173,726
Decrease/ (increase) in other current assets		**424**	(141)
Decrease/ (increase) in non-current assets		**1**	(37)
Decrease in accounts payable and accrued and other liabilities		**(245)**	(1,324)
Decrease in income taxes receivable		**281**	1,503
Increase in non-current liabilities		**1,618**	2,533
Decrease in accounts payable		**(57)**	—
Cash provided by operations		**284,190**	176,260
Interest paid		**—**	—
Income taxes paid		**(125)**	(963)
Net cash inflow from operating activities		**284,065**	175,297
Investing activities			
Purchase of computer software	*2*	**(3)**	(122)
Purchase of property, plant and equipment	*1*	**(192)**	(832)
Sale of property, plant and equipment	*1*	**82**	—
Increase in amounts due from/to subsidiary undertakings	*6*	**(77,935)**	(13,954)
(Increase)/decrease in investment in subsidiaries	*3*	**(2,977)**	330
Net cash used by investing activities		**(81,025)**	(14,578)
Financing activities			
Proceeds from exercise of share options		**21,645**	16,842
Share issuance costs		**(13)**	(16)
Payment of lease liabilities	*9*	**(1,383)**	—
Repurchase of ordinary shares		**(146,931)**	(128,960)
Share repurchase costs		**(107)**	(66)
Net cash used in financing activities		**(126,789)**	(112,200)
Net increase in cash and cash equivalents		**76,251**	48,519
Effect of exchange rate changes		**—**	—
Cash and cash equivalents at start of year		**100,048**	51,529
Cash and cash equivalents at end of year		**176,299**	100,048

1. Property, plant and equipment

	Leasehold improvements	Computer equipment	Office furniture & fixtures	Total
	$'000	$'000	$'000	$'000
Cost				
At 1 January 2019	990	1,933	1,743	4,666
Additions	9	29	154	192
Dispoals	—	—	(82)	(82)
Foreign currency movement	(19)	(42)	(32)	(93)
At 31 December 2019	**980**	**1,920**	**1,783**	**4,683**
Depreciation				
At 1 January 2019	942	1,822	1,211	3,975
Charge for the year	34	58	99	191
Eliminated on Disposals	—	—	(10)	(10)
Foreign currency movement	(18)	(39)	(25)	(82)
At 31 December 2019	**958**	**1,841**	**1,275**	**4,074**
Net book value				
At 31 December 2019	**22**	**79**	**508**	**609**
At 31 December 2018	48	111	532	691

	Leasehold improvements	Computer equipment	Office furniture & fixtures	Total
	$'000	$'000	$'000	$'000
Cost				
At 1 January 2018	855	1,901	1,317	4,073
Additions	189	132	511	832
Foreign currency movement	(54)	(100)	(85)	(239)
At 31 December 2018	**990**	**1,933**	**1,743**	**4,666**
Depreciation				
At 1 January 2018	842	1,804	1,176	3,822
Charge for the year	152	116	87	355
Foreign currency movement	(52)	(98)	(52)	(202)
At 31 December 2018	**942**	**1,822**	**1,211**	**3,975**
Net book value				
At 31 December 2018	**48**	**111**	**532**	**691**
At 31 December 2017	13	97	141	251

2. Intangible assets

	Computer Software
	$'000
Cost	
At 1 January 2018	1,206
Additions	122
Foreign exchange movement	(100)
At 31 December 2018	1,228
Additions	3
Foreign exchange movement	(4)
At 31 December 2019	**1,227**
Amortisation	
At 1 January 2018	1,180
Charge during the year	54
Foreign exchange movement	(108)
At 31 December 2018	1,126
Charge during the year	31
Foreign exchange movement	(5)
At 31 December 2019	**1,152**
Net book value	
At 31 December 2019	**75**
At 31 December 2018	102

3. Investment in subsidiaries

	Investment in Subsidiary Undertakings
	$'000
Cost	
At 1 January 2018	293,934
Disposals	(329)
Share-based payment	20,650
Share subscription payment from subsidiary companies	(49,908)
At 31 December 2018	**264,347**
Additions	2,977
Share-based payment	19,511
Share subscription payment from subsidiary companies	(45,469)
At 31 December 2019	**241,366**

4. Deferred taxation

The net deferred tax asset at 31 December 2019 and 31 December 2018 was as follows:

	31 December 2019	31 December 2018
	$'000	$'000
Deferred taxation assets:		
Accrued expenses and payments on account	**364**	392
Property, plant and equipment	**9**	39
Loans to subsidiaries	**50**	50
Total deferred taxation assets	**423**	481
Deferred taxation liabilities:		
Property, plant and equipment	**(2)**	(11)
Accrued expenses and payments on account	**—**	(19)
Total deferred taxation liabilities	**(2)**	(30)
Net deferred taxation asset	**421**	451

	Balance 1 January 2019	**Recognised in Income**	**Balance 31 December 2019**
	$'000	**$'000**	**$'000**
Deferred taxation assets			
Accrued expenses and payments on account	392	(28)	364
Property plant and equipment	39	(30)	9
Loans to subsidiaries	50	—	50
Total deferred taxation assets	**481**	**(58)**	**423**
Deferred taxation liabilities			
Property, plant and equipment	(11)	9	(2)
Accrued expenses and payments on account	(19)	19	—
Total deferred taxation liabilities	**(30)**	**28**	**(2)**
Net deferred taxation asset	**451**	**(30)**	**421**

4. Deferred taxation (*continued*)

	Balance 1 January 2018	Recognised in Income	Balance 31 December 2018
	$'000	**$'000**	$'000
Deferred taxation assets			
Accrued expenses and payments on account	318	74	392
Property, plant and equipment	36	3	39
Loans to subsidiaries	50	—	50
Total deferred taxation assets	**404**	**77**	**481**
Deferred taxation liabilities			
Property, plant and equipment	(11)	—	(11)
Accrued expenses and payments on account	—	(19)	(19)
Total deferred taxation liabilities	**(11)**	**(19)**	**(30)**
Net deferred taxation asset	**393**	**58**	**451**

At 31 December 2019 and 31 December 2018 the Company had no operating loss carry forwards for income tax purposes. At 31 December 2019 the Company had an unrecognised deferred tax asset in respect of unutilised foreign tax credits carried forward of $5.7 million (2018: $3.1 million).

5. Other current assets

	31 December 2019	31 December 2018
	$'000	$'000
Prepayments	**264**	821
Other receivables	**1,450**	1,317
Total	**1,714**	2,138

6. Amounts due from/to subsidiary undertakings

	31 December 2019	31 December 2018
	$'000	$'000
Amounts due from subsidiary undertakings	**554,169**	430,810
Amounts due to subsidiary undertakings	**(2,916)**	(2,969)

Amounts owed by subsidiary undertakings are non-interest bearing and repayable on demand. All amounts fall due within one year. No allowance for expected credit losses has been recorded as amounts are expected to be fully recovered.

7. Accrued and other liabilities

	31 December 2019	31 December 2018
	$'000	$'000
Non-current other liabilities		
Non-current lease liabilities	**3,115**	—
Non-current other liabilities	**5,471**	2,533
Total	**8,586**	2,533

	31 December 2019	31 December 2018
	$'000	$'000
Current liabilities		
Current lease liabilities	**1,323**	—
Accruals and other liabilities	**10,426**	11,907
Total	**11,749**	11,907

8. Related parties

The Company entered into the following transactions with subsidiary companies during the period:

	Year ended 31 December 2019	Year ended 31 December 2018
	$'000	$'000
Statement of Profit and Loss		
Expenses recharged to subsidiary companies	**9,806**	6,984
Dividend received from subsidiary company *(a)*	**276,900**	172,275
Total	**286,706**	179,259
Statement of Cash Flows		
Increase in intercompany debtors and investments	**(77,935)**	(13,954)
Total	**(77,935)**	(13,954)

(a) During 2019, the Company received dividends of $276.9 million (2018: $172.3 million) from its subsidiary undertakings; ICON Clinical Research Limited ($238.4 million), ICON Investments Four Unlimited Company ($23.0 million), ICON Holdings Unlimited Company ($14.6 million) and ICON Clinical Research PTY Limited ($0.9 million).

Directors and Executive Officers of the Parent Company are the same as those for the Group. For information on transactions with Directors and Executive Officers see *note 30 Related parties*, to the Consolidated Financial Statements, and for information on Directors' remuneration see *note 9 Payroll and related benefits.*

9. Leases

Right-of-use assets

The Company has the following right-of-use assets:

	Premises	Equipment	Motor vehicles	Total
	$'000	$'000	$'000	$'000
Depreciation charge for the year	1,016	23	472	1,511
Right-of-use assets at 31 December 2019	3,840	41	405	4,286

Additions to right-of-use assets during 2019 were $0.5 million.

The weighted average remaining lease term as at 31 December 2019 is 3.50 years.

Lease liabilities

Future minimum lease payments under non-cancellable leases as of 31 December 2019 were as follows:

	Minimum rental payments
	$'000
2020	1,324
2021	1,214
2022	1,070
2023	609
2024	255
Thereafter	—
Total future minimum lease payments	4,472
Lease imputed interest	(34)
Total	4,438

Lease liabilities are presented as current and non-current. Lease liabilities of $1.3 million have been included in accrued and other liabilities as at 31 December 2019.

Amounts recognised in profit or loss

The following amounts were recognised in profit and loss:

	31 December 2019
	$'000
Depreciation of right-of-use assets	1,511
Interest on lease liabilities	22

The depreciation cost of right-of-use assets is recorded within other operating expenses and interest on lease liabilities is recorded within finance costs.

During the year ended 31 December 2019, the Company did not incur any costs related to variable lease payments.

10. Litigation

The Company is not party to any litigation or other legal proceedings that the Company believes could reasonably be expected to have a material adverse effect on the Company's business, results of operations and financial position.

11. Financial instruments

The Company is exposed to various financial risks in the normal course of the business. The Company's financial instruments typically comprise cash and accounts payable. The main purpose of these financial instruments is to provide finance for the Company's operations. The main risks arising from the Company's financial instruments are credit risk, liquidity risk, interest rate risk, and foreign exchange risk.

Credit risk

Intercompany loans receivable and payable are initially recognised at fair value. These are subsequently measured at amortised cost, less any loss allowance. An expected credit loss assessment was performed in respect of the receivables at 1 January 2018. The identified impairment loss was immaterial.

Credit risk is the risk of financial loss to the Company if a customer or counterparty to a financial instrument fails to meet its contractual obligations. Credit risk in respect of the Company arises on balances due from group companies. As the Group is financially sound and the subsidiary entities that the Company trades with are in a position to make payments as and when they fall due, the Company has assessed the exposure to credit risk as low.

Liquidity risk

Liquidity risk is the risk that the Company will not be able to meet its financial obligations as they fall due. The Company's liquidity risk arises from the repayment of short term debt and other obligations as they fall due. The Company minimises liquidity risk by ensuring that sufficient cash balances and committed bank lines of credit are available to meet its obligations as they fall due. The Company's bank credit lines and facilities are the same as the Group. Details of the Group's bank credit lines and facilities are set out in *note 23 Bank credit lines and loan facilities.*

The following table sets out details of the maturity of the Company's financial liabilities into the relevant maturity groupings based on the remaining period from the financial year end date to the contractual maturity date:

At 31 December 2019

	Carrying Amount $'000	Contractual Cashflows $'000	6 mths or less $'000	6 to 12 mths $'000	1 to 2 years $'000	2 to 5 years $'000	More than 5 years $'000
Accounts payable	—	—	—	—	—	—	—
Lease liability	4,438	4,438	662	662	1,214	1,900	
Accruals and other liabilities	15,897	15,897	8,502	1,923	1,335	1,957	2,180
	20,335	**20,335**	**9,164**	**2,585**	**2,549**	**3,857**	**2,180**

At 31 December 2018

	Carrying Amount $'000	Contractual Cashflows $'000	6 mths or less $'000	6 to 12 mths $'000	1 to 2 years $'000	2 to 5 years $'000	More than 5 years $'000
Accounts payable	56	56	—	—	—	—	—
Accruals and other liabilities	14,440	8,715	1,943	1,249	1,023	1,510	—
	14,496	**8,771**	**1,943**	**1,249**	**1,023**	**1,510**	**—**

11. Financial instruments (*continued*)

Foreign currency risk
While the functional currency of the Company is USD, the functional currency of the branches is Euro. As a consequence, the results, when translated into U.S. dollars, could be affected by fluctuations in exchange rates against the U.S. dollar. At 31 December 2019 the Company had $Nil US dollar denominated bank loans (2018: $Nil).

Interest rate risk
The Company finances its operations through a mixture of shareholders' funds, borrowings and working capital. The Company borrows in required currencies at both fixed and floating interest rates. In general the Company borrows at floating rates of interest but may borrow at fixed rates depending on rates available having regard to current market rates and future trends. The Company has no external borrowings.

Fair values
Financial instruments are measured in the Statement of Financial Position at fair value using a fair value hierarchy of valuation inputs. The hierarchy prioritises the inputs into three levels based on the extent to which inputs used in measuring fair value are observable in the market. Each fair value measurement is reported in one of three levels, which is determined by the lowest level input that is significant to the fair value measurement in its entirety. These levels are:

Level 1:	Inputs are based upon unadjusted quoted prices for identical instruments traded in active markets.
Level 2:	Inputs are based upon quoted prices for similar instruments in active markets, quoted prices for identical or similar instruments in markets that are not active and model-based valuation techniques for which all significant assumptions are observable in the market or can be corroborated by observable market data for substantially the full term of the assets or liabilities.
Level 3:	Inputs are generally unobservable and typically reflect management's estimates of assumptions that market participants would use in pricing the asset or liability.

The carrying values of amounts due from subsidiary undertakings, cash and cash equivalents, other current assets, accounts payable and accruals and other liabilities are carried at amortised cost and assumed to be approximate to their fair values due to the short term nature of these balances.

Amounts owed by subsidiary undertakings are non-interest bearing and repayable on demand. All amounts are therefore recorded as due within one year. Fair value is deemed to equal carrying value on this basis.

Each category of asset and liability has remained within the same level of hierarchy as the prior year as there has been no change in the extent to which the inputs used in measuring fair value are or are not observable within the market.

12. Approval of financial statements

The Board of Directors approved the Company Financial Statements on 21 April 2020.

Reconciliation from IFRS to US Accounting Policies

The Consolidated Financial Statements set out on pages 28 to 125 have been prepared in accordance with International Financial Reporting Standards ("IFRS"), as adopted by the European Union ("EU IFRS"), which differ in certain significant respects from generally accepted accounting principles applicable in the U.S. ("U.S. GAAP"). The material differences as they apply to the Consolidated Financial Statements are as follows:

(a) Financial statement format

The format of the financial statements and certain note disclosures differ under U.S. GAAP from those under EU IFRS. The Group prepared a U.S. Securities and Exchange Commission Form 20-F Report which was made available to all shareholders in February 2020. The financial statements included in such Form 20-F are prepared in accordance with U.S. GAAP.

(b) Merger with PRAI

The Group accounts for business combinations under EU IFRS in accordance with the IFRS 3 *Business Combinations.* As permitted by IFRS 1 *First Time Adoption of International Financial Reporting Standards* the Group has only restated business combinations from 1 June 2001 onwards. Business combinations prior to this date have not been restated. In addition, goodwill has no longer been amortised since 1 June 2001, but rather is tested annually for impairment. U.S. GAAP adopts different criteria to EU IFRS for establishing the method of accounting to be adopted for business combinations. On 28 January 2000 the Group completed a transaction with Pacific Research Associates Inc. ("PRAI"), a Group specialising in data management, statistical analysis and medical and regulatory consulting based in San Francisco, USA. The merger with PRAI was accounted for using acquisition accounting principles in accordance with EU IFRS whilst U.S. GAAP required that the merger be accounted for using the pooling-of-interest method of accounting. U.S. GAAP pooling-of-interest accounting has resulted in a number of adjustments. Most significantly:

(i) the Group's historic U.S. GAAP financial statements have been restated to reflect the combined results of ICON and PRAI;
(ii) the costs of the merger were expensed for U.S. GAAP purposes and included in the cost of acquisition for IFRS;
(iii) goodwill arising on IFRS has been amortised over its expected useful life up to 31 May 2001. No goodwill arose on the merger under U.S. GAAP;
(iv) the tax charge arising on the conversion of PRAI from an S-Corporation to a C-Corporation is treated as a pre-acquisition charge under IFRS.

(c) Share-based payment expense

IFRS requires that the fair value of share-based payments be expensed to the Consolidated Statement of Profit and Loss over the period the related services are received, with a corresponding increase in equity. In the year ending 31 December 2019, the Group has accounted for share-based payments under U.S. GAAP in accordance with *FASB ASC 718, Compensation – Stock Compensation*, which also requires that the fair value of share-based payments be expensed to the Consolidated Statement of Profit and Loss over the period the related services are received, with a corresponding increase in equity.

There is a difference in recorded expense because firstly different periods are in scope for both treatments due to the different effective dates under both standards and secondly due to different models used to calculate the fair value of options. Under U.S. GAAP the Black-Scholes model was used for the calculation of the expense, whereas under IFRS the binomial model has been used.

U.S. GAAP requires that the accelerated graded vesting attribution approach is applied in respect of awards with straight line graded vesting. IFRS requires that each instalment of an award where there is graded vesting is treated as a separate grant with a different fair value. Each instalment is therefore separately measured and charged to the Consolidated Statement of Profit and Loss over the related vesting period. This results in accelerated expense recognition under IFRS.

(d) IAS 19R Defined Benefit Pensions

The Group has recognised the net interest expense of the defined benefit pension scheme within payroll costs (operating expenses) in the Consolidated Statement of Profit and Loss under IAS19R which is consistent with the U.S. GAAP treatment of this cost. Additional net credits related to the defined benefit pension schemes refer to the adjustment required to reverse the application of the corridor approach permitted under U.S. GAAP ($103k) and the different net interest expense recorded under IFRS and U.S. GAAP ($(284k)).

Reconciliation from IFRS to US Accounting Policies *(continued)*

(e) Current tax and deferred tax assets

U.S. GAAP, ASC 740, Income Taxes requires recognition of a deferred tax asset in respect of the cumulative amount of compensation cost recognised in the financial statements in respect of unexercised options that will give rise to a future tax deduction. The tax deduction is based on the intrinsic value of the options, with the full tax deduction recorded in profit or loss in the year of exercise.

IFRS also requires that a deferred tax asset is recognised in respect of options not yet exercised where a tax deduction will arise. IAS 12 Income taxes requires that the tax deduction is estimated. The fair value estimate is based on the share price at the exercise date.

U.S. GAAP, ASC 740, Income Taxes requires recognition of a current tax benefit of certain tax deductions arising from Share based payment windfall gains in the Consolidated Statement of Operations. IFRS requires that the current tax benefit of these Share based payment windfall gains is recognised through Equity, in the Share-based payment reserve.

(f) IFRS 16 Leases

Under US GAAP, ASC 842, Leases, lessees account for leases as operating or finance. Costs in respect of operating leases are charged to the Consolidated Statement of Operations on a straight-line basis over the lease term. Lease costs for all leases under IFRS 16 are comprised of the depreciation of right-of-use assets and the interest charge in respect of the associated lease liability. Total costs recognised under IFRS are higher than those recognised under US GAAP by $1 million.

(g) Noncontrolling interest

ICON acquired a majority ownership interest in MeDiNova during 2019. Included in the purchase agreement are put and call option arrangements with the noncontrolling interest holders that require (put option) or enable (call option) ICON to purchase the remaining minority ownership at a future date. Under US GAAP, the option is accounted for as temporary equity, which is presented separately as redeemable noncontrolling interest on the Consolidated Balance Sheet. This classification reflects the assessment that the instruments are contingently redeemable in accordance with ASC 480-10-S99 'Distinguishing Liabilities from Equity'. Redeemable noncontrolling interests are accreted to their redemption value over the period from the date of issuance to the first date on which the option is exercisable. The change in the option's redemption value is recorded against retained earnings.

Under IFRS, the put and call options are required to be bifurcated from the noncontrolling interest. ICON does not have present access to the returns of the noncontrolling interest and this is retained by the noncontrolling interest holders. The noncontrolling interest is recorded at its fair value at the acquisition date in equity. The financial liability for the noncontrolling interest put option is recognised at the present value of the amount payable upon exercise of the option. On initial recognition, the corresponding debit relating to the financial liability is made to equity attributable to the Company within the category 'put option in noncontrolling interest shares'. The financial asset relating to the call option meets the definition of a derivative under IFRS 9 and has been measured at fair value through the profit and loss in accordance with IFRS 9.

All subsequent changes in the carrying amount of the financial liability that result from the remeasurement of the present value of the amount payable upon exercise of the noncontrolling interest put option are recognised in the profit or loss attributable to the Company under IFRS.

The following is a summary of the material adjustments to profit for the financial year and shareholders' equity, which would be required, had the Consolidated Financial Statements been prepared in accordance with U.S. GAAP:

Reconciliation from IFRS to US Accounting Policies *(continued)*

(i) Effect on profit for the financial year

	Year ended 31 December 2019	Year ended 31 December 2018
	$'000	$'000
Profit for the financial year attributable to equity holders and noncontrolling interest as stated under IFRS	**361,033**	322,817
U.S. GAAP adjustments		
Share-based payment expense under IFRS	**25,886**	28,059
Share-based payment expense under U.S. GAAP	**(26,819)**	(31,594)
Fair value movement on put option under IFRS	**8,723**	—
Right-of-use asset amortisation adjustment under IFRS	**1,015**	—
Deferred tax adjustments on share-based payments	**(666)**	(1,026)
Current tax adjustments on share-based payments	**7,046**	4,626
Deferred tax adjustments on leases	**(181)**	—
Additional costs defined benefit pension scheme	**(181)**	(226)
Net income as stated under U.S. GAAP	**375,856**	322,656
Basic earnings per Ordinary Share under U.S. GAAP	**$6.85**	$5.96
Diluted earnings per Ordinary Share under U.S. GAAP	**$6.79**	$5.89

Reconciliation from IFRS to US Accounting Policies *(continued)*

(ii) Effect on shareholders' equity

	31 December 2019	31 December 2018
	$'000	**$'000**
Total equity attributable to the owners and noncontrolling interest as stated under IFRS	**1,641,609**	1,386,379
U.S. GAAP adjustments		
Accretion adjustment to bring noncontrolling interest to redemption amount	**5,048**	**—**
Retained earnings impact of noncontrolling interest accretion adjustment	**(5,048)**	**—**
Right-of-use asset amortisation adjustment under IFRS	**1,015**	**—**
Deferred tax adjustments on leases	**(181)**	**—**
Put option on noncontrolling interest shares recognised separately under IFRS	**47,205**	**—**
Goodwill (net) arising on merger with PRAI	**(14,009)**	(14,009)
Deferred tax adjustments on share-based payments	**(18,074)**	(18,089)
Total equity attributable to the owners and noncontrolling interest as stated under U.S. GAAP	**1,657,565**	1,354,281

(iii) Effect on total assets

	31 December 2019	31 December 2018
	$'000	**$'000**
Total assets as stated under IFRS	**2,938,580**	2,386,353
U.S. GAAP adjustments		
Right-of-use asset amortisation adjustment under IFRS	**1,015**	**—**
Goodwill (net) arising on merger with PRAI	**(14,009)**	(14,009)
Deferred tax adjustments on share-based payments	**(18,074)**	(18,089)
Total assets as stated under U.S. GAAP	**2,907,512**	2,354,255

(iv) Effect on total liabilities

	31 December 2019	31 December 2018
	$'000	**$'000**
Total liabilities as stated under IFRS	**1,296,971**	999,974
U.S. GAAP adjustments		
Put option on noncontrolling interest shares recognised separately under IFRS	**(47,205)**	**—**
Deferred tax adjustments on leases	**181**	**—**
Offset between deferred tax assets and liabilities	**—**	—
Total liabilities as stated under U.S. GAAP	**1,249,947**	999,974

Appendix A: Risk Factors

Risk Related to Our Business and Operations

We depend on a limited number of customers and a loss of or significant decrease in business from one or more of them could affect our business.

During the year ended 31 December 2019, 37.6% of our revenues were derived from our top five customers, with two customers contributing more than 10% of our net revenues during the period (the largest contributing 12.5% and the second largest contributing 10.2%). During the year ended 31 December 2018, 39.5% of our revenues were derived from our top five customers, with one customer contributing more than 10% of our revenues during the period (13.6%). No other customer contributed more than 10% of our revenues during this period. During the year ended 31 December 2017, 42.0% of our net revenues (including revenue from reimbursable expenses) were derived from our top five customers, with one customer contributing more than 10% of our net revenues (including revenue from reimbursable expenses) during the period (21.0%). No other customer contributed more than 10% of our net revenues during this period. If we lose clients, we may not be able to attract new ones and if we lose individual projects, we may not be able to replace them. The loss of, or a significant decrease in business from one or more of these key customers could have a material adverse impact on our results of operations and financial results.

Our financial results may be adversely impacted if we under price our contracts, overrun our cost estimates or fail to receive approval for or experience delays in documenting change orders.

Many of our contracts are long-term fixed price or fixed unit price contracts for services. As a result, variations in the timing and progress of large contracts may materially adversely affect our results of operations. Revenue recognised on these service contracts are based on an assessment of progress towards completion being the cost of time and other third party costs as a percentage of total estimated time and other third party costs to deliver our services. As a result, variations in the timing and progress of large contracts may materially adversely affect our results of operations. Estimating time and costs to complete requires judgment and includes consideration of the complexity of the study, the number of geographical sites where trials are to be conducted and the number of patients to be recruited at each site. We regularly review the estimated hours on each contract to determine if the budget accurately reflects the agreed tasks to be performed taking into account the state of progress at the time of review.

We bear the risk of cost overruns unless the scope of activity is revised from the contract specifications and we are able to negotiate a contract modification. We endeavour to ensure that any changes in scope are appropriately monitored and change orders or contract modifications are promptly negotiated and documented for changes in scope. If we were to fail to successfully negotiate change orders for changes in the resources required or the scope of the work to be performed and the costs of performance of these contracts exceeded their fixed fees, it could materially adversely affect our operations and financial results.

The potential loss or delay of our large contracts or of multiple contracts could adversely affect our results.

Our clients may discontinue using our services completely or cancel some projects either without notice or upon short notice. The termination or delay of a large contract or of multiple contracts could have a material adverse effect on our revenue and profitability. Historically, clients have cancelled or discontinued projects and may in the future cancel their contracts with us for reasons including, amongst others:

- the failure of products being tested to satisfy safety or efficacy requirements;
- unexpected or undesired clinical results of the product;
- a decision that a particular study is no longer necessary or viable;
- poor project performance, quality concerns, insufficient patient enrolment or investigator recruitment; and
- production problems resulting in shortages of the drug.

As a result, contract terminations, delays or other changes are part of our clinical services business. In the event of termination, our contracts often provide for fees for winding down the trial but these fees may not be sufficient for us to maintain our margins, and termination may result in lower resource utilisation rates. In addition, we may not realise the full benefits of our backlog of contractually committed services if our clients cancel, delay or reduce their commitments under our contracts with them. Therefore, the loss, early termination or delay of a large contract or contracts could adversely affect our revenues and profitability.

If we do not generate new business awards, or if new business awards are delayed, terminated, reduced in scope or fail to go to contract, our business, financial conditions, results of operations or cash flows may be materially adversely affected.

Our business is dependent on our ability to generate new business awards from new and existing customers and maintain existing customer contracts. If we were unable to generate new business awards on a timely basis and contract for those awards, that could have a material impact on our business, financial condition, results of operations or cash flows.

If we are unable to successfully develop and market new services or enter new markets, our growth, results of operations or financial condition could be adversely affected.

A key element of our growth strategy is the successful development and marketing of new services or entering new markets that complement or expand our existing business. As we develop new services or enter new markets, we may not have or adequately build the competencies necessary to perform such services satisfactorily, may not receive market acceptance for such services or may face increased competition. If we are unable to succeed in developing new services, entering new markets or attracting a client base for our new services or in new markets, we will be unable to implement this element of our growth strategy, and our future business, reputation, results of operations could be adversely impacted.

If we fail to attract or retain key personnel, our performance may suffer.

Our business, future success and ability to continue to expand operations depends upon our ability to attract, hire, train and retain qualified professional, scientific and technical operating people. We compete for qualified professionals with other Clinical Research Organisations “CROs”, temporary staffing agencies and the in-house departments of pharmaceutical, biotechnology and medical device companies. An inability to attract and retain a sufficient number of high calibre clinical research professionals (in particular, key personnel and executives) at an acceptable cost would impact our ability to provide our services, our future performance and results of operations.

Our ability to perform clinical trials is dependent upon the ability to recruit suitable willing patients.

The successful completion of clinical trials is dependent upon the ability to recruit suitable and willing patients on which to test the drug under study. The availability of suitable patients for enrolment on studies is dependent upon many factors including, amongst others, the size of the patient population, the design of the study protocol, eligibility criteria, the referral practices of physicians, the perceived risks and benefits of the drug under study and the availability of alternative medication, including medication undergoing separate clinical trials. Insufficient or inappropriate patient enrolment may result in the termination or delay of a study which could have a material adverse impact on our results of operations.

The Company is focused on continuing to develop its expertise in patient recruitment. The focus is on making it easier for the site and the patient to actively participate in a trial to ensure increased predictability, enrolment and retention. Our site and patient solutions group includes upfront planning of site and patient management including identification, enrolment and engagement.

Improved site selection is achieved through:

- leading technology to identify where the patients are that match the protocol;
- assessment of the qualification of sites based on real data;
- partnerships with leading technology vendors such as Intel, EHR4CR and TriNeTX and developing the capability to enable EMR interrogation into clinical insights such as sub-populations and larger pre-screened pool where the technology and regulations are enabled.

The burden on the site, in ensuring patient enrolment and engagement, is achieved through integrated site networks. ICON have a number of site alliance partners. During 2018, we enhanced our site and patient recruitment capabilities with an expansion of the PMG Research network through a partnership with the Du Page Medical Group. During 2019, we further enhanced our site and patient recruitment abilities through the strategic acquisitions of MeDiNova and CRN Holdings, LLC (trading as Symphony Clinical Research ("Symphony")). We also use digital solutions to drive site performance, including pre-screening, eConsent, learning management, document tracking and management with key applications.

Our ability to perform clinical trials is dependent upon our ability to recruit suitable willing investigators.

We contract with physicians located in hospitals, clinics or other similar sites, who serve as investigators in conducting clinical trials to test new drugs on their patients. Investigators supervise administration of the study drug to patients during the course of the clinical trial. The successful conduct of a clinical trial is dependent upon the integrity, experience and capabilities of the investigators conducting the trial. Insufficient investigator recruitment, which in turn may lead to insufficient or inappropriate patient enrolment, may result in the termination or delay of a study which could have a material adverse impact on our results of operations.

We rely on third parties for important products and services.

We depend on certain third parties to provide us with products and services critical to our business. Such services include, amongst others, suppliers of drugs for patients participating in trials, suppliers of kits for use in our central laboratory business, suppliers of reagents for use in our testing equipment and providers of maintenance services for our equipment. The failure of any of these third parties to adequately provide the required products or services or the significant increase in the costs of such products and services could have a material adverse effect on our business.

Climate change, extreme weather events, earthquakes and other natural disasters could adversely affect our business.

In recent years, extreme weather events and changing weather patterns such as storms, flooding, droughts and temperature changes have become more common. As a result, we are potentially exposed to varying natural disaster or extreme weather risks such as hurricanes, tornadoes, droughts or floods, or other events that may result from the impact of climate change on the environment, such as sea level rise. As a result, we could experience increased costs, business interruptions, destruction of facilities, and loss of life, all of which could have a material adverse effect on our business, financial condition, or results of operations. The potential impacts of climate change may also include increased operating costs associated with additional regulatory requirements and investments in reducing energy, water use and greenhouse gas emissions.

COVID-19 has, and may continue to, adversely affected our business performance.

The Company has begun to experience a negative impact on our operations as a result of the global spread of COVID-19, including restrictions on our ability to ensure laboratory samples are collected and analysed on time, our ability to monitor our clinical trials, on the ability of patients or other service providers to travel, and our ability to travel. We have also experienced an increase in operating costs and investments in impact prevention.

The COVID-19 outbreak continues to rapidly evolve. The extent to which the outbreak may impact our business will depend on future developments, which are highly uncertain and cannot be predicted with confidence, such as the ultimate geographic spread of COVID-19, the duration of the outbreak, travel restrictions and actions to contain the outbreak or treat its impact, such as social distancing and quarantines or lock-downs, business closures or business disruptions and the effectiveness of actions taken throughout the world to contain and treat the disease.

Our business depends on the continued effectiveness and availability of our information systems, including the information systems we use to provide our services to our clients, and any system failures of, security breaches of or cyber-attacks to these systems may materially limit our operations or have a material adverse effect on our results of operations.

Due to the global nature of our business and our reliance on information systems to provide our services, we use web-enabled and other integrated information systems in delivering our services. We will continue to increase the use of these systems and such systems will either be developed internally or provided in conjunction with third parties. We also provide access to similar information systems to certain clients in connection with the services we provide them. As the use, scope and complexity of our information systems continue to grow, we are exposed to and will increasingly be exposed to the risks inherent in the development, integration and ongoing operation of evolving information systems, including:

- disruption or failure of data centres, telecommunications facilities or other key infrastructure platforms;
- security breaches, cyber-attacks or other failures or malfunctions in our application or information systems or their associated hardware or other systems that we have access to or that we rely upon or that have access to our systems; and
- excessive costs, excessive delays or other deficiencies in or problems with systems development and deployment.

The materialisation of any of these risks may impede our ability to provide services, the processing of data, the delivery of databases and services and the day-to-day management of our business and could result in the corruption, loss or unauthorised disclosure of proprietary, confidential or other data, as well as reputational harm.

While we have cybersecurity controls and disaster recovery plans in place, they might not adequately protect us in the event of a system failure, security breach or cyber-attack. Despite any precautions we take, damage from fire, floods, hurricanes, power loss, telecommunications failures, computer viruses, information system security breaches, cyber-attacks and similar events that impact on our various computer facilities could result in interruptions in the flow of data to our servers and from our servers to our clients. Corruption or loss of data may result in the need to repeat a trial at no cost to the client, but at significant cost to us, or result in the termination of one or more contracts, legal proceedings or claims against us or damage to our reputation. Additionally, significant delays in system enhancements or inadequate performance of new or upgraded systems once completed could damage our reputation and harm our business. Long-term disruptions in the infrastructure caused by events such as security breaches, cyber-attacks, natural disasters, the outbreak of war, the escalation of hostilities and acts of terrorism, particularly involving cities in which we have offices, could adversely affect our business.

Unauthorised disclosure of sensitive or confidential data, whether through system failure or employee negligence, fraud or misappropriation, could damage our reputation and cause us to lose clients. Similarly, despite investing in information and cyber-security controls there is a risk that unauthorised access to or through our information systems or those we develop for our clients, whether by our employees or third parties, including a cyber-attack by computer programmers and hackers who may attack ICON systems, develop and deploy viruses, worms, ransomware or other malicious software programmes could result in negative publicity, significant remediation costs, legal liability, loss of customers and damage to our reputation and could have a material adverse effect on our results of operations and financial results. In addition, our liability insurance might not be sufficient in type, the cover provided or amount to adequately cover us against claims related to security breaches, cyber-attacks and other related breaches.

Upgrading the information systems that support our operating processes and evolving the technology platform for our services pose risks to our business.

Continued efficient operation of our business requires that we implement standardised global business processes and evolve our information systems to enable this implementation. We have continued to undertake significant programmes to optimise business processes with respect to our services. A failure to effectively manage the implementation and adapt to new processes designed into these new or upgraded systems in a timely and cost-effective manner may result in disruption to our business and negatively affect our operations.

We have entered into agreements with certain vendors to provide systems development and integration services that develop or license to us the IT platform for programmes to optimise our business processes. If such vendors fail to perform as required or if there are substantial delays in developing, implementing and updating the IT platform, our customer delivery may be impaired and we may have to make substantial further investments, internally or with third parties, to achieve our objectives. Additionally, our progress may be limited by parties with existing or claimed patents who seek to prevent us from using preferred technology or seek license payments from us.

Meeting our objectives is dependent on a number of factors which may not take place as we anticipate, including obtaining adequate technology-enabled services, creating IT-enabled services that our customers will find desirable and implementing our business model with respect to these services. If we do not keep pace with rapid technological changes in the CRO industry, our products and services may become less competitive or even obsolete. This applies in particular to our ICONIK, Firecrest and ADDPLAN and One Search services. Also, increased requirements for investment in information technology may negatively impact our financial condition, including profitability.

Failure to meet productivity objectives under our business improvement objectives could adversely impact our competitiveness and therefore our operating results.

We continue to pursue business transformation initiatives to embed technology, innovation and deliver operational efficiencies. As part of these initiatives, we seek to improve our productivity, flexibility, quality, functionality and cost savings by our on-going investment in global technologies, continuous improvement of our business processes and functions to deliver economies of scale. These initiatives may not deliver their intended gains or be completed in a timely manner which may adversely impact our competitiveness and our ability to meet our growth objectives and therefore, could adversely affect our business and operating results, including profitability.

We rely on our interactive response technologies to provide accurate information regarding the randomisation of patients and the dosage required for patients enrolled in the trials.

We develop and maintain computer run and web based interactive response technologies to automatically manage the randomisation of patients in trials, assign the study drug and adjust the dosage when required for patients enrolled in trials we support. An error in the design, programming or validation of these systems could lead to inappropriate assignment or dosing of patients, which could give rise to patient safety issues, incorrect dosing of patients, invalidation of the trial and/or liability claims against the Company, amongst other things, any of which could have a material effect on our financial condition and operations.

A failure to identify and successfully close and integrate strategic acquisition targets could adversely impact our ongoing business and financial results.

We have made a number of acquisitions and continue to review new acquisition opportunities. If we are unable to identify suitable acquisition targets, complete an acquisition or successfully integrate an acquired company or business, our business may be disrupted. The success of an acquisition will depend upon, among other things, our ability to:

- effectively and quickly assimilate the operations and services or products of the acquired company or business;
- integrate acquired personnel;
- retain and motivate key employees;
- retain customers; and
- minimise the diversion of management's attention from other business concerns.

In the event that the operations of an acquired company or business do not meet our performance expectations, we may have to restructure the acquired company or business or write-off the value of some or all of the assets of the acquired company or business.

Improper performance of our services.

The performance of clinical development services is complex and time-consuming. We may make mistakes in conducting a clinical trial that could negatively impact or damage the usefulness of the clinical trial or cause the results to be reported improperly. If the clinical trial results are compromised, we could be subject to significant costs or liability, which could have an adverse impact on our ability to perform our services. Large clinical trials are costly, and while we endeavour to contractually limit our exposure to such risks, improper performance of our services could have an adverse effect on our financial condition, damage our reputation and result in the cancellation of current contracts or failure to obtain new contracts from affected or other clients.

Our relationships with existing or potential customers who are in competition with each other may adversely impact the degree to which other customers or potential customers use our services, which may adversely affect our results of operations.

The biopharmaceutical industry is highly competitive, with biopharmaceutical companies each seeking to persuade payers, providers and patients that their drug therapies are better and more cost-effective than competing therapies marketed or being developed by competing companies. In addition to the adverse competitive interests that biopharmaceutical companies have with each other, biopharmaceutical companies also have adverse interests with respect to drug selection and reimbursement with other participants in the health care industry, including payers and providers. Biopharmaceutical companies also compete to be first to market with new drug therapies. We regularly provide services to biopharmaceutical companies who compete with each other and we sometimes provide services to such customers regarding competing drugs in development. Our existing or future relationships with our biopharmaceutical customers may therefore deter other biopharmaceutical customers from using our services or may result in our customers seeking to place limits on our ability to serve other biopharmaceutical industry participants. In addition, our further expansion into the broader health care market may adversely impact our relationships with biopharmaceutical customers and such customers may elect not to use our services, reduce the scope of services that we provide to them or seek to place restrictions on our ability to serve customers in the broader health care market with interests that are adverse to theirs. Any loss of customers or reductions in the level of revenues from a customer could have a material adverse effect on our results of operations, business and prospects.

We have only a limited ability to protect our intellectual property rights and these rights are important to our success.

Our success depends, in part, upon our ability to develop, use and protect our proprietary methodologies, analytics, systems, technologies and other intellectual property. Existing laws of the various countries in which we provide services or solutions offer only limited protection of our intellectual property rights, and the protection in some countries may be very limited. We rely upon a combination of trade secrets, confidentiality policies, non-disclosure, invention assignment and other contractual arrangements and patent, copyright and trademark laws, to protect our intellectual property rights. These laws are subject to change at any time and certain agreements may not be fully enforceable, which could further restrict our ability to protect our innovations. Intellectual property rights may not prevent competitors from independently developing services similar to or duplicative of ours. Further, the steps we take in this regard might not be adequate to prevent or deter infringement or other misappropriation of our intellectual property by competitors, former employees or other third parties and we might not be able to detect unauthorised use of, or take appropriate and timely steps to enforce our intellectual property rights. Enforcing our rights might also require considerable time, money and oversight and we may not be successful in enforcing our rights.

The biopharmaceutical industry has a history of patent and other intellectual property litigation and we might be involved in costly intellectual property lawsuits.

The biopharmaceutical industry has a history of intellectual property litigation, and these lawsuits will likely continue in the future. Accordingly, we may face patent infringement legal proceedings by companies that have patents for similar business processes or other legal proceedings alleging infringement of their intellectual property rights. Legal proceedings relating to intellectual property could be expensive, take significant time and divert management's attention from other business concerns, regardless of the outcome of the litigation. If we do not prevail in an infringement lawsuit brought against us, we might have to pay substantial damages and we could be required to stop the infringing activity or obtain a license to use technology on unfavourable terms. Any infringement or other legal processing related to intellectual property could have a material adverse effect on our operations and financial condition.

We act as authorised representative and legal representative for some clients pursuant to certain EU legislation.

We act as authorised representative pursuant to Medical Devices Directive 93/42/EEC ("MDD") and Active Implantable Medical Devices Directive 90/385/EEC ("AIMD") for certain clients who are located outside of the European Union. Medical Devices Regulation 2017/745 ("MDR") will replace MDD on 26 May 2020 and provides for increased responsibility, and accordingly increased risk, for authorised representatives. As authorised representative, we act on behalf of medical device manufacturers in relation to specified tasks with regard to their obligations under MDR.

We also act as legal representative pursuant to MDD and AIMD, and will continue to do so pursuant to MDR, for certain clients who are located outside of the European Union with respect to clinical trials being carried out by those clients in the European Union. As legal representative, we are responsible for ensuring compliance with the client's obligations pursuant to MDR and we are the addressee for all communications with the client provided for under MDR.

We provide these services subject to certain terms and conditions which are contained in our agreements with clients pertaining to these services. We aim to reduce any potential liability associated with these activities by seeking contractual indemnification from our clients and by maintaining an appropriate level of insurance cover. However, there is no guarantee that the specific insurance will be available or that a client will fulfil its obligations in relation to their indemnity.

Risk Related to Our Industry

Outsourcing trends in the pharmaceutical, biotechnology and medical device industries and changes in spending and research and development budgets could adversely affect our operating results and growth rates.

We are dependent upon the ability and willingness of the pharmaceutical, biotechnology and medical device companies to continue to spend on research and development and to outsource the services that we provide. We are therefore subject to risks, uncertainties and trends that affect companies in these industries that we do not control. We have benefited to date from the tendency of pharmaceutical, biotechnology and medical device companies to outsource clinical research projects. Any downturn in these industries or reduction in spending or outsourcing could materially adversely affect our business. The following could each result in such a downturn:

- if pharmaceutical, biotechnology or medical device companies expanded upon their in-house clinical or development capabilities, they would be less likely to utilise our services;
- if governmental regulations were changed, it could affect the ability of our clients to operate profitably, which may lead to a decrease in research spending and therefore this could have a material adverse effect on our business; and
- if unfavourable economic conditions or disruptions in the credit and capital markets negatively impacted our clients.

Large pharmaceutical companies are increasingly consolidating their vendor base and entering strategic partnership arrangements with a limited number of outsource providers.

Large pharmaceutical companies are continually seeking to drive efficiencies in their development processes to both reduce costs associated with the development of new drug candidates and accelerate time to market. As a result, large pharmaceutical companies, in particular, are increasingly looking to consolidate the number of outsource providers with which they engage, with many entering strategic partnership arrangements with a limited number of outsource providers. The failure to enter strategic partnership arrangements with customers or the loss of existing customers as a result of them entering strategic partnership arrangements with our competitors could have a material adverse impact on our results of operations.

Increased collaboration amongst pharmaceutical companies in research and development activities may lead to fewer research opportunities.

Certain pharmaceutical companies have begun to collaborate in seeking to develop new drug candidates. Increased collaboration amongst pharmaceutical companies may lead to fewer research opportunities, which in turn may lead to fewer outsource opportunities for companies within the CRO industry. A reduction in outsource opportunities as a result of this increased collaboration could have a material adverse impact on our results of operations.

We operate in a highly competitive and dynamic market.

The CRO industry is highly competitive. In particular, we compete with other large global CROs for strategic relationships with large pharmaceutical companies. If we are unable to retain and renew existing strategic relationships and win new strategic relationships, there would be a material adverse impact on our results. Similarly, we compete with other CROs for work which comes outside of these strategic relationships and being unable to win work outside of these strategic relationships would have a material adverse impact on our results.

The type and depth of services provided by CROs has changed in recent years. Failure to develop and market new services or expand existing service offerings could adversely affect our business and operations.

New entrants may also enter the market which would further increase competition and could adversely affect our business and operations.

We may be adversely affected by industry, customer or therapeutic concentration.

We provide services to biopharmaceutical, biotechnology, medical device and government organisations and our revenue is dependent on expenditures by these customers. Our business could therefore be adversely impacted by mergers, consolidation, business failures, distress in financial markets or other factors resulting in a decrease in the number of potential customers or therapeutic products being developed through the drug development progress. There has been consolidation in the biopharmaceutical market in recent years. If the number of our potential customers were to decline in the future, they may be able to negotiate price discounts or other terms for services that are less favourable to us than they have been historically.

Risk Related to Our Financial Results and Financial Position

Our quarterly results are dependent upon a number of factors and can fluctuate from quarter to quarter. They may fall short of prior periods, our projections or the expectations of securities analysts or investors, which may adversely affect the market price of our stock.

Our results of operations in any quarter can fluctuate or differ from expected or forecast results depending upon or due to, among other things, the number and scope of ongoing client projects, the commencement, postponement, variation, cancellation or termination of projects in a quarter, the mix of activity, cost overruns, employee hiring and other factors. Our revenue in any period is directly related to the number of employees who were working on billable projects together with investigator activity during that period. We may be unable to compensate for periods of under-utilisation during one part of a fiscal period by earning revenue during another part of that period. We believe that operating results for any particular quarter are not necessarily a meaningful indicator of future results.

Also, if in future quarters, we are unable to continue to deliver operational efficiencies and our expenses grow faster than our revenues, our operating margins, profitability and overall financial condition may be materially adversely impacted.

Our exposure to exchange rate fluctuations could adversely affect our results of operations.

Our contracts with clients are sometimes denominated in currencies other than the currency in which we incur expenses related to such contracts. Where expenses are incurred in currencies other than those in which contracts are priced, fluctuations in the relative value of those currencies could have a material adverse effect on our results of operations.

In addition, we are also subject to translation exposures as our consolidated financial results are presented in U.S. dollars, while the local results of certain of our subsidiaries are prepared in currencies other than U.S. dollars, including, amongst others, the pound sterling and the euro. Accordingly, changes in exchange rates between the U.S. dollar and those other currencies will affect the translation of subsidiary companies' financial results into U.S. dollars in reporting our consolidated financial results.

Our effective tax rate may fluctuate from quarter-to-quarter, which may adversely affect our results of operations.

Our quarterly effective tax rate has depended and will continue to depend on the geographic distribution of our taxable earnings amongst the multiple tax jurisdictions in which we operate and the tax law in those jurisdictions. Changes in the geographic mix of our results of operations amongst these jurisdictions may have a significant impact on our effective tax rate from quarter to quarter. Changes in tax law in one or more jurisdictions could also have a significant impact on our tax rate and results. In addition, as we operate in multiple tax jurisdictions, we may be subject to audits in certain jurisdictions. These audits may involve complex issues which could require an extended period of time for resolution. The resolution of audit issues may lead to differences, additional taxes, fines or penalties which could have a material adverse impact on our effective tax rate and our financial condition and results.

Our backlog may not convert to revenue and the rate of conversion may slow.

Our backlog is that element of awards that has not yet converted to revenue. This value is not necessarily a meaningful predictor of future results, due to the potential for the cancellation or delay of projects included in the backlog. No assurances can be given that we will be able to realise this backlog in full as revenue. A failure to realise these awards could have a material adverse impact on our results of operations. In addition, as the length and complexity of projects increases, the rate at which awards convert to revenue may be slower than in the past. A significant reduction in the rate of conversion could have a material impact on our results of operations.

The Company is exposed to various risks in relation to our cash and cash equivalents and short term investments.

The Company's treasury function manages our available cash resources and invests significant cash balances in various financial institutions to try to ensure optimum returns for our surplus cash balances. These balances are classified as cash and cash equivalents or short term investments depending on the maturity of the related investment. Cash and cash equivalents comprise cash and highly liquid investments with maturities of three months or less. Short term investments comprise highly liquid investments with maturities of greater than three months and minimum "A-" rated fixed and floating rate securities.

Given the global nature of our business, we are exposed to various risks in relation to these balances including liquidity risk, credit risk associated with the counterparties with whom we invest, interest rate risk on floating rate securities, sovereign risk (our principle sovereign risk relates to investments in U.S. Treasury funds) and other factors.

Although we have not recognised any significant losses to date on our cash and cash equivalents or short term investments, any significant declines in their market values could have a material adverse effect on our financial position and operating results.

Changes in accounting standards may adversely affect our financial statements.

We are required to prepare our financial statements in accordance with International Financial Reporting Standards ("IFRS"), as adopted by the European Union ("EU IFRS") which are revised on an on-going basis by the authoritative bodies. It is possible that future accounting standard changes, may require additional changes to the accounting treatment that we apply in preparation of our financial statements. These changes may also require significant changes to our reporting systems. We applied IFRS 15 - *'Revenue from contracts with customers'* with effect from 1 January 2018. Under this new standard, the Company is required to recognise revenue in respect of our clinical trial services on a percentage of completion basis. The change in revenue recognition requires significant estimates of project costs that will need to be updated and adjusted on a regular basis. These updates may result in unexpected variability in the timing of recognition of revenue and therefore in our operating results. Application of IFRS 16 - '*Leases*' at 1 January 2019 results in the recognition of a lease liability and right-of-use asset on the Consolidated Statement of Financial Position.

Risk Related to Political, Legal or Regulatory Environment

We may lose business opportunities as a result of health care reform and the expansion of managed care organisations.

Numerous governments, including the U.S. government have undertaken efforts to control growing health care costs through legislation, regulation and voluntary agreements with medical care providers and drug companies. If these efforts are successful, pharmaceutical, biotechnology and medical device companies may react by spending less on research and development and therefore this could have a material adverse effect on our business.
In addition to health care reform proposals, the expansion of managed care organisations in the health care market may result in reduced spending on research and development. Managed care organisations' efforts to cut costs by limiting expenditures on pharmaceuticals and medical devices could result in pharmaceutical, biotechnology and medical device companies spending less on research and development. If this were to occur, we would have fewer business opportunities and our revenues could decrease, possibly materially.

Healthcare reform legislation, other changes in the healthcare industry and in healthcare spending could adversely affect our business model, financial condition or results of operations.

Our results of operations and financial conditions could be affected by changes in healthcare spending and policy. The healthcare industry is subject to changing political, regulatory and other influences. It is possible that legislation will be introduced and passed in the United States repealing, modifying or invalidating the current healthcare reform legislation, in whole or in part, and signed into law. Because of the continued uncertainty about the implementation of the current healthcare reform legislation, including the potential for further legal challenges or repeal of that legislation, we cannot quantify or predict with any certainty the likely impact of the current healthcare reform legislation or its repeal on the health care sector, on our customers and ultimately on our financial condition or results of operations, in particular the outsourcing of costs by our customer base to CROs.

We may lose business as a result of changes in the regulatory environment.

Various regulatory bodies throughout the world may enact legislation, rules and guidance which could introduce changes to the regulatory environment for drug development and research. The adoption and implementation of such legislation, rules and guidance is difficult to predict and therefore could have a material adverse effect on our business.

Failure to comply with the regulations and requirements of the U.S. Food and Drug Administration and other regulatory authorities could result in substantial penalties and/or loss of business.

The U.S. Food and Drug Administration, or FDA, and other regulatory and government authorities and agencies inspect and audit us from time to time to ensure that we comply with their regulations and guidelines, including environmental and health and safety matters, and other requirements imposed in connection with the performance of government contracts. We must comply with the applicable regulatory requirements governing the conduct of clinical trials and contracting with the government in all countries in which we operate. If we fail to comply with any of these requirements we could suffer some or all of:

- termination of or delay in any research;
- disqualification of data;
- denial of the right to conduct business;
- criminal penalties;
- other enforcement actions including debarment from government contracts;
- loss of clients and/or business; and
- litigation from clients and/or patients and/or regulatory authorities and/or other affected third parties, and resulting material penalties, damages and costs.

We are subject to political, regulatory, operational and legal risks associated with our international operations.

We are one of a small group of organisations with the capability and expertise to conduct clinical trials on a global basis. We believe that this capability to provide our services globally in most major and developing pharmaceutical markets enhances our ability to compete for new business from large multinational pharmaceutical, biotechnology and medical device companies. We have expanded geographically in the past and intend to continue expanding in regions that have the potential to increase our client base or increase our investigator and patient populations. We expect that revenues earned in emerging markets will continue to account for an increasing portion of our total revenues. However, emerging market operations may present several risks, including civil disturbances, health concerns, cultural differences such as employment, regulatory and business practices, compliance with economic sanctions, laws and regulations, volatility in gross domestic product, economic and governmental instability, the potential for nationalisation of private assets and the imposition of exchange controls. In addition, operating globally means the Company faces the challenges associated with coordinating its services across different countries, time zones and cultures.
Changes in the political and regulatory environment in the international markets in which we operate such as price or exchange controls could impact our revenue and profitability and could lead to penalties, sanctions and reputational damages if we are not compliant with those regulations. Political uncertainty and a lack of institutional continuity in some of the emerging, developing or other countries in which we operate could affect the orderly operation of markets in these economies. In addition, in countries with a large and complicated structure of government and administration, national, regional, local and other governmental bodies may issue inconsistent decisions and opinions that could increase our cost of regulatory compliance and/or have a material adverse effect on our business.

On 23 June 2016, the United Kingdom, or U.K., held a referendum, referred to as “Brexit”, in which voters approved an exit from the European Union (E.U). In October 2019, a Brexit deal was agreed in principle. The UK have left the EU with effect from 31 January 2020 and have entered an eleven month transition period which will end on 31 December 2020. The British government continues to negotiate the terms of the U.K.’s future relationship with the EU. The terms of the withdrawal agreement continue to be unknown however it is likely that there will be greater restrictions on trade and the transfer of goods and other items (including lab samples) between the U.K. and EU. countries and increased regulatory complexities. At present, these changes are not expected to significantly affect our operations or financial results. Approximately 3% of our revenue is billed in Sterling. We currently employ approximately 900 people in the U.K. The announcement of Brexit and continued uncertainty around the withdrawal terms caused volatility in global stock markets and exchange rates. Continued fluctuation in currency exchange rates may expose us to gains and losses on non U.S. currency transactions.

Uncertainty of the legal environment in some emerging countries could also limit our ability to enforce our rights. In certain emerging and developing countries we enjoy less comprehensive protection for some of our rights, including intellectual property rights, which could undermine our competitive position.

If any of the above risks or similar risks associated with our international operations were to materialise, our results of operations and financial condition could be materially adversely affected.

We operate in many different jurisdictions and we could be adversely affected by violations of the Foreign Corrupt Practices Act of 1977 (FCPA), UK Bribery Act of 2010 and similar anti-corruption laws in other jurisdictions.

The FCPA, UK Bribery Act of 2010 and similar anti-corruption laws in other jurisdictions prohibit companies and their intermediaries from making improper payments for the purpose of obtaining or retaining business. In addition, the FCPA imposes certain books, records and accounting control obligations on public companies and other issuers. Our internal policies mandate compliance with these anti-corruption laws. We operate in many jurisdictions that have experienced corruption to some degree and in certain circumstances, anti-corruption laws have appeared to conflict with local customs and practices. Despite our training and compliance programmes, we cannot assure that our internal control policies and procedures will protect us from acts in violation of anticorruption laws committed by persons associated with us and our continued expansion, including in developing countries, could increase such risk in the future. Violations of the FCPA, the U.K. Anti-Bribery Act of 2010 or other similar anti-corruption laws in other jurisdictions, or even allegations of such violations, could disrupt our business and result in a material adverse effect on our financial condition, results of operations, cash flows and reputation. For example, violations of anti-corruption laws can result in restatements of, or irregularities in, our financial statements as well as severe criminal or civil sanctions. In some cases, companies that violate the FCPA might be debarred by the U.S. government and/or lose their U.S. export privileges. In addition, U.S. or other governments may seek to hold us liable for successor liability FCPA violations or violations of other anticorruption laws committed by companies that we acquire or in which we invest. Changes in anti-corruption laws or enforcement priorities could also result in increased compliance requirements and related costs which could materially adversely affect our business, financial condition, results of operations and cash flows.

Current and proposed laws and regulations regarding the protection of personal data could result in increased risks of liability or increased costs to us or could limit our service offerings.

The confidentiality, collection, use and disclosure of personal data, including clinical trial patient-specific information, is subject to governmental regulation generally in the country that the personal data was collected or used. For example, United States federal regulations under the Health Insurance Portability and Accountability Act of 1996, or HIPAA, and as amended in 2014 by the Health Information Technology for Economic and Clinical Health (“HITECH”) Act, require individuals’ written authorisation, in addition to any required informed consent, before Protected Health Information may be used for research. Such regulations specify standards for de-identifications and for limited data sets. We are both directly and indirectly affected by the privacy provisions surrounding individual authorisations because many investigators with whom we are involved in clinical trials are directly subject to them as a HIPAA “covered entity” and because we obtain identifiable health information from third parties that are subject to such regulations. As there are some instances where we are a HIPAA “business associate” of a “covered entity”, we can also be directly liable for mishandling protected health information. Under HIPAA's enforcement scheme, we can be subject to up to $1.5 million in annual civil penalties for each HIPAA violation.

The European data protection framework was significantly revised in 2018 with the coming into force of the General Data Protection Regulation ('GDPR') containing new provisions specifically directed at the processing of health information, sanctions of up to 4% of worldwide gross revenue and extra-territoriality measures intended to bring non-EU companies under the proposed regulation. Post GDPR implementation we are receiving increased volumes and breadth of data protection/privacy queries from both sponsors and strategic alliance partners and anticipate that this will continue.

For the regulators in the European Union, or EU, personal data includes any information that relates to an identified or identifiable natural person with health information carrying special obligations, including obtaining the explicit consent from the individual for collection, use or disclosure of the information. EU regulations also apply to the personal data of EU data subjects travelling or living outside the EU. In addition, we are subject to EU rules with respect to cross-border transfers of such data out of the EU. The United States, the EU and its member states and other countries where we have operations, such as Japan, South Korea, Malaysia, the Philippines, Russia and Singapore, continue to issue new privacy and data protection rules and regulations that relate to personal data and health information. Failure to comply with certain certification/registration and annual re-certification/registration provisions associated with these data protection and privacy regulations and rules in various jurisdictions, or to resolve any serious privacy complaints, could subject us to regulatory sanctions, criminal prosecution or civil liability. Federal, state and foreign governments are contemplating or have proposed or adopted additional legislation governing the collection, possession, use or dissemination of personal data, such as personal health information and personal financial data as well as security breach notification rules for loss or theft of such data. Additional legislation or regulation of this type might, among other things, require us to implement new security measures and processes or bring within the legislation or regulation de-identified health or other personal data, each of which may require substantial expenditures or limit our ability to offer some of our services. Additionally, if we violate applicable laws, regulations or duties relating to the use, privacy or security of personal data, we could be subject to civil liability or criminal prosecution, be forced to alter our business practices or suffer reputational harm.

The failure to comply with our government contracts or applicable laws and regulations could result in, among other things, fines or other liabilities, and changes in procurement regulations could adversely impact our business, results of operations or cash flows.

Revenues from our government customers are derived from sales to federal, state and local governmental departments and agencies through various contracts. Sales to public segment customers are highly regulated. Noncompliance with contract provisions, government procurement regulations or other applicable laws or regulations (including but not limited to the False Claims Act) could result in civil, criminal and administrative liability, including substantial monetary fines or damages, termination of government contracts or other public segment customer contracts, and suspension, debarment or ineligibility from doing business with the government and other customers in the public segment. In addition, generally contracts in the public segment are terminable at any time for convenience of the contracting agency or upon default. The effect of any of these possible actions by any governmental department or agency could adversely affect our business, results of operations or cash flows. In addition, the adoption of new or modified procurement regulations and other requirements may increase our compliance costs and reduce our gross margins, which could have a negative effect on our business, results of operations or cash flows.

Liability claims brought against us could result in payment of substantial damages, costs and liabilities and decrease our profitability.

Customer Claims
If we breach the terms of an agreement with a customer (for example if we fail to comply with the agreement, all applicable regulations or Good Clinical Practice) this could result in claims against us for substantial damages which could have a material adverse effect on our business. As we are a “people business” in that we provide staff to provide our services in hospitals and other sites, there is a risk that our management, quality and control structures fail to quickly detect a failure by one or more employees or contractors to comply with all applicable regulations and Good Clinical Practice and our internal requirements and standard operating procedures thereby exposing us to the risk of claims by customers.

Claims relating to Investigators
We contract with physicians who serve as investigators in conducting clinical trials to test new drugs on their patients. This testing creates the risk of liability for personal injury to or death of the patients. Although investigators are generally required by law to maintain their own liability insurance, we could be named in lawsuits and incur expenses arising from any professional malpractice or other actions brought against the investigators with whom we contract.

Indemnification from Customers
Indemnifications provided by our customers against the risk of liability for personal injury to or death of the patients arising from a study drug vary from customer to customer and from trial to trial and may not be sufficient in scope or amount, or our customer may not have the financial ability to fulfil their indemnification obligations. Furthermore, we would be liable for our own negligence and negligence of our employees which could lead to litigation from customers or action or enforcement by regulatory authorities.

Insurance
We maintain what we believe is an appropriate level of worldwide Professional Liability/Error and Omissions Insurance. In the future we may be unable to maintain or continue our current insurance coverage on the same or similar terms. If we are liable for a claim or settlement that is beyond the level of insurance coverage, we may be responsible for paying all or part of any award or settlement amount. Also, the insurance policies contain exclusions which mean that the policy will not respond or provide cover in certain circumstances.

Claims to Date
To date, we have not been subject to any liability claims that are expected to have a material effect on our business; however, there can be no assurance that we will not become subject to such claims in the future or that such claims will not have a material effect on our business.

Risks Related to Our Indebtedness

We have incurred debt, which could impair our flexibility and access to capital and adversely affect our financial position.

As of 31 December 2019, and 31 December 2018, we had an outstanding principal amount of indebtedness of $350 million under our $350 million Note Purchase and Guarantee Agreement or 'Senior Notes' that we entered into on 15 December 2015. The Senior Notes will mature on 15 December 2020. We also have up to $150 million of additional borrowing capacity available under the Revolving Credit Facility which was entered into with Citibank, JP Morgan, Santander, HSBC Bank and Morgan Stanley International on 12 March 2018. No amounts were drawn under the Revolving Credit Facility as of 31 December 2019. This facility bears interest at LIBOR plus a margin. We are monitoring the phasing out of LIBOR currently scheduled for 2021. We have engaged with our lenders on the implications of the change. In the absence of an agreed new rate, documents continue to be negotiated using LIBOR. We will continue to engage with our lenders in respect of the requirement for a new rate and seek an amendment letter at that point.

The cost and availability of credit are subject to changes in the global or regional economic environment. If conditions in the major credit markets deteriorate our ability to obtain debt financing on favourable terms may be negatively affected.

We may incur additional debt in the future. Our debt could have significant adverse consequences, including to;

- limit our ability to borrow additional funds for working capital, capital expenditures, acquisitions or other general business purposes;
- limit our ability to use our cash flow or obtain additional financing for future working capital, capital expenditures, acquisitions or other general business purposes;
- require us to use all or a portion of our cash flow from operations to make debt service payments;
- require us to sell certain assets;
- restrict us from making strategic investments, including acquisitions or cause us to make non-strategic divestitures;
- place us at a competitive disadvantage compared to our competitors that have less debt;
- cause us to incur substantial fees from time to time in connection with debt amendments or refinancing;
- limit our flexibility to plan for, or react to, changes in our business and industry; and
- increase our vulnerability to the impact of adverse economic and industry conditions.

We are required, under the terms of the Senior Notes, to offer to purchase all of the outstanding Senior Notes if we experience a change of control. Similar requirements exist in the Revolving Credit Facility. These provisions may delay or prevent a change in control that our stockholders may consider desirable.

Covenants in our credit agreements may restrict our business and operations and our financial condition and results of operations could be adversely affected if we do not comply with those covenants.

The Senior Notes and the Revolving Credit Facility credit agreements include certain customary covenants that limit our ability to, amongst other things, subject to certain exceptions;

- incur or assume liens or additional debt;
- dispose of assets;
- engage in mergers or reorganisations, or;
- enter into certain types of transactions with affiliates.

The Senior Notes agreement also includes certain financial covenants that require us to comply with a consolidated leverage ratio, a minimum EBITDA to consolidated net interest charge ratio and a maximum amount of priority debt, each of which are defined in the Note Purchase and Guarantee Agreement. Our ability to comply with these financial covenants may be affected by events beyond our control.

Interest rate fluctuations may materially adversely affect our results of operations and financial condition in the event that the Company draws down on either Revolving Credit Facility or in respect of any future issuances of debt.

The interest rate in respect of the Senior Notes is fixed at 3.64% for the five year term of the agreement. The Revolving Credit Facility bears interest at LIBOR plus a margin. There were no amounts drawn on the Revolving Credit Facility at 31 December 2019. We continue to monitor the phasing out of LIBOR which is currently scheduled for 2021. We have engaged with our lenders on the implications of the change. In the absence of an agreed new rate, documents continue to be negotiated using LIBOR. We will continue to engage with our lenders in respect of the requirement for a new rate and seek an amendment letter at that point. The Company is therefore subject to interest rate volatility in respect of any future draw down on the Revolving Credit Facility or in respect of any future issuances of debt.

Risk Related to Our Common Stock

Volatility in the market price of our common stock could lead to losses by investors.

The market price of our common stock has experienced volatility in the past and may experience volatility in the future which could lead to losses for investors. Factors impacting volatility in the market price of our common stock include, amongst others:

- general market and economic conditions;
- our results of operations;
- issuance of new or changed securities analysts' reports or recommendations;
- developments impacting the industry or our competitors;
- introduction of new products or services by us or our competitors;
- the public's reaction to our press releases, our other public announcements and our filings with the SEC;
- guidance, if any, that we provide to the public, any changes in this guidance or failure to meet this guidance;
- changes in the credit ratings of our debt;
- sales, or anticipated sales, of large blocks of our stock;
- additions or departures of key personnel;
- regulatory or political developments;
- litigation and governmental investigations;
- changing economic conditions;
- exchange rate fluctuations; and
- other events or factors, including those resulting from natural disasters, war, acts of terrorism or responses to those events.

In addition, stock markets have from time to time experienced significant price and volume fluctuations unrelated to the operating performance of particular companies. Future fluctuations in stock markets may lead to volatility in the market price of our common stock which could lead to losses by investors.

Forward-looking statements

To the extent any statements made in this annual report deal with information that is not historical, these statements are necessarily forward-looking. Because forward-looking statements relate to the future, they are subject to inherent uncertainties, risks and changes in circumstances that are difficult to predict and many of which are outside of the Group's control. Any forward-looking statement made by the Group is based only on information currently available as at the time of publication of this report. Forward-looking statements are subject to the occurrence of many events outside of the Group's control and are subject to various risk factors that would cause our results to differ materially from those expressed in any forward-looking statement. These risk factors described in Appendix A include, without limitation, the inherent risk of dependence on pharmaceutical and biotechnology industries and certain clients, termination or delay of large contracts, risk of cost overruns, the risk of clinical outcomes, regulatory risks and market competition.

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About ICON

ICON plc is a global provider of outsourced drug and device development and commercialisation services to pharmaceutical, biotechnology, medical device and government and public health organisations. The company specialises in the strategic development, management and analysis of programs that support clinical development - from compound selection to Phase I-IV clinical studies. With headquarters in Dublin, Ireland, ICON currently, operates from 99 locations in 40 countries. Further information is available at ICONplc.com/contact