

**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C.20549**

**FORM 20-F**

(Mark One)

- Registration statement pursuant to Section 12(b) or (g) of the Securities Exchange Act of 1934  
OR  
 Annual report pursuant to Section 13 or 15 (d) of the Securities Exchange Act of 1934  
For the fiscal year ended: December 31, 2017  
OR  
 Transition report pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934  
OR  
 Shell company report pursuant to section 13 or 15(d) of the Securities Exchange Act of 1934.

Commission File Number: 333-08704

**ICON PUBLIC LIMITED COMPANY**

(Exact name of Registrant as Specified in its Charter)

**ICON PUBLIC LIMITED COMPANY**

(Translation of Registrant's name into English)

**Ireland**

(Jurisdiction of Incorporation or Organization)

**SOUTH COUNTY BUSINESS PARK,  
LEOPARDSTOWN,  
DUBLIN 18, IRELAND**

(Address of principal executive offices)

**Brendan Brennan, Chief Financial Officer  
South County Business Park, Leopardstown, Dublin 18, Ireland.  
Brendan.Brennan@iconplc.com  
011-353-1-291-2000**

(Name, telephone number, email and/or facsimile number and address of Company contact person)  
Securities registered or to be registered pursuant to Section 12(b) of the Act:

<i>Title of each class</i>	<i>Name of exchange on which registered</i>
<b>ORDINARY SHARES, PAR VALUE €0.06 EACH</b>	<b>NASDAQ GLOBAL SELECT MARKET</b>

Securities registered or to be registered pursuant to section 12(g) of the Act:

*Title of each class*

NONE

Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act:

NONE

(Title of class)

Indicate the number of outstanding shares of each of the issuer's classes of capital or common stock as of the close of the period covered by the annual report: 54,081,601 Ordinary Shares.

Indicate by check mark if the registrant is a well-known seasoned issuer, as determined in Rule 405 of the Securities Act. Yes  No

If this report is an annual or transition report, indicate by check mark if the registrant is not required to file reports pursuant to section 13 or 15(d) of the Securities Exchange Act of 1934. Yes  No

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days: Yes  No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months: Yes  No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, or a non-accelerated filer.

Large accelerated filer  Accelerated filer  Non-accelerated filer

Indicate by check mark which basis of accounting the registrant has used to prepare the financial statements included in this filing:

U.S. GAAP  International Financial Reporting Standards as issued by the International Accounting Standards Board  Other

If "Other" has been checked in response to the previous question, indicate by check mark which financial statement item the registrant has elected to follow. Item 17  Item 18

If this is an annual report, indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act) Yes  No

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## **General**

As used herein, "ICON plc", "ICON", the "Company" and "we" or "us" refer to ICON public limited company and its consolidated subsidiaries, unless the context requires otherwise.

Unless otherwise indicated, ICON plc's financial statements and other financial data contained in this Form 20-F are presented in United States dollars ("\$\$") and are prepared in accordance with generally accepted accounting principles in the United States ("U.S. GAAP").

In this Form 20-F, references to "U.S. dollars", "U.S.\$" or "\$" are to the lawful currency of the United States, references to "pounds sterling", "sterling", "£", "pence" or "p" are to the lawful currency of the United Kingdom, references to "euro" or "€" are to the European single currency adopted by nineteen members of the European Union (including the Republic of Ireland, France, Germany, Spain, Italy, Finland, Belgium, Latvia, and the Netherlands). ICON publishes its consolidated financial statements in U.S. dollars.

## **Cautionary Statement Regarding Forward-looking Statements**

Statements included herein which are not historical facts are forward-looking statements. Such forward-looking statements are made pursuant to the safe harbor provisions of the U.S. Private Securities Litigation Reform Act of 1995 (the "PSLRA"). Forward-looking statements may be identified by the use of future tense or other forward looking words such as "believe", "expect", "anticipate", "should", "may", "strategy", or other variations or comparable terminology. The forward looking statements involve a number of risks and uncertainties and are subject to change at any time. In the event such risks or uncertainties materialize, our results could be materially adversely affected. The risks and uncertainties include, but are not limited to, dependence on the pharmaceutical industry and certain clients, the need to regularly win projects and then to execute them efficiently and correctly, the challenges presented by rapid growth, competition and the continuing consolidation of the industry, the dependence on certain key executives, changes in the regulatory environment and other factors identified in the Company's United States Securities and Exchange Commission filings and in the "Risk Factors" included on pages 4 through 16. The Company has no obligation under the PSLRA to update any forward looking statements and does not intend to do so.

**Part I****Item 1. Identity of Directors, Senior Management and Advisors.**

Not applicable.

**Item 2. Offer Statistics and Expected Timetable.**

Not applicable.

**Item 3. Key Information.****Selected Historical Consolidated Financial Data for ICON plc**

The following selected financial data set forth below are derived from the Company's consolidated financial statements and should be read in conjunction with, and are qualified by reference to, Item 5 "Operating and Financial Review and Prospects" and the Company's consolidated financial statements and related notes thereto included elsewhere in this Form 20-F.

	Year Ended December 31,				
	2017	2016	2015	2014	2013
	(in thousands, except share and per share data)				
<b>Statement of Operations Data:</b>					
Gross revenue	\$ 2,402,321	\$ 2,364,956	\$ 2,161,618	\$ 2,030,286	\$ 1,784,345
Reimbursable expenses (1)	(643,882)	(698,469)	(586,640)	(526,970)	(448,287)
Net revenue	1,758,439	1,666,487	1,574,978	1,503,316	1,336,058
Costs and expenses:					
Direct costs	1,027,310	961,333	908,979	903,167	845,413
Selling, general and administrative	323,741	325,726	326,786	336,461	313,931
Depreciation and amortization	61,297	59,575	57,677	52,542	46,514
Restructuring and other items (2),(3),(4),(5)	7,753	8,159	—	8,796	9,033
Total costs and expenses	1,420,101	1,354,793	1,293,442	1,300,966	1,214,891
Income from operations	338,338	311,694	281,536	202,350	121,167
Net interest (expense)/income	(10,281)	(11,522)	(2,686)	366	(302)
Income before provision for income taxes	328,057	300,172	278,850	202,716	120,865
Provision for income taxes	(46,569)	(37,993)	(39,311)	(30,248)	(18,053)
Net income	\$ 281,488	\$ 262,179	\$ 239,539	\$ 172,468	\$ 102,812
Net income per ordinary share (6):					
Basic	\$ 5.20	\$ 4.75	\$ 4.08	\$ 2.80	\$ 1.69
Diluted	\$ 5.13	\$ 4.65	\$ 3.97	\$ 2.73	\$ 1.65
Weighted average number of ordinary shares outstanding:					
Basic	54,129,439	55,248,900	58,746,935	61,496,115	60,907,274
Diluted	54,849,046	56,407,136	60,290,033	63,131,417	62,253,251

	Year Ended December 31,				
	2017	2016	2015	2014	2013
	(in thousands)				
<b>Balance Sheet Data:</b>					
Cash and cash equivalents	\$ 282,859	\$ 192,541	\$ 103,911	\$ 118,900	\$ 182,519
Short term investments - available for sale	77,589	68,046	85,990	97,100	138,317
Working capital	534,960	463,552	290,939	281,148	352,259
Total assets	2,146,618	1,825,843	1,717,209	1,528,850	1,442,460
Non-current other liabilities	17,111	23,752	12,224	13,179	11,198
Non-current government grants	966	887	959	1,116	1,359
Ordinary share capital	4,664	4,692	4,719	5,059	5,172
Additional paid-in capital	481,337	438,126	383,355	327,212	279,568
Shareholders' equity	1,191,000	945,174	763,096	950,206	910,579

- (1) Reimbursable expenses are comprised of payments to investigators and certain other costs reimbursed by clients under terms specific to each of the Company's contracts. See Note 2 (d) to the Audited Consolidated Financial Statements.
- (2) A restructuring charge of \$7.8 million was recognized during the year ended December 31, 2017, under a restructuring plan adopted following a review of operations. The restructuring plan reflected resource rationalization across the business to improve resource utilization. See Note 14 to the Audited Consolidated Financial Statements.
- (3) A restructuring charge of \$8.2 million was recognized during the year ended December 31, 2016 under a restructuring plan adopted following a review by the Company of its operations. The restructuring plan includes resource rationalizations in certain areas of the business to improve resource utilization and improve operational effectiveness, resulting in a charge of \$6.2 million, and office consolidation which resulted in the recognition of an onerous lease obligation of \$2.0 million. See Note 14 to the Audited Consolidated Financial Statements.
- (4) A restructuring charge of \$8.8 million was recognized during the year ended December 31, 2014. Following the closure of the Company's European Phase 1 services in 2013, the Company recognized a charge in 2014 in relation to its Manchester, United Kingdom facility; \$5.6 million in relation to asset impairments and \$3.2 million in relation to an onerous lease charge associated with this facility. See Note 14 to the Audited Consolidated Financial Statements.
- (5) During the year ended December 31, 2013 the Company conducted a review of its operations. A restructuring charge of \$9.0 million was recognized as part of this review. The review resulted in the adoption of an initial restructuring plan, which included the closure of its Phase I facility in Omaha, Nebraska. This followed the expansion of the Company's Phase I facility in San Antonio, Texas and the consolidation of the Company's US Phase I capabilities into this location. The restructuring plan also included resource rationalizations in certain areas of the business to improve resource utilization. A further restructuring plan was also adopted during 2013 which resulted in resource rationalizations in order to improve operating efficiencies and reduce expenses.
- (6) Net income per ordinary share is based on the weighted average number of outstanding ordinary shares. Diluted net income per share includes potential ordinary shares from the exercise of options.

## **Risk Factors**

Various risk factors that are relevant to our business and the services we provide are outlined below. If any of these events were to occur, our business operations and financial results could be materially adversely affected.

### **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 December 31, 2017 40% of our net revenues were derived from our top five customers, with one customer contributing more than 10% of our net revenues during the period (18%). No other customer contributed more than 10% of our net revenues during this period. During the year ended December 31, 2016 45% of our net revenues were derived from our top five customers, with one customer contributing more than 10% of our net revenues during the period (26%). No other customer contributed more than 10% of our net revenues during this period. During the year ended December 31, 2015 49% of our net revenues were derived from our top five customers, with one customer contributing more than 10% of our net revenues during the period (31%). No other customer contributed more than 10% of our net revenues during this period. 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.

***Many of our contracts are long-term fixed-fee contracts. We would lose money in performing these contracts if the costs of performance exceed the fixed fees for these projects and we are unable to negotiate a change order for the value of work performed.***

Many of our contracts are long-term fixed fee contracts. Revenues on these contracts are agreed in the contract between the Company and the customer and are based on estimated time inputs. Factors considered in estimating time requirements include 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. The Company regularly reviews 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. The Company further endeavours to ensure that changes in scope are appropriately monitored and change orders for additional revenue are promptly negotiated for additional work as necessary. 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.

***If our customers discontinue using our services, or cancel or discontinue projects, our revenue will be adversely affected and/or we may not receive their business in the future or may not be able to attract new clients.***

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 enrollment or investigator recruitment; and
- production problems resulting in shortages of the drug.

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.

***If we fail to attract or retain qualified staff, 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 staff. We compete for qualified professionals with other Clinical Research Organizations “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 caliber 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 enrollment 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 enrollment may result in the termination or delay of a study which could have a material adverse impact on our results of operations. The Company relies on its expertise, data and people to evaluate and assist with patient recruitment on clinical trials in addition to working with external partners like IBM Watson. The Company has not acquired or been acquired by a company whose primary business is data like other of its competitors which could help these competitors with their use of data in patient recruitment.

***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 enrollment, 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.

***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 intend to 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 centers, 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 materialization 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 unauthorized disclosure of proprietary, confidential or other data. 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 one or more of the termination of a contract, 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.

Unauthorized 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 unauthorized 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 programs could result in negative publicity, significant remediation costs, legal liability 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 standardized global business processes and evolve our information systems to enable this implementation. We have continued to undertake significant programs to optimize business processes with respect to our services. Our inability 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 programs to optimize 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 services. Also, increased IT-related expenditures may negatively impact our financial condition, including profitability.

***We rely on our interactive response technologies to provide accurate information regarding the randomization 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 randomization 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.

***Our operations might be impacted by a disruption to travel systems.***

Many of our operations rely on the availability of air or other transportation for the distribution of clinical trial materials, study samples and personnel. While we have developed contingency plans to minimize the impact of such events, a disruption to the availability of air transportation or other travel systems could have a material adverse impact on our ability to provide services and results of operations.



***We may make, or be unable to make, acquisitions in the future, which may lead to disruptions to our ongoing business.***

We have made a number of acquisitions and will 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
- minimize 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.

***Serious adverse events can occur in the conduct of clinical study trials.***

We conduct all phases of clinical trials. Although we have policies and procedures in place, due to the experimental nature of these studies, serious adverse events may arise and are appropriately documented and reported. A serious adverse event that arises could have a material adverse impact on our financial condition and results of operations.

***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. Our 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 unauthorized 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.

We may, in certain circumstances, grant a customer more expansive rights in intellectual property developed in connection with a contract than we would normally grant. In such situations, we may forego the use of all intellectual property rights we create or develop, which would limit our ability to reuse or deploy that intellectual property for other customers. Any limitation on our ability to provide a service or solution may result in us losing revenue-generating opportunities and may also result in us incurring additional expenses to develop or license new or modified solutions for other projects or customers.

***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 unfavorable 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 legal representative for some clients.***

We act as the legal representative for certain clients in certain jurisdictions. As we believe that acting as legal representative of clients exposes us to a higher risk of liability, this service is provided subject to our policy and requires certain preconditions to be met. The preconditions relate to obtaining specific insurance commitments and indemnities from the client to cover the nature of the exposure. However, there is no guarantee that the specific insurance will be available and provide cover or that a client will fulfill its obligations in relation to their indemnity.

### **Risk Related to Our Industry.**

***We are dependent on the continued outsourcing of research and development by the pharmaceutical, biotechnology and medical device industries.***

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 utilize 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 unfavorable 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.

**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.***

Our results of operations in any quarter can fluctuate or differ from expected or forecasted 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 revenue, cost overruns, employee hiring and other factors. Our net revenue in any period is directly related to the number and percentage of employees who were working on projects billable to the client during that period. We may be unable to compensate for periods of under-utilization 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 indication of future results.

Also, if in future quarters, we are unable to achieve efficiencies and our expenses grow faster than our net revenues, our operating margins, profitability and overall financial condition will 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 a subsidiary's financial results into U.S. dollars for purposes of 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 net revenue and the rate of conversion may slow.***

Our backlog consists of potential net revenue yet to be earned from projects awarded by clients. Our backlog at any date 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 realize this backlog as net revenue. A failure to realize backlog as net revenue could have a material adverse impact on our results of operations. In addition, as the length and complexity of projects underlying our backlog increases, the rate at which backlog converts to net revenue may be slower than in the past. A significant reduction in the rate at which backlog converts to net revenue 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 recognized 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, including ASC 606 'Revenue from Contracts with Customers' may adversely affect our financial statements***

We are required to prepare our financial statements in accordance with generally accepted accounting principles in the United States of America ('US GAAP') which is 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 are required to apply ASC 606 - 'Revenue from contracts with customers' with effect from January 1, 2018. Under this new standard, the Company is required to recognize 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. See Note 21 'Impact of New Accounting Pronouncements' to our financial statements for details of the impact of adoption of new accounting standards effective from January 1, 2018 and beyond.

**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 organizations.***

Numerous governments, including the U.S. government and governments outside of the U.S., 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 organizations in the health care market may result in reduced spending on research and development. Managed care organizations' 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.

***Recent healthcare reform legislation and 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 following recent executive orders, 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 organizations 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 nationalization 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.

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 materialize, 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 programs, 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 authorization, 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 authorizations 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.

In the European Union, or EU, personal data includes any information that relates to an identified or identifiable natural person with health information carrying additional obligations, including obtaining the explicit consent from the individual for collection, use or disclosure of the information. 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 European data protection framework is being revised as a generally applicable regulation which contains 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. The new regulation comes into force in May 2018.

***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 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 fulfill 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 December 31, 2017, 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 December 15, 2015. We also have up to \$100 million of additional borrowing capacity available under the Revolving Credit Facility. No amounts were drawn under the Revolving Credit Facility as of December 31, 2017. The Company also has a one year uncommitted short term revolving credit facility of \$30 million. These facilities bear interest at LIBOR plus a margin. No amounts were drawn under these facilities at December 31, 2017.

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 favorable 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.

Our ability to meet our debt service obligations will depend on our future performance, which will be subject to financial, business and other factors affecting our operations, many of which are beyond our control. If we do not have sufficient funds to meet our debt service obligations, we may be required to refinance or restructure all or part of our existing debt, sell assets, borrow more money or sell securities, none of which we can be assured that we would be able to do in a timely manner, or at all.

In addition, a failure to comply with the covenants under our indebtedness could result in an event of default under such indebtedness. In the event of an acceleration of amounts due under our existing indebtedness as a result of an event of default, we may not have sufficient funds or may be unable to arrange for additional financing to repay our indebtedness or to make any required accelerated payments.



In addition, 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 reorganizations; 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.

These covenants may limit our operating and financial flexibility and limit our ability to respond to changes in our business or competitive activities.

In the event that we fail to pay principal or interest when due on the Senior Notes, or as a result of a material breach of any representation, warranty or covenant or any other event of default then all outstanding amounts could become immediately due and payable. If, in such a circumstance, any of the holders of the Senior Notes, accelerate the repayment of such indebtedness, there can be no assurance that we will have sufficient assets to repay our indebtedness.

***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 and the \$30 million uncommitted short term revolving credit facility bear interest at LIBOR plus a margin. There were no amounts drawn on either of the Revolving Credit Facility or the short term uncommitted facility at December 31, 2017. 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:

- our results of operations;
- issuance of new or changed securities analysts' reports or recommendations;
- developments impacting the industry or our competitors and general market and economic conditions;
- 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; and
- exchange rate fluctuations.

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.

#### Item 4. Information on the Company.

##### History and development

ICON public limited company (“ICON plc”) is a clinical research organization (“CRO”), founded in 1990, which provides outsourced development services on a global basis to the pharmaceutical, biotechnology and medical device industries. We specialize in the strategic development, management and analysis of programs that support all stages of the clinical development process - from compound selection to Phase I-IV clinical studies. The Company 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, biometric activities, consulting, imaging, contract staffing, informatics and laboratory services. The Company 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. The Company has expanded predominately through organic growth, together with a number of strategic acquisitions to enhance its expertise and capabilities in certain areas of the clinical development process. The Company’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.

We believe that we are one of a select group of CROs with the expertise and capability to conduct clinical trials in most major therapeutic areas on a global basis and have the operational flexibility to provide development services on a stand-alone basis or as part of an integrated “full service” solution. At December 31, 2017, we employed approximately 13,250 employees in 98 locations in 38 countries. During the year ended December 31, 2017, we derived approximately 45.0%, 43.3% and 11.7% of our net revenue in the United States, Europe and Rest of World, respectively. See Note 17 Business Segment and Geographical Information.

On July 27, 2017, a subsidiary of the Company, ICON Clinical Research Limited acquired Mapi Development SAS (‘Mapi’) and its subsidiaries (“Mapi Group”). Mapi Group has over 40 years of experience supporting Life-Science companies as the world leading Patient-Centered Research Company in commercializing 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 Commercialization services to Life-Science companies enabling Market Authorization, Market Access and Market Adoption of novel therapeutics. Initial cash outflows on acquisition were \$144.1 million (see Note 4 of the Financial Statements at Item 19). The acquisition of Mapi Group strengthens ICON’s existing commercialization and outcomes research business adding significant commercialization presence, analytics, real world evidence generation and strategic regulatory services.

On September 15, 2016, a subsidiary of the Company, ICON US Holdings Inc. acquired Clinical Research Management, Inc. (“ClinicalRM”) which resulted in initial net cash outflows of \$52.4 million (including certain payments made on behalf of ClinicalRM totaling \$9.2 million). ClinicalRM is a full-service CRO specializing in preclinical through Phase IV support of clinical research and clinical trial services for biologics, drugs and devices. The organization helps customers progress their products to market faster, with a wide array of research, regulatory and sponsor services within the U.S. and around the globe. ClinicalRM provide full service and functional research solutions to a broad range of US government agencies and commercial customers. Their extensive expertise extends across basic and applied research, infectious diseases, vaccines development and testing and the response to bio-threats. They have worked in collaboration with government and commercial customers to respond to the threat of global viral epidemics.

On December 4, 2015, Inclinix-PMG Holdings, Inc. (“PMG”) was acquired by ICON Clinical Research LLC a subsidiary of the Company, resulting in net cash outflows of \$65.4 million (see Note 4 of the Financial Statements at Item 19). PMG is an integrated network of clinical research sites operating from 12 metropolitan areas throughout the US. PMG conducts clinical trials in all major therapeutic areas with particular experience in cardiology, dermatology, endocrinology, gastroenterology, men’s health, neurology, pulmonology, rheumatology, vaccine, and women’s health trials. In addition to a proprietary research database of clinical trial participants, PMG also has access to over 2 million active patient lives via electronic health records through their unique partnerships with health care systems and community physician practices.

On February 27, 2015, a subsidiary of the Company; ICON Holdings Unlimited Company (formerly ICON Holdings), acquired 100% of the securities of MMMM/CHC Holding, LLC (“MediMedia Pharma Solutions”) from MediMedia USA, Inc. which resulted in net cash outflows of \$116.0 million. Headquartered in Yardley, Pennsylvania, MediMedia includes MediMedia Managed Markets and Complete Healthcare Communications. MediMedia Managed Markets is a leading provider of strategic payer-validated market access solutions. Complete Healthcare Communications is one of the leading medical and scientific communication agencies working with medical affairs, commercial and brand development teams within life science companies.

On October 3, 2016, the Company commenced a previously announced share buyback program of up to \$400 million. During the year ended December 31, 2017, the Company redeemed a total of 1,589,227 ordinary shares under the program for a total consideration of \$133.1 million. At December 31, 2017 a total of 3,018,414 ordinary shares were redeemed by the Company under this buyback program for a total consideration of \$243.1 million. All ordinary shares that were redeemed under the buyback program were cancelled in accordance with the constitutional documents of the Company and the nominal value of these shares transferred to a other undenominated capital fund as required under Irish Company Law.

On May 1, 2015, the Company commenced a buyback program of up to \$60 million under which the Company could acquire its outstanding ordinary shares (by way of redemption), in accordance with Irish law, the United States securities laws and the Company's constitutional documents through open market share acquisitions. A total of 882,419 ordinary shares were redeemed by the Company under this buyback program for a total consideration of \$57.9 million. On July 31, 2015 the Company commenced a further buyback program of up to \$400 million under which the Company could acquire its outstanding ordinary shares (by way of redemption), in accordance with Irish law, the United States securities laws and the Company's constitutional documents through open market share acquisitions. A total of 5,316,062 ordinary shares were redeemed by the Company under this buyback program for a total consideration of \$400 million. The second share buyback program was completed in December 31, 2015. During the year ended December 31, 2015, the Company redeemed a total of 6,198,481 ordinary shares under these programs for total consideration of \$457.9 million.

On July 27, 2015, the Company entered into a 364 day bridge facility for \$350 million with two financial institutions. The facility bore interest at LIBOR plus a margin and included certain guarantees and indemnities in favor of the financial institutions. As of December 31, 2015, the full amount of this facility had been repaid.

On December 15, 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 Senior Notes will mature on December 15, 2020. Interest payable is fixed at 3.64% and is payable semi-annually on the Senior Notes on each June 15 and December 15, which commenced on June 15, 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 December 15, 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 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.

We are incorporated in Ireland and our 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 2912000.

## **Industry Overview**

The CRO industry provides independent product development solutions and services for the pharmaceutical, biotechnology and medical device industries. Companies in these industries outsource services to CROs in order to manage the drug and device development process more efficiently and to bring both patent-protected and bio-similar and medical devices to market faster to maximize patient well-being. The CRO industry has evolved since the 1970s from a small number of companies that provided limited clinical development services to a larger number of CROs that offer a range of services that encompass the entire research and development process, including pre-clinical development, clinical trials management, clinical data management, study design, biostatistical analyses, post market surveillance, regulatory affairs, central laboratory and market access services. CROs are required to provide services in accordance with good clinical and laboratory practices, as governed by the applicable regulatory authorities.

The CRO industry is highly fragmented, consisting of several hundred small, limited-service providers, medium sized CROs and a small number of large CROs with global operations. Although there are few barriers to entry for small, limited-service providers, we believe there are significant barriers to becoming a CRO with global capabilities and expertise. Some of these barriers include the infrastructure and experience necessary to serve the global demands of clients (sponsors), the ability to recruit sites and patients globally, the simultaneous management of complex clinical trials, broad therapeutic expertise and the development and maintenance of the complex information technology systems required to integrate these capabilities. In recent years, the CRO industry has experienced consolidation, resulting in the emergence of a select group of CROs that have the capital, technical resources, integrated global capabilities, data and expertise to manage the development programs of pharmaceutical, biotechnology and medical device companies. We believe that large (and more recently medium sized) pharmaceutical companies, rather than utilizing many CRO service providers, are selecting a limited number of CROs with which they deal, with many forming strategic partnerships with global CROs in an effort to drive incremental development efficiencies and leverage the scientific and medical expertise that resides within the CRO. We believe that this trend will further concentrate the market share among the larger CROs with a track record of quality, speed, flexibility, responsiveness, global capabilities and access to patients and overall development experience and expertise.

## **New Drug Development – Ethical Pharmaceuticals and Biologics - An Overview**

Before a new drug or biologic may be marketed, it must undergo extensive testing and regulatory review in order to determine that it is safe and effective. The following discussion primarily relates to the FDA approval process for such products. Similar procedures must be followed for product development with other global regulatory agencies. The stages of this development process are as follows:

**Preclinical Research (approximately 1 to 3.5 years).** “In vitro” (test tube) and animal studies must be conducted in accordance with applicable regulations to establish the relative toxicity of the drug over a wide range of doses and to detect any potential to cause birth defects or cancer. If results warrant continuing development of the drug or biologic, the manufacturer will file for an Investigational New Drug Application, or IND, which must be approved by the FDA before starting the proposed clinical trials.

**Clinical Trials (approximately 3.5 to 6 years).**

### **Exploratory Development**

**Phase I (approximately 6 months to 1 year)** consists of basic safety and tolerability testing in 20 to 80 human subjects, mainly in healthy volunteers, and includes studies which may show the drug is having an effect on the body, if it is safe, how it is affected by other drugs, where it goes in the body, how long it remains active and how it is broken down by and eliminated from the body.

**Phase II (approximately 1 to 2 years)** includes basic efficacy (effectiveness) and dose-range testing in a limited patient population (usually) 100 to 200 patients to help determine the safest and most effective dose, provide evidence that the drug is likely to be effective, and provide some safety data. If the Phase II results are satisfactory the sponsor may proceed to Phase III studies.

### **Confirmatory Development**

**Phase III (2 years or greater)** consists of efficacy and safety studies in several hundred to several thousands of patients at multiple investigational sites (hospitals and clinics), often in multiple geographies. These studies look to definitively confirm the overall benefit of the test agent and, if successful, will be used to provide the labelling claims for the drug. These studies can be placebo-controlled trials, in which the new drug is compared with a “sugar pill”, or studies comparing the new drug with one or more drugs with established safety and efficacy profiles in the same therapeutic indication.

FDA approval, through submission of an investigational new drug (IND) application, is necessary for all clinical trials, regardless of the phase of development. In addition, parallel independent committee approval is also required.

**Expanded Access Programs (EAPs)**, also called compassionate use or pre-approval programs, refer to the regulated use of a study drug outside of a clinical trial by patients with serious or life-threatening conditions who do not meet the enrollment criteria for the clinical trial. In this context the FDA may allow the sponsor to make the study drug available to a larger number of patients for treatment use under a treatment IND, because data related to safety and side effects are collected, EAPs also serve to expand the body of knowledge about the drug or biologic.

**NDA or BLA Preparation and Submission.** Upon completion of Phase III trials, the sponsor assembles the statistically analyzed data from all phases of development into a single large submission along with the Chemistry, Manufacturing and Controls (CMC) and preclinical data and the proposed labeling into the New Drug Application (NDA), or Biologics License Application (BLA) and submits them for assessment and approval by the relevant division of the FDA.

**FDA Review and Approval of NDA or BLA (1 to 1.5 years).** Data from all phases of development is scrutinized to confirm that the applicant company has complied with all applicable regulations and that the benefit to risk ratio for the drug or biologic is positive for the specific use (or “indication”) under study. The FDA may refuse to accept the NDA or BLA if the application has administrative or content criteria which do not meet FDA standards. The FDA may also deny approval of the drug or biologic product if applicable regulatory requirements are not satisfied.

**Post-Market Surveillance, Phase IV Studies and Health Outcomes.** Once approved by the FDA, the FDA requires the drug or biologic license holder to collect and periodically report to the FDA additional safety (and perhaps efficacy) data on the drug or biologic for as long as the license holder markets it (post-market surveillance, including pharmacovigilance). If the product is marketed outside the U.S., these reports must include data from all countries in which the drug is sold. Additional studies (Phase IV) may be undertaken after initial approval to find new uses for the drug, to test new dosage formulations, or to confirm selected non-clinical benefits, e.g., increased cost-effectiveness or improved quality of life. Additionally, FDA and other regulatory agencies are requiring license holders of drugs or biologics to prepare risk management plans which are aimed at assessing areas of product risk and actively managing such risks throughout the product lifecycle.

### **Key Trends Affecting the CRO Industry**

CROs derive substantially all of their revenue from the research and development expenditures of pharmaceutical, biotechnology and medical device companies. Based on investment analyst research and our internal estimates, we estimate that development expenditures outsourced by pharmaceutical and biotechnology companies worldwide in 2017 was approximately \$32 billion. We believe that the following trends create further growth opportunities for global CROs, although there is no assurance that growth will materialize.

#### **Continued Innovation and Development of Enabling Technologies**

##### *Innovation Driving New Drug Development Activity.*

New technologies together with improved understanding of disease pathology (driven by scientific advances such as the mapping of the human genome) have increased the number of new drug candidates being investigated in early development. This has greatly broadened the number of biological mechanisms being targeted which increasingly include rare/orphan diseases that currently have no effective treatments.

These developments should lead to increased activity in both Preclinical and Phase I development and in turn lead to more treatments in Phase II-III clinical trials. As the number of trials that need to be performed increases, we believe that drug developers will increasingly rely on CROs to manage these trials in order to continue to focus on drug discovery.

##### *New Technology Enabling More Efficient Development.*

Technology innovation is playing an increasing important role in helping to support more efficient drug development. The larger CROs have been at the forefront of this innovation developing technology solutions that support the integration of trial data across multiple systems; data repositories that enable sponsors to get real time clinical insights on their drugs performance and tools that support better trial designs including adaptive trial software, such as ICON’s AddPlan software, which has been used by the FDA and other global regulatory bodies to assess adaptive trial submissions.

The emergence of M-health technologies that build on the global prevalence of mobile and digital technologies are also beginning to have an influence on drug development. It is now possible to capture health data using mobile devices and wearables. This will enable sponsors to gather new clinical and “real-world” patient insights and will also be used to enhance patient engagement and adherence throughout the development process. As these devices mature it may also be possible to complete more remote monitoring of patients in their home environment which may drive further efficiencies in the trial process.

Social media is also becoming an important platform for life sciences companies to strengthen patient engagement programs and collaborate with other stakeholders in the health care system. Many sufferers of specific diseases are forming patient groups and actively collaborating using social media. These groups represent an important potential source of patients for new clinical studies but can also provide valuable insights into effectiveness and safety of new treatments.

As the influence of technology on drug development grows, it broadens the potential number of partners that CROs will work with in the future.

*Expanded use of new patient data sources.*

Pharmaceutical companies are looking to access a variety of new health care data sources containing medical and prescribing records to help improve development programs and to get better evidence of the value their treatments are bringing to patients once they are launched in the market. The larger global CROs have significant data management experience which can be leveraged to support these efforts and have invested in analytics capabilities to help deliver better insights for customers during the product lifecycle. Global CROs are also forging collaborations to access specific data sets that can provide further patient insights to support better matching of patients to the clinical trial process.

### **Improving Productivity and Operating Efficiencies**

*Continuing focus on Productivity within Research and Development Programs.*

Pharmaceutical and biotechnology companies continue to seek ways to improve the productivity of their development efforts and increasingly see the use of CROs as a strategic component of these efforts. They are leveraging the expertise with CROs to help identify the most promising drug candidates in early development and discontinue developing those that have safety issues, limited efficacy or that will have significant reimbursement challenges. These companies are also initiating programs to drive more efficiency in their development programs. One example of this has been the efforts to achieve a more seamless transition across development phases, particularly Phase I-III. In parallel, regulatory initiatives such as the 21<sup>st</sup> Century Cures Act and the emergence of clinical trial techniques such as adaptive trial design and risk based clinical trial monitoring are enhancing development, allowing effective treatments to get to patients quicker at reduced development costs.

*Cost Containment Pressures.*

Over the past several years, drug companies have sought more efficient ways of conducting business due to margin pressures stemming from patent expirations, greater acceptance of generic drugs, pricing pressures caused by the impact of managed care, purchasing alliances and regulatory consideration of the economic benefit of new drugs. Consequently, drug companies are centralizing research and development, streamlining their internal structures and outsourcing certain functions to CROs, thereby converting previously fixed costs to variable costs. Larger companies (and more recently medium sized companies) are actively entering strategic partnerships with a limited number of CROs in an effort to drive increased efficiencies. The CRO industry and in particular large CROs with global capabilities, considerable scientific knowledge and expertise are often able to perform the needed services with greater focus and at a lower cost than the client could perform internally, although CRO companies themselves are facing increased cost containment pressures as drug companies seek to further reduce their cost base.

### **Global trends influencing the CRO industry**

*Pressure to Accelerate Time to Markets and Globalization of the Marketplace.*

Reducing product development time maximizes the client's potential period of patent exclusivity, which in turn maximizes potential economic returns. We believe that clients are increasingly using CROs that have the appropriate expertise and innovation to improve the speed of product development to assist them in improving economic returns. In addition, applying for regulatory approval in multiple markets and for multiple indications simultaneously, rather than sequentially, reduces product development time and thereby maximizes economic returns. We believe that CROs with global capabilities, considerable knowledge and experience in a broad range of therapeutic areas are key resources to support a global regulatory approval strategy. Alongside this, the increasing need to access pools of new patients is leading to the conduct of clinical trials in new "emerging regions" such as Eastern Europe, Latin America, Asia-Pacific and South America. We believe that having access to both traditional and emerging clinical research markets gives global CROs a competitive advantage.

### *Growth within the Biotechnology Sector.*

The nature of the drugs being developed is changing. Biotechnology is enabling the development of targeted drugs with diagnostic tests to determine whether a drug will be effective given a patient's genomic profile. An increasing proportion of research and development ("R&D") expenditure is being spent on the development of highly technical drugs to treat very specific therapeutic areas. Much of this discovery expertise is found in biotechnology firms. We believe that it is to these organizations that the large pharmaceutical companies will look for an increasing proportion of their new drug pipelines. Whether it is through licensing agreements, joint ventures or equity investment, we believe we may see the emergence of more strategic relationships between small discovery firms and the larger pharmaceutical groups. As the majority of these biotechnology companies do not have a clinical development infrastructure, we believe that the services offered by CROs will continue to be in demand from such companies.

### *Increasing Number of Large Long-Term Studies and an increasing requirement to show the Economic Value of New Treatments.*

We believe that to establish competitive claims and demonstrate product value, to obtain reimbursement authorization from bodies such as the National Institute for Health and Clinical Excellence in the UK, and to encourage drug prescription by physicians in some large and competitive categories, more clients need to conduct outcome studies to demonstrate, for example, that mortality rates are reduced by certain drugs. To verify such outcomes, very large patient numbers are required and they must be monitored over long time periods. We believe that as these types of studies increase there will be a commensurate increase in demand for the services of CROs who have the ability to quickly assemble large patient populations, globally if necessary, and manage this complex process throughout its duration.

The rising costs of health care in most developed countries also means there is an increasing pressure to show that new medical treatments are more cost effective and deliver better patient outcomes than existing treatments regimes. This also means that sponsors need to increasingly generate outcomes data both as part of the product approval submissions and as part of post-approval research programs. This is creating opportunities for CROs who can offer support in developing and interpreting this data.

### *A Focus on Long-term Product Safety.*

The clinical trial approval process can only detect major and common adverse side effects of drugs; less common but no less serious side effects may only become apparent after many years of use. As a result, there is an increase in the number of drugs given "conditional approvals" where further 'post-approval' studies are being mandated. In addition, prudent sponsors undertake similar studies to detect early warning signs of any potential problems with their products. Such studies may take the form of prospective long-term safety studies, simpler observational studies or registries where patients meeting specific criteria for disease or drug use are followed for long periods to detect any safety issues. CROs are well positioned to perform these studies on behalf of sponsors.

### *Increasing Regulatory Demands.*

Regulatory agencies are requiring more data to support new drug approvals and are seeking more evidence that new drugs are safer and more effective than existing products. As a result, the complexity of clinical trials and the size of regulatory submissions are driving the demand for services provided by CROs.

## **The ICON Strategy**

ICON'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.

We have achieved strong growth since our foundation in 1990. The impact of the International Conference on Harmonization Good Clinical Practice, the resulting globalization of clinical research and the acceleration in the understanding of human and molecular biology which has led to many new treatment paths being explored were key catalysts of our early growth.

As our market has developed, 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) surveillance, 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 the increased adoption of 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 will 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 to achieve these objectives 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 program management capabilities.

We continue to enhance our capabilities through both organic service development and targeted acquisitions to meet the evolving needs of our existing and new clients. In mid-2017 we acquired the Mapi Group, a leading Patient-Centered Health Outcomes Research and Commercialization company. This acquisition strengthened ICON’s existing Commercialisation and Outcomes Research business adding significant commercialization presence, analytics, real world evidence generation and strategic regulatory expertise. The combined organization will be a leader for real world evidence, post approval research, language services, consultancy services supporting clinical outcomes assessments, pricing and market access and scientific communications.

We continue to target growth in under-penetrated CRO market segments outsourcing penetration within Medical Device companies has lagged that of biopharma firms but is beginning to accelerate. EU Regulatory reform enacted in 2017 will be a further catalyst to growth in this segment as it included stricter requirements to perform clinical evaluations & post-marketing surveillance. ICON is well positioned in this market having acquired strong device development capabilities in the acquisition of Aptiv Solutions in 2014. We continue to expand our presence in regions such as Asia-Pacific, in particular in China and Japan, building on our acquisition of Niphix, the Japanese subsidiary of Aptiv Solutions, in 2014 and BeijingWits Medical Limited, a leading Chinese CRO, in 2012.

#### *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, is helping us drive better project execution and enables ICON to offer innovative Risk Based Monitoring solutions which can deliver significant efficiencies for our customers.

Our ADDPLAN software offers industry leading statistical design, simulation and analysis software for adaptive clinical trials 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.

Finding and engaging suitable patients to conduct clinical trials is one of the biggest issues facing drug development 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 enrollment 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 acquisition of PMG research further enhanced our ability to enroll patients onto the clinical studies we perform. Alongside our PMG network we have developed strategic alliances with investigator site groups and healthcare systems in all major global research markets.

Quality project execution underpins all 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 have created a global business support infrastructure across functions such as Finance, Information Technology, Facilities and Human Resources. This is enabling us to enhance the service levels across these support areas whilst driving down the costs of this 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 organization 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 customized management and development programs for global employees. These programs are focused on advanced leadership development for those employees involved in people management roles and specific technical training in competencies that are core to our business, such as project and program management and clinical research associate development. We continue to invest to refine and develop these programs.

Within our training program we have also created a Clinical Research Academy and a unique Graduate Certificate in Clinical Trial Management which is enhancing the quality of graduate training in clinical research and increasing the pool of talent available to ICON that can support our customers' drug development programs.

Our learning and development programs are complemented by advanced people development practices which incorporate rigorous, analytics based screening in the hiring process, global career frameworks, performance management processes aligned to our strategy, and talent review and succession planning processes.

Our leadership and talent programs 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 2017, we continued to enhance our scientific and therapeutic expertise to support our customers in specific areas including Oncology, Orphan and Rare Diseases and Biosimilars.

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 2017 we also unveiled the world's first global patient outcomes benchmarking platform through our collaboration with the ICHOM consortium.

We continued our strategy of making targeted acquisitions that can enhance our capabilities and differentiate our services. In July 2017 we acquired the Mapi Group, a leading Patient-Centered Health Outcomes Research and Commercialization company. This acquisition also enabled ICON to have direct access to Mapi Research Trust, an industry leading library of Clinical Outcomes Assessments (COAs), with exclusive distribution of over 300 families of validated questionnaires, including licensing of COA services used by commercial, academic and regulatory research organizations. The acquisition of Mapi extends the breadth and depth of ICON's late phase capabilities, creating an industry leading provider of post-approval research, spanning evidence generation, strategic regulatory services, scientific communications and commercial strategy. Our customers will also benefit from ICON's access to the industry's broadest set of COA tools and instruments as well as new and enhanced real world data sets.

We continue to enhance our capabilities through collaborations with industry and academic leaders in the area of data analytics, particularly with a focus on the challenge of finding suitable patients to participate in Clinical Research. We have established a Chair of Business Analytics with University College Dublin and are learning from their expertise in management of large datasets. Additionally through our pilot with IBM Watson, we are leveraging IBM Watson's cognitive computing power to help automate the process of identifying patients who meet the criteria for a clinical trial, and to analyze protocols to assess trial feasibility and identify optimal trial sites.

#### *Applied Innovation*

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.

Our ICONIK platform is a web-based information platform that facilitates the management, reporting, analysis and visualization of all data relating to drug development, and supports our risk based monitoring solution. This solution allows monitoring resources to be directed at specific sites based on real-time data analysis which can significantly reduce monitoring costs for clients.

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.

Our ADDPLAN software offers a leading statistical design, simulation and analysis software for adaptive clinical trials and helps our customers identify the most promising drug candidates earlier. ADDPLAN is used by FDA, EMA and Japan's PMDA, as well as over fifty top pharmaceutical and medical device companies and academic researchers (*see Information Systems on page 28 for further information*).

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.

#### **Services**

ICON is a global provider of drug development solutions and services to the pharmaceutical, biotechnology and medical device industries. These solutions span the Clinical Development lifecycle from compound selection to Phase I-III clinical studies and post approval outcome research and market access consulting solutions.

We offer a broad range of specialized services to assist pharmaceutical, biotechnology and medical device companies to bring new drugs and devices to market faster. Our services span the entire lifecycle of product development and can be adapted to suit local trials or large global programs. Specific clinical development services offered to biopharmaceutical and medical device companies include:

- Product Development Planning;
- Strategic Consulting;
- Study Protocol Preparation;

- Clinical Pharmacology;
- Pharmacokinetic and Pharmacodynamic Analysis;
- Clinical Research Centers;
- Investigator Sites;
- Patient Recruitment;
- Study Monitoring and Data Collection;
- Case Report Form ("CRF") Preparation;
- Statistical Analysis;
- Patient Safety Monitoring;
- Risk-based Monitoring;
- Clinical Data Management;
- Strategic Analysis and Data Operations;
- Regulatory Consulting;
- Medical Reporting and Pharmacovigilance;
- Interactive Response Technologies;
- Electronic Endpoint Adjudication;
- Medical Imaging;
- Adaptive Trial Design and Execution;
- Medical Device Trials;
- Biosimilar Trials;
- Research Trials for US Government Agencies;
- Functional Services;
- Strategic Resourcing;
- Sample Analyses;
- Safety Testing;
- Microbiology;
- Custom flow Cytometry;
- Electronic Transmission of Test Results;
- Biomarker Development;
- Bioanalysis;

- Immunoassay Development;
- Electronic Patient Reported Outcomes;
- Patient Registries;
- Outcomes Research;
- Health Economics;
- Market Access and Commercialization Services;
- Drug Pricing Consulting; and
- Health Care and Scientific Communications.

## **Sales and Marketing**

Our marketing strategy is focused on building a differentiated brand position for ICON and supporting our business development efforts to develop and build relationships with pharmaceutical, biotechnology and medical device companies. Our marketing activities are coordinated centrally to ensure a consistent and differentiated market positioning for ICON and to ensure all marketing efforts align to the overall strategic objectives of the business. Our business development teams are located throughout the Americas, Europe and Asia Pacific regions. Business development activities are carried out by account executives with assigned territories and global account directors supporting our large accounts. Specialized business development teams focus on growing the various business segments of ICON. Collectively, our business development team, senior executives and project team leaders share responsibility for the maintenance of key client relationships. Our aim is to develop deeper relationships within our client base in order to gain repeat business and give us opportunities to penetrate into other therapeutic indications and adjacent service lines where applicable.

## **Competition**

The CRO industry is fragmented, consisting of many small, niche service providers, a declining number of medium-sized providers and a smaller number of large CROs, including ICON, that are differentiated by the scale of their global operations, breadth of service portfolios and supporting technology infrastructure. The need to conduct complex research and access patients on a global basis is driving market share to these global CROs. When competing for large development programmes, ICON competes primarily with IQVIA, PAREXEL International, Pharmaceutical Product Development ('PPD'), the Covance Drug Development business of LabCorp., PRA Health Sciences and Syneos Health, the recently merged inVentiv and INC Research business. In some other market segments, for example biotech and mid-tier pharma, ICON may also compete against mid-tier CROs including Medpace.

CROs generally compete on the basis of previous product experience, the ability to recruit patients on a global basis, the depth of therapeutic and scientific expertise, the strength of project teams, price and increasingly on the ability to apply new innovation that can drive significant time and cost savings throughout the development process. An evolving area of competition is the need to provide services that can help generate the evidence of the economic value of new treatments that payers and regulators require. This requires access to new data sources which includes information to support the identification of suitable investigator sites and patient populations as well as data on the value delivered by new products following marketing approval.

We believe that we compete favorably in all these areas.

## Customers

During the year ended December 31, 2017 revenue was earned from over 825 clients. During the year ended December 31, 2017 40% of our net revenues were derived from our top five customers, with one customer contributing more than 10% of our net revenues during the period (18%). No other customer contributed more than 10% of our net revenues during this period. During the year ended December 31, 2016 45% of our net revenues were derived from our top five customers, with one customer contributing more than 10% of our net revenues during the period (26%). No other customer contributed more than 10% of our net revenues during this period. During the year ended December 31, 2015 49% of our net revenues were derived from our top five customers, with one customer individually contributing more than 10% of our net revenues during the period (31%). No other customer contributed more than 10% of our net revenues during this period. 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.

## Backlog

Our backlog consists of potential net revenue yet to be earned from projects awarded by clients. At December 31, 2017 we had backlog of approximately \$4.9 billion, compared with approximately \$4.2 billion at December 31, 2016. We believe that our backlog as of any date is not necessarily a meaningful predictor of future results due to the potential for cancellation or delay of the projects included in the backlog, and no assurances can be given on the extent to which we will be able to realize this backlog as net revenue.

## Information Systems

Having access to accurate and timely information is critical in the management, delivery and quality of all aspects of drug development. To enable this ICON has developed an Informatics strategy built around ICONIK, a web-based information platform that enables the management, reporting, analysis and visualization of all data relating to drug development. ICONIK collects, manages and standardizes study data from multiple sources, including Electronic Data Capture (EDC), patient diaries, central laboratories and imaging, to provide a single view of study information. ICONIK enables ICON to deliver new services such as ICONIK monitoring which uses near-real time clinical data to drive monitoring visit schedules thereby reducing overall cost and time to market.

In addition to managing clinical data, ICONIK collects operational data, such as project management, clinical trials management system (CTMS) and metric information to drive trial efficiency and transparency. Investigator data, such as payments, site details and performance, can also be incorporated. ICONIK can be accessed via a portal that allows clients access to study related information via a secure web based environment.

Firecrest, our site management and training technology, is another important component of our Informatics strategy. Firecrest provides an on-line web-based portal to access visit by visit study guides which drive site performance and quality.

ICON also utilizes a range of enterprise applications that enable the delivery of our business services in a global environment. The focus is to provide ease of access and capture of study information for our staff and clients globally. Our current information systems are built on open standards and leading commercial business applications from vendors including Microsoft, Oracle, Dell, SAS and Medidata. IT expenditure is authorized by strict IT governance policies requiring senior level approval of all strategic IT expenditure based on defined, measurable business benefits.

In Clinical Operations, we have deployed a suite of software applications that assist in the management and tracking of our clinical trial activities. These software applications are both internally developed and commercially available applications from external vendors. These include a clinical trial management application that tracks all relevant data in a trial and automates all management and reporting processes. In our Data Management function, we have deployed leading clinical data management solutions including EDC and Clinical Data Warehouse solutions from external vendors. This allows us to guarantee the integrity of client data and provide consolidated information across client studies. In our clinical trials management area Firecrest Clinical provides a comprehensive site performance management system that improves compliance, consistency and execution of activities at investigative sites. The web-based solution enables accurate study information, including protocol information, training manuals and case report forms, to be rolled out quickly and simultaneously to sites. Site behaviour can then be tracked to ensure training is understood, procedures are being followed, timelines are met and study parameters are maintained. As well as meeting day to day operational requirements, these systems are feeder systems into the ICONIK platform.

We have also developed an interactive response technology (IXR) system which provides features such as centralized patient randomization, drug inventory management, patient diary collection and provides our clients with a fully flexible data retrieval solution which can be utilized via telephone, internet browser or a mobile device. In our central laboratory business, we utilize a comprehensive suite of software, including a laboratory information management system (LIMS), a kit / sample management system and a web interface system to allow clients to review results online.

All of the Company's global finance operations utilize Oracle's eBusiness suite to serve the organization's financial and project accounting requirements. Workday is used to fulfil our HR people management requirements.

The Company's strategy of using technology to enhance our global processes can be seen from our deployment of platforms like ICONIK QualityDocs our global SOP Document Management system, our Web-based training delivery solution, iLearn, workflow and automation platforms such as ServiceNow, Sailpoint for identity management and governance and Pega for pharmacovigilance.

Our IT systems are operated from two Data Centre hubs in Dublin, Ireland and Philadelphia, Pennsylvania. These hubs reside within purpose built Data Centre facility locations. Other offices are linked to these hubs through a network managed by Verizon, a tier one global telecommunications provider. This network provides global connectivity for our applications and allows collaboration and communication using tools like Cisco Jabber, WebEx, Sharepoint, and Box. Mobile staff can also access all systems via secure remote access facilities. A global corporate intranet portal provides access to all authorized data and applications for our internal staff as well as providing an internal platform for companywide communication. IT systems are protected with robust information security controls which are independently audited twice annually as part of maintaining ICON's ISO27001:2013 certification.

Following the acquisition of Aptiv Solutions we have integrated, and continue to enhance, three new technology platforms into the ICON offerings. These comprise ADDPLAN for simulation and design of exploratory/pilot and confirmatory/ pivotal adaptive clinical trials (*ADDPLAN<sup>®</sup> DF (Dose Finder)*, *ADDPLAN<sup>®</sup> Base*, *ADDPLAN<sup>®</sup> MC (Multiple Comparison)* and *ADDPLAN<sup>®</sup> PE (Population Enrichment)*), AptivAdvantage which is an integrated platform comprising EDC, randomization and drug supply management specifically created for execution of adaptive clinical trials and used to deliver risk-based monitoring and Aptiv Insite which is a novel approach to risk-based monitoring, using Verification by Statistical Sampling (VSS) to manage data quality and site related risks.

### **Contractual Arrangements**

We are generally awarded projects based upon our responses to requests for proposals received from companies in the pharmaceutical, biotechnology and medical device industries, or work orders executed under our strategic partnership agreements.

Our revenues on contracts are recognized on a proportional performance method. Depending on the contractual terms revenue is either recognized on the percentage of completion method or on the unit of delivery method. Payment terms usually provide either for payments based on the achievement of certain identified milestones, units delivered or monthly payments, according to a contracted payment schedule over the life of the contract. Where clients request changes in the scope of a trial or in the services to be provided by us, a change order or amendment is issued which may result either in an increase or decrease in the contract value. We also contract on a "fee-for-service" or "time and materials" basis.

Contract periods may range from several weeks to several years depending on the nature of the work to be performed. In most cases, an upfront portion of the contract fee is paid at the time the study or trial is started. The balance of the contract fee is generally payable in installments over the study or trial duration and may be based on the achievement of certain performance targets or "milestones", on units delivered, or on a fixed monthly payment schedule. For instance, installment payments may be based on patient enrollment dates or delivery of the database. During the course of the study, the Company will generally incur reimbursable expenses. Reimbursable expenses are estimated and budgeted within the contract and are 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.

As the currency in which contracts are priced can be different from the currencies in which costs relating to those contracts are incurred, we usually negotiate currency fluctuation clauses in our contracts which allow for price adjustments if changes in the relative value of those currencies exceed predetermined tolerances.

Most of our contracts are terminable immediately by the client with justifiable cause or with 30 to 90 days' notice without cause. In the event of termination, we are usually entitled to all sums owed for work performed and expenses incurred 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-emphasize a particular trial, inadequate patient enrollment or investigator recruitment.

## **Government Regulation**

### *Regulation of Clinical Trials*

The clinical investigation of new drugs is highly regulated by government agencies. The standard for the conduct of clinical research and development studies is Good Clinical Practice ("GCP"), which stipulates procedures designed to ensure the quality and integrity of data obtained from clinical testing and to protect the rights and safety of clinical subjects.

The FDA and other prominent regulators have promulgated regulations and guidelines that pertain to applications to initiate trials of products, the approval and conduct of studies, report and record retention, informed consent, applications for the approval of drugs and post-marketing requirements. Pursuant to these regulations and guidelines, service providers that assume the obligations of a drug sponsor are required to comply with applicable regulations and are subject to regulatory action for failure to comply with such regulations and guidelines. In the United States and Europe, the trend has been in the direction of increased regulation and enforcement by the applicable regulatory authority.

In providing services in the United States, we are obligated to comply with FDA requirements governing such activities. These include ensuring that the study is approved by an appropriate Independent Review Board ("IRB") and Ethics Committee, obtaining patient informed consents, verifying qualifications of investigators, reporting patients' adverse reactions to drugs and maintaining thorough and accurate records. We must maintain critical documents for each study for specified periods, and such documents may be reviewed by the study sponsor and the FDA.

The services we provide outside the United States are ultimately subject to similar regulation by the relevant regulatory authority. In addition, our activities in Europe are affected by the European Medicines Agency.

We must retain records for each study for specified periods for inspection by the client and by the applicable regulatory authority during audits. If we fail to comply adequately with applicable regulations and guidelines, it could result in a material adverse effect. In addition, our failure to comply with applicable regulations and guidelines, depending on the extent of the failure, could result in fines, debarment, termination or suspension of ongoing research, the disqualification of data or litigation by clients, any of which could also result in a material adverse effect.

## **Potential Liability and Insurance**

The nature of our business exposes us to potential liability including, but not limited to, potential liability for (i) breach of contract or negligence claims by our customers; (ii) non-compliance with regulatory or legal obligations including, but not limited to, anti-bribery and anti-corruption laws; (iii) third party (such as patients) claims in respect of our performance of services.

In addition, although we do not believe we are legally responsible for acts of third party investigators (physicians running trials), we could be subject to claims arising as a result of the actions of these investigators.

We try to reduce this potential liability by:

- Seeking contractual indemnification from customers in relation to certain activities. However, the terms and scope of indemnification varies from customer to customer and project to project and the performance of these indemnities is not secured. As a result, we bear the risk that indemnification may not be relevant or sufficient or that the indemnifying party may not have the financial ability to fulfill its indemnification obligations. Furthermore this indemnification does not protect us against our own acts or omissions such as our negligence or where our performance does not reach the required contractual, industry or regulatory standard.
- Maintaining worldwide professional liability insurance. While we believe our insurance coverage is adequate, there is no guarantee that we will continue to be able to maintain such insurance coverage on terms acceptable to us, if at all, or that the relevant policy will respond and provide cover when we want it to.



We could be materially adversely affected if ICON is required to pay damages or bear the costs of defending or settling any claim outside the scope of or in excess of a contractual indemnification provision, an indemnifying party does not fulfill its indemnification obligations, the claim is in excess of level of our insurance coverage or the relevant circumstances are not covered by our insurance policies.

### **Description of Property**

Our principal executive offices are located in South County Business Park, Leopardstown, Dublin, Republic of Ireland, where we own an office facility of approximately 15,000 square meters. We lease all other properties under operating leases.

We maintain thirty-eight offices in North America; thirty-four in the United States, three in Canada and one in Mexico. We maintain thirty-five offices in Europe; six of our offices in the UK, four each in Germany and France, three in Spain, two each in Italy, Ireland, Sweden, the Netherlands and one in each of Belgium, the Czech Republic, Hungary, Israel, Latvia, Poland, Romania, Switzerland, Turkey and the Ukraine. We have seventeen offices in Asia; three offices each in China, India and Japan, two in Singapore, one in each of Hong Kong, Philippines, Russia, South Korea, Taiwan and Thailand. We have one office in Australia and one in New Zealand. We have five offices in South America; one in each of Argentina, Brazil, Chile, Colombia and Peru. We maintain one office in South Africa.

### **Organizational Structure**

Details of the Company's significant subsidiaries or entities under the Company's control are as follows:

<i>Company</i>	<i>Country</i>	<i>Group ownership</i>
<i>ICON Clinical Research, S.A.</i>	<i>Argentina</i>	<i>100%</i>
<i>ICON Clinical Research PTY Limited</i>	<i>Australia</i>	<i>100%</i>
<i>ICON Clinical Research Austria GmbH</i>	<i>Austria</i>	<i>100%</i>
<i>DOCS International Belgium N.V.</i>	<i>Belgium</i>	<i>100%</i>
<i>ICON Pesquisas Clínicas LTDA.</i>	<i>Brazil</i>	<i>100%</i>
<i>ICON Clinical Research EOOD</i>	<i>Bulgaria</i>	<i>100%</i>
<i>ICON Clinical Research (Canada) Inc.</i>	<i>Canada</i>	<i>100%</i>
<i>Mapi Life Sciences Canada Inc.</i>	<i>Canada</i>	<i>100%</i>
<i>Oxford Outcomes LTD.</i>	<i>Canada</i>	<i>100%</i>
<i>ICON Chile Limitada</i>	<i>Chile</i>	<i>100%</i>
<i>ICON Clinical Research (Beijing No.2) Co., Ltd</i>	<i>China</i>	<i>100%</i>
<i>ICON Clinical Research (Beijing) Co., Ltd</i>	<i>China</i>	<i>100%</i>
<i>Ispitivanja ICON d.o.o (ICON Research Ltd.)</i>	<i>Croatia</i>	<i>100%</i>
<i>ICON Clinical Research s.r.o.</i>	<i>Czech Republic</i>	<i>100%</i>
<i>DOCS International Nordic Countries A/S</i>	<i>Denmark</i>	<i>100%</i>

<i>Company</i>	<i>Country</i>	<i>Group ownership</i>
<i>DOCS International Finland Oy</i>	<i>Finland</i>	<i>100%</i>
<i>DOCS International France S.A.S.</i>	<i>France</i>	<i>100%</i>
<i>ICON Clinical Research S.A.R.L.</i>	<i>France</i>	<i>100%</i>
<i>Mapi Développement SAS</i>	<i>France</i>	<i>100%</i>
<i>Mapi Research Trust</i>	<i>France</i>	<i>100%</i>
<i>Mapi SAS</i>	<i>France</i>	<i>100%</i>
<i>DOCS International Germany GmbH</i>	<i>Germany</i>	<i>100%</i>
<i>ICON Clinical Research GmbH</i>	<i>Germany</i>	<i>100%</i>
<i>ICON Clinical Research Hong Kong Limited</i>	<i>Hong Kong</i>	<i>100%</i>
<i>ICON Klinikai Kutató Korlátolt Felelősségű Társaság (ICON Clinical Research Limited Liability Company)</i>	<i>Hungary</i>	<i>100%</i>
<i>ICON Clinical Research India Private Limited</i>	<i>India</i>	<i>100%</i>
<i>ICON Clinical Research Israel Limited</i>	<i>Israel</i>	<i>100%</i>
<i>DOCS Italia S.R.L.</i>	<i>Italy</i>	<i>100%</i>
<i>ICON Japan K.K.</i>	<i>Japan</i>	<i>100%</i>
<i>ICON Investments Limited</i>	<i>Jersey</i>	<i>100%</i>
<i>ICON Clinical Research Korea Yuhan Hoesa (ICON Clinical Research Korea Ltd.)</i>	<i>Korea</i>	<i>100%</i>
<i>ICON CRO Malaysia SDN. BHD.</i>	<i>Malaysia</i>	<i>100%</i>
<i>ICON Clinical Research México, S.A. de C.V.</i>	<i>Mexico</i>	<i>100%</i>
<i>DOCS Insourcing B.V.</i>	<i>Netherlands</i>	<i>100%</i>
<i>DOCS International B.V.</i>	<i>Netherlands</i>	<i>100%</i>
<i>ICON Contracting Solutions Holdings B.V.</i>	<i>Netherlands</i>	<i>100%</i>
<i>Mapi B.V.</i>	<i>Netherlands</i>	<i>100%</i>
<i>Mapi Life Sciences NL B.V.</i>	<i>Netherlands</i>	<i>100%</i>
<i>ICON Clinical Research (New Zealand) Limited</i>	<i>New Zealand</i>	<i>100%</i>
<i>ICON Clinical Research Perú S.A.</i>	<i>Peru</i>	<i>100%</i>

<i>Company</i>	<i>Country</i>	<i>Group ownership</i>
<i>ICON Clinical Research Services Philippines, Inc.</i>	<i>Philippines</i>	<i>100%</i>
<i>DOCS International Poland Sp. z o.o.</i>	<i>Poland</i>	<i>100%</i>
<i>ICON Clinical Research Sp. z o.o.</i>	<i>Poland</i>	<i>100%</i>
<i>DOCS Resourcing Limited</i>	<i>Republic of Ireland</i>	<i>100%</i>
<i>ICON Clinical International Unlimited Company</i>	<i>Republic of Ireland</i>	<i>100%</i>
<i>ICON Clinical Research Limited</i>	<i>Republic of Ireland</i>	<i>100%</i>
<i>ICON Clinical Research Property Development (Ireland) Limited</i>	<i>Republic of Ireland</i>	<i>100%</i>
<i>ICON Holdings Unlimited Company</i>	<i>Republic of Ireland</i>	<i>100%</i>
<i>ICON Holdings Clinical Research International Limited</i>	<i>Republic of Ireland</i>	<i>100%</i>
<i>ICON Investments Five Unlimited Company</i>	<i>Republic of Ireland</i>	<i>100%</i>
<i>ICON Investments Four Unlimited Company</i>	<i>Republic of Ireland</i>	<i>100%</i>
<i>ICON Clinical Research S.R.L.</i>	<i>Romania</i>	<i>100%</i>
<i>ICON Clinical Research (Rus) LLC</i>	<i>Russia</i>	<i>100%</i>
<i>ICON Clinical Research d.o.o. Beograd</i>	<i>Serbia</i>	<i>100%</i>
<i>ICON Clinical Research (Pte) Limited</i>	<i>Singapore</i>	<i>100%</i>
<i>ICON Clinical Research Slovakia, s.r.o.</i>	<i>Slovakia</i>	<i>100%</i>
<i>ICON Clinical Research España, S.L.</i>	<i>Spain</i>	<i>100%</i>
<i>Mapi Life Sciences Spain, S.L.</i>	<i>Spain</i>	<i>100%</i>
<i>DOCS International Sweden AB</i>	<i>Sweden</i>	<i>100%</i>
<i>Mapi Sweden A.B.</i>	<i>Sweden</i>	<i>100%</i>
<i>DOCS International Switzerland GmbH</i>	<i>Switzerland</i>	<i>100%</i>
<i>ICON Clinical Research (Switzerland) GmbH</i>	<i>Switzerland</i>	<i>100%</i>
<i>ICON Clinical Research Taiwan Limited</i>	<i>Taiwan</i>	<i>100%</i>
<i>ICON Clinical Research (Thailand) Limited</i>	<i>Thailand</i>	<i>100%</i>
<i>ICON Ankara Klinik Arastirma Dis Ticaret Anonim Sirketi</i>	<i>Turkey</i>	<i>100%</i>
<i>DOCS Ukraine LLC</i>	<i>Ukraine</i>	<i>100%</i>
<i>ICON Clinical Research LLC</i>	<i>Ukraine</i>	<i>100%</i>

<i>Company</i>	<i>Country</i>	<i>Group ownership</i>
<i>DOCS International UK Limited</i>	<i>United Kingdom</i>	<i>100%</i>
<i>ICON Clinical Research (U.K.) Limited</i>	<i>United Kingdom</i>	<i>100%</i>
<i>ICON Development Solutions Limited</i>	<i>United Kingdom</i>	<i>100%</i>
<i>Mapi Life Sciences UK Limited</i>	<i>United Kingdom</i>	<i>100%</i>
<i>Addplan, Inc.</i>	<i>USA</i>	<i>100%</i>
<i>Beacon Bioscience, Inc.</i>	<i>USA</i>	<i>100%</i>
<i>C4 MedSolutions, LLC</i>	<i>USA</i>	<i>100%</i>
<i>Clinical Research Management, Inc.</i>	<i>USA</i>	<i>100%</i>
<i>CHC Group, LLC</i>	<i>USA</i>	<i>100%</i>
<i>Complete Healthcare Communications, LLC</i>	<i>USA</i>	<i>100%</i>
<i>Complete Publication Solutions, LLC</i>	<i>USA</i>	<i>100%</i>
<i>DOCS Global, Inc.</i>	<i>USA</i>	<i>100%</i>
<i>Global Pharmaceutical Strategies Group, LLC</i>	<i>USA</i>	<i>100%</i>
<i>ICON Clinical Research LLC</i>	<i>USA</i>	<i>100%</i>
<i>ICON Early Phase Services, LLC</i>	<i>USA</i>	<i>100%</i>
<i>ICON Laboratory Services, Inc.</i>	<i>USA</i>	<i>100%</i>
<i>ICON US Holdings Inc.</i>	<i>USA</i>	<i>100%</i>
<i>Managed Care Strategic Solutions, L.L.C.</i>	<i>USA</i>	<i>100%</i>
<i>Mapi USA, Inc.</i>	<i>USA</i>	<i>100%</i>
<i>MMMM Consulting, LLC</i>	<i>USA</i>	<i>100%</i>
<i>MMMM Group, LLC</i>	<i>USA</i>	<i>100%</i>
<i>PMG Research of Bristol, LLC</i>	<i>USA</i>	<i>100%</i>
<i>PMG Research of Charleston, LLC</i>	<i>USA</i>	<i>100%</i>
<i>PMG Research of Charlotte, LLC</i>	<i>USA</i>	<i>100%</i>
<i>PMG Research of Christie Clinic, LLC</i>	<i>USA</i>	<i>100%</i>
<i>PMG Research of Hickory, LLC</i>	<i>USA</i>	<i>100%</i>

<i>Company</i>	<i>Country</i>	<i>Group ownership</i>
<i>PMG Research of Raleigh, LLC</i>	<i>USA</i>	<i>100%</i>
<i>PMG Research of Rocky Mount, LLC</i>	<i>USA</i>	<i>100%</i>
<i>PMG Research of Salisbury, LLC</i>	<i>USA</i>	<i>100%</i>
<i>PMG Research of Wilmington, LLC</i>	<i>USA</i>	<i>100%</i>
<i>PMG Research of Winston-Salem, LLC</i>	<i>USA</i>	<i>100%</i>
<i>PMG Research, Inc.</i>	<i>USA</i>	<i>100%</i>
<i>Pricespective, LLC</i>	<i>USA</i>	<i>100%</i>
<i>PubsHub LLC</i>	<i>USA</i>	<i>100%</i>

**Item 4A. Unresolved Staff Comments.**

Not applicable.

**Item 5. Operating and Financial Review and Prospects.**

The following discussion and analysis should be read in conjunction with our Consolidated Financial Statements, accompanying notes and other financial information, appearing in Item 18. The Consolidated Financial Statements have been prepared in accordance with U.S. GAAP.

**Overview**

We are a CRO, providing outsourced development services on a global basis to the pharmaceutical, biotechnology and medical device industries. We specialize in the strategic development, management and analysis of programs that support all stages of the clinical development process - from compound selection to Phase I-IV clinical studies. 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.

We believe that we are one of a select group of CROs with the expertise and capability to conduct clinical trials in most major therapeutic areas on a global basis and have the operational flexibility to provide development services on a stand-alone basis or as part of an integrated “full service” solution. At December 31, 2017, we employed approximately 13,250 employees, in 98 locations in 38 countries. During the year ended December 31, 2017 we derived approximately 45.0%, 43.3% and 11.7% of our net revenue in the United States, Europe and Rest of World, respectively.

Revenue consists of fees earned under contracts with third-party clients. In most cases, a portion of the contract fee is paid at the time the study or trial is started, with the balance of the contract fee generally payable in installments over the study or trial duration, based on the delivery of certain performance targets or milestones. Revenue from contracts is recognized on a proportional performance method based on the relationship between time incurred and the total estimated duration of the trial or on a fee-for-service basis according to the particular circumstances of the contract. As is customary in the CRO industry, we contract with third party investigators in connection with clinical trials. Investigator fees and certain other costs, where reimbursed by clients are, in accordance with industry practice, deducted from gross revenue to arrive at net revenue. We view net revenue as our primary measure of revenue growth.

As the nature of our business involves the management of projects, the majority of which have a duration of one to four years, the commencement or completion of projects in a fiscal year can have a material impact on revenues earned with the relevant clients in such years. In addition, as we typically work with some, but not all divisions of a client, fluctuations in the number and status of available projects within such divisions can also have a material impact on revenues earned from such clients from year to year.

Termination or delay in the performance of an individual contract may occur 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-emphasize a particular trial or inadequate patient enrollment or investigator recruitment. In the event of termination the Company is usually entitled to all sums owed for work performed through the notice of termination and certain costs associated with the termination of the study. In addition, contracts generally contain provisions for renegotiation in the event of changes in the scope, nature, duration, or volume of services of the contract.

Our backlog consists of potential net revenue yet to be earned from projects awarded by clients. At December 31, 2017 we had a backlog of approximately \$4.9 billion, compared with approximately \$4.2 billion at December 31, 2016. We believe that our backlog as of any date is not necessarily a meaningful predictor of future results, due to the potential for cancellation or delay of the projects included in the backlog, and no assurances can be given on the extent to which we will be able to realize this backlog as net revenue.

Although we are domiciled in Ireland, we report our results in U.S. dollars. As a consequence the results of our non-U.S. based operations, when translated into U.S. dollars, could be materially affected by fluctuations in exchange rates between the U.S. dollar and the currencies of those operations.

In addition to translation exposures, we are also subject to transaction exposures because the currency in which contracts are priced can be different from the currencies in which costs relating to those contracts are incurred. Our operations in the United States are not materially exposed to such currency differences as the majority of our revenues and costs are in U.S. dollars. However, outside the United States the multinational nature of our activities means that contracts are usually priced in a single currency, most often U.S. dollars or euro, while costs arise in a number of currencies, depending, among other things, on which of our 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 our results of operations. We regularly review our currency exposures and usually negotiate currency fluctuation clauses in our contracts which allow for price negotiation if changes in the relative value of those currencies exceed predetermined tolerances.

As we conduct operations on a global basis, our effective tax rate has depended and will depend on the geographic distribution of our revenue and earnings among locations with varying tax rates. Our results therefore may be affected by changes in the tax rates of the various jurisdictions. In particular, as the geographic mix of our results of operations among various tax jurisdictions changes, our effective tax rate may vary significantly from period to period.

## Operating Results

The following table sets forth for the periods indicated certain financial data as a percentage of net revenue and the percentage change in these items compared to the prior comparable period. The trends illustrated in the following table may not be indicative of future results.

	Year Ended December 31,			
	2017	2016	2017	2016
	Percentage of Net Revenue		Percentage Increase/(Decrease)	
Net revenue	100%	100%	5.5 %	5.8 %
Costs and expenses:				
Direct costs	58.4%	57.7%	6.9 %	5.8 %
Selling, general and administrative	18.4%	19.5%	(0.6)%	(0.3)%
Depreciation	2.5%	2.5%	3.1 %	4.8 %
Amortization	1.0%	1.1%	2.3 %	(0.1)%
Income from operations (excluding restructuring and other items)	19.7%	19.2%	8.2 %	13.6 %
Restructuring and other items	0.5%	0.5%	(5.0)%	100 %
Income from operations (including restructuring and other items )	19.2%	18.7%	8.5 %	10.7 %

### *Year ended December 31, 2017 compared to year ended December 31, 2016*

Net revenue for the year increased by \$91.9 million, or 5.5%, from \$1,666.5 million for the year ended December 31, 2016 to \$1,758.4 million for the year ended December 31, 2017. Net revenue increased by 4.8% in constant currency. The increase in net revenues can be explained by both continued organic growth and the additional net revenues from the acquisition of Mapi on July 27, 2017 and the full year impact of the acquisition of Clinical Research Management acquired on September 15, 2016.

Net revenues from our top five customers were \$709.1 million in 2017 compared to \$744.2 million in 2016, or 40% and 45% respectively. The largest of these customers related to a strategic partnership with a large global pharmaceutical company. Net revenue from this customer contributed 26% of net revenue for the year ended December 31, 2016, compared to 18% of net revenue for the year ended December 31, 2017. 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.

Net revenue in Ireland increased by \$13.7 million in 2017, from \$410.6 million for the year ended December 31, 2016 to \$424.3 million for the year ended December 31, 2017. Net revenue in Ireland during the year ended December 31, 2017 increased by 3.3% compared to an overall increase in Group revenue of 5.5%. Net revenue in Ireland is principally a function of our global transfer pricing model. See Note 17 Business Segment and Geographical Information for further details.

Net revenue for Rest of Europe increased by \$23.9 million or 7.6%, from \$313.2 million for the year ended December 31, 2016 to \$337.1 million for the year ended December 31, 2017, principally reflecting the acquisition of Mapi in July 2017. Net revenue in the U.S. increased by \$27.7 million or 3.6%, from \$763.8 million for the year ended December 31, 2016 to \$791.5 million for the year ended December 31, 2017. Net revenues in the U.S. were positively impacted by both continued organic growth and by the acquisition of Mapi on July 27, 2017 and the full year impact of the acquisition of Clinical Research Management on September 15, 2016. Net revenue in our Rest of World ('Other') region increased by \$26.6 million or 14.9%, from \$178.9 million for the year ended December 31, 2016 to \$205.5 million for the year ended December 31, 2017. Net revenues in non-U.S. dollar operations in this region were impacted by foreign currency translation and the movement in local rates to the U.S. dollar over the comparative year.

Direct costs for the year increased by \$66.0 million, or 6.9%, from \$961.3 million for the year ended December 31, 2016 to \$1,027.3 million for the year ended December 31, 2017. Direct costs consist primarily of 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 period arose due to an increase in headcount and a corresponding increase in personnel related expenditure of \$56.6 million combined with an increase in other direct project related costs of \$11.7 million. These were offset by decreases in laboratory costs of \$0.7 million and travel related costs of \$1.7 million. As a percentage of net revenue, direct costs increased from 57.7% of revenue for the year ended December 31, 2016 to 58.4% of net revenue for the year ended December 31, 2017.

Selling, general and administrative expenses for the year decreased by \$2.0 million, or 0.6%, from \$325.7 million for the year ended December 31, 2016 to \$323.7 million for the year ended December 31, 2017. Selling, general and administrative expenses comprise primarily of compensation, related fringe benefits and share based compensation expense for non-project-related employees, recruitment expenditure, professional service costs, advertising costs and all costs related to facilities and information systems. As a percentage of net revenue, selling, general and administrative expenses decreased from 19.5% of net revenue for the year ended December 31, 2016 to 18.4% of net revenue for the year ended December 31, 2017. Personnel related costs increased by \$0.7 million in the year, facilities related costs decreased by \$0.5 million and general overhead costs net of foreign exchange costs decreased by \$2.1 million. During the year ended December 31, 2017, a credit of \$6.0 million was recorded being the reduction in the assessment of the fair value of contingent consideration liability relating to the acquisition of ClinicalRM (see Note 4 of the Financial Statements at Item 19). Once-off professional costs of \$3.5 million related to a proposed transaction were also recorded.

Share based compensation expense recognized during the years ended December 31, 2017 and December 31, 2016 was \$30.6 million and \$40.3 million respectively.

Depreciation expense for the year increased by \$1.3 million, or 3.1%, from \$42.1 million for the year ended December 31, 2016 to \$43.4 million for the year ended December 31, 2017. The depreciation charge reflects investments in facilities, information systems and equipment supporting the Company's continued growth. As a percentage of net revenue, the depreciation expense remained unchanged at 2.5% of net revenues for the year ended December 31, 2016 and the year ended December 31, 2017. Amortization expense for the year increased by \$0.4 million, or 2.3%, from \$17.5 million for the year ended December 31, 2016 to \$17.9 million for the year ended December 31, 2017. The amortization expense represents the amortization of intangible assets acquired on business combinations. The amortization expense for the year includes amortization of intangibles acquired in the Mapi acquisition on July 27, 2017 and the impact of a full year's amortization for ClinicalRM acquired on September 15, 2016. These increases were offset by the cessation of amortization on other assets. As a percentage of net revenue, the amortization expense decreased from 1.1% of net revenue for the year ended December 31, 2016 to 1.0% of net revenues for the year ended December 31, 2017.

During the year ended December 31, 2017 the Company implemented a restructuring plan to improve operating efficiencies resulting in recognition of a restructuring charge of \$7.8 million during 2017. The restructuring plan includes the cost of resource rationalizations in certain areas of the business to improve utilization. During the year ended December 31, 2016 the Company implemented a restructuring plan to improve operating efficiencies resulting in recognition of a restructuring charge of \$8.2 million during 2016. The restructuring plan includes the cost of resource rationalizations in certain areas of the business to improve utilization (resulting in a charge of \$6.2 million), and office consolidation (resulting in the recognition of an onerous lease obligation of \$2.0 million). See Note 14 to the Audited Consolidated Financial Statements.

As a result of the above, income from operations increased by \$26.6 million, or 8.5%, from \$311.7 million for the year ended December 31, 2016 to \$338.3 million for the year ended December 31, 2017 (\$26.2 million, or 8.2% excluding restructuring charges). As a percentage of net revenue, income from operations increased from 18.7% (19.2% excluding restructuring charges) of net revenues for year ended December 31, 2016 to 19.2% (19.7% excluding restructuring charges) of net revenues for year ended December 31, 2017.



Income from operations in Ireland increased by 7.4% from \$216.1 million (\$218.3 million excluding the impact of restructuring and other charges) for the year ended December 31, 2016, to \$232.0 million (\$240.1 million excluding the impact of restructuring and other charges) for year ended December 31, 2017. Income from operations in Ireland and other geographic regions are impacted by the Company's global transfer pricing model. Continued strategic investment in personnel and infrastructure together with on-going enhancement of operating processes and the successful leverage of support costs in 2017 has continued to result in a decrease of the proportion of the Group's net revenue used to support other Group entities and a corresponding increase in income from operations in Ireland during 2017.

In the Rest of Europe region, income from operations decreased by \$7.7 million, from \$34.2 million for the year ended December 31, 2016 to \$26.5 million for the year ended December 31, 2017. Excluding restructuring charges recorded income from operations in the Rest of Europe decreased by \$10.1 million, from \$36.5 million for the year ended December 31, 2016 to \$26.4 million for the year ended December 31, 2017. As a percentage of net revenues income from operations in the Rest of Europe region decreased from 10.9% (11.7% excluding restructuring charges) for the year ended December 31, 2016 to 7.9% (7.8% excluding restructuring charges) for the year ended December 31, 2017. Income from operations in Europe and in Ireland in the three month period and year ended December 31, 2016 reflected the impact of a one-off intergroup transaction. This transaction resulted in an increase in income from operations in Europe and a decrease in income from operations in Ireland in that period.

In the U.S. region, income from operations increased by \$17.0 million or 41.2%, from \$41.3 million for the year ended December 31, 2016 to \$58.3 million for the year ended December 31, 2017. Excluding restructuring charges recorded income from operations in the U.S. increased by \$13.6 million, from \$44.6 million for the year ended December 31, 2016 to \$58.2 million for the year ended December 31, 2017. As a percentage of net revenues income from operations in the U.S. region increased from 5.4% (5.8% excluding restructuring charges) for the year ended December 31, 2016 to 7.4% (7.3% excluding restructuring charges) for the year ended December 31, 2017, principally reflecting a credit of \$6.0 million recorded on revaluation of the contingent consideration related to the acquisition of ClinicalRM, the income contribution since acquisition of ClinicalRM, and the impact of refinements to the consideration earned by US subsidiaries under the Group's global transfer pricing model. These increases were offset in part by increased amortization charges.

In other regions, income from operations increased by \$1.5 million, from \$20.0 million for the year ended December 31, 2016 to \$21.5 million for the year ended December 31, 2017. Excluding restructuring charges recorded income from operations in other regions increased by \$1.1 million, from \$20.4 million for the year ended December 31, 2016 to \$21.5 million for the year ended December 31, 2017. As a percentage of net revenues, income from operations in the other regions decreased from 11.2% (11.4% excluding restructuring charges) for the year ended December 31, 2016 to 10.4% (10.4% excluding restructuring charges) for the year ended December 31, 2017.

Interest expense decreased from \$13.0 million for the year ended December 31, 2016 to \$12.6 million for the year ended December 31, 2017. This decrease primarily reflects the drawdown of \$53.0 million under the five year committed multi-currency Revolving Credit Facility in the year ended December 31, 2016. This facility bears interest at LIBOR plus a margin. No amounts were drawn down during the year ended December 31, 2017. Interest income for the year ended December 31, 2017 increased from \$1.5 million for the year ended December 31, 2016 to \$2.3 million for the year ended December 31, 2017.

Provision for income taxes for the period increased from \$38.0 million (\$39.0 million excluding the impact of restructuring charges) for the year ended December 31, 2016 to \$46.6 million (\$47.5 million excluding the impact of restructuring charges) for the year ended December 31, 2017. The Company's effective tax rate for the year ended December 31, 2017 was 14.2% (12.0% excluding the impact of restructuring charges and non-recurring items including US tax reform) compared with 12.7% (12.7% excluding the impact of restructuring charges) for the year ended December 31, 2016. The Company's effective tax rate is principally a function of the distribution of pre-tax profits in the territories in which it operates.

#### ***Year ended December 31, 2016 compared to year ended December 31, 2015***

Net revenue for the year increased by \$91.5 million, or 5.8%, from \$1,575.0 million for the year ended December 31, 2015 to \$1,666.5 million for the year ended December 31, 2016. Net revenue increased by 6.4% in constant currency, and by 3.2% in constant dollar organic. The increase in net revenues can be explained by both continued organic growth and the additional net revenues from the acquisition of ClinicalRM on September 15, 2016 and the full year impact of the acquisition of MediMedia Pharma Solutions and PMG on February 27, 2015 and December 4, 2015 respectively.

Net revenues from our top five customers were \$744.2 million in 2016 compared to \$774.8 million in 2015, or 45% and 49% respectively. The largest of these customers related to a strategic partnership with a large global pharmaceutical company. Net revenue from this customer contributed 31% of net revenue for the year ended December 31, 2015, compared to 26% of net revenue for the year ended December 31, 2016. The addition of new customer accounts, particularly mid-tier pharma customers and biotech customers have resulted in a reduction in this concentration of revenues from our top five customers.

Net revenue in Ireland decreased by \$19.0 million in 2016, from \$429.6 million for the year ended December 31, 2015 to \$410.6 million for the year ended December 31, 2016. Net revenue in Ireland during the year ended December 31, 2016 decreased by 4.4% compared to an overall increase in Group revenue of 5.8%. Net revenue in Ireland is principally a function of our global transfer pricing model. *See Note 17 Business Segment and Geographical Information for further details.*

Net revenue for Rest of Europe decreased by \$17.3 million or 5.2%, from \$330.5 million for the year ended December 31, 2015 to \$313.2 million for the year ended December 31, 2016. Net revenue in the U.S. increased by \$112.9 million or 17.3%, from \$650.9 million for the year ended December 31, 2015 to \$763.8 million for the year ended December 31, 2016. Net revenues in the U.S. were positively impacted by both continued organic growth and by the acquisition of ClinicalRM on September 15, 2016 and the full year impact of the acquisition of MediMedia Pharma Solutions and PMG on February 27, 2015 and December 4, 2015 respectively. Net revenue in our Rest of World ('Other') region increased by \$15.0 million or 9.1%, from \$163.9 million for the year ended December 31, 2015 to \$178.9 million for the year ended December 31, 2016. Net revenues in non-U.S. dollar operations in this region were impacted by foreign currency translation and the movement in local rates to the U.S. dollar over the comparative year.

Direct costs for the year increased by \$52.3 million, or 5.8%, from \$909.0 million for the year ended December 31, 2015 to \$961.3 million for the year ended December 31, 2016. Direct costs consist primarily of 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 period arose due to an increase in headcount and a corresponding increase in personnel related expenditure of \$59.5 million combined with an increase in laboratory costs of \$4.8 million. These were offset by a decrease in other direct project related costs of \$8.2 million and a decrease in travel related costs of \$3.8 million. As a percentage of net revenue, direct costs, at 57.7%, have remained unchanged for both the year ended December 31, 2015 and the year ended December 31, 2016.

Selling, general and administrative expenses for the year decreased by \$1.1 million, or 0.3%, from \$326.8 million for the year ended December 31, 2015 to \$325.7 million for the year ended December 31, 2016. Selling, general and administrative expenses comprise primarily of compensation, related fringe benefits and share based compensation expense for non-project-related employees, recruitment expenditure, professional service costs, advertising costs and all costs related to facilities and information systems. The movement in selling, general and administration expenses arose primarily from an increase in personnel related expenditure of \$8.3 million, a decrease in facilities and related costs of \$2.9 million and a decrease in general and administrative expenses net of foreign exchange movements of \$6.5 million. As a percentage of net revenue, selling, general and administrative expenses decreased from 20.7% of revenue for the year ended December 31, 2015 to 19.5% of net revenue for the year ended December 31, 2016.

Share based compensation expense recognized during the years ended December 31, 2016 and December 31, 2015 was \$40.3 million and \$33.3 million respectively.

Depreciation expense for the period increased by \$1.9 million, or 4.8%, from \$40.2 million for the year ended December 31, 2015 to \$42.1 million for the year ended December 31, 2016. The depreciation charge reflects investments in facilities, information systems and equipment supporting the Company's continued growth. As a percentage of net revenue, depreciation expense decreased from 2.6% of net revenues for the year ended December 31, 2015 to 2.5% for the year ended December 31, 2016. Amortization expense for the year remained unchanged at \$17.5 million for the year ended December 31, 2015 and the year ended December 31, 2016. The amortization expense represents the amortization of intangible assets acquired on business combinations. The amortization expense for the year includes the acquisition of ClinicalRM on September 15, 2016 and the impact of a full year's amortization for MediMedia Pharma Solutions and PMG which were acquired on February 27, 2015 and December 4, 2015 respectively. These increases were offset by the cessation of amortization on other assets. As a percentage of net revenue, the amortization expense remained unchanged at 1.1% of net revenues for the year ended December 31, 2015 and the year ended December 31, 2016.

During the year ended December 31, 2016 the Company implemented a restructuring plan to improve operating efficiencies resulting in recognition of a restructuring charge of \$8.2 million during 2016. The restructuring plan includes the cost of resource rationalizations in certain areas of the business to improve utilization (resulting in a charge of \$6.2 million), and office consolidation (resulting in the recognition of an onerous lease obligation of \$2.0 million). No restructuring cost was recognized during the year ended December 31, 2015. *See Note 14 to the Audited Consolidated Financial Statements.*

As a result of the above, income from operations increased by \$30.2 million, or 10.7%, from \$281.5 million for the year ended December 31, 2015 to \$311.7 million for the year ended December 31, 2016 (\$38.3 million, or 13.6% excluding restructuring charges). As a percentage of net revenue, income from operations increased from 17.9% of net revenues for year ended December 31, 2015 to 18.7% (19.2% excluding restructuring charges) of net revenues for year ended December 31, 2016.

Income from operations in Ireland increased by 14.3% from \$189.0 million for the year ended December 31, 2015, to \$216.1 million (\$218.3 million excluding the impact of restructuring and other charges) for year ended December 31, 2016. Income from operations in Ireland and other geographic regions are impacted by the Company's global transfer pricing model. Continued strategic investment in personnel and infrastructure together with on-going enhancement of operating processes and the successful leverage of support costs in 2016 has continued to result in a decrease of the proportion of the Group's net revenue used to support other Group entities and a corresponding increase in income from operations in Ireland during 2016.

In the Rest of Europe region, income from operations decreased by \$4.0 million, from \$38.2 million for the year ended December 31, 2015 to \$34.2 million for the year ended December 31, 2016. Excluding restructuring charges recorded, income from operations in the Rest of Europe decreased by \$1.7 million, from \$38.2 million for the year ended December 31, 2015 to \$36.5 million for the year ended December 31, 2016. As a percentage of net revenues income from operations decreased from 11.5% for the year ended December 31, 2015 to 10.9% (11.7% excluding restructuring charges) for the year ended December 31, 2016.

In the U.S. region, income from operations decreased by \$4.0 million or 8.8%, from \$45.3 million for the year ended December 31, 2015 to \$41.3 million for the year ended December 31, 2016. Excluding restructuring charges recorded income from operations in the U.S. decreased by \$0.7 million, from \$45.3 million for the year ended December 31, 2015 to \$44.6 million for the year ended December 31, 2016. As a percentage of net revenues income from operations in the U.S. region decreased from 7.0% for the year ended December 31, 2015 to 5.4% (5.8% excluding restructuring charges) for the year ended December 31, 2016. Net income in the U.S. was also impacted by the increased amortization expense following the recognition of intangible assets on the acquisition of ClinicalRM and PMG. *See Note 4 and Note 5 to the Audited Consolidated Financial Statements.*

In other regions, income from operations increased by \$11.0 million, from \$9.0 million for the year ended December 31, 2015 to \$20.0 million for the year ended December 31, 2016. Excluding restructuring charges recorded income from operations in other regions increased by \$11.4 million, from \$9.0 million for the year ended December 31, 2015 to \$20.4 million for the year ended December 31, 2016. As a percentage of net revenues, income from operations in the other regions increased from 5.5% for the year ended December 31, 2015 to 11.2% (11.4% excluding restructuring charges) for the year ended December 31, 2016.

Interest expense increased from \$4.0 million for the year ended December 31, 2015 to \$13.0 million for the year ended December 31, 2016. This increase primarily reflects the drawdown of the Senior Notes of \$350 million issued in December 2015 resulting in a full year's interest expense in 2016. The interest rate in respect of the Senior Notes is fixed at 3.64% over the five year term of the facility. The cash proceeds (\$4.6 million), representing the realized gain on an interest rate hedge, were received on maturity in November 2015. The realized gain is being amortized to the income statement over the period of the Senior Notes. Interest income increased from \$1.3 million for the year ended December 31, 2015 to \$1.5 million for the year ended December 31, 2016.

Provision for income taxes for the period decreased from \$39.3 million for the year ended December 31, 2015 to \$38.0 million (\$39.0 million excluding the impact of restructuring charges) for the year ended December 31, 2016. The Company's effective tax rate for the year ended December 31, 2016 was 12.7% (12.7% excluding the impact of restructuring charges) compared with 14.1% for the year ended December 31, 2015. The Company's effective tax rate is principally a function of the distribution of pre-tax profits in the territories in which it operates.

## **Liquidity and Capital Resources**

The CRO industry is generally not capital intensive. The Group's principal operating cash needs are payment of salaries, office rents, travel expenditures and payments to investigators. Investing activities primarily reflect capital expenditures for facilities and information systems enhancements, the purchase and sale of short term investments and acquisitions.

Our clinical research and development contracts are generally fixed price with some variable components and range in duration from a few weeks to several years. Revenue from contracts is generally recognized as income on the basis of the relationship between time incurred and the total estimated contract duration or on a fee-for-service basis. The cash flow from contracts typically consists of a small down payment at the time the contract is entered into, with the balance paid in installments over the contract duration in, some cases on the achievement of certain milestones. Therefore, cash receipts do not correspond to costs incurred and revenue recognized on contracts.

## Cash and cash equivalents and net borrowings

	Balance December 31, 2016	Drawn down/ (repaid)	Net cash inflow/ (outflow)	Other non-cash adjustments	Effect of exchange rates	Balance December 31, 2017
\$ in thousands						
Cash and cash equivalents	192,541	0	85,991	0	4,327	282,859
Private placement notes	(348,511)	-		(377)	-	(348,888)
	(155,970)	0	85,991	(377)	4,327	(66,029)

The Company's cash and short term investment balances at December 31, 2017 amounted to \$360.5 million compared with cash and short term investment balances of \$260.6 million at December 31, 2016. The Company's cash and short term investment balances at December 31, 2017 comprised cash and cash equivalents \$282.9 million and short-term investments \$77.6 million. The Company's cash and short term investment balances at December 31, 2016 comprised cash and cash equivalents \$192.5 million and short-term investments \$68.0 million.

On July 27, 2017, a subsidiary of the Company, ICON Clinical Research Limited, acquired Mapi Development SAS ('Mapi'). Mapi is a leading patient-centered health outcomes research and commercialization company. Cash outflows on acquisition were \$144.1 million.

On September 15, 2016, a subsidiary of the Company, ICON US Holdings Inc. acquired Clinical Research Management, Inc. ("ClinicalRM") which resulted in net cash outflows of \$52.4 million (including certain payments made on behalf of ClinicalRM totaling \$9.2 million).

On February 27, 2015, a subsidiary of the Company, ICON Holdings Unlimited Company (formerly ICON Holdings), acquired 100% of the securities of MediMedia Pharma Solutions which resulted in net cash outflows of \$116.0 million. On December 4, 2015, PMG was acquired by ICON Clinical Research LLC a subsidiary of the Company, resulting in net cash outflows of \$65.4 million (see Note 4 of the Financial Statements at Item 19).

On December 15, 2015, ICON Investments Five Unlimited Company issued Senior Notes for aggregate gross proceeds of \$350.0 million in a private placement. The Senior Notes will mature on December 15, 2020. Interest payable is fixed at 3.64%, and is payable semi-annually on the Senior Notes on each June 15 and December 15, which commenced on June 15, 2016. The Senior Notes are guaranteed by ICON plc. In 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 in November 2015 when the interest rate on the Senior Notes was fixed. The interest rate hedge was effective in accordance with Financial Accounting Standards Board ("FASB") ASC 815, "Derivatives and Hedging". The cash proceeds, representing the realized gain on the interest rate hedge, were received on maturity in November 2015.

On July 27, 2015 the Company entered into a 364 day bridge facility for \$350.0 million with two financial institutions. The facility bore interest at LIBOR plus a margin and included certain guarantees and indemnities in favor of the two financial institutions. The bridge facility was repaid in full in December 2015.

On June 30, 2014 the Company entered into a five year committed multi-currency Revolving Credit Facility for \$100.0 million with Citibank, JP Morgan, Santander and Barclays Bank ("Revolving Credit Facility"). Each bank subject to the agreement has committed \$25.0 million to the facility, with equal terms and conditions in place with all institutions. In December 2015 the Revolving Credit Facility was amended to remove certain guarantees. The facility is guaranteed by ICON plc. The facility bears interest at LIBOR plus a margin. There were no amounts drawn down under the Revolving Credit Facility during the year ended December 31, 2017 (\$53.0 million was drawn down during 2016 and fully repaid at December 31, 2016).

Net cash provided by operating activities was \$383.1 million for the year ended December 31, 2017 compared with net cash provided by operating activities of \$259.2 million for the year ended December 31, 2016. The positive cash flow impact of the increase in revenues and underlying profitability of the Company also reflects in part a decrease in revenue outstanding which comprises of accounts receivable and unbilled revenue, less payments on account. The dollar value of these balances and the related number of days' revenue outstanding (i.e. revenue outstanding as a percentage of revenue for the period, multiplied by the number of days in the period) can vary over a study or trial duration. Contract fees are generally payable in installments based on the achievement of certain performance targets or "milestones" (e.g. target patient enrollment rates, clinical testing sites initiated or case report forms completed), such milestones being specific to the terms of each individual contract, while revenues on contracts are recognized as contractual obligations are performed. Days' revenue outstanding can vary therefore due to, amongst others, the scheduling of contractual milestones over a study or trial duration, the achievement of a particular milestone during the period or the timing of cash receipts from customers. A decrease in the number of days' revenue outstanding during a period will result in cash inflows to the Company while an increase in days revenue outstanding will lead to cash outflows. The number of days' revenue outstanding at December 31, 2017 was 49 days compared to 50 days at December 31, 2016.

Net cash used in investing activities was \$177.8 million for the year ended December 31, 2017 compared to net cash used in investing activities of \$74.8 million for the year ended December 31, 2016. Net cash used in the year ended December 31, 2017 arose principally from cash paid for acquisitions of \$144.1 million (excluding cash acquired with subsidiary undertaking of \$19.6 million - see note 4 Business Combinations for further details), capital expenditures of \$44.7 million and the purchase of short-term investments of \$41.7 million offset by the sale of short-term investments of \$33.1 million.

Capital expenditure for the year ended December 31, 2017 amounted to \$44.7 million, and comprised mainly of expenditure on global infrastructure and information technology systems to support the Company's growth. During the year ended December 31, 2017 the Company incurred a net cash outflow of \$8.6 million in respect of the purchase and sale of short-term investments. This compares to receipt of a net \$18.8 million during the year ended December 31, 2016.

Net cash outflow from financing activities amounted to \$119.3 million compared with net cash outflow from financing activities of \$93.7 million for the year ended December 31, 2016. Cash outflows in respect of financing activities includes consideration paid by the Company for share buybacks pursuant to the Company's share repurchase program totalling \$133.1 million in the year-ended December 31, 2017 (see Note 12 Share Capital for further information). During the year ended December 31, 2017, these outflows were offset by cash receipt of \$13.9 million from the exercise of stock options. During the year ended December 31, 2016, cash outflows in respect of financing includes cash payments in respect of the Company's share repurchase program totalling \$110.0 million. These outflows were offset by cash receipts of \$10.2 million from the exercise of stock options and \$6.4 million recognized in relation to the tax benefit from the exercise of these share options. In addition, there was \$53.0 million drawn down and subsequently repaid under the five year committed multi-currency Revolving Credit Facility. In 2016, there was also \$20.0 million drawn down and subsequently repaid by the Company under a one year uncommitted short term revolving credit facility (of \$30.0 million). The facility bears interest at LIBOR plus a margin. No amounts were drawn under this facility at December 31, 2016.

As a result of these cash flows, cash and cash equivalents increased by \$90.3 million for the year ended December 31, 2017 compared to an increased by \$88.6 million for the year ended December 31, 2016.

#### Contractual obligations table

The following table represents our contractual obligations and commercial commitments as of December 31, 2017:

	Payments due by period				
	Total	Less than 1 year	1 to 3 years	3 to 5 years	More than 5 years
	(U.S.\$ in millions)				
Operating lease obligations	166.2	38.1	58.9	32.5	36.7
Senior Notes	350.0	—	350.0	—	—
Interest on Senior Notes	38.2	12.7	25.5	—	—
Current and Non-current tax liabilities	16.4	3.9	3.6	7.7	1.2
Total (U.S.\$ in millions)	\$ 570.8	\$ 54.7	\$ 438.0	\$ 40.2	\$ 37.9

We expect to spend approximately \$50 million in the next twelve months on further investments in information technology, the expansion of existing facilities and the addition of new offices. We believe that we will be able to fund our additional foreseeable cash needs for the next twelve months from cash flow from operations, existing cash balances and funds available under negotiated facilities. In the future, we may consider acquiring businesses to enhance our service offerings and global presence. Any such acquisitions could require additional external financing and we 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 us.

### **Critical Accounting Policies**

The preparation of consolidated financial statements in accordance with generally accepted accounting principles in the United States requires management to make estimates and judgments 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.

We base our estimates and judgments on historical experience and on the other factors that we believe 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 following is a discussion of the accounting policies used by us, which we believe are critical in that they require estimates and judgments by management.

### **Revenue Recognition**

Significant management judgments and estimates must be made and used in connection with the recognition of revenue in any accounting period. Material differences in the amount of revenue in any given period may result if these judgments or estimates prove to be incorrect or if management's estimates change on the basis of development of the business or market conditions. To date there have been no material differences arising from these judgments and estimates.

We earn revenues by providing a number of different services to our clients. These services include clinical trials management, biometric activities, consulting, imaging, contract staffing, informatics and laboratory services. Revenue for services, as rendered, are recognized only after persuasive evidence of an arrangement exists, the sales price is fixed or determinable and collectability is reasonably assured.

Clinical trials management revenue is recognized on a proportional performance method. Depending on the contractual terms, revenue is either recognized on the percentage of completion method, based on the relationship between hours incurred and the total estimated hours of the trial, or on the unit of delivery method. Contract costs equate to the product of labor hours incurred and compensation rates. For the percentage of completion method, the input (effort expended) method has been used to measure progress towards completion as there is a direct relationship between input and productivity. Contract revenue is the product of the aggregated labor hours required to complete the specified contract tasks at the agreed contract rates. Where revenue is recognized on the unit of delivery method, the basis applied is the number of units completed as a percentage of the total number of contractual units.

We recognize biometric revenues on a fee-for-service basis as each unit of data is prepared. Imaging revenue is recognized on a fee-for-service basis recognizing revenue for each image completed. Consulting revenue is recognized on a fee-for-service basis recognizing revenue as each hour of the related service is performed. Contract staffing revenue is recognized on a fee-for-service basis, over the time the related service is performed, or in the case of permanent placement, once the candidate has been placed with the client. Informatics revenue is recognized on a fee-for-service basis. Informatics contracts are treated as multiple element arrangements, with contractual elements comprising license fee revenue, support fee revenue and revenue from software services, each of which can be sold separately. Sales prices for contractual elements are determined by reference to objective and reliable evidence of their sales price. License and support fee revenues are recognized rateably over the period of the related agreement. Revenue from software services is recognized using the percentage of completion method based on the relationship between hours incurred and the total estimated hours required to perform the service.

Laboratory service revenue is recognized on a fee-for-service basis. The Company accounts for laboratory service contracts as multiple element arrangements, with contractual elements comprising laboratory kits and laboratory testing, each of which can be sold separately. Sales prices for contractual elements are determined by reference to objective and reliable evidence of their sales price. Revenues for contractual elements are recognized on the basis of the number of deliverable units completed in the period.

We invoice our customers upon achievement of specified contractual milestones. This mechanism, which allows us to receive payment from our customers throughout the duration of the contract, may not be reflective of revenue earned. We recognize revenues over the period from the awarding of the customer's contract to study completion and acceptance. This requires us to estimate total expected revenue, time inputs, contract costs, profitability and expected duration of the clinical trial. The Company regularly reviews the estimate of total contract time to ensure such estimates remain appropriate taking into account actual contract stage of completion, remaining time to complete and any identified changes to the contract scope. Remaining time to complete depends on the specific contract tasks and the complexity of the contract and can include geographical site selection and initiation, patient enrolment, patient testing and level of results analysis required. While we may routinely adjust time estimates, estimates and assumptions historically have been accurate in all material respects.

If we do not accurately estimate the resources required or the scope of the work to be performed, or do not manage our projects properly within the planned cost or satisfy our obligations under the contracts, this would impact on the fair presentation of our future results.

### **Taxation**

Given the global nature of our business and the multiple taxing jurisdictions in which we operate, the determination of the Company's provision for income taxes requires significant judgments and estimates, the ultimate tax outcome of which may not be certain. Although we believe our estimates are reasonable, the final outcome of these matters may be different than those reflected in our historical income tax provisions and accruals. Such differences could have a material effect on our income tax provision and results in the period during which such determination is made.

Deferred tax assets and liabilities are determined using enacted tax rates for the effects of net operating losses and temporary differences between the book and tax bases of assets and liabilities. In assessing the realizability of deferred tax assets, management considers whether it is more likely than not that some portion or all of the deferred tax assets will not be realized. The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income during the periods in which those temporary differences become deductible. While management considers the scheduled reversal of deferred tax liabilities, projected future taxable income, and tax planning strategies in making this assessment, there can be no assurance that these deferred tax assets may be realizable.

In addition, we are also subject to audits in the multiple taxing jurisdictions in which we operate. These audits can involve complex issues which may require an extended period of time for resolution. Management believe that adequate provisions for income taxes have been made in the financial statements.

### **Impact of New Accounting Pronouncements**

#### ***Impact of new accounting pronouncements adopted during fiscal year-ended December 31, 2017***

Accounting Standards Update ('ASU') 2016-09 '*Improvements to Employee Share-Based Payment Accounting*' was issued in March 2016 which simplifies various aspects related to the accounting and presentation of share-based payments. The amendments require entities to record all tax effects related to share-based payments at settlement or expiration through the income statement and the windfall tax benefit to be recorded when it arises, subject to normal valuation allowance considerations. All tax-related cash flows resulting from share-based payments are required to be reported as operating activities in the statement of cash flows. The effective date of the new standard for public companies is for fiscal years beginning after December 15, 2016, and interim periods within those fiscal years. The Company has applied the modified retrospective approach, as required by the amendment to the standard, in determining the cumulative increase in retained earnings at January 1, 2017. This resulted in the recognition of previously unrecognized excess tax benefits, as a credit to retained earnings, of \$6.7 million. The Company has adopted the cash flow presentation prospectively.

In July 2015, the FASB issued ASU 2015-11, which, for entities that do not measure inventory using the last-in, first-out (LIFO) or retail inventory method, changes the measurement principle for inventory from the lower of cost or market to lower of cost and net realizable value. The ASU also eliminates the requirement for these entities to consider replacement cost or net realizable value less an approximately normal profit margin when measuring inventory. This ASU is effective for public business entities in fiscal years beginning after December 15, 2016. The adoption of ASU 2015-11 did not impact on the financial statements.

In January 2017, the FASB issued ASU 2017-03 'Accounting changes and error corrections and Investments - Equity method and joint ventures: Amendments to SEC paragraphs pursuant to staff announcements at the September 22, 2016 and November 17, 2016 EITF meetings (SEC update)' which incorporates into the FASB Accounting Standards Codification recent SEC guidance about disclosing, under SEC SAB Top 11.M, the effect on financial statements of adopting the revenue, leases, and credit losses standards. The Company has adopted the ASU in its December 31, 2017 financial statements. See the sections following.

In October 2016, the FASB issued ASU 2016-17, 'Consolidation (Topic 810): Interests Held through Related Parties That Are under Common Control', which requires a single decision maker or service provider, in evaluating whether it is the primary beneficiary, to consider on a proportionate basis indirect interests held through related parties under common control. This ASU is effective for public business entities for annual and interim periods in fiscal years beginning after December 15, 2016. The adoption of ASU 2016-17 did not have an impact on the financial statements.

### **Financial statement effects of tax reform**

H.R.1 was enacted on December 22, 2017. The effective date of the law for most provisions is January 1, 2018 however the effects are required to be recognized in December 2017 financial statements. In response, the SEC staff issued SAB 118, which allows registrants to record provisional amounts during a 'measurement period'. See *Note 13 Income Taxes* for assessment of impact of H.R.1 on the December 31, 2017 financial statements.

### **Impact of new accounting pronouncements which will be adopted during fiscal year-ended December 31, 2018**

#### **ASC 606 'Revenue from Contracts with Customers'**

In May 2014, the FASB issued ASU 2014-09, 'Revenue from Contracts with Customers' ("ASU 2014-09"), which provides that an entity should recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. The updated standard will replace most existing revenue recognition guidance in U.S. GAAP when it becomes effective and permits the use of either the retrospective or cumulative effect transition method. To achieve the core principle of the new standard, an entity should apply the following steps: (1) identify the contract(s) with a customer; (2) identify the performance obligations in the contract; (3) determine the transaction price; (4) allocate the transaction price to the performance obligations in the contract; and (5) recognize revenue when (or as) the entity satisfies a performance obligation. Early adoption is permitted for annual periods beginning after December 16, 2016. Subsequent to issuing ASU 2014-09, the FASB issued the following amendments concerning clarification of ASU 2014-09. In March 2016, the FASB issued ASU 2016-08, 'Revenue from Contracts with Customers (Topic 606), Principal versus Agent Considerations (Reporting Revenue Gross versus Net)' ("ASU 2016-08"), which further clarifies the implementation guidance on principal versus agent considerations. The new guidance requires either a retrospective or a modified retrospective approach to adoption. In April 2016, the FASB issued ASU 2016-10, 'Revenue from Contracts with Customers (Topic 606), Identifying Performance Obligations and Licensing' ("ASU 2016-10"), which clarifies the identification of performance obligations and the licensing implementation guidance, while retaining the related principles for those areas. In May 2016, the FASB issued ASU 2016-12, 'Revenue from Contracts with Customers (Topic 606): Narrow-Scope Improvements and Practical Expedients' ("ASU 2016-12"), which provides clarification on assessing the collectability criterion, presentation of sales taxes, measurement date for non-cash consideration and completed contracts at transition.

The updated standard is effective for ICON in the first quarter of the year ending December 31, 2018. ICON has elected to adopt the updated standard using the cumulative effect transition method. Under this transition method, ICON will apply the new standard as of the date of initial application (i.e. January 1, 2018), without restatement of comparative period amounts. ICON will record the cumulative effect of initially applying the new standard (to revenue and cost) as an adjustment to the opening balance of equity at the date of initial application. While we continue to assess all potential impacts of the new standard, we believe the most significant impact relates to our assessment of performance and percentage of completion in respect of our clinical trials service revenue. ICON will apply the requirements of the new standard to those contracts not completed at the date of initial application. The adoption of the new standard is expected to result in a cumulative reduction in shareholder's equity at January 1, 2018 (date of initial application) of an amount in the range of \$40 million to \$80 million reflecting cumulative adjustments to life to date revenue and associated costs. The full impact of adoption of the new standard, including the indirect impact (taxation and cost deferral adjustments) will be finalized in the first quarter of 2018 and is therefore subject to change.



Under current GAAP, the revenue attributable to performance is determined based on both input and output methods of measurement based on the relationship between hours incurred and the total estimated hours of the trial, or on the unit of delivery method. We have evaluated the application of the requirements of ASC 606 to 'recognize revenue when or as the entity satisfies a performance obligation' to its business. We have concluded that under the revised standard, clinical trial service is a single performance obligation satisfied over time i.e. the full service obligation in respect of a clinical trial (including services provided by investigators and other parties) is considered a single performance obligation in respect of the clinical services revenue stream. Promises offered to the customer are not distinct within the context of the contract.

We have also 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) adjusted to reflect historical experience to determine a realizable contract value. Revenue will be recognized as the single performance obligation is satisfied. The progress towards completion for clinical service contracts will be measured on an input measure of progress toward completion based on total project costs (inclusive of third party costs) at each reporting period.

The revised standard includes additional disclosure requirements related to revenue. Our results for the first quarter of the year ended December 31, 2018, being the quarter ended March 31, 2018, will include expanded disclosure in respect of (i) disaggregated revenue disclosures from contracts with customers (ii) separate disclosure of contract assets and liabilities (iii) disclosure of retrospective revenue and (iv) disclosure of the remaining performance obligations by product/service (or backlog).

Due to the complexity of certain of our contracts, the actual revenue recognition treatment required under the new standard for these arrangements may be dependent on contract-specific terms and vary in some instances.

In May 2017, the FASB issued ASU 2017-10 '*Service Concession Arrangements (Topic 853): Determining the Customer of the Operation Services*' which clarifies that the customer in a service concession arrangement is always the grantor.

This ASU is effective at the same time as ASU 2014-09, '*Revenue from Contracts with Customers*' (Topic 606) (the new revenue standard).

- If an entity had early adopted the new revenue standard before this ASU was issued (May 16, 2017), the entity may adopt this ASU on its effective date with certain specific transition provisions.
- If an entity early adopts the new revenue standard after this ASU was issued, the entity must adopt this ASU at the same time as the new revenue standard with certain specific transition provisions.
- An entity may elect to early adopt this ASU before the adoption of the new revenue standard with certain specific transition provisions.

The adoption of the ASU is not expected to have a significant impact on the financial statements.

In January 2017, the FASB issued ASU 2017-01 '*Business combinations - Clarifying the definition of a business*' to provide a new framework for determining whether transactions should be accounted for as acquisitions (or disposals) of assets or businesses. This ASU is effective for public business entities for annual and interim periods in fiscal years beginning after December 15, 2017. The ASU may be early adopted. The adoption of ASU 2017-01 is not expected to have a significant impact on the financial statements.

In March 2017, the FASB issued ASU 2017-07 '*Compensation-Retirement Benefits (Topic 715): Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost*' which requires companies to present the service cost component of net benefit cost in the same line items in which they report compensation cost. Companies will present all other components of net benefit cost outside operating income, if this subtotal is presented. This ASU is effective for public business entities for annual and interim periods in fiscal years beginning after December 15, 2017. The adoption of ASU 2017-07 is not expected to have a significant impact on the financial statements.

In January 2016, the FASB issued ASU 2016-01 '*Financial Instruments - Overall (Subtopic 825-10)*', which will significantly change the income statement impact of equity investments and the recognition of changes in fair value of financial liabilities when the fair value option is elected. The ASU is effective for public business entities for interim and annual periods in fiscal years beginning after December 15, 2017. The adoption of ASU 2016-01 is not expected to have a significant impact on the financial statements.

In March 2016, the FASB issued ASU 2016-04 , '*Recognition of Breakage for Certain Prepaid Stored-Value Products*', which allows entities to recognize breakage on prepaid stored-value products consistent with how breakage is recognized under the new revenue standard. The exception applies to prepaid stored-value products in physical or digital form, with stored monetary values that are redeemable for goods and services, including those that can be redeemed for cash (e.g., prepaid gift cards issued on a specific payment network and redeemable at network-accepting merchant locations, prepaid telecommunication cards, and traveler's checks). The ASU is effective for public business entities for interim and annual periods in fiscal years beginning after December 15, 2017. The adoption of ASU 2016-04 is not expected to have a significant impact on the financial statements.

In August 2016, the FASB issued ASU 2016-15, '*Classification of Certain Cash Receipts and Cash Payments*', which addresses eight classification issues related to the statement of cash flows:

- Debt prepayment or debt extinguishment costs;
- Settlement of zero-coupon bonds;
- Contingent consideration payments made after a business combination;
- Proceeds from the settlement of insurance claims;
- Proceeds from the settlement of corporate-owned life insurance policies, including bank-owned life insurance policies;
- Distributions received from equity method investees;
- Beneficial interests in securitization transactions; and
- Separately identifiable cash flows and application of the predominance principle.

The ASU is effective for public business entities for interim and annual periods in fiscal years beginning after December 15, 2017. The adoption of ASU 2016-15 is not expected to have a significant impact on the financial statements. Any contingent consideration payment arrangements arising on business combinations effected in the future will be reviewed for cash flow statement classification in line with ASU 2016-15.

In October 2016, the FASB issued ASU 2016-16, '*Income Taxes (Topic 740): Intra-Entity Transfers of Assets Other Than Inventory*', which requires entities to recognize at the transaction date the income tax consequences of intercompany asset transfers other than inventory. This ASU is effective for public business entities for annual and interim periods in fiscal years beginning after December 15, 2017. For all other entities, the ASU is effective for annual periods in fiscal years beginning after December 15, 2018, and interim periods in fiscal years beginning after December 15, 2019. The adoption of ASU 2016-16 is not expected to have a significant impact on the financial statements.

In November 2016, the FASB issued ASU 2016-18, '*Statement of Cash Flows (Topic 230): Restricted Cash*', which requires companies to include cash and cash equivalents that have restrictions on withdrawal or use in total cash and cash equivalents on the statement of cash flows. This ASU is effective for public business entities for annual and interim periods in fiscal years beginning after December 15, 2017. For all other entities, the ASU is effective for annual periods in fiscal years beginning after December 15, 2018, and interim periods in fiscal years beginning after December 15, 2019. The adoption of ASU 2016-18 is not expected to have a material impact on the financial statements.

#### ***Impact of other new accounting pronouncements which will be adopted in periods subsequent to fiscal 2018***

In January 2017, the FASB issued ASU 2017-04 '*Intangibles - Goodwill and Other: Simplifying the test for goodwill impairment*' which requires an entity to no longer perform a hypothetical purchase price allocation to measure goodwill impairment. Instead, impairment will be measured using the difference between the carrying amount and the fair value of the reporting unit. The ASU is effective for public businesses, that are SEC filers, for annual and interim periods in fiscal years beginning after December 15, 2019. The adoption of ASU 2017-04 is not expected to have a significant impact on the financial statements.

In February 2017, the FASB issued ASU 2017-05 '*Other Income-Gains and Losses from the Derecognition of Nonfinancial Assets (Subtopic 610-20): Clarifying the Scope of Asset Derecognition Guidance and Accounting for Partial Sales of Nonfinancial Assets*'. In February 2017, the FASB issued ASU 2017-05, which clarifies the guidance in Subtopic 610-20 on accounting for derecognition of a nonfinancial asset. The ASU also defines in-substance nonfinancial assets and includes guidance on partial sales of non-financial assets. The adoption of ASU 2017-05 is not expected to have an impact on the financial statements.

In July 2017, the FASB issued ASU 2017-11 'Earnings Per Share (Topic 260); Distinguishing Liabilities from Equity (Topic 480); Derivatives and Hedging (Topic 815): (Part I) Accounting for Certain Financial Instruments with Down Round Features, (Part II) Replacement of the Indefinite Deferral for Mandatorily Redeemable Financial Instruments of Certain Nonpublic Entities and Certain Mandatorily Redeemable Noncontrolling Interests with a Scope Exception' under which down round features will not cause certain equity-linked financial instruments to be accounted for as derivatives. A company that presents EPS information will reflect the effect of a down round feature of free-standing equity-linked financial instruments in EPS only if it is triggered. The ASU is effective for public business entities, for annual and interim periods in fiscal years beginning after December 15, 2018. The adoption of the ASU is not expected to have a significant impact on the financial statements.

In May 2017, the FASB issued ASU 2017-09, ASU 2017-09 'Compensation- Stock Compensation (Topic 718): Scope of Modification Accounting which clarifies what constitutes a modification of a share-based payment award'.

This ASU is effective for all entities for annual and interim periods in fiscal years beginning after December 15, 2017. The adoption of the ASU is not expected to have a significant impact on the financial statements.

In August 2017, the FASB issue ASU 2017 - 12 'Derivatives and Hedging (Topic 815): Targeted Improvements to Accounting for Hedging Activities' which changes the recognition and presentation requirements of hedge accounting, including:

- Eliminating the requirement to separately measure and report hedge ineffectiveness; and
- Presenting all items that affect earnings in the same income statement line item as the hedged item.

The ASU also provides new alternatives for:

- Applying hedge accounting to additional hedging strategies;
- Measuring the hedged item in fair value hedges of interest rate risk;
- Reducing the cost and complexity of applying hedge accounting by easing the requirements for effectiveness testing, hedge documentation and application of the critical terms match method; and
- Reducing the risk of material error correction if a company applies the shortcut method inappropriately.

This ASU is effective for public business entities, for annual and interim periods in fiscal years beginning after December 15, 2018. Early adoption is permitted any time after the issuance of the ASU, including in an interim period. If adopted at other than the beginning of a fiscal year, cumulative effect adjustments are reflected as of the beginning of the fiscal year. The adoption of the ASU is not expected to have a significant impact on the financial statements.

In February 2016, the FASB issued ASU 2016-02, 'Leases', requiring lessees to recognize a right-of-use asset and a lease liability on the Consolidated Balance Sheet for all leases with the exception of short-term leases. For lessees, leases will continue to be classified as either operating or finance leases in the income statement. Lessor accounting is similar to the current model but updated to align with certain changes to the lessee model. Lessors will continue to classify leases as operating, direct financing or sales-type leases. The effective date of the new standard for public companies is for fiscal years beginning after December 15, 2018 and interim periods within those fiscal years. Early adoption is permitted. The new standard must be adopted using a modified retrospective transition and requires application of the new guidance at the beginning of the earliest comparative period presented. The updated standard is effective for us beginning in the first quarter of the year-ended December 31, 2019. See 'Note 16 - Commitments and Contingencies' for details of operating leases held during year-ended December 31, 2017. A lease liability and right-of-use asset will be recorded on the Consolidated Balance Sheet at December 31, 2019 and comparative periods will be restated to reflect the lease liabilities and right-of-use assets.

In June 2016, the FASB issued ASU 2016-13, 'Measurement of Credit Losses on Financial Instruments', which significantly changes the way entities recognize impairment of many financial assets by requiring immediate recognition of estimated credit losses expected to occur over their remaining life. The ASU is effective for public business entities that are SEC filers for interim and annual periods in fiscal years beginning after December 15, 2019. The adoption of ASU 2016-13 is not expected to have a significant impact on the financial statements.

## **Inflation**

We believe that the effects of inflation generally do not have a material adverse impact on our operations or financial conditions.

## Item 6. Directors, Senior Management and Employees.

### Directors and Senior Management

The following table and accompanying biographies set forth certain information concerning each of ICON plc's Directors, officers and other key employees as of February 28, 2018.

Name	Age	Position
Ciaran Murray (1)	55	Executive Chairman and Director
Dr. Steve Cutler (1) (5)	57	Chief Executive Officer and Director
Brendan Brennan (1)(5)	39	Chief Financial Officer
Declan McKeon (2)(3)(4)(5)	66	Lead Independent Director
Dr. John Climax	65	Director
Dr. Ronan Lambe	78	Director
Professor Dermot Kelleher (3)	62	Director
Professor William Hall (2)(3)(4)	68	Director
Mary Pendergast (2)	67	Director
Professor Hugh Brady	58	Director
Ronan Murphy (2)(3)(4)	60	Director
Eugene McCague	59	Director
Joan Garahy	55	Director
Diarmaid Cunningham	43	Chief Administrative Officer, General Counsel, Executive Vice President & Company Secretary

(1) Executive Officer of the Company.

(2) Member of Compensation and Organization Committee.

(3) Member of Audit Committee.

(4) Member of Nominating and Governance Committee.

(5) Member of Execution Committee.

*Ciaran Murray* was appointed as the Executive Chairman of ICON plc in March 2017, having previously served as Chief Executive Officer from October 2011. In February 2018, the Board approved the appointment of Mr. Murray as non-Executive Chairman of ICON plc with effect from May 12, 2018. Mr. Murray joined ICON as Chief Financial Officer in 2005 and served in that capacity until his appointment as Chief Executive Officer. Mr. Murray is an executive with 36 years of leadership experience forged from a career spent operating in global markets in high-growth entrepreneurial companies and blue-chip multi-nationals, including PwC Ireland, Kraft Foods, Novell Inc., Northern Foods and Codec Systems. Mr. Murray has also played a leadership role in advocating for safe, ethical high-quality research through his 2014 Chairmanship of the Association of Clinical Research Organisations (ACRO). ACRO represents the CRO industry globally to key stakeholders including pharmaceutical, biotech and medical device companies, regulators, legislators and patient groups. In 2014, Mr. Murray was named as a leader in CRO Innovation by PharmaVOICE100, a listing of the most influential people in the bio pharma industry. Mr. Murray graduated with a Bachelor of Commerce degree from University College Dublin and he is a Fellow of the Institute of Chartered Accountants in Ireland. He was awarded an Honorary Degree of Doctor of Laws from University College Dublin in 2013 for his support of third level research and innovation in Ireland.

*Dr. Steve Cutler* was appointed Chief Executive Officer of ICON plc in March 2017, having previously been Chief Operating Officer from January 2014. Dr. Cutler served as Group President Clinical Research Services since November 2011 until his appointment as Chief Operating Officer. Dr. Cutler was appointed to the Board of ICON plc in November 2015. Prior to joining the Company Dr. Cutler held the position of Chief Executive Officer of Kendle, having previously served as Chief Operating Officer. Prior to Kendle, Dr. Cutler spent 14 years with Quintiles where he served as Senior Vice President, Global Project Management; Senior Vice President, Clinical, Medical and Regulatory; Senior Vice President, Project Management - Europe; and Vice President, Oncology - Europe, as well as regional leadership positions in South Africa and Australia. Prior to joining Quintiles, Dr. Cutler held positions with Sandoz (now Novartis) in Australia and Europe. Dr. Cutler holds a B.Sc. and a Ph.D from the University of Sydney and a Masters of Business Administration from the University of Birmingham (UK).

*Declan McKeon* has served as an outside Director of the Company since April 2010 and served as acting Chairman from April 2016 until March 2017. He was appointed as Lead Independent Director in March 2017. Mr. McKeon was a partner in PwC Ireland from 1986 to 2007. His roles included leadership of the audit and business advisory team for PwC Ireland, membership of the PwC Europe audit and business advisory services executive and market sector leader for consumer and industrial products. Mr. McKeon is a non-executive Director of Ryanair plc. Mr. McKeon holds a Bachelor of Commerce and Masters in Business Studies from University College Dublin and is a Fellow of The Institute of Chartered Accountants in Ireland.

*Brendan Brennan* has served as Chief Financial Officer since February 2012. Mr. Brennan joined ICON in 2006 and he has served in a number of senior finance roles in the Company including the role of Senior Vice President of Corporate Finance. Prior to this he developed his broad financial experience in Cement Roadstone Holdings, a major Irish building materials organization. Mr. Brennan qualified as a chartered accountant with PwC Ireland and obtained a bachelor's degree in Accounting and Finance from Dublin City University.

*Dr. John Climax*, one of the Company's co-founders, served as Chairman of the Board of the Company from November 2002 to December 2009, and Chief Executive Officer from June 1990 to October 2002. From January 2010 he has held a position as an outside Director of the Company. Dr. Climax has over 25 years of experience in the clinical research industry. Dr. Climax is the Executive Chairman of DS Biopharma Limited. Dr. Climax received his primary degree in pharmacy in 1977 from the University of Singapore, his masters in applied pharmacology in 1979 from the University of Wales and his Ph.D. in pharmacology from the National University of Ireland in 1982. He has authored a significant number of papers and presentations, and holds adjunct professorship at the Royal College of Surgeons of Ireland and an honorary professorship at the National University of Singapore. He is currently Executive Chairman of DS Biopharma and CEO of Afimmune, both of which are private companies.

*Dr. Ronan Lambe*, one of the Company's co-founders, served as Chairman of the Board of the Company from June 1990 to November 2002. He has served as an outside Director of the Company since January 2008. Dr. Lambe has over 30 years of experience in the clinical research industry. Dr. Lambe attended the National University of Ireland where he received his Bachelor of Science degree in chemistry in 1959, his masters in biochemistry in 1962 and his Ph.D. in pharmacology in 1976.

*Professor Dermot Kelleher* has served as an outside Director of the Company since May 2008. Professor Kelleher is currently Dean of the Faculty of Medicine at the University of British Columbia in Vancouver. From 2012 to 2015 he was Vice President (Health) and Dean of the Faculty of Medicine at Imperial College London and concurrently Dean of the Lee Kong Chian School of Medicine in Singapore from 2012 to 2014. From 2004 to 2012 he was Head of the School of Medicine and Vice Provost for Medical Affairs at Trinity College, Dublin, Ireland where he led the development of the Institute of Molecular Medicine and Molecular Medicine Ireland. Professor Kelleher's research interests have focused on immunology of gastrointestinal infection, cancer and inflammatory diseases and over a distinguished thirty year career he has led significant research projects in this field. He is a Fellow of the Academy of Medical Sciences. Alongside his notable academic appointments, Professor Kelleher has been President of the Federation of European Academies of Medicine, has served as a visiting research scientist with a major pharmaceutical company and has been a founder of a number of biotechnology companies.

*Professor William Hall* has served as an outside Director of the Company since February 2013. He is a renowned expert in infectious diseases and virology. He currently serves as Distinguished Professor in Hokkaido University in Japan and is Professor Emeritus of Medical Microbiology and the Centre for Research in Infectious Diseases at University College Dublin's (UCD) School of Medicine and Medical Science. He is also Executive Chairman of the UCD National Virus Reference Laboratory and is a Consultant Microbiologist at St. Vincent's University Hospital Dublin. Professor Hall also serves as a consultant to the Minister of Health and Children in the Republic of Ireland, providing input on a range of topics including influenza pandemic preparedness and bioterrorism. Prior to his tenure at UCD, Professor Hall was Professor and Head of the Laboratory of Medical Virology, Senior Physician and Director of the Clinical Research Centre at the Rockefeller University in New York. He previously served as an Assistant and Associate Professor of Medicine at Cornell University. Professor Hall is a Board member of The Atlantic Philanthropies and is a co-founder of the Global Virus Network.

*Mary Pendergast* has served as an outside Director of the Company since February 2014. Ms. Pendergast is an expert in the regulatory aspects of drug development and is President of Pendergast Consulting, a consulting firm that advises biopharmaceutical companies, patient groups, professional and advocacy organisations, governments and academic and financial institutions. Prior to founding her own firm, Ms. Pendergast was Executive Vice President of Government Affairs at Elan Corporation plc from 1998 to 2003. Ms. Pendergast also spent more than 18 years at the US Food and Drug Administration (FDA), serving as Deputy Commissioner and Senior Advisor to the FDA Commissioner and Associate Chief Counsel for Enforcement. Ms. Pendergast is also a board member of Impax Laboratories, Inc.

*Professor Hugh Brady* has served as an outside Director of the Company since April 2014. In September 2015, Professor Brady took up the position of President and Vice-Chancellor of the University of Bristol - a member of the UK's Russell Group of elite research-intensive universities. Professor Brady is also President Emeritus of University College Dublin (UCD), where he served as President from 2004 until the end of 2013. During his tenure Professor Brady oversaw a major institution-wide transformation program that included significant expansion of UCD's science, engineering and biomedical research capacity through the development of the O'Brien Centre for Science, Conway Institute for Biomedical Research, UCD Clinical Research Centre, the Dublin Academic Medical Centre and the Ireland East Hospital Group. In addition, he led a major growth in UCD's international footprint. A nephrologist by training, Professor Brady was Professor of Medicine and Therapeutics at UCD before being appointed the university's President. Prior to that, he built a successful career as a physician and biomedical research scientist in the US - spending almost a decade at Harvard University where he was Associate Professor of Medicine, Director of the Renal Division of the Brockton/West Roxbury VA Medical Center and Consultant Physician at the Brigham and Women's Hospital, Boston. He has an international reputation in the pathogenesis of diabetic kidney disease and renal inflammation. Professor Brady has held many national and international leadership roles, including Chairman of the Irish Health Research Board and Chairman of the Universitas 21 Network of global research universities. He is also a non-executive Director of Kerry Group plc.

*Ronan Murphy* has served as an outside Director of the Company since October 2016. Mr. Murphy is the former Senior Partner of PwC Ireland, Ireland's largest professional services firm. Mr. Murphy was elected Senior Partner in 2007 and was re-elected for a further four year term in 2011. Following completion of the maximum two terms, Mr. Murphy retired from the firm in 2015. Mr. Murphy was also a member of the PwC EMEA Leadership Board for a five year period from 2010 to 2015. Mr. Murphy joined PwC in 1980 and was admitted to the Partnership in 1992. As an Assurance Partner, he served clients across a number of sectors. In 1995, Mr. Murphy joined the firm's leadership team and held a number of operational leadership roles, prior to being appointed as Partner in Charge of the Firm's Assurance Practice in 2003, a position he held for four years prior to his appointment as Senior Partner. Mr. Murphy is presently Chairman of Greencoat Renewables PLC and a non-executive director of Davy Stockbrokers and of Liberty Insurance's operations in Ireland. Mr. Murphy currently serves as a Board Member of the UCD Michael Smurfit Business School, as a council member of the ESRI and as Chair of Business in the Community Ireland. He is also a founding Board Member of the British Irish Chamber of Commerce. Mr. Murphy completed a Bachelor of Commerce and Masters in Business Studies at University College Dublin before qualifying as a chartered accountant in 1982.

*Eugene McCague* was appointed as an outside Director of the Company in October 2017. Mr. McCague was a corporate partner of Arthur Cox, one of Ireland's premier law firms, from 1988 until June 2017. During his time with Arthur Cox, Mr. McCague served as both managing partner and chairman of Arthur Cox and also advised a wide range of public and private companies on mainstream corporate work, mergers and acquisitions, corporate restructurings and corporate governance. In addition to his distinguished legal career, Mr. McCague also has extensive board experience with commercial, government and educational organizations. Mr. McCague currently serves on the board of FLY Leasing Limited, an aircraft leasing company listed on the New York Stock Exchange, and on the board of the Irish branch of AON Insurance. He also serves as chairman of the governing authority of University College Dublin. Mr. McCague's previous board roles include the Health Service Executive, the Irish state body which administers public health service in Ireland, chairman of the governing body of Dublin Institute of Technology and chairman of the Dublin Institute of Technology Foundation. Mr. McCague was also president of the Dublin Chamber of Commerce in 2006. Mr. McCague holds a Bachelor of Civil Law degree and a diploma in European Law from University College Dublin.

*Joan Garahy* was appointed as an outside Director of the Company in November 2017. Ms. Garahy is the managing director of ClearView Investment & Pensions Limited, a financial advisory company. Ms. Garahy is also a non-executive director of both Kerry Group plc and Irish Residential Properties REIT plc. Ms. Garahy's previous executive roles include founder and managing director of HBCL Investment & Pensions Ltd, director of investments at HC Financial Services Group, head of research at the Irish National Pension Reserve Fund, head of research at Hibernian Investment Managers and her equity analyst roles with Goodbody Stockbrokers and NCB Group. Ms. Garahy was also previously a non-executive director of Galway University Foundation and she is currently a member of the board of The Irish Chamber Orchestra. Ms. Garahy holds a Bachelor of Science degree from University College Galway and a Master of Science from University College Dublin.

*Diarmaid Cunningham* is Chief Administrative Officer, General Counsel, Executive Vice President and Company Secretary. Mr. Cunningham joined the Company as General Counsel in November 2009 and was appointed Company Secretary in October 2011. In July 2016, Mr. Cunningham's role expanded to include Chief Administrative Officer in addition to General Counsel. Mr. Cunningham spent 10 years with A&L Goodbody, one of Ireland's premier corporate law firms, prior to joining the Company. Mr. Cunningham graduated with a Bachelor of Business and Legal Studies from University College Dublin in 1997 and qualified as a lawyer with A&L Goodbody in 2001. In 2015, Mr. Cunningham completed the Stanford Executive Program at Stanford University in California. Mr. Cunningham served as Secretary to the Board of the Association of Clinical Research Organizations (ACRO) in 2013 and 2014. ACRO represents the CRO industry globally to key stakeholders including pharmaceutical, biotech and medical device companies, regulators, legislators and patient groups.

## Board Practices

### *Board of Directors*

The business of the Company is managed by the Directors who may exercise all the powers of the Company which are not required by the Companies Act 2014 of Ireland or by the Articles of Association of the Company to be exercised by the Company in general meeting. A meeting of Directors at which a quorum is present may exercise all powers exercisable by the Directors. The Directors may delegate (with power to sub-delegate) to any Director holding any executive office and to any Committee consisting of one or more Directors, together with such other persons as may be appointed to such Committee by the Directors, provided that a majority of the members of each Committee appointed by the Directors shall at all times consist of Directors and that no resolution of any such Committee shall be effective unless two of the members of the Committee present at the meeting at which it was passed are Directors.

The Board comprises two executive and ten outside Directors at the date of this report. The outside Directors bring independent judgment to bear on issues of strategy, performance, resources, key appointments and standards. The Company considers all of its outside Directors to be of complementary skills, experience and knowledge and each outside Director has specific skills, experience and knowledge that are valuable to the Company. The Board members between them have very strong financial, pharmaceutical, CRO, scientific, medical and other skills and knowledge which are harnessed to address the challenges facing the Group. The Board meets regularly throughout the year and all Directors have full and timely access to the information necessary for them to discharge their duties. The Directors have access to the advice and services of the Company Secretary and may seek external independent professional advice where required. The Board considers its current size (12 Directors) to be adequate but continues to look for suitable qualified potential candidates to join the Board.

As set out below, certain other matters are delegated to Board Committees and all Board Committees report to the Board. The Company maintains what it considers an appropriate level of insurance cover in respect of legal action against its Directors. The Board, through the Nominating and Governance Committee, engages in succession planning for the Board and in so doing considers the strength and depth of the Board and the levels of knowledge, skills and experience of the Directors necessary for the Company to achieve its objectives. The Board meets at least four times each year. During the year ended December 31, 2017 the Board held ten board meetings. All Directors allocated sufficient time to the Company during the year ended December 31, 2017 to effectively discharge their responsibilities to the Company.

### *Directors' retirement and re-election*

The Company's Articles of Association provide that, unless otherwise determined by the Company at a general meeting, the number of Directors shall not be more than 15 nor less than 3. At each annual general meeting, one third of the Directors who are subject to retirement by rotation, rounded down to the next whole number if it is a fractional number, shall retire from office. The Directors to retire shall be those who have been longest in office, but as between persons who became or were last re-appointed on the same day, those to retire shall be determined, unless otherwise agreed, by lot. Any additional Director appointed by the Company shall hold office until the next annual general meeting and will be subject to re-election at that meeting. Accordingly, at the annual general meeting of the Company to be held in 2018, it is anticipated that five Directors will retire in accordance with the Articles of Association and offer themselves for re-election.

### *Lead Independent Director*

The Board of Directors adopted a Lead Independent Director Charter on February 14, 2017 which provides that in circumstances where the Chairman of the Board is not independent, the independent members of the Board of Directors shall appoint, from among their number, a Lead Independent Director. The Lead Independent Director shall generally assist in optimizing the effectiveness and independence of the Board of Directors by performing such duties as described in the charter, on behalf of the Board of Directors, including coordinating the meetings of the other non-employee and independent directors, and such other duties as determined from time to time by the Board of Directors and/or its independent members. On March 1, 2017, Mr. Ciaran Murray transitioned from his role as Chief Executive Officer to the role of Executive Chairman of the Board of Directors and Dr. Steve Cutler was appointed as Chief Executive Officer. As a part of this transition, Mr. Declan McKeon stepped down as Acting Chairman of the Board of Directors and was appointed to the position of Lead Independent Director on March 1, 2017.

### *Board committees*

The Board has delegated some of its responsibilities to Board Committees. There are four permanent Committees. These are the Audit Committee, the Compensation and Organization Committee, the Nominating and Governance Committee and the Execution Committee. The Quality Committee was retired by the Board on April 25, 2017. Each Committee has been charged with specific responsibilities and each has written terms of reference that are reviewed periodically. Minutes of Committee meetings are available to all members of the Board. The Company Secretary is available to act as secretary to each of the Board Committees if required. Appropriate key executives are regularly invited to attend meetings of the Board committees. The Audit Committee, Compensation and Organization Committee and Nominating and Governance Committee each completed a self-evaluation of the performance of the committee during the year ended December 31, 2017 and each committee was satisfied with their performance.

### *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 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. The Audit Committee is currently comprised of four independent Directors: Declan McKeon (Chairman), Professor Dermot Kelleher, Professor William Hall, and Ronan Murphy.

### *Compensation and Organization Committee*

The Compensation and Organization Committee is responsible for senior executive remuneration. The committee aims to ensure that remuneration packages are competitive so that individuals are appropriately rewarded relative to their responsibility, experience and value to the Company. Annual bonuses for the executive Directors and senior executive management are determined by the committee based on the achievement of the Company's objectives. The Committee also oversees succession planning for the Company's senior management. The Compensation and Organization Committee is currently comprised of the following independent Directors: Ronan Murphy (Chairman), Professor William Hall, Declan McKeon, and Mary Pendergast.

### *Nominating and Governance Committee*

The Nominating and Governance Committee reviews the membership of the Board of the Company and Board committees on an ongoing basis. As part of this it regularly evaluates the balance of skills, knowledge and experience on the Board and then, based on this evaluation, identifies and, if appropriate, recommends individuals to join the Board of the Company. The Committee uses an external search consultant as needed to assist it in identifying potential new outside Directors. Once potential suitable candidates are identified either by the external search consultants or by members of the Nominating and Governance Committee, the Committee then discusses and considers the skills, knowledge and experience of the potential candidate. The Committee will assess if the Board of the Company requires and would benefit from the potential candidate's skills, knowledge and experience and, if it decides the potential candidate is suitable, the Committee would recommend to the Board of the Company that the potential candidate be appointed. The Board of the Company then decides whether or not to appoint the candidate. The Committee considers diversity of the Board members when making recommendations to the Board of the Company. The Nominating and Governance Committee currently comprises of the following independent Directors: Professor William Hall (Chairman), Declan McKeon and Ronan Murphy.

### *Execution Committee*

The primary function of the Execution Committee is to exercise the powers and authority of the Board in intervals between meetings of the Board within the limits set out in the Charter of the Execution Committee. The Execution Committee exercises business judgment to act in what the committee members reasonably believe to be in the best interest of the Company and its shareholders. All powers exercised by the Execution Committee are ratified at board meetings. This Committee convenes as often as it determines to be necessary or appropriate. The Execution Committee is currently comprised of the following Directors and Officer: Steve Cutler (Chairman), Declan McKeon, and Brendan Brennan. On March 1, 2017 Steve Cutler joined the Execution Committee as Chairman. Ciaran Murray retired as a member of the Execution Committee on April 25, 2017.



### Quality Committee

The purpose of the Quality Committee was to provide oversight of the quality strategy and initiatives in place within the Company. The Quality Committee was retired by the Board on April 25, 2017. Matters that were in the remit of the Quality Committee are dealt with by the Board or delegated to the other committees where appropriate. During 2017 up to its retirement in April, the Quality Committee was comprised of the following Directors: Professor Dermot Kelleher (Chairman), Dr. John Climax (Vice Chairman), Dr. Ronan Lambe, Professor William Hall, and Mary Pendergast.

### Attendance at Board and Committee meetings

Attendance at Board and committee meetings by the Directors who held office during 2017 are set out as follows:

#### Directors' Attendance Table

	Board	Audit	Compensation and Organization	Nominating and Governance	Execution	Quality (4)
<b>Director</b>	<b>Number of meetings attended / number of meetings eligible to attend as a Director</b>					
Ciaran Murray	10/10	—	—	—	—	—
Dr. Steve Cutler	10/10	—	—	—	—	—
Declan McKeon (1)	9/10	4/4	3/3	6/6	—	—
Dr. John Climax (1)	10/10	—	-	—	—	1/1
Dr. Ronan Lambe (1)	10/10	—	—	—	—	1/1
Prof. Dermot Kelleher (1)	10/10	4/4	—	—	—	1/1
Prof. William Hall (1)	10/10	3/4	3/3	6/6	—	1/1
Mary Pendergast (1)	10/10	—	3/3	—	—	1/1
Prof. Hugh Brady (1)	9/10	—	—	—	—	—
Ronan Murphy (1)	9/10	4/4	3/3	6/6	—	—
Eugene McCague (1) (2)	2/2	—	—	—	—	—
Joan Garahy (1) (3)	1/1	—	—	—	—	—

- (1) Independent Director as defined under NASDAQ Rule 5605(a)(2).
- (2) Mr. Eugene McCague was appointed as a Director on October 3, 2017.
- (3) Ms. Joan Garahy was appointed as a Director on November 16, 2017.
- (4) The Quality Committee was retired on April 25, 2017.

### Executive Officers and Directors Remuneration

#### Compensation Discussion & Analysis

##### Remuneration policy

The Compensation and Organization Committee seeks to achieve the following goals with the Company's executive compensation programs: 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 program 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 Organization Committee based on the achievement of the Group's and individual performance objectives. Base salary, bonus awards and Directors' fees were determined by the Compensation and Organization Committee in USD or euro. In certain instances these awards were paid at a fixed euro rate determined by the Compensation and Organization Committee.

#### *Outside Directors' remuneration*

Outside Directors are remunerated by way of Directors' fees and are also eligible for participation in the share option scheme. During 2017, each Outside Director (excluding the Board Chairman) was paid an annual retainer of \$65,000 and additional fees for Board Committee service.

During 2017, Mr. Declan McKeon served as Acting Chairman of the Board until March 2017. The agreement with the Acting Chairman of the Board provided for payment of €300,000 (translated at average rate for the year: \$336,870) annually. Mr. McKeon did not receive additional payment for Board Committee service during the period that he served as Acting Chairman. In March 2017, Mr. McKeon was appointed Lead Independent Director and receives an additional fee of \$25,000 for this role.

Outside Directors are not eligible for performance related bonuses and no pension contributions are made on their behalf. The Compensation and Organization 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 capitalization and peer CRO companies, adjusted upward or downward based on individual performance and experience and level of responsibility. The Compensation and Organization 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 ranging from 30% to 110% of salary based on group and individual performance.

A total bonus of \$1.9 million was awarded to the following individuals; Mr. Ciaran Murray, Executive Chairman and former Chief Executive Officer (\$0.3 million), Dr. Steve Cutler Chief Executive Officer and former Chief Operating Officer (\$1.2 million) and Mr. Brendan Brennan Chief Financial Officer (\$0.4 million) to reflect their contribution to the performance of the Company during 2017. These amounts were approved by the Compensation and Organization Committee and will be paid during the year-ended December 31, 2018.

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 applicable 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. The Company's contributions are determined at the peer group median of comparable Irish companies and peer CRO companies. Contributions to this plan are recorded as an expense in the Consolidated Statement of Operations.

#### *Third party Agreements and Arrangements*

ICON has not identified any arrangements or agreements relating to compensation or other payments provided by a third party to ICON's directors or director nominees in connection with their candidacy or board service as required to be disclosed pursuant to NASDAQ Rule 5250(b)(3).

**Executive Compensation**
**Summary compensation table - Year ended December 31, 2017**

Name & principal position	Year	Salary	Bonus	Pension contribution	All other compensation	Subtotal	Share-based compensation	Director's Fees	Total compensation
		\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Ciaran Murray Executive Chairman and former Chief Executive Officer	2017	1,119	339	140	35	1,633	5,903	—	7,536
Dr. Steve Cutler Chief Executive Officer and former Chief Operating Officer	2017	1,045	1,210	110	235	2,600	4,453	37	7,090
Brendan Brennan, Chief Financial Officer	2017	525	393	66	26	1,010	1,503	—	2,513
<b>Total</b>	<b>2017</b>	<b>2,689</b>	<b>1,942</b>	<b>316</b>	<b>296</b>	<b>5,243</b>	<b>11,859</b>	<b>37</b>	<b>17,139</b>

**Summary compensation table - Year ended December 31, 2016**

Name & principal position	Year	Salary	Bonus	Pension contribution	All other compensation	Subtotal	Share-based compensation	Director's Fees	Total compensation
		\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Ciaran Murray, Chief Executive Officer	2016	1,307	623	163	39	2,132	8,596	—	10,728
Brendan Brennan, Chief Financial Officer	2016	516	191	65	26	798	1,639	—	2,437
Dr. Steve Cutler Chief Operating Officer	2016	790	318	165	54	1,327	4,503	—	5,830
<b>Total</b>	<b>2016</b>	<b>2,613</b>	<b>1,132</b>	<b>393</b>	<b>119</b>	<b>4,257</b>	<b>14,738</b>	<b>—</b>	<b>18,995</b>

## Director Compensation

### Summary compensation table - Year ended December 31, 2017

Name	Year	Salary	Company pension contribution	All other compensation	Subtotal	Share-based compensation	Director's fees	Total Compensation
		\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Ciaran Murray *	2017	1,119	140	374	1,633	5,903	—	7,536
Declan McKeon**	2017	—	—	—	—	137	169	306
John Climax	2017	—	—	—	—	137	69	206
Ronan Lambe	2017	—	—	—	—	137	69	206
Dermot Kelleher	2017	—	—	—	—	137	83	220
William Hall	2017	—	—	—	—	148	113	261
Mary Pendergast	2017	—	—	—	—	131	81	212
Hugh Brady	2017	—	—	—	—	131	65	196
Steve Cutler	2017	1,045	110	1,445	2,600	4,453	37	7,090
Ronan Murphy	2017	—	—	—	—	27	110	137
Eugene McCague ***	2017	—	—	—	—	—	16	16
Joan Garahy ****	2017	—	—	—	—	—	8	8
<b>Total</b>	<b>2017</b>	<b>2,164</b>	<b>250</b>	<b>1,819</b>	<b>4,233</b>	<b>11,341</b>	<b>820</b>	<b>16,394</b>

\*Appointed as Executive Chairman on March 1, 2017.

\*\*Appointed as Lead Independent Director on March 1, 2017. Acting Chairman until March 1, 2017.

\*\*\*Appointed to the Board on October 3, 2017.

\*\*\*\*Appointed to the Board on November 16, 2017.

### Summary compensation table - Year ended December 31, 2016

Name	Year	Salary	Company pension contribution	All other compensation	Subtotal	Share-based compensation	Director's fees	Total Compensation
		\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Thomas Lynch*	2016	—	—	—	—	634	161	795
Declan McKeon**	2016	—	—	—	—	100	285	385
Ciaran Murray	2016	1,307	163	662	2,132	8,596	—	10,728
John Climax	2016	—	—	—	—	100	77	177
Ronan Lambe	2016	—	—	—	—	100	77	177
Dermot Kelleher	2016	—	—	—	—	100	97	197
William Hall	2016	—	—	—	—	108	122	230
Mary Pendergast	2016	—	—	—	—	91	89	180
Hugh Brady	2016	—	—	—	—	91	64	155
Steve Cutler	2016	790	165	372	1,327	4,503	—	5,830
Ronan Murphy***	2016	—	—	—	—	—	21	21
<b>Total</b>	<b>2016</b>	<b>2,097</b>	<b>328</b>	<b>1,034</b>	<b>3,459</b>	<b>14,423</b>	<b>993</b>	<b>18,875</b>

\*Retired as Chairman on March 31, 2016. Resigned from the Board on July 22, 2016.

\*\*Appointed as acting Chairman on April 1, 2016.

\*\*\*Appointed to the Board on October 18, 2016.

## Disclosure of Compensation Agreements

### *Employment Contracts, Termination of Employment and Change in Control Arrangements*

The Company does not have any termination or change of control agreements with its named executive officers other than as set out below and in the agreements relating to their equity incentives which provide for accelerated vesting on change of control.

### *Directors' and Executive Officers' service agreements and letters of engagement*

#### *Mr. Ciaran Murray*

Mr. Ciaran Murray has served as Executive Chairman of the Board of Directors since March 2017 having served as Chief Executive Officer of the Company from October 2011 until March 2017. Mr. Murray has served as an Executive Director of the Company since October 2011. He previously served as Chief Financial Officer of the Company from October 2005 until October 2011. The Chief Executive Officer service agreement with Mr. Murray was terminable on 12 months' notice by either party. Under the terms of Chief Executive Officer agreement Mr. Murray was entitled to receive an annual salary of \$1,326,125 (€1,184,627) and a bonus to be agreed by the Compensation and Organization Committee. He was also entitled to receive a pension contribution, a car allowance of €25,000 and medical insurance coverage for himself and his dependents. Mr. Murray's notice period in respect to his Chief Executive Officer service agreement was 1 year. It was agreed his notice period would expire on February 28, 2017. Mr. Murray has entered into a new agreement with the Company in respect of his role as Executive Chairman which was effective from March 2017. Under this agreement from March 1, 2017 until October 17, 2017, Mr. Murray was entitled to receive a base salary equal to his former CEO base salary and from October 18, 2017, Mr. Murray is entitled to receive an annual salary of \$338,970 (€300,000) and a bonus to be agreed by the Compensation and Organization Committee. He was previously granted and held at February 28, 2018 206,127 ordinary share options at exercise prices ranging from \$32.37 to \$90.03 per share, 25,061 Restricted Share Units which vest on various dates between March 2018 and March 2019 and 83,828 (up to a maximum of 167,656 based on certain performance conditions) Performance Share Units which vest between May 2018 and March 2019 subject to the fulfillment of certain performance conditions. His service agreement as Executive Chairman requires him to devote sufficient time to his duties for the Company, includes termination provisions and also includes certain post-termination clauses including non-disclosure, non-competition and non-solicitation provisions. In February 2018, the Board of ICON plc approved the appointment of Mr. Murray as non-Executive Chairman of the Board of Directors with effect from May 12, 2018. As Chief Financial Officer, Chief Executive and Executive Chairman, Mr. Murray was granted and held ordinary share options, Restricted Share Units and Performance Share Units. The vesting of the ordinary share options and Restricted Share Units which are unvested on Mr. Murray ceasing to be an ICON plc employee and his appointment as non-Executive Chairman (May 12, 2018) will accelerate and the outstanding Ordinary Share options and Restricted Share Units will vest on that date. The unvested Performance Share Units with vesting dates between May 12, 2018 and March 2019 will be forfeit on Mr. Murray ceasing to be an ICON plc employee.

#### *Dr. Steve Cutler*

Dr. Steve Cutler has served as Chief Executive Officer since March 2017 having served as Chief Operating Officer of the Company from January 2014 until March 2017. Prior to his appointment as Chief Operating Officer he served as Group President Clinical Research Services since November 2011. He has served as an Executive Director of the Company since November 2015. The Chief Executive Officer service agreement with Dr. Cutler is terminable on 365 days' notice by either party. Under the terms of this agreement Dr. Cutler is entitled to receive an annual salary of \$1,100,000 and a bonus to be agreed by the Compensation and Organization Committee. He is also entitled to receive a pension contribution, a car allowance of \$12,000 and medical insurance coverage for himself and his dependents. He was previously granted and held at February 28, 2018 202,147 ordinary share options at exercise prices ranging from \$32.37 to \$83.47 per share, 29,181 Restricted Share Units which vest on various dates between March 2018 and March 2020 and 63,157 (up to a maximum of 126,314 based on certain performance conditions) Performance Share Units which vest between May 2018 and March 2020 subject to the fulfillment of certain performance conditions. His Chief Executive Officer service agreement requires him to devote his full time and attention to his duties for the Company excepting certain outside Director positions authorized by the Company. The agreement with Dr. Cutler includes termination and change of control provisions and also includes certain post-termination clauses including non-disclosure, non-competition and non-solicitation provisions. Dr. Cutler has a separate agreement with the Company in respect to his role as a director of ICON plc. Under the terms of this agreement he is entitled to receive an annual fee of \$44,000.

#### *Mr. Declan McKeon*

Mr. Declan McKeon has served as Lead Independent Director from March 2017 having served as Acting Chairman of the Board from April 2016 until March 2017. He has served as an outside Director of the Company since April 2010. The arrangements with Mr. McKeon provide for the payment to him of Directors fees of \$135,000 per annum in respect of his position as Lead Independent Director. He was previously granted and held at February 28, 2018 33,650 ordinary share options at exercise prices ranging from \$22.30 to \$90.03.

*Mr. Brendan Brennan*

Mr. Brendan Brennan has served as Chief Financial Officer since February 2012 having previously served as acting Chief Financial Officer since October 2011. Prior to this appointment he served in a number of senior finance roles in the Company including the role of Senior Vice President of Corporate Finance. The service agreement with Mr. Brennan is terminable on 12 months' notice by either party. Under the terms of this agreement Mr. Brennan is entitled to receive an annual salary of \$528,664 (€467,886) and a bonus to be agreed by the Compensation and Organization Committee. He is also entitled to receive a pension contribution, a car allowance of €20,000 and medical insurance coverage for himself and his dependents. He was previously granted and held at February 28, 2018 64,133 ordinary share options at exercise prices ranging from \$32.37 to \$83.47 per share, 8,992 Restricted Share Units, which vest on various dates between March 2018 and March 2020, and 21,429 (up to a maximum of 42,858 based on certain performance conditions) Performance Share Units which vest between May 2018 and March 2020 subject to the fulfillment of certain performance conditions. His service agreement requires him to devote his full time and attention to his duties for the Company excepting certain outside Director positions authorized by the Board. The agreement with Mr. Brennan includes termination and change of control provisions and also includes certain post-termination clauses including non-disclosure, non-competition and non-solicitation provisions.

*Dr. John Climax*

Dr. John Climax, one of the Company's co-founders, served as Chairman of the Board of the Company from November 2002 to December 2009. He also served as Chief Executive Officer of the Company from June 1990 to October 2002 and is currently an outside Director of the Company. The arrangements with Dr. Climax provide for the payment to him of Director fees of \$65,000 per annum. He was previously granted and held at February 28, 2018 44,750 ordinary share options at exercise prices ranging from \$20.28 to \$90.03 per share.

*Dr. Ronan Lambe*

Dr. Ronan Lambe, one of the Company's co-founders, served as Chairman of the Board of the Company from June 1990 to November 2002 and is currently an outside Director of the Company. The arrangements with Dr. Lambe provide for the payment to him of Director fees of \$65,000 per annum. He was previously granted and held at February 28, 2018 44,750 ordinary share options at exercise prices ranging from \$20.28 to \$90.03 per share.

*Professor Dermot Kelleher*

Professor Dermot Kelleher has served as an outside Director of the Company since May 2008. The arrangements with Professor Kelleher provide for the payment to him of Director fees of \$77,500 per annum. He was previously granted and held at February 28, 2018 42,250 ordinary share options at an exercise price ranging from \$20.28 to \$90.03.

*Professor William Hall*

Professor William Hall has served as an outside Director of the Company since February 2013. The arrangements with Professor Hall provide for the payment to him of Directors fees of \$110,000 per annum. He was previously granted and held at February 28, 2018 37,250 ordinary share options at exercise prices ranging from \$32.37 to \$90.03.

*Ms. Mary Pendergast*

Ms. Mary Pendergast has served as an outside Director of the Company since February 2014. The arrangements with Ms. Pendergast provide for the payment to her of Directors fees of \$77,500 per annum. She was previously granted and held at February 28, 2018 38,250 ordinary share options at exercise prices ranging from \$40.83 to \$90.03.

*Professor Hugh Brady*

Professor Hugh Brady has served as an outside Director of the Company since April 2014. The arrangements with Professor Brady provide for the payment to him of Directors fees of \$65,000 per annum. He was previously granted and held at February 28, 2018 38,250 ordinary share options at exercise prices ranging from \$40.83 to \$90.03.

*Mr. Ronan Murphy*

Mr. Ronan Murphy has served as an outside Director of the Company since October 2016. The arrangements with Mr. Murphy provide for the payment to him of Directors fees of \$110,000 per annum. He was previously granted and held at February 28, 2018 7,693 ordinary share options at an exercise price of \$90.03.

*Mr. Eugene McCague*

Mr. Eugene McCague has served as an outside Director of the Company since October 2017. The arrangements with Mr. McCague provide for the payment to him of Directors fees of \$65,000 per annum.

Ms. Joan Garahy

Ms. Joan Garahy has served as an outside Director of the Company since November 2017. The arrangements with Ms. Garahy provide for the payment to her of Directors fees of \$65,000 per annum.

### Employees

At December 31, 2017, December 31, 2016 and December 31, 2015 we employed approximately 13,250, 12,500 and 11,900 people respectively. Our employees are not unionized and we believe we have a satisfactory relationship with our employees.

### Share Ownership

#### Shares

The following table sets forth certain information as of February 28, 2018 regarding beneficial ownership of our ordinary shares by all of our current Directors and executive officers. Unless otherwise indicated below, to our knowledge, all persons listed below have sole voting and investment power with respect to their ordinary shares, except to the extent authority is shared by spouses under applicable law.

Name of Owner or Identity of Group	No. of Shares (1)	% of total Shares
Mr. Ciaran Murray	4,063	0.01%
Dr. Steve Cutler	26,911	0.05%
Mr. Brendan Brennan	—	—
Dr. John Climax	762,211	1.41%
Dr. Ronan Lambe	600	—
Professor Dermot Kelleher	—	—
Mr. Declan McKeon	—	—
Professor William Hall	—	—
Ms. Mary Pendergast	—	—
Professor Hugh Brady	—	—
Mr. Ronan Murphy	—	—
Mr. Eugene McCague	—	—
Ms. Joan Garahy	—	—

- (1) As used in these tables, each person has the sole or shared power to vote or direct the voting of a security, or the sole or shared investment power with respect to a security ( i.e. the power to dispose, or direct the disposition, of a security). A person is deemed as of any date to have "beneficial ownership" of any security if that such person has the right to acquire such security within 60 days after such date.

### Restricted Share Units and Performance Share Units

The following table sets forth certain information as of February 28, 2018 regarding beneficial ownership of restricted share units (“RSUs”) and performance share units (“PSUs”) which have been issued to our current Directors and executive officers.

Name of Owner or Identity of Group	No. of RSUs <sup>(1)</sup>	Vesting Date	No. of PSUs <sup>(1)</sup>	Vesting Date
Mr. Ciaran Murray	8,293	March 4, 2018	42,358	May 3, 2018
	8,472	May 3, 2018	41,470	March 4, 2019
	8,296	March 4, 2019		
Dr. Steve Cutler	5,271	March 3, 2018	22,591	May 3, 2018
	4,423	March 4, 2018	22,117	March 4, 2019
	4,520	May 3, 2018	18,449	March 3, 2020
	5,271	March 3, 2019		
	4,424	March 4, 2019		
	5,272	March 3, 2020		
Mr. Brendan Brennan	1,190	March 3, 2018	7,435	May 3, 2018
	1,965	March 4, 2018	9,827	March 4, 2019
	1,489	May 3, 2018	4,167	March 3, 2020
	1,190	March 3, 2019		
	1,966	March 4, 2019		
	1,192	March 3, 2020		

(1) Of the issued PSUs, performance conditions will determine how many vest. If performance targets are exceeded, additional PSUs will be issued and will vest in accordance with the terms of the relevant PSU award. The PSUs vest based on service and specified EPS targets over the period 2014 – 2017, 2015 – 2018, 2016 - 2019 and 2017 - 2020. Depending on the actual amount of EPS from 2014 to 2020, up to an additional 168,414 PSUs may also be granted.

### Share Options

The following table sets forth certain information as of February 28, 2018 regarding options to acquire ordinary shares of the Company by all of our current Directors and executive officers.

Name of Owner or Identity of Group	No. of Options <sup>(1)</sup>	Exercise price	Expiration Date
Mr. Ciaran Murray	77,873	\$ 32.37	May 1, 2021
	12,540	\$ 47.03	March 3, 2022
	26,916	\$ 48.67	March 17, 2022
	35,157	\$ 68.39	March 18, 2023
	45,948	\$ 71.95	March 4, 2024
	7,693	\$ 90.03	May 19, 2025
Dr. Steve Cutler	43,539	\$ 32.37	May 1, 2021
	10,761	\$ 47.03	March 3, 2022
	23,078	\$ 48.67	March 17, 2022
	31,250	\$ 68.39	March 18, 2023
	30,632	\$ 71.95	March 4, 2024
	62,887	\$ 83.47	March 3, 2025



Name of Owner or Identity of Group	No. of Options <sup>(1)</sup>	Exercise price	Expiration Date
Mr. Declan McKeon	400 \$	22.30	April 27, 2020
	1,000 \$	32.37	May 1, 2021
	6,000 \$	40.83	May 23, 2022
	8,000 \$	68.39	March 18, 2023
	10,557 \$	65.60	May 20, 2024
	7,693 \$	90.03	May 19, 2025
Mr. Brendan Brennan	15,813 \$	32.37	May 1, 2021
	3,251 \$	47.03	March 3, 2022
	6,967 \$	48.67	March 17, 2022
	10,285 \$	68.39	March 18, 2023
	13,611 \$	71.95	March 4, 2024
	14,206 \$	83.47	March 3, 2025
Dr. John Climax	2,000 \$	20.28	March 3, 2019
	2,000 \$	22.30	April 27, 2020
	2,500 \$	32.37	May 1, 2021
	10,000 \$	40.83	May 23, 2022
	10,000 \$	68.39	March 18, 2023
	10,557 \$	65.60	May 20, 2024
Dr. Ronan Lambe	7,693 \$	90.03	May 19, 2025
	2,000 \$	20.28	March 3, 2019
	2,000 \$	22.30	April 27, 2020
	2,500 \$	32.37	May 1, 2021
	10,000 \$	40.83	May 23, 2022
	10,000 \$	68.39	March 18, 2023
Professor Dermot Kelleher	10,557 \$	65.60	May 20, 2024
	7,693 \$	90.03	May 19, 2025
	800 \$	20.28	March 3, 2019
	1,200 \$	22.30	April 27, 2020
	2,000 \$	32.37	May 1, 2021
	10,000 \$	40.83	May 23, 2022
Professor William Hall	10,000 \$	68.39	March 18, 2023
	10,557 \$	65.60	May 20, 2024
	7,693 \$	90.03	May 19, 2025
	3,000 \$	32.37	May 1, 2021
	6,000 \$	40.83	May 23, 2022
Ms. Mary Pendergast	10,000 \$	68.39	March 18, 2023
	10,557 \$	65.60	May 20, 2024
	7,693 \$	90.03	May 19, 2025
	10,000 \$	40.83	May 23, 2022

Name of Owner or Identity of Group	No. of Options <sup>(1)</sup>	Exercise price	Expiration Date
Professor Hugh Brady	10,000	\$ 40.83	May 23, 2022
	10,000	\$ 68.39	March 18, 2023
	10,557	\$ 65.60	May 20, 2024
	7,693	\$ 90.03	May 19, 2025
Mr. Ronan Murphy	7,693	\$ 90.03	May 19, 2025

(1) The title of securities covered by all of the above options are non-qualified.

In February 2018, the Board approved the appointment of Mr Murray as non-Executive Chairman of the Board of Directors with effect from May 12, 2018. Mr. Murray will cease to be an employee of the Company as of this date. Mr. Murray was granted and holds 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 are unvested on Mr. Murray ceasing to be an ICON plc employee, and on this appointment as non-Executive Chairman (May 12, 2018) will accelerate and the outstanding Ordinary Share Options and Restricted Share Units will vest on that date. The unvested Performance Share Units with vesting dates between May 12, 2018 and March 2019 will be forfeit on Mr. Murray ceasing to be an ICON plc employee.

### Equity Incentive Plans

On April 23, 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 Organization 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 May 11, 2015, the 2013 RSU Plan was amended and restated in order to increase the number of ordinary 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 par value 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 July 21, 2008 the Company adopted the 2008 Employees Restricted Share Unit Plan (the “2008 RSU Plan”) pursuant to which the Compensation and Organization 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. An aggregate of 1.0 million ordinary shares have been reserved for issuance under the 2008 RSU Plan.

On July 21, 2008 the Company adopted the Employee Share Option Plan 2008 (the “2008 Employee Plan”) pursuant to which the Compensation and Organization 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 Organization 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 February 14, 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 400,000 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 400,000 ordinary shares. There is no individual limit under the 2008 Consultants Plan. No options may be granted under the 2008 Option Plans after February 14, 2027.

Each option granted under the 2008 Option Plans will be a nonqualified stock option, or NSO and not an incentive stock option as described in Section 422 of the Internal Revenue Code. Each grant of an option under the 2008 Options 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.

On January 17, 2003 the Company adopted the Share Option Plan 2003 (the "2003 Share Option Plan") pursuant to which the Compensation and Organization Committee of the Board could grant options to officers and other employees of the Company or its subsidiaries for the purchase of ordinary shares. An aggregate of 6.0 million ordinary shares were reserved under the 2003 Share Option Plan; and, in no event could the number of ordinary shares issued pursuant to options awarded under this plan exceed 10% of the outstanding shares, as defined in the 2003 Share Option Plan, at the time of the grant, unless the Board expressly determined otherwise. Further, the maximum number of ordinary shares with respect to which options could be granted under the 2003 Share Option Plan during any calendar year to any employee was 400,000 ordinary shares. The 2003 Share Option Plan expired on January 17, 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 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. The maximum contractual term of options outstanding at December 31, 2018 is eight years.

#### **Item 7. Major Shareholders and Related Party Transactions.**

The following table sets forth certain information regarding beneficial ownership of ICON's ordinary shares as of February 28, 2018 (i) by each person that beneficially owns more than 5% of the outstanding ordinary shares, based upon information known to us and publicly available information; and (ii) by all of our current Directors, officers and other key employees as a group. Unless otherwise indicated below, to our knowledge, all persons listed below have sole voting and investment power with respect to their ordinary shares, except to the extent authority is shared by spouses under applicable law.

<b>Name of Owner or Identity of Group</b>	<b>No. of Shares (1)</b>	<b>Percent of Class</b>
WCM Investment Management (2)	4,376,491	8.1%
Wellington Management Company, LLP (2)	3,724,413	6.9%
All Directors, officers and other key employees as a group (3)	2,030,152	3.8%

- (1) As used in this table, each person has the sole or shared power to vote or direct the voting of a security, or the sole or shared investment power with respect to a security (i.e., the power to dispose, or direct the disposition, of a security). A person is deemed as of any date to have "beneficial ownership" of any security if that such person has the right to acquire such security within 60 days after such date.
- (2) Neither the Company nor any of its officers, Directors or affiliates holds any voting power in this entity.
- (3) Includes 795,453 ordinary shares issuable upon the exercise of stock options granted by the Company, 69,818 RSUs awarded by the Company to Directors, officers and other key employees and 369,656 PSUs awarded by the Company to Directors, officers and other key employees. Of the PSUs, performance conditions determine how many of them will 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 figure included is the maximum amount of PSUs that may be issued.

ICON plc, is not directly or indirectly, owned or controlled by another corporation or by any government.

#### **Related Party Transactions**

Subsidiaries of the Company earned revenue of \$743,000 (2016: \$100,000) 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. \$220,000 was recorded as due from DS Biopharma Limited at December 31, 2017. The contract terms were agreed on an arm's length basis.

On July 22, 2016, Mr. Thomas Lynch retired as a Director of the Company, having previously resigned as Chairman of the Company in March 2016. A charge of €231,750 was recorded during 2017 in respect of consultancy services provided by a company controlled by Mr. Lynch. \$64,000 was recorded as due to Mr. Lynch under the terms of the agreement at December 31, 2017.

During the year ended December 31, 2017, personal expenses totalling \$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. Murray effective November 1, 2017. Payment was received in full in January 2018.

**Item 8. Financial Information.****Financial Statements**

See Item 18.

**Significant Changes**

There have been no significant changes to our business that we believe could reasonably be expected to have a material adverse effect on our business, results of operations and financial condition.

**Legal Proceedings**

ICON is not party to any litigation or other legal proceedings that we believe could reasonably be expected to have a material adverse effect on our business, results of operations and financial condition.

**Dividends**

We have not paid cash dividends on our ordinary shares and do not currently intend to pay cash dividends on our ordinary shares in the foreseeable future.

**Item 9. The Offer and Listing.**

ICON's ordinary shares are traded on the NASDAQ Global Select Market under the symbol "ICLR". The following table sets forth the trading price for the dates indicated for ICON plc's shares as reported by NASDAQ. ICON plc's ADR program was terminated on January 31, 2013 and ICON plc's ordinary shares began directly trading on NASDAQ on February 4, 2013. Prior to that date, ICON plc's ADSs were traded on NASDAQ and ICON plc's Depository for the ADSs was The Bank of New York Mellon.

<b>Year Ending</b>	<b>High Sales Price During Period</b>	<b>Low Sales Price During Period</b>
December 31, 2013	\$ 44.23	\$ 26.70
December 31, 2014	\$ 59.81	\$ 35.33
December 31, 2015	\$ 84.14	\$ 50.91
December 31, 2016	\$ 85.74	\$ 62.31
December 31, 2017	\$ 124.48	\$ 74.30
<b>Quarter Ending</b>	<b>High Sales Price During Period</b>	<b>Low Sales Price During Period</b>
March 31, 2016	\$ 77.79	\$ 64.08
June 30, 2016	\$ 77.08	\$ 62.31
Sept 30, 2016	\$ 79.61	\$ 69.05
Dec 31, 2016	\$ 85.74	\$ 73.76
March 31, 2017	\$ 88.90	\$ 74.30
June 30, 2017	\$ 100.87	\$ 76.46
Sept 30, 2017	\$ 117.53	\$ 96.03
Dec 31, 2017	\$ 124.48	\$ 110.54
<b>Month Ending</b>	<b>High Sales Price During Period</b>	<b>Low Sales Price During Period</b>
Jul 31, 2017	\$ 109.32	\$ 96.03
Aug 31, 2017	\$ 114.27	\$ 101.00
Sept 30, 2017	\$ 117.53	\$ 109.78
Oct 31, 2017	\$ 123.53	\$ 111.86
Nov 30, 2017	\$ 124.48	\$ 110.55
Dec 31, 2017	\$ 117.39	\$ 110.54

## **Item 10. Additional Information.**

### **Memorandum and Articles of Association**

We hereby incorporate by reference our Memorandum and Articles of Association, as amended, located under the heading “Memorandum and Articles of Association of the Company” in Exhibit 3.1.

The following is a summary of certain provisions of the current Articles of Association of the Company. This summary does not purport to be complete and is qualified in its entirety by reference to the complete text of the Articles of Association of the Company, which are included as an exhibit to this annual report.

#### *Objects*

The Company is incorporated under the name ICON plc, and is registered in Ireland under registered number 145835. The Company's objects, which are detailed in the Memorandum of Association of the Company, are broad and include, but are not limited to, the carrying on the business of an investment holding company.

#### *Directors*

Subject to certain exceptions, Directors may not vote on matters in which they have a material interest. Any Director who holds any executive office, serves on any committee or otherwise performs services, which, in the opinion of the Directors, are outside the scope of the ordinary duties of a Director, may be paid such extra remuneration as the Directors may determine. The Directors may exercise all the powers of the Company to borrow money. These powers may be amended by special resolution of the shareholders. The Directors are not required to retire at any particular age. One-third of the Directors retire and offer themselves for re-election at each Annual General Meeting (“AGM”) of the Company. The Directors to retire by rotation are those who have been longest in office since their last appointment or reappointment. As between persons who became or were appointed Directors on the same date, those to retire are determined by agreement between them or, otherwise, by lot. All of the shareholders entitled to attend and vote at the AGM may vote on the re-election of Directors. There is no requirement for Directors to hold shares.

#### *Rights, Preferences and Dividends Attaching to Shares*

The Company has only one class of shares, Ordinary Shares with a par value of €0.06 per share. All such Ordinary Shares rank equally with respect to voting, payment of dividends and on any winding-up of the Company. Any dividend, interest or other sum payable to a shareholder that remains unclaimed for one year after having been declared may be invested by the Directors for the benefit of the Company until claimed. If the Directors so resolve, any dividend which has remained unclaimed for 12 years from the date of its declaration shall be forfeited and cease to remain owing by the Company. In the event of the Company being wound up, if the assets available for distribution among the Members shall be more than sufficient to repay the whole of the share capital paid up or credited as paid up at the commencement of the winding up, the excess shall be distributed among the Members in proportion to the capital at the commencement of the winding up paid up or credited as paid up on the said Ordinary Shares held by them respectively. An Ordinary Share shall be deemed to be a redeemable share in certain circumstances. The liability of shareholders to invest additional capital is limited to the amounts remaining unpaid on the shares held by them.

#### *Action Necessary to Change the Rights of Shareholders*

The rights attaching to shares in the Company may be varied by special resolutions passed at class meetings of that class of shareholders of the Company.

#### *Annual and General Meetings*

The AGM shall be held in such place and at such time as shall be determined by the board, but no more than 15 months shall pass between the dates of consecutive AGMs. Directors may call an Extraordinary General Meeting (“EGM”) at any time. The members, in accordance with the Articles of Association of the Company and Irish Company law, may also requisition EGM's. Notice of the AGM or an EGM passing any special resolution must be given at least 21 clear days prior to the scheduled date and, in the case of any other general meeting, not less than 14 clear days' notice. All holders of Ordinary Shares are entitled to attend, speak at and vote at general meetings of the Company.

#### *Limitations on the Right to Own Shares*

There are no limitations on the right to own shares in the Articles of Association of the Company.

#### *Disclosure of Share Ownership*

Under Irish law, the Company can require parties to disclose their interests in shares. The Articles of Association of the Company entitle the Directors to require parties to provide details regarding their identity and the nature and extent of any interest which such parties hold in Ordinary Shares. Under Irish law, if a party acquires or disposes of Ordinary Shares so as to bring his interest above or below 3% of the total issued share capital of the Company, he must notify the Company of that. The Company would also need to be notified of the acquisition by an existing substantial (i.e. 3% plus) shareholder, of every movement of one whole percentage integer (e.g. 3.9% to 4.1% but not 4.1% to 4.9%) or more.

#### *Other Provisions of the Articles of Association*

There are no provisions in the Articles of Association of the Company:

- (i) delaying or prohibiting a change in the control of the Company, but which operate only with respect to a merger, acquisition or corporate restructuring;
- (ii) discriminating against any existing or prospective holder of shares as a result of such shareholder owning a substantial number of shares; or
- (iii) governing changes in capital,

in each case, where such provisions are more stringent than those required by law.

#### **Material Contracts**

Not applicable.

#### **Exchange Controls and Other Limitations Affecting Security Holders**

Irish exchange control regulations ceased to apply from and after December 31, 1992. Except as indicated below, there are no restrictions on non-residents of Ireland dealing in domestic securities, which includes shares or depository receipts of Irish companies. Except as indicated below, dividends and redemption proceeds also continue to be freely transferable to non-resident holders of such securities.

The Financial Transfers Act, 1992 gives power to the Minister for Finance of Ireland to make provision for the restriction of financial transfers between Ireland and other countries and persons. Financial transfers are broadly defined, and include all transfers which would be movements of capital or payments within the meaning of the treaties governing the European Communities. The acquisition or disposal of shares issued by an Irish incorporated company and associated payments may fall within this definition. In addition, dividends or payments on redemption or purchase of shares and payments on a liquidation of an Irish incorporated company would fall within this definition.

The Financial Transfers Act, 1992 prohibits financial transfers involving a number of persons, entities and bodies, which is subject to amendment on an ongoing, regular basis and currently includes, but is not limited to: certain persons and activities in Sudan, the Republic of Guinea, Côte d'Ivoire, Libya, Iraq, the Democratic People's Republic of Korea, certain activities, persons and entities in Syria and Iran; certain persons and entities associated with the Taliban in Afghanistan; certain persons, entities and bodies in Ukraine; and certain known terrorists and terrorist groups and countries that harbor certain terrorist groups, without the prior permission of the Central Bank of Ireland.

There are no restrictions under the Company's Articles of Association or under Irish Law that limit the right of non-residents or foreign owners to hold the Company's ordinary shares or vote at general meetings of the Company.

## Taxation

### General

The following discussion is based on existing Irish tax law, Irish court decisions and the practice of the Revenue Commissioners of Ireland, and the convention between the United States and Ireland for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with respect to income and capital gains (the "Treaty"). This discussion does not purport to deal with the tax consequences of owning the ordinary shares for all categories of investors, some of which may be subject to special rules. Prospective purchasers of ordinary shares are advised to consult their own tax advisors concerning the overall tax consequences arising in their own particular situations under Irish law. Each prospective investor should understand that future legislative, administrative and judicial changes could modify the tax consequences described below, possibly with retroactive effect.

As used herein, the term "U.S. Holder" means a beneficial owner of ordinary shares that (i) owns the ordinary shares as capital assets; (ii) is a U.S. citizen or resident, a U.S. corporation, an estate the income of which is subject to U.S. federal income taxation regardless of its source or a trust that meets the following two tests: (A) a U.S. court is able to exercise primary supervision over the administration of the trust, and (B) one or more U.S. persons have the authority to control all substantial decisions of the trust; and for the purpose of the discussion under Irish Taxation of U.S. Holders (A) is not a resident of, or ordinarily resident in, Ireland for the purposes of Irish tax; and (B) is not engaged in trade or business in Ireland through a permanent establishment.

AS USED HEREIN, REFERENCES TO THE ORDINARY SHARES SHALL INCLUDE SHARES HELD IN THE ACCOUNTS OF PARTICIPANTS THROUGH THE DEPOSITARY TRUST COMPANY ("THE DTC").

### Irish Taxation

#### *Irish corporation tax on income*

ICON is a public limited company incorporated and resident for tax purposes in Ireland by virtue of its place of central management and control being in Ireland.

Companies which are resident in the Republic of Ireland are subject to Irish corporation tax on their total profits (wherever arising and, generally, whether or not remitted to the Republic of Ireland). The question of residence, by virtue of management and control, is essentially one of fact. It is the present intention of the Company's management to continue to manage and control the Company from the Republic of Ireland, so that the Company will continue to be resident in the Republic of Ireland.

The standard rate of Irish corporation tax on trading income (with certain exceptions) is currently 12.5%.

A research and development tax credit is available in Ireland where an Irish resident company incurs qualifying expenditure on research and development activities. Qualifying expenditure incurred in a particular account period results in a tax credit of 25% of that expenditure.

Corporation tax is charged at the rate of 25% on a company's non-trading income and certain types of trading income not eligible for the lower rate of 12.5% referred to above.

Capital gains arising to an Irish resident company are liable to tax at 33%. However, a capital gains tax exemption is available in Ireland for qualifying Irish resident companies in respect of disposals of certain qualifying shareholdings.

The exemption from capital gains tax on the disposal of shares by an Irish resident company will apply where certain conditions are met. These conditions principally are:

- The company claiming the exemption must hold (directly or indirectly) at least 5% of the ordinary share capital of the company in which the interest is being disposed of, throughout a continuous period of at least 12 months, within the two year period prior to disposal
- The shares being disposed of must be in a company, which at the date of disposal, is resident in a Member State of the European Communities or in a country with which Ireland has signed or made specific arrangements to sign a double tax agreement (together a "Relevant Territory")
- The shares must be in a company which is primarily a trading company or the company making the disposal together with its "5% plus subsidiaries" should be primarily a trading group

- The shares must not derive the greater part of their value from land or mineral rights in the State.

*Irish withholding tax on dividends*

Unless specifically exempted, all dividends paid by the Company, will be subject to Irish withholding tax at the standard rate of income tax in force at the time the dividend is paid, which is currently 20%.

An individual shareholder who is neither resident nor ordinarily resident for tax purposes in Ireland, but is resident in a country with which Ireland has a double tax treaty, or in a member state of the European Union, other than Ireland (together, a Relevant Territory), will be exempt from withholding tax provided he or she makes the requisite declaration.

Irish resident corporate shareholders will be exempt from withholding tax. Where the shareholding held by the recipient Company, in the company paying the dividend is not 51% or greater a declaration must be made in order to avail of the exemption.

Non-Irish resident corporate shareholders will be exempt from withholding tax on the production of the appropriate certificates and declarations where they:

- are resident in a Relevant Territory and are not controlled (directly or indirectly) by Irish residents
- are ultimately controlled (directly or indirectly) by residents of a Relevant Territory or
- have the principal class of their shares, or shares of a 75% parent, substantially and regularly traded on one or more recognized stock exchanges in a Relevant Territory (including Ireland) or Territories; or
- are wholly owned by two or more companies, each of whose principal class of shares is substantially and regularly traded on one or more recognized stock exchanges in a Relevant Territory (including Ireland) or Territories.

U.S. holders of ordinary shares should note, however, that detailed documentation requirements may need to be complied with. Special arrangements are available in the case of an interest in shares held in Irish companies through a depository or in accounts of participants through the DTC. In certain cases the depository or the DTC can receive and pass on a dividend from an Irish company without deducting withholding tax, provided the depository or the DTC is a qualifying intermediary, and provided the person beneficially entitled to the distribution would meet the same conditions outlined above for the withholding tax exemption to apply and has provided the qualifying intermediary with the appropriate declarations. The depository or the DTC shall be regarded as a qualifying intermediary provided the following conditions are met:

- the depository or the DTC is resident in a Relevant Territory and
- the depository or the DTC have entered into a qualifying intermediary agreement with the Irish tax authorities and
- the depository or the DTC have been authorized by the Irish Revenue Commissioners as a qualifying intermediary and such authorization has not expired or been revoked.

*Irish income tax on dividends*

Irish resident or ordinarily resident shareholders will generally be liable to Irish income tax on dividend income at their marginal rate of income tax. This income may also be liable to Pay Related Social Insurance (“PRSI”) of up to 4% and the Universal Social Charge (“USC”) of up to 11% (up to 15% in total).

Under certain circumstances, non-Irish resident shareholders will be subject to Irish income tax on dividend income. This liability is limited to tax at the standard rate of 20% and therefore, where withholding tax has been deducted, this will satisfy the tax liability. No PRSI or USC should apply in these circumstances.

However, a non-Irish resident shareholder will not have an Irish income tax liability on dividends from the Company if the holder is neither resident nor ordinarily resident in the Republic of Ireland and the holder is:

- an individual resident in the U.S. or in a Relevant Territory;
- a corporation that is ultimately controlled by persons resident in the U.S. or in a Relevant Territory;



- a corporation whose principal class of shares (or its 75% or greater parent's principal class of shares) is substantially and regularly traded on a recognized stock exchange in an EU country or in a Relevant Territory;
- a corporation resident in another EU member state or in a Relevant Territory, which is not controlled directly or indirectly by Irish residents; or
- a corporation that is wholly owned by two or more corporations each of whose principal class of shares is substantially and regularly traded on a recognized stock exchange in an EU country or in a Relevant Territory.

U.S. Holders who do not qualify for the above income tax exemption may be able to obtain treaty benefits under the double tax treaty.

#### *Irish domicile levy*

Certain non-Irish resident individuals that are domiciled in Ireland will be subject to an annual levy of €200,000 if their Irish-located property exceeds €5,000,000, their worldwide annual income exceeds €1,000,000 and their liability to Irish Income Tax in that year is less than €200,000.

#### *Irish capital gains tax on disposal of shares*

Irish resident or ordinarily resident shareholders will be liable to capital gains tax at 33% on gains arising from the disposal or part disposal of their shareholding.

A person who is not resident or ordinarily resident in Ireland, who has not been an Irish resident within the past five years and who does not carry on a trade in Ireland through a branch or agency will not be subject to Irish capital gains tax on the disposal of ordinary shares or shares held in accounts of participants through the DTC, so long as the shares do not derive the greater part of their value from Irish land or mineral rights.

There are provisions to subject a person who disposes of an interest in a company while temporarily being non-Irish resident, to Irish capital gains tax. This treatment will apply to Irish domiciled individuals:

- who cease to be Irish resident;
- who beneficially own the relevant assets when they cease to be resident;
- if there are not more than 5 years of assessment between the last year of Irish tax residence prior to becoming temporarily non-resident and the tax year that he/she resumes Irish tax residency;
- who dispose of the relevant assets during this temporary non-residence; and
- the interest disposed of represents 5% or greater of the issued share capital of the company or is worth at least €500,000.

In these circumstances the person will be deemed, for Irish capital gains tax purposes, to have sold and immediately reacquired the interest in the company on the date of his or her departure and will be subject to tax at 33% of the taxable gain.

#### *Irish capital acquisitions tax*

Irish capital acquisitions tax (referred to as CAT) applies to gifts and inheritances. Subject to certain tax-free thresholds, gifts and inheritances are liable to tax at 33%.

Where a gift or inheritance is taken under a disposition made after December 1, 1999, it will be within the charge to CAT:

- to the extent that the property of which the gift or inheritance consists is situated in the Republic of Ireland at the date of the gift or inheritance;
- where the person making the gift or inheritance is or was resident or ordinarily resident in the Republic of Ireland at the date of the disposition under which the gift or inheritance is taken;

- in the case of a gift taken under a discretionary trust where the person from whom the gift is taken was resident or ordinarily resident in the Republic of Ireland at the date he made the settlement, or at the date of the gift or, if he is dead at the date of the gift, at the date of his death; or
- where the person receiving the gift or inheritance is resident or ordinarily resident in the Republic of Ireland at the date of the gift or inheritance.

For these purposes a non-Irish domiciled individual will not be regarded as resident or ordinarily resident in the Republic of Ireland on a particular date unless they are resident or ordinarily resident in the Republic of Ireland on that date and have been resident for the 5 consecutive tax years immediately preceding the year of assessment in which the date falls.

The person who receives the gift or inheritance (“the beneficiary”) is primarily liable for CAT. In the case of an inheritance, where a beneficiary and personal representative of the deceased are both non-residents, a solicitor must be appointed to be responsible for paying inheritance tax. Taxable gifts or inheritances received by an individual since December 5, 1991 from donors in the same threshold class are aggregated and only the excess over a specified tax-free threshold is taxed. The tax-free threshold is dependent on the relationship between the donor and the donees and the aggregation since December 5, 1991 of all previous gifts and inheritances, within the same tax threshold.

The tax-free threshold amounts that apply are:

- €16,250 in the case of persons who are not related to one another;
- €32,500 in the case of gifts or inheritances received from inter alia a brother or sister or from a brother or sister of a parent or from a grandparent; and
- €310,000 in the case of gifts and inheritances received from a parent (or from a grandparent by a minor child of a deceased child) and specified inheritances received by a parent from a child.

Gifts and inheritances passing between spouses are exempt from CAT.

A gift or inheritance of ordinary shares or ADSs will be within the charge to Irish capital acquisitions tax, notwithstanding that the person from whom or by whom the gift or inheritance is received is domiciled or resident outside Ireland.

The Estate Tax Convention between Ireland and the United States generally provides for Irish capital acquisitions tax paid on inheritances in Ireland to be credited against U.S. Federal Estate tax payable in the United States and for tax paid in the United States to be credited against tax payable in Ireland, based on priority rules set forth in the Estate Tax Convention. The Estate Tax Convention does not apply to Irish capital acquisitions tax paid on gifts.

#### *Irish stamp duty*

Irish stamp duty, which is a tax on certain documents, is payable on all transfers of ordinary shares (other than between spouses) whenever a document of transfer is executed. Where the transfer is attributable to a sale, stamp duty will be charged at a rate of 1%, rounded to the nearest euro. The stamp duty is calculated on the amount or value of the consideration (i.e. purchase price) or, if the transfer is by way of a gift (subject to certain exceptions) or for consideration less than the market value, on the market value of the shares. Where the consideration for the sale is expressed in a currency other than euro, the duty will be charged on the euro equivalent calculated at the rate of exchange prevailing on the date of the transfer.

Transfers through the DTC of book entry interests in shares are not subject to Irish stamp duty.

A transfer of ordinary shares by a shareholder to a depositary or custodian for deposit and a transfer of ordinary shares from the depositary or the custodian for the purposes of the withdrawal of the underlying ordinary shares in accordance with the terms of a deposit agreement will be stampable at the ad valorem rate if the transfer relates to a sale, a contemplated sale, a gift or any other change in the beneficial ownership of such ordinary shares. However transfers of ordinary shares into or out of the DTC are not subject to Irish stamp duty provided that no change in beneficial ownership of the shares has occurred and provided a contract for sale in respect of the transferring shares is not in place.

The person accountable for payment of stamp duty is normally the transferee or, in the case of a transfer by way of gift, or for a consideration less than the market value, all parties to the transfer.

Transfers of ordinary shares between associated companies (broadly, companies within a 90% group relationship and subject to the satisfaction of certain conditions) are exempt from stamp duty in the Republic of Ireland. In the case of transfers of ordinary shares where no beneficial interest passes (e.g. a transfer of shares from a beneficial owner to his nominee), no stamp duty arises.

No stamp duty shall arise on the transfer of ordinary shares where the consideration for the transfer does not exceed €1,000, provided the instrument contains a statement certifying that the transaction does not form part of a larger transaction or a series of larger transactions, in respect of which the amount of the total consideration attributable to the shares would exceed €1,000.

### **Documents on Display**

We are subject to the informational requirements of the Securities Exchange Act of 1934, as amended, (the “Exchange Act”) and file reports and other information with the SEC. The SEC maintains a website that contains reports, proxy and information statements and other information regarding registrants that file electronically with the SEC at <http://www.sec.gov>.

We “incorporate by reference” information that we file with the SEC, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is an important part of this report and more recent information automatically updates and supersedes more dated information contained or incorporated by reference in this report. Our SEC file number for Exchange Act reports is 333-08704.

As a foreign private issuer, we are exempt from certain rules under the Exchange Act, including prescribing the furnishing and content of proxy statements to shareholders.

We will provide without charge to each person, including any beneficial owner, on the written or oral request of such person, a copy of any or all documents referred to above which have been or may be incorporated by reference in this report (not including exhibits to such incorporated information that are not specifically incorporated by reference into such information). Requests for such copies should be directed to us at the following address: ICON plc, South County Business Park, Leopardstown, Dublin 18, Ireland, Attention: Erina Fox telephone number: +353 1 2912000.

### **Exemptions From Corporate Governance Listing Requirements Under the NASDAQ Marketplace Rules**

NASDAQ may provide exemptions from certain NASDAQ corporate governance standards to a foreign private issuer if, among other reasons those standards are contrary to a law, rule or regulation of a public authority exercising jurisdiction over such issuer or contrary to generally accepted business practices in the issuer’s home country of domicile, 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 Articles of Association require 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 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

## Item 11 . Quantitative and Qualitative Disclosures about Market Risk.

The principal market risks (i.e. risk of loss arising from adverse changes in market rates and prices) to which we are exposed include foreign currency risk and interest rate risk.

### Foreign Currency Exchange Risk

We are subject to a number of foreign currency risks given the global nature of our operations. The principal foreign currency risks to which the business is subject to includes both foreign currency translation risk and foreign currency transaction risk.

Although domiciled in Ireland, we report our results in U.S. dollars. As a consequence the results of our 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.

We are also subject to foreign currency transaction exposures as the currency in which our contracts are priced can be different from the currencies in which costs relating to those contracts are incurred. Our 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 our activities means that contracts may be priced in a single currency, most often U.S. dollars, or euro, while costs arise in a number of currencies, depending, among other things, on which of our 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 our results of operations. We regularly review our foreign currency exposures and usually negotiate currency fluctuation clauses in our 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	
	2017	2016	2017	2016
Euro:USD	1.1229	1.1060	1.2005	1.0517
Pound Sterling:USD	1.2883	1.3684	1.3513	1.2340

### Interest Rate Risk

We are exposed to interest rate risk in respect of our cash and cash equivalents and short term investments - available for sale. Our treasury function actively manages our available cash resources and invests significant cash balances in various financial instruments to try to ensure optimum returns for the Company's surplus cash balances. Financial instruments are classified either as cash and cash equivalents or short term investments -available for sale depending upon the maturity of the related investment. Funds may be invested in the form of floating rate notes and medium term minimum "A-" rated corporate securities. We may be subject to interest rate risk in respect of interest rate changes on amounts invested. Our treasury function manages interest rate risk in respect of these balances by monitoring the composition of the Company's investment portfolio on an ongoing basis having regard to current market interest rates and future trends.

In December 2015 we 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 Financial Accounting Standards Board ("FASB") ASC 815, "Derivatives and Hedging". The realized gain related to this derivative is recorded within other comprehensive income and is amortized over the life of the Senior Notes. The effective rate on our 5 year Senior Notes is fixed at 3.37%. ICON did not have any short term borrowings in 2017 and were not exposed to changes in market interest rates as a result.

The sensitivity analysis below represents the hypothetical change in the net interest payable of a 1% movement in market interest rates.

	Interest for the year ended December 31, 2017 (in thousands)	Change 1% increase in market interest rate (in thousands)	Interest Change 1% decrease in market interest rate (in thousands)
Interest Income	\$ 2,346	\$ 5,441	\$ —
Interest Expense	\$ (12,627)	\$ (12,627)*	\$ (12,627)*
	\$ (10,281)	\$ (7,186)	\$ (12,627)

\*No variable debt drawn down during year ended December 31, 2017.

**Item 12 . Description of Securities Other than Equity Securities.**

Not applicable.

**Part II**

**Item 13. Defaults, Dividend Arrearages and Delinquencies.**

None.

**Item 14. Material Modifications to the Rights of Security Holders and Use of Proceeds.**

None.

**Item 15. Controls and Procedures.**

**(a) Disclosure controls and procedures**

An evaluation was carried out under the supervision and with the participation of the Company's management, including the Chief Executive Officer (CEO) and the Chief Financial Officer (CFO), of the effectiveness of our disclosure controls and procedures as at December 31, 2017. Based on that evaluation, the CEO and CFO have concluded that the Company's disclosure controls and procedures are effective to ensure that information required to be disclosed by the Company in reports that it files or submits under the Securities Exchange Act of 1934 is recorded, processed, summarized and reported within the time periods specified in Securities and Exchange Commission rules and forms.

**(b) Management's Annual Report on Internal Accounting Control over Financial Reporting**

Reference is made to page 80 of this Form 20-F.

**(c) Attestation Report of Independent Registered Public Accounting Firm**

Reference is made to page 82 of this Form 20-F.

**(d) Changes in Internal Controls over Financial Reporting**

There were no changes in our internal controls over financial reporting that occurred during the period covered by this Form 20-F that have materially affected or are reasonably likely to materially affect our internal controls over financial reporting.

**Item 16. Reserved.**

**Item 16A. Audit Committee Financial Expert**

Mr. Declan McKeon acts as the Audit Committee financial expert serving on our Audit Committee and Board of Directors. Mr. McKeon is the lead Independent Director and serves as one of our non-executive Directors.

**Item 16B. Code of Ethical Conduct**

Our Global Code of Ethical Conduct applies to all ICON employees.

There are no waivers from the provisions of the Code of Ethical Conduct that are required to be disclosed.

This Code of Ethical Conduct is available on our website at the following address:

<http://investor.iconplc.com/governance.cfm>

**Item 16C. Principal Accountant Fees and Services**

Our principal accountants for the years ended December 31, 2017 and December 31, 2016, were KPMG.

The table below summarizes the fees for professional services rendered by KPMG for the audit of our annual financial statements for the years ended December 31, 2017 and December 31, 2016 and fees billed for other services rendered by KPMG.

	12 month period ended December 31, 2017 (in thousands)		12 month period ended December 31, 2016 (in thousands)		
Audit fees (1)	\$	1,556	42% \$	1,437	56%
Audit related fees (2)		1,297	35%	153	6%
Tax fees (3)		850	23%	992	38%
<b>Total</b>	<b>\$</b>	<b>3,703</b>	<b>100% \$</b>	<b>2,582</b>	<b>100%</b>

(1) Audit fees include annual audit fees for the Company and its subsidiaries.

(2) Audit related fees principally consisted of fees for financial due diligence services, fees for audit of the financial statements, of employee benefit plans and fees for pension review. The higher level of audit related fees in 2017 compared to 2016 relates specifically to additional financial due diligence services (\$1.1 million) provided in connection with a proposed significant one-time potential acquisition transaction by the company in 2017.

(3) Tax fees are fees for tax compliance and tax consultation services.

The Audit Committee pre-approves all audit and non-audit services provided to the Company by its auditors.

**Item 16D. Exemptions from the Listing Standards for Audit Committees**

Not applicable.

**Item 16E. Purchases of Equity Securities by the Issuer and Affiliated Purchasers**

	<b>Total Number of Shares Purchased</b>	<b>Average Price Paid per Share</b>	<b>Total Number of Shares Purchased as Part of a Publicly Announced Plan</b>	<b>Total Price Paid for Shares Purchased as Part of a Publicly Announced Plan</b>	<b>Maximum Approximate Value of Shares that may yet be purchased under the Publicly Announced Plan</b>
<b>(in thousands, except per share data)</b>					
October 10/1/16– 10/31/16	474,118	\$ 77.63	474,118	\$ 36,804	\$ 363,196
November 11/1/16 – 11/30/16	756,001	\$ 76.77	756,001	\$ 58,039	\$ 305,157
December 12/1/16 – 12/31/16	199,068	\$ 76.13	199,068	\$ 15,157	\$ 290,000
January 1/1 /17– 1/31/17	152,601	\$ 77.96	152,601	\$ 11,897	\$ 278,103
February 2/1/17 – 2/28/17	—	—	—	—	\$ 278,103
March 3/1/17 – 3/31/17	1,121,907	\$ 79.08	1,121,907	\$ 88,726	\$ 189,377
April 4/1/17 – 4/30/17	93,628	\$ 79.92	93,628	\$ 7,483	\$ 181,894
May 5/1/17 – 5/31/17	—	—	—	—	\$ 181,894
June 6/1/17 – 6/30/17	—	—	—	—	\$ 181,894
July 7/1/17 – 7/31/17	—	—	—	—	\$ 181,894
August 8/1/17 – 8/31/17	—	—	—	—	\$ 181,894
September 9/1/17 – 9/30/17	—	—	—	—	\$ 181,894
October 10/1/17 – 10/31/17	—	—	—	—	\$ 181,894
November 11/1/17 – 11/30/17	2,376	\$ 114.49	2,376	\$ 272	\$ 181,622
December 12/1/17 – 12/31/17	218,715	\$ 113.06	218,715	\$ 24,728	\$ 156,894
	<b>3,018,414</b>	<b>\$ 80.54</b>	<b>3,018,414</b>	<b>\$ 243,106</b>	<b>\$ 156,894</b>

On October 3, 2016 the Company commenced a previously announced share buyback program of up to \$400 million. During the year ended December 31, 2017, the Company redeemed a total of 1,589,227 ordinary shares under this program for total consideration of \$133.1 million. At December 31, 2017 a total of 3,018,414 ordinary shares were redeemed by the Company under this buyback program for a total consideration of \$243.1 million.

Under the repurchase programs, 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 programs are 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 programs 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 programs. In addition, acquisitions under the programs 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 programs.

**Item 16F. Changes in Registrant's Certifying Accountant**

Not applicable.

**Item 16G. Corporate Governance**

See Item 10 "Exemptions from Corporate Governance Listing Requirements under the NASDAQ Marketplace Rules".

**Item 16H. Mine Safety Disclosure**

Not applicable.

**Part III**

**Item 17. Financial Statements.**

See item 18.

**Item 18. Financial Statements.**

Reference is made to pages 80 to 133 of this Form 20-F.

**Item 19. Financial Statements and Exhibits.**

**Consolidated Financial Statements of ICON plc and subsidiaries**

Exhibits

Management's Report on Internal Control over Financial Reporting

Reports of Independent Registered Public Accounting Firm

Consolidated Balance Sheets as at December 31, 2017 and December 31, 2016

Consolidated Statements of Operations for the years ended December 31, 2017, December 31, 2016 and December 31, 2015

Consolidated Statements of Comprehensive Income for the years ended December 31, 2017, December 31, 2016 and December 31, 2015

Consolidated Statements of Shareholders' Equity and Comprehensive Income for the years ended December 31, 2017, December 31, 2016 and December 31, 2015

Consolidated Statements of Cash Flows for the years ended December 31, 2017, December 31, 2016 and December 31, 2015

Notes to the Consolidated Financial Statements



## Exhibits of ICON plc and subsidiaries

Exhibit Number	Title
3.1	Description of the Memorandum and Articles of Association of the Company (incorporated by reference to exhibit 99.2 to the Form 6K (File No. 333-08704) filed on July 25, 2016).
<a href="#">12.1*</a>	Section 302 certifications.
<a href="#">12.2*</a>	Section 906 certifications.
21.1	List of Subsidiaries (incorporated by reference to Item 4 of Form 20-F filed herewith).
<a href="#">23.1*</a>	Consent of KPMG, Independent Registered Public Accounting Firm
101.1*	Interactive Data Files (XBRL – Related Documents)

\* Filed herewith

## Management's Report on Internal Control over Financial Reporting

Management is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Rules 13a-15(f) and 15d-15(f) under the Securities Exchange Act of 1934.

The Company's internal control over financial reporting is a process designed by, or under the supervision of, the Company's executive and financial officers and effected by the Company's board of Directors, management and other personnel, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external reporting purposes in accordance with generally accepted accounting principles.

A company's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorization of management and Directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of the inherent limitation due to, for example, the potential for human error or circumvention of control, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Management assessed the effectiveness of the Company's *internal control over financial reporting* as of December 31, 2017. In making this assessment, we used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in *Internal Control – Integrated Framework 2013*. Based upon the assessment performed, we determined that, as of December 31, 2017 the Company's internal control over financial reporting was effective. In addition, there have been no changes in the Company's internal control over financial reporting during 2017 that have materially affected, or are reasonably likely to affect materially, the Group's internal control over financial reporting.

KPMG, an independent registered public accounting firm, has audited the consolidated financial statements of ICON plc and subsidiaries as of and for the year ended December 31, 2017, included herein, and has issued an audit report on the effectiveness of our internal control over financial reporting, which is included on page 81 and 82 of Form - 20F.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the shareholders and board of directors

ICON plc:

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of ICON plc and subsidiaries ("the Company") as of December 31, 2017 and 2016, the related consolidated statements of operations, comprehensive income, shareholders' equity and comprehensive income, and cash flows for each of the years in the three-year period ended December 31, 2017, and the related notes (collectively, the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2017 and 2016, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2017, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2017, based on criteria established in *Internal Control - Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated February 28, 2018 expressed an unqualified opinion on the effectiveness of the Company's internal control over financial reporting.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

(signed) KPMG

We have served as the Company's auditor since 1990.

Dublin, Ireland

February 28, 2018

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the shareholders and board of directors  
ICON plc:

Opinion on Internal Control Over Financial Reporting

We have audited ICON plc and subsidiaries' (the "Company") internal control over financial reporting as of December 31, 2017, based on criteria established in *Internal Control - Integrated Framework 2013* issued by the Committee of Sponsoring Organizations of the Treadway Commission. In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2017, based on criteria established in *Internal Control - Integrated Framework 2013* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of the Company as of December 31, 2017 and 2016, the related consolidated statements of operations, comprehensive income, shareholders' equity and comprehensive income, and cash flows for each of the years in the three-year period ended December 31, 2017, and the related notes, (collectively, the "consolidated financial statements"), and our report dated February 28, 2018 expressed an unqualified opinion on those consolidated financial statements.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying *Management's Report on Internal Control over Financial Reporting*. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control Over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

(signed) KPMG

Dublin, Ireland  
February 28, 2018

**ICON plc**  
**CONSOLIDATED BALANCE SHEETS**

	December 31, 2017	December 31, 2016
<b>ASSETS</b>	<b>(in thousands)</b>	
<b>Current Assets:</b>		
Cash and cash equivalents	282,859	192,541
Short term investments - available for sale (Note 3)	77,589	68,046
Accounts receivable, net	379,501	416,229
Unbilled revenue	268,509	192,687
Other receivables	33,798	32,044
Prepayments and other current assets	34,377	35,170
Income taxes receivable (Note 13)	24,385	21,241
<b>Total current assets</b>	<b>1,101,018</b>	<b>957,958</b>
<b>Other Assets:</b>		
Property, plant and equipment, net (Note 6)	163,051	148,967
Goodwill (Note 4)	769,058	616,088
Other non-current assets	15,393	13,831
Non-current income taxes receivable (Note 13)	18,396	12,698
Non-current deferred tax asset (Note 13)	8,074	19,691
Intangible assets (Note 5)	71,628	56,610
<b>Total Assets</b>	<b>2,146,618</b>	<b>1,825,843</b>
<b>LIABILITIES AND SHAREHOLDERS' EQUITY</b>		
<b>Current Liabilities:</b>		
Accounts payable	18,590	8,696
Payments on account	298,992	272,757
Other liabilities (Note 7)	233,503	190,727
Income taxes payable (Note 13)	14,973	22,226
<b>Total current liabilities</b>	<b>566,058</b>	<b>494,406</b>
<b>Other Liabilities:</b>		
Non-current bank credit lines and loan facilities (Note 20)	348,888	348,511
Non-current other liabilities (Note 8)	17,111	23,752
Non-current government grants (Note 11)	966	887
Non-current income taxes payable (Note 13)	14,879	8,482
Non-current deferred tax liability (Note 13)	7,716	4,631
Commitments and contingencies (Note 16)	—	—
<b>Total Liabilities</b>	<b>955,618</b>	<b>880,669</b>
<b>Shareholders' Equity:</b>		
Ordinary shares, par value 6 euro cents per share; 100,000,000 shares authorized, (Note 12)		
54,081,601 shares issued and outstanding at December 31, 2017 and 54,530,843 shares issued and outstanding at December 31, 2016.	4,664	4,692
Additional paid-in capital	481,337	438,126
Other undenominated capital (Note 12 (a))	912	809
Accumulated other comprehensive income (Note 19)	(38,713)	(86,300)
Retained earnings	742,800	587,847
<b>Total Shareholders' Equity</b>	<b>1,191,000</b>	<b>945,174</b>
<b>Total Liabilities and Shareholders' Equity</b>	<b>2,146,618</b>	<b>1,825,843</b>

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

**ICON plc**  
**CONSOLIDATED STATEMENTS OF OPERATIONS**

	Year Ended December 31,		
	2017	2016	2015
(in thousands, except share and per share data)			
<b>Revenue:</b>			
Gross revenue	\$ 2,402,321	\$ 2,364,956	\$ 2,161,618
Reimbursable expenses	(643,882)	(698,469)	(586,640)
Net revenue	1,758,439	1,666,487	1,574,978
<b>Costs and expenses:</b>			
Direct costs	1,027,310	961,333	908,979
Selling, general and administrative	323,741	325,726	326,786
Depreciation and amortization	61,297	59,575	57,677
Restructuring and other items, net (Note 14)	7,753	8,159	—
Total costs and expenses	1,420,101	1,354,793	1,293,442
Income from operations	338,338	311,694	281,536
Interest income	2,346	1,484	1,306
Interest expense	(12,627)	(13,006)	(3,992)
Income before provision for income taxes	328,057	300,172	278,850
Provision for income taxes (Note 13)	(46,569)	(37,993)	(39,311)
Net income	\$ 281,488	\$ 262,179	\$ 239,539
<b>Net income per ordinary share:</b>			
Basic	\$ 5.20	\$ 4.75	\$ 4.08
Diluted	\$ 5.13	\$ 4.65	\$ 3.97
<b>Weighted average number of ordinary shares outstanding:</b>			
Basic (Note 2 (u))	54,129,439	55,248,900	58,746,935
Diluted (Note 2 (u))	54,849,046	56,407,136	60,290,033

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

**ICON plc**  
**CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME**

	Year Ended December 31,		
	2017	2016	2015
	(in thousands)		
Net income	\$ 281,488	\$ 262,179	\$ 239,539
<i>Other comprehensive income, net of tax</i>			
Currency translation adjustment	33,966	(12,839)	(35,105)
Currency impact of long-term funding	13,730	(8,428)	3,768
Unrealized capital (loss)/gain– investments	(272)	11	(54)
Actuarial gain/(loss) on defined benefit pension plan	50	(2,485)	2,693
Realized gain on interest rate hedge	—	—	4,658
Amortization of interest rate hedge	(923)	(923)	(41)
Fair value of cash flow hedge	1,036	—	—
<b>Total comprehensive income</b>	<b>\$ 329,075</b>	<b>\$ 237,515</b>	<b>\$ 215,458</b>

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

**ICON plc**  
**CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY AND COMPREHENSIVE INCOME**  
(in thousands, except share and per share data)

	Shares	Amount	Additional Paid-in Capital	Other Undenominated Capital	Accumulated Other Comprehensive Income	Retained Earnings	Total
<b>Balance at December 31, 2014</b>	60,106,780	\$ 5,059	\$ 327,212	\$ 305	\$ (37,555)	\$ 655,185	\$ 950,206
Comprehensive Income:							
Net income	—	—	—	—	—	239,539	239,539
Currency translation adjustment	—	—	—	—	(35,105)	—	(35,105)
Currency impact of long-term funding	—	—	—	—	3,768	—	3,768
Unrealized capital loss - investments	—	—	—	—	(54)	—	(54)
Actuarial gain on defined benefit pension plan	—	—	—	—	2,693	—	2,693
Net gain on interest rate hedge	—	—	—	—	4,617	—	4,617
Total comprehensive income	—	—	—	—	—	—	215,458
Exercise of share options	773,753	52	20,929	—	—	—	20,981
Issue of restricted share units/ performance share units	276,860	18	—	—	—	—	18
Share based compensation expense	—	—	33,317	—	—	—	33,317
Share issue costs	—	—	(8)	—	—	—	(8)
Repurchase of ordinary shares	(6,198,481)	(410)	—	410	—	(457,892)	(457,892)
Share repurchase costs	—	—	—	—	—	(889)	(889)
Excess income tax benefit on exercise of equity compensation	—	—	1,905	—	—	—	1,905
<b>Balance at December 31, 2015</b>	54,958,912	\$ 4,719	\$ 383,355	\$ 715	\$ (61,636)	\$ 435,943	\$ 763,096
Comprehensive Income:							
Net income	—	—	—	—	—	262,179	262,179
Currency translation adjustment	—	—	—	—	(12,839)	—	(12,839)
Currency impact of long-term funding	—	—	—	—	(8,428)	—	(8,428)
Unrealized capital gain - investments	—	—	—	—	11	—	11
Actuarial loss on defined benefit pension plan	—	—	—	—	(2,485)	—	(2,485)
Amortization of interest rate hedge	—	—	—	—	(923)	—	(923)
Total comprehensive income	—	—	—	—	—	—	237,515
Exercise of share options	393,240	26	10,113	—	—	—	10,139
Issue of restricted share units / performance share units	607,878	41	—	—	—	—	41
Share based compensation expense	—	—	40,343	—	—	—	40,343
Share issue costs	—	—	(17)	—	—	—	(17)
Repurchase of ordinary shares	(1,429,187)	(94)	—	94	—	(110,000)	(110,000)
Share repurchase costs	—	—	—	—	—	(275)	(275)
Excess income tax benefit on exercise of equity compensation (net of deferred tax)	—	—	4,332	—	—	—	4,332
<b>Balance at December 31, 2016</b>	54,530,843	\$ 4,692	\$ 438,126	\$ 809	\$ (86,300)	\$ 587,847	\$ 945,174



**ICON plc**  
**CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY AND COMPREHENSIVE INCOME**  
(in thousands, except share and per share data)

	Shares	Amount	Additional Paid-in Capital	Other Undenominated Capital	Accumulated Other Comprehensive Income	Retained Earnings	Total
<b>Balance at December 31, 2016</b>	54,530,843	\$ 4,692	\$ 438,126	\$ 809	\$ (86,300)	\$ 587,847	\$ 945,174
Comprehensive Income:							
Net income	—	—	—	—	—	281,488	281,488
Currency translation adjustment	—	—	—	—	33,966	—	33,966
Currency impact of long-term funding	—	—	—	—	13,730	—	13,730
Unrealized capital loss - investments	—	—	—	—	(272)	—	(272)
Actuarial gain on defined benefit pension plan	—	—	—	—	50	—	50
Amortization of interest rate hedge	—	—	—	—	(923)	—	(923)
Fair value of cash flow hedge	—	—	—	—	1,036	—	1,036
<b>Total comprehensive income</b>	—	—	—	—	—	—	329,075
Exercise of share options	458,243	31	13,875	—	—	—	13,906
Issue of restricted share units / performance share units	681,742	44	—	—	—	—	44
Share based compensation expense	—	—	29,351	—	—	—	29,351
Share issue costs	—	—	(15)	—	—	—	(15)
Repurchase of ordinary shares	(1,589,227)	(103)	—	103	—	(133,106)	(133,106)
Share repurchase costs	—	—	—	—	—	(106)	(106)
Cumulative effect adjustment from adoption of ASU 2016-09	—	—	—	—	—	6,677	6,677
<b>Balance at December 31, 2017</b>	54,081,601	\$ 4,664	\$ 481,337	\$ 912	\$ (38,713)	\$ 742,800	\$ 1,191,000

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

**ICON plc**  
**CONSOLIDATED STATEMENTS OF CASH FLOWS**

	Year Ended December 31, 2017	Year Ended December 31, 2016	Year Ended December 31, 2015
(in thousands)			
<b>Cash flows from operating activities:</b>			
Net income	\$ 281,488	\$ 262,179	\$ 239,539
Adjustments to reconcile net income to net cash provided by operating activities:			
Loss on disposal of property, plant and equipment	228	151	55
Depreciation expense	43,436	42,125	40,210
Amortization of intangibles	17,861	17,450	17,467
Amortization of government grants	(44)	(44)	53
Interest on short term investments	(1,088)	(823)	(571)
Realized (gain)/loss on sale of short term investments	(112)	(50)	113
Amortization of gain on interest rate hedge	(923)	(923)	(41)
Amortization of financing costs	556	566	—
Stock compensation expense	30,573	40,343	33,317
Deferred taxes	10,729	1,545	3,157
Changes in assets and liabilities:			
Decrease/(increase) in accounts receivable	57,747	2,526	(18,671)
Increase in unbilled revenue	(62,491)	(16,753)	(29,281)
Decrease/(increase) in other receivables	1,771	(1,829)	(14,519)
Decrease/(increase) in prepayments and other current assets	4,359	1,872	(8,631)
Increase in other non-current assets	(1,524)	(2,157)	(55)
(Decrease)/increase in payments on account	(7,174)	(45,754)	34,644
Increase/(decrease) in other current liabilities	6,679	(44,713)	(26,266)
(Decrease)/increase in other non-current liabilities	(3,710)	3,008	6,378
Decrease in income taxes payable	(2,293)	(690)	(949)
Increase in accounts payable	7,014	1,175	3,124
<b>Net cash provided by operating activities</b>	<b>383,082</b>	<b>259,204</b>	<b>279,073</b>
<b>Cash flows from investing activities:</b>			
Purchase of property, plant and equipment	(44,717)	(42,601)	(49,730)
Purchase of subsidiary undertakings	(144,131)	(54,209)	(166,292)
Cash acquired with subsidiary undertaking	19,649	3,168	194
Sale of short term investments	33,086	40,858	25,708
Purchase of short term investments	(41,701)	(22,030)	(14,194)
<b>Net cash used in investing activities</b>	<b>(177,814)</b>	<b>(74,814)</b>	<b>(204,314)</b>
<b>Cash flows from financing activities:</b>			
Drawdown of credit lines and facilities	—	73,000	851,500
Repayment of credit lines and facilities	—	(73,000)	(501,500)
Proceeds from the exercise of equity compensation	13,950	10,180	20,999
Share issue costs	(15)	(17)	(8)
Excess tax benefit on exercise of equity compensation	—	6,402	1,905
Repurchase of ordinary shares	(133,106)	(110,000)	(457,892)
Share repurchase costs	(106)	(275)	(889)
Repayment of government grant	—	—	(159)
Proceeds from interest rate hedge	—	—	4,658
<b>Net cash used in financing activities</b>	<b>(119,277)</b>	<b>(93,710)</b>	<b>(81,386)</b>
Effect of exchange rate movements on cash	4,327	(2,050)	(8,362)
<b>Net increase/(decrease) in cash and cash equivalents</b>	<b>90,318</b>	<b>88,630</b>	<b>(14,989)</b>
Cash and cash equivalents at beginning of year	192,541	103,911	118,900
<b>Cash and cash equivalents at end of year</b>	<b>\$ 282,859</b>	<b>\$ 192,541</b>	<b>\$ 103,911</b>

The accompanying notes are an integral part of these consolidated financial statement

**ICON plc**  
**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS**

**1. Description of business**

ICON plc and its subsidiaries ("the Company" or "ICON") is a clinical research organization ("CRO"), providing outsourced development services on a global basis to the pharmaceutical, biotechnology and medical device industries. We specialize in the strategic development, management and analysis of programs that support all stages of the clinical development process from compound selection to Phase I-IV clinical studies. 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.

We believe that we are one of a select group of CROs with the expertise and capability to conduct clinical trials in most major therapeutic areas on a global basis and have the operational flexibility to provide development services on a stand-alone basis or as part of an integrated "full service" solution. At December 31, 2017 we had approximately 13,250 employees, in 98 locations in 38 countries. During the year ended December 31, 2017, we derived approximately 45.0%, 43.3% and 11.7% of our net revenue in the United States, Europe and Rest of World, respectively.

We began operations in 1990 and have expanded our business predominately through internal growth, together with a number of strategic acquisitions to enhance our capabilities and expertise in certain areas of the clinical development process. We are incorporated in Ireland and our 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 2912000.

**2. Significant Accounting Policies**

The accounting policies noted below were applied in the preparation of the accompanying financial statements of the Company and are in conformity with accounting principles generally accepted in the United States.

(a) Basis of consolidation

The consolidated financial statements include the financial statements of the Company and all of its subsidiaries. All significant intercompany profits, transactions and account balances have been eliminated. The results of subsidiary undertakings acquired in the period are included in the Consolidated Statement of Operations from the date of acquisition.

(b) Use of estimates

The preparation of financial statements in conformity with generally accepted accounting principles in the United States requires management to make estimates and judgments that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reported period. Actual results could differ from those estimates. The principal management estimates and judgments used in preparing the financial statements relate to revenue recognition and taxation.

(c) 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, biometric activities, consulting, imaging, contract staffing, informatics and laboratory services. Contracts range in duration from a number of months to several years. Revenue for services, as rendered, is recognized only after persuasive evidence of an arrangement exists, the sales price is fixed or determinable and collectability is reasonably assured.

Clinical trials management revenue is recognized on a proportional performance method. Depending on the contractual terms revenue is either recognized on the percentage of completion method based on the relationship between hours incurred and the total estimated hours of the trial or on the unit of delivery method. Contract costs equate to the product of labor hours incurred and compensation rates. For the percentage of completion method, the input (effort expended) method has been used to measure progress towards completion as there is a direct relationship between input and productivity. Contract revenue is the product of the aggregated labor hours required to complete the specified contract tasks at the agreed contract rates. The Company regularly reviews the estimate of total contract time to ensure such estimates remain appropriate taking into account actual contract stage of completion, remaining time to complete and any identified changes to the contract scope. Remaining time to complete depends on the specific contract tasks, the complexity of the contract and can include geographical site selection and initiation, patient enrollment, patient testing and level of results analysis required. While the Company may routinely adjust time estimates, the Company's estimates and assumptions historically have been accurate in all material respects in the aggregate. Where revenue is recognized on the unit of delivery method, the basis applied is the number of units completed as a percentage of the total number of contractual units.

Biometrics revenue is recognized on a fee-for-service method as each unit of data is prepared on the basis of the number of units completed in a period as a percentage of the total number of contracted units. Imaging revenue is recognized on a fee-for-service basis recognizing revenue for each image completed. Consulting revenue is recognized on a fee-for-service basis as each hour of the related service is performed. Contract staffing revenue is recognized on a fee-for-service basis, over the time the related service is performed, or in the case of permanent placement, once the candidate has been placed with the client. Informatics revenue is recognized on a fee-for-service basis. Informatics contracts are treated as multiple element arrangements, with contractual elements comprising license fee revenue, support fee revenue and revenue from software services, each of which can be sold separately. Sales prices for contractual elements are determined by reference to objective and reliable evidence of their sales price. License and support fee revenues are recognized rateably over the period of the related agreement. Revenue from software services is recognized using the percentage of completion method based on the relationship between hours incurred and the total estimated hours required to perform the service.

Laboratory service revenue is recognized on a fee-for-service basis. The Company accounts for laboratory service contracts as multiple element arrangements, with contractual elements comprising laboratory kits and laboratory testing, each of which can be sold separately. Sales prices for contractual elements are determined by reference to objective and reliable evidence of their sales price. Revenues for contractual elements are recognized on the basis of the number of deliverable units completed in the period.

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 recognized as revenue by revision to the total contract value arising as a result of an authorized customer change order.

The difference between the amount of revenue recognized and the amount billed on a particular contract is included in the Consolidated Balance Sheet as unbilled revenue or payments on account. Normally, amounts become billable upon the achievement of certain milestones, for example, target patient enrollment rates, clinical testing sites initiated or case report forms completed. Once the milestone target is reached, amounts become billable in accordance with pre-agreed payment schedules included in the contract or on submission of appropriate billing detail. Such cash payments are not representative of revenue earned on the contract as revenues are recognized over the period in which the specified contractual obligations are fulfilled. Amounts included in unbilled revenue are expected to be collected within one year and are included within current assets. Advance billings to customers, for which revenue has not been recognized, are recognized as payments on account within current liabilities.

In the event of contract termination, if the value of work performed and recognized as revenue is greater than aggregate milestone billings at the date of termination, cancellation clauses usually ensure that the Company is paid for all work performed to the termination date.

(d) Reimbursable expenses

Reimbursable expenses comprise investigator payments and certain other costs which are reimbursed by clients under terms specific to each contract and are deducted from gross revenue in arriving at net revenue. Investigator payments are accrued based on patient enrollment over the life of the contract. Investigator payments are made based on predetermined contractual arrangements, which may differ from the accrual of the expense.

(e) Direct costs

Direct costs consist of compensation, associated employee benefits and share-based payments for project-related employees and other direct project-related costs.

(f) Advertising costs

All costs associated with advertising and promotion are expensed as incurred. The advertising and promotion costs were \$6,744,333, \$7,167,050 and \$4,513,750 for the years ended December 31, 2017, December 31, 2016 and December 31, 2015 respectively.

(g) Foreign currencies and translation of subsidiaries

The Company's financial statements are prepared in United States dollars. Transactions in currencies other than United States dollars are recorded at the rate ruling at the date of the transaction. Monetary assets and liabilities denominated in currencies other than United States dollars are translated into United States dollars at exchange rates prevailing at the Balance Sheet date. Adjustments resulting from these translations are charged or credited to income. Amounts charged or credited to the Consolidated Statement of Operations for the years ended December 31, 2017, December 31, 2016 and December 31, 2015 were as follows:

	Year ended December 31, (in thousands)		
	2017	2016	2015
Amounts charged/(credited)	\$ 7,760	\$ 2,094	\$ (3,608)

The financial statements of subsidiaries with other functional currencies are translated at period end rates for the Consolidated Balance Sheet and average rates for the Consolidated Statement of Operations. Translation gains and losses arising are reported as a movement on accumulated other comprehensive income. Foreign currency transaction gains and losses are reporting in other comprehensive income rather than through income where the foreign currency transaction is 'long-term investment' in nature i.e. settlement is not planned or anticipated in the foreseeable future.

(h) Disclosure about fair value of financial instruments

Cash, cash equivalents, unbilled revenue, other receivables, short term investments, prepayments and other current assets, accounts receivable, accounts payable, investigator payments, payments on account, accrued liabilities, accrued bonuses and income taxes payable have carrying amounts that approximate fair value due to the short term maturities of these instruments. Other liabilities' carrying amounts approximate fair value based on net present value of estimated future cash flows.

Financial instruments are measured in the Consolidated Balance Sheet fair value using a fair value hierarchy of valuation inputs. The hierarchy prioritizes 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 Company classifies its short term investments as available for sale, as it does not actively trade such securities nor does it intend to hold them to maturity. The fair value of short term investments are represented by level 1 fair value measurements – quoted prices in active markets for identical assets. The unrealized movements in fair value are recognized in equity until disposal or sale, at which time, those unrealized movements from prior periods are recognized in Consolidated Statement of Operations. Losses other than temporary, which reduce the carrying amount below cost are recognized in Consolidated Statement of Operations.

(i) Business combinations

The cost of a business combination is measured as the aggregate of the fair values at the date of exchange of assets given, liabilities incurred or assumed and equity instruments issued in exchange for control. 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 recognized at the acquisition date at the fair value of the contingent consideration. Any changes to this estimate outside the measurement period 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 will be accounted for through the Consolidated Statement of Operations or Other Comprehensive Income depending on whether the liability is considered a financial instrument.

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 determined at the date of each exchange transaction. 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 goodwill in the reporting period in which the adjustments are determined.

(j) Goodwill and Impairment

Goodwill represents the excess of the cost of acquired entities over the net amounts assigned to assets acquired and liabilities assumed. Goodwill primarily comprises acquired workforce in place which does not qualify for recognition as an asset apart from goodwill. Goodwill is stated net of any provision for impairment. The Company tests goodwill annually for any impairments or whenever events occur which may indicate impairment. The first step is to compare the carrying amount of the reporting unit's assets to the fair value of the reporting unit. If the carrying amount exceeds the fair value then a second step is completed which involves the fair value of the reporting unit being allocated to each asset and liability with the excess being goodwill. The impairment loss is the amount by which the recorded goodwill exceeds the implied goodwill. No impairment was recognized as a result of the impairment testing carried out for the years ended December 31, 2017, December 31, 2016 and December 31, 2015.

(k) Intangible assets

Intangible assets are amortized on a straight line basis over their estimated useful life.

(l) Cash and cash equivalents

Cash and cash equivalents include cash and highly liquid investments with initial maturities of three months or less and are stated at cost, which approximates market value.

(m) Short term investments - available for sale

The Company classifies short-term investments as available for sale in accordance with the terms of FASB ASC 320, *Investments – Debt and Equity Securities*. Realized gains and losses are determined using specific identification. The investments are reported at fair value, with unrealized gains or losses reported in a separate component of shareholders' equity. Any differences between the cost and fair value of the investments are represented by accrued interest and unrealized gains/losses.

(n) Accounts receivable, net

Accounts receivable are recorded at fair value less an allowance for doubtful accounts. The allowance is an estimate based on historical collection experience, current economic and market conditions, and a review of the current status of each customer's trade accounts receivable. Account balances are written-off against the allowance when the Group determines that it is probable that the receivable will not be recovered.

(o) Inventory

Inventory is valued at the lower of cost and net realizable value and after provisions for obsolescence. The cost of inventories comprises the purchase price and attributable costs, less trade discounts. At December 31, 2017 the carrying value of inventory, included within prepayments and other current assets on the Consolidated Balance Sheet, was \$2.2 million (2016: \$2.4 million).

(p) Property, plant and equipment

Property, plant and equipment is stated at cost less accumulated depreciation. Depreciation of property, plant and equipment is computed using the straight line method based on the estimated useful lives of the assets as listed below:

	<u>Years</u>
Building	40
Computer equipment and software	2-8
Office furniture and fixtures	8
Laboratory equipment	5
Motor vehicles	5

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

(q) Leased assets

Costs in respect of operating leases are charged to the Consolidated Statement of Operations on a straight line basis over the lease term.

Assets acquired under capital finance leases are included in the Consolidated Balance Sheet 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 Balance Sheet and the interest element of the capital lease rental is charged to interest expense.

(r) Income taxes

The Company applies the asset and liability method of accounting for income taxes. Under the asset and liability method, deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases and operating loss and tax credit carryforwards. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which these temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date. Deferred tax assets are reduced by a valuation allowance to the amount more likely than not to be realized. The Company recognizes the effect of income tax positions only if those positions will more likely than not be sustained. Recognized income tax positions are measured at the largest amount of tax benefit that is greater than 50 percent likely of being realized upon settlement. Interest and penalties related to income taxes are included in income tax expense and classified with the related liability on the Consolidated Balance Sheet. The Company intends to account for the impact of GILTI (“global intangible low-taxed income”) as a period item in the period it arises and has therefore not provided for deferred taxes in respect of this item.

(s) Government grants

Government grants received relating to capital expenditures are shown as deferred income and credited to income on a basis consistent with the depreciation policy of the relevant assets. Grants relating to categories of operating expenditures are credited to income in the period in which the expenditure to which they relate is charged.

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

(t) Research and development credits

Research and development credits are available to the Company under the tax laws in certain jurisdictions, based on qualifying research and development spend as defined under those tax laws. Research and development credits are generally recognized as a reduction of income tax expense. However, certain tax jurisdictions provide refundable credits that are not wholly dependent on the Company's ongoing income tax status or income tax position. In these circumstances the benefit of these credits is not recorded as a reduction to income tax expense, but rather as a reduction of operating expenditure.

(u) Pension costs

The Company contributes to defined contribution plans covering all eligible employees. The Company contributes to these plans based upon various fixed percentages of employee compensation and such contributions are expensed as incurred.

The Company operates, through two subsidiaries, a defined benefit plan for certain of its United Kingdom and Swiss employees. The Company accounts for the costs of these plans using actuarial models required by FASB ASC 715-30 and these plans are presented in accordance with the requirements of FASB ASC 715-60 *Defined Benefit Plans – Other Post retirement*.

(v) Net income per ordinary share

Basic net income per ordinary share has been computed by dividing net income available to ordinary shareholders by the weighted average number of ordinary shares outstanding during the 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. The reconciliation of the number of shares used in the computation of basic and diluted net income per ordinary share is as follows:

	Year Ended December 31,		
	2017	2016	2015
Weighted average number of ordinary shares outstanding for basic net income per ordinary share	54,129,439	55,248,900	58,746,935
Effect of dilutive share options outstanding	719,607	1,158,236	1,543,098
Weighted average number of ordinary shares outstanding for diluted net income per ordinary share	54,849,046	56,407,136	60,290,033

(w) Share-based compensation

The Company accounts for its share options, restricted share units ("RSUs") and performance share units ("PSUs") in accordance with the provisions of FASB ASC 718, *Compensation – Stock Compensation*. Share-based compensation expense for equity-settled awards made to employees and Directors is measured and recognized based on estimated grant date fair values. These equity-settled awards include employee share options, RSUs and PSUs.

Share-based compensation expense for share options awarded to employees and Directors is estimated at the grant date based on each option's fair value as calculated using the Black-Scholes option-pricing model. Share-based compensation for RSUs and PSUs awarded to employees and Directors is calculated based on the market value of the Company's shares on the date of award of the RSUs and PSUs. The value of awards expected to vest is recognized as an expense over the requisite service periods. Forfeitures are estimated on the date of grant and revised if actual or expected forfeiture activity differs materially from original estimates.

Estimating the grant date fair value of share options as of the grant date using an option-pricing model, such as the Black-Scholes model, is affected by the Company's share price as well as assumptions regarding a number of complex variables. These variables include, but are not limited to, the expected share price volatility over the term of the awards, risk-free interest rates and the expected term of the awards.

Liability classified awards are measured at the fair value of the award on the grant date and remeasured at each reporting period at fair value until the award is settled.



(x) Impairment of long-lived assets

Long-lived assets are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Recoverability of assets to be held and used is measured by a comparison of the carrying amount of the asset to future undiscounted net cash flows expected to be generated by the asset. If such assets are considered to be impaired, the impairment to be recognized is measured at the amount by which the carrying amount of the asset exceeds the fair value of the asset. Assets to be disposed of are reported at the lower of the carrying amount of the asset or fair value less selling costs.

(y) Derivative financial instruments

We enter into transactions in the normal course of business using various financial instruments in order to hedge against exposure to fluctuating exchange and interest rates. We use derivative financial instruments to reduce exposure to fluctuations in interest rates. A derivative is a financial instrument or other contract whose value changes in response to some underlying variable, which has an initial net investment smaller than would be required for other instruments that have a similar response to the variable and that will be settled at a future date. We do not enter into derivative financial instruments for trading or speculative purposes. We did not hold any interest rate swap contracts or forward currency contracts at December 31, 2016 or December 31, 2015.

We use derivative financial instruments to reduce exposure to fluctuations in foreign exchange rates. During the year-ended December 31, 2017, we entered into forward currency contracts in respect of identified exposure arising from euro payments. The fair value of the derivative asset at December 31, 2017 was \$1.2 million (included in other receivables). The forward currency contracts expire within 12 months of year-end.

Our accounting policies for derivative financial instruments are based on whether they meet the criteria for designation as cash flow or fair value hedges. A designated hedge of the exposure to variability in the future cash flows of an asset or a liability, or of a forecasted transaction, is referred to as a cash flow hedge. A designated hedge of the exposure to changes in fair value of an asset or a liability is referred to as a fair value hedge. The criterion for designating a derivative as a hedge includes the assessment of the instrument's effectiveness in risk reduction, matching of the derivative instrument to its underlying transaction and the probability that the underlying transaction will occur. For derivatives with cash flow hedge accounting designation, we report the gain or loss from the effective portion of the hedge as a component of Other Comprehensive Income and reclassify it into earnings in the same period or periods in which the hedged transaction affects earnings and within the same income statement line item as the impact of the hedged transaction. For derivatives with fair value hedge accounting designation, we recognize gains or losses from the change in fair value of these derivatives, as well as the offsetting change in the fair value of the underlying hedged item, in earnings. Fair value gains and losses arising on derivative financial instruments not qualifying for hedge accounting are reported in our Consolidated Statement of Operations.

(z) Financing costs and gain on interest rate hedge

The interest rate in respect of the Senior Notes is fixed at 3.64% for the five year term of the agreement. The associated interest cost is recognized in interest expense in the period since drawdown in December 2015.

On October 5, 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 November 17, 2015 when the interest rate on the Senior Notes was fixed. The interest rate hedge was effective in accordance with Financial Accounting Standards Board ("FASB") ASC 815, "Derivatives and Hedging". The cash proceeds (\$4.6 million), representing the realized gain on the interest rate hedge, were received on maturity in November 2015 and are recorded within Other Comprehensive Income. The realized gain will be amortized to the Consolidated Statement of Operations, net against interest payable, over the period of the Senior Notes.

Deferred financing costs (including issue costs relating to the Senior Notes) are reported at cost less accumulated amortization and the related amortization expense is included in interest expense, in our Consolidated Statement of Operations.

(aa) Reclassifications

Certain amounts in the consolidated financial statements have been reclassified where necessary to conform to the current year presentation.

### 3. Short term investments - available for sale

	December 31, 2017	December 31, 2016
	(in thousands)	
At start of year	\$ 68,046	\$ 85,990
Purchases	41,701	22,030
Sales and maturities	(33,086)	(40,858)
Interest on short term investments	1,088	823
Realized gain on sale of short term investments	112	50
Unrealized capital (loss)/gain – investments	(272)	11
At end of year	\$ 77,589	\$ 68,046

The Company classifies its short term investments as available for sale. Short term investments comprise highly liquid investments with maturities of greater than three months and minimum "A-" rated fixed and floating rate securities. Short term investments at December 31, 2017 have an average maturity of 1.58 years compared to 1.37 years at December 31, 2016. The investments are reported at fair value with unrealized gains or losses reported in a separate component of shareholders' equity. Any differences between the cost and fair value of investments are represented by accrued interest and unrealized gains/losses. The fair value of short term investments are represented by level 1 fair value measurements – quoted prices in active markets for identical assets.

The following table represents our available for sale short term investments by major security type as of December 31, 2017:

	Cost Total	Unrealized gains / (losses)	Fair Value Total	Maturity by period	
				Less than 1 year	1 to 5 years
(U.S.\$ in millions)					
US government debt securities	13.95	(0.11)	13.84	1.99	11.85
Corporate securities	62.61	(0.19)	62.42	23.06	39.36
Term deposits	1.33	—	1.33	1.33	—
Total (U.S.\$ in millions)	\$ 77.89	\$ (0.30)	\$ 77.59	\$ 26.38	\$ 51.21

The contractual maturity of certain of the portfolio is greater than 12 months, however classification as short-term investments reflects the Company practice and intention in respect of these investments. The company recognizes the unrealized losses in fair value in equity as these unrealized losses on short term investments have been considered as temporary.

### 4. Goodwill

	December 31, 2017	December 31, 2016
	(in thousands)	
Opening goodwill	\$ 616,088	\$ 588,434
Current year acquisitions (note 4 (a))	129,222	34,576
Prior period acquisition (note 4 (b))	1,393	7,689
Foreign exchange movement	22,355	(14,611)
Closing goodwill	\$ 769,058	\$ 616,088

The Company has made a number of strategic acquisitions since inception to enhance its capabilities and experience in certain areas of the clinical development process. Goodwill arising on acquisition represents the excess of the cost of acquired entities over the net amounts assigned to assets acquired and liabilities assumed. Goodwill primarily comprises of the acquired workforce in place which does not qualify for recognition as an asset apart from goodwill.

The Company acquired Mapi Developments SAS ('Mapi') during the year-ended December 31, 2017 resulting in the recognition of goodwill of \$129.2 million (note 4 (a)).

The Company tests goodwill annually for impairment or whenever events occur which may indicate impairment. The results of the Company's goodwill impairment testing (assessed at September 30, 2017) during the year ended December 31, 2017 provided no evidence of impairment and indicated the existence of sufficient headroom such that a reasonably possible change to the key assumptions used would be unlikely to result in an impairment of the related goodwill.

(a) *Acquisitions - Mapi Group*

On July 27, 2017, a subsidiary of the Company, ICON Clinical Research Limited, acquired Mapi Group. Mapi Group is a leading patient-centered health outcomes research and commercialization company. Cash outflows on acquisition were \$144.1 million.

The acquisition of Mapi has been accounted for as a business combination in accordance with FASB ASC 805 *Business Combinations*. The Company has made a provisional assessment of the fair value of assets acquired and liabilities assumed as at that date. The table following summarizes the Company's provisional estimates of the fair values of the assets acquired and liabilities assumed:

	July 27, 2017
	(in thousands)
Cash	\$ 19,649
Property, plant and equipment	3,410
Goodwill*	129,222
Intangible assets**	32,305
Accounts receivable	15,467
Unbilled revenue	8,484
Prepayments and other current assets	3,160
Other receivables	1,430
Income taxes receivable	4,262
Accounts payable	(3,166)
Payments on account	(31,341)
Other liabilities	(26,586)
Non-current other liabilities	(1,061)
Non-current deferred tax liability	(11,104)
Net assets acquired	\$ 144,131
Cash outflows	\$ 144,131
Total consideration	\$ 144,131

\*Goodwill represents the acquisition of an established workforce with experience in late phase commercialization, 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.

\*\*The Company has made an initial estimate of separate intangible assets acquired of \$32.3 million, being customer relationships and order book assets. This assessment is under review and will be finalized within 12 months of the date of acquisition.

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

	<b>Year Ended</b>	
	<b>December 31,</b>	
	<b>2017</b>	<b>2016</b>
	<b>(in thousands)</b>	
Net revenue	\$ 1,811,018	\$ 1,750,643
Net income	\$ 284,903	\$ 263,101
Basic earnings per share	\$ 5.26	\$ 4.76
Diluted earnings per share	\$ 5.19	\$ 4.66

*(b) Acquisition of ClinicalRM*

On September 15, 2016, a subsidiary of the Company, ICON US Holdings Inc. acquired Clinical Research Management, Inc. ("ClinicalRM") which resulted in net cash outflows of \$52.4 million (including certain payments made on behalf of ClinicalRM totaling \$9.2 million). ClinicalRM is a full-service CRO specializing in preclinical through Phase IV support of clinical research and clinical trial services for biologics, drugs and devices. The organization helps customers progress their products to market faster with a wide array of research, regulatory and sponsor services within the U.S. and around the globe. ClinicalRM provide full service and functional research solutions to a broad range of US government agencies. Their extensive expertise extends across basic and applied research, infectious diseases, vaccines development, testing and the response to bio-threats. They have worked in collaboration with government and commercial customers to respond to the threat of global viral epidemics. Further consideration of up to \$12.0 million is payable if certain performance milestones are achieved in respect of periods up to December 31, 2017. The fair value of the contingent consideration on acquisition and at March 31, 2017, was estimated at \$6.0 million. The evaluation of the performance and forecast performance of ClinicalRM against performance milestones was updated as required at June 30, 2017. Arising from that evaluation, the fair value of the contingent consideration liability was determined as \$Nil, resulting in a net credit of \$6.0 million being recorded within selling, general & administrative expenses in the Consolidated Statement of operations. The fair value of the contingent consideration at December 31, 2017 is \$Nil.

The acquisition of ClinicalRM has been accounted for as a business combination in accordance with FASB ASC 805 *Business Combinations*. The table following summarizes the fair values of the assets acquired and liabilities assumed:

	<b>September 15, 2016</b>	
	<b>(in thousands)</b>	
Cash	\$	3,168
Property, plant and equipment		939
Goodwill*		35,969
Customer lists		4,012
Order backlog		1,668
Brand		1,409
Accounts receivable		11,431
Unbilled revenue		3,868
Prepayments and other current assets		1,673
Accounts payable		(165)
Other liabilities		(5,569)
Non-current other liabilities		(7)
<b>Net assets acquired</b>	<b>\$</b>	<b>58,396</b>
Cash outflows (including other liabilities assumed of \$9.2 million)	\$	52,396
Assessment of valuation of contingent consideration at acquisition		6,000
<b>Net purchase consideration</b>	<b>\$</b>	<b>58,396</b>

\*Goodwill represents the acquisition of an established workforce with experience in preclinical through Phase IV support of clinical research and clinical trial services for biologics, drugs and devices. Goodwill related to the US portion of the business acquired is tax deductible. In finalizing the goodwill on acquisition of CRM in the twelve month period from acquisition, fair value adjustments were made which resulted in an increase to unbilled revenue (\$1.1 million) and other liabilities (\$1.1 million) and in a decrease to accounts receivable (\$0.3 million) and accounts payable (\$0.5 million). Customer list, order backlog and brand intangible asset values were also finalized.

The proforma effect of the ClinicalRM acquisition if completed on January 1, 2015 would have resulted in net revenue, net income and earnings per share for the fiscal years ended December 31, 2016 and December 31, 2015 as follows:

	<b>Year Ended December 31,</b>	
	<b>2016</b>	<b>2015</b>
	<b>(in thousands)</b>	
Net revenue	\$ 1,713,245	\$ 1,639,085
Net income	\$ 266,148	\$ 244,167
Basic earnings per share	\$ 4.82	\$ 4.16
Diluted earnings per share	\$ 4.72	\$ 4.05

(c) Acquisition of PMG

On December 4, 2015, a subsidiary of the Company, ICON Clinical Research LLC, acquired PMG for cash consideration of \$65.4 million, including certain payments on behalf of PMG totaling \$10.1 million. PMG is an integrated network of 52 clinical research sites in North Carolina, South Carolina, Tennessee, Illinois and Iowa. The site network includes wholly owned facilities and dedicated clinical research sites. PMG conducts clinical trials in all major therapeutic areas and has particular expertise in vaccine, gastroenterology, cardiovascular, neurology and endocrinology studies. It has a proprietary database of clinical trial participants. It also has access to in excess of 2 million active patients via electronic medical records through its partnerships with health care institutions and community physical practices.

The acquisition of PMG has been accounted for as a business combination in accordance with FASB ASC 805 *Business Combinations*. The table following summarizes the fair values of the assets acquired and liabilities assumed;

	<b>December 4, 2015</b>	
	<b>(in thousands)</b>	
Cash	\$	194
Property, plant and equipment		712
Goodwill*		48,728
Customer lists		6,938
Order backlog		2,948
Accounts receivable		11,597
Prepayments and other current assets		1,329
Accounts payable		(530)
Other liabilities		(3,456)
Non-current deferred tax liability		(3,106)
<b>Net assets acquired</b>	<b>\$</b>	<b>65,354</b>
Cash consideration	\$	53,681
Other liabilities assumed		10,060
Working capital adjustment		1,613
<b>Total cash outflows</b>	<b>\$</b>	<b>65,354</b>

\*Goodwill represents the acquisition of an established workforce with experience in clinical trial consulting and regulatory support for the development of drugs, medical devices and diagnostics, with a specific focus on strategy to increase efficiency and productivity in product development. In finalizing the goodwill on acquisition of PMG in the twelve month period from acquisition, fair value adjustments of \$7.7 million were made to deferred tax liabilities (\$3.1 million), accounts receivable acquired (\$1.4 million), other liabilities (\$1.2 million) and the value of the customer list and order backlog assets acquired (\$0.4 million). Additional consideration of \$1.6 million was provided on completion of the contractual working capital process.

The proforma effect of the PMG acquisition if completed on January 1, 2014 would have resulted in net revenue, net income and earnings per share for the fiscal years ended December 31, 2015 and December 31, 2014 as follows:

	<b>Year Ended</b>			
	<b>December 31,</b>			
	<b>2015</b>		<b>2014</b>	
	<b>(in thousands)</b>			
Net revenue	\$	1,601,891	\$	1,527,685
Net income	\$	243,004	\$	172,390
Basic earnings per share	\$	4.14	\$	2.80
Diluted earnings per share	\$	4.03	\$	2.73

(d) Acquisition of MediMedia Pharma Solutions

On February 27, 2015, a subsidiary of the Company, ICON Holdings Unlimited Company (formerly ICON Holdings), acquired MediMedia Pharma Solutions for cash consideration of \$104.7 million (net of working capital adjustments of \$4.0 million). In addition to the cash consideration, certain payments were made on behalf of MediMedia Pharma Solutions on completion totaling \$11.3 million. Headquartered in Yardley, Pennsylvania, MediMedia Pharma Solutions includes MediMedia Managed Markets and Complete Healthcare Communications. MediMedia Managed Markets is a leading provider of strategic payer-validated market access solutions. Complete Healthcare Communications is one of the leading medical and scientific communication agencies working with medical affairs, commercial and brand development teams within life science companies. The acquisition agreement provides for certain working capital targets to be achieved by MediMedia Pharma Solutions.

The acquisition of MediMedia Pharma Solutions has been accounted for as a business combination in accordance with FASB ASC 805 *Business Combinations*. The following table summarizes the fair values of the assets acquired and liabilities assumed on acquisition:

	<b>February 27, 2015</b>
	<b>(in thousands)</b>
Property, plant and equipment	\$ 1,049
Goodwill*	92,084
Customer lists	22,752
Order backlog	2,521
Accounts receivable	5,240
Unbilled Revenue	4,324
Prepayments and other current assets	621
Accounts payable	(749)
Payments on account	(4,186)
Deferred tax liability	(2,171)
Other liabilities	(5,483)
Net assets acquired	\$ 116,002
<hr/>	
Cash consideration	\$ 108,717
Other liabilities assumed**	11,283
Gross cash outflows	120,000
Working capital adjustment	(3,998)
Net cash outflows	\$ 116,002

\* Goodwill represents the acquisition of an established workforce with experience in the provision of strategic payer-validated market access solutions while the acquisition of Complete Healthcare Communications comprises an established workforce with significant communication experience working with medical affairs, commercial and brand development teams within the life science industry. Goodwill related to the US portion of the business acquired is tax deductible.

\*\* Payments made at acquisition date of \$11.3 million were in respect of certain one-time liabilities at the acquisition date which have subsequently been discharged.

The proforma effect of the MediMedia Pharma Solutions acquisition if completed on January 1, 2014 would have resulted in net revenue, net income and earnings per share for the fiscal years ended December 31, 2015 and December 31, 2014 as follows:

	<b>Year Ended December 31,</b>	
	<b>2015</b>	<b>2014</b>
	<b>(in thousands)</b>	
Net revenue	\$ 1,581,816	\$ 1,556,936
Net income	\$ 239,361	\$ 179,289
Basic earnings per share	\$ 4.07	\$ 2.92
Diluted earnings per share	\$ 3.97	\$ 2.84

## 5. Intangible Assets

	<b>December 31, 2017</b>	<b>December 31, 2016</b>
	<b>(in thousands)</b>	
<b>Cost</b>		
Customer relationships acquired	\$ 91,230	\$ 92,110
Technology asset acquired	11,169	11,169
Order backlog	18,208	18,574
Trade names/ brands acquired	2,766	3,075
Volunteer list acquired	1,325	1,325
Non-compete arrangements	489	489
Mapi intangible asset	32,305	—
Foreign exchange movement	(2,389)	(6,578)
<b>Total cost</b>	<b>155,103</b>	<b>120,164</b>
Accumulated amortization	(84,898)	(67,037)
Foreign exchange movement	1,423	3,483
<b>Net book value</b>	<b>\$ 71,628</b>	<b>\$ 56,610</b>

On July 27, 2017, a subsidiary of the Company, ICON Clinical Research Limited acquired Mapi Group. Mapi is a leading patient-centered health outcomes research and commercialization company. The acquisition of Mapi strengthens ICON's existing commercialization and outcomes research business adding significant commercialization presence, analytics, real world evidence generation and strategic regulatory services. The value of intangible assets provisionally identified is \$32.3 million. These intangible assets are being amortized over approximately 6 years, the estimated period of benefit. In total, \$3.3 million has been amortized in the period since the date of acquisition.

On September 15, 2016, a subsidiary of the Company, ICON US Holdings Inc., acquired ClinicalRM, a full-service CRO specializing in preclinical through Phase IV support of clinical research and clinical trial services for biologics, drugs and devices. The organization helps customers progress their products to market faster with a wide array of research, regulatory and sponsor services within the U.S. and around the globe. ClinicalRM provide full service and functional research solutions to a broad range of US government agencies. The value of certain customer relationship, order backlog and brand assets identified of \$4.0 million, \$1.7 million and \$1.4 million respectively are being amortized over approximately 7 years, 2 years and 5 years respectively, the estimated period of benefit. In total, \$2.3 million has been amortized in the period since the date of acquisition.

On December 4, 2015, a subsidiary of the Company, ICON Clinical Research LLC, acquired PMG, an integrated network of 52 clinical research sites in North Carolina, South Carolina, Tennessee, Illinois and Iowa. The site network includes wholly owned facilities and dedicated clinical research sites. PMG conducts clinical trials in all major therapeutic areas and has particular expertise in vaccine, gastroenterology, cardiovascular, neurology and endocrinology studies. The value of certain customer relationship and order backlog assets identified of \$6.9 million and \$3.0 million respectively are being amortized over approximately 7 years and 2 years respectively, the estimated period of benefit. In total, \$5.0 million has been amortized in the period since the date of acquisition. The order backlog is fully amortized at December 31, 2017.



On February 27, 2015, a subsidiary of the Company, ICON Holdings Unlimited Company (formerly ICON Holdings), acquired MediMedia Pharma Solutions. Headquartered in Yardley, Pennsylvania, MediMedia Pharma Solutions includes MediMedia Managed Markets and Complete Healthcare Communications. MediMedia Managed Markets is a leading provider of strategic payer-validated market access solutions. Complete Healthcare Communications is one of the leading medical and scientific communication agencies working with medical affairs, commercial and brand development teams within life science companies. The value of certain customer relationships and order backlog identified of \$22.8 million and \$2.5 million respectively are being amortized over approximately 7 years and 1 year, the estimated period of benefit. \$11.7 million has been amortized in the period since the date of acquisition. The order backlog is fully amortized at December 31, 2017.

On May 7, 2014, a subsidiary of the Company, ICON US Holdings Inc., acquired Aptiv Solutions, Inc. ("Aptiv"), a global biopharmaceutical and medical device development services company and leader in adaptive clinical trials. Aptiv offers full-service clinical trial consulting and regulatory support for drugs, medical devices and diagnostics with a specific focus on strategy to increase product development efficiency and productivity. The value of certain customer relationships and order backlog identified of \$21.4 million and \$7.9 million respectively are being amortized over approximately 7 years and 3 years, the estimated period of benefit. In total, \$19.1 million has been amortized in the period since the date of acquisition. The order backlog is fully amortized at December 31, 2017.

On February 15, 2013, subsidiaries of the Company, ICON Clinical Research LLC (formerly ICON Clinical Research, Inc.) and ICON Clinical Research (U.K.) Limited, acquired the Clinical Trial Services division of Cross Country Healthcare, Inc. Cross Country Healthcare's Clinical Trial Services division includes US resourcing providers, ClinForce and Assent Consulting, whose services include contract staffing, permanent placement and functional service provision ("FSP"). The value of certain customer relationships and order backlog identified of \$3.3 million and \$0.6 million respectively are being amortized over approximately 3 years and 1 year, the estimated period of benefit. The full \$3.9 million has been amortized in the period since the date of acquisition.

On February 28, 2012, a subsidiary of the Company, ICON Clinical Research LLC (formerly ICON Clinical Research, Inc.), acquired PriceSpective, a strategy consulting company. The value of certain customer relationships identified of \$10.2 million is being amortized over approximately 10 years, the estimated period of benefit. The value of order backlog and certain non-compete arrangements identified of \$0.4 million and \$0.4 million respectively are being amortized over approximately 0.8 years and 3 years, the estimated period of benefit. In total, \$6.8 million has been amortized in the period since the date of acquisition.

On February 15, 2012, a subsidiary of the Company, ICON Clinical Research Limited, acquired BeijingWits Medical, a Chinese CRO. The value of certain customer relationships and order backlog identified of \$1.8 million and \$0.4 million respectively are being amortized over approximately 10 years and 4 years, the estimated period of benefit. The value of certain non-compete arrangements identified of \$0.01 million are being amortized over approximately 5 years, the estimated period of benefit. In total, \$1.5 million has been amortized in the period since the date of acquisition.

On July 14, 2011, a subsidiary of the Company, ICON Clinical Research Limited, acquired Firecrest Clinical Limited, a provider of technology solutions that boost investigator site performance and study management. The value of certain technology assets and customer relationships identified of \$11.2 million and \$5.2 million respectively are being amortized over approximately 7.5 years, the estimated period of benefit. The value of the Firecrest trade name and order backlog identified of \$1.4 million and \$1.2 million respectively are being amortized over approximately 4.5 years and 1.2 years, the estimated period of benefit. In total, \$14.5 million has been amortized in the period since the date of acquisition.

On January 14, 2011, a subsidiary of the Company, ICON Clinical Research (U.K.) Limited, acquired Oxford Outcomes Limited, an international health outcomes consultancy business. The value of certain customer relationships and order backlog identified of \$6.6 million and \$0.6 million respectively were amortized over approximately 6.5 years and 2 years, the estimated period of benefit. The intangible assets identified have been fully amortized at December 31, 2017.

On November 14, 2008, subsidiaries of the Company, ICON Holdings Clinical Research International Limited and ICON Clinical Research LLC (formerly ICON Clinical Research, Inc.), acquired Prevalere Life Sciences, a US provider of bioanalytical and immunoassay laboratory services. The value of certain customer relationships identified of \$7.4 million is being amortized over periods ranging from approximately 7 to 11 years, the estimated period of the benefit. In total, \$6.8 million has been amortized in the period since the date of acquisition.

On February 11, 2008, a subsidiary of the Company, ICON Clinical Research LLC (formerly ICON Clinical Research, Inc.), acquired Healthcare Discoveries, a US provider of Phase I clinical trial services. The value of certain client relationships identified of \$1.6 million was amortized over periods ranging from approximately 2 to 9 years, the estimated periods of benefit. The value of certain volunteer lists identified of \$1.3 million was amortized over approximately 6 years, the estimated period of benefit. The intangible assets identified have been fully amortized at December 31, 2017.

Future intangible asset amortization expense for the years ended December 31, 2018 to December 31, 2022 is as follows:

	<b>Year Ended December 31, (in thousands)</b>
2018	\$ 19,788
2019	16,217
2020	13,867
2021	11,906
2022	6,580
	<b>\$ 68,358</b>

#### 6. Property, Plant and Equipment, net

	<b>December 31, 2017</b>	<b>December 31, 2016</b>
	<b>(in thousands)</b>	
<b>Cost</b>		
Land	\$ 3,464	\$ 3,464
Building	88,411	77,950
Computer equipment and software	358,874	315,984
Office furniture and fixtures	78,372	70,218
Laboratory equipment	34,918	31,487
Leasehold improvements	24,097	20,933
Motor vehicles	42	43
	588,178	520,079
Less accumulated depreciation and asset write offs	(425,127)	(371,112)
Property, plant and equipment (net)	<b>\$ 163,051</b>	<b>\$ 148,967</b>

#### 7. Other Liabilities

	<b>December 31, 2017</b>	<b>December 31, 2016</b>
	<b>(in thousands)</b>	
Personnel related liabilities	\$ 168,964	\$ 135,349
Facility related liabilities	13,061	14,182
General overhead liabilities	41,789	31,126
Other liabilities	4,628	7,584
Short term government grants (note 11)	35	54
Restructuring and other items (note 14)	5,026	2,432
	<b>\$ 233,503</b>	<b>\$ 190,727</b>

## 8. Non-Current Other Liabilities

	December 31, 2017	December 31, 2016
	(in thousands)	
Defined benefit pension obligations, net (note 9)	\$ 6,061	\$ 8,952
Other non-current liabilities	11,050	14,800
	\$ 17,111	\$ 23,752

## 9. Employee Benefits

Certain Company employees 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 Company matches participant's contributions typically at 6% of the participant's annual compensation. Contributions to the plan are recorded as an expense in the selling, general and administrative line in the Consolidated Statement of Operations. Contributions for the years ended December 31, 2017, December 31, 2016 and December 31, 2015 were \$20,355,000, \$20,952,000 and \$20,439,000 respectively.

The Company'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 Company matches 50% of each participant's contributions; each participant can contribute up to 6% of their annual compensation. Contributions to this U.S. Plan are recorded, in the year contributed, as an expense in the Consolidated Statement of Operations. Contributions for the years ended December 31, 2017, December 31, 2016 and December 31, 2015 were \$14,946,000, \$15,223,000 and \$12,802,000 respectively.

One of the Company's subsidiaries, ICON Development Solutions Limited, operates a defined benefit pension plan in the United Kingdom for its employees. 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 December 31, 2017, December 31, 2016 and December 31, 2015, consist of units held in independently administered funds. The pension costs of this plan are presented in the following tables in accordance with the requirements of ASC 715-60, *Defined Benefit Plans – Other Postretirement*. The plan has been closed to new entrants with effect from July 1, 2003.

Funded status	December 31, 2017	December 31, 2016
	(in thousands)	
Projected benefit obligation	\$ (37,759)	\$ (32,906)
Fair value of plan assets	32,423	24,876
Funded status	\$ (5,336)	\$ (8,030)
Non-current other liabilities (note 8)	\$ (5,336)	\$ (8,030)

Change in benefit obligation	December 31,		December 31,	
	2017		2016	
	(in thousands)			
Benefit obligation at beginning of year	\$	32,906	\$	27,369
Service cost		112		75
Interest cost		929		1,017
Plan participants' contributions		22		22
Expenses		(8)		8
Benefits paid		(68)		(104)
Actuarial loss		658		10,057
Foreign currency exchange rate changes		3,208		(5,538)
<b>Benefit obligation at end of year</b>	<b>\$</b>	<b>37,759</b>	<b>\$</b>	<b>32,906</b>

Change in plan assets	December 31,		December 31,	
	2017		2016	
	(in thousands)			
Fair value of plan assets at beginning of year	\$	24,876	\$	23,367
Actual return on plan assets		979		5,861
Employer contributions		4,008		108
Plan participants' contributions		22		22
Benefits paid		(68)		(104)
Foreign currency exchange rate changes		2,606		(4,378)
<b>Fair value of plan assets at end of year</b>	<b>\$</b>	<b>32,423</b>	<b>\$</b>	<b>24,876</b>

The fair values of the assets above do not include any of the Company's own financial instruments, property occupied by, or other assets used by, the Company.

The following amounts were recorded in the Consolidated Statement of Operations as components of the net periodic benefit cost:

	December 31,		December 31,		December 31,	
	2017		2016		2015	
	(in thousands)					
Service cost	\$	112	\$	75	\$	78
Interest cost		929		1,017		1,140
Expected return on plan assets		(586)		(646)		(661)
Amortization of net loss		250		—		224
Expenses		(8)		8		—
<b>Net periodic benefit cost</b>	<b>\$</b>	<b>697</b>	<b>\$</b>	<b>454</b>	<b>\$</b>	<b>781</b>

The following assumptions were used at the commencement of the year in determining the net periodic pension benefit cost for the years ended December 31, 2017, December 31, 2016 and December 31, 2015:

	December 31,		December 31,		December 31,	
	2017		2016		2015	
Discount rate		2.7%		4.0%		3.6%
Rate of compensation increase		3.9%		3.7%		3.6%
Expected rate of return on plan assets		2.1%		3.0%		2.7%

<b>Other comprehensive income</b>	<b>December 31, 2017</b>	<b>December 31, 2016</b>	<b>December 31, 2015</b>
	<b>(in thousands)</b>		
Actuarial loss/(gain) - benefit obligation	\$ 658	\$ 10,057	\$ (3,992)
Actuarial (gain)/loss – plan assets	(393)	(5,215)	384
Actuarial gain recognized in net periodic benefit cost	(250)	—	(224)
<b>Total</b>	<b>\$ 15</b>	<b>\$ 4,842</b>	<b>\$ (3,832)</b>

The estimated net loss and prior service cost for the defined benefit pension plan that will be amortized from accumulated other comprehensive income into net periodic benefit cost over the next year are \$0.3 million and \$Nil respectively.

Amounts recognized in accumulated other comprehensive income that have not yet been recognized as components of net periodic benefit cost are as follows:

	<b>December 31, 2017</b>	<b>December 31, 2016</b>	<b>December 31, 2015</b>
	<b>(in thousands)</b>		
Net actuarial loss	\$ 7,138	\$ 7,123	\$ 2,281
<b>Total</b>	<b>\$ 7,138</b>	<b>\$ 7,123</b>	<b>\$ 2,281</b>

### Benefit Obligation

The following assumptions were used in determining the benefit obligation at December 31, 2017 and December 31, 2016:

	<b>December 31, 2017</b>	<b>December 31, 2016</b>
Discount rate	2.5%	2.7%
Rate of compensation increase	3.7%	3.9%

The discount rate is determined by reference to UK long dated government and corporate bond yields at the Balance Sheet date. This is represented by the iboxx corporate bond over 15 year index plus 10 basis points.

### Plan Assets

The assets of the scheme are invested with Legal and General and held in a combination of the Active Corporate Bond over 10 Year fund, Gilt and Index Linked Gilt funds. The overall investment strategy is that approximately 75% of investments are in government bonds (both fixed interest and index linked), approximately 25% of investments are held in corporate bonds. There is no self-investment in employer related assets. The expected long-term rate of return on assets at December 31, 2017 of 2.0% was calculated as the value of the fund after application of a market value reduction factor. The expected long term rates of return on different asset classes are as follows:

<b>Asset Category</b>	<b>Expected long-term return per annum</b>
Corporate Bonds	2.5%
Gilts	1.8%
Cash	2.5%

The long-term expected return on corporate bonds and gilts (fixed interest and index linked) is determined by reference to bond yields and gilt yields at the Balance Sheet date.

The underlying asset split of the fund is shown below.

Asset Category	December 31, 2017	December 31, 2016
Corporate Bonds	22%	25%
Gilts	65%	75%
Cash	13%	—%
	100%	100%

Applying the above expected long term rates of return to the asset distribution at December 31, 2017, gives rise to an expected overall rate of return of scheme assets of approximately 2.0% per annum.

#### Plan Asset Fair Value Measurements

	Quoted Prices in Active Markets for Identical Assets Level 1 (in thousands)	
	December 31, 2017	December 31, 2016
	\$	\$
<u>Cash</u>	4,086	16
<u>Fixed Income Securities</u>		
Legal and General Active Corporate Bond – Over 10 Year	7,188	6,095
Legal and General Gilt Funds	7,611	6,725
Legal and General Index Linked Gilt Funds	13,539	12,040
	\$ 32,424	\$ 24,876

#### Cash Flows

The Company expects to contribute \$0.1 million to the pension fund in the year ending December 31, 2018.

The following annual benefit payments, which reflect expected future service as appropriate, are expected to be paid.

	(in thousands)
2018	336
2019	312
2020	330
2021	405
2022	436
Years 2023 - 2027	\$ 3,297

The expected cash flows are estimated figures based on the members expected to retire over the next 10 years assuming no early retirements plus an additional amount based on recent average withdrawal experience. At the present time it is not clear whether annuities will be purchased when members reach retirement or whether pensions will be paid each month out of scheme assets. The cash flows above have been estimated on the assumption that pensions will be paid monthly out of scheme assets. If annuities are purchased, then the expected benefit payments will be significantly different from those shown above.

On May 7, 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 FASB ASC 805 *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 December 31, 2017 and December 31, 2016 consist of units held in independently administered funds. The pension costs of this plan are presented in the following tables in accordance with the requirements of ASC 715-60, *Defined Benefit Plans – Other Postretirement*.

<b>Funded status</b>	<b>December 31, 2017</b>	<b>December 31, 2016</b>
	<b>(in thousands)</b>	
Projected benefit obligation	\$ (5,927)	\$ (6,928)
Fair value of plan assets	5,202	6,006
<b>Funded status</b>	<b>\$ (725)</b>	<b>\$ (922)</b>
Non-current other liabilities (note 8)	\$ (725)	\$ (922)

<b>Change in benefit obligation</b>	<b>December 31, 2017</b>	<b>December 31, 2016</b>
	<b>(in thousands)</b>	
Benefit obligation at beginning of year	\$ 6,928	\$ 8,537
Service cost	243	352
Interest cost	54	82
Plan participants' contributions	120	150
Settlement	(1,019)	(909)
Prior service cost	—	(88)
Transferred (benefits paid)/balances	(76)	53
Actuarial gain	(626)	(1,157)
Foreign currency exchange rate changes	303	(92)
<b>Benefit obligation at end of year</b>	<b>\$ 5,927</b>	<b>\$ 6,928</b>

<b>Change in plan assets</b>	<b>December 31, 2017</b>	<b>December 31, 2016</b>
	<b>(in thousands)</b>	
Fair value of plan assets at beginning of year	\$ 6,006	\$ 5,350
Expected return on plan assets	47	48
Actual return on plan assets	(296)	1,233
Scheme contributions	157	195
Plan participants' contributions	120	150
Transferred (benefits paid)/balances	(76)	53
Settlement	(1,019)	(909)
Foreign currency exchange rate changes	263	(114)
<b>Fair value of plan assets at end of year</b>	<b>\$ 5,202</b>	<b>\$ 6,006</b>

The fair values of the assets above do not include any of the Company's own financial instruments, property occupied by, or other assets used by, the Company.

	December 31, 2017	December 31, 2016	December 31, 2015
	(in thousands)		
Service cost	\$ 243	\$ 352	\$ 402
Interest cost	54	82	159
Expected return on plan assets	(47)	(48)	(119)
Amortization of net (gain)/loss	(43)	22	—
Amortization of prior service credit	(8)	(8)	—
Settlement	(214)	(136)	—
Curtailement	—	—	18
<b>Net periodic benefit cost</b>	<b>\$ (15)</b>	<b>\$ 264</b>	<b>\$ 460</b>

The following assumptions were used at the commencement of the year in determining the net periodic pension benefit cost for the years ended December 31, 2017, December 31, 2016 and December 31, 2015:

	December 31, 2017	December 31, 2016	December 31, 2015
Discount rate	0.75%	0.95%	1.35%
Rate of compensation increase	2.0%	2.0%	2.00%
Expected rate of return on plan assets	0.75%	0.95%	1.35%

Other comprehensive income	December 31, 2017	December 31, 2016	December 31, 2015
Actuarial (gain)/loss - benefit obligation	\$ (626)	\$ (1,157)	\$ 81
Actuarial loss/(gain) – plan assets	296	(1,233)	1,075
Prior service credit/(cost) recognized in net periodic benefit cost	215	136	(17)
Actuarial gain/(loss) recognized in net periodic benefit cost	43	(22)	—
Amortization of net prior service credit	8	8	—
Net prior service credit occurring during the year	(1)	(89)	—
<b>Total</b>	<b>\$ (65)</b>	<b>\$ (2,357)</b>	<b>\$ 1,139</b>

The estimated net gain and prior service credit for the defined benefit pension plan that will be amortized from accumulated other comprehensive income into net periodic benefit cost over the next year are \$69,000 and \$8,000 respectively.

Amounts recognized in accumulated other comprehensive income that have not yet been recognized as components of net periodic benefit cost are as follows:

	December 31, 2017	December 31, 2016	December 31, 2015
	(in thousands)		
Net actuarial (gain)/loss	\$ (1,283)	\$ (1,218)	\$ 1,139
<b>Total</b>	<b>\$ (1,283)</b>	<b>\$ (1,218)</b>	<b>\$ 1,139</b>



## Benefit Obligation

The following assumptions were used in determining the benefit obligation at December 31, 2017 and December 31, 2016:

	December 31, 2017	December 31, 2016
Discount rate	0.80%	0.75%
Rate of compensation increase	2.0%	2.0%

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

## Plan Assets

The pension plan is an insured arrangement with Swiss Life. The assets are an insurance contract whose value depends on the amount saved by employees and the interest granted by Swiss Life. The value of assets does not depend on the performance of any underlying assets. There is no self-investment in employer related assets.

## Cash Flows

The Company expects to contribute \$0.1 million to its pension fund in the year ending December 31, 2018.

The following annual benefit payments, which reflect expected future service as appropriate, are expected to be paid.

	(in thousands)
2018	286
2019	224
2020	204
2021	201
2022	197
Years 2023 - 2027	\$ 878

The expected cash flows are estimated figures based on the members expected to retire over the next 10 years assuming no early retirements plus an additional amount based on recent average withdrawal experience. At the present time it is not clear whether annuities will be purchased when members reach retirement or whether pensions will be paid each month out of scheme assets. The cash flows above have been estimated on the assumption that pensions will be paid monthly out of scheme assets. If annuities are purchased, then the expected benefit payments will be significantly different from those shown above.

## 10. Equity Incentive Schemes and Stock Compensation Charges

### Share Options

On July 21, 2008 the Company adopted the Employee Share Option Plan 2008 (the "2008 Employee Plan") pursuant to which the Compensation and Organization 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 Organization 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 February 14, 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 400,000 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 400,000 ordinary shares. There is no individual limit under the 2008 Consultants Plan. No options may be granted under the 2008 Option Plans after February 14, 2027.

Each option granted under the 2008 Option Plans will be an employee stock option, or NSO, as described in Section 422 or 423 of the Internal Revenue Code. Each grant of an option under the 2008 Options 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.

On January 17, 2003 the Company adopted the Share Option Plan 2003 (the "2003 Share Option Plan") pursuant to which the Compensation and Organization Committee of the Board could grant options to officers and other employees of the Company or its subsidiaries for the purchase of ordinary shares. An aggregate of 6.0 million ordinary shares were reserved under the 2003 Share Option Plan; and in no event could the number of ordinary shares issued pursuant to options awarded under this plan exceed 10% of the outstanding shares, as defined in the 2003 Share Option Plan, at the time of the grant, unless the Board expressly determined otherwise. Further, the maximum number of ordinary shares with respect to which options could be granted under the 2003 Share Option Plan during any calendar year to any employee was 400,000 ordinary shares. The 2003 Share Option Plan expired on January 17, 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 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. The maximum contractual term of options outstanding at December 31, 2017 is eight years.

The following table summarizes the transactions for the Company's share option plans for the years ended December 31, 2017, December 31, 2016 and December 31, 2015:

	Options Granted Under Plans	Number of Shares	Weighted Average Exercise Price	Weighted Average Grant Date Fair Value
Outstanding at December 31, 2014	2,227,700	2,227,700	\$ 28.00	\$ 10.40
Granted	259,059	259,059	\$ 68.25	\$ 19.75
Exercised	(773,753)	(773,753)	\$ 27.13	\$ 10.31
Cancelled	(86,424)	(86,424)	\$ 27.32	\$ 10.31
Outstanding at December 31, 2015	1,626,582	1,626,582	\$ 34.87	\$ 11.94
Granted	256,191	256,191	\$ 69.61	\$ 20.10
Exercised	(393,240)	(393,240)	\$ 25.79	\$ 9.84
Cancelled	(23,089)	(23,089)	\$ 29.74	\$ 11.19
Outstanding at December 31, 2016	1,466,444	1,466,444	\$ 43.45	\$ 13.94
Granted	219,113	219,113	\$ 85.98	\$ 25.06
Exercised	(458,243)	(458,243)	\$ 30.35	\$ 10.72
Cancelled	(55,921)	(55,921)	\$ 54.35	\$ 16.76
Outstanding at December 31, 2017	1,171,393	1,171,393	\$ 56.02	\$ 17.15
Vested and exercisable at December 31, 2017	476,666	476,666	\$ 38.47	\$ 12.95

The weighted average remaining contractual life of options outstanding and options exercisable at December 31, 2017, was 4.86 years and 3.4 years respectively (2016: 4.67 years and 3.30 years respectively). 255,198 options are expected to vest during the year ended December 31, 2018 (333,433 options were expected to vest during the year ended December 31, 2017).

The intrinsic value of options exercised during the year ended December 31, 2017 amounted to \$31.8 million. The intrinsic value of options outstanding and options exercisable at December 31, 2017 amounted to \$65.8 million and \$35.1 million respectively. Intrinsic value is calculated based on the market value versus strike price of the Company's shares at the date of exercise.

Non-vested shares outstanding as at December 31, 2017 are as follows:

	<b>Options Outstanding Number of Shares</b>	<b>Weighted Average Exercise Price</b>	<b>Weighted Average Fair Value</b>
Non-vested outstanding at December 31, 2016	814,870	\$ 54.37	\$ 16.55
Granted	219,113	85.98	25.06
Vested	(292,630)	44.54	14.39
Forfeited	(46,626)	60.73	18.22
Non-vested outstanding at December 31, 2017	694,727	\$ 68.06	\$ 20.03

*Outstanding and exercisable share options:*

The following table summarizes information concerning outstanding and exercisable share options as of December 31, 2017:

Range Exercise Price	Options Outstanding			Options Exercisable		
	Number of Shares	Weighted Average Remaining Contractual Life	Weighted Average Exercise Price	Number of Shares	Weighted Average Exercise Price	
\$ 20.28	63,824	1.16	\$ 20.28	63,824	\$ 20.28	
\$ 20.59	8,800	2.14	\$ 20.59	8,800	\$ 20.59	
\$ 22.30	84,137	2.32	\$ 22.30	84,137	\$ 22.30	
\$ 23.66	1,711	2.57	\$ 23.66	1,711	\$ 23.66	
\$ 24.46	7,692	0.17	\$ 24.46	7,692	\$ 24.46	
\$ 26.20	450	0.38	\$ 26.20	450	\$ 26.20	
\$ 26.71	4,450	2.69	\$ 26.71	4,450	\$ 26.71	
\$ 32.37	159,686	3.33	\$ 32.37	124,476	\$ 32.37	
\$ 36.22	5,923	3.46	\$ 36.22	3,323	\$ 36.22	
\$ 37.90	2,520	3.93	\$ 37.90	460	\$ 37.90	
\$ 40.83	72,634	4.39	\$ 40.83	37,026	\$ 40.83	
\$ 47.03	39,477	4.17	\$ 47.03	9,626	\$ 47.03	
\$ 48.67	80,039	4.21	\$ 48.67	21,160	\$ 48.67	
\$ 51.35	2,030	4.60	\$ 51.35	418	\$ 51.35	
\$ 65.60	91,549	6.38	\$ 65.60	26,161	\$ 65.60	
\$ 66.47	6,717	5.39	\$ 66.47	1,698	\$ 66.47	
\$ 66.97	1,872	5.45	\$ 66.97	—	\$ 66.97	
\$ 68.39	190,821	5.18	\$ 68.39	65,178	\$ 68.39	
\$ 71.95	133,256	6.17	\$ 71.95	16,076	\$ 71.95	
\$ 83.47	130,836	7.17	\$ 83.47	—	\$ 83.47	
\$ 90.03	82,969	7.38	\$ 90.03	—	\$ 90.03	
<b>\$20.28 - \$90.03</b>	<b>1,171,393</b>	<b>4.86</b>	<b>\$ 56.02</b>	<b>476,666</b>	<b>\$ 38.47</b>	

Options outstanding include both vested and unvested options as at December 31, 2017. Options exercisable represent options which have vested at December 31, 2017. From the date of grant, substantially all options vest over a five year period at 20% per annum.

### Fair value of Stock Options Assumptions

The weighted average fair value of options granted during the years ended December 31, 2017, December 31, 2016 and December 31, 2015 was calculated using the Black-Scholes option pricing model. The weighted average fair values and assumptions were as follows:

	Year Ended		
	December 31, 2017	December 31, 2016	December 31, 2015
Weighted average fair value	\$ 25.06	\$ 20.10	\$ 19.75
<b>Assumptions:</b>			
Expected volatility	29%	30%	30%
Dividend yield	—%	—%	—%
Risk-free interest rate	1.93%	1.39%	1.58%
Expected life	5.0 years	5.0 years	5.0 years

Expected volatility is based on the historical volatility of our common stock over a period equal to the expected term of the options; the expected life represents the weighted average period of time that options granted are expected to be outstanding given consideration to vesting schedules and our historical experience of past vesting and termination patterns. The risk-free rate is based on the U.S. government zero-coupon bonds yield curve in effect at time of the grant for periods corresponding with the expected life of the option.

### Restricted Share Units and Performance Share Units

On July 21, 2008 the Company adopted the 2008 Employees Restricted Share Unit Plan (the "2008 RSU Plan") pursuant to which the Compensation and Organization 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. An aggregate of 1.0 million ordinary shares have been reserved for issuance under the 2008 RSU Plan.

On April 23, 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 Organization 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 May 11, 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 par value 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.

The Company has awarded RSUs and PSUs to certain key individuals of the Group. The following table summarizes RSU and PSU activity for the year ended December 31, 2017:

	PSU Outstanding Number of Shares	PSU Weighted Average Fair Value	PSU Weighted Average Remaining Contractual Life	RSU Outstanding Number of Shares	RSU Weighted Average Fair Value	RSU Weighted Average Remaining Contractual Life
Outstanding at December 31, 2016	830,523	\$ 60.73	1.11	1,025,484	\$ 58.64	1.40
Granted	68,040	\$ 84.10		186,102	\$ 89.60	
Shares vested	(320,640)	\$ 46.63		(367,177)	\$ 45.18	
Forfeited	(66,897)	\$ 67.16		(128,439)	\$ 63.89	
Outstanding at December 31, 2017	511,026	\$ 72.07	0.93	715,970	\$ 72.65	1.28

The fair value of RSUs vested for the year ended December 31, 2017 totaled \$16.6 million (2016: \$10.8 million).

The fair value of PSUs vested for the year ended December 31, 2017 totaled \$15.0 million (2016: \$10.3 million).

The PSUs vest based on service and specified EPS targets over the period 2014 – 2017, 2015 – 2018, 2016 - 2019 and 2017 - 2020. Since 2013, 270,858 PSUs (net of forfeitures) have been granted. Depending on the actual amount of EPS from 2014 to 2020, up to an additional 240,168 PSUs may also be granted.

#### *Non-cash stock compensation expense*

Income from operations for the year ended December 31, 2017 is stated after charging \$30.6 million in respect of non-cash stock compensation expense. Non-cash stock compensation expense has been allocated as follows:

	Year ended		
	December 31, 2017	December 31, 2016	December 31, 2015
	(in thousands)		
Direct costs	\$ 18,020	\$ 21,903	\$ 18,358
Selling, general and administrative	\$ 12,553	\$ 18,440	\$ 14,959
<b>Total compensation costs</b>	<b>\$ 30,573</b>	<b>\$ 40,343</b>	<b>\$ 33,317</b>

Total non-cash stock compensation expense not yet recognized at December 31, 2017 amounted to \$49.3 million. The weighted average period over which this is expected to be recognized is 2.04 years.

The amendments required by Accounting Standards Update ('ASU') 2016-09 'Improvements to Employee Share-Based Payment Accounting' require the Company to record all tax effects related to share-based payments through the income statement rather than additional paid in capital. The Company has applied the updated standard prospectively in the twelve months of the year ended December 31, 2017. Total tax benefit recognized in additional paid in capital related to the non-cash compensation expense amounted to \$Nil for the year ended December 31, 2017 (2016: \$4.3 million, 2015: \$1.9 million).

The income tax expense for the year ended December 31, 2017 reflects a net income tax benefit of \$9.3 million in connection with stock compensation (including excess benefits) and the total tax benefit realized in connection with stock options exercised during 2017 was \$3.2 million. The income tax expense for the year ended December 31, 2016 reflects a net income tax benefit of \$3.5 million in connection with stock compensation and the cash tax benefit realized in connection with stock options exercised during 2016 was \$3.4 million. The income tax expense for the year ended December 31, 2015 reflects a net income tax benefit of \$1.5 million in connection with stock compensation and the cash tax benefit realized in connection with stock options exercised during 2016 was \$5.6 million.

#### **11. Government Grants**

	December 31, 2017	December 31, 2016
	(in thousands)	
Received	\$ 3,539	\$ 3,539
Less accumulated amortization	(2,745)	(2,701)
Foreign exchange translation adjustment	207	103
<b>Total government grants</b>	<b>1,001</b>	<b>941</b>
Less current portion	(35)	(54)
<b>Non-current government grants</b>	<b>\$ 966</b>	<b>\$ 887</b>

Capital grants received may be refundable in full if certain events occur. Such events, as set out in the related grant agreements, include sale of the related asset, liquidation of the Company or failure to comply with other conditions of the grant agreements. No loss contingency has been recognized as the likelihood of such events arising has been assessed as remote. Government grants amortized to the profit and loss account amounted to \$44,000 for the year ended December 31, 2017. A net charge of \$44,000 was recorded in respect of government grants during the year ended December 31, 2016. As at December 31, 2017 the Company had \$1.2 million in restricted retained earnings, pursuant to the terms of grant agreements.

## 12. Share Capital

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 December 31, 2017, 458,243 options were exercised by employees at an average exercise price of \$30.35 per share for total proceeds of \$13.9 million. During the year ended December 31, 2017, 361,102 ordinary shares were issued in respect of certain RSUs and 320,640 ordinary shares were issued in respect of PSUs previously awarded by the Company.

During the year ended December 31, 2016, 393,240 options were exercised by employees at an average exercise price of \$25.79 per share for total proceeds of \$10.1 million. During the year ended December 31, 2016, 296,386 ordinary shares were issued in respect of certain RSUs and 311,492 ordinary shares were issued in respect of PSUs previously awarded by the Company.

During the year ended December 31, 2015, 773,753 options were exercised by employees at an average exercise price of \$27.13 per share for total proceeds of \$21.0 million. During the year ended December 31, 2015, 268,870 ordinary shares were issued in respect of certain RSUs and 7,990 ordinary shares were issued in respect of PSUs previously awarded by the Company.

### *(a) Share Repurchase Program*

On October 3, 2016 the Company commenced a previously announced share buyback program of up to \$400 million. During the year ended December 31, 2017, the Company redeemed a total of 1,589,227 ordinary shares under this program for total consideration of \$133.1 million. At December 31, 2017 a total of 3,018,414 ordinary shares were redeemed by the Company under this buyback program for a total consideration of \$243.1 million. All ordinary shares that were redeemed under the buyback program were canceled in accordance with the Constitution of the Company and the nominal value of these shares transferred to a other undenominated capital fund as required under Irish Company Law.

On May 1, 2015 the Company commenced a buyback program of up to \$60 million under which the Company could acquire its outstanding ordinary shares (by way of redemption), in accordance with Irish law, the United States securities laws and the Company's constitutional documents through open market share acquisitions. A total of 882,419 ordinary shares were redeemed by the Company under this buyback program for a total consideration of \$57.9 million. All ordinary shares that were redeemed under the buyback program were canceled in accordance with the Constitution of the Company and the nominal value of these shares transferred to a other undenominated capital fund as required under Irish Company Law.

On July 31, 2015 the Company commenced a further buyback program of up to \$400 million under which the Company could acquire its outstanding ordinary shares (by way of redemption), in accordance with Irish law, the United States securities laws and the Company's constitutional documents through open market share acquisitions. A total of 5,316,062 ordinary shares were redeemed by the Company under this buyback program for a total consideration of \$400 million. All ordinary shares that were redeemed under the buyback program were canceled in accordance with the Constitution of the Company and the nominal value of these shares transferred to a other undenominated capital reserve as required under Irish Company Law. The share buyback program was completed in December 31, 2015, with a total of 6,198,481 ordinary shares redeemed during the year ended December 31, 2015 for total consideration of \$457.9 million.

Under the repurchase program, 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 program 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 or due to 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 program 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 program. In addition, acquisitions under the program 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 program.

### 13. Income Taxes

The Company's United States and Irish based subsidiaries file tax returns in the United States and Ireland respectively. Other foreign subsidiaries are taxed separately under the laws of their respective countries.

The components of income before provision for income taxes are as follows:

	Year ended		
	December 31, 2017	December 31, 2016	December 31, 2015
	(in thousands)		
Ireland	\$ 218,306	\$ 201,221	\$ 184,643
United States	28,426	11,466	15,436
Other	81,325	87,485	78,771
<b>Income before provision for income taxes</b>	<b>\$ 328,057</b>	<b>\$ 300,172</b>	<b>\$ 278,850</b>

The components of provision for income taxes are as follows:

	Year ended		
	December 31, 2017	December 31, 2016	December 31, 2015
	(in thousands)		
Provision for income taxes:			
Current tax expense:			
Ireland	\$ 20,084	\$ 22,931	\$ 21,769
United States	5,792	7,768	684
Other	9,964	5,749	13,701
<b>Total current tax expense</b>	<b>35,840</b>	<b>36,448</b>	<b>36,154</b>
Deferred tax expense/(benefit):			
Ireland	261	1,284	26
United States	8,980	613	2,896
Other	1,488	(352)	235
<b>Total deferred tax expense</b>	<b>10,729</b>	<b>1,545</b>	<b>3,157</b>
<b>Provision for income taxes</b>	<b>46,569</b>	<b>37,993</b>	<b>39,311</b>
Impact on shareholders equity and other comprehensive income of the tax consequence of :			
Excess tax benefit on stock compensation	—	(4,332)	(1,905)
Currency impact on long term funding	973	(396)	3,574
Fair value of cash flow hedge	148	—	—
<b>Total</b>	<b>\$ 47,690</b>	<b>\$ 33,265</b>	<b>\$ 40,980</b>

Ireland's statutory income tax rate is 12.5%. The Company's consolidated reported provision for income taxes differed from the amount that would result from applying the Irish statutory rate as set forth below:

	Year ended		
	December 31, 2017	December 31, 2016	December 31, 2015
	(in thousands)		
Taxes at Irish statutory rate of 12.5% (2016:12.5%; 2015:12.5%)	\$ 41,007	\$ 37,522	\$ 34,856
Foreign and other income taxed at higher rates	6,324	4,642	4,614
Research & development tax incentives	(830)	(907)	(695)
Movement in valuation allowance	1,329	1,208	(4,133)
Effects of change in tax rates	925	576	(16)
Increase/(decrease) in unrecognized tax benefits	933	(1,521)	5,085
Impact of stock compensation	(9,917)	(4,121)	(3,468)
Impact of mandatory repatriation under US Tax Reform	7,694	—	—
Other	(896)	594	3,068
<b>Provision for income taxes</b>	<b>\$ 46,569</b>	<b>\$ 37,993</b>	<b>\$ 39,311</b>



In 2017, the provision for income taxes includes non-recurring items related to US Tax Reform (H.R.1). The income tax expense recognized in respect of mandatory deemed repatriation of historic earnings of non-U.S. subsidiaries owned by our U.S. subsidiaries is \$7.7 million. The income tax expense recognized in respect of the change in the US federal income tax rate from 35% to 21% is \$0.5 million (included in "Effects of change in tax rates" above).

The income tax effects of US Tax Reform are provisional in respect of the Mapi Group acquisition in July 2017 (see Note 4 Goodwill for further information). The Company has made provisional estimates of the fair value of net assets acquired and liabilities assumed. The non-current deferred tax liability recognized as at December 31, 2017 in respect of US-based intangible assets is \$5.8 million. To the extent there are purchase accounting adjustments made in a subsequent period, there may be additional income tax effects of US Tax Reform (i.e. impact of the change in rates) to be recognized at such time.

The tax effects of temporary differences that give rise to significant portions of deferred tax assets and deferred tax liabilities are presented below:

	December 31, 2017	December 31, 2016
	(in thousands)	
Deferred tax liabilities:		
Property, plant and equipment	\$ 1,139	\$ 979
Goodwill	22,655	26,617
Other intangible assets	11,801	6,700
Other	4,139	1,441
<b>Total deferred tax liabilities recognized</b>	<b>39,734</b>	<b>35,737</b>
Deferred tax assets:		
Operating loss and tax credits carryforwards	24,962	22,705
Property, plant and equipment	4,062	3,121
Accrued expenses and payments on account	24,433	28,904
Stock compensation	5,786	13,062
Deferred compensation expense	2,548	3,327
Other	740	15
<b>Total deferred tax assets</b>	<b>62,531</b>	<b>71,134</b>
Valuation allowance for deferred tax assets	(22,439)	(20,337)
<b>Deferred tax assets recognized</b>	<b>40,092</b>	<b>50,797</b>
<b>Overall net deferred tax asset</b>	<b>\$ 358</b>	<b>\$ 15,060</b>

At December 31, 2017 Ireland subsidiaries had tax credit carryforwards for income tax purposes that may be carried forward indefinitely, available for offset against future tax liabilities, if any, of \$4.5 million (2016: \$3.3 million).

At December 31, 2017 U.S. subsidiaries had U.S. federal and state net operating loss ("NOL") carry forwards of approximately \$25.0 million and \$43.6 million, respectively. These NOLs are available for offset against future taxable income and expire between 2018 and 2037. Of the \$25.0 million U.S. federal NOLs, approximately \$5.9 million of which is available for offset against future U.S. federal taxable income within 12 months of the balance sheet date. The subsidiary's ability to use the U.S. federal and state NOL carry forwards is limited on an annual basis due to changes of ownership in 2000, 2010, 2014 and 2017, as defined by Section 382 of the Internal Revenue Code of 1986, as amended. Of the U.S. federal NOLs, \$22.8 million are limited by Section 382. Of the \$22.8 million of losses, the amounts are available as follows: \$11.8 million for the years 2018 – 2020, \$10.1 million in 2021-2025, \$0.9 million for the years 2026 – 2035.

At December 31, 2017 other than those in the U.S. and Ireland had operating loss carryforwards for income tax purposes that be carried forward indefinitely, available to offset against future taxable income, if any, of approximately \$77.2 million (2016: \$70.1 million). In addition at December 31, 2017 those subsidiaries had tax credit carryforwards for income tax purposes that may be carried forward indefinitely, available to offset against future tax liabilities, if any, of \$4.8 million (2016: \$3.9 million). At December 31, 2017 those subsidiaries also had additional operating loss carry forwards of \$4.7 million which are due to expire between 2018 and 2024.

The expected expiry dates of these losses are as follows:

	Federal NOL's	State NOL's
	(in thousands)	
2018	113	—
2021-2034	24,041	14,945
2035-2036	812	28,703
	\$ 24,966	\$ 43,648

In addition, US subsidiaries have alternative minimum tax credit carry forwards of approximately \$0.4 million that are available to reduce future U.S. federal regular income taxes through 2020. Any remaining alternative minimum tax credits will be fully refundable in 2021. We also have general business credit carry forwards of approximately \$0.3 million that are available to offset future U.S. federal income taxes.

The valuation allowance at December 31, 2017 was approximately \$22.4 million. The valuation allowance for deferred tax assets as of December 31, 2016 and December 31, 2015 was \$20.3 million and \$17.2 million respectively. The net change in the total valuation allowance was an increase of \$2.1 million during 2017 and an increase of \$3.1 million during 2016. Of the total increase of \$2.1 million in 2017, \$0.5 million resulted in a current year income tax expense and \$1.6 million was recognized in Other Comprehensive Income. Of the total increase of \$3.1 million in 2016, \$1.2 million resulted in a current year income tax expense, \$2.4 million was acquired and impacted goodwill, and these were offset by a decrease of \$0.5 million recognized in Other Comprehensive Income.

The valuation allowances at December 31, 2017 and December 31, 2016 were primarily related to operating losses and tax credits carried forward that, in the judgment of management, are not more likely than not to be realized. In assessing the realizability of deferred tax assets, management considers whether it is more likely than not that some portion or all of the deferred tax assets will not be realized. The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income during the periods in which those temporary differences become deductible. Management considers the scheduled reversal of deferred tax liabilities and projected future taxable income in making this assessment. In respect of deferred tax assets not subject to a valuation allowance, management considers that it is more likely than not that these deferred tax assets will be realized on the basis that there will be sufficient reversals of deferred tax liabilities and taxable income in future periods. During 2016, there were no movements in the valuation allowance that had a material impact on the effective tax rate. During 2017, there were no movements in the valuation allowance that had a material impact on the effective tax rate.

The Company has recognized a deferred tax liability of \$3.1 million (2016: \$Nil) for the undistributed earnings of foreign subsidiaries where the Company does not consider the earnings to be indefinitely reinvested. It is not practicable to calculate the exact unrecognized 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 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.

A reconciliation of the beginning and ending amount of total unrecognized tax benefits is as follows:

	<b>December 31, 2017</b>	<b>December 31, 2016</b>	<b>December 31, 2015</b>
	<b>(in thousands)</b>		
Unrecognized tax benefits at start of year	\$ 26,620	\$ 28,166	\$ 23,201
Increase related to acquired tax positions	—	—	778
Increase related to prior year tax positions	—	1,151	1,482
Decrease related to prior year tax positions	(3,050)	(2,483)	(315)
Increase related to current year tax positions	4,765	1,104	3,063
Settlements	(2,523)	(837)	—
Lapse of statute of limitations	(2,092)	(481)	(43)
Unrecognized tax benefits at end of year	\$ 23,720	\$ 26,620	\$ 28,166

The relevant statute of limitations for unrecognized tax benefits totaling \$3.4 million could potentially expire during 2018.

Included in the balance of total unrecognized tax benefits at December 31, 2017 were potential benefits of \$23.7 million, which if recognized, would affect the effective rate on income tax from continuing operations. The balance of total unrecognized tax benefits at December 31, 2016 and December 31, 2015 included potential benefits which, if recognized, would affect the effective rate of income tax from continuing operations of \$26.6 million and \$28.2 million respectively.

Interest and penalties recognized as a net benefit during the year ended December 31, 2017 amounted to \$0.9 million (2016: net expense of \$0.1 million, 2015: net expense of \$0.9 million) and are included within the provision for income taxes. Total accrued interest and penalties as of December 31, 2017 and December 31, 2016 were \$2.4 million and \$3.3 million respectively and are included in closing income taxes payable at those dates.

Our major tax jurisdictions are the United States and Ireland. We may potentially be subjected to tax audits in both our major jurisdictions. In the United States tax periods open to audit include the years ended December 31, 2014, December 31, 2015, December 31, 2016 and December 31, 2017. In Ireland, tax periods open to audit include the years ended December 31, 2013, December 31, 2014, December 31, 2015, December 31, 2016 and December 31, 2017. During such audits, local tax authorities may challenge the positions taken by us in our tax returns.

#### 14. Restructuring and other items

Restructuring and other items recognized during the year ended December 31, 2017 comprise:

	<b>December 31, 2017</b>	<b>Year Ended December 31, 2016</b>	<b>December 31, 2015</b>
	<b>(in thousands)</b>		
Restructuring charges	\$ 7,753	8,159	\$ —
Net charge	\$ 7,753	8,159	\$ —

### Restructuring Charges

A restructuring charge of \$7.8 million was recognized during the year ended December 31, 2017, under a restructuring plan adopted following a review of operations. The restructuring plan reflected resource rationalization across the business to improve resource utilization.

	<b>Workforce reductions</b>	
	<b>(in thousands)</b>	
Total provision recognized	\$	7,753
Utilized		(4,656)
Foreign exchange		—
Provision at December 31, 2017	\$	3,097

### Prior Period Restructuring Charges

A restructuring charge of \$8.2 million was recognized during the year ended December 31, 2016, under a restructuring plan adopted following a review by the Company of its operations. The restructuring plan includes resource rationalizations in certain areas of the business to improve resource utilization, resulting in charge of \$6.2 million and office consolidation resulting in the recognition of an onerous lease of \$2.0 million during the twelve months ended December 31, 2016. No additional charge was recorded during the twelve months ended December 31, 2017.

	<b>Workforce Reductions</b>		<b>Onerous Lease</b>		<b>Total</b>	
	<b>(in thousands)</b>					
Total provision recognized	\$	6,190	\$	1,969	\$	8,159
Utilized		(5,734)		(571)		(6,305)
Foreign exchange	\$	(63)		—	\$	(63)
Provision at December 31, 2016	\$	393	\$	1,398	\$	1,791
Utilized		(393)		(1,081)		(1,474)
Provision at December 31, 2017	\$	—	\$	317	\$	317

A restructuring charge of \$8.8 million was recognized during the year ended December 31, 2014. Following the closure of the Company's European Phase 1 services in 2013, the Company recognized a charge in 2014 in relation to its Manchester, United Kingdom facility; \$5.6 million in relation to asset impairments and \$3.2 million in relation to an onerous lease charge associated with this facility. We expect this to be paid by 2024.

	<b>Onerous Lease</b>		<b>Asset Impairment</b>		<b>Total</b>	
	<b>(in thousands)</b>					
Total provision recognized	\$	3,167	\$	5,629	\$	8,796
Asset write off		—		(5,629)		(5,629)
Provision at December 31, 2014	\$	3,167	\$	—	\$	3,167
Utilized		(1,167)		—		(1,167)
Provision at December 31, 2015	\$	2,000	\$	—	\$	2,000
Utilized		(1,359)		—		(1,359)
Provision at December 31, 2016	\$	641	\$	—	\$	641
Utilized		(441)		—		(441)
Provision at December 31, 2017	\$	200	\$	—	\$	200

At December 31, 2017, \$3.2 million is included within other liabilities and \$0.4 million within non-current other liabilities.

## 15. Provision for Doubtful Debts

The Company does business with most major international pharmaceutical companies. Provision for doubtful debts at December 31, 2017 comprises:

	December 31, 2017	December 31, 2016
	(in thousands)	
Opening provision	\$ 9,450	\$ 10,383
Amounts used during the year	(2,733)	(3,782)
Amounts provided during the year	5,116	4,651
Amounts released during the year	(3,106)	(1,814)
Foreign exchange	203	12
Closing provision	\$ 8,930	\$ 9,450

## 16. Commitments and Contingencies

### *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 condition.

### *Operating Leases*

The Company has several non-cancelable operating leases, primarily for facilities, that expire over the next 10 years. These leases generally contain renewal options and require the Company to pay all executory costs such as maintenance and insurance. The Company recognized \$44.0 million, \$44.0 million and \$49.9 million in rental expense, including rates, for the years ended December 31, 2017, December 31, 2016 and December 31, 2015 respectively. Future minimum rental commitments for operating leases with non-cancelable terms in excess of one year are as follows:

	Minimum rental payments (in thousands)
2018	38,111
2019	32,575
2020	26,336
2021	19,079
2022	13,389
Thereafter	36,692
Total	\$ 166,182

## 17. Business Segment and Geographical Information

The Company is a clinical research organization ("CRO"), providing outsourced development services on a global basis to the pharmaceutical, biotechnology and medical device industries. It specializes in the strategic development, management and analysis of programs that support all stages of the clinical development process - from compound selection to Phase I-IV clinical studies. The Company 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. The Company 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 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 FASB ASC 280-10 *Disclosure about Segments of an Enterprise and Related Information*. The Chief Executive Officer, Chief Financial Officer and Chief Operating Officer, were together considered the Company's CODM in the period up to and including March 1, 2017. On March 1, 2017, Mr Ciaran Murray transitioned from his role as Chief Executive Officer to the role of Executive Chairman of the Board of Directors and Dr. Steve Cutler was appointed as Chief Executive Officer. As of March 1, 2017, the Company determined that the CODM was comprised of the Chief Executive Officer and the Chief Financial Officer in accordance with the requirements of FASB ASC 280-10 *Disclosures about Segments of an Enterprises and Related Information*.

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.

Revenues are allocated to individual entities based on where the work is performed in accordance with the Company's global transfer pricing model. Revenues and income from operations in Ireland are a function of this transfer pricing model.

Given ICON Clinical Research Limited's ("ICON Ireland") role in the development and management of the group, it's ownership of key intellectual property, customer relationships, its key role in the mitigation of risks faced by the group, plus the responsibility for maintaining the group's global network, ICON Ireland acts as the group entrepreneur and enters into the majority of the Company's customer contracts. As such, ICON Ireland remunerates most of the other operating entities ("cost plus service providers") in the ICON Group on the basis of a guaranteed cost plus mark up for the services they perform in each of their local territories.

The cost plus mark up for each ICON entity is established to ensure that each of ICON Ireland and the ICON entities in the various geographical areas that are involved in the conduct of services for customers, earn an appropriate arms-length return having regard to the assets owned, risks borne and functions performed by each entity from these intercompany transactions. The cost plus mark-up policy is reviewed annually to ensure that it is market appropriate.

Under this method, the residual operating profits (or losses) of the group, once the cost plus service providers have been paid their respective intercompany service fee, are retained by ICON Ireland. The geographic split of revenue disclosed for each region outside Ireland is the cost plus revenue attributable to these entities. The revenues disclosed as relating to Ireland are the net revenues after deducting the cost plus revenues attributable to the activities performed outside Ireland.

The Company's areas of operation outside of Ireland include the United States, United Kingdom, Belgium, France, Germany, Italy, Spain, The Netherlands, Sweden, Turkey, Poland, Czech Republic, Latvia, Russia, Ukraine, Hungary, Israel, Romania, Switzerland, Canada, Mexico, Brazil, Colombia, Argentina, Chile, Peru, India, China, South Korea, Japan, Thailand, Taiwan, Singapore, The Philippines, Australia, New Zealand, and South Africa.

There have been no changes to the basis of segmentation or the measurement basis for the segment results since the prior year.

Reportable segment information at December 31, 2017 and December 31, 2016 and for the years ended December 31, 2017, December 31, 2016 and December 31, 2015 is as follows:

a) The distribution of net revenue by geographical area was as follows:

	<b>December 31,</b>	<b>Year ended</b>		<b>December 31,</b>
	<b>2017</b>	<b>December 31,</b>	<b>2016</b>	<b>2015</b>
		<b>(in thousands)</b>		
Ireland	\$ 424,292	\$ 410,572	\$ 429,631	
Rest of Europe	337,105	313,185	330,487	
U.S.	791,543	763,821	650,941	
Other	205,499	178,909	163,919	
<b>Total</b>	<b>\$ 1,758,439</b>	<b>\$ 1,666,487</b>	<b>\$ 1,574,978</b>	

b) The distribution of income from operations, including restructuring and other items, by geographical area was as follows:

	<b>December 31, 2017</b>	<b>Year ended December 31, 2016</b>	<b>December 31, 2015</b>
	<b>(in thousands)</b>		
Ireland	\$ 232,032	\$ 216,149	\$ 189,035
Rest of Europe	26,493	34,200	38,166
U.S.	58,322	41,348	45,320
Other	21,491	19,997	9,015
<b>Total</b>	<b>\$ 338,338</b>	<b>\$ 311,694</b>	<b>\$ 281,536</b>

c) The distribution of income from operations, excluding restructuring and other items, by geographical area was as follows:

	<b>December 31, 2017</b>	<b>Year ended December 31, 2016</b>	<b>December 31, 2015</b>
	<b>(in thousands)</b>		
Ireland	\$ 240,115	\$ 218,334	\$ 189,035
Rest of Europe	26,351	36,509	38,166
U.S.	58,164	44,590	45,320
Other	21,461	20,420	9,015
<b>Total</b>	<b>\$ 346,091</b>	<b>\$ 319,853</b>	<b>\$ 281,536</b>

d) The distribution of property, plant and equipment, net, by geographical area was as follows:

	<b>December 31, 2017</b>	<b>December 31, 2016</b>
	<b>(in thousands)</b>	
Ireland	\$ 111,329	\$ 105,684
Rest of Europe	9,026	6,231
U.S.	27,797	29,428
Other	14,899	7,624
<b>Total</b>	<b>\$ 163,051</b>	<b>\$ 148,967</b>

e) The distribution of depreciation and amortization by geographical area was as follows:

	<b>December 31, 2017</b>	<b>Year ended December 31, 2016</b>	<b>December 31, 2015</b>
	<b>(in thousands)</b>		
Ireland	\$ 26,277	\$ 25,766	\$ 22,100
Rest of Europe	6,857	6,914	11,055
U.S.	24,246	23,462	20,106
Other	3,917	3,433	4,416
<b>Total</b>	<b>\$ 61,297</b>	<b>\$ 59,575</b>	<b>\$ 57,677</b>

f) The distribution of total assets by geographical area was as follows:

	<b>December 31, 2017</b>	<b>December 31, 2016</b>
	<b>(in thousands)</b>	
Ireland	\$ 880,378	\$ 766,120
Rest of Europe	504,418	337,062
U.S.	650,681	651,160
Other	111,141	71,501
<b>Total</b>	<b>\$ 2,146,618</b>	<b>\$ 1,825,843</b>

g) The distribution of capital expenditures by geographical area was as follows:

	<b>Year ended</b>		
	<b>December 31, 2017</b>	<b>December 31, 2016</b>	<b>December 31, 2015</b>
	<b>(in thousands)</b>		
Ireland	\$ 24,468	\$ 27,670	\$ 30,900
Rest of Europe	2,819	2,851	1,916
U.S.	11,027	8,432	15,256
Other	6,403	3,648	1,658
<b>Total</b>	<b>\$ 44,717</b>	<b>\$ 42,601</b>	<b>\$ 49,730</b>

h) The following table sets forth the clients which represented 10% or more of the Company's net revenue in each of the periods set out below.

	<b>Year ended</b>		
	<b>December 31, 2017</b>	<b>December 31, 2016</b>	<b>December 31, 2015</b>
Client A	18%	26%	31%

i) The distribution of interest income by geographical area was as follows:

	<b>Year ended</b>		
	<b>December 31, 2017</b>	<b>December 31, 2016</b>	<b>December 31, 2015</b>
	<b>(in thousands)</b>		
Ireland	\$ 1,084	\$ 407	\$ 102
Rest of Europe	1,222	1,040	1,151
U.S.	16	2	4
Other	24	35	49
<b>Total</b>	<b>\$ 2,346</b>	<b>\$ 1,484</b>	<b>\$ 1,306</b>



j) The distribution of the income tax charge by geographical area was as follows:

	December 31, 2017	Year ended December 31, 2016	December 31, 2015
	(in thousands)		
Ireland	\$ 20,345	\$ 24,215	\$ 21,795
Rest of Europe	1,921	5,528	8,007
U.S.	14,772	8,381	3,580
Other	9,531	(131)	5,929
<b>Total</b>	<b>\$ 46,569</b>	<b>\$ 37,993</b>	<b>\$ 39,311</b>

#### 18. Supplemental Disclosure of Cash Flow Information

	December 31, 2017	Year ended December 31, 2016	December 31, 2015
	(in thousands)		
Cash paid for interest	\$ 13,094	\$ 13,615	\$ 2,175
Cash paid for income taxes	\$ 12,305	\$ 10,205	\$ 14,829

#### 19. Accumulated Other Comprehensive Income

	December 31, 2017	December 31, 2016
	(in thousands)	
Currency translation adjustments	\$ (36,188)	\$ (70,154)
Currency impact on long term funding (Net of tax)	(182)	(13,912)
Actuarial loss on defined benefit pension plan (note 9)	(5,855)	(5,905)
Unrealized capital loss – investments (note 3)	(295)	(23)
Realized gain on interest rate hedge	4,658	4,658
Amortization of interest rate hedge	(1,887)	(964)
Fair value of cash flow hedge	1,036	—
<b>Total</b>	<b>\$ (38,713)</b>	<b>\$ (86,300)</b>

#### 20. Long-Term Debt – Senior Notes

In December 2015 the Company issued \$350 million in the private placement market which is due for repayment in 2020.

The interest rate in respect of the Senior Notes is fixed at 3.64% for the five year term of the agreement. The associated interest cost is recognized in interest expense in the period since drawdown in December 2015.

In 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 in November 2015 when the interest rate on the Senior Notes was fixed. The interest rate hedge was effective in accordance with Financial Accounting Standards Board ("FASB") ASC 815, "Derivatives and Hedging". The cash proceeds (\$4.6 million), representing the realized gain on the interest rate hedge, were received on maturity in November 2015 and are recorded within Other Comprehensive Income. The realized gain is being amortized to the income statement, net against interest payable, over the period of the Senior Notes.

The Senior Notes agreement also 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, each of which are defined in the Note Purchase and Guarantee Agreement. The Company was in compliance with these covenants at December 31, 2017.

The Senior 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.

## **21. Impact of New Accounting Pronouncements**

### ***Impact of new accounting pronouncements adopted during fiscal year-ended December 31, 2017***

Accounting Standards Update ('ASU') 2016-09 '*Improvements to Employee Share-Based Payment Accounting*' was issued in March 2016 which simplifies various aspects related to the accounting and presentation of share-based payments. The amendments require entities to record all tax effects related to share-based payments at settlement or expiration through the income statement and the windfall tax benefit to be recorded when it arises, subject to normal valuation allowance considerations. All tax-related cash flows resulting from share-based payments are required to be reported as operating activities in the statement of cash flows. The effective date of the new standard for public companies is for fiscal years beginning after December 15, 2016, and interim periods within those fiscal years. The Company has applied the modified retrospective approach, as required by the amendment to the standard, in determining the cumulative increase in retained earnings at January 1, 2017. This resulted in the recognition within non-current deferred tax assets of previously unrecognized excess tax benefits, as a credit to retained earnings, of \$6.7 million. The Company has adopted the cash flow presentation prospectively.

In July 2015, the FASB issued ASU 2015-11, which, for entities that do not measure inventory using the last-in, first-out (LIFO) or retail inventory method, changes the measurement principle for inventory from the lower of cost or market to lower of cost and net realizable value. The ASU also eliminates the requirement for these entities to consider replacement cost or net realizable value less an approximately normal profit margin when measuring inventory. This ASU is effective for public business entities in fiscal years beginning after December 15, 2016. The adoption of ASU 2015-11 did not impact on the financial statements.

In January 2017, the FASB issued '*Accounting changes and error corrections and Investments - Equity method and joint ventures: Amendments to SEC paragraphs pursuant to staff announcements at the September 22, 2016 and November 17, 2016 EITF meetings (SEC update)*' which incorporates into the FASB Accounting Standards Codification recent SEC guidance about disclosing, under SEC SAB Top 11.M, the effect on financial statements of adopting the revenue, leases, and credit losses standards. The Company has adopted the ASU in its December 31, 2017 financial statements. See the sections following.

In October 2016, the FASB issued ASU 2016-17, '*Consolidation (Topic 810): Interests Held through Related Parties That Are under Common Control*', which requires a single decision maker or service provider, in evaluating whether it is the primary beneficiary, to consider on a proportionate basis indirect interests held through related parties under common control. This ASU is effective for public business entities for annual and interim periods in fiscal years beginning after December 15, 2016. The adoption of ASU 2016-17 did not have an impact on the financial statements.

### ***Financial statement effects of tax reform***

H.R.1 was enacted on December 22, 2017. The effective date of the law for most provisions is January 1, 2018 however the effects are required to be recognized in December 2017 financial statements. In response, the SEC staff issued SAB 118, which allows registrants to record provisional amounts during a 'measurement period'. See Note 13 for assessment of impact of H.R.1 on the December 31, 2017 financial statements.

## **Impact of new accounting pronouncements which will be adopted during fiscal year-ended December 31, 2018**

### *ASC 606 'Revenue from Contracts with Customers'*

In May 2014, the FASB issued ASU 2014-09, *Revenue from Contracts with Customers* ("ASU 2014-09"), which provides that an entity should recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. The updated standard will replace most existing revenue recognition guidance in U.S. GAAP when it becomes effective and permits the use of either the retrospective or cumulative effect transition method. To achieve the core principle of the new standard, an entity should apply the following steps: (1) identify the contract(s) with a customer; (2) identify the performance obligations in the contract; (3) determine the transaction price; (4) allocate the transaction price to the performance obligations in the contract; and (5) recognize revenue when (or as) the entity satisfies a performance obligation. Early adoption is permitted for annual periods beginning after December 16, 2016. Subsequent to issuing ASU 2014-09, the FASB issued the following amendments concerning clarification of ASU 2014-09. In March 2016, the FASB issued ASU 2016-08, *Revenue from Contracts with Customers (Topic 606), Principal versus Agent Considerations (Reporting Revenue Gross versus Net)* ("ASU 2016-08"), which further clarifies the implementation guidance on principal versus agent considerations. The new guidance requires either a retrospective or a modified retrospective approach to adoption. In April 2016, the FASB issued ASU 2016-10, *Revenue from Contracts with Customers (Topic 606), Identifying Performance Obligations and Licensing* ("ASU 2016-10"), which clarifies the identification of performance obligations and the licensing implementation guidance, while retaining the related principles for those areas. In May 2016, the FASB issued ASU 2016-12, *Revenue from Contracts with Customers (Topic 606): Narrow-Scope Improvements and Practical Expedients* ("ASU 2016-12"), which provides clarification on assessing the collectability criterion, presentation of sales taxes, measurement date for non-cash consideration and completed contracts at transition.

The updated standard is effective for ICON in the first quarter of the year ended December 31, 2018. ICON has elected to adopt the updated standard using the cumulative effect transition method. Under this transition method, ICON will apply the new standard as of the date of initial application (i.e. January 1, 2018), without restatement of comparative period amounts. ICON will record the cumulative effect of initially applying the new standard (to revenue and cost) as an adjustment to the opening balance of equity at the date of initial application. While we continue to assess all potential impacts of the new standard, we believe the most significant impact relates to our assessment of measurement of performance and percentage of completion in respect of our clinical trials service revenue. ICON will apply the requirements of the new standard to those contracts not completed at the date of initial application. The adoption of the new standard is expected to result in a cumulative reduction in shareholder's equity at January 1, 2018 (date of initial application) of an amount in the range of \$40 million to \$80 million reflecting cumulative adjustments to life to date revenue and associated costs. The full impact of adoption of the new standard, including the indirect impact (taxation and cost deferral adjustments) will be finalized in the first quarter of 2018 and is therefore subject to change.

Under current GAAP, the revenue attributable to performance is determined based on both input and output methods of measurement based on the relationship between hours incurred and the total estimated hours of the trial, or on the unit of delivery method. We have evaluated the application of the requirements of ASC 606 to 'recognize revenue when or as the entity satisfies a performance obligation' to its business. We have concluded that under the revised standard, clinical trial service is a single performance obligation satisfied over time i.e. the full service obligation in respect of a clinical trial (including services provided by investigators and other parties) is considered a single performance obligation in respect of the clinical services revenue stream. Promises offered to the customer are not distinct within the context of the contract.

We have also 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) adjusted to reflect historical experience to determine a realizable contract value. Revenue will be recognized as the single performance obligation is satisfied. The progress towards completion for clinical service contracts will be measured on an input measure of progress toward completion based on total project costs (inclusive of third party costs) at each reporting period.

The revised standard includes additional disclosure requirements related to revenue. Our results for the first quarter of the year ended December 31, 2018, being the quarter ended March 31, 2018, will include expanded disclosure in respect of (i) disaggregated revenue disclosures from contracts with customers (ii) separate disclosure of contract assets and liabilities (iii) disclosure of retrospective revenue and (iv) disclosure of the remaining performance obligations by product/service (or backlog).

Due to the complexity of certain of our contracts, the actual revenue recognition treatment required under the new standard for these arrangements may be dependent on contract-specific terms and vary in some instances.

In May 2017, the FASB issued ASU 2017-10 *'Service Concession Arrangements (Topic 853): Determining the Customer of the Operation Services'* which clarifies that the customer in a service concession arrangement is always the grantor.

This ASU is effective at the same time as ASU 2014-09, Revenue from Contracts with Customers (Topic 606) (the new revenue standard).

- If an entity had early adopted the new revenue standard before this ASU was issued (May 16, 2017), the entity may adopt this ASU on its effective date with certain specific transition provisions.
- If an entity early adopts the new revenue standard after this ASU was issued, the entity must adopt this ASU at the same time as the new revenue standard with certain specific transition provisions.
- An entity may elect to early adopt this ASU before the adoption of the new revenue standard with certain specific transition provisions.

The adoption of the ASU is not expected to have a significant impact on the financial statements.

In January 2017, the FASB issued ASU 2017-01 *'Business combinations - Clarifying the definition of a business'* to provide a new framework for determining whether transactions should be accounted for as acquisitions (or disposals) of assets or businesses. This ASU is effective for public business entities for annual and interim periods in fiscal years beginning after December 15, 2017. The ASU may be early adopted. The adoption of ASU 2017-01 is not expected to have a significant impact on the financial statements.

In March 2017, the FASB issued ASU 2017-07 *'Compensation-Retirement Benefits (Topic 715): Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost'* which requires companies to present the service cost component of net benefit cost in the same line items in which they report compensation cost. Companies will present all other components of net benefit cost outside operating income, if this subtotal is presented. This ASU is effective for public business entities for annual and interim periods in fiscal years beginning after December 15, 2017. The adoption of ASU 2017-07 is not expected to have a significant impact on the financial statements.

In January 2016, the FASB issued ASU 2016-01 *'Financial Instruments- Overall (Subtopic 825-10): Recognition and Measurement of the Financial Assets and Financial Liabilities'* which will significantly change the income statement impact of equity investments and the recognition of changes in fair value of financial liabilities when the fair value option is elected. The ASU is effective for public business entities for interim and annual periods in fiscal years beginning after December 15, 2017. The adoption of ASU 2016-01 is not expected to have a significant impact on the financial statements.

In March 2016, the FASB issued ASU 2016-04 , *'Recognition of Breakage for Certain Prepaid Stored-Value Products'*, which allows entities to recognize breakage on prepaid stored-value products consistent with how breakage is recognized under the new revenue standard. The exception applies to prepaid stored-value products in physical or digital form, with stored monetary values that are redeemable for goods and services, including those that can be redeemed for cash (e.g. prepaid gift cards issued on a specific payment network and redeemable at network-accepting merchant locations, prepaid telecommunication cards, and traveler's checks). The ASU is effective for public business entities for interim and annual periods in fiscal years beginning after December 15, 2017. The adoption of ASU 2016-04 is not expected to have a significant impact on the financial statements.

In August 2016, the FASB issued ASU 2016-15, *'Classification of Certain Cash Receipts and Cash Payments'*, which addresses eight classification issues related to the statement of cash flows:

- Debt prepayment or debt extinguishment costs;
- Settlement of zero-coupon bonds;
- Contingent consideration payments made after a business combination;
- Proceeds from the settlement of insurance claims;
- Proceeds from the settlement of corporate-owned life insurance policies, including bank-owned life insurance policies;
- Distributions received from equity method investees;
- Beneficial interests in securitization transactions; and
- Separately identifiable cash flows and application of the predominance principle.

The ASU is effective for public business entities for interim and annual periods in fiscal years beginning after December 15, 2017. The adoption of ASU 2016-15 is not expected to have a significant impact on the financial statements. Any contingent consideration payment arrangements arising on business combinations effected in the future will be reviewed for cash flow statement classification in line with ASU 2016-15.

In October 2016, the FASB issued ASU 2016-16, *'Income Taxes (Topic 740): Intra-Entity Transfers of Assets Other Than Inventory'*, which requires entities to recognize at the transaction date the income tax consequences of intercompany asset transfers other than inventory. This ASU is effective for public business entities for annual and interim periods in fiscal years beginning after December 15, 2017. For all other entities, the ASU is effective for annual periods in fiscal years beginning after December 15, 2018, and interim periods in fiscal years beginning after December 15, 2019. The adoption of ASU 2016-16 is not expected to have a significant impact on the financial statements.

In November 2016, the FASB issued ASU 2016-18, *'Statement of Cash Flows (Topic 230): Restricted Cash'*, which requires companies to include cash and cash equivalents that have restrictions on withdrawal or use in total cash and cash equivalents on the statement of cash flows. This ASU is effective for public business entities for annual and interim periods in fiscal years beginning after December 15, 2017. For all other entities, the ASU is effective for annual periods in fiscal years beginning after December 15, 2018, and interim periods in fiscal years beginning after December 15, 2019. The adoption of ASU 2016-18 is not expected to have a material impact on the financial statements.

#### **Impact of other new accounting pronouncements**

In January 2017, the FASB issued ASU 2017-04 *'Intangibles - Goodwill and Other: Simplifying the test for goodwill impairment'* which requires an entity to no longer perform a hypothetical purchase price allocation to measure goodwill impairment. Instead, impairment will be measured using the difference between the carrying amount and the fair value of the reporting unit. The ASU is effective for public businesses, that are SEC filers, for annual and interim periods in fiscal years beginning after December 15, 2019. The adoption of ASU 2017-04 is not expected to have a significant impact on the financial statements.

In February 2017, the FASB issued ASU 2017-05 *'Other Income-Gains and Losses from the Derecognition of Nonfinancial Assets (Subtopic 610-20): Clarifying the Scope of Asset Derecognition Guidance and Accounting for Partial Sales of Nonfinancial Assets'*. In February 2017, the FASB issued ASU 2017-05, which clarifies the guidance in Subtopic 610-20 on accounting for derecognition of a nonfinancial asset. The ASU also defines in-substance nonfinancial assets and includes guidance on partial sales of non-financial assets. The adoption of ASU 2017-05 is not expected to have an impact on the financial statements.

In July 2017, the FASB issued ASU 2017-11 *'Earnings Per Share (Topic 260); Distinguishing Liabilities from Equity (Topic 480); Derivatives and Hedging (Topic 815): (Part I) Accounting for Certain Financial Instruments with Down Round Features, (Part II) Replacement of the Indefinite Deferral for Mandatorily Redeemable Financial Instruments of Certain Nonpublic Entities and Certain Mandatorily Redeemable Noncontrolling Interests with a Scope Exception'* under which down round features will not cause certain equity-linked financial instruments to be accounted for as derivatives. A company that presents EPS information will reflect the effect of a down round feature of free-standing equity-linked financial instruments in EPS only if it is triggered. The ASU is effective for public business entities, for annual and interim periods in fiscal years beginning after December 15, 2018. The adoption of the ASU is not expected to have a significant impact on the financial statements.

In August 2017, the FASB issue ASU 2017-12 *'Derivatives and Hedging (Topic 815): Targeted Improvements to Accounting for Hedging Activities'* which changes the recognition and presentation requirements of hedge accounting, including:

- Eliminating the requirement to separately measure and report hedge ineffectiveness; and
- Presenting all items that affect earnings in the same income statement line item as the hedged item.

The ASU also provides new alternatives for:

- Applying hedge accounting to additional hedging strategies;
- Measuring the hedged item in fair value hedges of interest rate risk;
- Reducing the cost and complexity of applying hedge accounting by easing the requirements for effectiveness testing, hedge documentation and application of the critical terms match method; and
- Reducing the risk of material error correction if a company applies the shortcut method inappropriately.

This ASU is effective for public business entities, for annual and interim periods in fiscal years beginning after December 15, 2018. Early adoption is permitted any time after the issuance of the ASU, including in an interim period. If adopted at other than the beginning of a fiscal year, cumulative effect adjustments are reflected as of the beginning of the fiscal year. The adoption of the ASU is not expected to have a significant impact on the financial statements.

In February 2016, the FASB issued ASU 2016-02, 'Leases', requiring lessees to recognize a right-of-use asset and a lease liability on the Consolidated Balance Sheet for all leases with the exception of short-term leases. For lessees, leases will continue to be classified as either operating or finance leases in the income statement. Lessor accounting is similar to the current model but updated to align with certain changes to the lessee model. Lessors will continue to classify leases as operating, direct financing or sales-type leases. The effective date of the new standard for public companies is for fiscal years beginning after December 15, 2018 and interim periods within those fiscal years. Early adoption is permitted. The new standard must be adopted using a modified retrospective transition and requires application of the new guidance at the beginning of the earliest comparative period presented. The updated standard is effective for us beginning in the first quarter of the year-ended December 31, 2019. We are currently evaluating the effect that the updated standard will have on our consolidated financial statements and related disclosures. See *Note 16 Commitments and Contingencies* for details of operating leases held during year-ended December 31, 2017. A lease liability and right-of-use asset will be recorded on the Consolidated Balance Sheet at December 31, 2019 and comparative periods will be restated to reflect the lease liabilities and right-of use assets.

In June 2016, the FASB issued ASU 2016-13, 'Measurement of Credit Losses on Financial Instruments', which significantly changes the way entities recognize impairment of many financial assets by requiring immediate recognition of estimated credit losses expected to occur over their remaining life. The ASU is effective for public business entities that are SEC filers for interim and annual periods in fiscal years beginning after December 15, 2019. The adoption of ASU 2016-13 is not expected to have a significant impact on the financial statements.

## **22. Related Parties**

Subsidiaries of the Company earned revenue of \$743,000 (2016: \$100,000) 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. \$220,000 was recorded as due from DS Biopharma Limited at December 31, 2017. The contract terms were agreed on an arm's length basis.

On July 22, 2016, Mr. Thomas Lynch retired as a Director of the Company, having previously resigned as Chairman of the Company in March 2016. A charge of €231,750 was recorded during 2017 in respect of consultancy services provided by a company controlled by Mr. Lynch. \$64,000 was recorded as due to Mr. Lynch under the terms of the agreement at December 31, 2017.

During the year ended December 31, 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 November 1, 2017. Payment was received in full in January 2018.

## **23. Subsequent Events**

The Company has evaluated subsequent events from the balance sheet date through February 28, 2018, the date at which the consolidated financial statements were available to be issued. The Company has determined that there are no items to disclose.

**SIGNATURES**

The Registrant hereby certifies that it meets all of the requirements for filing on Form 20-F and that it has duly caused and authorized the undersigned to sign this annual report on its behalf.

**ICON plc**

/s/ Brendan Brennan

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Brendan Brennan

Chief Financial Officer

Date February 28, 2018

## INDEX TO EXHIBITS

Exhibit Number	Title
3.1	Description of the Memorandum and Articles of Association of the Company (incorporated by reference to exhibit 99.2 to the Form 6K (File No. 333-08704) filed on July 25, 2016).
12.1*	Section 302 certifications.
12.2*	Section 906 certifications.
21.1	List of Subsidiaries (incorporated by reference to Item 4 of Form 20-F filed herewith).
23.1*	Consent of KPMG, Independent Registered Public Accounting Firm
101.1*	Interactive Data Files (XBRL – Related Documents)

\* Filed herewith



**Certification of Chief Financial Officer  
Pursuant to Section 302 of  
the Sarbanes-Oxley Act of 2002**

I, Brendan Brennan, certify that:

1. I have reviewed this annual report on Form 20-F of ICON plc ("the registrant").
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
  - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the period covered by the annual report that has materially affected, or is reasonably likely to materially affect, the company's internal control over financial reporting.
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's Board of Directors (or persons performing the equivalent functions):
  - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Dated: February 28, 2018

/s/ Brendan Brennan

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Brendan Brennan  
Chief Financial Officer

**Certification of Chief Executive Officer  
Pursuant to Section 302 of  
the Sarbanes-Oxley Act of 2002**

I, Steve Cutler, certify that:

1. I have reviewed this annual report on Form 20-F of ICON plc ("the registrant").
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
  - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the period covered by the annual report that has materially affected, or is reasonably likely to materially affect, the company's internal control over financial reporting.
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's Board of Directors (or persons performing the equivalent functions):
  - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Dated: February 28, 2018

/s/ Steve Cutler

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Steve Cutler

Chief Executive Officer

**Certification Pursuant to 18 U.S.C. Section 1350,  
As Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002**

In connection with the Annual Report of ICON plc (the "Company") on Form 20-F for the year ending December 31, 2017 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Brendan Brennan, Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that to my knowledge:

- (1) the Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) the information contained in the Report fairly presents, in all material respects, the financial condition and result of operations of the Company.

Date: February 28, 2018

/s/ Brendan Brennan

Brendan Brennan

Chief Financial Officer

The foregoing certification is being furnished solely pursuant to section 906 of the Sarbanes-Oxley Act of 2002 (subsections (a) and (b) of section 1350, chapter 63 of title 18, United States Code) and is not being filed as part of the report or as a separate disclosure document. A signed original of this written statement required by section 906 has been provided to ICON plc and will be retained by ICON plc and furnished to the Securities and Exchange Commission or its staff upon request.

**Certification Pursuant to 18 U.S.C. Section 1350,  
As Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002**

In connection with the Annual Report of ICON plc (the "Company") on Form 20-F for the year ending December 31, 2017 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Steve Cutler, Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that to my knowledge:

- (1) the Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) the information contained in the Report fairly presents, in all material respects, the financial condition and result of operations of the Company.

Date: February 28, 2018

/s/ Steve Cutler

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Steve Cutler

Chief Executive Officer

The foregoing certification is being furnished solely pursuant to section 906 of the Sarbanes-Oxley Act of 2002 (subsections (a) and (b) of section 1350, chapter 63 of title 18, United States Code) and is not being filed as part of the report or as a separate disclosure document. A signed original of this written statement required by section 906 has been provided to ICON plc and will be retained by ICON plc and furnished to the Securities and Exchange Commission or its staff upon request.

**Consent of Independent Registered Public Accounting Firm**

The Board of Directors  
ICON plc

We consent to the incorporation by reference in the registration statements (Nos. 333-204153, 333-190068 and 333-152802) each on Form S-8 of ICON plc of our reports dated February 28, 2018, with respect to the consolidated balance sheets of ICON plc as of December 31, 2017 and 2016 and the related consolidated statements of operations, comprehensive income, shareholders' equity and comprehensive income, and cash flows for each of the years in the three-year period ended December 31, 2017, and the related notes (collectively, the "consolidated financial statements"), and the effectiveness of internal control over financial reporting as of December 31, 2017, which reports appear in the December 31, 2017 Annual Report on Form 20-F of ICON plc.

/s/ KPMG  
Dublin, Ireland

February 28, 2018