

Lloyd's Register Foundation

Annual report and financial statements 30 June 2017

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Connecting science, safety and society

Trustees' Report incorporating the Strategic Report

Chairman's Statement

We are particularly proud of the achievements and impact that the Lloyd's Register Foundation (the Foundation) has made this year. Now in our fourth full year, the 2014-2020 funding strategy that we set out at our formation continues to guide our grant giving and has delivered a strong set of charitable activities across our four strategic themes.

Those themes remain as important as ever. Fundamental scientific research is at the heart of what we do – we are committed to furthering society's understanding of the safety and environmental impact of new technologies. Our body of work in the areas of energy storage, nanotechnology, robotics and autonomous systems, additive manufacturing, data-centric engineering and blockchain technology, to name a few, is starting to make a real difference in improving the safety of the critical infrastructure on which society relies. The acceleration of that fundamental research into practical application is another priority, and we are starting to see a number of our early grants deliver real impact.

Our fourth theme, promoting the advancement of skills and education is particularly important for the Foundation. Inspiring and supporting the next generation of engineers and scientists, especially those from under-represented and disadvantaged communities, is vital in meeting the challenges and opportunities of the fourth industrial revolution. It is probably the most exciting time since the first industrial revolution to embark on a career in science and engineering and I am encouraged to see young people wanting to make a difference to society through actively engaging in STEM subjects (science, technology, engineering and mathematics).

Importantly, our updated five-year plan has given the Foundation focus on seven goals: establishing a global safety evidence base; launching a global safety challenges project; portfolio growth; increased focus on skills, education and public understanding of risk; progressing the activities of the Heritage and Education Centre; efficiency and effectiveness; and working with the Lloyd's Register group as a whole for the benefit of society. These seven goals to achieve in five years articulate our focus and will be reviewed and refreshed annually to factor in experience and new opportunities.

The impact that the Foundation makes could not be possible without the contribution and funding from our principal operating company, Lloyd's Register Group Limited (LRG). Established in 1760 as a not-for-profit safety body, it has evolved into the 21st Century model for social business – not only funding the Foundation through its profits, but also discharging some of the Foundation's charitable objectives through its work in assuring the safety of critical infrastructure worldwide.

The Foundation's income this year from the trading activities of the Lloyd's Register group (the Trading Group), was £44 million. Grant expenditure by the Foundation in year was £22.8 million, bringing the value of the active grants portfolio to now just over £100 million. In addition this year, the Foundation reinvested £40 million in the share capital of LRG to fund acquisitions, including that of Acoura in the field of food safety assurance. This further strengthens our impact in-line with the Foundation's charitable purpose, and exemplifies the ways in which the Foundation and LRG work together for a safer world.

This year has also seen a focus on charities' responsible investment policies. In addition to performance and governance, the Trustees included social, environment and ethical considerations when selecting investment managers to oversee its investment portfolio. Both investment managers, Sarasin and Fidelity, are signatories to the United Nations Principles for Responsible Investment (UNPRI). UNPRI works to understand the investment implications of environmental, social and governance factors and supports its international network of investor signatories in incorporating these factors into their investment and ownership decisions. The Trustees are also considering ways to augment the Foundation's reporting on its charitable impact by including the social impacts of underlying investments within the Foundation's portfolio.

On behalf of the Foundation, I would like to thank my fellow Trustees for their ongoing support, time and expertise in guiding the Foundation. We also thank our Advisory Council members and the newly established 100A1 Ambassadors. They all give their time freely, and are hugely passionate about the Foundation's purpose and impact.

Finally, we would like to extend our warmest thanks to Professor Richard Clegg, Foundation Chief Executive, Michelle Davies, Secretary of the Foundation, and the Foundation staff. With only 17 dedicated employees, the Foundation is now truly making an impact, and we are very proud of their contribution.

Thomas Thune Andersen
Chairman, Lloyd's Register Foundation

Foundation Chief Executive's Review

If I had to sum up 2016/17 in one word, it is 'impact'. Everything we do, all the grants we give, all the direct charitable work we undertake, is directed at making an impact in-line with our charitable purpose.

We are a relatively young charity, having been in full operation now for just under four years. In that time, we have built-up an expanding grants portfolio in-line with our published strategy. Some of these grants involve long-term commitments, with horizons extending to 10 years, aimed at building relevant capabilities that can tackle some of the major safety-related challenges facing society. With impact in mind, we strive to ensure that everything we fund and undertake is end-user inspired, with a plausible pathway to application from the outset. In 2016/17, we have worked hard both to extend the size of the grants portfolio and to leverage greater impact from it by promoting interactions and cross-working between our grant holders.

Before covering the new commitments we have entered into, it is worthwhile reminding ourselves of the journey so far to provide context for our ongoing work. We have previously reported on numerous large long-term grant clusters which, because of their long horizons, we manage in parallel to our current portfolio of live grants. Examples include grants to date in fields such as nanotechnology (led by Cambridge, Southampton and Manchester universities), resilience engineering (led by Arup), data-centric engineering (led by The Alan Turing Institute), structural integrity and systems performance (through the National Structural Integrity Research Centre led by TWI in the UK), and the public understanding of risk (in collaboration with the National University of Singapore). Based on our five-year plan, we forecast that our live grants portfolio will grow to around £150 million as the Foundation ramps up its activities.

Our charitable expenditure for 2016/17 in terms of grants awarded plus direct charitable activities was £23.5 million, equating to 43.7% of total incoming resources. We awarded a total of 21 grants in the year, broadly split 50:50 in value terms between responsive and directive modes. I believe this demonstrates the Foundation's agility in identifying and investing in innovative ideas as they appear on the horizon. The major grants included £10 million to a consortium with the UK Health and Safety Executive and The University of Manchester on extracting knowledge from the world's safety databases, and a £10 million grant to the University of York to lead an international programme on robotics and autonomous systems (building on the foresight review we published in October 2016). We are also pleased to have sponsored the UK Royal Institution Christmas Lectures with a grant of £102,000 as part of our aim of inspiring the next generation into STEM subjects. The lectures were broadcast by the BBC to an estimated total audience of over 1.7 million viewers on the subject of 'fuelling the future', which were delivered by Professor Saiful Islam of the University of Bath.

As our grants portfolio and impact increases, resourcing remains a key challenge in terms of making sure that we have an in-house team of the right size and skills composition to efficiently and effectively manage the Foundation's workload. Accordingly, a key event for us this year has been the appointment of Dr Tim Slingsby as Director of Skills and Education. One of his first steps has been to successfully update our strategic priorities in the skills and education area, which was approved by the Foundation's Board of Trustees in March 2017. This involves exciting plans for the future of the Group's 257 year-old heritage collection, named Project Undaunted, which is conserving, cataloging and digitising the collection and putting it to work as a unique educational and historic resource. I look forward to reporting big strides in this area in subsequent annual reviews, and developing the skills and education area so that it is on a par with the progress we have already made in the scientific research element of our strategy.

I mentioned in last year's review that our relationship with the Lloyd's Register group is a distinguishing feature of the Foundation in working together for a safer world. In addition to providing income, the Lloyd's Register group also provides us with an invaluable real-world perspective on industrial challenges facing the sectors we serve. We have worked hard in 2016/17 on maximising the synergies between the two branches of our organisation, helping to identify priority areas in which to invest where we can make a distinctive difference, as well as accelerating the uptake and application of results. We look forward to continuously strengthening and leveraging this relationship.

In closing, I would like to return to the theme of impact. I want to thank the Foundation team for all the practical work they have done behind the scenes on developing our impact framework. This has defined, for our purposes, what impact means and the metrics and indicators we will use. We have issued this as a guidance note for grant applicants via our online grants portal and shared it with the Foundation's Trustees, so that we all now share a common vocabulary and understanding. You will find that the content of this annual review is structured along the lines of our impact framework, looking at outputs, outcomes and impact.

Finally, I want to thank our Advisory Council members as well as our 100A1 Ambassadors who we appointed this year. The success of the Foundation belongs to all of them, as well as our grants community and our colleagues and friends in the Lloyd's Register group.

Professor Richard Clegg
Foundation Chief Executive

MISSION, VISION, STRATEGY

Our strategy sets out how we will achieve our vision

Our mission

To secure for the benefit of the community high technical standards of design, manufacture, construction, maintenance, operation and performance for the purpose of enhancing the safety of life and property at sea, on land and in the air.

The advancement of public education including within the transportation industries and any other engineering and technological disciplines.

Our vision

Our vision is to be known worldwide as a leading supporter of engineering-related research, training and education that makes a real difference in improving the safety of the critical infrastructure on which modern society relies. In support of this, we promote scientific excellence and act as a catalyst working with others to achieve maximum impact.

Strategic themes:

1 Supporting excellent scientific research



2 Accelerating the application of research



3 Promoting safety and public understanding of risk



4 Promoting advancement of skills and education



Objectives:

- Striving for excellence and impact
- Promoting technology foresight
- Building world-class research teams

- Accelerating technology uptake
- Informing standards and policy
- Facilitating the mobility of researchers

- Promoting the safety of life, property and the environment
- Enhancing public understanding of risk
- Maintaining and promoting a memory bank of safety and risk management developments

- Inspiring the next generation
- Enhancing the knowledge and skills of the workforce
- Widening access to disadvantaged and under-represented communities

Funding priorities:

- Structural integrity and systems performance
- Resilience engineering
- Human and social factors
- Emergent technologies

- Supporting safety organisations
- Communication and public debate of scientific research
- Developing the Foundation's Heritage and Education Centre library and archive

- Pre-university education
- University education
- Vocational training and professional development

Sectors we serve:

- | | | | |
|---------------------|--------------------------|--------------------------|------------------------|
| • Aerospace | • Food | • Manufacturing | • Oil and gas upstream |
| • Automotive | • Healthcare and medical | • Marine | • Power and utilities |
| • Built environment | • IT and communications | • Oil and gas downstream | • Rail and metro |

Strategic theme 1

Supporting excellent scientific research

Progress on what we set out to achieve

Last year we set out our plans for 2016/17. These included publishing several foresight reviews on global safety knowledge, analytics and data; robotics and autonomous systems; and energy storage. We said we would run a campaign to identify the major global challenges and opportunities for the safety of life and property, and that we would publish a roadmap on the safety of additive manufacturing following the recommendations from the foresight review on structural integrity and systems performance.

We have made good progress against these plans. Professor David Lane launched the Foresight review of robotics and autonomous systems at the Foundation's international conference in October 2016. More information on the next steps we have taken is given in the section looking at accelerating the application of research (page 7).

The Foundation asked NESTA (the UK-based National Endowment for Science, Technology and the Arts) to work with us in identifying global safety challenges. This campaign was also launched at the Foundation's conference in October 2016. Work on this and the review on global safety knowledge, analytics and data, has matured into activity now included under our third strategic theme, promoting safety and the public understanding of risk (see page 10).

Promoting scientific foresight

The foresight review process continues to be an excellent model for bringing together experts to explain a subject for the public and highlight the threats and opportunities associated with the topic.

We published two foresight reviews during the year and a consultation draft roadmap.

Foresight review of robotics and autonomous systems

The review explores how robotics and autonomous systems can enhance the safety of the world around us and what is needed to enable this to happen. It brings together not only views from those developing or wanting to use the technology, but also from those representing social, legal and regulatory perspectives.

Foresight review of energy storage

We are reliant on energy. In order to use it where and when we need it we have to be able to store the energy and release it when needed in a form that can be used. Professor Nigel Brandon, Director of the Sustainable Gas Institute at Imperial College, led this review explaining what energy storage actually is, why it is needed, and the threats and opportunities associated with the technology.

Roadmap on additive manufacturing

There is growing interest in the application of additive manufacturing. In November 2016, we published a roadmap consultation document that outlined the key safety aspects that need to be addressed in order to assure the safe application of this technology. A final document on additive manufacturing that takes into consideration the feedback from the consultation is yet to be published but we will issue an insight report on this in the coming year.

Highlights from our grant holders

First for ICON

The International Consortium on Nanotechnology (ICON) held its first conference in Athens in April 2017. The programme has now awarded 27 PhD grants with a truly global spread.

Paper in world's most cited journal

Foundation grant holder, Professor Andre Geim of the University of Manchester, has had a paper accepted into the journal *Nature*, the world's most cited scientific journal entitled 'Molecular Transport through Capillaries made with Atomic Scale Precision'.

Transport postgraduate wins Ulf Aberg award

Milena Studic, whose PhD at the Lloyd's Register Foundation Transport Risk Management Centre, Imperial College, was funded by the Foundation, has been awarded the Ulf Aberg Award for best postgraduate project, 'Developing a framework for Total Apron Safety Management'. This award is given by the Chartered Institute of Ergonomics and Human Factors, and is the first time a researcher in civil engineering has beaten the traditional human factors and ergonomics departments around the world.

Clean-tech award winner

Yolandi Schoeman, a Foundation-funded International Water Security Network MSc student and innovator, was placed as global runner up in the 2017 Global Clean-tech awards competition for her natural filter for domestic water treatment. The Baoerry technology for which Yolandi was recognised, is related to the eco-engineered 'wetlands in a box' which she presented at the Foundation's conference in October 2016.

Insight in to distributed ledger technologies

Many people are familiar with Bitcoin; the established digital currency which first became popular in 2009 as a system for allowing safe financial transactions without the need for an intermediary. More and more applications of distributed ledger technologies have been developed. The report issued by the UK's Government Office for Science in 2015, 'Distributed Ledger Technology: Beyond Blockchain', has steered attention toward the 'shared ledger' approach and its potential for further applications, both in government and the wider economy.

In January, the Foundation in partnership with The Alan Turing Institute organised a workshop on the engineering applications of blockchain technologies. This workshop was led by Gary Pogson of the Lloyd's Register group. Distributed ledger technologies may be used in engineering systems for a range of applications. The workshop examined the pros and cons of such applications to society, bringing together people from across disciplines, industry sectors, government and academia to look at innovative applications and the implications of this new technology for engineering. This will be the subject of an insight report to be published in 2017/18.

Highlights from our charitable activities and new grants

This year we have continued to fund new activities which will lead to significant impacts on safety.

Design for safety

Building on the success of a design challenge grant awarded to the Royal College of Art (RCA) for safer ways to transfer between ships at sea (see page 12), we awarded a further grant of £80,000 to the RCA to lead the development of a foresight review in design for safety. The review will examine how safety can be improved through design and we will publish this review later in 2017.

Environmentally friendly electronics

The Foundation supported its second RAEng/LRF postdoctoral research fellow. Rebecca Boston from the University of Sheffield is conducting research on creating nature-inspired non-toxic environmentally friendly electronics. Following independent peer review, Rebecca was also awarded funding from ICON to support a PhD.

Data for safety

The UK Health and Safety Executive (HSE) holds 40 years' worth of accident investigations, legal cases and statistics. We have awarded a £10 million grant to the HSE to help digitise this information and add similar datasets from around the world to create a unique global safety data asset. Through data analytics we will unlock the knowledge within this data asset and apply it for the purpose of enhancing safety.

Future plans

In 2017/18 we plan to:

- Consult on and publish a foresight review on design for safety.
- Publish our insight reports on distributed ledger technologies and additive manufacturing.
- Initiate programmes based upon the recommendations of completed foresight and insight reviews where appropriate.

Case study - Data-centric engineering comes to life

The next decade will see step changes in data-driven technology, impacting all aspects of engineering and industry.

The Alan Turing Institute-Lloyd's Register Foundation programme into data-centric engineering addresses the issues set out in our foresight review of big data: 'Towards Data-Centric Engineering'. This includes research challenges, its application, the need for new skills and issues around data standards.

The Foundation's £10 million grant to the Institute was finalised in July 2015 and the impetus of the work was significantly enhanced in January 2017 when Professor Mark Girolami FRSE was appointed to lead the programme.

An internationally-leading researcher in statistical sciences, Mark holds a chair in statistics at Imperial College London and brings to the programme significant experience of developing and applying advanced statistical and computational techniques to engineering challenges. He leads the research programme, defines core challenges and works with industry to deploy data-centric engineering techniques to real-world problems. A new team has been established at The Alan Turing Institute and partnerships developed with industry and academia.

Core challenges

The programme will tackle three core challenges.

Resilient and robust infrastructures

There is widespread, growing availability of heterogeneous data arising from major complex infrastructure systems such as cities, railways, industrial plant, ships, road networks and supply chains. These systems are characterised by multiple human and technological interfaces and provide an opportunity to make a step-change in our ability to provide robust protocols for a wide variety of engineering design issues. The grand challenge underlying this goal is to develop algorithms with the capability of optimally blending data with models in a manner which takes into account uncertainty in both.

Monitoring safety of complex engineering systems

Safety is a critical concern in the design and operation of countless engineered systems, from aircraft engines and aerospace structures to vehicle electrical systems and even software. Understanding and anticipating the impact of rare and high-consequence events in these systems is essential. Research and development activities are also tied to questions of health monitoring and predictive maintenance, wherein by learning the state and the failure propensity of a system, users can carefully target repairs, modify operational envelopes, and make quantitative assessments of risk.

Data-driven engineering design under uncertainty

There are fundamental questions at the intersection of data and optimisation:

- Optimal design under uncertainty, with particular attention to the management of risk.
- Optimal experimental design, yielding efficient and targeted strategies for sensing and identifying the most valuable elements of large and heterogeneous data sets.
- Optimal data collection for design optimisation, closing the loop between the design of engineered systems and the acquisition of data to inform these designs.

Advances in these areas will impact engineering design across the entire spectrum of target applications described above, from aerospace to energy systems and critical infrastructure.

More information on the data-centric engineering programme can be found at

turing.ac.uk/research_projects/programme-data-centric-engineering

Strategic theme 2

Accelerating the application of research

Progress on what we set out to achieve

Last year's review outlined our plans to: publish results from our external evaluation; develop and adopt new practices for improving and measuring our impact; develop new programmes to accelerate the impact of our work and open up the first of the opportunities within the resilience engineering programme.

The findings from our external evaluation by New Philanthropy Capital (NPC) highlighted significant improvements that could be made to our processes. As a result of this we have developed an impact framework that is now applied to all our major grants, grant proposals and internal charitable activities. The impact framework describes work under the titles of: objectives; outputs; outcomes; outcome indicators; and impacts. This framework cross-cuts all our activity but is most related to the theme of this section as it accelerates the uptake of the Foundation's funded research.

We are now reviewing our grants management process to create an environment where proposals clearly articulate their impact framework and how these will be achieved, monitored and reported. For more about our new framework see page 22.

Several new programmes to accelerate the impact of research are discussed below. Additionally, the first opportunities for wider engagement in the Arup led resilience engineering programme were opened up.

Resilience engineering programme first calls

The Arup led resilience engineering programme was officially launched at the Foundation's conference in October 2016. The first in a series of thematic calls for research proposals, aimed at supporting the programme's agenda setting, was opened in January 2017. The studies will map the pathways from where engineering practice for resilience is today (baselining) and the key gaps. The studies will be drawn together to create a roadmap from current practice to where we want to be in 2021. The call attracted over 70 proposals.

The programme was designed to endure beyond the Foundation's initial five-year grant. With this in mind it has developed a brand identity to support its longer term sustainability. The programme will go forward under the name of Resilience Shift. This name will become more established in the coming year and will facilitate additional funding partners in due course.

Highlights from our charitable activities and new grants

Role of automation in railways

The Lloyd's Register Foundation Transport Risk Management Centre at Imperial College will be modelling and assessing the factors that affect human performance in railway operations and maintenance: the role of automation.

Internet of things project

The Foundation gave a £250,000 grant to the PETRAS consortium, a £10-million UK-based multi-industry consortium looking at safety and security in the internet of things. Our grant is supporting projects looking at: security threats on industrial control systems; blockchain applications for resilience in the smart energy sector; using the internet of things to understand dynamic risks in systems; and how manufacturers can strengthen their products against botnet attacks.

Safety of autonomous systems

Following the publication of our Foresight review in robotics and autonomous systems we held an open call for expressions of interest to work with us on the priorities it identified. We received over 80 responses and held two workshops to help us define a future programme of work. The assurance of autonomous systems was chosen as the focus of the programme and a grant of £10 million to University of York will bring together those developing autonomous systems with those whose role it is to assure the safety of these systems, to develop a framework that tests and evolves routes to acceptance of these technologies.

Stability of fishing vessels

Statistics show that stability-related accidents account for 65% of fishing boat losses with associated loss of life. The Foundation is supporting Hook Marine to develop and test a real-time stability monitor that will operate in realistic sea conditions. Once in use in industry this advance warning will reduce the hazards of flooding, capsizing and sinking.

First 3D printed steel bridge

The world's first 3D printed steel bridge is being built by MX3D in the Netherlands and will be installed for use across a canal in Amsterdam in 2018. The Foundation has awarded £247,000 to a consortium led by MX3D to enable the bridge to sense and interpret its own condition to ensure safety and make data publicly available for others to innovate.

Monitoring LNG tanks

A consortium led by the University of Southampton, with Imperial College and Transense, has been awarded £600,000 to apply Transense sensor technology for the monitoring of liquid natural gas (LNG) tanks. The sensors will allow permanent monitoring of these tanks, particularly on ocean going vessels, removing the hazards and challenges associated with manual inspections.

Future plans

In 2017/18:

- Resilience Shift will hold international agenda setting workshops in 2017 and will publish its first outputs.
- The Foundation will work together with the Trading Group to maximise the value to society of the Foundation's funding, by supporting routes to the accelerated application of research.
- The Foundation will establish and award its first grants under a programme for close-to-market grant-giving.
- The first demonstrators will begin in the 'assuring autonomy' programme led by the University of York.
- We will continuously improve our impact framework and learn from others in the sector.

Case study: Safety at sea – producing food and energy from our oceans

SOMOS: Technical standards for safe production of food and feed from marine plants and safe use of ocean space

As we are using our oceans and seas more intensively, can different types of operation be sustainably integrated in order to safely use our sea space?

A partnership between the Foundation, Wageningen University & Research and TNO (The Netherlands Organisation for applied research) is investigating safety aspects of combined activities at sea. It focuses on seaweed, used not only for food but also for animal feed, bio-chemicals, energy and other valuable products, in combination with offshore renewable energy production.

The goal is to develop a meaningful safety assessment and safety control with five objectives:

- Demonstrate that multiple economic activities can take place at sea in a safe fashion.
- Establish a method for assessing the safety of multiple economic activities at sea.
- Identify tools which must be used to carry out the analyses and assessments required to ensure an acceptable safety level.
- Provide a proof of principle, based on demonstrators, of safe use of sea for combined seaweed and energy production.
- Create capacity in the marine and maritime community of policy makers, certifiers and operators and initiate a public debate on this issue of safety of multiple uses of marine space with all the stakeholders: politicians, financiers, businesses, operators, legal representatives and societal groups.

Framework for a safety assessment

The project was set up to be multi-disciplinary, as economic, environmental, marine, social and food aspects of safety need to be addressed to develop a comprehensive framework for a safety assessment of this combination of activities at sea. The framework will help integrate different uses in a safe way by developing standards and safe operational practices. In this way, the project will address the global challenges of producing food, energy and efficient use of our waters to cater for the needs of the world population of 2050.

The safety aspect in the project concerns six areas, including feed and food safety hazards of marine production, safety of people and property at sea, marine interactions such as competition between alternative uses and cumulative effects such as pollution. This will enhance the development of safety standards and regulations on food within the maritime field.

Find multi-use solutions

The project will deepen its understanding by means of a practical case study in which multi-use and safety aspects will be examined. The North Sea is one of the most crowded seas in the world and, as such, faces the challenge to find multi-use solutions. Different parties such as government and industry consider offshore production of seaweed to be a promising commercial activity in the area where many offshore wind farms are built: a clear opportunity for multi-use.

Vincent Doumeizel, Vice President Food, Beverage & Sustainability of the Lloyd's Register group, will help steer the project on its Advisory Board. He comments: "This is the first project targeted at the food sector to be funded by the Foundation, and I am honoured to be joining the Advisory Board. The current reliance on meat and soya has a significant impact on the environment, and will become unsustainable as diets become richer. Marine plants could be a sustainable source of protein and energy for the growing global population. It is exciting to be involved in research into viable alternatives."

The aim is to translate vision into applied solutions. The project will deliver a practical framework with standards and skills as well as a set of recommended practices. The framework will be developed in co-operation with relevant authorities, certifiers and operators to enhance education and skills development within this community including engineers and scientists.

Strategic theme 3:

Promoting safety and public understanding of risk

Progress on what we set out to achieve

Our plans for 2016/17 included: starting work on our global safety outlook project aimed at ensuring that society has a trusted global evidence base for the safety of life and property; initiating a programme of identifying and addressing grand challenges to safety; establishing the future of our Heritage and Education Centre (HEC) involving putting to work Lloyd's Register's 257 years of maritime archives in pursuit of the public education element of our charitable purpose, and; working together with the Lloyd's Register group towards making the world a safer place.

Overall, we have made good progress in all these areas as well as delivering on other exciting opportunities that arose in year. We now consider that the work on the HEC is a better fit under our fourth strategic theme, promoting advancement of skills and education, as you can read on page 12. We did not make as much progress on the global safety outlook project as we had hoped at the outset, largely due to reprioritising resources onto exciting responsive mode applications that were submitted to us in the year. During 2016/17 our ratio of responsive to directive mode commitments was broadly 50:50 on a value basis, a significant increase in the pattern compared to previous years. Although the global safety outlook project got off to a slower start than hoped, on a positive note it shows the flexibility and agility of the Foundation, and its ability to engage in innovative and impactful new opportunities that present themselves. Next year we will redouble our efforts to get the global safety outlook project on track.

Highlights from our charitable activities and new grants

Foundation international conference

The first Foundation international conference held in London on 13-14 October 2016, entitled 'Bringing Safety to Life', was a great success, and brought together more than 300 people representing 14 countries from across our grants community, industry, media and the public. There were 33 presentations ranging from Foundation-funded apprentices to a Nobel Prize winner, as well as four high-profile keynote speakers, including professors Sir Andre Geim, Sir David Spiegelhalter, Sir Mark Walport, and Lord Willetts. We are looking forward to building on its success and planning our next conference scheduled for May 2018.

Videos of all the presentations are available to view online at <http://lrfoundation.org.uk/news/2016/2016-conference-videos.aspx>.

Global safety challenges

The Foundation asked NESTA (the UK based National Endowment for Science, Technology and the Arts) to work with us in identifying global safety challenges. This campaign was launched at the Foundation's conference in October 2016. Working with NESTA's Challenge Prize Centre, a consultation exercise was carried out with wider society and our grants community to gain a perspective on the key global challenges that affect safety. The focus of the consultation was on those areas where safety risks being compromised when people come into contact with critical infrastructure or where the safety of critical infrastructure is itself threatened. We openly and freely published the output from the NESTA consultation work as an insight report, the first document of this type in our report series.

Foresight review on global safety knowledge, analytics and data

We are pleased that Professor Andrew Curran, Chief Scientist for the HSE, has agreed to lead the scoping work for this Foresight review. Its findings will be used as input to the due diligence for the global safety outlook project which is aimed at producing a trusted, independent, authoritative source of world data and its interpretation linked to the safety of life and property. We aim to publish the Foresight review in 2017/18.

Promoting nuclear power on safety grounds

Professor Michael Fitzpatrick from Coventry University wrote an article for The Conversation entitled, 'Nuclear Power is Set to Get a Lot Safer (and Cheaper) – Here's Why'. Published in April, this article was also picked-up by The Independent newspaper. Coventry University is part of a Foundation-funded consortium, the International Joint Research Centre for the Safety of Nuclear Energy, led by Lancaster University. The Conversation, a news and analysis website where every article is a collaboration between an academic expert and a journalist, receives a grant from the Foundation.

Michael is a member of our Advisory Board and one of our 100A1 Ambassadors (see page 22).

Future plans

In 2017/18 we plan to:

Work with the National University of Singapore (NUS) to appoint the first Director for the Lloyd's Register Foundation Institute on the Public Understanding of Risk, and move from planning to operational delivery of the new Institute.

- Publish our foresight review linked to the global safety outlook project.
- Launch the next steps on our global safety challenges programme.

Case study – Public understanding of risk

The mission of the Foundation, which is to enhance the safety of life and property and to advance public education, raises the question: in whose eyes is the world a safer place as a result of the Foundation's work? The answer is, in the eyes of society; the general public. But the public is heterogeneous. People possess mixed preconceptions, attitudes, worries and anxieties towards risk, some of them defying science. This matters because, when there is a poor public understanding of risk, we make poor decisions, collectively and individually. We then expend society's resources alleviating anxieties rather than managing risk.

In-line with the Foundation's strategy, in 2016 we launched a major grant of £10 million over five years to establish the Lloyd's Register Foundation Institute for the Public Understanding of Risk (LRFI) with the National University of Singapore (NUS). While centred in Singapore, the new Institute will cover wider Asia and build links internationally. NUS more than matched the Foundation's grant with £11 million of its own funding, with 65% of the total funding being placed in a permanent endowment fund to ensure the sustainability of the Institute and its key posts. The remainder of the funding is allocated to research projects and public outreach activities.

The aim of the Institute is to promote good science, good debate, and good evidence. The reason for collaborating with NUS is that the area of the public understanding of risk and communication of science is not as developed in Asia compared to the UK and USA. The culture, attitude, and role of science are also different in Asian society. As a result, the Institute is unique and the first of its kind in Asia. It is going to undertake research and education and build connections with practical end-users including policy makers, decision makers, and opinion formers in government, industry, regulators, the media, and general public. It is going to be multi-disciplinary spanning engineering, statistics, sociology and psychology.

The LRFI will help build a better understanding of the socio-technological processes and factors affecting public opinion forming, and will produce new tools and approaches for uptake by the end-users.

The new institute was officially launched on 3 October 2016 at a ceremony at NUS with around 200 guests. This was followed by an expert panel meeting on 7-8 March 2017 in Princeton USA, leading to publication of the Foundation's seventh foresight review, the Foresight review on the public understanding of risk. NUS have also assembled an international search panel to find the first director for the Institute and this appointment should be announced later in 2017.

Strategic theme 4:

Promoting advancement of skills and education

Progress on what we set out to achieve

Our last annual review highlighted the intended appointment of our first Director of Skills and Education, and the aim to review the direction of travel of our skills and education activities. With that in mind, we outlined some indicative plans for the year, identifying those areas in which we anticipated making a distinctive contribution. These included funding of skills and STEM education to disadvantaged and under-represented communities; funding of technological skills training; practical innovation skills training (supporting our strategic theme to accelerate the uptake of research); establishing an alumni group of Foundation-funded beneficiaries; determining the future of our heritage collection; and working with world-renowned institutions, thereby enhancing our own reputation as a known foundation.

A focus on achieving the successful appointment of the director, Dr Tim Slingsby, who joined the Foundation in September 2017, and subsequent review of our priorities in this area, has meant that there have been fewer new skills and education activities than originally envisaged. Nevertheless, our funding is leading to valuable outcomes, and we are confident that we are now on track for a distinctive, international impact.

Highlights from our charitable activities and new grants

Number of space students rocket

Our funding of the UK's National Space Centre activity has coincided with a surge of interest in space science within schools. Last year the European Space Agency astronaut, Tim Peake, used the National Space Academy's (NSA) specifically-designed kit to record classroom physics and chemistry demonstrations as part of a project requested by the UK Space Agency. The lead person for developing, building and flight qualifying the kit is funded by the Foundation. The resulting teacher guides and videos are freely available to teachers and the public via a website hosted by the NSA, astroacademy.org.uk. As a specific result of our funding, over 4,000 UK students have taken part in NSA programmes, against a target of 1,500. This is a significant step in enhancing the size and quality of the science and engineering skills pool. Our funding is also allowing international collaboration between the National Space Centre and the Sharjah Centre for Astronomy and Space Science in the United Arab Emirates, and towards creation of teaching resources and exchange of effective teaching practice, such as that between the NSA, Cite de l'Espace in France and the Polish Academy of Sciences.

Designs for safe ship boarding

In 2016 we awarded a grant to the Royal College of Art (RCA) for their Innovation Design Engineering students to work on a pilot global safety challenge: safe ship boarding using pilot ladders. Eight novel design-led innovations, focused on reducing risk and saving lives on water, were displayed for the first time during a symposium and exhibition held at our offices. Wider consultation confirms that some of the ideas have potential for onward development and exploitation which we will follow up in 2017.

Saved – 270 lives at sea

Since 2007, nearly 3,000 new RNLI crew members have received essential sea survival and firefighting training as a result of our funding. The training resulted in positive changes in trainee skills, experience and confidence; between December 2015 and November 2016 crews from the stations that the Foundation supported rescued 5,626 people and saved 270 lives.

Alumni programme strengthens our engagement

Through our funding of scholarships, bursaries, apprenticeships and research, the Foundation has a multinational, multidisciplinary network of at least 1,000 early-career engineers. Our new alumni programme will strengthen our engagement with this network through training, events and networking and provide a resource for extending our influence and capturing longer-term outcomes of our funding. An example of the reach and understanding of impact we will gain through this programme, is evident through our new grant to the International Maritime Law Institute, Malta. This will continue to provide scholarships to government-nominated post-graduate students from developing economies. Once they have completed their studies these students return to positions of influence and enhance their country's capacity to participate in a meaningful manner in the harmonisation and unification of international maritime law - providing the security and stability to enhance the safety of life at sea.

Putting our archive to work

We are the custodians of the Lloyd's Register library and archive, covering over 250 years of maritime history and technological innovation.

We have previously committed to rehouse, catalogue, conserve and digitise 10% of our 1.25 million historic ship plans and reports through Project Undaunted. Nearly 25,000 documents have already been catalogued and we aim to release the first batch of digitised documents before December 2017.

Through activities including the crowd-sourcing project HEC Needs You (which increased our knowledge of the 15 members of staff listed on the WW1 memorial at our London offices) we have seen a 102% increase in website hits. We will make more of our resources available through our website in 2017/18.

Our lives in data

We are the principal funders of the 'Our Lives in Data' exhibition at the UK's Science Museum. The exhibition launched in July 2016 and is attracting approximately 100,000 visitors per month. This large international audience is now better equipped to understand some of the diverse ways data is being collected, analysed and used.

Born to Engineer

In the last review we highlighted the 'Born to Engineer' campaign. The ERA Foundation's campaign aims to improve the diversity of engineers and inspire more young people into engineering careers. The video we funded features Lewis Wilde, a marine apprentice at Island RIBs benefitting from our grant to The Shipwrights Company Charitable Fund. The experience has been valuable to Lewis himself; his enthusiasm for boatbuilding and commitment to career choice have been reinforced and he was invited to speak at the Foundation's international conference. The video has itself had 40,000 views, and it will have had more views through partners such as UCAS and National STEM Learning Centre.

Updated priorities for skills and education

In March 2017, the Foundation's Board of Trustees approved a paper that identified the new priorities for skills and education. These were built on our existing strategy, consultation with our network and the UK STEM Education Landscape report, funded by the Foundation and published by the Royal Academy of Engineering.

New priority	Description
Skills for safety	Developing safety skills and capacity in countries undergoing rapid development in infrastructure or new technologies in order to help them select, licence and operate safely.
STEM education for unsupported communities	Focusing on disadvantaged or under-represented communities abroad with the greatest need and where there is limited funding from others. This might include refugees or 'first nation' people.
Skills for innovation and entrepreneurship	Developing skills in young engineers on top of their technical training making them innovation-ready. A key driver is investing in people as well as ideas, and is linked to our strategy of accelerating the application of research.
Skills for emerging technologies	Building on our foresight reviews, identifying skills required by current and future engineers, such as in data-centric engineering and resilience engineering.
Heritage and Education Centre (HEC)	Putting our archive to work and widening access to it as a unique educational and historical resource.

Alumni

Remaining connected with those inspired by our programmes. Tracking our beneficiaries allowing us to capture long-term outcomes and impact of our funding.

Future plans 2017/18

In 2017/18 we will:

- Develop programmes using our updated skills and education priorities.
- Have an increased international focus.
- Connect skills and education activities with all parts of our mission.
- Launch our alumni programme.
- Begin the release of our digitised historical archive.

Case study - Royal Institution Christmas Lectures

We can meet our priorities for skills and education by supporting organisations that share our aims. This provides opportunities to extend our influence and reach, building a reputation for distinctive, high impact support of engineering education.

In 2016, we supported the Royal Institution's prestigious Christmas Lectures. They were presented by Professor Saiful Islam, University of Bath, who explored the subject of energy. Along the way, Saiful even broke the world-record for the most powerful battery made of lemons.

So far, the 2016 lectures have achieved over 3.5 million interactions through broadcast, theatre attendees, and social media, including over 1.7 million viewers on BBC4. The lectures also generated 146 pieces of national and international coverage across print media, online and broadcast.

A Science in Schools Show based on the 2016 Christmas Lectures has been available for UK schools since April 2017. The show will aim to reach 50 schools and over 7,000 students inspiring the next generation of scientists.

Internationally, the lectures can be viewed online and the live presentations will travel to both Japan and Singapore in 2017, emphasising the Foundation's aim to advance public education but also further increasing Saiful's profile and his vastly increased potential to inspire the next generation of engineers and scientists.

Saiful is one of our 100A1 Ambassadors (see page 22).

The Christmas Lectures videos can be viewed at richannel.org/christmas-lectures/2016/supercharged-fuelling-the-future.

Foundation Financial Review and Policies

Lloyd's Register Foundation (the Foundation) generates its income from the investments that it holds.

These fall into two categories:

- Financial investments: a portfolio of listed investments; and
- A mixed-motive investment: 100% ownership of the unlisted shares in the immediate subsidiary company Lloyd's Register Group Limited (LRG).

The Trustees consider that the policies outlined in this section constitute the framework for their key financial risk management policies.

Results for the year

The Foundation had total income of £53.8m (2016: £29.2m) for the year consisting solely of income from investments.

Investment income of £53.8m (2016: £29.2m) comprised £44.0m (2016: £20.2m) of donations from the Trading Group and a further £9.8m (2016: £9.0m) of income from the return on the investment portfolio.

The Foundation had total expenditure of £24.6m (2016: £35.7m). The decrease in expenditure arose from a lower value of grants awarded during 2016/17 in comparison to the prior year.

Lloyd's Register Foundation	2017 £m	2016 £m
Gift aid from Trading Group	44.0	20.2
Income from listed investments and other resources	9.8	9.0
Total income	53.8	29.2
Investment management costs	(1.1)	(1.0)
Charitable activity costs	(23.5)	(34.7)
Total expenditure	(24.6)	(35.7)
Net gains on listed investments	30.3	2.4
Net income / (expenditure) and net movement in funds	59.5	(4.1)

Charitable expenditure of £23.5m (2016: £34.7m) principally relates to grants awarded of £22.8m (2016: £33.8m) which are discussed further in the Trustees' Report.

The Group Financial Review can be found on pages 41 to 42 and forms part of this Strategic Report.

Subsidiaries: mixed-motive investment

The Foundation has one direct, wholly-owned subsidiary company: LRG.

LRG is itself the head of a global trading group of companies with over 250 years of history, focused on adding value to society through independent assurance and expert advice for clients who own, operate, design and build the critical infrastructure upon which society relies. The profits generated by the Trading Group help fund the public benefit activities of the Foundation. The Trading Group carries out a mix of charity-related and non-charitable activities globally. The Charities (Protection and Social Investment) Act 2016 (the Act) sets out a general power for Trustees to make social investments (pursuing both a financial and social return). This effectively enshrines in legislation the basis for mixed-motive investment. The extent to which public benefit is delivered by the work of the Trading Group forms part of the Trustees' assessment of the return on their investment.

The Trading Group's trading operations include many activities which are of a public benefit nature, aligned to the Foundation's mission of securing high technical standards of design, manufacture, construction, maintenance, operation and performance and to advance engineering-related public education.

The Trading Group's Marine & Offshore business includes the safety inspection of 8,500 ships each year and the ongoing development of Rules for their safe construction, maintenance and disposal. For example, The Group's Marine business has helped the International Maritime Organization to devise international safety standards such as the Ballast Water Management Convention and helped the International Labour Organisation devise the Maritime Labour Convention. Following its input into the creation of these internationally recognised safety standards, the Trading Group then performs design approvals, surveys and audits to verify its customers' assets comply with these requirements.

The Group's Energy business includes verifying the safe design and operation of rigs, platforms, Floating Production Storage and Offloading Installations (FPSOs) and refineries. The Group's also inspects boilers, pressure vessels and other land-based installations for safety-related purposes together with developing rules for those assets in the same way as described for ships in Marine. The Group's Energy consultancy business primarily deals with safety case preparation for offshore exploration and nuclear power generation.

The Management Systems and Inspection Services business includes the Trading Group's medical directive and CE marking activity helping to ensure the safety of a range of consumer products and medical equipment. As the only supplier of management system certification to the major UK nuclear sites its contribution to nuclear safety for society is also significant. In addition, the Trading Group devotes significant effort and resources to helping other standards-setting bodies to devise new or improved safety standards as well as auditing and providing advice relating to ISO 14001 certification.

The Foundation invested £40 million in the share capital of LRG to fund acquisitions, including that of Acoura in the field of food safety assurance. This further strengthens our impact in-line with the Foundation's charitable purpose, and exemplifies the ways in which the Foundation and LRG work together for a safer world.

Overall, the Trading Group's activities include considerable investment in furthering the understanding of technology through research conducted by the Marine & Offshore and Energy businesses and through a focus on 'Data and digital innovation' as one of its five core areas of business development. Typical areas of research include: advance materials; propulsion and powering; energy production and storage; robotics; marine biotechnology; and autonomous systems. Since January 2016, the Trading Group has established key strategic relationships based around important digital capabilities and areas of focus for growth through investment or collaboration. This emphasis on research and data and digital innovation directly benefits public understanding of technology and ensures that when technology is deployed it is safe, suitable and dependable and therefore safe for society in its application.

The Trustees base their expectations of future financial return from the Foundation's investment in the Trading Group on quarterly reports to their board meetings and an annual five-year plan review from the executive leadership of the Trading Group. The performance of this unlisted investment is considered in the 'Investment performance: mixed-motive investment' section.

Funds

In September 2012, the Trading Group transferred £206.4m of assets to the Foundation as an expendable endowment. The Trustees have the power to convert the capital within the fund to income and expend such amounts converted on the Foundation's objectives as they see fit. £100.0m of the endowment can only be converted to income from 1 July 2020 as discussed below in the reserves policy section.

Income generated from the assets held within the expendable endowment is shown in the Foundation's general fund, as it may be used in furtherance of the Foundation's charitable objectives.

Capital returns on the assets held within the expendable endowment are retained within the endowment and form part of the endowment into the future, subject to the same rules as the existing endowment funds.

Reserves policy

The Foundation's reserves ensure its long-term financial viability. The original terms of the expendable endowment contained a condition that the Foundation must retain £100.0m of that sum until 1 July 2017. During that period, there is a contractual obligation to transfer an amount not exceeding £100.0m to the Trading Group's UK defined

benefit pension scheme should there be an insolvency event affecting LRG. On 30 June 2017, the Foundation extended this obligation until 1 July 2020.

The Foundation's investment in LRG is held at cost. This mixed-motive investment is integral to the Foundation's ability to generate future income and also to delivering its public benefit, as noted elsewhere.

The Trustees have considered the Foundation's level of general reserves. It does not currently have large overheads and, in general, is able to rely on recurring income from its endowment and from the Trading Group each year. For that reason, the Trustees do not consider that the charity has a need to hold other funds as reserve.

The Trustees review the Foundation's reserves policy on an ongoing basis and at least each financial year.

Financial position

At 30 June 2017, the Foundation had unrestricted funds of £44.1m (2016: £12.2m). Of the total funds, £40.1m is invested in the Trading Group.

Going concern

A review of financial performance and the Foundation's reserves position is set out above. In the opinion of the Trustees, the Foundation has adequate financial resources and is able to manage its business risks. The Foundation's planning process, including financial projections, has taken into consideration the current economic climate and its potential impact on the sources of income and planned expenditure. The Trustees have a reasonable expectation that the Foundation has adequate resources to continue in operational existence for the foreseeable future.

The Trustees believe that there are no material uncertainties that call into doubt the Foundation's ability to continue in operation. Accordingly, the Foundation's financial statements have been prepared on the basis that the charity is a going concern.

Grant-making policy

The Foundation has a formal governance structure for grant decision making. The Foundation can receive grant proposals and applications at any time. All proposals and applications are reviewed initially at its monthly grant applications meetings.

Applications over £500,000 must first go to the Grants Committee then to the Foundation's Board of Trustees, which meets quarterly. Final decisions on these applications are made by the Trustees.

Details of available funding and the application process are published on the Foundation's web site and notified on social media. Grant holders are required to submit staged reports as part of the process to track delivery against the agreed grant objectives, as well as to monitor the impact and public benefit being generated.

Investment policy

The Trustees have delegated decision making on investment matters relating to all assets except the investment in the Trading Group (reviewed directly by the Board of Trustees) to an Audit, Risk and Investment Committee, which is governed by an agreed Terms of Reference, in order to provide appropriate focus on the investment arrangements. Day-to-day investment choice is delegated to investment managers subject to defined tolerances relative to the respective benchmarks.

The Foundation's financial objective is to at least maintain the real value of the 2012 initial donation from the Trading Group of £206m, whilst generating a stable and sustainable return to meet the Foundation's objectives as laid down under its governing document.

The investment portfolios are a mix of unrestricted funds and an expendable endowment, the income from which serves to provide funds for the ongoing charitable work of the Foundation.

In this context, a number of portfolios exist, each of which has specific objectives.

The Foundation seeks to produce an optimum level of return within an acceptable level of risk. The current investment objective is to generate a return of inflation plus 3% per annum from the initial endowment over the long term. This, when combined with future profit distributions from the Trading Group, will enable the present and future financial requirements of the Foundation to be met whilst maintaining the real value of the initial donation. The Trustees review the performance of the Trading Group on a regular basis.

A set of measurable performance objectives has been developed for the investment managers and pooled funds. Performance in each asset category is compared quarterly with a suitable benchmark and an out-performance objective. The managers are expected to demonstrate skill in the management of their portfolios consistent with the performance objectives, given the level of risks adopted. Investment performance is considered quarterly by the Audit, Risk and Investment Committee.

Cash-based investments represent the Foundation's working capital, and as such will be invested in a prudent manner with a secondary objective of achieving reasonable rates of return relative to the deposit market.

The Trustees are fully supportive of responsible investment as it fully aligns with the Foundation's aims to provide a benefit to society and is also central to long-term value creation. The Foundation's investment managers are required to adopt the same philosophy and we delegate day-to-day investment decisions to them. The Trustees regularly receive investment reports enabling them to monitor the investments and the managers' performance. We expect them to take an active interest in the management of the investee companies, engaging with management on issues of corporate governance and with regard to social, environmental or ethical considerations all of which impact shareholder value.

Investment performance: listed investments

During the year, the investments performed well, delivering a total yield of 14.7% (2016: 4.8%). This comprised an annualised income yield of 3.5% (2016: 3.8%) and a capital yield of 11.1% (2016: 1.0%). The return on the endowment is above the long term objective stated within the investment policy above.

Investment performance: mixed-motive investment

2016/17 has been a challenging year across a number of markets in which the Trading Group operates. The Trading Group experienced a sustained period of low oil prices leading to lower investment in the oil and gas sector, directly impacting the Energy business but also Marine & Offshore, Management Systems and Inspection Services. Oil prices fluctuated between USD 41-58 per barrel for Brent Crude across the year and gas prices remained low on a global scale.

At the same time the maritime industry faced a number of headwinds directly impacting the Marine & Offshore business including industry consolidation, lower contracting levels and tight financing. New construction levels have fallen dramatically, from the 2013 peak with competition amongst the classification societies increasing.

The Management Systems business has experienced a comparatively less volatile environment but growth has been diminished due to the delay in the transition to new international standards and generally less favourable macro-economic conditions.

All these industry specific factors have been experienced against the backdrop of an increasingly uncertain political economic backdrop making 2016/17 a remarkable year.

In order to adapt to the market and protect margins, a number of significant actions were taken, including a reduction in headcount across all of the Trading Group's businesses and support functions. However, given the overall strength of the business there has also been increased investment for the future to ensure that the business is ready to take full advantage and grow when market conditions start to trend favourably.

Investment in the Trading Group's people and back office systems has continued during the year. Following the successful introduction of the HR module, the first wave of the wider ERP system is being implemented at the start of financial year 2017/18. This investment will enable the Trading Group to deliver a more automated, efficient and responsive service to both employees and clients enabling improved business performance across the organisation.

This comprehensive approach to change and building a customer-focused strategy has put the business in a good position to face any further market challenges it may encounter through 2017/18 and beyond.

The summarised financial information of the consolidated Trading Group as disclosed in the Trading Group's consolidated financial statements for the year ended 30 June 2017 is provided in note 11 to the Foundation's financial

statements. Further details of the financial performance of the Trading Group is included within the LRG's financial statements.

The Trustees are satisfied with the performance of the Trading Group, and will continue to maintain and develop its effective working relationship with the Trading Group. They will allow the Trading Group to retain funds for investment in operating improvements and potential acquisitions, but continue to expect cash distributions from the Trading Group.

Governance and management

The Foundation is governed by a Board of Trustees, which is responsible for setting the Foundation's strategy, for ensuring good governance and that it fulfils its objectives – delivering public benefit.

The Board is currently made up of six Trustees who are also the Members and Directors of the Foundation for Companies Act 2006 purposes. The Board considers Foundation policies, receives committee reports and recommendations, approves annual budgets, reviews the performance of the Trading Group, and guides the Foundation Chief Executive.

Thomas Thune Andersen, Chairman

Thomas Thune Andersen is the Chairman of the Lloyd's Register Foundation and Chairman of Lloyd's Register Group Limited. He is a member of the Foundation's Nominations Committee and the Lloyd's Register Group Limited Remuneration Committee.

Thomas, a former member of the executive board of the A.P. Moller-Maersk Group with more than 30 years tenure in its maritime and energy sectors, was appointed to the board of the former Lloyd's Register in June 2010. Thomas is Chairman of Dong Energy A/S, Vice Chairman of VKR Holding, the parent group of Velux, and Non-Executive Director of Petrofac and BW Offshore Limited.

Sir Brian Bender

Brian retired from the Civil Service in 2009, having been a Permanent Secretary for nearly 10 years. His final position was at the Department for Business, having served previously at DEFRA. He is Chairman of the London Metal Exchange, and a governor of Dulwich College and a non-executive director of Pool Reinsurance, among other posts. Brian chairs the Nominations Committee.

Ron Henderson

Ron is a chartered accountant and former CFO of Network Rail and Balfour Beatty. In addition to other non-executive roles, he also served on the UK Auditing Practices Board. Ron chairs the Foundation's Audit, Risk and Investment Committee, is a non-executive director of Lloyd's Register Group Limited and chairs its Audit and Risk Committee.

Rosemary Martin

Rosemary is Group General Counsel and Company Secretary of Vodafone Group and was previously CEO of the Practical Law Group. She is a member of the Financial Services Authority's Listing Group Advisory Committee and an independent non-executive of Ernst & Young. Rosemary represents the Foundation on the Lloyd's Register Group Limited Remuneration Committee.

Carol Sergeant CBE

Carol has a non-executive positions on the boards of Danske Bank AS and TP ICAP plc. She is also Chairman of the BSI Standards Strategy and Policy Committee, and a member of the Governing Council and Trustee of the Centre for the Study of Financial Innovation. She has previously been Managing Director on the board of the FSA, Chairman of Public Concern at Work, and Chief Risk Officer at Lloyds Banking Group, having begun her career at the Bank of England.

Lambros Varnavides

Lambros is the former Managing Director and Global Head of Shipping at The Royal Bank of Scotland. He chairs the Baltic Exchange and its Charity Committee. He is a court assistant to the Worshipful Company of Shipwrights and chairs its Finance Committee. He is also a Younger Brother of Trinity House Corporation. Lambros was appointed Senior Independent Trustee of the Lloyd's Register Foundation on the 29 September 2015 and chairs the Grants Committee.

Governance structure

The Board is supported by three committees, which have been delegated authority on certain matters (Audit, Risk and Investments, Grants, and Nominations). Details of which Trustees, executives and independent members sit on these committees are provided in the 'membership of committees' section below.

Trustee recruitment and training

The Board and the Nominations Committee invest considerable time in identifying Trustees with appropriate skills which will benefit the Foundation. They are equally keen therefore that any new trustee is properly inducted into the Board. All new Board members go through a structured period of training.

During their training, the Chairman will talk to them about the history of the Foundation, its role in Society and the way the Board operates. The Secretary will provide a fuller briefing on the operations of the Foundation, its structure, its risks, its key documentation and will provide a general overview of Trustees' duties and responsibilities and charity law. The new Board members will also be encouraged to meet with the senior staff in the Trading Group, so they understand that business, and can therefore affect appropriate oversight.

During the financial year the Trustees commissioned an independent evaluation of the skills composition and operational effectiveness of the Board which did not identify any significant shortcomings. In addition, the Trustees received refresher training on the roles and responsibilities of charity trustees delivered by an external provider.

Remuneration of Trustees

The Trustees are the directors of the Foundation. Trustees are not remunerated for their services as Trustees of the Foundation. The Foundation pays for Trustees' travel expenses to Board meetings.

Membership of committees:

	Status	Foundation Board	Grants	Audit, Risk and Investment	Nominations
Thomas Thune Andersen	Trustee	Chair	—	—	Member
Sir Brian Bender	Trustee	Member	—	—	Chair
Ron Henderson	Trustee	Member	—	Chair	—
Rosemary Martin	Trustee	Member	—	—	—
Carol Sergeant	Trustee	Member	—	Member	—
Lambros Varnavides	Trustee	Member	Chair	—	—
Allan Whalley ¹	Independent	—	—	Member	—
Peter Christmas	Independent	—	Member	—	—
Keith Povey ²	Group Director Risk & Insurance	—	Member	—	—
Michelle Davies	Secretary	—	—	—	—
Richard Clegg	Managing Director	---	Member	---	---
Michael F. Lykiardopulo	Independent	—	—	—	Member

Notes:

¹ Appointed 16 September 2016

² Until 30 November 2016

Executive

The Foundation Chief Executive, Richard Clegg, is responsible to the Board for the operation of the Foundation.

The Advisory Council

The Advisory Council continues to assist the Foundation on delivering its charitable aims by providing independent expert advice, support and constructive challenge in areas including developing general strategy and plans, identifying new funding opportunities and emerging priorities, maximising impact plus suggesting other bodies with which to work. The Advisory Council meets twice a year.

For details of the members of the Advisory Council see lrfoundation.org.uk/about-us/advisory-council.

100A1 Ambassadors

The Foundation launched an ambassador programme in early 2017, 100A1 Ambassador. As a global charity committed to enhancing the safety of life and property and advancing public education, the Foundation's aim through the ambassador programme is to build an international network of friends, stakeholders and beneficiaries who are willing to promote the mission of the Foundation and its causes. For details of the Foundation's 100A1 Ambassadors see lrfoundation.org.uk/about-us/100a1-ambassadors.

360Giving

We are committed to being as transparent as possible so the Foundation is pleased to be one of the growing number of significant UK grant-givers to share grants data through the 360Giving standard. 360Giving supports organisations to publish their grants data in an open, standardised way and helps people to understand and use the data in order to support decision-making and learning across the charitable giving sector. For more information see lrfoundation.org.uk/programmes/360giving-data.

Total footprint of the Foundation's impact

We have always said that impact and excellence are the two key criteria driving the Foundation's grant-giving. Impact is about translating the outcome of that work into benefit to society in line with our charitable purpose, and excellence is about doing relevant work of high quality.

We realise that we can create impact which furthers our charitable purpose not just from the Foundation's grants but in other ways too. These include programme related investments applied to some of our grants where we aim to accelerate the exploitation of emerging intellectual property, and social investments such as our mixed-motive shareholding of the Trading Group. In 2017/18 we will be developing our understanding and practices in this area as part of our aim to optimise the total footprint of our impact in respect of our charitable purpose.

During 2016/17 we developed and applied an impact framework and also commissioned an independent evaluation of our grants impact to date. All of this is being fed back into strengthening our systems and processes helping us become a more efficient and effective foundation, benchmarked against others in the sector.

The framework the Foundation will use will be based on defining outputs, outcomes and impact. In terms of timescales, outputs are likely to be short term (arising during the lifetime of a project or grant), whereas outcomes are more medium term, and impacts are even longer term and might not be apparent until many years after the grant has expired. We have updated our online grant application forms, reporting forms and guidance documents in line with our new framework.

Employees

Foundation and its Trading Group strive to be equal opportunities employers.

Full consideration is given to applications for employment from disabled persons where the requirements of the job can be adequately fulfilled by a handicapped or disabled person.

Where existing employees become disabled, it is the Foundation's policy wherever practicable to provide continuing employment under normal terms and conditions and to provide training and career development and promotion to disabled employees wherever appropriate.

The Foundation and its Trading Group aim to provide employees with information on matters of concern to them as employees and to ensure that they are engaged with the operations and objectives of the organisation.

Remuneration of the Charity's key management personnel

The remuneration of the Charity's key management personnel is set to:

- Provide a base salary designed to attract and retain key management which also reflects their level of responsibility and experience.
- ensure that they are fairly and responsibly rewarded for their individual contributions.
- take account of competitive rates of total remuneration based upon surveys of comparative organisations which may be undertaken from time to time.

Management of risk

The Board has established an Audit, Risk and Investment Committee and has delegated to it the identification, review and assessment of key risks to the Foundation. These risks are described in a Risk Register which is reviewed at each meeting of the Committee. The updated Risk Register is tabled at meetings of the Board where the Chair of the Audit, Risk and Investment Committee provides a report following each meeting of the Committee. The risks are evaluated according to their impact and likelihood and the register describes the current mitigations and controls and plans for future development. At the current time, the Board considers the following to be its key risks and associated mitigating controls and procedures.

Risk	Mitigation
Investment performance Lower than forecast income from investments or the Trading Group impacts the Foundation's direct charitable activities.	Continued close review by the Audit, Risk and Investment Committee with active management and frequent reporting by third party investment managers. Portfolio has been split between two competing managers to enable champion/challenger approach. Also periodic reporting of the Trading Group's strategy and financial performance to the Trustees. Cash flow and reserves are projected in the 5 Year Plan and performance against the plan is monitored by the Board.
Grant giving Grants awarded do not achieve stated outcomes or benefits impacting the Foundation's adherence to its charitable purpose. This could arise from mismanagement of the project, misappropriation of funds or other unforeseen circumstances and might result in reputational damage and regulatory impact.	Strong control of grant applications, including applicant due diligence where there is uncertainty or risk. Regular monitoring of the progress and impact of grants by the Chief Executive and Grants Committee with a focus on the need for strong evidence of impact.
Compliance Failure to comply with UK and international law, regulatory requirements or sanctions. Key areas of compliance are charity law, anti-bribery and corruption, sanctions and conflicts of interest.	The Foundation Chief Executive and the Trading Group's General Counsel and Company Secretary keep compliance under continuous review.
People and talent Loss of key staff or insufficient talent to respond to increases in Foundation activity.	Succession planning and active talent management have been implemented, which includes consideration of seconding appropriate skills and talent from the Trading Group.
Disaster Fire or similar event at the Foundation's offices results in destruction of irreplaceable historic records and artefacts.	The Foundation's offices at 71 Fenchurch Street, London, have appropriate fire suppression systems and incidence response plans, which are tested regularly.
Cyber attack An advanced targeted cyber-attack could result in the loss of sensitive information.	Sensitive information is identified and is subject to appropriate security measures, which are tested regularly.
Fraud Internal misappropriation of funds	Internal controls have been established around the grant application and approval process. Delegated authorities to the Chief Executive are monitored by the Trustees through the Grants Committee and Board. The Foundation adopts and follows LRG policies and processes including internal and external audit, which are monitored by the Audit, Risk and Investment Committee.

The Trading Group has Audit and Risk, and Technical Assurance and Quality functions which provide independent and objective opinions on the adequacy of the Foundation and Trading Group's processes on risk, internal control and

governance. The resources of the Audit and Risk, and Group legal functions are available to the Foundation's Audit, Risk and Investment Committee.

Public benefit

As described throughout this Trustees' Report, the Trustees place specific focus on the public benefits arising from the output and activities of the Foundation having regard to the Charity Commission guidance on public benefit.

Research and development

The Trading Group carries out research and development activities. The amount of £14.5 million (2016: £18.2 million) has been charged to the consolidated statement of financial activities.

Organisational structure

The Foundation has a total of 17 dedicated staff at 30 June 2017. A service level agreement exists between the Foundation and the Trading Group for the provision of specialist business support in areas including finance, HR, communications, legal and IT. The Foundation pays for these services at an agreed market rate.

Disclosure of information to the Auditor

Having made enquiries each of the Trustees, listed above, in office at the time of approving the Trustees' Report confirm that:

- So far as each Trustee is aware, there is no information relevant to the preparation of its report and the financial statements of which the Foundation's Auditor is unaware; and
- Each Trustee has taken all steps a trustee might reasonably be expected to have taken to be aware of relevant audit information and to establish that the company's Auditor is aware of that information.

Independent Auditor

Deloitte LLP has expressed a willingness to continue in office.

Governing document

Lloyd's Register Foundation is a company limited by guarantee, governed by its Memorandum and Articles of Association.

Financial statements and Trustees' Report

The company and consolidated financial statements have been prepared in accordance with the accounting policies set out on pages 33 to 34 and 47 to 50 respectively and comply with applicable laws and the FRS102 Charity SORP (Statement of Recommended Practice).

This Trustees' Report on pages 1 to 24 and 41 to 42 has been prepared in accordance with Part 8 of the Charities Act 2011 and the Companies Act 2006 and incorporates the Strategic Report and has been approved by order of the Board



Michelle Davies
Company Secretary

19/10 2017

Legal and administrative details

Company number

07905861 (England and Wales)

Charity number

1145988 (England and Wales)

Bankers

Royal Bank of Scotland
1 Princes Street
London
EC2R 8PB

Statutory Auditor

Deloitte LLP
2 New Street Square
London
EC4A 3BZ

Investment managers

Sarasin & Partners LLP
Juxon House
100 St. Paul's Churchyard
London
EC4M 8BU

Fidelity International
25 Cannon Street
London
EC4M 5TA

Investment custodians

Bank of New York Mellon
One Canada Square
Canary Wharf
London
E14 5AL

Solicitors

Geldards LLP
Dumfries House
Dumfries Place
Cardiff
CF10 3ZF

Registered and principal office

71 Fenchurch Street
London
EC3M 4BS

Statement of Trustees' responsibilities

The Trustees (who are also directors of the Foundation for the purposes of company law) are responsible for preparing the Trustees' Annual Report and the financial statements in accordance with applicable law and United Kingdom Accounting Standards (United Kingdom Generally Accepted Accounting Practice) including FRS 102 "The Financial Reporting Standard applicable in the UK and Republic of Ireland".

Company law requires the trustees to prepare financial statements for each financial year which give a true and fair view of the state of affairs of the Foundation and the group and of the incoming resources and application of resources, including the income and expenditure, of the Foundation and group for that period. In preparing these financial statements, the trustees are required to:

- select suitable accounting policies and then apply them consistently;
- observe the methods and principles in the Charities SORP;
- make judgments and estimates that are reasonable and prudent;
- state whether applicable UK Accounting Standards have been followed; and
- prepare the financial statements on the going concern basis unless it is inappropriate to presume that the Foundation will continue in operation.

The Trustees are responsible for keeping adequate accounting records that disclose with reasonable accuracy at any time the financial position of the Foundation and enable them to ensure that the financial statements comply with the Companies Act 2006. They are also responsible for safeguarding the assets of the Foundation and the group and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

In so far as the Trustees are aware:

- there is no relevant audit information of which the Foundation's auditor is unaware; and
- the Trustees have taken all steps that they ought to have taken to make themselves aware of any relevant audit information and to establish that the auditor is aware of that information.

The Trustees are responsible for the maintenance and integrity of the corporate and financial information included on the Foundation's website. Legislation in the United Kingdom governing the preparation and dissemination of financial statements may differ from legislation in other jurisdictions.

Audit, Risk and Investment Committee Report

This report describes the constitution and activities of the Audit, Risk and Investment Committee in place during the year ended 30 June 2017.

Summary of the role of the Audit, Risk and Investment Committee

The membership of the Audit, Risk and Investment Committee is:

Mr R A Henderson (Committee Chairman)

Mrs C Sergeant

Mr Allan Whalley joined, as an independent member of the Committee, on 19 September 2016

The Audit, Risk and Investment Committee is a sub-committee of the Board of Trustees. The Committee reviews the application and effectiveness of the policies and processes of the Lloyd's Register Foundation.

The Committee assists the Board of Trustees in monitoring the integrity of the Foundation's published financial statements and ensures that the Foundation's Annual Report and Accounts comply with UK accounting standards, the Companies Act and the Charities SORP.

The Committee also reviews the performance of the Foundation's investment portfolio and its investment managers and makes decisions on behalf of the Board of Trustees as to an appropriate investment strategy for the Foundation.

The Group's internal audit function is able to report to the Committee on any issues which it considers to impact on the adequacy and effectiveness of the Company's internal financial controls and risk management systems. No material items have been reported to the Committee by Internal Audit during the financial year.

The Committee oversees the relationship with the external auditor including approval of the audit plan and scope of the audit. The annual assessment of the auditor's independence and review of the level of fees payable for non-audit services did not identify any significant matters.

The annual financial statements are reviewed by the Committee before recommending their consideration by the Board of Trustees, focusing particularly on any significant adjustments resulting from the audit and major judgmental areas. The Audit, Risk and Investment Committee meets three times a year, and once a year a meeting is held between the members of the Committee and the external auditor, at which no employees are present.

INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF LLOYD'S REGISTER FOUNDATION

Report on the audit of the financial statements

Opinion

In our opinion the financial statements:

- give a true and fair view of the state of the group's and the parent charitable company's affairs as at 30 June 2017 and of the group's incoming resources and application of resources, including the group's income and expenditure, for the year then ended;
- have been properly prepared in accordance with United Kingdom Generally Accepted Accounting Practice including Financial Reporting Standard 102 "The Financial Reporting Standard applicable in the UK and Republic of Ireland"; and
- have been prepared in accordance with the requirements of the Companies Act 2006.

We have audited the financial statements of Lloyd's Register Foundation (the 'charitable company') and its subsidiaries (the 'group') which comprise:

- the Foundation and consolidated statement of financial activities;
- the Foundation and consolidated balance sheets;
- the Foundation and consolidated cash flow statements;
- the accounting policies;
- the related notes to the Foundation financial statements 1 to 19; and
- the related notes to the consolidated financial statements 1 to 32.

The financial reporting framework that has been applied in their preparation is applicable law and United Kingdom Accounting Standards, including Financial Reporting Standard 102 "The Financial Reporting Standard applicable in the UK and Republic of Ireland" (United Kingdom Generally Accepted Accounting Practice).

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (UK) (ISAs(UK)) and applicable law. Our responsibilities under those standards are further described in the auditor's responsibilities for the audit of the financial statements section of our report.

We are independent of the group and of the parent charitable company in accordance with the ethical requirements that are relevant to our audit of the financial statements in the UK, including the FRC's Ethical Standard, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Conclusions relating to going concern

We are required by ISAs (UK) to report in respect of the following matters where:

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

We have nothing to report in respect of these matters.

Other information

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

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

We have nothing to report in respect of these matters.

Responsibilities of trustees

As explained more fully in the Statement of Trustees' responsibilities, the trustees (who are also the directors of the charitable company for the purpose of company law) are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view, and for such internal control as the trustees determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the trustees are responsible for assessing the group's and the parent charitable company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the trustees either intend to liquidate the group or the parent charitable company or to cease operations, or have no realistic alternative but to do so.

INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF LLOYD'S REGISTER FOUNDATION

Auditor's responsibilities for the audit of the financial statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs (UK) will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

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

Use of our report

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

Report on other legal and regulatory requirements

Opinions on other matters prescribed by the Companies Act 2006

In our opinion, based on the work undertaken in the course of the audit:

- the information given in the trustees' report, which includes the strategic report and the directors' report prepared for the purposes of company law for the financial year for which the financial statements are prepared is consistent with the financial statements; and
- the strategic report and the directors' report included within the trustees' report have been prepared in accordance with applicable legal requirements.

In the light of the knowledge and understanding of the charitable company and its environment obtained in the course of the audit, we have not identified any material misstatements in the strategic report or the directors' report included within the trustees' report.

Matters on which we are required to report by exception
Under the Companies Act 2006 we are required to report in respect of the following matters if, in our opinion:

- adequate accounting records have not been kept by the parent charitable company, or returns adequate for our audit have not been received from branches not visited by us; or
- the parent charitable company financial statements are not in agreement with the accounting records and returns; or
- certain disclosures of trustees' remuneration specified by law are not made; or
- we have not received all the information and explanations we require for our audit.

We have nothing to report in respect of these matters.



Hadleigh Shekle, FCA (Senior statutory auditor)
For and on behalf of Deloitte LLP
Statutory Auditor
London, United Kingdom
20 October 2017

FOUNDATION STATEMENT OF FINANCIAL ACTIVITIES (INCORPORATING AN INCOME AND EXPENDITURE ACCOUNT) FOR THE YEAR ENDED 30 JUNE 2017

	Note	General funds 2017 £000	Endowment funds 2017 £000	Total funds 2017 £000	General funds 2016 £000	Endowment funds 2016 £000	Total funds 2016 £000
Income							
Income from investments:							
Gift aid from Trading Group		43,956	—	43,956	20,162	—	20,162
From listed investments and other resources		9,888	—	9,888	9,008	—	9,008
Total income	3	<u>53,844</u>	<u>—</u>	<u>53,844</u>	<u>29,170</u>	<u>—</u>	<u>29,170</u>
Expenditure on generating funds							
Investment management costs		—	(1,067)	(1,067)	—	(1,025)	(1,025)
	4	<u>—</u>	<u>(1,067)</u>	<u>(1,067)</u>	<u>—</u>	<u>(1,025)</u>	<u>(1,025)</u>
Expenditure on Charitable activities							
Grants:							
Supporting excellent scientific research		(9,411)	—	(9,411)	(10,967)	—	(10,967)
Accelerating the application of research		(11,602)	—	(11,602)	(10,504)	—	(10,504)
Promoting safety and public understanding of risk		(382)	—	(382)	(11,578)	—	(11,578)
Advancement of skills and education		(1,367)	—	(1,367)	(761)	—	(761)
Total grants	5	<u>(22,762)</u>	<u>—</u>	<u>(22,762)</u>	<u>(33,810)</u>	<u>—</u>	<u>(33,810)</u>
Direct costs:							
Promoting safety and public understanding of risk		(756)	—	(756)	(877)	—	(877)
Total expenditure on charitable activities	5	<u>(23,518)</u>	<u>—</u>	<u>(23,518)</u>	<u>(34,687)</u>	<u>—</u>	<u>(34,687)</u>
Total expenditure		<u>(23,518)</u>	<u>(1,067)</u>	<u>(24,585)</u>	<u>(34,687)</u>	<u>(1,025)</u>	<u>(35,712)</u>
Net Income / (expenditure) before gain / (losses) on investments		30,326	(1,067)	29,259	(5,517)	(1,025)	(6,542)
Realised gains / (losses) on disposal of listed investments		513	9,863	10,376	(858)	(11,404)	(12,262)
Unrealised gains on listed investments		984	18,898	19,882	1,026	13,639	14,665
Net Income / (expenditure) and net movement in funds		<u>31,823</u>	<u>27,694</u>	<u>59,517</u>	<u>(5,349)</u>	<u>1,210</u>	<u>(4,139)</u>
Reconciliation of funds							
Funds brought forward		12,230	234,950	247,180	17,579	233,740	251,319
Funds carried forward		<u>44,053</u>	<u>262,644</u>	<u>306,697</u>	<u>12,230</u>	<u>234,950</u>	<u>247,180</u>

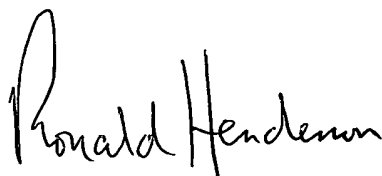
All of the Company's income is derived from continuing activities.

FOUNDATION BALANCE SHEET

AT 30 JUNE 2017

	Note	2017 £000	2016 £000
Fixed assets			
Investments	10	<u>363,280</u>	<u>272,270</u>
		363,280	272,270
Current assets			
Debtors	12	—	6,000
Cash at bank and in hand		<u>10,001</u>	<u>27,507</u>
		10,001	33,507
Creditors: amounts falling due within one year	13	<u>(18,263)</u>	<u>(15,690)</u>
Net current (liabilities) / assets		(8,262)	17,817
Total assets less current liabilities		355,018	290,087
Creditors: amounts falling due after one year	14	<u>(48,321)</u>	<u>(42,907)</u>
Net assets		<u>306,697</u>	<u>247,180</u>
The funds of the charity			
Unrestricted – general fund		42,129	12,230
Revaluation reserve	17	<u>1,924</u>	<u>—</u>
Total unrestricted funds		44,053	12,230
Endowment funds		229,005	214,725
Revaluation reserve	17	<u>33,639</u>	<u>20,225</u>
Total endowment funds		262,644	234,950
Total charity funds	16	<u>306,697</u>	<u>247,180</u>

The financial statements on pages 30 to 40 were approved by the trustees on 19 October 2017 and signed on their behalf by:



R A Henderson, Trustee

FOUNDATION CASH FLOW STATEMENT FOR THE YEAR ENDED 30 JUNE 2017

	Note	2017 £000	2016 £000
Cash flows from operating activities:			
Net cash provided by operating activities	A	33,358	10,667
Cash flows used in investing activities:			
Dividends and interest from investments		9,888	9,008
Purchase of investments		(220,811)	(169,209)
Proceeds from sale of listed investments		200,059	146,245
Investment in subsidiary		(40,000)	—
Net cash used in investing activities		(50,864)	(13,956)
Change in cash and cash equivalents in the year		(17,506)	(3,289)
Cash and cash equivalents at the beginning of the year	B	27,507	30,796
Cash and cash equivalents at the end of the year	B	10,001	27,507

A. Reconciliation of net income / (expenditure) to net cash flow from operating activities

	2017 £000	2016 £000
Net income / (expenditure) the reporting period (as per the statement of financial activities)	59,517	(4,139)
Adjustments for:		
Gains on investments	(30,258)	(2,403)
Dividends and interest from investments	(9,888)	(9,008)
Decrease in debtors	6,000	3,000
Increase in creditors	7,987	23,217
Net cash provided by / (used in) operating activities	33,358	10,667

B. Analysis of cash and cash equivalents

	1 July 2016 £000	Cash flow £000	30 June 2017 £000
Cash at bank and in hand	857	9,144	10,001
Short-term deposits (less than 3 months)	26,650	(26,650)	—
Total cash and cash equivalents	27,507	(17,506)	10,001

NOTES TO THE FOUNDATION FINANCIAL STATEMENTS

1. Basis of accounting

These financial statements have been prepared under the historical cost convention as modified by the revaluation of certain fixed asset investments. They have been prepared in accordance with the Charities Statement of Recommended Practice (SORP) FRS102 "Accounting and Reporting by Charities" ("the Charities SORP"), the reporting requirements of the Companies Act 2006 and applicable accounting standards in the United Kingdom. The Foundation meets the definition of a public benefit entity under FRS102. The charitable company has adapted the Companies Act formats to reflect the Charities SORP. The financial statements have been prepared on the going concern basis as discussed in the trustees' report on page 17.

The functional currency of the company is considered to be Pound Sterling as this is the currency of the primary economic environment in which the company operates.

2. Accounting policies

The principal accounting policies applied in the preparation of these separate financial statements are set out below. These policies have been consistently applied to all periods presented.

a. Income

Income is accounted for on an accruals basis and included in the statement of financial activities when the Company is legally entitled to the income, receipt is probable and the amount can be quantified with reasonable accuracy.

b. Expenditure

Expenditure is accounted for on an accruals basis.

Expenditure on raising funds is costs associated with generating income from investment management.

Expenditure on charitable activities comprises all the costs incurred by the Foundation in undertaking its work to meet its charitable objectives as opposed to the cost of generating the funds to finance these activities. Charitable activities are all the resources expended by the charity in the delivery of goods and services, including its programme and project work that is directed at the achievement of its charitable aims and objectives. Such costs include the direct costs of the charitable activities together with those support costs incurred that enable these activities to be undertaken.

Grants awarded are recognised when the Charity formally notifies the recipient of the award following approval by the Trustees. The liability recognised is for the full amount of the award, whether payable immediately or across a number of financial years as grants are subject to qualitative review rather than strict performance criteria. Where material, grant liabilities in excess of one year are discounted to net present value to reflect the time value of money which is based on the investment returns with a similar risk profile.

Support costs are defined as those costs that are incurred indirectly, and relate principally to grant making activities that then give the Foundation the capability to carry out its charitable activities. They are allocated to the SORP expenditure headings on the basis of underlying expenditure which reflects the level of activity performed.

Short-term employee benefits are recognised as an expense in the period in which they relate.

c. Investments

Listed investments are stated at market value. The statement of financial activities includes realised gains and losses on investments sold in the year and unrealised gains and losses on revaluation of investments.

Investment in the Trading Group (Lloyd's Register Group Limited), which is a mixed motive investment, is valued at cost less any impairment.

d. Cash

Items considered to be cash are those held in hand, in current accounts and on short-term deposit (where the term is less than three months) with recognised financial institutions.

e. Taxation and Value Added Tax

The Foundation is a UK registered charity and is exempt from Corporation Tax under Chapter 3 of Part 11 to the Corporation Tax Act 2010 and section 256 of the Taxation for Chargeable Gains Act 1992 to the extent that surpluses are applied to its charitable purposes.

The Foundation is not registered for VAT and therefore suffers irrecoverable VAT. This expense is recorded and disclosed with the cost of the underlying goods or services.

NOTES TO THE FOUNDATION FINANCIAL STATEMENTS - CONTINUED

f. Fund accounting

The Foundation's general fund comprises accumulated unrestricted surpluses and deficits.

Endowment funds comprise one expendable endowment fund, a part of the September 2012 donation from the Trading Group. Generally, capital is retained within the fund, with income forming part of the Foundation's general fund. Trustees have the power to convert capital to income should they wish to expend capital subject to the contractual obligations of the initial donation as outlined in note 16.

g. Financial assets and liabilities

Financial assets and financial liabilities are recognised when the Foundation becomes a party to the contractual provisions of the instrument. All financial assets and liabilities are initially measured at transaction price (including transaction costs). With the exception of fixed asset investments, financial instruments are initially recognised at transaction value and subsequently measured at their settlement value.

Debtors are recognised at the settlement amount due. Creditors are recognised where the Foundation has a present obligation resulting from a past event that will result in the transfer of funds to a third party and the amount due to settle the obligation can be measured or estimated reliably. Creditors are recognised at their settlement amount.

Significant accounting estimates and assumptions

The Foundation makes estimates and assumptions to produce the Financial Statements. The accounting estimates will, by nature, differ from the actual results. The key estimate that may have a significant risk of causing a material adjustment to the carrying value of assets or liabilities within the next financial year relates to the discounting of grant liabilities. The rate applied to discount grant liabilities payable after more than twelve months requires an estimate of the appropriate discount rate, as well as an estimate of when the liability will be called down as a claim to be paid. There are no other significant accounting estimates or judgements for the Foundation.

3. Investment income

	General funds £000	Endowment funds £000	Total 2017 £000	Total 2016 £000
Gift aid from Trading Group	43,956	—	43,956	20,162
Interest receivable from Trading Group	272	—	272	—
Listed and other investments:				
Fixed Interest – UK	1,311	—	1,311	1,220
Fixed Interest – Overseas	92	—	92	85
Equities – UK	2,930	—	2,930	2,856
Equities – Overseas	3,017	—	3,017	3,079
Index linked - Overseas	18	—	18	18
Pooled Funds	2,184	—	2,184	1,632
Cash Instruments	6	—	6	19
Bank interest	58	—	58	99
	9,888	—	9,888	9,008
Total	53,844	—	53,844	29,170

4. Expenditure on generating funds

Expenditure on generating funds represents investment management costs, which are charged to the endowment fund.

5. Analysis of expenditure on charitable activities

	Grants £000	Unwinding of discount £000	Activities undertaken directly £000	Support costs £000	Total 2017 £000	Total 2016 £000
Grant making activities:						
Supporting excellent scientific research	8,455	371	—	585	9,411	10,967
Accelerating the application of research	10,667	182	—	753	11,602	10,504
Promoting safety and public understanding of risk	190	179	—	13	382	11,578
Advancement of skills and education	1,280	—	—	87	1,367	761
	20,592	732	—	1,438	22,762	33,810
Direct costs:						
Promoting safety and public understanding of risk	—	—	754	2	756	877
Total	20,592	732	754	1,440	23,518	34,687

Support costs totalling £1,440,000 (2016: £1,409,000) have been allocated across the Foundation's activities. These include costs associated with IT, HR, finance, property and other central services of the Charity's staff. Included within support costs are staff costs of £1,161,000 (2016: £828,000) and governance costs of £46,000 (2016: £108,000).

Governance costs includes net fees payable to the Foundation's auditor for the audit of the Foundation's annual accounts of £38,000 (2016: £36,000).

6. Grants awarded

Grants are awarded to institutions and fund tuition costs, employment costs or other costs of research. Grants awarded in 2016/2017 are analysed by institution below.

	Number of grants	Supporting excellent scientific research £000	Accelerating the application of research £000	Promoting safety and public understanding of risk £000	Advancement of skills and education £000	Total 2017 £000
Health & Safety Executive	1	10,000	—	—	—	10,000
Southampton Solent University	1	117	—	—	—	117
Royal College of Art - Foresight Review: Design for Safety	1	80	—	—	—	80
University of York	1	—	10,000	—	—	10,000
University of Southampton for Monitoring of Temperature, Strain and Corrosion	1	—	600	—	—	600
University College London (Petrus)	1	—	250	—	—	250
MX3D for a Smarter Bridge	1	—	247	—	—	247
Hook Marine Ltd	1	—	45	—	—	45
University of Aberdeen	1	—	2	—	—	2
Polecat Intelligence Ltd UK	1	—	—	100	—	100
Nesta	1	—	—	90	—	90
International Boat Building Training College (Synensis)	1	—	—	—	900	900
Royal Institution (Christmas Lectures)	1	—	—	—	102	102
IMO International Maritime Law Institute	1	—	—	—	81	81
Plymouth Marine Laboratory	1	—	—	—	75	75
Institution of Engineering & Tech (IET)	1	—	—	—	54	54
Nautical Institute	1	—	—	—	25	25
Royal College of Art	1	—	—	—	20	20
Royal Institution of Naval Architects	1	—	—	—	11	11
Tolani Maritime Institute, India(Univ.Strathclyde)	1	—	—	—	10	10
LSESU Entrepreneurs Society	1	—	—	—	2	2
Grant adjustments*		(1,553)	—	—	—	(1,553)
	21	8,644	11,144	190	1,280	21,258
Impact of discounting grants awarded		(189)	(477)	—	—	(666)
		8,455	10,667	190	1,280	20,592

*Grant adjustments includes the impact of finalising the terms and conditions of the TWI grant awarded in a prior period where the terms of the grant were modified following initial award.

NOTES TO THE FOUNDATION FINANCIAL STATEMENTS - CONTINUED

Grants awarded in 2015/2016 are analysed by institution below:

	Number of grants	Supporting excellent scientific research £000	Accelerating the application of research £000	Promoting safety and public understanding of risk £000	Advancement of skills and education £000	Total 2016 £000
The Alan Turing Institute	1	10,000	—	—	—	10,000
Global Young Scientists Summit	1	3	—	—	—	3
Imperial College London	1	75	—	—	—	75
Innovi Business Growth Ltd	1	70	—	—	—	70
Royal Academy of Engineering	1	499	—	—	—	499
University of Southampton(RECOIN)	1	19	—	—	—	19
Arup	1	—	10,000	—	—	10,000
Imperial College London	1	—	59	—	—	59
Wageningen University & Research	1	—	500	—	—	500
Blue Marine Foundation	1	—	—	20	—	20
CHIRP Maritime	1	—	—	60	—	60
National University of Singapore	1	—	—	10,000	—	10,000
Nautical Institute (Alert40)	1	—	—	46	—	46
Royal College of Art	1	—	—	50	—	50
Royal National Lifeboat Institute	1	—	—	1,059	—	1,059
Science Museum	1	—	—	250	—	250
The Conversation	1	—	—	180	—	180
Admiral Makarov SUMIS	1	—	—	—	75	75
Arkwright Scholarships	2	—	—	—	50	50
British Science Association	1	—	—	—	17	17
Children's Radio UK	1	—	—	—	15	15
CIFAL, Scotland	1	—	—	—	6	6
Don Bosco Training Centre	1	—	—	—	20	20
Educational Volunteers Foundation of Turkey	1	—	—	—	132	132
Engineering Development Trust	1	—	—	—	50	50
ERA Foundation	1	—	—	—	14	14
Maritime London Officer Cadets	1	—	—	—	108	108
National Maritime Museum	1	—	—	—	104	104
National Space Centre	1	—	—	—	297	297
Smallpeice Trust (Girls in Engineering)	1	—	—	—	20	20
University College London	1	—	—	—	55	55
University of Birmingham	1	—	—	—	702	702
University of Southampton (Human powered submarine society)	1	—	—	—	4	4
Villiers Park Educational Trust	1	—	—	—	60	60
Grant adjustments		(36)	—	—	(999)	(1,035)
	35	10,630	10,559	11,665	730	33,584
Impact of discounting grants awarded		(548)	(497)	(608)	—	(1,653)
		10,082	10,062	11,057	730	31,931

7. Grants awarded but not paid

	2017 £000	2016 £000
At 1 July	58,042	34,909
Awarded in the year	22,145	32,966
Unwinding of discounting	732	473
Grant adjustments (note 6)	(1,553)	(1,035)
Paid in the year	(13,299)	(9,271)
At 30 June	66,067	58,042

The aging of grants payable is shown in note 14.

8. Employees

	General funds £000	Endowment funds £000	Total 2017 £000	Total 2016 £000
Wages and salaries	944	—	944	677
Social security costs	95	—	95	58
Pension costs	122	—	122	93
	1,161	—	1,161	828

The average number of employees engaged in charitable activities was 17 (2016: 13).

The following number of employees earned emoluments within the bands shown below. Emoluments include benefits in kind, but exclude employer defined contribution pension costs.

	Year to 30 June 2017 Number	Year to 30 June 2016 Number
£60,001 - £70,000	1	1
£70,001 - £80,000	1	1
£90,001 - £100,000	—	1
£100,001 - £110,000	1	—
£120,001 - £130,000	—	1
£180,001 - £190,000	1	—

The Foundation made no termination payments during the year (2016: £26,000).

9. Trustees

The Trustees are the directors of the Foundation. The Trustees do not currently receive remuneration in respect of their duties as trustees. No Trustees received reimbursement for out of pocket expenses (2016: £nil). £33,000 of expenses were paid on behalf of Trustees (2016: £nil) in respect of overseas travel expenses to board meetings.

The Foundation maintained throughout the year Trustees' and Officers' liability insurance in respect of itself and its trustees.

10. Investments

	2017 £000	2016 £000
Listed investments at market value comprise:		
Fixed Interest – UK	35,356	36,617
Fixed Interest – Overseas	1,330	1,420
Equities – UK	62,744	64,597
Equities – Overseas	109,363	108,721
Index linked – Overseas	—	1,832
Pooled Funds	102,145	52,983
Derivatives	(61)	(2,637)
Cash instruments	8,243	4,845
Cash at investment managers and accrued interest	4,110	3,842
	<u>323,230</u>	<u>272,220</u>
Unlisted investments		
Investment in subsidiaries – mixed motive investment	40,050	50
	<u>363,280</u>	<u>272,270</u>

Listed Investments	2017 £000	2016 £000
At 1 July	268,378	245,399
Additions at cost	220,543	169,209
Disposals proceeds	(200,059)	(148,633)
Realised gain / (loss) on disposals	10,376	(12,262)
Unrealised gains	19,882	14,665
At 30 June	319,120	268,378
Cash at investment managers and accrued interest	4,110	3,842
	<u>323,230</u>	<u>272,220</u>

Subsidiaries

The Foundation has invested £40,050,000 in its only immediate subsidiary, Lloyd's Register Group Limited. The subsidiaries and joint ventures of Lloyd's Register Group Limited are shown in note 32 to Lloyd's Register Foundation Group Consolidated Financial Statements.

NOTES TO THE FOUNDATION FINANCIAL STATEMENTS - CONTINUED

11. Trading Group

The Foundation has a mixed motive investment in one trading subsidiary, Lloyd's Register Group Limited which has its own global group of trading companies (the Trading Group). The Foundation owns 100% of the issued share capital of Lloyd's Register Group Limited. The Trading Group's principal activities are the provision of independent inspection and compliance services to clients in capital intensive industries, in particular marine and energy industries.

The summarised financial information of the consolidated Trading Group is provided below, as per the Trading Group's consolidated financial statements for the year ended 30 June 2017.

	2017 Total £000	2016 Total £000
Turnover	887,490	881,173
Cost of sales	(656,957)	(625,176)
Gross profit	230,533	255,997
Administrative expenses	(213,939)	(249,328)
Administrative expenses before restructuring costs and impairments	(181,266)	(203,190)
Operating profit before restructuring costs, profit on disposal and impairments	49,267	52,807
Restructuring costs	(32,673)	(21,503)
Impairment of goodwill	—	(24,635)
Profit on disposal of operations	—	27,664
Operating profit	16,594	34,333
Share of net operating loss of joint ventures	(795)	(1,173)
Net investment income	22,901	50,171
Other finance costs	(5,564)	(5,753)
Profit on ordinary activities before taxation	33,136	77,578
Tax on profit on ordinary activities	(9,858)	(5,333)
Profit for the financial year	23,278	72,245
	2017 Total £000	2016 Total £000
Assets	885,727	821,148
Liabilities	(454,590)	(447,846)
Net Assets	431,137	373,302
Shareholder's funds	434,764	375,954
Minority interests	(3,627)	(2,652)
	431,137	373,302

12. Debtors

	2017 £000	2016 £000
Amounts due from Lloyd's Register Group Limited	—	6,000
	—	6,000

13. Creditors: amounts falling due within one year

	2017 £000	2016 £000
Amounts due to Lloyd's Register Group Limited	139	226
Grants payable	17,746	15,135
Accruals and deferred income	378	329
	18,263	15,690

14. Creditors: amounts falling due after one year

	2017 £000	2016 £000
Grants payable	<u>48,321</u>	<u>42,907</u>
	<u>48,321</u>	<u>42,907</u>

The timing of grants payable is shown in the table below:

	2017 £000	2016 £000
Due within one year	<u>17,746</u>	<u>15,135</u>
Due within 1-2 years	29,465	13,702
Due within 2-5 years	20,076	26,772
Due within 6-10 years	1,236	4,956
Impact of discounting	<u>(2,456)</u>	<u>(2,523)</u>
	<u>48,321</u>	<u>42,907</u>
Net grants payable	<u>66,067</u>	<u>58,042</u>

15. Contingent liabilities

The Foundation has a contractual obligation until June 2020 to transfer up to £100m of the investment assets received from the Trading Group in September 2012 to the Lloyd's Register Superannuation Fund Association in the event of an insolvency of Lloyd's Register Group Limited. The Trustees consider the risk of insolvency, and therefore the risk of payment of the contingent liability, to be minimal.

16. Funds

	1 July 2016 £000	Income £000	Expenditure £000	Other movements £000	30 June 2017 £000
Total unrestricted funds	12,230	53,844	(23,518)	1,497	44,053
Endowment funds:					
Expendable endowment	234,950	—	(1,067)	28,761	262,644
	<u>247,180</u>	<u>53,844</u>	<u>(24,585)</u>	<u>30,258</u>	<u>306,697</u>

Other movements relate to realised and unrealised gains and losses on investment assets.

	1 July 2015 £000	Income £000	Expenditure £000	Other movements £000	30 June 2016 £000
Total unrestricted funds	17,579	29,170	(34,687)	168	12,230
Endowment funds:					
Expendable endowment	233,740	—	(1,025)	2,235	234,950
	<u>251,319</u>	<u>29,170</u>	<u>(35,712)</u>	<u>2,403</u>	<u>247,180</u>

Other movements relate to realised and unrealised gains and losses on investment assets.

In September 2012, the Trading Group transferred a portfolio of investments to the Foundation, with a market value of £206.4m. The transfer was made as a gift of an expendable endowment. The gift also contained a condition that the Foundation must agree to keep £100.0m of that sum as a contingent asset of the Trading Group's UK pension scheme which has been extended until June 2020. During that period the monies can only be transferred to the Pension Scheme in the event of the insolvency of the Trading Group.

17. Revaluation reserve

	1 July 2016 £000	Unrealised gains £000	Realised revaluation reserve £000	30 June 2017 £000
Unrestricted – general funds	—	984	940	1,924
Endowment funds:				
Expendable endowment	20,225	18,898	(5,484)	33,639
	<u>20,225</u>	<u>19,882</u>	<u>(4,544)</u>	<u>35,563</u>

NOTES TO THE FOUNDATION FINANCIAL STATEMENTS - CONTINUED

18. Analysis of net assets between funds

	General funds £000	Endowment funds £000	Total 2017 £000	Total 2016 £000
Fixed assets	100,636	262,644	363,280	272,270
Current assets	10,001	—	10,001	33,507
Creditors: amounts falling due within one year	(18,263)	—	(18,263)	(15,690)
Creditors: amounts falling due after one year	(48,321)	—	(48,321)	(42,907)
	<u>44,053</u>	<u>262,644</u>	<u>306,697</u>	<u>247,180</u>

	General funds £000	Endowment funds £000	Total 2016 £000	Total 2015 £000
Fixed assets	37,320	234,950	272,270	246,903
Current assets	33,507	—	33,507	39,796
Creditors: amounts falling due within one year	(15,690)	—	(15,690)	(8,608)
Creditors: amounts falling due after one year	(42,907)	—	(42,907)	(26,772)
	<u>12,230</u>	<u>234,950</u>	<u>247,180</u>	<u>251,319</u>

19. Related party transactions

The Foundation has taken advantage of the exemption in Financial Reporting Standard 102, whereby transactions with subsidiary companies ultimately 100% owned by the same parent are not required to be disclosed.

In accordance with the provisions of Financial Reporting Standard 102 the related party transaction entered into by the charity is detailed below. The transaction that arose was in the normal course of business.

The charity awarded a grant of £600,000 in the 2013/14 year to the Worshipful Company of Shipwrights where Lambros Varnavides serves as a member of the Finance Committee. The interest was disclosed before the grant was made and Mr Varnavides did not participate in the grant making decision. Of the grant awarded, £279,000 (2016: £425,000) was outstanding as at 30 June 2017.

The Foundation defines its key management personnel as the Board of Trustees and the Executive Leadership Team. The total remuneration for key management personnel for the year totalled £242,000 (2016: £96,000). The increase for the year has resulted following a review of the allocation of salary costs between the Foundation and Trading Group.

FINANCIAL REVIEW OF LLOYD'S REGISTER FOUNDATION GROUP

Strategic report of the Foundation

The Foundation has a direct mixed motive investment in one trading subsidiary, Lloyd's Register Group Limited which has its own global group of trading companies (the Trading Group). The Foundation owns 100% of the issued share capital of Lloyd's Register Group Limited. The Trading Group's principal activities are the provision of independent inspection and compliance services to clients in capital intensive industries, in particular the marine and energy industries.

The Foundation's consolidated total income of £908.2 million (2016: £901.0 million) relates to the income recognised by the Trading Group (£898.6 million (2016: £892.0 million)) - including turnover of £887.5 million (2016: £881.2 million) and investment income of £20.7 million (2016: £19.9 million).

The Foundation's consolidated total expenditure of £915.3 million (2016: £893.9 million) relates principally to the Trading Group (£890.8 million (2016: £858.2 million)) with the remainder relating to the activities of the charitable entity.

Consolidated net assets for the Foundation at 30 June 2017 are £697.8 million (30 June 2016: £620.4 million), an increase of £77.4 million from the prior year.

Net consolidated funds (cash and short term deposits) for the Foundation at 30 June 2017 are £161.2 million (30 June 2016: £174.5 million), a decrease of £13.3 million (2016: decrease of £6.8 million) from the prior year.

The performance of the Charitable entity is discussed on pages 15 to 19, and the results of the Trading Group below.

Results of the Trading Group

This financial review of the Trading Group forms part of the strategic report.

The summarised financial information of the consolidated Trading Group is provided in note 17 to the consolidated financial statements, as per the Trading Group's consolidated financial statements for the year ended 30 June 2017.

Turnover of £887.5 million was broadly in line with that of the prior year (2016: £881.2 million) at actual exchange rates. Turnover at prior year exchange rates was £91.9 million lower than at actual exchange rates (10.4%).

Operating profit before restructuring costs was £49.3 million (2016: £52.8 million before restructuring costs), £3.5 million lower than prior year as a direct result of the prevailing trading conditions in the Energy and Marine and Offshore markets offset against gains from the change in foreign exchange rates. Statutory operating profit, including restructuring costs was £16.6 million (2016: £34.3 million).

Financial position of the Trading Group

Net funds for the Trading Group at 30 June 2017 are £431.1 million (30 June 2016: £373.3 million), an increase of £57.8 million from the prior year.

Branches of the Group

The Lloyd's Register Foundation group (the Group) has branches, as defined in section 1046(3) of the Companies Act 2006, which are outside the UK.

Financial risk management policies and objectives

LR is exposed to certain financial risks as a result of its operations and the activities that it carries out. These financial risks include litigation, foreign exchange risk, credit risk, and interest rate risk.

Litigation

In the normal course of business, the Trading Group receives claims for compensation from clients and other associated parties. The Trading Group has in place appropriate policies and procedures to mitigate litigation risk. Although insurance cover is carried to mitigate this risk, the results of litigation can be uncertain and the Trading Group remains exposed to a potential shortfall in this cover.

Foreign exchange risk (price risk)

Foreign exchange exposure is an expected risk of operating across a number of geographies. The Group monitors the impact of foreign exchange on a regular basis. Where possible, the company uses natural hedges (offsetting costs incurred in a particular currency against revenues earned in that currency) that arise from its normal operating activities to manage its foreign exchange exposures. Residual foreign exchange exposure is monitored and is considered tolerable. Derivative financial instruments are used by the Group's third party investment manager to manage the exposure to foreign exchange risk associated with the Company's investment portfolio. Aside from these derivatives, the Group does not currently use financial instruments to hedge foreign exchange risk.

Liquidity risk and going concern

The Group does not have any significant borrowings at the year-end and has net cash (excluding short term deposits) of £161.2 million (2016: £147.9 million). In addition, the Group holds listed investments of £486.5 million (2016: £441.2 million) of which £84.6 million (2016: £84.9 million) is held in escrow to make good the deficit on the main UK defined benefit pension scheme in future periods.

The directors consider that the cash held by the Group, together with its listed investments, are sufficient to address the Group's liquidity requirements, both in the near and longer term.

The directors therefore have a reasonable expectation that the Company and the Group have adequate resources to continue in operational existence for the foreseeable future. Thus they continue to adopt the going concern basis in preparing the financial statements.

Credit risk

It is company policy to perform an assessment of the creditworthiness of new clients and, where appropriate, assign a credit limit to clients' accounts.

Interest rate risk

Derivative financial instruments are used by the Group's third party investment manager to manage the exposure to foreign exchange risk associated with the Company's investment portfolio. Aside from this potential risk the Group has only limited exposure to interest rate risk as it has no external borrowings or other interest-bearing financial instruments.

Further details of the Trading Group

Further details of the financial performance of the Trading Group is included within the Lloyd's Register Group Limited's statutory accounts.

THE CONSOLIDATED FINANCIAL STATEMENTS

CONSOLIDATED STATEMENT OF FINANCIAL ACTIVITIES FOR THE YEAR ENDED 30 JUNE 2017

	Note	Trading funds £000	General funds £000	Endowment funds £000	Total funds 2017 £000	Total funds 2016 £000
Income						
Incoming resources from generated funds						
Income from investments:						
Listed investments	4	5,429	9,558	—	14,987	14,517
Property	4	3,583	—	—	3,583	4,493
Other	4	2,054	58	—	2,112	854
Activities for generating funds	5	887,490	—	—	887,490	881,173
Total income		898,556	9,616	—	908,172	901,037
Expenditure on generating funds						
Investment management costs		—	—	(1,067)	(1,067)	(1,219)
Cost of activities for generating funds		(871,511)	—	—	(871,511)	(874,409)
Other finance costs – pensions		(5,564)	—	—	(5,564)	(5,753)
Profit on disposal of discontinued operations		—	—	—	—	27,664
Taxation	10	(9,858)	—	—	(9,858)	(5,333)
Other		(3,827)	—	—	(3,827)	(203)
Total costs of generating funds		(890,760)	—	(1,067)	(891,827)	(859,253)
Expenditure on Charitable activities						
Grants:						
Supporting excellent scientific research		—	(9,411)	—	(9,411)	(10,967)
Accelerating the application of research		—	(11,602)	—	(11,602)	(10,504)
Promoting safety and public understanding of risk		—	(382)	—	(382)	(11,578)
Advancement of skills and education		—	(1,367)	—	(1,367)	(761)
Total grants	7	—	(22,762)	—	(22,762)	(33,810)
Direct costs:						
Promoting safety and public understanding of risk		—	(756)	—	(756)	(877)
Total expenditure on charitable activities	7	—	(23,518)	—	(23,518)	(34,687)
Total expenditure		(890,760)	(23,518)	(1,067)	(915,345)	(893,940)
Net income / (expenditure) before gains / (losses) on investments	11	7,796	(13,902)	(1,067)	(7,173)	7,097
Realised gains/ (losses) on disposal of investments		688	513	9,863	11,064	(12,011)
Unrealised gains on investments		15,862	984	18,898	35,744	54,031
Net income / (expenditure)		24,346	(12,405)	27,694	39,635	49,117
Net interest in the results for the year in joint ventures		(795)	—	—	(795)	(1,173)
Transfers between funds		(4,229)	4,229	—	—	—
Foreign exchange differences on translation of net assets of overseas operations		9,706	—	—	9,706	11,324
Net actuarial movements on defined benefit pension schemes	24	25,676	—	—	25,676	(42,502)
Acquisition of non-controlling interest		—	—	—	—	736
Tax relating to foreign exchange differences on translation of net assets of overseas operations		3,130	—	—	3,130	(5,056)
Net movement in funds		57,834	(8,176)	27,694	77,352	12,446
Funds brought forward		373,303	12,180	234,950	620,433	607,987
Funds carried forward		431,137	4,004	262,644	697,785	620,433

All amounts presented above relate to continuing operations.

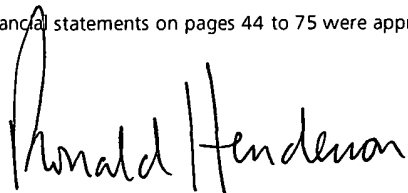
There are no recognised gains or losses for the year other than those shown above. An analysis of the prior year funds is shown in note 6.

CONSOLIDATED BALANCE SHEET

AT 30 JUNE 2017

	Note	2017 £000	2016 £000
Non Current Assets			
Goodwill	14	85,551	72,251
Intangible fixed assets	14	54,096	29,970
Tangible assets	15	173,471	159,862
Investments	16	488,434	445,205
Pension surplus	24	8,066	8,169
Deferred tax assets	10	17,318	15,757
Interests in joint ventures: share of net assets	16	3,258	282
		<u>830,194</u>	<u>731,496</u>
Current assets			
Work in progress	18	—	3,541
Debtors	19	227,401	211,106
Cash at bank and in hand		<u>161,223</u>	<u>174,536</u>
		<u>388,624</u>	<u>389,183</u>
Creditors: amounts falling due within one year	20	<u>(161,528)</u>	<u>(142,816)</u>
Net current assets		<u>227,096</u>	<u>246,367</u>
Total assets less current liabilities		<u>1,057,290</u>	<u>977,863</u>
Creditors: amounts falling due after one year	21	<u>(48,321)</u>	<u>(42,907)</u>
Provisions for liabilities	22	<u>(42,395)</u>	<u>(25,985)</u>
Net assets excluding pension liability		<u>966,574</u>	<u>908,971</u>
Pension liability	24	<u>(268,789)</u>	<u>(288,538)</u>
Net assets including pension liability		<u>697,785</u>	<u>620,433</u>
The funds of the charity	27,28		
Non charitable trading funds		613,589	577,623
Revaluation reserve		91,888	78,701
General fund	27	<u>2,080</u>	<u>12,180</u>
Unrestricted funds excluding pension liability		<u>707,557</u>	<u>668,504</u>
Pension reserve		<u>(268,789)</u>	<u>(280,369)</u>
Total unrestricted funds		<u>438,768</u>	<u>388,135</u>
Endowment funds		229,005	214,725
Revaluation reserve	28	<u>33,639</u>	<u>20,225</u>
Total endowment funds	27	<u>262,644</u>	<u>234,950</u>
Total charity funds excluding minority interests and acquisition put option		<u>701,412</u>	<u>623,085</u>
Non-controlling interests		<u>(3,627)</u>	<u>(2,652)</u>
Total charity funds		<u>697,785</u>	<u>620,433</u>

The financial statements on pages 44 to 75 were approved by the trustees on 19 October 2017 and signed on their behalf by:



R A Henderson, Trustee

Lloyd's Register Foundation
Company registration number 07905861

CONSOLIDATED CASH FLOW STATEMENT FOR THE YEAR ENDED 30 JUNE 2017

	Note	2017 £000	2016 £000
Net cash inflow from operating activities	30	37,466	31,487
Cash flows used in investing activities			
Repayment of staff loans		55	5
Proceeds from sale of investments		240,041	178,771
Proceeds from sale of tangible fixed assets		739	810
Purchase of investments		(250,117)	(198,622)
Purchase of intangible fixed assets		(23,235)	(17,072)
Purchase of tangible fixed assets		(10,825)	(9,981)
Interest paid		(569)	(301)
Investment income		20,123	20,156
Additional investment in existing joint ventures		(649)	(1,018)
Acquisition of unlisted investments		(4,695)	(3,697)
Payment of deferred consideration on acquisitions		—	(1,414)
Proceeds from disposal of subsidiary		—	43,118
Acquisition of subsidiaries		(22,868)	(45,856)
Net cash acquired		1,221	—
Net cash flows used in investing activities		(50,779)	(35,101)
Net (decrease) / increase in cash and cash equivalents		(13,313)	(3,614)
Cash and cash equivalents at beginning of year		174,536	181,336
Net (decrease) / increase in cash and cash equivalents		(13,313)	(3,614)
Cash disposed of		—	(3,186)
Cash and cash equivalents at end of year		161,223	174,536

Analysis of cash and cash equivalents

Group	At 1 July 2016 £000	Cash flow £000	At 30 June 2017 £000
Bank balances	147,886	13,337	161,223
Short term deposits	26,650	(26,650)	—
Net funds	174,536	(13,313)	161,223

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS FOR THE YEAR ENDED 30 JUNE 2017

1. Basis of accounting and consolidation

The Group financial statements consolidate the financial statements of the Foundation and its subsidiary undertakings drawn up to 30 June each year. The results of subsidiaries acquired or sold are consolidated from or to the date on which control passed. Acquisitions are accounted for under the acquisition method.

These consolidated financial statements have been prepared under the historical cost convention as modified by the revaluation of certain fixed asset investments. They have been prepared in accordance with the Statement of Recommended Practice FRS 102 "Accounting and Reporting by Charities" ("the Charities SORP"), the reporting requirements of the Companies Act 2006 and applicable accounting standards in the United Kingdom. The charitable company has adapted the Companies Act formats to reflect the Charities SORP. The financial statements have been prepared on the going concern basis as discussed further in the Trustees' report on page 17.

The functional currency of the Group is considered to be Pound Sterling as this is the currency of the primary economic environment in which the Group operates.

2. Accounting policies

The principal accounting policies applied in the preparation of these consolidated financial statements are set out below. These policies have been consistently applied to all years presented.

a. Income

Income is accounted for on an accruals basis and included in the statement of financial activities when the Group is legally entitled to the income, receipt is probable and the amount can be quantified with reasonable accuracy.

Trading income from surveys and inspection, which are the main activities of the Trading Group, is recorded when service performance is complete and is recognised on the basis of invoices rendered or, in the case of long-term contracts, as work is carried out if the final outcome can be assessed with reasonable certainty. All income is recorded net of VAT and similar sales taxes.

b. Expenditure

Expenditure is accounted for on an accruals basis.

Expenditure on raising funds includes costs associated with trading activities and investment management.

Expenditure on charitable activities comprise all the costs incurred applied by the Foundation in undertaking its work to meet its charitable objectives as opposed to the cost of generating the funds to finance these activities. Charitable activities are all the expenditure by the charity in the delivery of goods and services, including its programme and project work that is directed at the achievement of its charitable aims and objectives. Such costs include the direct costs of the charitable activities together with those support costs incurred that enable these activities to be undertaken.

Grants awarded are recognised when the Group formally notifies the recipient of the award following approval by the trustees. The liability recognised is for the full amount of the award, whether payable immediately or across a number of financial years as grants are subject to qualitative review rather than strict performance criteria. Where material, grant liabilities in excess of one year are discounted to net present value to reflect the time value of money which is based on investment returns with a similar risk profile.

Support costs are defined as those costs that are incurred indirectly, and relate principally to grant making activities that then give the Foundation the capability to carry out its charitable activities. They are allocated to the SORP expenditure headings on the basis of underlying expenditure which reflects the level of activity performed.

c. Tangible fixed assets

Tangible fixed assets (other than investment properties) are stated at cost, net of depreciation and impairment.

Depreciation of tangible fixed assets is provided using the straight line method, commencing with the year in which they are ready for use, at rates estimated to write off their cost over their respective useful lives as follows:

Motor vehicles	5 years
Office fittings and equipment	8 years
Computer equipment	4 years
Plant and machinery	5 to 20 years
Freehold buildings	5 to 40 years
Leasehold improvements	Length of the lease

Depreciation is not provided in respect of freehold land as it is deemed to have an infinite useful life.

- d. **Intangible fixed assets: goodwill**
Goodwill arises on the acquisition of subsidiary undertakings and businesses and represents the excess of the fair value of the consideration given over the fair value of identifiable assets and liabilities acquired.
- Goodwill arising on acquisitions is capitalised and amortised on a straight line basis over its estimated useful economic life up to a maximum of 10 years. It is reviewed for impairment if events or changes in circumstances indicate that the carrying value may not be recoverable.
- In accordance with Section 35 of FRS 102, Section 19 of FRS 102 has not been applied in these financial statements in respect of business combinations effected prior to the date of transition. More information can be found in note 32 to these financial statements.
- e. **Intangible fixed assets**
Intangible assets relating to intellectual property rights acquired from third party developers are recognised at cost and amortised on a straight line basis over their estimated useful economic lives, which is estimated to be 10 years. Provision is made for any impairment.
- Intangible assets relating to software acquired in a separate transaction are recognised at cost including any directly attributable costs of preparing the software for its intended use and amortised using the straight line method over their useful economic lives which are estimated to be from 3 to 15 years. Provision is made for any impairment.
- Intangible assets acquired as part of a business combination are measured at fair value at the acquisition date and are amortised over a period of six years which is estimated to be their useful economic life.
- f. **Investments**
Listed investments are stated at market value. Unlisted investments are stated at cost. The statement of financial activities includes realised gains and losses on investments sold in the year and unrealised gains and losses on revaluation of investments.
- Investment properties includes one property that is in mixed functional and investment use. Areas of the building occupied by third party tenants are deemed to be in investment use and are held at market value with any change in fair value recognised in the consolidated statement of financial activities. A valuation of the building is pro-rated according to the floor space occupied by third party tenants. The valuation is carried out by a surveyor holding a relevant qualification (via an independent property company).
- g. **Work in progress**
Work in progress is stated at the lower of cost (including overheads directly attributable to work carried out) and estimated selling price less costs to sell, which is equivalent to the net realisable value.
- h. **Cash**
Items considered to be cash are those held in hand, in current accounts and on term deposit (where the term is less than three months) with recognised financial institutions.
- i. **Taxation and Value Added Tax**
The Foundation is a UK registered charity, and is exempt from Corporation Tax under Chapter 3 of Part 1 to the Corporation Tax Act 2010 and section 256 of the Taxation for Chargeable Gains Act 1992, to the extent that surpluses are applied to its charitable purposes.
- The Trading Group includes companies and branches that operate overseas and that are subject to foreign tax. Direct tax relating to those entities is included within the consolidated financial statements as a trading cost, and analysed in note 10 to the financial statements.
- The Foundation is not registered for VAT and therefore suffers irrecoverable VAT. This expense is recorded and disclosed with the cost of the underlying goods or services.
- j. **Deferred tax**
Deferred tax is recognised in respect of all timing differences that have originated but not reversed at the balance sheet date where transactions or events have occurred at that date that will result in an obligation to pay more tax in the future, or a right to pay less or to receive more tax in the future.
- Deferred tax assets are recognised only to the extent that on the basis of all available evidence, it can be regarded as more likely than not that there will be suitable taxable profits from which the future reversal of the underlying timing differences can be deducted.
- Deferred tax is measured on an undiscounted basis at the tax rates that are expected to apply in the periods in which timing differences reverse, based on tax rates and laws enacted or substantively enacted at the balance sheet date. Deferred tax relating to investment property is measured using the tax rates and allowances that apply to the sale of the asset.
- k. **Fund accounting**
The Foundation's general fund comprises accumulated unrestricted surpluses and deficits.
- Non-charitable trading funds represent the accumulated surpluses and deficits retained within the Trading Group.
- Endowment funds comprise one expendable endowment fund, a part of the September 2012 donation from the Trading Group. Generally, capital is retained within the fund, with income forming part of the Foundation's general fund. Trustees have the power to convert capital to income should they wish to expend capital subject to the contractual obligations of the initial donation as outlined in note 27.

l. Financial assets and liabilities:

Financial assets and financial liabilities are recognised when the Foundation becomes a party to the contractual provisions of the instrument. All financial assets and liabilities are initially measured at transaction price (including transaction costs). With the exception of fixed asset investments, financial instruments are initially recognised at transaction value and subsequently measured at their settlement value.

Debtors are recognised at the settlement amount due. Creditors are recognised where the Foundation has a present obligation resulting from a past event that will result in the transfer of funds to a third party and the amount due to settle the obligation can be measured or estimated reliably. Creditors are recognised at their settlement amount.

Income from quoted securities, which is recorded on an accruals basis, is recognised in investment income as are changes in the fair value of the listed investment portfolio. The Group does not apply hedge accounting for any of its financial instruments.

m. Foreign currencies:

i. Foreign currency denominated assets and liabilities of the Group and its overseas operations are translated at the rate of exchange ruling at the balance sheet date. Exchange differences arising on translation of the opening net assets and results of overseas operations are reported in the statement of financial activities and accumulated in net funds.

ii. Income and expenditure for the year are translated at the appropriate rates prevailing during the year, updated on a monthly basis.

iii. Other exchange differences are shown in net income within the statement of financial activities except for exchange differences on monetary items receivable or payable from/to a foreign operation for which settlement is neither planned nor likely to occur (forming part of the net investment in the foreign operations) which are accumulated in net funds.

n. Leases

The costs of operating lease rentals are charged to the profit and loss account in the period to which they relate even if the payments are not made on such a basis. Benefits received and receivable as an incentive to sign an operating lease are similarly spread on a straight-line basis over the lease term.

o. Rental income

Rental income from operating leases is recognised on a straight line basis over the term of the relevant lease.

p. Research and development expenditure

Research expenditure is written off as incurred. Development expenditure, including all costs of developing internally generated intangible assets, is also written off, except for costs of bringing purchased software into use, where the directors are satisfied as to the technical, commercial and financial viability of individual projects. In such cases, the identifiable expenditure is capitalised as part of the cost of the purchased software as an intangible asset and amortised over the period during which the Group is expected to benefit. This period is between 1 and 10 years. Provision is made for any impairment.

q. Interest receivable

Interest receivable from bank and short term deposits includes interest accrued. Income from listed investments is recorded on an accruals basis when the income becomes payable to the Group.

r. Short-term employee benefits

Short-term employee benefits are recognised as an expense in the period in which they relate.

s. Pensions

For defined benefit schemes the amounts charged to costs of activities for generating funds are the costs arising from employee services rendered during the period and the cost of plan introductions, benefit changes, settlements and curtailments. They are included as part of staff costs. The net interest cost on the net defined benefit liability is charged to the statement of financial activities and included within other finance costs - pensions. Re-measurement comprising actuarial gains and losses and the return on scheme assets (excluding amounts included in net interest on the net defined benefit liability) are recognised immediately in the statement of financial activities.

Defined benefit schemes are funded, with the assets of the scheme held separately from those of the Group, in separate trustee administered funds. Pension scheme assets are measured at fair value and liabilities are measured on an actuarial basis using the projected unit credit method. The actuarial valuations are obtained at least triennially and are updated at each balance sheet date.

Pension scheme surpluses, to the extent that they are considered recoverable, or deficits are recognised in full and presented on the face of the balance sheet.

For defined contribution schemes the amount charged to the statement of financial activities account in respect of pension costs and other retirement benefits is the contributions payable in the year. Differences between contributions payable in the year and contributions actually paid are shown as either accruals or prepayments in the balance sheet.

Other long-term employee benefits are measured at the present value of the benefit obligation at the reporting date.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - CONTINUED

t. Investment in joint ventures

In the Group financial statements, investments in joint ventures are accounted for using the equity method. Investments in joint ventures are initially recognised at the transaction price and are subsequently adjusted to reflect the Group's share of the profit or loss and other comprehensive income of the joint venture.

u. Heritage assets

The Group's collection of pictures, furniture and fittings, ship models, books and archive material are considered to be heritage assets. No value is attributed to them in the balance sheet and no depreciation charged on the grounds that for many of the assets, reliable historic cost information is not available and that the depreciated historical cost of these assets is now immaterial.

3. Critical accounting judgements and key sources of estimation uncertainty

In the application of the Group's accounting policies, which are described in note 2, the Trustees are required to make judgements, estimates and assumptions about the carrying amounts of assets and liabilities that are not readily apparent from other sources. The estimates and associated assumptions are based on historical experience and other factors that are considered to be relevant. Actual results may differ from these estimates.

The estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognised in the period in which the estimate is revised if the revision affects only that period, or in the period of the revision and future periods if the revision affects both current and future periods.

Critical judgements in applying the Group's accounting policies

The following are the critical judgements, apart from those involving estimations (which are dealt with separately below), that the directors have made in the process of applying the Group's accounting policies and that have the most significant effect on the amounts recognised in the financial statements.

Revenue recognition

The Group has long-term customer contracts under which service delivery can extend over a number of years. In accounting for such long-term contracts, an estimate is required of the costs to complete the contract to determine the percentage of completion, which is used to determine the amount of revenue to be recognised. These estimates are used to forecast the ultimate profitability of each contract. If, at any time, these estimates indicate that a contract will be unprofitable, the entire estimated loss for the contract is recognised immediately. If these estimates indicate that any contract will be less profitable than previously forecast, work in progress may have to be written down to the extent that it is no longer considered to be fully recoverable.

Claims and contingent liabilities

The Group exercises judgement in measuring and recognising provisions and the exposures to contingent liabilities related to pending professional indemnity or other litigation claims. Judgement is necessary in assessing the likelihood that a pending claim will succeed, or a liability will arise, and to quantify the possible range of the financial settlement. Because of the inherent uncertainty in this evaluation process, actual losses may be different from the originally estimated provision.

Income tax

The Group's current tax charge on ordinary activities necessarily involves a degree of estimation and judgement in respect of certain items whose tax treatment cannot be finally determined until resolution has been reached with the relevant tax authority or, as appropriate, through a formal legal process. The final resolution of some of these items may give rise to material profits, losses and / or cash flows.

The Group has operations in a large number of different tax jurisdictions which differ in their application of tax law. The scale and complexity of the Group's structure makes the degree of estimation and judgement more challenging. The resolution of issues is not always within the control of the Group and is often dependent on the efficiency of the legal processes in the relevant taxing jurisdictions in which the Group operates.

Deferred tax

The decision whether to recognise a deferred tax asset requires management judgement upon whether it is more likely than not that sufficient taxable income will be available in the future against which the reversal of timing differences can be deducted. To determine future taxable profits, reference is made to the latest available profit forecasts. Where the timing differences are related to losses, relevant tax law is considered to determine the availability of the losses to offset against future taxable profits.

Recognition therefore involves judgement regarding the future financial performance of the particular legal entity or tax group in which the deferred tax asset has been recognised.

Pension plans

The Group operates pension schemes worldwide, including defined benefit pension schemes, the most significant of which is in the United Kingdom. For a description of the related accounting policies, refer to Note 2 above. Changes in significant assumptions could materially affect the amounts, particularly the rate used to discount the projected benefit obligation. Note 24 to the financial statements describes the principal discount rate, salary increase, inflation, mortality and pension payment increase assumptions that have been used to determine the pension and post-retirement charges. The calculation of any charge relating to pensions is dependent on the assumptions used, which reflects the exercise of judgement. The assumptions adopted are based on advice of the Group's actuaries, on prior experience and market conditions.

Key sources of estimation uncertainty

Goodwill impairment

The Group assesses at each reporting date whether there is any indication that the goodwill recognised in respect of acquisitions is impaired. Where an indicator is identified an impairment review is performed which requires the estimation of the value in use of the cash-generating units to which goodwill has been allocated. The value in use calculation requires the entity to estimate the future cash flows expected to arise from the cash-generating unit and a suitable discount rate in order to calculate present value. The carrying amount of goodwill at the balance sheet date was £85,551,000 (2016: £72,251,000).

4. Investment income

	Trading funds £000	General funds £000	Endowment funds £000	Total funds 2017 £000	Total funds 2016 £000
Fixed Interest – UK	2,412	1,311	—	3,723	3,704
Fixed Interest – Overseas	3,017	92	—	3,109	85
Equities – UK	—	2,930	—	2,930	2,856
Equities – Overseas	—	3,017	—	3,017	3,079
Index linked - Overseas	—	18	—	18	18
Pooled Funds – UK	—	616	—	616	1,632
Pooled Funds - Overseas	—	1,568	—	1,568	3,124
Cash Instruments	—	—	—	—	19
Derivatives	—	6	—	6	—
	5,429	9,558	—	14,987	14,517
Bank interest	2,054	58	—	2,112	854
Income from UK investment property	3,583	—	—	3,583	4,493
	11,066	9,616	—	20,682	19,864

5. Activities for generating funds

Costs of generating funds include investment management costs and all expenses of the Trading Group including those attributable to public benefit activities but excluding any charitable donations made directly by the Trading Group.

Segmental analysis

Turnover by business segment of the Trading Group:	2017 £000	2016 £000
Marine & Offshore	445,588	444,566
Energy	144,345	172,493
Management Systems & Inspection Services	297,557	264,114
Trading activities	887,490	881,173

The comparative turnover by stream has been re-presented to be on a consistent basis with 2017 which represents the new organisation structure described in the financial review of Lloyd's Register Group Limited.

Segmental information showing segment result by class of business, segmental net assets and turnover by geographical region is not included since, in the opinion of the Trustees, such an analysis would be seriously prejudicial to the Group's interests.

Expenditure on generating funds

Costs of generating funds include investment management costs and all expenses of the Trading Group including those attributable to public benefit activities but excluding any charitable donations made directly by the Trading Group.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - CONTINUED

6. Breakdown of total funds for 2016

	Trading funds £000	General funds £000	Endowment funds £000	Total funds 2016 £000
Income				
Incoming resources from generated funds				
Income from investments:				
Listed investments	5,608	8,909	—	14,517
Property	4,493	—	—	4,493
Other	755	99	—	854
Activities for generating funds	881,173	—	—	881,173
Total income	892,029	9,008	—	901,037
Expenditure on generating funds				
Investment management costs	(194)	—	(1,025)	(1,219)
Cost of activities for generating funds	(874,409)	—	—	(874,409)
Other finance costs – pensions	(5,753)	—	—	(5,753)
Profit on disposal of discontinued operations	27,664	—	—	27,664
Taxation	(5,333)	—	—	(5,333)
Other	(203)	—	—	(203)
Total costs of generating funds	(858,228)	—	(1,025)	(859,253)
Expenditure on Charitable activities				
Grants:				
Supporting excellent scientific research	—	(10,967)	—	(10,967)
Accelerating the application of research	—	(10,504)	—	(10,504)
Promoting safety and public understanding of risk	—	(11,578)	—	(11,578)
Advancement of skills and education	—	(761)	—	(761)
Total grants	—	(33,810)	—	(33,810)
Direct costs:				
Promoting safety and public understanding of risk	—	(877)	—	(877)
Total expenditure on charitable activities	—	(34,687)	—	(34,687)
Total expenditure	(858,228)	(34,687)	(1,025)	(893,940)
Net Income / (expenditure) before gains on investments	33,801	(25,679)	(1,025)	7,097
Realised gains on disposal of investments	251	(858)	(11,404)	(12,011)
Unrealised gains on investments	39,366	1,026	13,639	54,031
Net Income / (expenditure)	73,418	(25,511)	1,210	49,117
Net interest in the results for the year in joint ventures	(1,173)	—	—	(1,173)
Transfers between funds	(20,162)	20,162	—	—
Foreign exchange differences on translation of net assets of overseas operations	11,324	—	—	11,324
Net actuarial movements on defined benefit pension schemes	(42,502)	—	—	(42,502)
Acquisition of non-controlling interest	736	—	—	736
Tax relating to foreign exchange differences on translation of net assets of overseas operations	(5,056)	—	—	(5,056)
Net movement in funds	16,585	(5,349)	1,210	12,446
Funds brought forward				607,987
Funds carried forward				620,433

7. Analysis of expenditure on charitable activities

	Grants £000	Unwinding of discount £000	Activities undertaken directly £000	Support costs £000	Total 2017 £000	Total 2016 £000
Grant making activities:						
Supporting excellent scientific research	8,455	371	—	585	9,411	10,967
Accelerating the application of research	10,667	182	—	753	11,602	10,504
Promoting safety and public understanding of risk	190	179	—	13	382	11,578
Advancement of skills and education	1,280	—	—	87	1,367	761
	<u>20,592</u>	<u>732</u>	<u>—</u>	<u>1,438</u>	<u>22,762</u>	<u>33,810</u>
Direct costs:						
Promoting safety and public understanding of risk	—	—	754	2	756	877
Total	<u>20,592</u>	<u>732</u>	<u>754</u>	<u>1,440</u>	<u>23,518</u>	<u>34,687</u>

Support costs totalling £1,440,000 (2016: £1,409,000) have been allocated across the Foundation's activities. These include costs associated with IT, HR, finance, property and other central services of the Charity's staff. Included within support costs are staff costs of £1,161,000 (2016: £828,000) and governance costs of £46,000 (2016: £108,000).

Governance costs includes net fees payable to the Foundation's auditor for the audit of the Foundation's annual accounts of £38,000 (2016: £36,000).

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - CONTINUED

8. Grants awarded

Grants are awarded to institutions and fund tuition costs, employment costs or other costs of research. Grants awarded in 2016/17 are analysed by institution below.

	Number of grants	Supporting excellent scientific research £000	Accelerating the application of research £000	Promoting safety and public understanding of risk £000	Advancement of skills and education £000	Total 2017 £000
Health & Safety Executive	1	10,000	—	—	—	10,000
Southampton Solent University	1	117	—	—	—	117
Royal College of Art - Foresight Review: Design for Safety	1	80	—	—	—	80
University of York	1	—	10,000	—	—	10,000
University of Southampton for Monitoring of Temperature, Strain and Corrosion	1	—	600	—	—	600
University College London (Petrus)	1	—	250	—	—	250
MX3D for a Smarter Bridge	1	—	247	—	—	247
Hook Marine Ltd	1	—	45	—	—	45
University of Aberdeen	1	—	2	—	—	2
Polecat Intelligence Ltd UK	1	—	—	100	—	100
Nesta	1	—	—	90	—	90
International Boat Building Training College (Synenosis)	1	—	—	—	900	900
Royal Institution (Christmas Lectures)	1	—	—	—	102	102
IMO International Maritime Law Institute	1	—	—	—	81	81
Plymouth Marine Laboratory	1	—	—	—	75	75
Institution of Engineering & Tech (IET)	1	—	—	—	54	54
Nautical Institute	1	—	—	—	25	25
Royal College of Art	1	—	—	—	20	20
Royal Institution of Naval Architects	1	—	—	—	11	11
Tolani Maritime Institute, India(Univ.Strathclyde)	1	—	—	—	10	10
LSESU Entrepreneurs Society	1	—	—	—	2	2
Grant adjustments*		(1,553)	—	—	—	(1,553)
	21	8,644	11,144	190	1,280	21,258
Impact of discounting grants awarded		(189)	(477)	—	—	(666)
		8,455	10,667	190	1,280	20,592

*Grant adjustments includes the impact of finalising the terms and conditions of the TWI grant awarded in a prior period where the terms of the grant were modified following initial award.

Grants awarded in 2015/2016 are analysed by institution below:

	Number of grants	Supporting excellent scientific research £000	Accelerating the application of research £000	Promoting safety and public understanding of risk £000	Advancement of skills and education £000	Total 2016 £000
The Alan Turing Institute	1	10,000	—	—	—	10,000
Global Young Scientists Summit	1	3	—	—	—	3
Imperial College London	1	75	—	—	—	75
Innovi Business Growth Ltd	1	70	—	—	—	70
Royal Academy of Engineering	1	499	—	—	—	499
University of Southampton(RECOIN)	1	19	—	—	—	19
Arup	1	—	10,000	—	—	10,000
Imperial College London	1	—	59	—	—	59
Wageningen University & Research	1	—	500	—	—	500
Blue Marine Foundation	1	—	—	20	—	20
CHIRP Maritime	1	—	—	60	—	60
National University of Singapore	1	—	—	10,000	—	10,000
Nautical Institute (Alert40)	1	—	—	46	—	46
Royal College of Art	1	—	—	50	—	50
Royal National Lifeboat Institute	1	—	—	1,059	—	1,059
Science Museum	1	—	—	250	—	250
The Conversation	1	—	—	180	—	180
Admiral Makarov SUMIS	1	—	—	—	75	75
Arkwright Scholarships	2	—	—	—	50	50
British Science Association	1	—	—	—	17	17
Children's Radio UK	1	—	—	—	15	15
CIFAL, Scotland	1	—	—	—	6	6
Don Bosco Training Centre	1	—	—	—	20	20
Educational Volunteers Foundation of Turkey	1	—	—	—	132	132
Engineering Development Trust	1	—	—	—	50	50
ERA Foundation	1	—	—	—	14	14
Maritime London Officer Cadets	1	—	—	—	108	108
National Maritime Museum	1	—	—	—	104	104
National Space Centre	1	—	—	—	297	297
Smallpeice Trust (Girls in Engineering)	1	—	—	—	20	20
University College London	1	—	—	—	55	55
University of Birmingham	1	—	—	—	702	702
University of Southampton (Human powered submarine society)	1	—	—	—	4	4
Villiers Park Educational Trust	1	—	—	—	60	60
Grant adjustments		(36)	—	—	(999)	(1,035)
	35	10,630	10,559	11,665	730	33,584
Impact of discounting grants awarded		(548)	(497)	(608)	—	(1,653)
		10,082	10,062	11,057	730	31,931

9. Grants awarded but not paid

	2017 £000	2016 £000
At 1 July	58,042	34,909
Awarded in the period	22,145	32,966
Unwinding of discounting	732	473
Grant adjustments (note 8)	(1,553)	(1,035)
Paid in the period	(13,299)	(9,271)
At 30 June	66,067	58,042

The aging of grants payable is shown in note 21.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - CONTINUED

10. Taxation

The Foundation is a UK registered charity and is not subject to UK corporation tax on its charitable activities.

Many companies and branches within the Trading Group are in jurisdictions where there is no such exemption, and so the overall Group is subject to tax.

	Group	
	2017	2016
	£000	£000
Current tax on profit on ordinary activities		
UK corporation tax	(379)	6,832
Double tax relief	(1,030)	(2,675)
	<u>(1,409)</u>	<u>4,157</u>
Foreign tax	22,288	18,540
	<u>20,879</u>	<u>22,697</u>
Adjustment in respect of prior periods		
• UK corporation tax	(3,883)	670
• Foreign tax	(5,923)	(2,622)
Total current tax	<u>11,073</u>	<u>20,745</u>
Deferred tax		
Origination and reversal of timing differences	(4,264)	(16,981)
Adjustments in respect of previous periods	3,049	1,569
Total deferred tax	<u>(1,215)</u>	<u>(15,412)</u>
Total tax on profit on ordinary activities	<u>9,858</u>	<u>5,333</u>

The standard rate of tax applied to the reported profit on ordinary activities is 19.75% (2016: 20%). The applicable tax rate for UK deferred tax recognition has changed following the substantive enactment of Finance (No.2) Act 2015 and Finance Act 2016 from 20% to 19% from 1 April 2017 and to 17% from 1 April 2020. During the year beginning 1 July 2017, the net reversal of deferred tax assets and liabilities is expected to increase the corporate tax charge for the year by £6.4m (2016: £2.9m). This is due to the reversal of timing differences expected within the next 12 months.

The differences between the total tax charge shown above and the amount calculated by applying the standard rate of UK corporation tax to the profit before tax is as follows:

	Group	
	2017	2016
	£000	£000
Net income	39,635	49,117
Taxation	9,858	5,333
Net income before taxation	<u>49,493</u>	<u>54,450</u>

Profit multiplied by the average standard rate of United Kingdom corporation tax of: 19.75% (2016: 20%)

Effects of:

	9,775	10,890
• Tax exempt profits	(6,475)	(1,644)
• Overseas rate differences	2,440	(715)
• Goodwill amortisation and impairment not deductible for tax purposes	2,948	9,415
• Expenses not deductible for tax purposes	4,254	3,732
• Brought forward unprovided timing differences now recognised in year	(1,180)	(8,685)
• Impact of UK qualifying corporate donations	(4,157)	(3,894)
• Current year unprovided timing differences	1,510	5,797
• Fair value gain on investment property not subject to tax	(2,331)	(5,052)
• Disposal of business not subject to tax	—	(5,533)
• Other taxes	5,675	1,406
• Prior year adjustments	(2,601)	(384)
Group total tax charge for year	<u>9,858</u>	<u>5,333</u>

Deferred tax (assets) / liabilities

	2017 £000	2016 £000
At 1 July (asset) / liability	(15,360)	(184)
Arising in the year	(1,215)	(14,909)
Acquisitions / (disposals)	490	236
Foreign exchange differences	(515)	(503)
At 30 June (asset) / liability	<u>(16,600)</u>	<u>(15,360)</u>
Deferred tax asset	(17,318)	(15,757)
Deferred tax liability (note 22)	<u>718</u>	<u>397</u>
	<u>(16,600)</u>	<u>(15,360)</u>
Deferred tax is recognised as follows:		
Accelerated capital allowances	(759)	(591)
Deferred tax arising in relation to retirement benefit obligations	(7,690)	(8,931)
Tax losses available	(1,747)	(2,925)
Other timing differences	<u>(6,404)</u>	<u>(2,913)</u>
	<u>(16,600)</u>	<u>(15,360)</u>

Deferred tax liabilities on short-term timing differences are recognised whenever the treatment for tax purposes has enabled deductions to be taken in advance of the financial statements.

Deferred tax assets on short-term timing differences and any overseas losses have not been recognised unless the asset is expected to be recovered in the foreseeable future. Deferred tax assets not recognised amount to £59.9m (2016: £61.8m). Unrecognised assets will potentially become recoverable against future profits generated in the relevant overseas operations.

11. Net income / (expenditure) before gains / (losses) on investments

This is stated after charging / (crediting):

	2017 £000	2016 £000
Staff costs	499,290	506,693
Movement in provision for bad debts	(346)	1,790
Net impairment of work in progress (reversal) / expense	(491)	662
Research and development costs	14,479	18,179
(Profit) / loss on disposal of fixed assets	(126)	107
Profit on disposal of operations	—	(27,664)
Amortisation of intangible fixed assets	2,822	3,320
Depreciation	9,627	12,713
Amortisation of goodwill	17,759	19,121
Impairment of goodwill	—	24,635
Rentals payable under operating leases	45,228	41,754
Auditor's remuneration:		
Audit of parent	38	36
Audit of subsidiaries	1,712	1,577
Audit related assurance services	93	147
Tax compliance services	144	66
Foreign exchange loss	481	9,500

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - CONTINUED

12. Employees

	Trading funds £000	General funds £000	Total funds 2017 £000	Total funds 2016 £000
Wages and salaries	407,541	944	408,485	418,386
Social security costs	45,673	95	45,768	44,177
Pension costs (note 24)	44,915	122	45,037	44,130
	<u>498,129</u>	<u>1,161</u>	<u>499,290</u>	<u>506,693</u>

The average number of employees, analysed by function was:

	2017 Number	2016 Number
Charitable activities	17	13
Trading activities - continuing	<u>7,472</u>	<u>8,159</u>
	<u>7,489</u>	<u>8,172</u>

Due to the high number of qualified and skilled staff the SORP's requirement to disclose the number of all Group employees who received emoluments over £60,000 is commercially sensitive to the operations of that Group and is not made here with the agreement of the Foundation's Trustees.

13. Trustees

The Trustees are the directors of the Foundation. The Trustees do not currently receive remuneration in respect of their duties as trustees. No Trustees received reimbursement for out of pocket expenses (2016: £nil). £33,000 of expenses were paid on behalf of Trustees (2016: £nil) in respect of overseas travel expenses to board meetings.

The Foundation maintained throughout the year Trustees' and Officers' liability insurance in respect of itself and its trustees.

14. Intangible fixed assets

	Goodwill £000	Software and other intangibles £000	Total £000
Cost			
At 1 July	224,541	39,035	263,576
Additions	29,214	23,235	52,449
Acquisition of subsidiary undertakings	—	3,699	3,699
Exchange adjustment	7,812	39	7,851
At 30 June	<u>261,567</u>	<u>66,008</u>	<u>327,575</u>
Amortisation			
At 1 July	152,290	9,065	161,355
Provided during the year	17,759	2,822	20,581
Exchange adjustment	5,967	25	5,992
At 30 June	<u>176,016</u>	<u>11,912</u>	<u>187,928</u>
Net book value			
At 30 June 2017	<u>85,551</u>	<u>54,096</u>	<u>139,647</u>
At 30 June 2016	<u>72,251</u>	<u>29,970</u>	<u>102,221</u>

The rights to software intellectual property relating to geological surveys were acquired in September 2013 for £10,193,000. The carrying amount as at 30 June 2017 was £6,488,000 (30 June 2016: £7,625,000) and the software has an estimated remaining useful life of six years.

Other material intangible assets at 30 June 2017 have a net book value of £22,498,000 (2016: £9,070,000) related to the development of a group-wide enterprise resource planning and financial reporting solution and £16,670,000 (2016: £7,478,000) for the development of a new operational system specific to our Marine business. Both assets were still in the course of development as at 30 June 2017, however when they become operational their estimated useful life will be between seven and ten years.

Acquisitions

Seasafe Marine Software & Computation (UK) Limited

On 1 December 2016, the Group acquired a 100% shareholding in Seasafe Marine Software & Computation (UK) Limited (Seasafe). Seasafe specialise in on-board loading and stability software to help customers manage the stability of vessels and offshore structures.

Total consideration was £3.1m consisting of £1.8m of cash consideration, £1.2m deferred consideration and £0.1m of acquisition costs.

The fair value of net assets acquired was £0.2m, giving rise to £2.9m of goodwill.

RTAMO Limited

On 28 October 2016, the Group acquired a 100% shareholding in RTAMO Limited. RTAMO Limited is a software and service business based in Aberdeen.

Total consideration was £0.9m consisting of £0.6m of cash consideration, £0.2m deferred consideration and £0.1m of acquisition costs.

The fair value of net assets acquired was £0.3m, giving rise to £0.6m of goodwill.

Acoura Holdings Limited

On 16 December 2016, the Company acquired a 100% shareholding in the Acoura Group by purchasing the issued share capital of Acoura Holdings Limited. Total consideration was £20.3m consisting of £19.7m of cash consideration and £0.6m of acquisition costs.

The Acoura Group provides risk and compliance services within the food and beverage sector.

The acquisition has been accounted for using the acquisition method of accounting. After the alignment of accounting policies and other adjustments to the book value of acquired assets and liabilities to reflect their fair value, the fair value of net liabilities acquired was £5.4m.

	Book value £000	Fair value adjustment £000	Accounting policy alignment £000	Fair value £000
Intangible fixed assets	570	3,129	—	3,699
Fixed assets	770	—	—	770
Current assets	1,422	—	—	1,422
Cash	667	—	—	667
Current liabilities	(11,395)	—	(51)	(11,446)
Deferred tax liabilities arising on acquired intangibles	—	(516)	—	(516)
	<u>(7,966)</u>	<u>2,613</u>	<u>(51)</u>	<u>(5,404)</u>
Goodwill arising on acquisition				<u>25,668</u>
Total consideration payable				<u>20,264</u>
Consideration analysed as:				
Cash consideration and acquisition expenses				<u>20,264</u>
Total consideration payable				<u>20,264</u>

Fair value adjustments made to the acquired book value reflect previously unrecognised intangible assets in relation to customer relationships which are required to be recognised under Section 19 of FRS 102. The value of these intangible assets has been based upon forecast financial information using a multi-period excess earnings model. The key assumptions regarding intangible asset discount rates, royalty rates, contributory asset charges and terminal growth rates have been based upon market-based information.

Accounting policy alignments adjustments relate to adjustments to employee benefits in relation to accrued paid time off and dilapidation obligations on leasehold properties in line with Group accounting policies.

The useful economic life of the goodwill arising on acquisition is estimated to be 10 years.

The consolidated profit and loss account for the year ended 30 June 2017 includes the result of the Acoura Group since the acquisition date, which is presented as acquired operations and contributed £5.4m of turnover and £0.1m of profit after taxation.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - CONTINUED

15. Tangible fixed assets

	Investment property £000	Land and buildings £000	Leasehold improvements £000	Office fittings and equipment £000	Plant and machinery £000	Computer equipment £000	Motor vehicles £000	Total £000
Cost or valuation:								
At 1 July	109,437	43,260	17,372	38,768	3,657	56,992	5,363	274,849
Additions	—	—	4,556	3,823	258	1,868	320	10,825
Acquisition of subsidiary undertaking	—	606	—	122	—	48	—	776
Transfer*	1,925	(4,758)	—	—	—	—	—	(2,833)
Revaluations	11,521	—	—	—	—	—	—	11,521
Disposals	—	—	(538)	(447)	(76)	(664)	(927)	(2,652)
Exchange differences	—	—	654	564	281	778	316	2,593
At 30 June	122,883	39,108	22,044	42,830	4,120	59,022	5,072	295,079
Depreciation:								
At 1 July	—	24,465	8,711	22,664	2,439	52,598	4,110	114,987
Charged in year	—	728	1,203	3,348	257	3,650	441	9,627
Transfer*	—	(2,833)	—	—	—	—	—	(2,833)
On disposals	—	—	(350)	(315)	(23)	(566)	(785)	(2,039)
Exchange differences	—	—	408	457	88	723	190	1,866
At 30 June	—	22,360	9,972	26,154	2,761	56,405	3,956	121,608
Net book value:								
At 30 June 2017	122,883	16,748	12,072	16,676	1,359	2,617	1,116	173,471
At 30 June 2016	109,437	18,795	8,661	16,104	1,218	4,394	1,253	159,862

*69% (2016: 64%) of the mixed used property is classified as an investment property. The transfer of the net book value between categories is due to an additional 5% of the property being let or marketed to third party tenants.

Investment property

Land and buildings includes freehold property in the United Kingdom with a net book value of £13,570,000 (2016: £16,221,000) and estimated market value of £57,315,000 (2016: £61,291,000).

Investment properties comprise the leased parts of the Trading Group London headquarters at 71 Fenchurch Street, London EC3M 4BS. This property is valued using an external valuation carried out as at 30 June 2017 by the commercial property advisory company CBRE, a member of the Royal Institution of Chartered Surveyors. The property is in mixed functional and investment use. A proportion of 69% (2016: 64%) is deemed an investment, based on floor space let or marketed to third party tenants.

The Group leases the freehold property to a number of tenants. Lease agreements are up to 25 years and typically include rent review clauses. At the balance sheet date, the Group and Company had contracted with tenants for the following future minimum lease payments:

	Group and Company	
	2017 £000	2016 £000
Within one year	4,945	3,612
In the second to fifth years inclusive	19,872	11,028
After five years	22,940	9,597
	<u>47,757</u>	<u>24,237</u>

Heritage assets

The group has accumulated a collection of heritage assets as described in the accounting policies. As a result of their age, and in many cases unique nature, reliable historic cost information is not available for these assets and could not be obtained except at disproportionate expense. The latest insurance valuation of these assets was £7.0m.

16. Investments

	2017 £000	2016 £000
Listed investments at market value comprise:		
Fixed Interest – UK	174,044	172,158
Fixed Interest – Overseas	1,330	1,420
Equities – UK	62,744	64,597
Equities – Overseas	109,363	108,721
Index linked – Overseas	—	1,832
Pooled Funds – UK	102,145	13,346
Pooled Funds - Overseas	22,640	71,002
Derivatives	(61)	(2,637)
Cash Instruments	8,243	4,844
	480,448	435,283
Cash	6,067	5,869
	486,515	441,152
Unlisted investments	1,618	3,697
Long-term loans	301	356
	488,434	445,205
Investments in joint ventures: share of net assets	3,258	282
	491,692	445,487

Listed investments and cash held by investment managers

	2017 £000	2016 £000
At 1 July	435,283	400,998
Other additions at cost	249,919	196,298
Disposals proceeds	(240,041)	(178,771)
Realised gain / (loss) on disposals	11,064	(12,011)
Unrealised gains	24,223	28,769
At 30 June	480,448	435,283
Cash held by investment managers and accrued interest	6,067	5,869
	486,515	441,152

Subsidiaries

A complete list of the subsidiaries and joint ventures is included in note 32.

Joint ventures

The following entities are treated as joint ventures of the Group:

Company	Share of company owned	Country of incorporation and registration	Principal activity
Lloyd's Register Apave Limited	51%	United Kingdom	Engineering inspection
LR Apave IES Limited	51%	United Kingdom	Engineering inspection
Lloyd's Maritime Information Services Ltd	50%	United Kingdom	Publishing
Common Structural Rules Software LLC	50%	United States of America	Software development
Hanseaticsoft GmbH	24%	Germany	Marine software

During the year the company acquired a 24% investment in Hanseaticsoft for cash consideration of £3.1 million.

Lloyd's Register Apave Limited and LR Apave IES Limited are treated as joint ventures as the shareholders' agreements that are in place means that Lloyd's Register Group Limited does not have overall control of the company despite the nominal level of ownership.

The following shows the share of net assets recognised by the Group for these entities, and the investments held by Lloyd's Register Group Limited.

	Group 2017 £000	2016 £000
Lloyd's Register Apave Limited	66	63
LR Apave IES Limited	—	—
Lloyd's Maritime Information Services Ltd	115	115
Common Structural Rules Software LLC	—	104
Hanseaticsoft GmbH	3,077	—
	3,258	282

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - CONTINUED

At 30 June 2017 the Common Structural Rules Software LLC joint venture had net liabilities. The Group's share of the net liabilities amounted to £35,000 (2016: £13,000 in respect of LR Apave IES Limited) and is recognised within other provisions.

17. Trading Group

The Foundation has a mixed motive investment in one trading subsidiary, Lloyd's Register Group Limited which has its own global group of trading companies (the Trading Group). The Foundation owns 100% of the issued share capital of Lloyd's Register Group Limited. The Trading Group's principal activities are the provision of independent inspection and compliance services to clients in capital intensive industries, in particular marine and energy industries.

The summarised financial information of the consolidated Trading Group position is provided below, as per the Trading Group consolidated accounts for the year ended 30 June 2017.

	2017 Total £000	2016 Total £000
Turnover	887,490	881,173
Cost of sales	(656,957)	(625,176)
Gross profit	230,533	255,997
Administrative expenses	(213,939)	(249,328)
Administrative expenses before restructuring costs and impairments	(181,266)	(203,190)
Operating profit before restructuring costs, profit on disposal and impairments	49,267	52,807
Restructuring costs	(32,673)	(21,503)
Impairment of goodwill	—	(24,635)
Profit on disposal of operations	—	27,664
Operating profit	16,594	34,333
Share of net operating loss of joint ventures	(795)	(1,173)
Net investment income	22,901	50,171
Other finance costs	(5,564)	(5,753)
Profit on ordinary activities before taxation	33,136	77,578
Tax on profit on ordinary activities	(9,858)	(5,333)
Profit for the financial year	23,278	72,245
	2017 £000	2016 £000
Assets	885,727	821,148
Liabilities	(454,590)	(447,846)
Net assets	431,137	373,302
Shareholder's funds	434,764	375,954
Minority interests	(3,627)	(2,652)
	431,137	373,302

Restructuring costs within administrative expenses

The Trading Group has continued to incur material administrative expenses associated with its restructuring and development programs. The costs related to the research and implementation phases of major IT development projects (£6.5m (2016: £5.9m)) costs for redundancy and severance incurred following the reduction in the size of some of the Group's key markets (£18.6m (2016: £14.9m)), creation of an onerous lease provision £7.0m (2016: £nil) and one-off set-up costs of finalising the establishment of a shared service centre in Asia (£0.6m (2016: £0.7m)).

Profit on disposal of operations

In the prior year the Trading Group completed the sale of its Transportation business to Ricardo plc resulting in a profit on disposal of £27,664,000.

18. Work in progress

	2017 £000	2016 £000
Work in progress	—	34,567
Less: amounts paid on account	—	(31,026)
	—	3,541

At 30 June 2017 invoices on account for the Group exceeded work in progress. The net liability of £993,000 has been reclassified to Creditors: amounts falling due within one year, where it is disclosed as Invoices on account net of work in progress.

19. Debtors

	2017 £000	2016 £000
Trade debtors	170,321	161,652
Other debtors	9,999	10,899
Prepayments and accrued income	20,733	23,766
Taxation recoverable	26,348	14,789
	<u>227,401</u>	<u>211,106</u>

20. Creditors: amounts falling due within one year

	2017 £000	2016 £000
Payments received on account	2,178	5,989
Invoices on account net of work in progress	993	—
Trade creditors	25,732	19,410
Grants payable	17,746	15,135
Other creditors	69	2,366
Other taxation and social security	17,966	19,599
Taxation	12,580	17,411
Accruals and deferred income	84,264	62,906
	<u>161,528</u>	<u>142,816</u>

21. Creditors: amounts falling due after one year

	2017 £000	2016 £000
Grants payable	48,321	42,907
	<u>48,321</u>	<u>42,907</u>

The timing of grants payable is shown in the table below:

	2017 £000	2016 £000
Due within one year	17,746	15,135
Due within 1-2 years	29,465	13,702
Due within 2-5 years	20,076	26,772
Due within 6-10 years	1,236	4,956
Impact of discounting	(2,456)	(2,523)
	<u>48,321</u>	<u>42,907</u>
Net grants payable	<u>66,067</u>	<u>58,042</u>

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - CONTINUED

22. Provisions for liabilities

Analysis of other provisions:	Legal claims £000	Acquisition related £000	Employee related £000	Deferred Taxation £000	Onerous lease £000	Other £000	Total £000
At 1 July 2016	5,120	78	12,969	397	—	7,421	25,985
Exchange revaluation	—	3	329	—	—	106	438
Charged / (credited) to Statement of Financial Activities	1,706	1,216	20,099	(195)	7,011	3,207	33,044
Utilised	(736)	—	(14,406)	—	—	(1,446)	(16,588)
Released	—	—	—	—	—	(1,000)	(1,000)
Acquisition of subsidiary undertaking	—	—	—	516	—	—	516
At 30 June 2017	6,090	1,297	18,991	718	7,011	8,288	42,395

Legal claims: In the normal course of business, Lloyd's Register group entities may receive claims for compensation from clients. Substantial insurance cover is carried for this purpose. Where appropriate, provision is made for the uninsured costs arising from such claims. Adequate provision has been made for the claims notified. The timing on these liabilities is dependent upon the conclusion of the continuing legal proceedings which typically span a number of years.

Acquisition-related: Provisions relating to amounts payable in future periods for acquisitions completed by the balance sheet date. Settlement of these provisions is expected within three years.

Employee related: Provision is made for redundancy and relocation costs with respect to the restructuring programmes in addition to certain employee benefits and repatriation of expatriate workers and other employment related costs. Settlement of these provisions is expected within five years.

Deferred taxation: Liabilities are recognised in relation to deferred tax in respect of all timing differences that have originated but not reversed at the balance sheet date where transactions or events have occurred at that date that will result in an obligation to pay more tax.

Onerous lease: Provision is made for the future anticipated rent expense and related costs of leasehold property (net of estimated sublease income) where the space is vacant or currently not planned to be used for ongoing operations. Settlement of these provisions is expected within 15 years.

Other: Included in this category are provisions maintained to meet contractual obligations to perform restoration on leasehold properties on exit. In addition, provision is made for losses on long-term contracts and share of net liabilities of JVs and other project related costs. With the exception of a small number of leasehold properties, settlement of these provisions is expected within 10 years.

23. Financial instruments

The carrying values of the Group financial assets and liabilities are summarised by category below.

	2017 £000	2016 £000
Financial assets		
Measured at fair value through profit and loss		
Investments in listed investments (note 16)	472,205	430,439
Measured at cost less impairment		
Unlisted investments (note 16)	1,618	3,697
Cash instruments (note 16)	14,310	10,713
Measured at undiscounted amount receivable		
Trade and other debtors (note 19)	180,320	172,551
Long-term loans (note 16)	301	356
	<u>668,754</u>	<u>617,756</u>
	2017 £000	2016 £000
Financial liabilities		
Measured at amortised cost		
Grant liabilities (note 21)	66,067	58,042
Measured at undiscounted amount payable		
Trade and other creditors (note 20)	25,801	21,776
	<u>91,868</u>	<u>79,818</u>

The Group's gains and losses in respect of financial instruments are summarised in note 11 (impairment losses).

The fair value of financial assets is measured using quoted market prices in an active market.

The Group has entered into call options that enable it to increase its interest in an unlisted investment. At 30 June 2017, the fair value of the call options was £nil.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - CONTINUED

24. Retirement benefits

The Group operates pension schemes worldwide including defined benefit final salary schemes. Assets of certain schemes are held separately from those of the Group ('funded' schemes) whilst others are unfunded.

The main funded scheme, the Lloyd's Register Superannuation Fund Association was closed to future accrual from 1 October 2010. The scheme continues to fund benefits accrued to that date, and valuations of the scheme are carried out on a triennial basis. The most recent completed valuation was carried out as at 31 March 2016. This showed that the funding position of the scheme had declined from the previous valuation. The funding shortfall was £81m for the 2016 valuation, an increase from £59m in the previous valuation's Recovery Plan as at 31 March 2013. Lloyd's Register Group Limited has placed investments with a market value of £85m in an escrow account as surety.

In the year ended 30 June 2017, special contributions of £6.03m (2016: £3.75m) were paid.

The disclosures have been calculated by qualified independent actuaries, based on the assumptions of the directors and the most recent full actuarial valuations for funded schemes (completed at various dates) and updated to 30 June 2017.

The value of the defined benefit liabilities has been measured using the projected unit method.

The financial assumptions used at 30 June 2017 and 2016 for the different areas are summarised below.

	UK ⁽¹⁾		Japan ⁽²⁾		Eurozone ⁽³⁾		Rest of the World ⁽⁴⁾	
	2017	2016	2017	2016	2017	2016	2017 ⁽⁵⁾	2016 ⁽⁵⁾
Liabilities:	%	%	%	%	%	%	%	%
Rate of price inflation	3.1	2.7	1.0	1.0	1.8	1.8	2.0 to 5.0	2.0 to 5.0
Rate of increase in salaries	n/a	n/a	1.8	1.8	1.8	1.8	4.4 to 7.0	4.4 to 7.0
Rate of increase in pensions	Various	1.7	0.8	0.8	Nil to 1.8	Nil to 1.8	1.8 to 5.0	1.7 to 5.0
Discount rate	2.55	2.9	0.7	0.4	1.5 to 2.3	1.1 to 2.2	2.8 to 7.1	2.0 to 7.8

⁽¹⁾ Main United Kingdom funded scheme.

⁽²⁾ Japanese unfunded liability.

⁽³⁾ The Eurozone rates have been used to assess the overall deficit within the separate funded schemes in Europe.

⁽⁴⁾ This represents a grouped disclosure for the remaining liabilities.

⁽⁵⁾ Represents the range of assumptions used for the countries covered in the region.

For mortality tables, the Group has used various different tables appropriate to the territory under review. The most significant contribution to the Group pension liability is from the United Kingdom, where tables based on the Self-administered pension scheme (SAPS) light table projected from 2002 have been used, with an allowance for future improvements based on the Continuous Mortality Investigation (CMI) 2015 long-term projections adjusted by 110% for males and 105% for females, with a long-term trend of 1.25% per annum.

The assumptions shown above are arrived at following discussion with, and in accordance with advice received from the scheme actuaries.

Other long-term employee benefits

In addition to post employment defined benefit pension schemes the Group also contributes to other long-term schemes which provide the following benefits in the below countries:

- UK: the Executive Directors and Executive Leadership team participate in a Long Term Incentive Plan described in more detail in the Remuneration Committee report within the Lloyd's Register Group Limited accounts.
- India: provision for a statutory lump sum payable to qualifying employees on leaving service
- India: provision of medical insurance for employees who retired before 31 May 2017
- USA: provision of medical insurance for retired employees subject to age qualification restrictions.

Amounts recognised in the consolidated balance sheet:

	United Kingdom		Japan		Eurozone		Rest of the World		Total	
	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016
	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m
Cash and cash equivalents	9.0	15.8	—	—	1.9	1.4	4.1	3.9	15.0	21.1
Equity instruments	215.0	182.9	—	—	110.1	82.2	29.1	26.4	354.2	291.5
Debt instruments	738.8	708.8	—	—	95.3	105.0	25.6	24.4	859.7	838.2
Real estate	—	—	—	—	0.7	1.2	—	—	0.7	1.2
Other	—	1.3	—	—	—	—	13.8	14.6	13.8	15.9
Market value of assets	962.8	908.8	—	—	208.0	189.8	72.6	69.3	1,243.4	1,167.9
Present value of scheme liabilities	(970.1)	(933.3)	—	—	(241.5)	(228.8)	(163.1)	(153.4)	(1,374.7)	(1,315.5)
	(7.3)	(24.5)	—	—	(33.5)	(39.0)	(90.5)	(84.1)	(131.3)	(147.6)
Present value of unfunded liabilities	(10.1)	(9.6)	(58.2)	(63.3)	(50.5)	(49.1)	(10.6)	(10.8)	(129.4)	(132.8)
Net pension liability	(17.4)	(34.1)	(58.2)	(63.3)	(84.0)	(88.1)	(101.1)	(94.9)	(260.7)	(280.4)

The net pension liability is reported on the balance sheet as:

	2017	2016
	£m	£m
Pension surplus	8.1	8.2
Pension liability	(268.8)	(288.6)
Net pension liability	(260.7)	(280.4)

Amounts recognised within income and expenditure (statement of financial activities):

	2017	2016
	£m	£m
Current service cost	19.6	14.7
Past service cost	—	0.4
Curtailment gains	(2.6)	—
Administrative expenses	2.0	1.9
Total amount included under staff costs	19.0	17.0
Interest cost on schemes' liabilities	37.7	43.9
Interest income on schemes' assets	(32.1)	(38.1)
Total amount included under Other finance costs	5.6	5.8

In addition, there is a charge in respect of contributions to defined contribution plans of £26.0m (2016: £27.0m).

The actual return on scheme assets was £96.1m (2016: £112.3m).

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - CONTINUED

Amounts recognised in the Consolidated Statement of Comprehensive Income (statement of financial activities):

	2017 £m	2016 £m
Gain on pension scheme assets	64.0	74.2
Experience gains	6.6	8.2
Change in assumptions	(44.9)	(124.9)
Actuarial gain / (loss)	<u>25.7</u>	<u>(42.5)</u>

Changes in the present value of the defined benefit obligations are as follows:

	2017 £m	2016 £m
Opening defined benefit obligation	(1,448.3)	(1,262.2)
Current service cost	(19.6)	(14.7)
Past service cost	—	(0.4)
Curtailments	2.6	—
Member contributions	(0.9)	(0.9)
Interest cost	(37.7)	(43.9)
Actuarial loss	(38.3)	(116.7)
Exchange adjustments	(21.7)	(64.4)
Benefits paid	59.8	54.9
Closing defined benefit obligation	<u>(1,504.1)</u>	<u>(1,448.3)</u>

Changes in the market value of plan assets are as follows:

	2017 £m	2016 £m
Opening market value of plan assets	1,167.9	1,059.5
Expected return on plan assets	32.1	38.1
Benefits and expenses paid	(61.7)	(56.8)
Employer contributions	23.3	19.0
Member contributions	0.9	0.9
Actuarial gain on assets	64.0	74.2
Exchange adjustments	16.9	33.0
Closing market value of plan assets	<u>1,243.4</u>	<u>1,167.9</u>

25. Contingent liabilities

	2017 £000	2016 £000
In respect of bank guarantees	9,949	12,143
Escrow account for UK Pension Scheme	84,645	84,928
Other	<u>1,711</u>	<u>3,961</u>
	<u>96,305</u>	<u>101,032</u>

The Group has issued guarantees to its customers and other stakeholders in relation to its contractual operations in compliance with local legislation and industry practice. The Directors do not assess the likelihood of transferring economic benefits in respect of these guarantees to be probable. No associated liability has been recognised on the Group's Consolidated Balance Sheet.

Due to the funding shortfall on the main defined benefit scheme in the UK, part of Lloyd's Register Limited's portfolio of listed investments was transferred to an escrow account during the year ended 30 June 2011, the beneficiary of which is the Lloyd's Register UK Pension Scheme. Subject to the results of future pension scheme valuations, amounts may be paid out of this escrow account to make good the deficit in future periods. The escrow arrangement will terminate no later than 30 June 2023, when any remaining balance will revert to Lloyd's Register unencumbered.

26. Operating lease commitments

At 30 June 2017, the Group had total future lease payments under non-cancellable operating leases as follows:

	Land and buildings		Other equipment	
	2017 £000	2016 £000	2017 £000	2016 £000
Operating leases which expire:				
Within one year	22,294	21,953	9,659	9,810
Within two to five years	53,256	40,631	12,980	13,720
Thereafter	52,192	54,933	94	126
	<u>127,742</u>	<u>117,517</u>	<u>22,733</u>	<u>23,656</u>

27. Funds

Trading funds are the retained reserves of the Trading Group, and include that Trading Group's pension deficit.

	Brought forward £000	Incoming resources £000	Resources expended £000	Other movements £000	Total 2017 £000
Trading funds	373,303	898,556	(890,760)	50,038	431,137
Unrestricted funds - general funds	12,180	9,616	(23,518)	5,726	4,004
Endowment funds:					
Expendable endowment	234,950	—	(1,067)	28,761	262,644
	<u>620,433</u>	<u>908,172</u>	<u>(915,345)</u>	<u>84,525</u>	<u>697,785</u>

Other movements include realised and unrealised gains and losses on investment assets and also include transfers between funds, foreign exchange differences on the translation of net assets in overseas operations, and actuarial movements relating to defined benefit pension schemes.

Transfers between funds comprise a gift from the Trading Group to the Foundation, share capital issued by the trading group and interest charged on a loan issued from LR Foundation to Lloyd's Register Group Limited.

In September 2012, the Trading Group transferred a portfolio of investments to the Foundation, with a market value of £206.4m. The transfer was made as a gift of an expendable endowment. The gift also contained a condition that the Foundation must agree to keep £100.0m of that sum as a contingent asset of the Trading Group's UK pension scheme which has been extended until June 2020. During that period the monies can only be transferred to the Pension Scheme in the event of the insolvency of the Trading Group.

28. Revaluation reserve

	Brought forward £000	Unrealised gains arising in year £000	Released from revaluation reserve in period and other movements £000	Total 2017 £000
Trading funds – listed investments	27,044	4,341	(4,599)	26,786
Trading funds – investment property	51,657	11,521	—	63,178
Unrestricted – general funds	—	984	940	1,924
Endowment funds:				
Expendable endowment	20,225	18,898	(5,484)	33,639
	<u>98,926</u>	<u>35,744</u>	<u>(9,143)</u>	<u>125,527</u>

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - CONTINUED

29. Fund distribution

	Trading funds £000	Unrestricted funds £000	Endowment funds £000	Total 2017 £000	Total 2016 £000
Non-current assets	506,964	60,586	262,644	830,194	731,496
Current assets	378,762	9,862	—	388,624	385,150
Creditors: amounts falling due within one year	(143,265)	(18,263)	—	(161,528)	(138,783)
Creditors: amounts falling due after one year	—	(48,321)	—	(48,321)	(42,907)
Provisions	(42,395)	—	—	(42,395)	(25,985)
Pension deficit	(268,789)	—	—	(268,789)	(288,538)
Inter-fund balance	(140)	140	—	—	—
	<u>431,137</u>	<u>4,004</u>	<u>262,644</u>	<u>697,785</u>	<u>620,433</u>

30. Reconciliation of operating surplus to net cash inflow from operating activities

	2017 £000	2016 £000
Net incoming resources before transfers and other recognised gains and losses	(7,173)	7,097
Pension interest cost	5,564	5,753
Profit on disposal of discontinued operations	—	(27,664)
(Profit) / loss on disposal of fixed assets	(126)	107
Taxation	9,858	5,333
Exchange adjustment	9,914	33,645
Depreciation	9,627	12,713
Amortisation and impairment charges	20,581	47,076
Decrease / (increase) in work in progress	3,541	(3,782)
Decrease / (increase) in debtors	(1,942)	3,828
Increase / (decrease) in creditors	17,230	(747)
Increase in provisions	14,434	3,752
Foreign tax paid	(24,648)	(34,781)
Tax received	1,748	3,110
Defined benefit contributions in excess of funds charges	(1,734)	(4,098)
Curtailment gains	(2,600)	—
Investment income	(20,682)	(19,855)
Impairment of unlisted investment	3,874	—
Cash generated by operations	<u>37,466</u>	<u>31,487</u>

Cash at bank and in hand includes cash held in local bank accounts in countries where exchange controls or other legal restrictions mean the balances are not available for general use by the Company or other Group subsidiaries. In total, £17.8m of cash was held by entities which cannot be remitted to other Group entities. In addition to these balances, the immediate movement of cash assets held by other Group entities is subject to compliance with local regulation and legal restrictions; however the Group does not consider this cash unavailable for use by the Group.

31. Related parties

The company has taken advantage of the exemption in Financial Reporting Standard 102, whereby transactions with fellow subsidiary companies ultimately 100% owned by the same parent are not required to be disclosed.

The Group defines its key management personnel as the Board of Directors and the Executive Leadership Team. The total remuneration for key management personnel for the period totalled £3,036,000 (2016: £8,578,000).

The following transactions took place between Lloyd's Register Group Limited undertakings in which the Group holds less than 100%:

	Turnover arising from trading with other LR Group companies £'000	Operating costs charged by LR Group companies £'000	Amounts owed (to) / from Group companies £'000
Subsidiaries			
Lloyd's Register Industrial Services (India) Pvt Ltd	—	(11)	—
Lloyd's Register International (Thailand) Ltd	54	(699)	(3,572)
Lloyd's Register Middle East LLC Abu Dhabi	41	(18)	(105)
Lloyd's Register Oman LLC	309	(1,221)	523
Lloyd's Register Qatar LLC	753	(1,573)	(9)
Lloyd's Register Technical Services Sdb Bhd	119	(1,838)	950
LRQA (Shanghai) Co Ltd	590	(1,772)	(592)
Senergy International Sdn Bhd	1,114	(539)	(4,148)
Senergy Global Resources Sdb Bhd	537	(19)	(224)
Joint ventures			
Lloyd's Register Apave Limited	—	(203)	(9)
Lloyd's Register Apave IES Limited	—	(399)	—

During the year the Group has increased its investment in Common Structural Rules Software LLC from \$17,025,000 to \$17,875,000.

The Company provides administrative services to the Group's pension schemes. The following transactions took place between Lloyd's Register Group Limited and Lloyd's Register Superannuation Fund Association

	2017 £000	2016 £000
Administrative services provided	468	387
Administrative services payable	39	39

The charity awarded a grant of £600,000 in the 2013/14 year to the Worshipful Company of Shipwrights where Lambros Varnavides serves as a member of the Finance Committee. The interest was disclosed before the grant was made and Mr Varnavides did not participate in the grant making decision. Of the grant awarded, £279,000 (2016: £425,000) was outstanding as at 30 June 2017.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - CONTINUED

32. Group companies

The following are the subsidiaries and joint ventures of the Group at 30 June 2017. Details are given of the principal country of operation. The equity share capital of these entities is wholly owned by the Group except where its percentage interest is shown otherwise. All companies are incorporated in their principal country of operation except where stated.

Company	Country of Origin	Registered Address	% of Ownership
Classification and Quality Services Ltd	UK		100
Classification Holdings Ltd	UK		100
Knowledge Based Management Ltd (dissolved on 4 July 2017)	UK		100
Lloyd's Maritime Information Services Ltd	UK		50
Lloyd's Register Apave Limited	UK		51
LR Apave IES Limited	UK		51
Lloyd's Register Asia ¹	UK		100
Lloyd's Register Asia Trustees Limited ¹	UK		100
Lloyd's Register Consulting - Energy Limited	UK		100
Lloyd's Register Central and South America Ltd	UK		100
Lloyd's Register EMEA ¹	UK		100
Lloyd's Register EMEA Trustees Ltd ¹	UK		100
Lloyd's Register GMT Ltd	UK		100
Lloyd's Register Group Limited	UK		100
Lloyd's Register Group Services Limited	UK		100
Lloyd's Register Inspection Ltd ¹	UK		100
Lloyd's Register International	UK		100
Lloyd's Register Limited	UK		100
Lloyd's Register Nominee 1 Ltd	UK		100
Lloyd's Register Nominee 2 Ltd	UK		100
Lloyd's Register Quality Assurance Ltd ¹	UK		100
Lloyd's Register Superannuation Trustees Ltd	UK		100
Lloyd's Register Verification Ltd ²	UK	71 Fenchurch Street, London EC3M 4BS, UK	100
LR Senergy Limited	UK		100
Seasafe Marine Software & Computation (UK) Ltd	UK		100
Lloyd's Register Drilling Integrity Services (UK) Ltd	UK		100
Lloyd's Register Finance Limited (formerly Senergy Technology Limited)	UK		100
Senergy Holdings Ltd	UK		100
Senergy Trustees Limited	UK		100
Senergy Wells Limited	UK		100
Senergy (GB) Limited	UK		100
Senergy Development Solutions Limited	UK		100
Interactive Petrophysics Limited	UK		100
Senergy Oil & Gas Limited	UK		100
Senergy Survey & Geoen지니어ing Limited	UK		100
Senergy Resources Limited	UK	Kingswell Causeway, Prime Four Business Park, Kingswell, Aberdeen, AB15 8PU, Scotland	100
Senergy Group Limited	UK		100
Senergy Software Limited	UK		100
Senergy Limited	UK		100
Senergy Aligned Services Limited	UK		100
Senergy Alternative Energy Limited (dissolved on 29 August 2017)	UK		100
Senergy France Limited (dissolved on 29 August 2017)	UK		100
Floyd and Associates Limited	UK		100
Isis Energy Limited (dissolved on 29 August 2017)	UK		100
Teman Limited (dissolved on 4 July 2017)	UK		100
Floyd and Associates Holdings Limited (dissolved on 29 August 2017)	UK		100
RTAMO Limited	UK	7 Bon Accord Square, Aberdeen, AB11 6DJ, Scotland, UK	100
Senergy Econnect Limited (dissolved on 5 September 2017)	UK		100
Senergy LEA Limited (dissolved on 29 August 2017)	UK		100
Leading Edge Advantage (Sustainment) Limited (dissolved on 29 August 2017)	UK		100
Leading Edge Advantage International Limited	UK		100
Acoura Holdings Ltd	UK	2 Temple Back East, Temple Quay, Bristol, BS1 6EG, UK	100
Acoura Certification Ltd	UK		100
Acoura Marine Ltd	UK		100
Acoura Ltd	UK		100
SFQC Ltd	UK		100
Food Certification Scotland Ltd	UK		100
Food Certification International Ltd	UK	50 Lothian Road, Festival Square, Edinburgh, EH3 9WJ, Scotland, UK	100
Acoura Compliance Ltd	UK	Perry Scott Nash House, 2 Arlington Business Park, Stevenage, Herts, SG1 2FS, UK	100
Acoura Consulting Ltd	UK		100
Perry Scott Nash Training Ltd	UK		100
71FS Insurance Company Limited	GUERNSEY	Polygon Hall, Le Marchant Street, St Peter Port, GY1 4HY, Guernsey	100
Lloyd's Register Employment Services Limited	GUERNSEY	Heritage Hall, La Marchant Street, St Peter Port, GY1 4HY, Guernsey	100
Lloyd's Register Drilling Integrity Services Australia Pty Ltd	AUSTRALIA	Level 1, 503 Murray Street, Perth WA 6000, Australia	100
Senergy Australia Pty Limited	AUSTRALIA	Stannards Accountants & Advisors Pty Ltd, Level 1, 60 Toorak Road, South Yarra, VIC 3141, Australia	100
Senergy Econnect Australia Pty Limited	AUSTRALIA	Level 1, 60 Toorak Road, South Yarra VIC 3141, Australia	100
Lloyd's Register Bangladesh Pvt Ltd	BANGLADESH	11 th Floor, 9 Mohakhali C/A, Dkaka – 1212, Dhaka, Bangladesh	100

Company	Country of Origin	Registered Address	% of Ownership
Lloyd's Register Belgie vzw	BELGIUM	Lloyd's Register Belgie VZW, Rijnkaai 37, 20000 Antwerp, Belgium	100
Lloyd's Register Do Brasil Ltda	BRAZIL	Rua da Gloria, 311-11, Andar, Rio de Janeiro, RJ, 20.241.180, Brazil	100
Lloyd's Register Serviços de Integridade de Perfuração Ltda	BRAZIL	Rua do Camo no 7, 18 Andar, Rio de Janeiro, Brazil	100
WEST Services Tecnicos do Brasil Ltda	BRAZIL	Rua do Camo no 7, 18 Andar, Rio de Janeiro, Brazil	100
Lloyd's Register Quality Assurance Canada Limited	CANADA	1459 Hollis Street Halifax, Nova Scotia B3J 1V1 Canada	100
Lloyd's Register Drilling Integrity Services Canada Ltd	CANADA	1900, 520 - 3rd AVE SW Calgary AB T2P 0R3 Canada	100
Lloyd's Register Energy Canada Ltd	CANADA	Suite 400, 138 4th Avenue SE, Calgary AB T2G 4Z6, Canada	100
Lloyd's Register Canada Limited	CANADA	812 Queen Square, 45 Alderney Drive, Dartmouth NS B2Y 2N6, Canada	100
MARTEC Limited	CANADA	1888 Brunswick Street, Suite 400, Halifax NS B3J 3J8, Canada	100
Lloyd's Register Classification Society (China)Co Ltd	CHINA	19th Floor, 550 Yan An dong Road, Huangpu District, Shanghai, China	100
Lloyd's Register Industrial Technical Services (Shanghai) Co. Ltd	CHINA	20th Floor, Ocean Towers, No 550 Yan An Dong Road, Huang District, Shanghai, China	100
LRQA (Shanghai) Co Ltd	CHINA	1002, Building E, Global Trade Centre, No 36, North Third Ring Road, East, Beijing, China	82
Lloyd's Register Consulting Energy Inc	CHINA	Room805, Tower E, Global Trade Center, 36 North Third Ring Road East, Beijing, 100013, P.R. China	100
Lloyd's Register Central and South America (Curaçao) NV	CURAÇAO	Wilhelminalaan 13, Curaçao	100
Lloyd's Register Denmark Holdings ApS	DENMARK	Strandvejen 104 A, 2nd Floor, DK-2900, Hellerup, Denmark	100
Lloyd's Register Consulting - Energy A/S	DENMARK	Strandvejen 104 A, 2nd Floor, DK-2900, Hellerup, Denmark	100
Lloyd's Register Egypt LLC	EGYPT	Apartment no 303-3rd Floor, 13 Ramo Gardens Street – EL Nasr Road, Nasr City, Cairo, Egypt	100
Lloyd's Register Quality Assurance France SAS	FRANCE	Tour Societe Suisse, 1, bld Vivier Merle, 69003, Lyon, France	100
Lloyd's Register Deutschland GmbH	GERMANY	Lloyd's Register EMEA, Am Sandtorkai 31, D-20457, Hamburg, Germany	100
Hanseaticsoft GmbH	GERMANY	Frankenstraße 29, 20097 Hamburg, Germany	24
Hellenic Lloyd's SA	GREECE	87 Akti Miaouli, Piraeus, 18538, Greece,	100
Lloyd's Register Italia S.R.L	ITALY	Via Sottoripa 1A/112 16124 Genova GE, Italy	100
Lloyd's Register Quality Assurance Italy Srl	ITALY	Piazza della Vittoria 6, 16121, Genova, Italy	100
Lloyd's Register Consulting - Energy Private Ltd	INDIA	503, 5th Floor, Nitco Biz Park 1, Plot No C/19, Road No 16-U, Eagle Estate, MIDC, Thane (W), Maharashtra, 400604, India	100
Lloyd's Register Industrial Services (India) Pvt Ltd	INDIA	63-64 Kalpataru Square, 6th Floor, Kondivita Lane, Off Andheri-Kurla Road, Andheri (E), Mumbai, 400 059, India	51
PT Lloyd's Register Indonesia	INDONESIA	Menara Dea Tower 1, 12th Floor, JL Mega Kuningan Barat IX Kav, E4.3 No1, Kawasan Mega Kuningan, Jakarta, 12950, Indonesia	100
Lloyd's Register Japan Yugen Kaisha	JAPAN	Queen's Tower A, 2-3-1 Minatomirai, Nishi-Ku, Yokohama	100
Lloyd's Register Kazakhstan LLP	KAZAKHSTAN	1/1 Zhandosov Street, Business Centre "Success", 1st Floor, Almaty, 050008, Kazakhstan	100
Lloyd's Register Quality Assurance (Korea) Ltd	KOREA	17th Floor, Sinsong Building, 25-4 Yeouido-dong, Yeoongdeungpo-gu, Seoul, 150-711, Korea	100
LRQA Lietuva UAB	LITHUANIA	Lvovo Str 25, Vilnius, LT-09320, Lithuania	100
Lloyd's Register Drilling Integrity Services International (L) Ltd	MALAYSIA	Lot 2&3, Level 3, Wisma Lazenda, Jalan Kemajuan, 87000 Federal Territory of Labuan, Malaysia	100
Lloyd's Register of Shipping (Malaysia) Bhd	MALAYSIA	Suite 21-04 Level 21, Menara Ten & Tan, 207 Jalan Tun Razak, 50400, Kuala Lumpur, Malaysia	100
Lloyd's Register Technical Services Sdn Bhd	MALAYSIA	Suite 21-04 Level 21, Menara Ten & Tan, 207 Jalan Tun Razak, 50400, Kuala Lumpur, Malaysia	49
Senenergy International Sdn Bhd	MALAYSIA	10th Floor, Menara Hap Seng, No 1& 3,	49

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - CONTINUED

Company	Country of Origin	Registered Address	% of Ownership
Senergy Global Resources Sdn Bhd	MALAYSIA	Japan P Ramlee, 50250, Kuala Lumpur, Malaysia Level 10, Menara LGB, No 1, Jalan Wan Kadir, Taman Tun Dr Ismail, 6000 Kuala Lumpur, Malaysia	49
Lloyd's Register Energy & Transportation S de CV de RL	MEXICO	Calle Habaneras 271 401, Jardines de Virginia, Boca del rio, Veracruz, 94294, Mexico	100
Lloyd's Register Drilling Integrity Services (International) BV	NETHERLANDS	Gapingseweg 1A, Serooskerke, 4343JA, Walcheren, Netherlands	100
Lloyd's Register Drilling Integrity Services Holding B.V	NETHERLANDS	Gapingseweg 1A, Serooskerke, 4343JA, Walcheren, Netherlands	100
Lloyd's Register Nederland BV	NETHERLANDS	Wvna-Zuid 168, 3012NC, Rotterdam, Netherlands	100
LR Holdings BV	NETHERLANDS	KP van der Mandelelaan 41 A, 3062 MB Rotterdam, Netherlands	100
Lloyd's Register Norway Holdings AS	NORWAY	Instituttveien, Kjeller, 2007, Norway	100
Lloyd's Register Consulting – Energy AS	NORWAY	Instituttveien 10, 2007 Kjeller, 0231 Skedsmo, Kjeller, 2027, Norway	100
Lloyd's Register EMEA (Nigeria) Ltd Gte	NIGERIA	4 Park Lane, Apapa, Lagos, Nigeria	100
Lloyd's Register West Africa Ltd	NIGERIA	6 th Floor, B Wing, Shippers Plaza, 4 Park Lane, Apapa, Lagos, Nigeria	100
Lloyd's Register Oman LLC	OMAN	Bait Al Bahja, Building No 603, Room 28, Way No 2706, Ruwi CBD, Muscat, Sultanate of Oman, PO BOX 2715, RUWI PC 112, Oman	70
Lloyd's Register (Polska) Sp Zoo	POLAND	Al. Zwyciestwa 13a, 80-219, Gdansk, Poland	100
Lloyd's Register Qatar LLC	QATAR	Regus Building D-Ring Road, Doha, PO Box 10285, Qatar	49
Lloyd's Register (Romania) SRL	ROMANIA	Constanta, Incinta Port, Santierul Naval CTA, Judetul, Constanta, 900900, Romania	100
Lloyd's Register Saudi Arabia Ltd	SAUDI ARABIA	Office Number 3 Second Floor, AL Omair Building, AL Khobar, King Abdel Road, Saudi Arabia	100
Lloyd's Register D.O.O. (Beograd)	SERBIA	Novi Beograd, Narodnih Heroja 43, Beograd, 11070, Serbia	100
LRQA España SL	SPAIN	Calle Princesa 29, 28008, Madrid, Spain	100
Lloyd's Register España SA	SPAIN	Princesa, 29-1, 28008, Madrid, Spain	100
Lloyd's Register Drilling Integrity Services Asia Pacific Pte. Ltd	SINGAPORE	1 Fusionopolis Place, #09-11 Galaxis, 138522, Singapore	100
Lloyd's Register Global Technology Centre Pte Limited	SINGAPORE	1 Fusionopolis Place, #09-11 Galaxis, 138522, Singapore	100
Senergy Oil and Gas (Singapore) Pte. Ltd.	SINGAPORE	6 Temasek Boulevard, #29-00 Suntec Tower G Our, 038986, Singapore	100
Lloyd's Register Consulting – Energy AB	SWEDEN	Bolagsverket, 851 81 Sundsvall, Sweden	100
LRQA Sverige AB	SWEDEN	Goateborgsvagen 74, Box 2107, 43302, Savedalen, Sweden	100
Lloyd's Register Sweden Holdings AB	SWEDEN	PO Box 1288, 172 25 Sundbyberg, Sweden	100
RiskSpectrum AB	SWEDEN	Box 1288, 172 25 Sundbyberg, Sweden	100
Lloyd's Register International (Thailand) Ltd	THAILAND	3388/46 Floor 14a, Sirinrat Building, Rama IV Road Klong-Ton Sub-district, Klong-Ton District, Bangkok, Thailand	49
Lloyd's Register Gozetim Ltd Sti	TURKEY	Ataturk Caddesi, Sitkibey Plaza, No 82 Kat 3 Daire 12, Kozyatagi, Istandul, Turkey	100
Lloyd's Register (Ukraine)	UKRAINE	63 Bolshaya Morskaya Street, Office 203, Mykolaiv, 54001, Ukraine	100
Lloyd's Register Americas, Inc. ¹	USA	1330 Enclave Parkway, Houston, Texas, 77077, USA	100
Common Structural Rules Software LLC	USA	16855 Northchase Drive, Houston, TX 77060, USA	50
Lloyd's Register Middle East LLC	UAE	The Blue Tower Building, Khalifa Street, Abu Dhabi, UAE	49
Lloyd's Register Drilling Integrity Services, Inc.	USA	1330 Enclave Parkway, Houston, Texas, 77077, USA	100
Lloyd's Register Energy Americas, Inc.	USA		100
Lloyd's Register North America, Inc.	USA		100
WEST Engineering Services Brazil Inc.	USA		100
Lloyd's Register Quality Assurance, Inc.	USA		100
Lloyd's Register Technical Services, Inc.	USA		100
LR Insurance, Inc.	USA		100
Senergy Alternative Energy Inc	USA	501 County Road, Westbrook Maine 04092, USA	100
SGC Engineering LLC	USA	Suite 340 Petrovietnam Tower, 8 Hoang Dieu Street, Ward 1, Vung Tau Cirt, Ba Riad, Vung Tau Province, Vietnam	100
Lloyd's Register Asia (Vietnam) Company	VIETNAM		100

The following subsidiaries have taken advantage of the exemption from audit under section 479A of the Companies Act 2006 relating to subsidiary companies.

Company	Place of registration	Registered number
Classification and Quality Services Limited	England and Wales	03973758
Classification Holdings Limited	England and Wales	03704447
Lloyd's Register Consulting – Energy Limited	England and Wales	07630518
Lloyd's Register Drilling Integrity Services (UK) Limited	Scotland	SC115074
Lloyd's Register GMT Limited	England and Wales	06428883
Lloyd's Register Group Services Limited	England and Wales	06193893
Lloyd's Register Verification Limited	England and Wales	04929226