

## Lloyd's Register Foundation

Annual report and financial statements 30 June 2018

Company number: 07905861 (England and Wales)  
Charity registration number: 1145988 (England and Wales)



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Connecting science, safety and society

# Trustees' Report incorporating the Strategic Report

## Chairman's Statement

The Lloyd's Register Foundation has achieved much in the past five years since its formation, reflected in our active grant portfolio of more than £100 million, that delivers impact to society through fundamental scientific research and the acceleration of emerging technologies; the public understanding of safety and risk; and inspiring and supporting young people and under-represented communities into science and engineering careers.

Our mission at the Foundation is increasingly relevant as we enter the fourth industrial revolution with the introduction of new technologies and the convergence of physical and cyber environments. New techniques in data analytics are starting to give us real insight into global safety issues. For example, this year the Lloyd's Register Foundation and the Health and Safety Executive ("HSE"), supported by the Thomas Ashton Institute, announced an ambitious new programme, 'Discovering safety'. This programme aims to improve health and safety substantially and ultimately save lives, particularly in poorer or developing nations, by harvesting and analysing the huge amounts of global incident investigation and operational health and safety data. We have also funded a unique LR Safety Accelerator programme and provided cornerstone support to the HiLo venture as well continuing our publication of foresight reviews.

In May 2018, we held the second Lloyd's Register Foundation International Conference. This event showcased, through the theme of 'Bringing safety to life, the work of our grant portfolio beneficiaries. The breadth and diversity of the delegates reflected the reach of the Foundation, with academics, students, apprentices and leaders from government and business around the world making it a truly remarkable event.

Much of this work would not be possible without the ongoing contribution and funding from our principal operating company, Lloyd's Register Group Limited. The Foundation's total income was £10.3 million and grant expenditure by the Foundation in year was £26.0 million.

When I describe what we do, I tell people that the purpose of this unique constellation, the Lloyd's Register family, is to save lives through the accelerated application and understanding of science, technology and engineering. We do that through the charity, the Lloyd's Register Foundation, which supports the research of cutting edge technologies that have the potential to have a positive impact upon millions of people with the purpose of giving a wider understanding of how these innovations can be applied practicably to solve global real world issues, and through our operating group where with our client insight and market knowledge, we identify tangible opportunities to accelerate the application in a virtuous cycle. The group also contributes to our charitable purpose through its everyday work in making the world a safer place. It truly is the 21st Century model for social business.

The Board continues to promote diversity and inclusion recognising that the experiences and expertise that come from a diverse workforce can only benefit our organisation. Celebrating our differences is an important part of our culture. It's a simple play on words, but it means moving from thinking that people are 'different from us' to thinking and celebrating that people are 'different like us'.

I would like to express my thanks on behalf of the Foundation to my fellow trustees, Advisory Council members and 100A1 Ambassadors, who give their time freely with passion and enthusiasm and are invaluable in guiding the Foundation with their expertise and wisdom.

Finally, my warmest thanks go to Professor Richard Clegg, Foundation Chief Executive, Michelle Davies, Secretary of the Foundation, and the Foundation staff, who have achieved so much in just five years.

**Thomas Thune Andersen**  
Chairman, Lloyd's Register Foundation

## Foundation Chief Executive's Review

"Our uniqueness enables us to take the long view and invest in those areas where we know we can make the greatest difference"

There's much to be proud of in 2018: while we're a relatively young Foundation, the benefits and impact of our grants and direct charitable activities are becoming clearly visible. Our unique mission and governance structure help us in delivering this, enabling us to take the long view and invest in those areas of greatest need where we know we can make a distinctive difference.

As an independent global charity, our greatest attribute and differentiator is our connection with Lloyd's Register Group Limited ("LRG") as our operating entity, of which we are the sole shareholder and which provides our income. Through its networks and experience, LRG is also able to provide the Foundation with a real-world, end-user perspective on the global safety challenges facing societies to help us direct our charitable activities and accelerate results to application. Our uniqueness is our governance structure; enabling the Foundation and LRG to work together for a safer world embodying a new 21<sup>st</sup> century model for doing social business.

As a global Foundation we have an obligation to focus and cluster our grants for maximum impact and to make sure we don't spread ourselves too thinly across too many initiatives. We strive to make evidence-based decisions using data analytics to identify and quantify those areas of greatest need where we know we can make the greatest difference, and to measure our outcomes and impact. By clustering in this way, our larger grants can involve £10-15m commitments with planning horizons stretching over 5-10 years. This enables our grants community to leverage our investments by attracting additional funding and building communities of support, to tackle some of the greatest safety-related challenges facing the world.

In line with this approach, in 2017/18 we're proud that the Foundation committed £26.0m in new science research and education grants. On top of that we also invested a further £1.7m in direct charitable activities including the digitisation of our heritage collection and putting it to work as a unique historic and education resource. Because of the long duration of many of our grant commitments, our portfolio of live grants is building year on year. Currently, that portfolio exceeds £100m and is growing. With the leverage contributed by our grants community, that builds to a significant scale of investment all aimed at tackling some of the greatest safety-related challenges facing the world.

In 2017/18 the Foundation awarded a total of 35 grants. Some notable grants were: £2m towards establishing the South-East Asia Training Programme, aimed at saving more than 100,000 lives from fatal occupational accidents each year; £490,000 with Blockchain Labs for Open Collaboration ("BLOC"), based in Denmark, for trialling applications of blockchain and distributed ledger technologies in critical infrastructures; and sponsorship of the BBC Christmas Lectures.

Sometimes a little goes a long way and at our 2nd International Conference held in May 2018 in London – which brought together 390 people from our grants community from 42 countries on 5 continents – we were proud to announce that the winner of our grant holder of the year award was CHIRP; aviation and maritime confidential incident reporting. Their valuable work contributes to the enhancement of safety by providing a totally independent confidential reporting system for industry employees worldwide. We're proud that our small grant of just £14,000 to support wider understanding of the effects of fatigue on safety made such a significant contribution to their success and impact.

On top of our grants there is also the direct charitable activity we funded and self-performed internally in 2018. One of these as I've already mentioned is the digitisation of our heritage collection, consisting of over 1.25m documents and artefacts. Widening access to our collection and putting it to work as a unique education and historical resource is a wholly new venture for us. Hence, we're proud that so far we have catalogued over 52,000 documents and created over 18,000 high resolution digital images for placing on the internet. Another direct charitable activity the Foundation funded and launched in 2018 is the Lloyd's Register Safety Accelerator aimed at bringing together technology companies and industry to test innovative digital solutions to critical safety and risk challenges. This aligns with one of the key strategic themes of the Foundation to accelerate the uptake and application of technologies for the benefit of society. The accelerator will help in this respect by funding pre-commercial good ideas and trialling their early adoption.

In conclusion, I want to return to the theme of the Foundation's uniqueness. While our unique mission and governance structure differentiates us, what makes us truly special is our people. I'd like to thank everybody involved including my colleagues in the Foundation and wider LRG, as well as our grants community and those who give their time pro bono to support us including our 100A1 Ambassadors and Advisory Council members. The success of the Foundation belongs to you all.

**Professor Richard Clegg FEng, FRSC**  
Chief Executive, Lloyd's Register Foundation

# 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.

### Strategy 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

In our review of 2017 we set out our plans to publish a foresight review on design for safety, insight reports on distributed ledgers technologies and on additive manufacturing, and initiate new activity informed by foresight and insight processes.

The Royal College of Art launched the foresight review on design for safety at our international conference in May 2018. We also launched two insight reports; one on safety in the fishing industry and another on safety in the passenger ferry industry. Both insight reports build on the findings of the insight report on global safety challenges that was launched in June 2017, providing an overview of the topic areas and making recommendations on distinctive ways in which the Foundation can make a distinctive difference.

### Promoting scientific foresight

The foresight and insight reports published in the last year continue to demonstrate how the process can build new networks of experts around a topic area. They provide the Foundation and society with the information required to initiate positive steps in enhancing safety.

#### Foresight review on design for safety

The review led by the Royal College of Art identified how failures and accidents in the designed world have occurred due to a failure to consider the bigger picture; the combination of technology, people and conditions. The review highlights how emerging industries face new and sometimes unknown safety challenges and proposes how to address these through international collaboration.

#### Foresight review on global safety evidence

This review explores current data sets and methodologies used to understand the state of global safety. It explores how such data is used and what the trends and challenges will be in the future. It highlights difficulties in collecting comparable quality data, the need for predictive indicators to support preventative action, the need to develop more mature health and welfare analytics, and the opportunities arising from new technologies and data analysis methods.

#### Insight report on distributed ledger technologies

Issued jointly with the Alan Turing Institute, the report on distributed ledgers provides further insight into the findings from our previous foresight review on big data. It explains what distributed ledger technologies are and how their application in supply chains and infrastructure can enhance safety and increase transparency.

#### Insight report on safety in the fishing industry

Building upon the recommendations of the insight report on global safety challenges, which identified fishing as one of the most dangerous industries on earth, this review digs deeper to understand where and why the majority of fishing tragedies occur and how it is possible to start saving the estimated 24,000 fishermen who die globally every year.

#### Insight report on safety in the ferry industry

The ferry industry was identified in the global safety challenges insight report as having unacceptably high casualty rates. This report identifies prone geographies and reasons for fatalities and what steps can be taken to significantly reduce these numbers.

During this year we did not publish an insight report on additive manufacturing in part due to our focus on the above global safety challenges.

## ICON

The International Consortium on Nanotechnology has grown its community to support 35 PhDs across the globe. A 2nd year researcher at the University of Cambridge, Zahra Andaji-Garmaroudi, has had her paper published in the science journal Nature.

## CEARCTIC

The CEARCTIC consortium, led by Aalto University, has performed validation of the new Polar Code risk index approach: establishing the link between the risk index and level of safety of Arctic shipping. The consortium has also established the safe ice conditions for ships designed by Finnish-Swedish ice class rules in Polar ice conditions, for both independent navigation and navigation behind an icebreaker. Finally, the consortium has updated the definition of the limit states to be used in the structural design of Arctic ships.

## Future plans

In 2018/19 we plan to:

- Consult and publish foresight reviews on the future of ocean engineering, the future of food safety, and cybersecurity.
- Investigate and report on global safety challenges.
- Initiate activity informed by the recommendations of the fishing and ferries and other foresight and insight publications.
- Increase collaboration between our grant holders.
- Following the launch of our energy storage foresight review, from its findings we will identify a unique whitespace in which the Foundation could consider grant funding, in line with our mission and strategy, where other funders are not active.

## Case study – The benefits of long term relationships

At its inception in 2013, the Foundation inherited grants made by the Lloyd's Register Educational Trust. Amongst them was one to Pusan National University ("PNU"), which built on an initial grant made in 2008 to establish a Research Centre of Excellence: an Institute within PNU, conducting research and education related to understanding risk due to extreme or accidental conditions in ship and offshore structures. Since that time the centre has grown its capability, capacity and international reputation for advanced research.

That most recent grant covering the period 2013-2017 has now come to an end. During this time the centre has produced: 82 journal papers; 94 conference papers; 14 patents; and 2 books. In addition to this, its staff have received a number of honours and awards recognising their work.

As well as the academic outputs listed above, the centre has been active in translating its research into application. At least three patents (associated with gas detection system, fire wall and heat shield) have been adopted by industry. Further application has occurred by implementing new knowledge into a commercial software called MAESTRO, currently licenced in 32 countries across the globe.

The centre has also fulfilled an important role in educating engineers of the future. During the last five years the centre has had direct involvement with 93 MSc students and 70 PhD students from across the globe.

During the last grant period, it was found that validation of developed models requires testing of full or large-scale models. As such facilities are not widely available internationally the centre leveraged £77m from the South Korean Government to build large scale test facilities on a 231,000 m<sup>2</sup> site. The test facility is known as the Korean Ship and Offshore Research Institute ("KOSORI") at PNU.



The Foundation is continuing its productive relationship of supporting research and skills development at PNU with a follow-on grant of £0.5m to further develop advanced theories of non-linear science to accurately predict extreme and accidental events (such as collisions and explosions) in shipping and offshore structures.

Separately to the above, the Foundation is also funding a programme to open access to the KOSORI facilities for the academic community that would otherwise not have access to such infrastructure. This grant also aims to make as much test data that is generated at KOSORI available for the community via a digital platform.

## **Strategic theme 2**

### **Accelerating the application of research**

#### **Progress on what we set out to achieve**

Last year's review outlined our plans to improve the impact of the work we fund by working more closely with LR Group to benefit from its insights into real world problems, its networks of customers, and the experience and skills of its staff around the world. The Lloyd's Register Safety Accelerator is one example of that.

#### **LR safety accelerator**

The Lloyd's Register Safety Accelerator is a partnership between the Foundation and Lloyd's Register Group. It aims to remove barriers preventing industry uptake of cutting-edge safety and risk solutions. The Lloyd's Register Safety Accelerator will work with LR clients and key industry players to identify areas of operation with the most significant challenges to safety and risk. Technology businesses seeking an application for existing digital solutions will be invited to apply for funding to trial these products in an industrial environment, through accelerator collaborators. By providing the opportunity for industry partners to be early adopters of innovation without the associated financial risk, and also offering technology companies both funding and a route to market, the Lloyd's Register Safety Accelerator will address issues acting as a barrier to improved industrial operation.

The Accelerator will be working closely with its accelerator partner, Silicon Valley-based Plug and Play who will tap into their global network of start-ups to identify and connect innovative companies with the programme.

Startup finalists will be invited to pitch their solutions at quarterly innovation days, and the most promising teams and proposals will be awarded trial funding by the Lloyd's Register Safety Accelerator to collaborate with major industry partners to pilot their technology.

Human safety on-board will be one of the first safety challenge themes; applications addressing this challenge area will open in summer 2018.

#### **Highlights from our charitable activities and new grants**

##### **National Structural Integrity Research Centre ("NSIRC")**

Our grant to NSIRC is now funding over 30 PhD students with the first Foundation-funded student, Dr Laura Vivar, graduating in March. The research at NSIRC continues to be driven by real world problems. To this end, an additional 10 PhD projects have been agreed, which will start in the new academic year.

In order to accelerate the application of research carried out at The Welding Institute ("TWI"), TWI and Lloyd's Register Inspection Ltd have formed a joint venture called Fullagar Technologies Ltd, which aims to pull research through into new products and services.

### **Data centric engineering programme - Alan Turing Institute**

Mark Girolami, the Director of the Foundation's Data Centric Engineering Programme, was awarded a five-year Royal Academy of Engineering ("RAEng") Chair in recognition of his work which supports better industrial decisions on safety. Significant leverage has been achieved from other funders and the programme is making strong advances in its three overarching challenge areas: Resilient and robust infrastructure; Monitoring of complex systems; and Data driven design under uncertainty.

### **Resilience Shift**

The Resilience Shift – our major Resilience Engineering Programme in partnership with Arup – published the results of its first studies this year and held the first round table meeting of global engineering practitioners. It has identified three workstreams: ways to make resilience tangible, practical and relevant; incentivising resilience; and applying resilience practice within and between critical infrastructure sectors.

### **Assuring Autonomy International Programme**

This programme, led by York University, has rapidly established its governance structure and processes, initiated some fundamental assurance activity and awarded funding to four international demonstrator projects: autonomy in open cast mining operations – Sweden; safety-related human-robot interaction in manufacturing – Italy; automated moving robots in the hospital environment – UK; and autonomy of medical infusion pumps – UK.

### **RECBIT, safer systems through genuine electronics**

The Foundation has awarded a grant to Cranfield University, which is using existing technology in a new way to develop a fast and simple batch testing method for electronic components. If successful, the test will check for counterfeit or faulty components before they enter systems, the failure of which can have catastrophic consequences.

### **nPlan, avoiding accidents through data**

Construction schedules allow companies to plan the complex tasks associated with projects. They are flexible to cope with the real world. Using health and safety reports, together with construction schedule records, nPlan are using data analytics to identify if there is a link between construction schedules and accidents. If such a link can be shown, it has significant potential in predicting and avoiding future accidents.

### **MX3D, a bridge to safe technology deployment**

Our grant to MX3D is turning the world's first metal 3D printed pedestrian bridge into a living laboratory using sensors, digital twins and data analytics to demonstrate the ongoing safety of this new technology. MX3D have leveraged over £3 million of additional funding and captured the imagination of more than 1 million people on social media and the press.

### **Making the skies safer: Supporting General Aviation Pilots**

The Foundation is supporting the acceleration of Dr Elena Psyllou's research following her graduation from the Lloyd's Register Foundation Transport Risk Management Centre at Imperial College, London. This project will work with general aviation pilots and their regulators to introduce new training and use of widely available tablet technology to allow safer navigation. Initially starting in Canada, where 140 general aviation accidents occurred in 2016, the programme plans for further expansion including in what is the fastest growing country for general aviation growth, China.

### **Supporting PRES�Hy - Pre-normative REsearch for Safe use of Liquid Hydrogen**

PRES�Hy is a major international project developing essential understanding of the hazards and risks of liquid hydrogen ("LH<sub>2</sub>") to enable its safe introduction to public use and a scale-up in production.. Through this research, the project will provide new essential knowledge and close many safety related gaps. Foundation funding supports experimental and modelling projects, examining factors associated with mixing and releasing, ignition and combustion of LH<sub>2</sub> and transference into 'Regulations, Codes & Standards' ("RCS").

## Future plans

In 2018/2019 we will:

- Initiate major new programmes addressing the safety of complex systems and end of life and decommissioning in engineered systems. These will be in partnership with the Royal Academy of Engineering.
- Make the first awards under the Lloyd's Register Safety Accelerator programme in partnership with Plug and Play.
- The first demonstrators will begin in the 'assuring autonomy' programme led by the University of York.
- Initiate a programme in partnership with the National Cyber Security Centre to support Board level decision making in cyber security.

### Case Study: Maritime Blockchain

Following the recommendations in the Insight report on distributed ledger technologies, the Foundation is supporting Maritime Blockchain Labs ("MBL") to explore using blockchain for the assurance and safety of critical infrastructure and drive new business models for the global maritime industry. The Foundation is one of the founding members and lead funder of the initiative. Over the next 18 months, the collaboration will provide resources for Maritime Blockchain Labs to pursue three demonstrator projects focussed on aspects of risk and safety where distributed systems can enable breakthrough solutions. Another objective of MBL is to establish an ecosystem within the sector to foster innovation and collaboration between blockchain practitioners and industry actors, share knowledge and best practices, collectively define problems, and shape solutions that are open and interoperable.

### Fuel Bunkering demonstrator

As its first demonstrator following extensive research, MBL identified the bunker industry, with its multiple, complex transactions as an ideal use case where blockchain technology can increase transparency, create better compliance and stronger governance. A consortium will evaluate how blockchain technologies could help to provide an efficient, tamper-resistant and auditable chain of custody on maritime fuel. A demonstrator will help to provide greater confidence in the fuel being purchased, ultimately resulting in increased safety and creating a more trustworthy framework for accurately monitoring emissions from shipping such as sulphur, and carbon. Deanna MacDonald, CEO and co-founder of BLOC, said: "MBL takes an industry-led approach – meaning that the solutions will be identified, designed, and tested by the industry itself, with MBL facilitating governance and developing the technology to ensure these solutions are relevant and used. A consortium approach is essential due to the need to cross regulatory boundaries and work within different organisational bodies and systems. Too often with blockchain, and digital initiatives in shipping in general, we see a top-down approach where new technology is pushed on the industry. However, this means that complex human and governance elements are ignored, limiting the eventual adoption and usefulness of the technology."

## **Strategic theme 3:**

### **Promoting safety and public understanding of risk**

#### **Progress on what we set out to achieve**

Our plans for 2017/18 included the delivery of our foresight review linked to our global safety outlook project, launching the next steps in our global safety challenges programme and working with the National University of Singapore to appoint the first Director of the Lloyd's Register Foundation Institute for the Public Understanding of Risk ("LRFI").

We have made excellent progress in most of these areas and have retained our flexibility to deliver on other exciting opportunities that arose in the year. However, recruiting a new LRFI Director has taken much longer than we anticipated. Consequently, operational delivery at the new Institute has been slow to accelerate. We do now expect this to ramp up in 2018/19 and are delighted that the World Bank has selected LRFI to host the Understanding Risk Forum in May 2020 ("UR2020").

#### **Highlights from our charitable activities and new grants**

##### **Global safety challenges**

- Fishing and Ferries insight reports
- Complex Systems
- End of Life / Decommissioning

##### **Bringing Safety to Life**

The Foundation held its second international conference in London on 9-10 May 2018. There were over 30 presentations drawn from our grants community and network that really highlighted the breadth and importance of the work that we support. More than 300 delegates were engaged by our speakers, who included apprentices, interns, Ph.D. students and high profile key note speakers: Richard Judge; Saiful Islam; Sir Mark Walport; Adam Parr and Louise Kingham.

##### **Reaching around the world**

Our support for a science editor at The Conversation, a news and analysis website, has led to a significant increase in its science, technology and engineering coverage. Articles attract an average of 850,000 page impressions per month and have included numerous pieces that tackle specific areas of Foundation funding, including resilience, safety and regulation. As part of our grant we are funding The Conversation's first paid internship programme. As well as providing great experience for those at the beginning of their career, the programme will result in more articles that closely align with the work that we fund.

##### **Discovering Safety**

This programme aims to create knowledge from accident investigation data using data mining. Every year, huge amounts of incident investigation findings and operational health and safety data are collected globally. The Lloyd's Register Foundation and the Health and Safety Executive ("HSE"), supported by the Thomas Ashton Institute are running an ambitious new programme called 'DISCOVERING SAFETY' which aims to substantially improve health and safety and ultimately save lives, particularly in poorer or developing nations.

The team has been working with industry, trade groups, international networks, governments, academia and other stakeholders to identify health and safety challenges and opportunities where deeper insights from data could make a significant impact. Important questions emerging from this work include 'How can we learn more about the root causes of product safety failures?' and 'What are the causes and circumstances leading to loss of containment accidents in high hazard industrial sites?'

These and other questions will be explored in a multi-disciplinary effort which will develop new techniques to aggregate and analyse health and safety data from sources around the world. The work will seek to understand how to access and use the data available and apply leading expertise in data science, data analytics, artificial intelligence and machine learning. Much of the work will be underpinned by advances in areas such as text mining and language processing, which are expected to have important spin-off benefits.

### **HiLo**

Accident reports often describe a number of contributing indicators. A collaboration between Shell, Maersk and Lloyd's Register Consulting has developed and tested a practical system for capturing indicators before an accident happens and using data analytics to turn these into precursors that provide warning in advance of a problem to individual ships and fleets of ships. The Foundation is funding the expansion of the HiLo system across the shipping industry, helping to avoid predictable accidents in the future.

### **Safety and Fatigue at Sea**

We are proud to support the CHIRP maritime programme, which provides a free, confidential service to report near misses and hazardous occurrences at sea. Lessons learnt are shared with 200,000 seafarers every year. In 2017, we awarded an additional small grant of £14,000 that allowed CHIRP Maritime and UCL to produce a study on "Perception, Decision Making and Fatigue at Sea." The findings were launched in January 2018 and in the first 3 months alone, over 60,000 printed copies were distributed. This paper has been endorsed by the Secretary General of the International Maritime Organisation ("IMO") and the US government agency MARAD who distributed it through the entire US Maritime network.

### **Emergency Preparedness: Methodology, international best practices, and applications in China**

In China, industrial accidents have occurred frequently in recent years and a lack of emergency preparedness and response caused significant losses. This research, supported by the Foundation, provides input to the emergency preparedness legal framework, to establish relevant standards and methodology and to improve emergency preparedness and response capabilities. The results will be shared in the region.

## **Future plans**

In 2018/19 we plan to:

- Scope and publish a foresight review on cyber and safety
- Revisit our community to ensure that our known global safety challenges are up-to-date
- Act on the recommendations of our foresight review on global safety evidence
- Foster innovation in safety data sourcing and analysis

## Case study – Towards a global safety outlook

We have launched our *Foresight review on global safety evidence*, which explores current data sets on the state of global safety, how those data sets are used and what the trends and challenges are for the future evidence base for safety. The review was led by Professor Andrew Curran, Chief Scientific Adviser and Director of Research for the UK's Health & Safety Executive, and draws on an international range of experts from many sectors and with different perspectives. It finds:

- **Data quality and reliability varies widely** in systems generating data at government, sector and company level, with some countries lacking any functioning systems for health and safety data collection and disclosure.
- **Non-safety specific data sets can provide a critical context for safety**, such as GDP, the existence of regulatory and enforcement frameworks, transparency and the rigour of notification systems, investments in education and health outcomes.
- **Predictive (leading) indicators will have more impact than lagging indicators** of health and safety performance, and improved data collection.
- **Health and safety and chronic disease should be considered together**, in seeking to understand and track leading indicators of safety.
- **The need to capture and understand data from weak signals, near misses and emerging patterns** related to safety performance as well as intelligence from a smaller number of high impact, high profile catastrophes.
- **Unstructured data and new analytical techniques** can help us identify a range of health and safety performance indicators.

The review sets out its recommendations for how the Foundation can make a distinctive difference in developing a Global Safety Outlook:

- **Using existing data sources to identify and communicate global safety priorities** and opportunities to continuously improve and enrich available safety data and intelligence.
- **Identifying evidence-based interventions and research** that can be made by the Foundation, in collaboration with others, to improve world safety outcomes.
- **Making global safety analysis and data accessible** for public use.
- **Scoping education and development programmes** for the global community.

In the next year we will respond to these recommendations by convening international partners to help us establish a capability to serve society's changing needs for safety evidence.

## Strategic theme 4

### Promoting advancement of skills and education

#### Progress on what we set out to achieve

Skills and education cuts across all areas of the Foundation's strategy. Hence many activities in other parts of the strategy often contribute in one way or another to delivering the Foundation's skills and education mandate. Examples include our funding of scientific research, which produces highly trained graduates and academics and our *Public Understanding of Risk* programme, which contributes towards public education.

The reach of the Foundation's skills and education grants is impressive and growing. Currently our skills and education grants and direct charitable activities benefit students, parents and teachers in about twenty countries, all making a notable contribution to our international impact.

The size and mix of the education and skills portfolio is growing in line with implementation of the Foundation's 5 Year Plan. In our last annual review we revealed our updated priorities for Skills and Education:

#### **Skills for Safety:**

Improving safety standards in targeted sectors and communities through education and training programmes that enhance employability and the capacity to do safe engineering.

#### **STEM for Unsupported Communities:**

Increasing the numbers of disadvantaged and under-represented young people choosing STEM-related jobs by driving quality STEM education programmes and improving learning outcomes.

#### **Skills for Emerging Technologies:**

Building on our published Foresight Reviews and Insight Reports, accelerating the adoption of new technologies through thought-leadership and new designs of engineering education programmes that address emerging technology skills needs relevant to LR and the global workforce.

#### **Skills for Innovation and Entrepreneurship:**

Driving the uptake and application of technology and research by developing more innovation-ready engineers.

#### **Alumni:**

Tracking the long-term impact of Foundation funding and spreading our influence and values through a programme of engagement with beneficiaries of our funding.

#### **Heritage and Education Centre:**

Becoming a world-class resource for understanding maritime history and technology by funding new research and education programmes based on our unique heritage collection.

We stated our intentions to use these new priorities to increase our international reach and connect skills and education activities across all parts of our mission. We are making good progress with these plans, notably by directing more activity through the Heritage and Education Centre and through two large grants that will significantly increase the proportion of our international skills and education funding. However, we would like to have delivered more, particularly for our 'alumni' and in more specific follow-up to our foresight reviews. Next year, we will focus more carefully on delivering against all of our priority areas.

## Highlights from our charitable activities and new grants

### Saving Lives in South East Asia

The latest available data shows that fatal occupational accidents in SE Asia are increasing, which is probably caused by the relatively rapid construction of new critical infrastructure. As a result, we are funding a new skills and education initiative (the South East Asia Training Plan, "SEATP") that aims to drive down the rate of fatal occupational accidents in SE Asia, and so contribute to saving more than 100,000 lives per year. The programme will be led by The Welding Institute ("TWI"), who the Foundation have awarded a grant of £2m to provide bursaries for training that will enhance capacity to do safe engineering in Indonesia and India. The programme will improve safety associated with the construction of new critical infrastructures across a range of industries, including transport, power generation, marine and oil and gas. Training will not only provide technical skills vital to maintaining structural integrity but also enable participants to ensure that infrastructure will be safer and last for many years into the future.

### Engineering Skills Where They Are Needed Most

We are building on the skills and education recommendations within our foresight reviews and recognise that low income and newly-industrialised countries require huge amounts of investment in infrastructure upgrades and the adoption of (emerging) technologies to accommodate their growing populations and economies. This is a distinctive space for us to make a unique contribution in the area of safety through development of local engineering skills. We have awarded a grant of £5m to the Royal Academy of Engineering ("RAEng") that will enable us to identify and make interventions that are impactful and sustainable.

### Fire Engineering

We have awarded Stellenbosch University £165,000 to develop the first-ever fire engineering postgraduate programme in Africa. Our grant will provide the foundation for a taught curriculum, as well as supporting research and knowledge transfer to industry. We expect to see development of knowledge that is crucial to African fire-engineering challenges (such as informal settlement fire behaviour), leading to improved fire safety and integrity of critical infrastructure in Africa.

### Promoting Lifelong Engagement with Science and Engineering

In the last review we highlighted our support to the 2016 Royal Institution ("Ri") Christmas Lectures. We have since awarded a grant of £455,000 to support the Christmas Lectures programme until 2020, reaching new and more diverse audiences for STEM education, both in the UK and internationally. The new programme aims to create a pathway of lifelong engagement through new events and activities that will build on the content of the Lectures. It also helps us to extend our influence and reach, building a reputation for distinctive and high impact support of science and engineering education.

### Boosting International Collaboration

Foundation support to the National Space Academy continues to significantly enhance its international profile and impact. A new UK-China Centre for Space Education and Space Culture has been established, with UK leadership from the Academy. This will provide the opportunity to develop new international education experiments that will fly on China space missions and to broaden the joint programme's impact to include developing countries across Asia and Africa.

### Saving Lives at Sea

We are very proud of our association with the Royal National Lifeboat Institution ("RNLI"). Our funding has now allowed the essential sea survival training of over 3,000 new RNLI crew members, a milestone we recognise as testimony to the incredible dedication of the RNLI and their volunteers. In 2017, lifeboats from RNLI stations supported by the Foundation launched 3,751 times, aided 3,743 people and saved the lives of 85 people.

### Science Education in Challenging Environments

Our grant to the Educational Volunteers Foundation of Turkey ("TEGV") has supported the *Science Firefly*, a mobile unit that travels under a MoU with the Turkish Ministry of Education to remote and disadvantaged regions of Turkey. It delivers an inspiring science curriculum and training, tools and materials that will promote quality science education. As a result, nearly 3,500 children each received 12 hours of engaging science education that will be sustained by new skills that are provided to their teachers.



### Enhancing Safety through Law

At the International Maritime Law Institute: we fund individuals from developing states to gain unique legal expertise that makes them a valuable resource to policy and decision-makers in their governments. For example, Foundation supported students have recently gained influential positions in Tuvalu, the Ukraine and Sierra Leone, enabling greater participation by these states in the major international maritime law conventions and legal instruments.

### Safe Design

We are seeing some great outcomes as a result of the Safety at Sea project (our pilot Global Safety Challenge). Since September, the RCA have presented the project at the UK Maritime Pilots' Association (UKMPA) annual conference, and at major design education and research conferences in Norway, USA and China. UKMPA delegates were particularly keen to help further develop the innovative ship-to-ship transfer prototypes towards application. In addition, the RCA are now actively considering the implementation of a novel postgraduate degree in "Design for Safety".

### Future plans

In 2018/19 we plan to:

- Deliver an investment appraisal for our Heritage and Education Centre, with recommendations for how we can maximise the impact of Lloyd's Register's unique and valuable heritage.
- Initiate a major new programme in partnership with the Royal Academy of Engineering.
- Investigate how we can distinctively act to inspire more young people towards engineering.
- Consult and publish skills and education insight reports based on recommendations of completed foresight reviews.

### Case study - Lloyd's Register Foundation Heritage and Education Centre

We are the custodians of the Lloyd's Register library and archive, covering over 250 years of maritime history and technological innovation. We have developed four narratives that – for the first time – will help us direct use of our archive materials in pursuit of our mission:

- Development of ship and yacht building since the 1800s.
- Impact of the maritime sector on world trade and trade routes.
- Safety at sea.
- Depiction of maritime technology in art.

### Widening access to the collection

Project Undaunted (our digitisation project) has catalogued over 50,000 ship plans and survey reports, and scanned over 17,000 documents. In parallel, the new external, bespoke Heritage and Education Centre website will be launched this year. This exciting new resource will open up our collections to new audiences and, for the first time, allow users to search across the archive and library collections. The first materials that we will make available include resources will cover ships such as the *Cutty Sark*, *Mauretania*, *Bakuin* and *Fullagar*.

Rotterdam Maritime Museum is hosting an exhibition, called *Waterproof: Safety at Sea*, until June 2019. It focuses on the origins of LR, our 150 years of work in the Netherlands and LR's impact on safety at sea.

We have agreed a grant of £500,000 over 5 years to fund a Curator of Contemporary Maritime Impacts at the National Maritime Museum, to fund both the post and related activities. The curator will promote public awareness and understanding of the connections between maritime history and contemporary maritime issues such as trade, migration and technology. The role will draw upon the HEC collection and will benefit from Lloyd's Register's first-hand knowledge and experience of industry issues to provide us with an end-user perspective.

## Research

We have approved funding of the first ever postgraduate research scholarships that will focus on the Heritage and Education Centre collection and archive. Two **Lloyd's Register Foundation Thomas Chapman Scholarships**, named after LR's longest serving Chairman, will investigate ship design in the mid-nineteenth century and focus on safety measures in the distant-water trawl fisheries since the 1900s. In addition, we have also encouraged small-scale research projects that will use our collections. Once more of our digitised material is available online, another call under this **Opening Access to the Heritage and Education Centre** programme will be aimed at universities, libraries and archives later this year.

## Outreach

We have given a small grant to the 1851 Trust, who are using some of our yacht plans and survey reports in their education programmes and have reached over 1,000 young people in the UK.

The Heritage and Education Centre team will continue to grow a programme of evening and lunchtime lectures, enabling more people from diverse audiences to contribute to our understanding of our archive and collections. Highlights include the annual Proctor Lecture, which we host, and a collaboration with the Museum of London Archaeology.

# 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 Social 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 £10.3m (2017: £53.8m) for the year consisting of income from investments.

Investment income of £10.3m (2017: £53.8m) comprised £0.1m (2017: £44.0m) of donations from the Trading Group and a further £10.2m (2017: £9.8m) of income from the return on the investment portfolio.

The £44.0 million of gift aid paid by the Trading Group in 2016/17 reflected a particularly strong UK profit performance in 2015/16 which was not repeated. As the Foundation holds sufficient levels of unrestricted funds to be able to continue its immediate planned grant making activity, the Trustees agreed that the profits generated by the Trading Group in 2016/17 should be reinvested to secure long term growth and increased profitability in the future rather than paid to the Foundation as a Gift Aid return on investment.

The Foundation had total expenditure of £28.6m (2017: £24.6m). The increase in expenditure arose from a higher value of grants awarded during 2017/18 in comparison to the prior year.

Lloyd's Register Foundation	2018 £m	2017 £m
Gift aid from Trading Group	0.1	44.0
Income from listed investments and other resources	10.2	9.8
Total income	10.3	53.8
Investment management costs	(0.9)	(1.1)
Charitable activity costs	(27.7)	(23.5)
Total expenditure	(28.6)	(24.6)
Net gains on listed investments	3.4	30.3
Net (expenditure) / income and net movement in funds	(14.9)	59.5

Charitable expenditure of £27.7m (2017: £23.5m) principally relates to grants of £26.0m (2017: £22.8m) which are discussed further in the Trustees' Report.

The Group Financial Review can be found on pages 47 to 48 and forms part of this Strategic Report.

## Subsidiaries: Social 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 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.

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: Social 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 which has since been extended to 1 July 2020. 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.

The Foundation's investment in LRG is held at cost. This Social 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 2018, the Foundation had unrestricted funds of £27.2m (2017: £44.1m). 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 as defined by the Consumer Price Index ("CPI") which the government has set at a target rate of 2% per annum 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 performance benchmark. 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 are 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 4.2% (2017: 14.7%). This comprised an annualised income yield of 3.2% (2017: 3.5%) and a capital yield of 1.0% (2017: 11.1%). The return on the endowment is marginally below the long-term objective stated within the investment policy above.

## Investment performance: Social Investment

The £44.0m of gift aid paid by the Trading Group in 2016/17 reflected a particularly strong profit performance in 2015/16 which was not repeated during the 2016/17 financial year. As the Foundation held sufficient levels of unrestricted funds to be able to continue its immediate planned grant making activity, the Trustees agreed that all but £60,000 of profits generated by the Trading Group in 2016/17 should be reinvested to secure long term growth and increased profitability in the future rather than paid to the Foundation as a Gift Aid return on investment.

### *Market Conditions*

2017/18 has seen continued challenges in the Trading Group's traditional markets. While the oil and gas industry remains cautious, confidence levels are slowly increasing after a sustained period of low oil prices. However, the associated investment in the oil and gas sector has lagged this upturn, most significantly impacting the Energy business but also the other business divisions.

At the same time, the general sentiment in the maritime industry is one of cautious optimism. Themes from last year such as industry consolidation, lower contracting levels and tight financing have been replaced by a more positive new build sentiment.

The Management Systems business has experienced a comparatively less volatile environment. Whilst the transition to new international standards has led to an increase in activity in the year, this is expected to recede in the next period.

All these industry specific factors have been experienced against an increasingly uncertain political and economic backdrop with strained global political tensions and threats of protectionism. Against this backdrop the Trading Group maintains cautious optimism.

### *Customer centricity*

The Trading Group continue to enhance the customer experience aligned to the new brand promise – “smart solutions shaped with human intelligence”.

With the aim of delivering a frictionless experience along all client journeys the Trading Group have created a global continuous improvement programme that rigorously analyses the insight provided by clients.

The brand refresh was driven through analysis of client's needs and the impact of Industry 4.0 on their environment. “Smart solutions shaped with human intelligence” encapsulates how the Trading Group work with clients and assist their evolution by connecting them with new thinking and opportunities. Launching the new website provides a future platform for client engagement across The Trading Group's solutions and service portfolio.

### *Operating Model*

The Trading Group has made major investments to modernise its systems and tools optimising the operational efficiency of both clients and colleagues.

Following its successful introduction of the people module in 2016/17, the first phase of the wider Enterprise Resource Planning (ERP) solution including finance systems was implemented over the current financial year in two geographic areas: Southern Europe and the United Kingdom & Ireland. The key benefits of the system are associated with the delivery of a more automated, efficient and responsive service to both colleagues and clients, enabling improved business performance throughout the Trading Group. This phased approach has allowed the Trading Group to progressively apply lessons learnt from one area to the next. Ultimately the system rollout will touch all areas of the Trading Group.

### *Strengthen and Grow*

The Trading Group has maintained the improvement in market position in marine new construction, acquired further capabilities in the field of business assurance and established a sound platform from which to grow the energy business.

In addition to strengthening its current businesses, the Trading Group has continued to cultivate new markets in the geographies of the Middle East, India and China and in the customised assurance programme in the food sector, building upon the acquisition of Acoura last year, and in cyber security following the acquisition of Nettitude in March 2018. Nettitude is a leading cyber security assurance, risk management and managed detection and response services business supporting customers across many sectors including Financial Services, Technology and other high threat environments. The acquisition is a significant milestone in meeting the Trading Group's growth aspirations that will enable knowledge transfer to its traditional markets.

### *Financial results*

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 2018 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, ensuring good governance and that it fulfils its objectives – delivering public benefit.

The Board is currently made up of seven 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 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 Ørsted A/S, Vice Chairman of VKR Holding, the parent group of Velux, and Non-Executive Director of BW Offshore Limited and IMI Plc.

### 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, 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 Martin is Group General Counsel and Company Secretary of Vodafone Group Plc. She previously served as CEO of the Practical Law Group and prior to that was Reuters' Group General Counsel and Company Secretary and a partner in the City law firm, Rowe & Maw (now Mayer Brown). She is also a trustee of Vodafone Foundation, and a member of the Council of the University of Sussex. She was an independent non-executive of EY and a non-executive director of HSBC Bank Plc (the European arm of HSBC Group). Rosemary represents the Foundation on the Lloyd's Register Group Limited Remuneration Committee.

### Carol Sergeant CBE

Carol holds non-executive positions on the boards of Danske Bank AS, TP ICAP plc and BNY Mellon SA/NV. 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 Financial Services Authority, Chairman of Public Concern at Work, and Chief Risk Officer at Lloyds Banking Group, having begun her career at the Bank of England. Carol is a member of the Foundation's Audit, Risk and Investment Committee.

## **Andreas Sohmen-Pao**

Andreas is Chairman of BW Group, BW LPG Limited, BW Offshore Limited and the Singapore Maritime Foundation. He is also a non-executive director of Singapore National Parks Board and Singapore Symphony Orchestra. Mr Sohmen-Pao was previously CEO of BW Group. He has also served as a non-executive director of The Hong Kong and Shanghai Banking Corporation, The London P&I Club, The Esplanade Co Ltd, Sport Singapore and the Maritime and Port Authority of Singapore amongst others. Mr Sohmen-Pao graduated from Oxford University with an honours degree in Oriental Studies. He holds an MBA from Harvard Business School.

## **Lambros Varnavides**

Lambros is the former Managing Director and Global Head of Shipping at The Royal Bank of Scotland. Lambros was chairman of the Baltic Exchange during 2017 and remains on the Baltic Council and is Vice President of The Baltic Exchange Charitable Fund, as well as a member of its Finance 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, a member of the Honourable Company of Master Mariners (including its Finance Committee) and a member of the Executive Committee of the IMIF. 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 Investment, 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 undertook an internal 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	Independent	—	—	Member	—
Peter Christmas	Independent	—	Member	—	—
Andreas Sohmen-Pao <sup>1</sup>	Trustee	Member	—	—	—
Michelle Davies	Secretary	—	—	—	—
Richard Clegg	Foundation Chief Executive	—	Member	—	—
Michael F. Lykiardopulo	Independent	—	—	—	Member

Notes:

<sup>1</sup> Appointed 26 June 2018

## 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](http://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](http://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](http://lrfoundation.org.uk/programmes/360giving-data).

## Total footprint of the Foundation's impact

In 2017/18 we continued with our stated aim of having impact and excellence at the heart of our grant making activity through the continued implementation of our impact framework. We also introduced new methods of delivering on our strategy and mission, through innovative ways of working with our grant community and utilising expertise and opportunity from within our trading subsidiary, Lloyd's Register Group Limited. Such mixed motive investment approaches have enabled us to partner with our own company and others in seeking to accelerate a variety of research outcomes into potentially impactful solutions for issues around global safety.

In expanding our pathway to impact, we are also adapting our approach in how we engage with our stakeholders, not only to ensure governance best practice is promoted and enacted, but also to work with our grant holders and bring them together into a Foundation community so they can share ideas and collaborate, and enabling an amplification factor of the funding we distribute. Indeed, in addition to striving to make a positive impact through our grant and direct charitable activity we also expect award holders to use their Foundation grant to leverage funding from others. In encouraging this 'multiplying effect' approach with grantees, the money available to their projects has often grown, and in some instances by upwards of 400%.

Our impact framework developed in 2017/2018 has now been fully embedded into our grant contracts and we are already observing an improved flow of impact information that we receive from our funded programmes.

## Employees

The 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 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 also 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
<p><b>Investment performance</b></p> <p>Lower than forecast income from investments or the Trading Group impacts the Foundation's direct charitable activities.</p>	<p>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.</p>
<p><b>Grant giving</b></p> <p>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.</p>	<p>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 Foundation Chief Executive and Grants Committee with a focus on the need for strong evidence of impact.</p>
<p><b>Negative reporting in the media of LR Foundation</b></p> <p>Recent increased media focus on the charity sector has resulted in negative news stories relating to a number of large charities. There is an inherent risk that the Foundation receives negative coverage as a result of a misunderstanding of the social investment relationship between the Group and Foundation or an issue or incident relating to a Foundation grant recipient or investee.</p>	<p>Crisis planning and media training are in place to ensure that Foundation Trustees and staff are prepared to respond appropriately to media coverage that concerns the Foundation.</p>
<p><b>Compliance</b></p> <p>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.</p>	<p>The Foundation Chief Executive and the Trading Group's General Counsel and Company Secretary keep compliance under continuous review.</p>

<p><b>Safety and Security Incidents (including safeguarding)</b></p> <p>Grantee staff or recipients of grantee services operate in environments that are not under the direct control of the Foundation. There may be incidents or issues that arise in a grantee organisation that impact individuals' safety and/or wellbeing, including vulnerable individuals.</p>	<p>'Consideration of grantee health, safety and security risk, where relevant, is incorporated into the grantee application and due diligence process. A specific new policy for safeguarding vulnerable individuals is being implemented.</p>
<p><b>Disaster</b></p> <p>Fire or similar event at the Foundation's offices results in destruction of irreplaceable historic records and artefacts.</p>	<p>The Foundation's offices at 71 Fenchurch Street, London, have appropriate fire suppression systems and incident response plans, which are tested regularly. The programme of digitisation of the archive will also preserve a duplicate copy.</p>
<p><b>Cyber attack</b></p> <p>An advanced targeted cyber-attack could result in the loss of sensitive information.</p>	<p>Sensitive information is identified and is subject to appropriate security measures, which are tested regularly.</p>

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 £14.7 million (2017: £14.5 million) has been charged to the consolidated statement of financial activities.

## Organisational structure

The Foundation has a total of 20 members of staff supported by a further five secondees from its trading subsidiary. 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 registered in England, incorporated in 2014, 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 38 to 39 and 53 to 57 respectively and comply with applicable laws and the FRS102 Charity SORP (Statement of Recommended Practice).

This Trustees' Report on pages 1 to 29 and 47 to 48 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

22 November 2018

## 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  
London  
United Kingdom

### 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 2018.

### 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 A Whalley

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 Audit and Risk function reports to the Committee on any issues which it considers 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 Group Audit and Risk 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 2018 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 statements 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 18; 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 and the financial review of the Lloyd's Register Foundation Group), 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

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

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.

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

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

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

## 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.

### 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.



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

22 November 2018

# FOUNDATION STATEMENT OF FINANCIAL ACTIVITIES (INCORPORATING AN INCOME AND EXPENDITURE ACCOUNT) FOR THE YEAR ENDED 30 JUNE 2018

	Note	General funds 2018 £000	Endowment funds 2018 £000	Total funds 2018 £000	General funds 2017 £000	Endowment funds 2017 £000	Total funds 2017 £000
<b>Income</b>							
Income from investments:							
Gift aid from Trading Group		60	—	60	43,956	—	43,956
From listed investments and other resources		10,244	—	10,244	9,888	—	9,888
<b>Total income</b>	3	10,304	—	10,304	53,844	—	53,844
<b>Expenditure on generating funds</b>							
Investment management costs	4	—	(929)	(929)	—	(1,067)	(1,067)
		—	(929)	(929)	—	(1,067)	(1,067)
<b>Expenditure on Charitable activities</b>							
Grants:							
Supporting excellent scientific research		(6,333)	—	(6,333)	(9,411)	—	(9,411)
Accelerating the application of research		(8,787)	—	(8,787)	(11,602)	—	(11,602)
Promoting safety and public understanding of risk		(1,389)	—	(1,389)	(382)	—	(382)
Advancement of skills and education		(9,456)	—	(9,456)	(1,367)	—	(1,367)
<b>Total grants</b>	5	(25,965)	—	(25,965)	(22,762)	—	(22,762)
Direct costs:							
Supporting excellent scientific research		(61)	—	(61)	—	—	—
Accelerating the application of research		(510)	—	(510)	—	—	—
Promoting safety and public understanding of risk		(1,102)	—	(1,102)	(756)	—	(756)
Advancement of skills and education		(32)	—	(32)	—	—	—
<b>Total expenditure on charitable activities</b>	5	(27,670)	—	(27,670)	(23,518)	—	(23,518)
<b>Total expenditure</b>		(27,670)	(929)	(28,599)	(23,518)	(1,067)	(24,585)
<b>Net (expenditure) / income before gains / (losses) on investments</b>		(17,366)	(929)	(18,295)	30,326	(1,067)	29,259
Realised gains on disposal of listed investments		3,800	22,658	26,458	513	9,863	10,376
Unrealised (losses) / gains on listed investments		(3,306)	(19,709)	(23,015)	984	18,898	19,882
<b>Net (expenditure) / income and net movement in funds</b>		(16,872)	2,020	(14,852)	31,823	27,694	59,517
<b>Reconciliation of funds</b>							
Funds brought forward		44,053	262,644	306,697	12,230	234,950	247,180
Funds carried forward		27,181	264,664	291,845	44,053	262,644	306,697

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

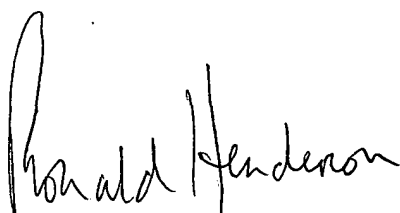
There are no recognised gains or losses for the current and preceeding year other than those shown above.

# FOUNDATION BALANCE SHEET

## AT 30 JUNE 2018

	Note	2018 £000	2017 £000
<b>Fixed assets</b>			
Investments	10	<u>366,809</u>	<u>363,280</u>
		366,809	363,280
<b>Current assets</b>			
Cash at bank and in hand		<u>2,094</u>	<u>10,001</u>
		2,094	10,001
<b>Creditors: amounts falling due within one year</b>	12	<u>(22,559)</u>	<u>(18,263)</u>
<b>Net current liabilities</b>		(20,465)	(8,262)
<b>Total assets less current liabilities</b>		346,344	355,018
<b>Creditors: amounts falling due after one year</b>	13	(54,499)	(48,321)
<b>Net assets</b>		<u>291,845</u>	<u>306,697</u>
<b>The funds of the charity</b>			
Unrestricted – general fund		24,763	42,129
Revaluation reserve	16	<u>2,418</u>	<u>1,924</u>
<b>Total unrestricted funds</b>		27,181	44,053
Endowment funds		228,076	229,005
Revaluation reserve	16	<u>36,588</u>	<u>33,639</u>
<b>Total endowment funds</b>		264,664	262,644
<b>Total charity funds</b>	15	<u>291,845</u>	<u>306,697</u>

The financial statements on pages 35 to 46 were approved by the trustees on 22 November 2018 and signed on their behalf by:



R A Henderson, Trustee

Lloyd's Register Foundation  
Company registration number 07905861

# FOUNDATION CASH FLOW STATEMENT FOR THE YEAR ENDED 30 JUNE 2018

	Note	2018 £000	2017 £000
Cash flows from operating activities:			
Net cash (used in) / provided by operating activities	A	(18,065)	33,358
Cash flows from investing activities:			
Dividends and interest from investments		10,244	9,888
Purchase of investments		(134,368)	(220,811)
Proceeds from sale of listed investments		134,282	200,059
Investment in subsidiary		—	(40,000)
Net cash provided by / (used in) investing activities		10,158	(50,864)
Change in cash and cash equivalents in the year		(7,907)	(17,506)
Cash and cash equivalents at the beginning of the year	B	10,001	27,507
Cash and cash equivalents at the end of the year	B	<u>2,094</u>	<u>10,001</u>

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

	2018 £000	2017 £000
Net (expenditure) / income for the reporting period (as per the statement of financial activities)	(14,852)	59,517
Adjustments for:		
Gains on investments	(3,443)	(30,258)
Dividends and interest from investments	(10,244)	(9,888)
Decrease in debtors	—	6,000
Increase in creditors	10,474	7,987
Net cash (used in) / provided by operating activities	<u>(18,065)</u>	<u>33,358</u>

## B. Analysis of cash and cash equivalents

	1 July 2017 £000	Cash flow £000	30 June 2018 £000
Cash at bank and in hand	10,001	(7,907)	2,094
Total cash and cash equivalents	<u>10,001</u>	<u>(7,907)</u>	<u>2,094</u>

# 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 19.

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 of 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. Short term creditors are recognised at their settlement amount while grant liabilities are discounted to net present value where the impact is material.

### 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.

## NOTES TO THE FOUNDATION FINANCIAL STATEMENTS - CONTINUED

### 3. Investment income

	General funds £000	Endowment funds £000	Total 2018 £000	Total 2017 £000
Gift aid from Trading Group	60	—	60	43,956
Interest receivable from Trading Group	—	—	—	272
Listed and other investments:				
Fixed Interest – UK	1,295	—	1,295	1,311
Fixed Interest – Overseas	81	—	81	92
Equities – UK	2,174	—	2,174	2,930
Equities – Overseas	2,827	—	2,827	3,017
Index linked - Overseas	—	—	—	18
Pooled Funds	3,855	—	3,855	2,184
Cash Instruments	8	—	8	6
Bank interest	4	—	4	58
	10,244	—	10,244	9,888
Total	10,304	—	10,304	53,844

### 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 2018 £000	Total 2017 £000
Grant making activities:						
Supporting excellent scientific research	5,570	194	—	569	6,333	9,411
Accelerating the application of research	7,755	244	—	788	8,787	11,602
Promoting safety and public understanding of risk	1,147	130	—	112	1,389	382
Advancement of skills and education	8,588	—	—	868	9,456	1,367
	23,060	568	—	2,337	25,965	22,762
Direct costs:						
Supporting excellent scientific research	—	—	60	1	61	—
Accelerating the application of research	—	—	509	1	510	—
Promoting safety and public understanding of risk	—	—	1,102	—	1,102	756
Advancement of skills and education	—	—	32	—	32	—
Total	23,060	568	1,703	2,339	27,670	23,518

Support costs totalling £2,339,000 (2017: £1,440,000) 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 £1,340,000 (2017: £1,161,000) and governance costs of £48,000 (2017: £46,000).

Governance costs includes fees payable to the Foundation's auditor for the audit of the Foundation's annual accounts of £39,000 (2017: £38,000).

## NOTES TO THE FOUNDATION FINANCIAL STATEMENTS - CONTINUED

### 6. Grants awarded

Grants are awarded to institutions and fund tuition costs, employment costs or other costs of research. Grants awarded in 2017/2018 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 2018 £000
Cranfield University	1	—	108	—	—	108
Food 2.0 LAB Paris	1	94	—	—	—	94
Heriot-Watt University	1	15	—	—	—	15
Imperial College London	2	—	209	—	75	284
Pusan National University	1	500	—	—	—	500
Royal Academy of Engineering	3	5,000	5,000	—	5,000	15,000
Vianair Inc	1	200	—	—	—	200
The Welding Institute (TWI)	1	—	666	—	—	666
1851 Trust for Next Generations Roadshows	1	—	—	—	30	30
TWI Ltd for SEATP	1	—	—	—	2,000	2,000
University of Hull	1	10	—	—	—	10
Blue Marine Foundation	1	—	248	—	—	248
BLOC - Blockchain Labs for Open Collaboration	1	—	490	—	—	490
MX3D for a Smarter Bridge	1	—	82	—	—	82
PETRAS	1	—	280	—	—	280
Cardiff University	1	—	—	250	—	250
CHIRP Charitable Trust	1	—	—	14	—	14
Health & Safety Executive	1	—	195	—	—	195
HiLo Maritime Risk Management Ltd	1	—	—	490	—	490
Imperial College London for A Collaborative Approach to Optimising the Safe Design of Pressure Vessels	1	—	—	148	—	148
nPlan Limited	1	—	59	—	—	59
National Maritime Museum	1	—	—	—	500	500
Pusan National University (KOSORI)	1	—	700	—	—	700
ENTHUSE Charitable Trust	1	—	—	—	300	300
China Academy of Safety Science and Technology	1	—	—	245	—	245
IMO International Maritime Law Institute	1	—	—	—	6	6
Maritime Museum Rotterdam	1	—	—	—	80	80
The Royal Institution	1	—	—	—	455	455
Stellenbosch University	1	—	—	—	165	165
Union of Greek Shipowners	1	—	—	—	10	10
University of Hull	1	—	—	—	150	150
University of Western Australia	1	—	—	—	130	130
Grants returned		—	—	—	(47)	(47)
	35	5,819	8,037	1,147	8,854	23,857
Impact of discounting grants awarded		(249)	(282)	—	(266)	(797)
		5,570	7,755	1,147	8,588	23,060

## NOTES TO THE FOUNDATION FINANCIAL STATEMENTS - CONTINUED

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 (Petras)	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.

### 7. Grants awarded but not paid

	2018 £000	2017 £000
At 1 July	66,067	58,042
Awarded in the year	23,107	22,145
Unwinding of discounting	568	732
Grant adjustments (note 6)	(47)	(1,553)
Paid in the year	(14,148)	(13,299)
At 30 June	75,547	66,067

The aging of grants payable is shown in note 13.

### 8. Employees

	General funds £000	Endowment funds £000	Total 2018 £000	Total 2017 £000
Wages and salaries	1,159	—	1,159	944
Social security costs	129	—	129	95
Pension costs	156	—	156	122
	1,444	—	1,444	1,161

## NOTES TO THE FOUNDATION FINANCIAL STATEMENTS - CONTINUED

The average number of employees engaged in charitable activities was 20 (2017: 17).

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 2018 Number	Year to 30 June 2017 Number
£60,001 - £70,000	2	1
£70,001 - £80,000	1	1
£90,001 - £100,000	1	—
£100,001 - £110,000	—	1
£110,001 - £120,000	2	—
£180,001 - £190,000	—	1
£240,001 - £250,000	1	—

The Foundation made no termination payments during the current or prior year.

### 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 (2017: £nil). £1,000 of expenses were paid on behalf of Trustees (2017: £33,000) in respect of 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

	2018 £000	2017 £000
Listed investments at market value comprise:		
Fixed Interest – UK	38,078	35,356
Fixed Interest – Overseas	854	1,330
Equities – UK	44,677	62,744
Equities – Overseas	133,088	109,363
Pooled Funds	104,385	102,145
Derivatives	287	(61)
Cash instruments	942	8,243
Cash at investment managers and accrued interest	4,448	4,110
	<u>326,759</u>	<u>323,230</u>
Unlisted investments		
Investment in subsidiaries – mixed motive investment	40,050	40,050
	<u>366,809</u>	<u>363,280</u>
 Listed investments	 2018 £000	 2017 £000
At 1 July	319,120	268,378
Additions at cost	134,030	220,543
Disposals proceeds	(134,282)	(200,059)
Realised gain on disposals	26,458	10,376
Unrealised (loss) / gains	(23,015)	19,882
At 30 June	<u>322,311</u>	<u>319,120</u>
Cash at investment managers and accrued interest	4,448	4,110
	<u>326,759</u>	<u>323,230</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 2018.

	2018 Total £000	2017 Total £000
Turnover	867,829	887,490
Cost of sales	(644,439)	(656,957)
Gross profit	223,390	230,533
Administrative expenses	(214,484)	(213,939)
Administrative expenses before exceptional costs	(205,429)	(181,266)
Operating profit before exceptional costs	17,961	49,267
Exceptional costs	(9,055)	(32,673)
Operating profit	8,906	16,594
Share of net operating loss of joint ventures	(652)	(795)
Net investment income	12,233	22,901
Other finance costs	(4,867)	(5,564)
Profit before taxation	15,620	33,136
Tax on profit	(4,253)	(9,858)
Profit for the financial year	11,367	23,278

	2018 Total £000	2017 Total £000
Assets	997,295	885,727
Liabilities	(464,924)	(454,590)
Net Assets	532,371	431,137
Shareholder's funds	532,371	434,764
Minority interests	—	(3,627)
	532,371	431,137

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

	2018 £000	2017 £000
Amounts due to related companies	1,068	139
Grants payable	21,048	17,746
Accruals and deferred income	443	378
	22,559	18,263

## NOTES TO THE FOUNDATION FINANCIAL STATEMENTS - CONTINUED

### 13. Creditors: amounts falling due after one year

	2018 £000	2017 £000
Grants payable	<u>54,499</u>	<u>48,321</u>
	<u>54,499</u>	<u>48,321</u>

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

	2018 £000	2017 £000
Due within one year	<u>21,048</u>	<u>17,746</u>
Due within 1-2 years	28,473	29,465
Due within 2-5 years	26,481	20,076
Due within 6-10 years	2,232	1,236
Impact of discounting	<u>(2,687)</u>	<u>(2,456)</u>
	<u>54,499</u>	<u>48,321</u>
Net grants payable	<u>75,547</u>	<u>66,067</u>

### 14. 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.

### 15. Funds

	1 July 2017 £000	Income £000	Expenditure £000	Other movements £000	30 June 2018 £000
Total unrestricted funds	44,053	10,304	(27,670)	494	27,181
Endowment funds:					
Expendable endowment	262,644	—	(929)	2,949	264,664
	<u>306,697</u>	<u>10,304</u>	<u>(28,599)</u>	<u>3,443</u>	<u>291,845</u>

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

	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.

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.

## NOTES TO THE FOUNDATION FINANCIAL STATEMENTS - CONTINUED

### 16. Revaluation reserve

	1 July 2017 £000	Unrealised losses £000	Realised revaluation reserve £000	30 June 2018 £000
Unrestricted – general funds	1,924	(3,306)	3,800	2,418
Endowment funds:				
Expendable endowment	33,639	(19,709)	22,658	36,588
	<u>35,563</u>	<u>(23,015)</u>	<u>26,458</u>	<u>39,006</u>

### 17. Analysis of net assets between funds

	General funds £000	Endowment funds £000	Total 2018 £000	Total 2017 £000
Fixed assets	102,145	264,664	366,809	363,280
Current assets	2,094	—	2,094	10,001
Creditors: amounts falling due within one year	(22,559)	—	(22,559)	(18,263)
Creditors: amounts falling due after one year	(54,499)	—	(54,499)	(48,321)
	<u>27,181</u>	<u>264,664</u>	<u>291,845</u>	<u>306,697</u>

	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>

### 18. 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 (2017: £279,000) was outstanding as at 30 June 2018.

The Foundation defines its key management personnel as the Board of Trustees, the Board of Directors and the Executive Leadership Team of the Trading Group. See note 31 of the consolidated financial statements.

In order to accelerate the application of research carried out at The Welding Institute (TWI), TWI and the Trading Group have formed a joint venture, Fullagar Technologies Limited. A grant of £666,000 was awarded to TWI during the year to pull TWI research into products and services. Of the grant awarded, £666,000 was outstanding at 30 June 2018.



# 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 £890.5 million (2017: £908.2 million) relates to the income recognised by the Trading Group of £880.2 million (2017: £898.6 million) including turnover of £867.8 million (2017: £887.5 million) and investment income of £22.6 million (2017: £20.7 million).

The Foundation's consolidated total expenditure of £899.0 million (2017: £915.3 million) relates principally to the Trading Group of £870.4 million (2017: £890.8 million) with the remainder relating to the activities of the charitable entity.

Consolidated net assets for the Foundation at 30 June 2018 are £784.2 million (30 June 2017: £697.8 million), an increase of £86.4 million from the prior year.

Net consolidated funds (cash and short term deposits) for the Foundation at 30 June 2018 are £99.0 million (30 June 2017: £161.2 million), a decrease of £62.2 million (2017: decrease of £13.3 million) from the prior year.

The performance of the Charitable entity is discussed on pages 17 to 22, 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 2018.

Turnover of £867.8 million was broadly in line with that of the prior year (2017: £887.5 million) at actual exchange rates. Turnover at prior year exchange rates was £11.5 million higher than at actual exchange rates (1.3%).

Operating profit before restructuring costs was £18.0 million (2017: £49.3 million before restructuring costs), £31.3 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 £8.9 million (2017: £16.6 million).

## Financial position of the Trading Group

Net funds for the Trading Group at 30 June 2018 are £532.4 million (30 June 2017: £431.1 million), an increase of £101.3 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 Trading Group monitors the impact of foreign exchange on a regular basis. Where possible, the Trading Group 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. Where cash-pooling is not permitted by local regulations, non-GBP entities submit cash to head office companies by paying dividends. The amount of cash delivered can be more precisely forecast if the foreign exchange is hedged using 'vanilla' foreign exchange forwards, which involve entering into a contract to sell forward cash flows at a specific maturity date. During the year, the Trading Group implemented a hedging programme on this basis. In addition,

derivative financial instruments are used by the Trading Group's third-party investment manager to manage the exposure to foreign exchange risk associated with the Company's investment portfolio. Residual foreign exchange exposure is monitored and is considered tolerable.

#### **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 £99.0 million (2017: £161.2 million). In addition, the Group holds listed investments of £459.4 million (2017: £486.5 million) of which £132.6 million (2017: £84.6 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 2018

	Note	Trading funds £000	General funds £000	Endowment funds £000	Total funds 2018 £000	Total funds 2017 £000
<b>Income</b>						
<b>Incoming resources from generated funds</b>						
Income from investments:						
Listed investments	4	5,408	10,240	—	15,648	14,987
Property	4	6,253	—	—	6,253	3,583
Other	4	732	4	—	736	2,112
Activities for generating funds	5	867,829	—	—	867,829	887,490
<b>Total income</b>		<b>880,222</b>	<b>10,244</b>	<b>—</b>	<b>890,466</b>	<b>908,172</b>
<b>Expenditure on generating funds</b>						
Investment management costs		—	—	(929)	(929)	(1,067)
Cost of activities for generating funds		(861,180)	—	—	(861,180)	(871,511)
Other finance costs – pensions		(4,867)	—	—	(4,867)	(5,564)
Taxation	10	(4,253)	—	—	(4,253)	(9,858)
Other		(68)	—	—	(68)	(3,827)
<b>Total costs of generating funds</b>		<b>(870,368)</b>	<b>—</b>	<b>(929)</b>	<b>(871,297)</b>	<b>(891,827)</b>
<b>Expenditure on Charitable activities</b>						
Grants:						
Supporting excellent scientific research		—	(6,333)	—	(6,333)	(9,411)
Accelerating the application of research		—	(8,787)	—	(8,787)	(11,602)
Promoting safety and public understanding of risk		—	(1,389)	—	(1,389)	(382)
Advancement of skills and education		—	(9,456)	—	(9,456)	(1,367)
<b>Total grants</b>	<b>7</b>	<b>—</b>	<b>(25,965)</b>	<b>—</b>	<b>(25,965)</b>	<b>(22,762)</b>
Direct costs:						
Supporting excellent scientific research		—	(61)	—	(61)	—
Accelerating the application of research		—	(510)	—	(510)	—
Promoting safety and public understanding of risk		—	(1,102)	—	(1,102)	(756)
Advancement of skills and education		—	(32)	—	(32)	—
<b>Total direct costs</b>	<b>7</b>	<b>—</b>	<b>(1,705)</b>	<b>—</b>	<b>(1,705)</b>	<b>(756)</b>
<b>Total expenditure</b>		<b>(870,368)</b>	<b>(27,670)</b>	<b>(929)</b>	<b>(898,967)</b>	<b>(915,345)</b>
<b>Net income / (expenditure) before gains / (losses) on investments</b>	<b>11</b>	<b>9,854</b>	<b>(17,426)</b>	<b>(929)</b>	<b>(8,501)</b>	<b>(7,173)</b>
Unrealised gains / (losses) on investments		(1,983)	(3,306)	(19,709)	(24,998)	35,744
Realised (losses) / gains on disposal of investments		4,147	3,800	22,658	30,605	11,064
<b>Net income / (expenditure)</b>		<b>12,018</b>	<b>(16,932)</b>	<b>2,020</b>	<b>(2,894)</b>	<b>39,635</b>
Net interest in the results for the year in joint ventures		(652)	—	—	(652)	(795)
Transfers between funds		(60)	60	—	—	—
Foreign exchange differences on translation of net assets of overseas operations		(4,933)	—	—	(4,933)	9,706
Net actuarial movements on defined benefit pension schemes	24	114,897	—	—	114,897	25,676
Tax relating to components of other comprehensive income		(20,037)	—	—	(20,037)	3,130
<b>Net movement in funds</b>		<b>101,233</b>	<b>(16,872)</b>	<b>2,020</b>	<b>86,381</b>	<b>77,352</b>
Funds brought forward		431,137	4,004	262,644	697,785	620,433
<b>Funds carried forward</b>		<b>532,370</b>	<b>(12,868)</b>	<b>264,664</b>	<b>784,166</b>	<b>697,785</b>

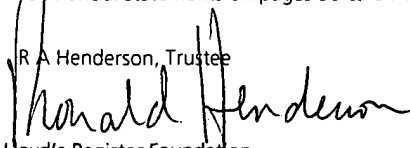
All amounts presented above relate to continuing operations.

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 2018

	Note	2018 £000	2017 £000
<b>Non Current Assets</b>			
Goodwill	14	109,868	85,551
Intangible fixed assets	14	57,921	54,096
Tangible assets	15	179,497	173,471
Investments	16	463,739	488,434
Pension surplus	24	119,159	8,066
Deferred tax assets	10	23,766	17,318
Interests in joint ventures: share of net assets	16	3,336	3,258
		<u>957,286</u>	<u>830,194</u>
<b>Current assets</b>			
Work in progress	18	17,212	—
Debtors	19	251,581	227,401
Cash at bank and in hand		99,000	161,223
		<u>367,793</u>	<u>388,624</u>
<b>Creditors: amounts falling due within one year</b>	20	<u>(185,787)</u>	<u>(161,528)</u>
<b>Net current assets</b>		<u>182,006</u>	<u>227,096</u>
<b>Total assets less current liabilities</b>		<u>1,139,292</u>	<u>1,057,290</u>
<b>Creditors: amounts falling due after one year</b>	21	<u>(54,499)</u>	<u>(48,321)</u>
<b>Provisions for liabilities</b>	22	<u>(72,761)</u>	<u>(42,395)</u>
<b>Net assets excluding pension liability</b>		<u>1,012,032</u>	<u>966,574</u>
<b>Pension liability</b>	24	<u>(227,866)</u>	<u>(268,789)</u>
<b>Net assets including pension liability</b>		<u>784,166</u>	<u>697,785</u>
<b>The funds of the charity</b>	27,28		
Non charitable trading funds		671,374	613,589
Revaluation reserve		88,862	91,888
General fund	27	(12,868)	2,080
<b>Unrestricted funds excluding pension liability</b>		<u>747,368</u>	<u>707,557</u>
<b>Pension reserve</b>		<u>(227,866)</u>	<u>(268,789)</u>
<b>Total unrestricted funds</b>		<u>519,502</u>	<u>438,768</u>
<b>Endowment funds</b>		<u>228,076</u>	<u>229,005</u>
Revaluation reserve	28	36,588	33,639
<b>Total endowment funds</b>	27	<u>264,664</u>	<u>262,644</u>
<b>Total charity funds excluding minority interests</b>		<u>784,166</u>	<u>701,412</u>
<b>Non-controlling interests</b>		<u>—</u>	<u>(3,627)</u>
<b>Total charity funds</b>		<u>784,166</u>	<u>697,785</u>

The financial statements on pages 50 to 84 were approved by the trustees on 22 November 2018 and signed on their behalf by:

R A Henderson, Trustee  
  
 Lloyd's Register Foundation  
 Company registration number 07905861

# CONSOLIDATED STATEMENT OF CASH FLOWS FOR THE YEAR ENDED 30 JUNE 2018

	Note	2018 £000	2017 £000
Net cash (outflow) / inflow from operating activities	30	(49,645)	37,466
Cash flows used in investing activities			
Repayment of staff loans		48	55
Proceeds from sale of investments		185,330	240,041
Proceeds from sale of tangible fixed assets		1,458	739
Purchase of investments		(159,070)	(250,117)
Purchase of intangible fixed assets		(9,425)	(23,235)
Purchase of tangible fixed assets		(8,920)	(10,825)
Interest paid		(2,322)	(569)
Investment income		21,203	20,123
Additional investment in existing joint ventures		(458)	(649)
Acquisition of unlisted investments		(2,499)	(4,695)
Payment of deferred consideration on acquisitions		(622)	—
Acquisition of subsidiaries		(39,294)	(22,868)
Net cash acquired on acquisition of subsidiaries		1,993	1,221
Net cash flows used in investing activities		(12,578)	(50,779)
Net decrease in cash and cash equivalents		(62,223)	(13,313)
Cash and cash equivalents at beginning of year		161,223	174,536
Net decrease in cash and cash equivalents		(62,223)	(13,313)
Cash and cash equivalents at end of year		99,000	161,223

## Analysis of cash and cash equivalents

Group	At 1 July 2017 £000	Cash flow £000	At 30 June 2018 £000
Bank balances	161,223	(62,223)	99,000
Net funds	161,223	(62,223)	99,000

## Reconciliation of net cash flow to movements in net funds

	Cash and cash equivalents £'000	Fair value of derivatives £'000	Deferred consideration payable £'000	2018 Net funds £'000	Cash and cash equivalents £'000	Deferred consideration payable £'000	2017 Net funds £'000
At 1 July	161,223	—	1,297	162,520	174,536	78	174,614
Cash flow	(62,223)	—	(422)	(62,645)	(13,313)	—	(13,313)
Fair value losses	—	(450)	—	(450)	—	—	—
Other movements	—	—	4,922	4,922	—	1,219	1,219
At 30 June	99,000	(450)	5,797	104,347	161,223	1,297	162,520

# NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS FOR THE YEAR ENDED 30 JUNE 2018

## 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 and derivative financial instruments. 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 Group has applied the amendments to FRS 102 issued by the FRC in December 2017 prior to their mandatory effective date of accounting periods on or after 1 January 2019. 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 19.

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. The consolidated financial statements are also presented in pounds sterling and all values are rounded to the nearest thousand pounds (£000), except where otherwise indicated.

## 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 economics 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 rental value of 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 11 to the Corporation Tax Act 2010 and section 256 of the Taxation of 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. Current tax is provided at amounts expected to be paid (or recovered) using the tax rates and laws that have been enacted or substantively enacted by the balance sheet date.

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.



## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - CONTINUED

### 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 and derivative financial instruments, financial instruments are initially recognised at transaction value and subsequently measured at their settlement value.

Investments in non-convertible preference shares and non-puttable ordinary or preference shares (where shares are publicly traded or their fair value is reliably measurable) are measured at fair value through profit or loss. Where fair value cannot be measured reliably, investments are measured at cost less impairment.

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

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - CONTINUED

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.

**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 historical cost information is not available and that the depreciated historical cost of these assets is now immaterial.

**v. Derivatives**

Derivatives are initially recognised at fair value on the date a derivative contract is entered into and are subsequently re-measured at their fair value. The resulting gain or loss is recognised in profit or loss immediately.

**w. Provisions**

Provision is made on a case-by-case basis in respect of defending claims received and where appropriate, the estimated cost of settling claims. Provisions for employee benefits arising on termination of employment, are recognised when a company is demonstrably committed to a formal plan for termination and is without realistic possibility of withdrawal from the plan.

### 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.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - CONTINUED

### *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 £109,868,000 (2017: £85,551,000).

### *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*

The key assumptions concerning the future, and other key sources of estimation uncertainty at the balance sheet date that have a significant risk of causing a material adjustment to the carrying amount of assets and liabilities within the next financial year are discussed below.

### *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. Further information is provided in note 22 and note 25.

### *Income tax*

The Group's current tax charge 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 changes in 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 including the availability of certain tax reliefs for the Group's operations. 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 interpretation of tax laws and the efficiency of the legal processes in the relevant taxing jurisdictions in which the Group operates.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - CONTINUED

### 4. Investment income

	Trading funds £000	General funds £000	Endowment funds £000	Total funds 2018 £000	Total funds 2017 £000
Fixed Interest – UK	4,813	1,295	—	6,108	3,723
Fixed Interest – Overseas	595	81	—	676	3,109
Equities – UK	—	2,174	—	2,174	2,930
Equities – Overseas	—	2,827	—	2,827	3,017
Index linked – Overseas	—	—	—	—	18
Pooled Funds – UK	—	3,855	—	3,855	616
Pooled Funds – Overseas	—	—	—	—	1,568
Cash Instruments	—	8	—	8	—
Derivatives	—	—	—	—	6
	<u>5,408</u>	<u>10,240</u>	<u>—</u>	<u>15,648</u>	<u>14,987</u>
Bank interest	732	4	—	736	2,112
Income from UK investment property	<u>6,253</u>	<u>—</u>	<u>—</u>	<u>6,253</u>	<u>3,583</u>
	<u>12,393</u>	<u>10,244</u>	<u>—</u>	<u>22,637</u>	<u>20,682</u>

### 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.

	2018 £000	2017 £000
Turnover by class of business of the Trading Group:		
Marine & Offshore	407,546	445,588
Energy	144,211	144,345
Management Systems & Inspection Services	<u>316,072</u>	<u>297,557</u>
	<u>867,829</u>	<u>887,490</u>

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 2017

	Trading funds £000	General funds £000	Endowment funds £000	Total funds 2017 £000	Total funds 2016 £000
<b>Income</b>					
<b>Incoming resources from generated funds</b>					
Income from investments:					
Listed investments	5,429	9,558	—	14,987	14,517
Property	3,583	—	—	3,583	4,493
Other	2,054	58	—	2,112	854
Activities for generating funds	887,490	—	—	887,490	881,173
<b>Total income</b>	<b>898,556</b>	<b>9,616</b>	<b>—</b>	<b>908,172</b>	<b>901,037</b>
<b>Expenditure on generating funds</b>					
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	(9,858)	—	—	(9,858)	(5,333)
Other	(3,827)	—	—	(3,827)	(203)
<b>Total costs of generating funds</b>	<b>(890,760)</b>	<b>—</b>	<b>(1,067)</b>	<b>(891,827)</b>	<b>(859,253)</b>
<b>Expenditure on Charitable activities</b>					
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)
<b>Total grants</b>	<b>—</b>	<b>(22,762)</b>	<b>—</b>	<b>(22,762)</b>	<b>(33,810)</b>
Direct costs:					
Promoting safety and public understanding of risk	—	(756)	—	(756)	(877)
<b>Total expenditure on charitable activities</b>	<b>—</b>	<b>(23,518)</b>	<b>—</b>	<b>(23,518)</b>	<b>(34,687)</b>
<b>Total expenditure</b>	<b>(890,760)</b>	<b>(23,518)</b>	<b>(1,067)</b>	<b>(915,345)</b>	<b>(893,940)</b>
<b>Net income / (expenditure) before gains / (losses) on investments</b>	<b>7,796</b>	<b>(13,902)</b>	<b>(1,067)</b>	<b>(7,173)</b>	<b>7,097</b>
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
<b>Net income / (expenditure)</b>	<b>24,346</b>	<b>(12,405)</b>	<b>27,694</b>	<b>39,635</b>	<b>49,117</b>
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	25,676	—	—	25,676	(42,502)
Acquisition of non-controlling interest	—	—	—	—	736
Tax relating to components of other comprehensive income	3,130	—	—	3,130	(5,056)
<b>Net movement in funds</b>	<b>57,834</b>	<b>(8,176)</b>	<b>27,694</b>	<b>77,352</b>	<b>12,446</b>
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

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - CONTINUED

### 7. Analysis of expenditure on charitable activities

	Grants £000	Unwinding of discount £000	Activities undertaken directly £000	Support costs £000	Total 2018 £000	Total 2017 £000
Grant making activities:						
Supporting excellent scientific research	5,570	194	—	569	6,333	9,411
Accelerating the application of research	7,755	244	—	788	8,787	11,602
Promoting safety and public understanding of risk	1,147	130	—	112	1,389	382
Advancement of skills and education	8,588	—	—	868	9,456	1,367
	<u>23,060</u>	<u>568</u>	<u>—</u>	<u>2,337</u>	<u>25,965</u>	<u>22,762</u>
Direct costs:						
Supporting excellent scientific research	—	—	60	1	61	—
Accelerating the application of research	—	—	509	1	510	—
Promoting safety and public understanding of risk	—	—	1,102	—	1,102	756
Advancement of skills and education	—	—	32	—	32	—
Total	<u>23,060</u>	<u>568</u>	<u>1,703</u>	<u>2,339</u>	<u>27,670</u>	<u>23,518</u>

Support costs totalling £2,339,000 (2017: £1,440,000) 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 £1,340,000 (2017: £1,161,000) and governance costs of £48,000 (2017: £46,000).

Governance costs includes fees payable to the Foundation's auditor for the audit of the Foundation's annual accounts of £39,000 (2017: £38,000).

## 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 2017/18 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 2018 £000
Cranfield University	1	—	108	—	—	108
Food 2.0 LAB Paris	1	94	—	—	—	94
Heriot-Watt University	1	15	—	—	—	15
Imperial College London	2	—	209	—	75	284
Pusan National University	1	500	—	—	—	500
Royal Academy of Engineering	3	5,000	5,000	—	5,000	15,000
Vianair Inc	1	200	—	—	—	200
The Welding Institute (TWI)	1	—	666	—	—	666
1851 Trust for Next Generations	1	—	—	—	30	30
Roadshows						
TWI Ltd for SEATP	1	—	—	—	2,000	2,000
University of Hull	1	10	—	—	—	10
Blue Marine Foundation	1	—	248	—	—	248
BLOC - Blockchain Labs for Open Collaboration	1	—	490	—	—	490
MX3D for a Smarter Bridge	1	—	82	—	—	82
PETRAS	1	—	280	—	—	280
Cardiff University	1	—	—	250	—	250
CHIRP Charitable Trust	1	—	—	14	—	14
Health & Safety Executive	1	—	195	—	—	195
HiLo Maritime Risk Management Ltd	1	—	—	490	—	490
Imperial College London for A Collaborative Approach to Optimising the Safe Design of Pressure Vessels	1	—	—	148	—	148
nPlan Limited	1	—	59	—	—	59
National Maritime Museum	1	—	—	—	500	500
Pusan National University (KOSORI)	1	—	700	—	—	700
ENTHUSE Charitable Trust	1	—	—	—	300	300
China Academy of Safety Science and Technology	1	—	—	245	—	245
IMO International Maritime Law Institute	1	—	—	—	6	6
Maritime Museum Rotterdam	1	—	—	—	80	80
The Royal Institution	1	—	—	—	455	455
Stellenbosch University	1	—	—	—	165	165
Union of Greek Shipowners	1	—	—	—	10	10
University of Hull	1	—	—	—	150	150
University of Western Australia	1	—	—	—	130	130
Grants returned		—	—	—	(47)	(47)
	35	5,819	8,037	1,147	8,854	23,857
Impact of discounting grants awarded		(249)	(282)	—	(266)	(797)
		5,570	7,755	1,147	8,588	23,060

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - CONTINUED

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 (Petras)	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.

### 9. Grants awarded but not paid

	2018 £000	2017 £000
At 1 July	66,067	58,042
Awarded in the year	23,107	22,145
Unwinding of discounting	568	732
Grant adjustments (note 8)	(47)	(1,553)
Paid in the year	(14,148)	(13,299)
At 30 June	75,547	66,067

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	
	2018	2017
	£000	£000
<b>Current tax on profit</b>		
UK corporation tax	587	(379)
Double tax relief	(468)	(1,030)
	<u>119</u>	<u>(1,409)</u>
Foreign tax	18,837	22,288
	<u>18,956</u>	<u>20,879</u>
<b>Adjustment in respect of prior periods</b>		
• UK corporation tax	76	(3,883)
• Foreign tax	(6,722)	(5,923)
<b>Total current tax</b>	<u>12,310</u>	<u>11,073</u>
<b>Deferred tax</b>		
Origination and reversal of timing differences	(9,238)	(4,264)
Adjustments in respect of previous periods	1,181	3,049
<b>Total deferred tax</b>	<u>(8,057)</u>	<u>(1,215)</u>
<b>Total tax on profit</b>	<u>4,253</u>	<u>9,858</u>

The standard rate of tax applied to the reported profit is 19% (2017: 19.75%). The applicable rate of tax in the UK reduced from 20% to 19% on 1 April 2017, and following enactment of the Finance Act 2016 will reduce further to 17% from 1 April 2020. During the year beginning 1 July 2018, the net reversal of deferred tax assets and liabilities is expected to increase the corporate tax charge for the year by £5.2m (2017: £6.4m). This is due to the reversal of timing differences expected within the next 12 months.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - CONTINUED

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

	Group	
	2018	2017
	£000	£000
Net (expenditure) / income	(2,894)	39,635
Taxation	4,253	9,858
Net income before taxation	1,359	49,493
Profit multiplied by the average standard rate of United Kingdom corporation tax of: 19.00% (2017: 19.75%)	258	9,775
Effects of:		
• Tax exempt profits	(342)	(6,475)
• Overseas rate differences	3,448	2,440
• Goodwill amortisation not deductible for tax purposes	3,222	2,948
• (Non-taxable income) / expenses not deductible for tax purposes	(2,825)	4,254
• Brought forward unprovided timing differences now recognised in year	(3,994)	(1,180)
• Impact of UK qualifying corporate donations	(7)	(4,157)
• Current year unprovided timing differences	8,394	1,510
• Fair value gain on investment property not subject to tax	(1,395)	(2,331)
• Other taxes	2,959	5,675
• Adjustments in respect of prior periods	(5,465)	(2,601)
Group total tax charge for year	4,253	9,858

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - CONTINUED

### Deferred tax (assets) / liabilities

	2018 £000	2017 £000
At 1 July asset	(16,600)	(15,360)
Arising in the year	12,718	(1,215)
Acquisitions	(1,215)	490
Foreign exchange differences	166	(515)
At 30 June asset	<u>(4,931)</u>	<u>(16,600)</u>
Deferred tax asset	(23,766)	(17,318)
Deferred tax liability (note 22)	<u>18,835</u>	<u>718</u>
	<u>(4,931)</u>	<u>(16,600)</u>
Deferred tax is recognised as follows:		
Accelerated capital allowances	(832)	(759)
Deferred tax arising in relation to retirement benefit obligations	9,476	(7,690)
Tax losses available	(8,372)	(1,747)
Other timing differences	<u>(5,203)</u>	<u>(6,404)</u>
	<u>(4,931)</u>	<u>(16,600)</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 £58.8m (2017: £59.9m). 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):

	2018 £000	2017 £000
Staff costs (note 12)	494,757	499,290
Charge / (credit) for bad and doubtful debts	4,726	(346)
Net impairment of work in progress expense / (reversal)	1,556	(491)
Research and development costs	14,702	14,479
Loss / (profit) on disposal of fixed assets	45	(126)
Amortisation of intangible fixed assets (note 14)	6,200	2,822
Depreciation of tangible fixed assets (note 15)	8,023	9,627
Amortisation of goodwill (note 14)	18,346	17,759
Rentals payable under operating leases	42,951	45,228
Unrealised fair value losses on forward currency contracts	450	—
Realised fair value losses on forward currency contracts	931	—
Exceptional costs (note 17)	9,055	32,673
Auditor's remuneration:		
Audit of parent	39	38
Audit of subsidiaries	1,811	1,712
Other services	77	93
Tax compliance services	112	144
Foreign exchange loss	3,844	481

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - CONTINUED

### 12. Employees

	Trading funds £000	General funds £000	Total funds 2018 £000	Total funds 2017 £000
Wages and salaries	405,192	1,159	406,351	408,485
Social security costs	45,090	129	45,219	45,768
Pension costs (note 24)	43,031	156	43,187	45,037
	<u>493,313</u>	<u>1,444</u>	<u>494,757</u>	<u>499,290</u>

The average number of employees, analysed by function was:

	2018 Number	2017 Number
Charitable activities	20	17
Trading activities	<u>6,809</u>	<u>7,472</u>
	<u>6,829</u>	<u>7,489</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 (2017: £nil). £1,000 of expenses were paid on behalf of Trustees (2017: £33,000) in respect of 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
<b>Cost</b>			
At 1 July	261,567	66,008	327,575
Additions	—	9,425	9,425
Acquisition of subsidiary undertakings	42,813	611	43,424
Disposals	—	(338)	(338)
Exchange adjustment	375	18	393
At 30 June	<u>304,755</u>	<u>75,724</u>	<u>380,479</u>
<b>Amortisation</b>			
At 1 July	176,016	11,912	187,928
Charged during the year	18,346	6,200	24,546
Disposals	—	(319)	(319)
Exchange adjustment	525	10	535
At 30 June	<u>194,887</u>	<u>17,803</u>	<u>212,690</u>
<b>Net book value</b>			
At 30 June 2018	<u>109,868</u>	<u>57,921</u>	<u>167,789</u>
At 30 June 2017	<u>85,551</u>	<u>54,096</u>	<u>139,647</u>

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - CONTINUED

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 2018 was £5,259,000 (30 June 2017: £6,488,000) and the software has an estimated remaining useful life of five years.

The Group has developed a group-wide enterprise resource planning and financial reporting solution. The net book value as at 30 June 2018 was £24,334,000 (2017: £22,498,000). The intangible asset is being amortised over the estimated useful life of 11 years.

Costs relating to a new operational system specific to our Marine business have also been capitalised amounting to £21,110,000 (2017: £16,670,000). This was in the course of development as at 30 June 2018 and completed subsequent to year end. The estimated useful life is 10 years.

### Acquisitions

#### Nettitude

On 15 March 2018, the Company acquired a 100% shareholding in the Nettitude Group by purchasing 100% of the issued share capital of Nettitude Limited. Total consideration was £44.9m consisting of: £38.7m of cash consideration; £5.0m of deferred consideration; £0.6m of acquisition costs; and £0.6m contingent consideration, payment of which is dependent on settlement of certain potential liabilities.

Founded in 2003, Nettitude is an award-winning provider of cyber security, compliance, infrastructure and managed security services to organisations worldwide.

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 assets acquired was £2.1m.

	Book value & fair value £000
Intangible fixed assets	611
Fixed assets	272
Current assets	2,850
Cash	1,993
Current liabilities	(4,811)
Deferred tax asset	1,215
	<u>2,130</u>
Goodwill arising on acquisition	42,813
Total consideration payable	<u>44,943</u>
Consideration analysed as:	
Cash consideration and acquisition expenses	39,294
Provision for deferred consideration	5,000
Contingent consideration	649
Total consideration payable	<u>44,943</u>

Intangible assets included within goodwill includes the assembled workforce, company knowhow and future market development potential.

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 2018 includes the result of Nettitude since the acquisition date and contributed £4.5m of turnover and £0.3m 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
<b>Cost or valuation:</b>								
At 1 July	122,883	39,108	22,044	42,830	4,120	59,022	5,072	295,079
Additions	—	436	881	3,331	172	3,690	410	8,920
Acquisition of subsidiary undertaking (note 14)	—	—	22	—	—	250	—	272
Transfer*	2,027	(6,966)	—	—	—	—	—	(4,939)
Revaluations	6,492	—	—	—	—	—	—	6,492
Disposals	—	(1,321)	(730)	(1,305)	(745)	(5,481)	(759)	(10,341)
Exchange differences	—	—	(257)	(84)	(33)	(155)	(164)	(693)
At 30 June	131,402	31,257	21,960	44,772	3,514	57,326	4,559	294,790
<b>Depreciation:</b>								
At 1 July	—	22,360	9,972	26,154	2,761	56,405	3,956	121,608
Charged in year	—	692	1,583	3,672	188	1,498	390	8,023
Transfer*	—	(4,939)	—	—	—	—	—	(4,939)
Disposals	—	(316)	(730)	(1,194)	(641)	(5,340)	(636)	(8,857)
Exchange differences	—	—	(185)	(59)	(30)	(148)	(120)	(542)
At 30 June	—	17,797	10,640	28,573	2,278	52,415	3,590	115,293
<b>Net book value:</b>								
At 30 June 2018	131,402	13,460	11,320	16,199	1,236	4,911	969	179,497
At 30 June 2017	122,883	16,748	12,072	16,676	1,359	2,617	1,116	173,471

\*73% (2017: 69%) 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 4% 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 £10,930,000 (2017: £13,570,000) and estimated market value of £49,264,000 (2017: £57,315,000).

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 2018 by the commercial property advisory company Savills, a member of the Royal Institution of Chartered Surveyors. The property is in mixed functional and investment use. A proportion of 73% (2017: 69%) is deemed an investment, based on the value of floor space let or marketed to third party tenants. The increased proportion has resulted in a transfer from land and buildings to investment property. The property valuation, with an effective date of 30 June 2018, was carried out on a market value basis by a surveyor holding a qualification from the Royal Institution of Chartered Surveyors who has recent experience in the location and class of investment property valued. If the investment property had not been revalued it would have been included at £31,786,000 (2017: £29,759,000).

Significant assumptions included in the valuation of investment property include current investment yields and estimated future rental values, having regard to the age and general condition of the property.

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

	2018 £000	2017 £000
Within one year	5,513	4,945
In the second to fifth years inclusive	22,615	19,872
After five years	27,894	22,940
	<u>56,022</u>	<u>47,757</u>

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - CONTINUED

### 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 historical 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

	2018 £000	2017 £000
Listed investments at market value comprise:		
Fixed Interest – UK	168,806	174,044
Fixed Interest – Overseas	854	1,330
Equities – UK	44,677	62,744
Equities – Overseas	133,088	109,363
Pooled Funds – UK	104,385	102,145
Pooled Funds - Overseas	—	22,640
Derivatives	287	(61)
Cash Instruments	942	8,243
	<u>453,039</u>	<u>480,448</u>
Cash at investment managers and accrued interest	6,330	6,067
	<u>459,369</u>	<u>486,515</u>
Unlisted investments	4,117	1,618
Long-term loans	253	301
	<u>463,739</u>	<u>488,434</u>
Investments in joint ventures: share of net assets	3,336	3,258
	<u>467,075</u>	<u>491,692</u>
Listed investments and cash held by investment managers		
	2018 £000	2017 £000
At 1 July	480,448	435,283
Other additions at cost	159,070	249,919
Disposals proceeds	(185,593)	(240,041)
Realised gain on disposals	30,605	11,064
Unrealised (losses) / gains	(31,491)	24,223
At 30 June	<u>453,039</u>	<u>480,448</u>
Cash held by investment managers and accrued interest	6,330	6,067
	<u>459,369</u>	<u>486,515</u>

### 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
Fullagar Technologies Limited	50%	United Kingdom	Development of inspection systems
Xinjiang LR Tunhe Social Economic Consulting Company Limited	50%	China	Engineering inspection

\* LR Apave IES Limited was struck off subsequent to 30 June 2018.

The shareholders' agreements in place for the above entities means that the Group does not have overall control of the company despite the nominal level of ownership.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - CONTINUED

The following shows the share of net assets recognised by the Group for these entities:

	Group	
	2018	2017
	£000	£000
Lloyd's Register Apave Limited	97	66
LR Apave IES Limited	—	—
Lloyd's Maritime Information Services Limited	115	115
Common Structural Rules Software LLC	—	—
Hanseaticsoft GmbH	3,064	3,077
Fullagar Technologies Limited	—	—
Xinjiang LR Tunhe Social Economic Consulting Company Limited	60	—
	<u>3,336</u>	<u>3,258</u>

At 30 June 2018 the Common Structural Rules Software LLC joint venture had net liabilities. The Group's share of the net liabilities amounted to £275,000 (2017: £35,000) 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 2018.

	2018	2017
	Total	Total
	£000	£000
Turnover	867,829	887,490
Cost of sales	(644,439)	(656,957)
Gross profit	<u>223,390</u>	<u>230,533</u>
Administrative expenses	(214,484)	(213,939)
Administrative expenses before exceptional costs	<u>(205,429)</u>	<u>(181,266)</u>
Operating profit before exceptional costs	17,961	49,267
Exceptional costs	(9,055)	(32,673)
Operating profit	8,906	16,594
Share of net operating loss of joint ventures	(652)	(795)
Net investment income	12,233	22,901
Other finance costs	(4,867)	(5,564)
Profit before taxation	<u>15,620</u>	<u>33,136</u>
Tax on profit	(4,253)	(9,858)
Profit for the financial year	<u>11,367</u>	<u>23,278</u>

	2018	2017
	£000	£000
Assets	997,295	885,727
Liabilities	(464,924)	(454,590)
Net assets	<u>532,371</u>	<u>431,137</u>
Shareholder's funds	532,371	434,764
Minority interests	—	(3,627)
	<u>532,371</u>	<u>431,137</u>



## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - CONTINUED

### Exceptional costs within administrative expenses

The 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 (£11.4m (2017: £6.5m));
- redundancy and severance incurred following the implementation of the Group's new ERP system and continued downturn in some of the Group's key markets (£4.1m (2017: £18.6m)) as discussed in the Strategic Report;
- the restructure of overseas pension arrangements resulted in a curtailment gain of £29.6m and settlement costs of £19.6m resulting in a net gain of £10.0m (note 20);
- an onerous lease provision of £3.6m (2017: £7.0m); and
- £0.6m in the prior year for set-up costs for the establishment of a shared service centre in Asia.

### 18. Work in progress

	2018 £000	2017 £000
Work in progress on uncompleted surveys and inspections	31,137	—
Less: amounts paid on account	(13,925)	—
	<u>17,212</u>	<u>—</u>

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

### 19. Debtors

	2018 £000	2017 £000
Trade debtors	195,107	170,321
Other debtors	7,036	9,999
Prepayments and accrued income	24,033	20,733
Taxation recoverable	25,405	26,348
	<u>251,581</u>	<u>227,401</u>

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

	2018 £000	2017 £000
Payments received on account	3,125	2,178
Invoices on account net of work in progress	—	993
Trade creditors	18,520	25,732
Grants payable	21,048	17,746
Other creditors	1,160	69
Other taxation and social security	18,358	17,966
Taxation	10,665	12,580
Accruals and deferred income	112,461	84,264
Fair value of foreign exchange derivatives	450	—
	<u>185,787</u>	<u>161,528</u>

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - CONTINUED

### 21. Creditors: amounts falling due after one year

	2018 £000	2017 £000
Grants payable	54,499	48,321
	<u>54,499</u>	<u>48,321</u>

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

	2018 £000	2017 £000
Due within one year	21,048	17,746
Due within 1-2 years	28,473	29,465
Due within 2-5 years	26,481	20,076
Due within 6-10 years	2,232	1,236
Impact of discounting	(2,687)	(2,456)
	<u>54,499</u>	<u>48,321</u>
Net grants payable	<u>75,547</u>	<u>66,067</u>

### 22. Provisions for liabilities

Analysis of other provisions:	Legal claims £000	Acquisition related £000	Employee related £000	Onerous lease £000	Deferred tax £000	Other £000	Total £000
At 1 July 2017	6,090	1,297	18,991	7,011	718	8,288	42,395
Exchange revaluation	(38)	—	(164)	—	—	(19)	(221)
Charged / (credited) to Statement of Financial Activities	190	(78)	35,539	3,648	(2,659)	1,312	37,952
Utilised	(1,220)	(422)	(28,619)	(1,464)	—	(1,416)	(33,141)
Deferred consideration on acquisition of Nettitude	—	5,000	—	—	—	—	5,000
Charged to other comprehensive income	—	—	—	—	20,776	—	20,776
At 30 June 2018	<u>5,022</u>	<u>5,797</u>	<u>25,747</u>	<u>9,195</u>	<u>18,835</u>	<u>8,165</u>	<u>72,761</u>

**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 several 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, including £12.3m relating to the settlement of Netherlands pension obligations disclosed in note 24, and repatriation of expatriate workers and other employment related costs. Settlement of these provisions is expected within six 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.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - CONTINUED

### 23. Financial instruments

The carrying values of the Group's financial assets and liabilities measured at fair value through profit and loss are summarised by category below.

	2018 £000	2017 £000
<b>Financial assets</b>		
Investments in listed investments (note 16)	452,097	472,205
<b>Financial liabilities</b>		
Forward currency contracts (note 20)	450	—

The Group's gains and losses in respect of financial instruments are summarised in note 11. The fair value of investments in listed investments 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 2018, the fair value of the call options was £nil (2017: £nil).

The Group enters into forward foreign currency contracts to mitigate the exchange rate risk for certain foreign currency receipts. At 30 June 2018, the outstanding contracts all mature within three months of the year end. The Group is committed to sell EUR 6,600,000, USD 5,300,000, KRW 687,700,000, JPY 127,400,000 and receive a fixed sterling amount. The forward contracts are measured at fair value, which is determined using valuation techniques that utilise observable inputs. The key inputs used in valuing the derivatives are the forward exchange rates for GBP: EUR, GBP: USD, GBP: KRW, GBP: JPY.

### 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 £77m in an escrow account as surety.

In the year ended 30 June 2018, special contributions of £8.83m (2017: £6.03m) 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 2018.

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

The financial assumptions used at 30 June 2018 and 2017 for the different areas are summarised below.

	UK <sup>(1)</sup>		Japan <sup>(2)</sup>		Eurozone <sup>(3)</sup>		Rest of the World <sup>(4)</sup>	
	2018	2017	2018	2017	2018	2017	2018 <sup>(5)</sup>	2017 <sup>(5)</sup>
Liabilities:	%	%	%	%	%	%	%	%
Rate of price inflation	3.0	3.1	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	3.5 to 7.0	4.4 to 7.0
Rate of increase in pensions	Various	Various	0.8	0.8	Nil to 1.8	Nil to 1.8	2.0 to 5.0	1.8 to 5.0
Discount rate	2.80	2.55	0.6	0.7	1.4 to 2.1	1.5 to 2.3	3.1 to 8.2	2.8 to 7.1

<sup>(1)</sup> Main United Kingdom funded scheme.

<sup>(2)</sup> Japanese unfunded liability.

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

<sup>(4)</sup> This represents a grouped disclosure for the remaining liabilities.

<sup>(5)</sup> Represents the range of assumptions used for the countries covered in the region.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - CONTINUED

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.

### Netherlands

Effective 1 January 2018, and following agreement with the Dutch works council, a Defined Benefit pension plan in the Netherlands was converted to a Collective Defined Contribution plan. The change has led to a curtailment gain of £29.6m and settlement costs of £19.6m, a net gain of £10.0m. Of the £19.6m employee provision created in the year, £12.3m remains outstanding at year end. At 30 June 2018 remaining Netherlands Defined Benefit pension plans have assets of £nil (2017: £187.1m), defined benefit obligations of £1.4m (2017: £209.2m) and a net deficit of £1.4m (2017: £22.1m).

### 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 other benefits including:

- 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	
	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017
	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m
Cash and cash equivalents	21.1	9.0	—	—	0.5	1.9	2.3	4.1	23.9	15.0
Equity instruments	188.3	215.0	—	—	3.2	110.1	30.4	29.1	221.9	354.2
Debt instruments	754.0	738.8	—	—	17.5	95.3	25.4	25.6	796.9	859.7
Real estate	—	—	—	—	—	0.7	—	—	—	0.7
Other	25.8	—	—	—	—	—	12.2	13.8	38.0	13.8
Market value of assets	989.2	962.8	—	—	21.2	208.0	70.3	72.6	1,080.7	1,243.4
Present value of scheme liabilities	(879.9)	(970.1)	—	—	(32.6)	(241.5)	(71.8)	(163.1)	(984.3)	(1,374.7)
	109.3	(7.3)	—	—	(11.4)	(33.5)	(1.5)	(90.5)	96.4	(131.3)
Present value of unfunded liabilities	(9.2)	(10.1)	(56.7)	(58.2)	(52.4)	(50.5)	(86.8)	(10.6)	(205.1)	(129.4)
Net pension liability	100.1	(17.4)	(56.7)	(58.2)	(63.8)	(84.0)	(88.3)	(101.1)	(108.7)	(260.7)

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

	2018	2017
	£m	£m
Pension surplus	119.2	8.1
Pension liability	(227.9)	(268.8)
Net pension liability	(108.7)	(260.7)

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - CONTINUED

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

	2018 £m	2017 £m
Current service cost	11.2	19.6
Curtailment gains	(30.7)	(2.6)
Administrative expenses	1.8	2.0
	<u>(17.7)</u>	<u>19.0</u>
Interest cost on schemes' liabilities	34.1	37.7
Interest income on schemes' assets	(29.2)	(32.1)
Total amount included under Other finance costs	<u>4.9</u>	<u>5.6</u>

In addition, there is a charge in respect of contributions to defined contribution plans of £30.2m (2017: £26.0m).

The actual return on scheme assets was £78.0m (2017: £96.1m).

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

	2018 £m	2017 £m
Gain on pension scheme assets	48.8	64.0
Experience (losses) / gains	(12.5)	6.6
Change in assumptions	78.6	(44.9)
Actuarial gain	<u>114.9</u>	<u>25.7</u>

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

	2018 £m	2017 £m
Opening defined benefit obligation	(1,504.1)	(1,448.3)
Current service cost	(11.2)	(19.6)
Curtailments	30.7	2.6
Member contributions	(0.5)	(0.9)
Interest cost	(34.1)	(37.7)
Actuarial gain / (loss)	66.1	(38.3)
Exchange adjustments	(2.3)	(21.7)
Settlement payments from plan assets	200.3	—
Benefits paid	65.7	59.8
Closing defined benefit obligation	<u>(1,189.4)</u>	<u>(1,504.1)</u>

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

	2018 £m	2017 £m
Opening market value of plan assets	1,243.4	1,167.9
Expected return on plan assets	29.2	32.1
Settlement payments from plan assets	(200.3)	—
Benefits and expenses paid	(67.6)	(61.7)
Employer contributions	26.0	23.3
Member contributions	0.5	0.9
Actuarial gain on assets	48.8	64.0
Exchange adjustments	0.7	16.9
Closing market value of plan assets	<u>1,080.7</u>	<u>1,243.4</u>

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - CONTINUED

### 25. Contingent liabilities

	2018 £000	2017 £000
In respect of bank guarantees	8,422	9,949
Escrow account for Pension Schemes	132,610	84,645
Other	3,000	1,711
	<u>144,032</u>	<u>96,305</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 historic 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 Group Limited unencumbered.

### 26. Operating lease commitments

At 30 June 2018, the Group had total future lease payments under non-cancellable operating leases as follows:

	Land and buildings		Other equipment	
	2018 £000	2017 £000	2018 £000	2017 £000
Operating leases which expire:				
Within one year	20,859	22,294	9,038	9,659
Within two to five years	54,642	53,256	10,326	12,980
Thereafter	77,717	52,192	60	94
	<u>153,218</u>	<u>127,742</u>	<u>19,424</u>	<u>22,733</u>

### 27. Funds

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

	Brought forward £000	Incoming resources £000	Resources expended £000	Other movements £000	Total £000
<b>2018</b>					
Trading funds	431,137	880,222	(870,368)	91,379	532,370
Unrestricted funds - general funds	4,004	10,244	(27,670)	554	(12,868)
Endowment funds:					
Expendable endowment	262,644	—	(929)	2,949	264,664
	<u>697,785</u>	<u>890,466</u>	<u>(898,967)</u>	<u>94,882</u>	<u>784,166</u>
<b>2017</b>					
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>

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - CONTINUED

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 £000
<b>2018</b>				
Trading funds – listed investments	26,786	(8,475)	(1,537)	16,774
Trading funds – investment property	63,178	6,492	—	69,670
Unrestricted – general funds	1,924	(3,306)	3,800	2,418
Endowment funds:				
Expendable endowment	33,639	(19,709)	22,658	36,588
	<u>125,527</u>	<u>(24,998)</u>	<u>24,921</u>	<u>125,450</u>
<b>2017</b>				
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>

### 29. Fund distribution

	Trading funds £000	Unrestricted funds £000	Endowment funds £000	Total 2018 £000	Total 2017 £000
Non-current assets	630,527	62,095	264,664	957,286	830,194
Current assets	365,699	2,094	—	367,793	388,624
Creditors: amounts falling due within one year	(164,297)	(21,490)	—	(185,787)	(161,528)
Creditors: amounts falling due after one year	—	(54,499)	—	(54,499)	(48,321)
Provisions	(72,761)	—	—	(72,761)	(42,395)
Pension deficit	(227,866)	—	—	(227,866)	(268,789)
Inter-fund balance	1,068	(1,068)	—	—	—
	<u>532,370</u>	<u>(12,868)</u>	<u>264,664</u>	<u>784,166</u>	<u>697,785</u>
	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>

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - CONTINUED

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

	2018 £000	2017 £000
Net outgoing resources before transfers and other recognised gains and losses	(8,501)	(7,173)
Pension interest cost	4,867	5,564
Loss / (profit) on disposal of fixed assets	45	(126)
Taxation	4,253	9,858
Exchange adjustment	(3,851)	9,914
Depreciation	8,023	9,627
Amortisation and impairment charges	24,546	20,581
(Increase) / decrease in work in progress	(17,212)	3,541
(Increase) / decrease in debtors	(21,690)	(1,942)
Increase in creditors	27,550	17,230
Increase in provisions	7,892	14,434
Foreign tax paid	(17,626)	(24,648)
Tax received	5,109	1,748
Defined benefit contributions in excess of funds charges	(12,886)	(1,734)
Curtailment gains	(30,700)	(2,600)
Net investment income	(19,464)	(20,682)
Impairment of unlisted investment	—	3,874
Cash (used in) / generated by operations	<u>(49,645)</u>	<u>37,466</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, £24.6m (2017: £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 party transactions

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 Foundation defines its key management personnel as the Bored of Trustees, the Board of Directors and the Executive Leadership Team of the Trading Group. The total remuneration for key management personnel for the year totalled £7,289,000 (2017: £5,036,000).

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
<b>Subsidiaries</b>			
Lloyd's Register Industrial Services (India) Pvt Ltd	—	(12)	—
Lloyd's Register International (Thailand) Ltd	85	(216)	(2,198)
Lloyd's Register Middle East LLC Abu Dhabi	1,291	(142)	(141)
Lloyd's Register Oman LLC	204	(1,268)	766
Lloyd's Register Qatar LLC	567	(873)	209
Lloyd's Register Technical Services Sdb Bhd	119	(1,838)	950
LR Technical Services Sdn Bhd	268	(2,067)	1,021
Senergy International Sdn Bhd	255	(859)	(1,573)
Senergy Global Resources Sdb Bhd	3,407	(6)	78
<b>Joint ventures</b>			
Lloyd's Register Apave Limited	—	(368)	—
Xinjiang LR Tunhe Social Economic Consulting Company Limited	—	—	—
Hanseaticsoft GmbH	—	—	—



## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - CONTINUED

During the year the Group has increased its investment in Common Structural Rules Software LLC from \$17,875,000 to \$18,475,000.

The Group 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

	2018 £000	2017 £000
Administrative services provided	240	468
Administrative services payable	20	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 (2017: £279,000) was outstanding as at 30 June 2018.

In order to accelerate the application of research carried out at The Welding Institute (TWI), TWI and the Trading Group have formed a joint venture, called Fullagar Technologies Limited. A grant of £666,000 was awarded to TWI during the year to pull TWI research into products and services. Of the grant awarded, £666,000 was outstanding at 30 June 2018.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - CONTINUED

### 32. Group companies

The following are the subsidiaries and joint ventures of the Group at 30 June 2018. All subsidiaries are consolidated. 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.

There are six entities included in the below list where the Group owns less than 50% of the subsidiary. All of these entities are incorporated in countries where local legislation requires local nationals to hold at least 50% of the issued share capital of each company. For each of these entities, arrangements exist which afford the Group control of the company's financial and operating policies so as to obtain benefit from its activities.

Company	Country of Origin	Registered Address	% of Ownership
Classification and Quality Services Ltd	UK	71 Fenchurch Street, London EC3M 4BS, UK	100
Classification Holdings Ltd	UK		100
Lloyd's Maritime Information Services Ltd	UK		50
Lloyd's Register Apave Limited (dissolved 3 July 2018)	UK		51
LR Apave IES Limited	UK		51
Lloyd's Register Asia <sup>1</sup>	UK		100
Lloyd's Register Asia Trustees Limited <sup>1</sup>	UK		100
Lloyd's Register Consulting - Energy Limited	UK		100
Lloyd's Register Central and South America Ltd	UK		100
Lloyd's Register EMEA <sup>1</sup>	UK		100
Lloyd's Register EMEA Trustees Ltd <sup>1</sup>	UK		100
Lloyd's Register GMT Ltd	UK		100
Lloyd's Register Group Services Limited	UK		100
Lloyd's Register Inspection Ltd <sup>1</sup>	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 <sup>1</sup>	UK		100
Lloyd's Register Superannuation Trustees Ltd	UK		100
Lloyd's Register Verification Ltd <sup>1</sup>	UK		100
LR Senergy Limited	UK		100
Seasafe Marine Software & Computation (UK) Ltd	UK		100
Nettitude Ltd	UK		100
Theat2Alert Limited	UK		100
Nettitude Forensics Limited	UK		100
Fullagar Technologies Limited	UK	Bevan Braithwaite Building Granta Park, Great Abington, Cambridge, United Kingdom, CB21 6AL	50
Lloyd's Register Drilling Integrity Services (UK) Ltd	UK	Kingswells Causeway, Prime Four Business Park, Kingswell, Aberdeen, AB15 8PU, Scotland	100
Lloyd's Register Finance Limited (formerly Senergy Technology Limited) <sup>1</sup>	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 & Geoengineering Limited	UK		100
Senergy Resources Limited	UK		100
Senergy Group Limited	UK		100
Senergy Software Limited	UK		100

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - CONTINUED

Company	Country of Origin	Registered Address	% of Ownership
Senergy Limited	UK	7 Bon Accord Square, Aberdeen, AB11 6DJ, Scotland, 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
Ternan Limited (dissolved on 4 July 2017)	UK		100
Floyd and Associates Holdings Limited (dissolved on 29 August 2017)	UK		100
RTAMO Limited	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	50 Lothian Road, Festival Square, Edinburgh, EH3 9WJ, Scotland, UK	100
Acoura Marine Ltd	UK		100
Acoura Ltd	UK		100
SFQC Ltd	UK		100
Food Certification Scotland Ltd	UK	Perry Scott Nash House, 2 Arlington Business Park, Stevenage, Herts, SG1 2FS, UK	100
Food Certification International Ltd	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 (dissolved 22 December 2017)	AUSTRALIA	Level 1, 60 Toorak Road, South Yarra VIC 3141, Australia	100
Lloyd's Register Bangladesh Pvt Ltd	BANGLADESH	11 <sup>th</sup> Floor, 9 Mohakhali C/A, Dkaka – 1212, Dhaka, Bangladesh	100
Lloyd's Register Belgie vzw	BELGIUM	Lloyd's Register Belgie VZWD, 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		100
Lloyd's Register Quality Assurance Canada Limited	CANADA	5420 North Service Road, Suite 506 Burlington, Ontario L7L 6C7 Canada	100
Lloyd's Register Drilling Integrity Services Canada Ltd (dissolved 31 May 2018)	CANADA	Suite 400, 355 4th Avenue SW, Calgary AB T2P 0J1, Canada	100
Lloyd's Register Energy Canada Ltd	CANADA	Suite 400, 355 4th Avenue SW, Calgary AB T2P 0J1, Canada	100
Lloyd's Register Canada Limited	CANADA	1888 Brunswick Street, Suite 400, Halifax NS B3J 3j8, 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	19 <sup>th</sup> Floor, 550 Yan An dong Road, Huangpu District, Shanghai, China	100
Lloyd's Register Industrial Technical Services (Shanghai) Co. Ltd	CHINA	20 <sup>th</sup> Floor, Ocean Towers, No 550 Yan An Dong Road, Huang District, Shanghai, China	100

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - CONTINUED

Company	Country of Origin	Registered Address	% of Ownership
LRQA (Shanghai) Co Ltd	CHINA	20th Floor, Ocean Towers, No 550 Yan An Dong Road, Huang District, Shanghai, China	100
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	Alablancaweg No. 30 Wilhelminalaan 13, Curaçao	100
Lloyd's Register Denmark Holdings ApS	DENMARK	Strandvejen 104 A, 2 <sup>nd</sup> Floor, DK-2900, Hellerup, Denmark	100
Lloyd's Register Consulting - Energy A/S	DENMARK	Strandvejen 104 A, 2 <sup>nd</sup> Floor, DK-2900, Hellerup, Denmark	100
Lloyd's Register Egypt LLC	EGYPT	Apartment no 303-3 <sup>rd</sup> 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, Adolf-Grimme-Allee 3, 50829 Köln, 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. <sup>1</sup>	ITALY	Via Sottoripa 1A/112	100
Lloyd's Register Quality Assurance Italy Srl	ITALY	16124 Genova GE, Italy Piazza della Vittoria 6, 16121, Genova, Italy	100
Lloyd's Register Consulting - Energy Private Ltd	INDIA	503, 5 <sup>th</sup> 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, 6 <sup>th</sup> Floor, Kondivita Lane, Off Andheri-Kurla Road, Andheri (E), Mumbai, 400 059, India	51
PT Lloyd's Register Indonesia	INDONESIA	Menara Dea Tower 1, 12 <sup>th</sup> Floor, JL Mega Kuningan Barat IX Kav, E4.3 No1, Kawasan Mega Kuningan, Jakarta, 12950, Indonesia	100
Lloyd's Register Japan Kabushiki Kaisha	JAPAN	Queen's Tower A, 2-3-1 Minatomirai, Nishi-Ku, Yokohama	100
Lloyd's Register Kazakhstan LLP	KAZAKHSTAN	29/6 Satpayev Street, Floor, Rakhata Palace Hotel, Almaty, Kazakhstan	100
Lloyd's Register Quality Assurance (Korea) Ltd	KOREA	17 <sup>th</sup> 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	No 10, Persiaran KLCC, 50088, Kuala Lumpur, Malaysia	100
Lloyd's Register Technical Services Sdn Bhd	MALAYSIA	No 10, Persiaran KLCC, 50088, Kuala Lumpur, Malaysia	49
Senergy International Sdn Bhd	MALAYSIA	10 <sup>th</sup> Floor, Menara Hap Seng, No 1& 3, Jalan P Ramlee, 50250, Kuala Lumpur, Malaysia	49
Senergy Global Resources Sdn Bhd	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

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - CONTINUED

Company	Country of Origin	Registered Address	% of Ownership
Lloyd's Register Drilling Integrity Services Holding B.V	NETHERLANDS	Gapingseweg 1A, Serooskerke, 4343JA, Walcheren, Netherlands	100
Lloyd's Register Nederland BV	NETHERLANDS	Wnna-Zuid 168, 3012NC, Rotterdam, Netherlands	100
LR Verification BV <sup>1</sup>	NETHERLANDS	KP van der Mandelelaan 41 A, 3062 MB Rotterdam, Netherlands	100
Lloyd's Register Norway Holdings AS	NORWAY	P.O. Box 376 Skøyen, N-0213 Oslo, Norway	100
Lloyd's Register Consulting – Energy AS	NORWAY	Drammensveien 169, N-0277 Oslo, Norway	100
Lloyd's Register EMEA (Nigeria) Ltd Gte	NIGERIA	6th Floor, B Wing, Shippers Plaza, 4 Park Lane, Apapa, Lagos, Nigeria	100
Lloyd's Register West Africa Ltd	NIGERIA	6 <sup>th</sup> 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 21, Way No 2710, 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	Sos. Iancului 31, Etaj 3, 021716 Bucuresti, Romania	100
Lloyd's Register Saudi Arabia Ltd	SAUDI ARABIA	Office Number 7 Second Floor, West Tower Building, AL Khobar, Abdul Azeez Street, Saudi Arabia	100
Lloyd's Register D.O.Ö. (Beograd)	SERBIA	Vojvode Stepe 78, Beograd, 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, Sinagpore	100
Lloyd's Register Signapore Pte Limited	SINGAPORE	1 Fusionopolis Place, #09-11 Galazxis, 138522, Singapore	100
Senenergy Oil and Gas (Singapore) Pte. Ltd.	SINGAPORE	6 Temasek Boulevard, #29-00 Suntec Tower GOur, 038986, Singapore	100
Lloyd's Register Consulting – Energy AB	SWEDEN	PO Box 1288, 172 25 Sundbyberg, Sweden	100
LRQA Sverige AB	SWEDEN	Goateborgsvagen 74, Box 2107, 43302, Svedalen, 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	3388/78 Floor 22, Sirinrat Building, Rama IV Road Klong-Ton Sub-district, Klong-Toey District, Bangkok, 10110, 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. <sup>1</sup>	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

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - CONTINUED

Company	Country of Origin	Registered Address	% of Ownership
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
Lloyd's Register Quality Assurance, Inc.	USA		100
Lloyd's Register Technical Services, Inc.	USA	50 Broad Street, New York, NY 10004	100
LR Insurance, Inc.	USA		100
Nettitude, Inc.	USA	501 County Road, Westbrook Maine 04092, USA	100
SGC Engineering LLC	USA	1209 Orange Street, Wilmington, Delaware 19801, USA	80
i4Insight, Inc	USA	Suite 450 Petrovietnam Tower, 8 Hoang Dieu Street, Ward 1, Vung Tau City, Ba Ria, Vung-Tau Province, Vietnam	100
Lloyd's Register Asia (Vietnam) Company	VIETNAM		

<sup>1</sup> Wholly owned directly by Lloyd's Register Group Limited

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) Ltd	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
Senergy Resources Limited	Scotland	SC346964
Lloyd's Register Finance Limited	Scotland	SC320138
Senergy Aligned Services Limited	Scotland	SC318186
Senergy Oil and Gas Limited	Scotland	SC350041
Senergy Holdings Limited	Scotland	SC252441
Senergy Limited	Scotland	SC273506
Seasafe Marine Software & Computation (UK) Limited	England and Wales	03791480