The Institution of Mechanical Engineers

Trustee Board's Report and Annual Accounts for the Year Ended 31st December 2017

Incorporated by Royal Charter 1930
Registered Charity No: 206882

The Institution of Mechanical Engineers

Trustee Board's Annual Report
For the year ended 31st December 2017

The Institution of Mechanical Engineers

Trustee Board's Annual Report
For the year ended 31st December 2017

The members of the Trustee Board submit their annual report and audited accounts for the year ended 31 December 2017. The provisions of the Statement of Recommended Practice (SORP) “Accounting and Reporting by Charities” issued in 2015 have been adopted in preparing the annual report and accounts of the charity.

Charity objectives, policies, activities and organisation

Our vision is "Improving The World Through Engineering"

Our mission is to be the recognised authority in Mechanical Engineering supporting a global Engineering Community. In order to achieve this vision and mission we have developed 6 strategic imperatives which are set out in section 2, page 7 to 11:

Structure, governance and management of the charity

The Institution is governed by a Trustee Board which is composed of members of the Institution. Details of members who served as trustees during 2017 can be found in the Legal and Administrative Information section of this document.

Reporting to the Trustee Board either directly or indirectly are a number of boards and committees that are concerned with particular areas of the Institution's activities. These boards and committees are composed of members of the Institution with a specific interest or knowledge in the relevant activity.

Regionally, the Institution has a structure to organise activities on a local basis, each Region having its own committee and chair. In addition, there are also a number of Centres, which are local groupings of members with an interest in a specific sector of mechanical engineering, e.g. railway and automotive.

Members give their time to the Trustee Board, other boards and committees on a purely voluntary basis. While the success of the Institution is dependent on the efforts of its members, it is important that their work is supported by a well-trained and professional staff. The Chief Executive is responsible to the Trustee Board for organising the employees of the Institution.

Charity Commission code of governance

The Institution takes its governance responsibilities seriously and, as a large charity, aims to have a governance framework that is fit for purpose, compliant and efficient. In 2017 the new Charity Code of Governance was launched, with a recommendation that charities review their level of application and to explain any aspects of the code they were not applying. The Institution carried out a detailed examination of each element of the code:
- Organisational purpose
- Leadership
- Integrity
- Decision making, risk and control
- Board effectiveness
- Diversity
- Openness and accountability

Our review found we apply the code with a few exceptions. The main areas where we differ from the recommendations are:
1) Our Board consists of 13 full members and 2 ex officio members, which is larger than the recommended size of 5-12 trustees.
2) All trustees are elected, which means we cannot ensure that they are selected on merit against objective criteria.

We can co-opt additional Board members to fill specific skills gaps which mitigates against the second area of non-compliance, but only at the cost of exasperating the first one. During 2017 the Institution commissioned our internal auditors to conduct a governance review regarding the structure and membership of the Board and its sub-committees and boards. This will be reviewed by the trustees during 2018.

Internal control

The systems of internal control are designed to provide reasonable, but not absolute, assurance against material misstatement or loss. The Trustee Board has in place wide ranging measures to identify and manage risk, the key elements are:

- **Delegation -** There is documented delegation of authority and segregation of duties. There is also a clear organisational structure for the employees and a separate but aligned structure for the membership organisation. There are clearly defined terms of reference for all boards and committees. Decisions are reviewed at employee and member committee level before referral to the Trustee Board.

- **Reporting -** A long term strategic plan is produced. This is reviewed and updated annually. From this an annual business plan linked with the annual financial budget is produced. All plans are approved by the Trustees and progress is reported upon quarterly. The financial results are reported upon monthly and updated through the use of forecasting as required. The investment strategy is reported upon to the Audit and Risk Committee and approved annually by the Trustees

- **Review –** The Board reviews the charity's position on internal control and its compliance with relevant statutory and financial regulations. An internal audit function provided by BDO backs this up.

Employee involvement

The Trustee Board recognises that one of the key factors in the current and future success of the Institution is the relationship between members and employees.
During 2017 a formal employee engagement forum was established with representatives from all departments to take the lead on identifying and addressing issues affecting employee engagement.
Employees are regularly consulted on issues of concern to them, with regular forums for staff and management levels. Staff are provided with full job descriptions, a handbook on employment policies and procedures, written guidance on financial and grievance procedures, and access to job related training. Other measures include:

- Briefings for staff from the Chief Executive.
- Publication on the intranet of the business plans, both annual and long term.
- Publication of a comprehensive range of employment related policies covering areas like Health & Safety, Equal Opportunities and grievance procedure.
- Induction programmes for new staff and exit interviews for those that leave.
- Encouragement to develop job skills via in-house and external training courses.
- Frequent surveys on particular areas of interest

Arrangements for setting the pay and remuneration of key personnel

The remuneration of senior management at director level and above is reviewed and approved annually by the Remuneration Committee. The Committee ensures arrangements are affordable and fair, and designed to motivate and reward performance in the interests of the Group. Remuneration is benchmarked periodically using external surveys and data which include both commercial and not for profit organisations.

Importance of the efforts of unpaid volunteers and provision of free facilities

As explained in the section on the organisation of the charity, the Institution is dependent upon the efforts of unpaid members throughout its structure for its governance and for most of its activities both revenue generating and otherwise. However, the Institution does pay for most of the facilities that it uses - particularly at national level. Locally, in the Regions and Centres, there is some dependence on the provision of free facilities to hold meetings.

Public Benefit Statement

The Trustees confirm that they have complied with the duty in Part 1, Section 4 of the Charities Act 2011 to have due regard to the Charity Commission’s general guidance on public benefit, ‘Charities and Public Benefit’.

The Institution’s charitable purpose is enshrined in its objects as described above. The Trustees ensure that this purpose is carried out for the public benefit by delivering services that are valued by our members and setting standards of achievement for Engineers, thereby engendering public confidence and trust. Membership is open to people who are pursuing a career or have an interest in Mechanical Engineering.

The Institution actively pursues the development of debate and action on topics for the betterment of society that relate to Mechanical Engineering. These topics are detailed in the Trustees report. The Institution provides free literature, free lectures and free access to the library to encourage members of the public to engage in the improvement of the world through Engineering.

Risk Management

Risks are identified and managed through a formal risk register which is considered twice a year by the Audit and Risk committee. New members of the Trustee Board go through an induction process to familiarise them with their role in the Institution and their legal responsibility as a charity trustee, and are provided with the opportunity for on-going training. Staff with appropriate professional qualifications are employed in key posts. Independent professional advice is used in areas such as charity law, investment management, freehold land and buildings, staff pension scheme, governance and elsewhere as appropriate. Comprehensive insurance cover designed after consultation with our broker and insurance providers is in place to meet the risk profile of the Institution.

The Board of Trustees has overall responsibility for risk management and internal control. It regularly reviews the processes in place for managing risk to ensure they are robust and operate effectively throughout the Institution. Comprehensive risk registers are maintained at all levels and regularly reviewed.

RISK APPETITE STATEMENT 2017

INTRODUCTION

1. Our Risk Appetite Statement describes the total impact of risk the Institution is prepared to tolerate in the pursuit of its strategic objectives. It reflects:

a. Our duty of care.
b. Our long-term strategy, business plans and member expectations.
c. Our charitable principles and our Royal Charter.
d. Our willingness and capacity to take on risk.
e. The practicalities, skills and resources required to manage and monitor risk within the Institution.
f. Our tolerance for loss or negative events that can be reasonably quantified.
g. Periodic review with regard to evolving industry and market conditions.
h. The collective approval of the Trustee Board.

OUR APPROACH

2. The Institution's approach is to minimise exposure to reputational and compliance risk, while tolerating and, in some circumstances, encouraging an increased degree of risk in pursuit of its mission and objectives. It recognises that its appetite for risk varies according to the activity undertaken. Acceptance of risk is subject always to ensuring that potential benefits and risks are fully understood at appropriate, pre-defined levels, before activities are authorised, and that sensible measures to mitigate risk are established.

3. Our appetite for risk is inextricably linked to our capability to manage it. The Institution operates pragmatic processes, commensurate with its size and resources, for the identification, evaluation and management of risk that threaten the achievement of its strategic objectives. It records them in the Institution risk register, which is monitored by the Trustee Board twice a year. The Audit and Risk Committee ensures that risks are actively managed within a framework of risk management and delegated authorities, with the appropriate strategies in place to work effectively. Sub-division and subsidiary company risk registers ensure operational risks are identified and managed. Management oversight and audit support this process and undertakes reviews of key areas throughout the year.

During 2017 the Institution appointed a Chief Risk Officer to lead the risk management and mitigation processes, in particular to ensure compliance with the GDPR regulations which come into force in 2018.

MAJOR ORGANISATIONAL RISKS

Compliance and reputation

GDPR	As a membership organisation we are particularly sensitive to issues relating to data protection and the 2018 GDPR requirements. We have recruited a Chief Risk Officer, mapped our data flows, and created a detailed GDPR risk register and project plan for addressing them.
Health & Safety	We have a health & safey committee and employ professionally qualified facilities management staff to ensure H&S conformity at all sites. We have regular site inspections and reviews by senior management and a Health & Safety report is reviewed by the Trustee Board.
Cyber-security	This is an area of continuous change as technology evolves. As part of our wider digital transformation we are building in cyber security routines into our systems and processes, including penetration testing by external 3rd parties.

Operations and Change Management

IT infrastructure	A new Head of Digital and IT has been appointed. We have an approved infrastructure investment strategy as part of Digital Transformation plan to improve the robustness and reliability of our IT infrastructure. In the short term we are managing our exposure through maintenance contracts for hardware and software and business continuity planning.
Digital transformation	The Institution has approved a 3 year investment programme with detailed programme planning and reporting with regular monitoring of work streams and outputs to senior management. Staff engagement is critical to benefits realisation and we have staff involvement in the specification and implementation of new systems and changes to ensure the achievement of planned efficiency savings and improvement and innovation.

Membership

Continuing relevance to modern engineers	Our registered membership continues to grow but, following the publication of the Uff report (see p.12 for more details on this), we are actively engaging with other professional engineering institutions (PEI's) to address the issues raised. We conduct regular membership surveys and act upon the results. One key objective of the digital transformation programme is that of improving relevance to membership through the provision and delivery of better products and services.
Supply of future engineers	In collaboration with the other PEI's, we engage with government, industry and education to promote and encourage young people to study maths and science at school and pursue engineering paths in further and higher education and training.

Financial

Disproportionate cost of maintaining One Birdcage Walk	We have professional management of our long term project to manage the capital costs of maintaining the fabric of the building and the strategy is reviewed and approved by the trustee board. We let surplus space to tenants and operate a venue hire business to partially offset the operating costs of the building. However, capital requirements are likely to increase substantially over next 5 years. We are investigating options to reduce the impact on the level of our charitable activity.
Returns form commercial trading investments	The liquidation of Amber Train has highlighted risks in this area and we have a temporary moratorium on new acquisitions while lessons are fully learned. We have a Commercial and Investments Board including three commercially experienced non-executive directors and a new Finance & Commercial Director was recruited in 2017. We have changed the management in the subsidiaries and there are regular reports and reviews

Annual Review 2017

1 President's Review

At least in the UK and probably for a large part of the world there has been political and economic uncertainty during 2017. Despite this, which was expected by some to decrease employment opportunities in some sectors, industry leaders are stating there is a significant shortfall in the availability of engineers with the right skills to support their businesses.

Therefore the Institution's work is as incredibly important as at any time in the past; in increasing the awareness amongst young people and the people who influence them, as to how exciting and creative our profession can be; and in driving the capability of those who do become engineers. We do this through accrediting degree courses and engaging with apprenticeships: and then delivering top class opportunities for practising engineers to become professionally registered and to maintain, broaden and grow their skills throughout their working life. This report describes in more detail the achievements of both the members who commit 100s of 1000s of hours of working voluntarily for the Institution and also our staff colleagues.

Whilst continuing to deliver what is in my opinion amazing benefit to the engineering community we also recognise the changing environment in which engineers learn and work. For this reason we have spent considerable time in 2017 looking at how we might work with other professional organisations to deliver even greater professional benefit - more technically integrated and spanning the various disciplines of engineering. In this way we plan to be more closely aligned to the needs of all employers, and ultimately society.

Since May when I became President and chair of the Board, I have had the privilege of meeting many members and Institution staff who work tirelessly to make our organisation one of the best of its kind. I have also had unprecedented and privileged opportunities of visiting companies, educational establishments and other organisations who are engaged in superb engineering work. This has reinforced with me just how great it is to be an engineer.

We are a charity; and in order to continue our work and to achieve our aspirations, we of course need to maintain and grow our financial well-being. This year has presented some tough challenges in this respect.

We have, since 2011, acquired a number of companies with the particular aim of producing a commercial return more favourable than other forms of investments to generate funding for our charitable activities. During 2017 however we liquidated Amber Train, one of those acquisitions, due to irregularities in that company. Related to this we published the accounts for 2016 later than usual in September 2017.

This year we are publishing a year end operating loss of £1.6M in terms of income versus expenditure for the charity and its trading subsidiaries; and an additional loss of £0.6M due to costs related to Amber Train. On the positive side we have gains from our investments in the market and our pension scheme has benefitted by around £2M due to actuarial gains.

This year has made particular demands upon our staff and our members who together deliver amazing work, worldwide. I am very grateful to them for enabling our wonderful Institution to continue on its mission during 2017 to 'improve the world through engineering'.

Carolyn Griffiths CEng FIMechE FREng
President

2 Achievements and performance

Strategic Imperative 1 - Leading as the qualifying body for a broad spectrum of engineering activity

Membership growth

Continued strong growth in membership numbers and increased retention testifies to the valued service the Institution offers its members. For the seventh year running, the Institution was the leading professional engineering institution for registrations in all categories. The number of new elections recorded at the Engineering Council rose by 1.7% to 2,818 and total membership exceeded 120,000, of which 55% were paying members. Applications were strong in most grades of membership, particularly CEng, with applications surpassing 2,000 for the first time, and EngTech applications rising by 5%.

Our international presence also grew strongly. For the first time, the numbers of international members exceeded 25% to reach 31,245. In 2017, we elected 8,131 members of which 1,380 were new paying members, 4% more than in 2016 with strong growth seen in India (9% increase).

Following the launch of our South-East Asia operations in 2017, we achieved a 17% increase in paying members (222) across Brunei, Singapore and Malaysia through new corporate account development. Progress is also being made working in collaboration with other UK PEIs (Institution of Chemical Engineers, the Institution of Civil Engineers and the Institution of Marine Engineering, Science and Technology) to raise the profile of professional registration in SE Asia.

Strategic Imperative 2 - Providing members with professional, ethical standards, life-long learning and continuous development through knowledge

Member engagement

Once again, the membership have been active in the UK and around the world. The efforts of those who volunteer their time on behalf of the Institution are highly valued on the ground and do much to bring the Institution to life in the community and in the work place.

In 2017, 997 member-organised events were hosted across the UK compared with 1,200 in 2016, however the number of delegates attending increased by 10% to 43,000. The numbers of students engaged in STEM activities surpassed 111,000, also up by 10%. The latter achievement reflected a substantial increase in new volunteers, particularly new STEM Ambassadors. A remarkable 582 new volunteers joined in 2017, compared with 136 in 2016.

International networking also continued apace with 766 IMechE events. The international network also organised 285 joint events with local professional bodies in 2017, more than double the number run in 2016, further demonstrating a collaborative approach internationally with an agreement of cooperation signed with Engineers Australia. Hong Kong and Sri Lanka groups both celebrated their 20th anniversaries, and a new group was formally launched in Brunei as part of the South-East Asia regional development.

Our young members worldwide organised and participated in 46 Speak Out For Engineering competitions designed to encourage engineers to showcase their talents in "speaking" technical mechanical engineering subjects to non-technical audiences, as well as hosting five Global Engineering Debates on the subject of Healthcare Engineering for an Ageing Population.

Following a pilot in 2016, our Career Developer online tool, which enables users to plan, record and review their professional development, was successfully used for the Engineering Council's 2017 audit, with 2,778 members participating in the audit from a select pool of members.

Our library information services continued to be well used, with more than 250,000 documents being downloaded (approximately 1,000 each working day). We also ran a series of successful blogs, on subjects including Early Rail and Motor Racing, which attracted more than 12,000 visitors, the virtual archive receiving over 25,000 visits and a thematic online exhibition jointly with a partner organisation (Engineers at War based on the centenary of World War I).

Digital transformation

Our drive to be a 'digital first' organisation gained pace in 2017, laying the foundation for major changes in our ways of working in 2018. We introduced a new email platform with greater reliability and functionality enhancing our member engagement, resulting in a 36% increase in click-throughs to the website and contributing to a higher uptake of training and attendance at events.

Digital engagement with members and other audiences achieved significant growth:
• Websites: 2.3 million sessions (+9.2%)
• Policy pages: 96,000 page views (+39%)
• Report downloads: 5,000 (+22%)
• Facebook 'likes': 506,000 (+2.4%)
• Twitter audience: 46,000 (+23%)
• LinkedIn audience: 25,371 (+21%)

Employer and academic engagement

The Institution continues to build long-term relationships with companies and education establishments to support engineers and encourage professional registration.

The Monitored Professional Development Scheme (MPDS) is our approved and quality-controlled route for graduate engineers. We have now accredited 272 company schemes (including six professional training university schemes). We have also approved 118 Apprentice Company schemes and 98 Training Provider schemes. A total of 73 universities is currently accredited by the Institution, one more than last year despite a rationalisation of the accreditation schedule to drive cost efficiencies.

Working with the awarding organisation EAL, we launched an end point assessment service for apprenticeships despite the uncertainty around these new schemes, and were accepted to the UK Government register of endpoint assessment organisations.

UK membership development highlights

Activity / Objective	2017	% change year-on-year
Total number of visits to employers, academia and regional membership events	1,385	+7%
Regional events	106	+14%
Number of company-based registration schemes launched/suppported	258	+4%
Number of new companies/sites engaged	182	+2%
University first year/affiliate presentations delivered	85	+9%
Apprenticeship EngTech/affiliate presentations delivered	156	+13%

Strategic Imperative 3 - Inspiring, training and educating the next generation of engineers

LEADING THE CHANGE
The Institution is committed to addressing the engineering skills gap and inspiring the next generation of engineers. Leading the Change is a comprehensive approach to changing perceptions amongst young people that involves working with a range of stakeholders, from young people themselves, to the teachers and parents, through to politicians. Our young people’s strategy has five objectives which we are addressing through various initiatives across the Institution:

Inspire: Igniting enthusiasm in young people from an early age.

Inform: Providing access to advice and information that can help shape their future.

Transform: Enhancing the practice, skills and knowledge of educational professionals.

Understand: Gaining greater insights into the ways young people learn and develop their attitudes to engineering, while finding out which interventions work best.

Influence: Working with those responsible for shaping education policy throughout the UK.

Education engagement outreach

Our Education and Skills Strategy Board continued to support a programme balancing the different elements of the ‘Leading the Change’ approach. This tactic has been adopted by Engineering UK and the Royal Academy of Engineering for their joint work on education following a key recommendation from the Uff Review where joint Professional Engineering Institution (PEI) education outreach projects should be implemented in 2018. Our major investments continued to be Primary Engineer, STEM Learning Ltd and Bloodhound.

Primary Engineer ran 94 events across the UK including 16 Leaders’ Awards events attracting over 1,700 members of the public. We continued to work in collaboration with fellow PEIs and Engineering UK to produce and promote Tomorrow’s Engineers activities and materials. Approximately 1 million students and over 20,000 teachers used the materials through print and downloads in 2017.

Our ‘We Think It Is important But We Don’t Quite Know What It Is’ report on young people’s exposure to engineering in schools was well received by Members of Parliament, and is informing the collaborative education programme alignment being undertaken by Engineering UK and the Royal Academy of Engineering.

We met regularly with a range of Government departments to discuss the Year of Engineering 2018. It was agreed that our Engineering Education Grant Scheme, which supported 27 innovative projects in 2017 jointly funded with the Institution of Engineering and Technology (IET), will form a high profile element of the Government's Year of Engineering, 2018.

The year ended with joint workshops with IET and STEM Learning Ltd on STEM Ambassadors, which will form the basis for further collaborations in 2018 aimed at encouraging greater contact between schools and employers.

The Bloodhound SSC Newquay test run event in October was a great success engaging over 9,000 people over 3 days and attracted worldwide media attention. Over 100 schools attended the education day.

Student and apprentice challenges

The Railway Challenge, the Unmanned Aircraft Systems (UAS) Challenge, the Design Challenge and the Home Automation Challenge all continue to grow in influence and engagement. They also raise the profile of the Institution in the eyes of students and apprentices considering engineering as a career. 67 universities/colleges and 117 teams participated in the challenges.

FORMULA STUDENT
Formula Student enjoyed another highly successful year with 125 teams from all over the world taking part, including the first ever team from Mexico. Over five days in July, Silverstone played host to more than 7,000 attendees. For the first time a volunteer village was established for the competition's 250 volunteers. On the digital front, the first ever Formula Student webinar took prospective competitors through the 2018 rules, attracting a truly global audience.

Strategic Imperative 4 - Promoting the role, importance and value of engineering

INCREASING THE INSTITUTION'S PROFILE
The Institution is committed to raising the profile of engineering and providing expert commentary and advice to media organisations across the world.

We continue to provide insight into advances in engineering and comment on current affairs through our regularly updated web news pages and in Professional Engineering magazine. We also commissioned six polls on topical issues in engineering, such as apprenticeships, driverless cars and UK electricity generation, which gathered considerable media interest including mentions in The Guardian and The Daily Mail.

Our eight **Engineering Heritage Awards** – the latest being the 1903 Daniel Adamson Steam Ship in Albert Dock, Liverpool – continued to be popular with members and generated significant regional media coverage.

In 2017 we released 12 reports and policy statements on key issues in engineering and manufacturing including:
• Railway capacity
• The health of the manufacturing sector in the UK
• The supply of skills to the engineering sector
• Personalising transport
• Government apprenticeship initiatives
• Gender specific issues in engineering employment

We also released a number of shorter, impactful case studies on topics such as nuclear power and management of incontinence.

Reporting of these outputs enabled us to achieve the equivalent of £47.8 million of media coverage.

Strategic Imperative 5 - Acting as the focus to which the world's organisations turn for help, advice and informed opinion on mechanical engineering to tackle global challenges

SETTING THE AGENDA
The Institution is a leading player in informing governments on policy in areas related to mechanical engineering. With an international membership spanning the industrial and academic sectors, we are uniquely placed to advise governments and policy-makers in the UK and further afield.

Brexit has dominated our public affairs work. We were mentioned in The Evening Standard, The Guardian and The Engineer for our campaign to maintain CE-marking capability for medical devices and for our work on the Euratom Treaty in relation to maintaining an effective UK nuclear sector. This latter work resulted in us giving verbal evidence to a UK parliamentary select committee.

Our policy team was called upon to speak publicly at national and regional events, on behalf of the Institution, on topics such as education and skills shortages, the experience of female engineers, clean shipping, national air quality and low emission vehicles, the future of transport, and the role of engineering in medicine.

Strategic Imperative 6 - Encouraging innovation, research and entrepreneurship in engineering

PROMOTING INNOVATION
The Stephenson Fund fulfills our founding purpose to promote invention and innovation. As an organisation at the forefront of the engineering profession, we are ideally placed to identify and invest in innovative companies and technologies. Our investments, which are administered by our partner Midven, are not just about providing monetary support, but also about connecting companies to resources, knowledge and an expert network. We provide practical support to entrepreneurs through the work of the Learned Society.

During 2017, The Stephenson Fund made two further investments in fledgling companies:

Inductosense who have developed an innovative approach to ultrasound measurement for non-destructive testing using sensors permanently embedded in industrial pipework and handheld scanners.

Utonomy who have developed a novel actuator for the low-pressure gas network that promises to reduce costs for network operators and reduce leakage of methane, a greenhouse gas up to 100 times more damaging to the environment than carbon dioxide.

Our Stephenson Fund currently supports nine companies and looks to grow further in 2018.

Prestige and Vision Awards

This years' award winners demonstrated the depth and breadth of engineering activity amongst our members and their outstanding contributions to engineering.

The 2017 Prestige Award winners were:

- James Clayton Prize: Neville Jackson and Bridget Eickhoff
- Alastair Graham-Bryce Award: Kathryn Bjärkvik and Jessica Rogers
- Thomas Hawksley Gold Medal: Mohsen Shandiz
- George Stephenson Gold Medal: François Hild
- Verena Winifred Holmes Medal: Benjamin Murphy
- Award for Risk Reduction in Mechanical Engineering: Michael Todinov

The 2017 Vision Award winners were:

- Young Member Visionary: Stephen Walsh
- EngTech Visionary: Hugh Wotherspoon
- Whitworth Scholarship Visionary: Michael Kelly
- Scholarship Visionary: Sarah Barrington

Governance & Operations

THE UFF REVIEW

March 2017 saw the release of the 'Uff Review', an independent review of UK engineering led by Professor John Uff QC. Commissioned by the Institution of Mechanical Engineers, the Institution of Engineering and Technology, and the Institution of Civil Engineers, which collectively represent 70% of UK professional engineers, the Uff Review called for greater integration across professional engineering institutions. In response, the three institutions are working collaboratively across five areas:

- A joint policy unit
- An alignment of education activities
- A joint knowledge portal
- Joint accreditation
- Engaging the missing 3 million (those engineers not currently served by the professional engineering institutions)

LONG TERM STRATEGY

Building on the Uff Review, we produced a white paper outlining a long-term vision for a more integrated engineering profession. Discussions are being held with partner institutions to turn this vision into reality with further progress expected in 2018.

ORGANISATION AND OPERATIONS

We successfully completed a significant restructuring in 2017 in preparation for enhanced digital working and to deliver greater business efficiency. A new membership operations directorate has been created combining all member-facing operations. Events, training and library services have been brought together under the same directorate to provide an integrated professional development proposition. Marketing and communications have been combined alongside a new policy unit to improve the effectiveness of our thought leadership and further raise our public profile. There is also a new Employee Engagement Committee to strengthen our engagement with our employees.

With the EU General Data Protection Regulations (GDPR) due to come into force in May 2018, we established a GDPR team to ensure our management of personal data is compliant with new regulations.

Employee engagement

The Institution is an equal opportunities employer which aims to recruit a diverse range of talented people. It recognises that future success depends on the skills, professional fulfilment and continuing development of all employees. The Institution currently holds a silver accreditation by Investors in People.

Financial review and improving the financial position

Financial review

The key objective in improving the financial position of the Institution is to provide secure financial underpinnings to deliver the Learned Society activities to members. The business model continues to be that the Institution runs a number of commercial ventures which are pertinent to its core values to help subsidise the charitable purpose.

In 2017 overall income rose 0.5% to £22.0M (2016 - £21.9M). Within that the overall level of income from subscriptions and associated services rose by 5.8%, reflecting the fact that we achieved a net volume growth as well as the normal inflationary price increase. Operating expenditure rose 2.7% to £23.7M (2016 - £23.0M) resulting in an operating loss of £1.6M (2016: £1.1M).

Non operating costs included a further £0.6M (2016 - £1.3M) write off relating to our liquidated subsidiary, Amber Train, £0.2M of goodwill amortisation (2016 - £0.6M), a £1.8M (2016 - £2.8M) gain on investments and a £2.0M actuarial gain (2016 - £2.4M loss) on the pension fund scheme resulting in an overall net movement of funds of £1.4M (2016 - £2.5M deficit) for the year.

Over the last few years the Institution has made two acquisitions in companies that specialise in learning and development for engineers. The aim of these investments is to both ensure our financial stability and meet the objective of improving the world through engineering. The Institution will continue to invest in its learning and development activity, and the long term plan is for these commercial activities to contribute an increasing proportion of our revenues.

The **Engineering Training Centre** in Sheffield acts as a hub for hosting local member activities, meetings, conferences and events and, from 2017, it has expanded its operations and secured the first clients as a commercial venue for hire.

Engineering Training Solutions, a trading name of PEP Ltd, suffered another challenging year in the Non-Destructive Testing (NDT) and Inspection global market. Turnover was down 4% on 2016, primarily due to a temporary decline in income from affiliated exam centres, but, despite this, losses were significantly reduced. The exposure to oil and gas weakness stabilised with business at a low level. The exam business suffered from key 3rd party overseas training centres having their licenses temporarily suspended due to controls irregularities (the Institution had no responsibilty for this). However, with support from us, all centres have regained their licenses and activity has returned to normal levels.

Sonaspection, a manufacturer of flawed specimens for training and examination, secured new and repeat contracts from China, South Korea and the United States. The decision to develop the Hinkley Point site has resulted in significant work for this business but delays and shifting customer priorities resulted in delays in 2017 and a 8% decline in turnover but, despite this, the UK business returned to profit after losses in 2016, and with reduced losses in the USA. (see note 2)

Demand for **In-Company Training and public programmes** grew with turnover up 14% on 2016, particularly in the public programme as we continue to develop our range of technical training courses. After a steady start to the year with first half turnover virtually flat on 2016, activity accelerated in the second half, particularly in the public programme.

Our **Venue Hire** business grew strongly on the back of new digital marketing initiatives with turnover up 10% on 2016.

Amber Train

As described in last year's accounts, Amber Train was placed into liquidation on 24 July 2017. The 2017 write off includes certain costs after this date relating to lease termination costs of vehicles where the Institution had taken out contracts on behalf of Amber Train, and write off of intercompany balances. All of these costs ceased before the end of 2017. The balance of the write off relates to professional fees associated with the liquidation.

As explained in note 23, Amber Train has not been consolidated into these financial statements and all amounts relating to Amber Train at 31 December 2017 have been written off. There will be some further costs relating to this matter in 2018 in respect of professional fees as we explore our options to recover some of the investment in this company.

Balance Sheet

Our investments declined to £22.5M (2016 - £24.2M) despite an underlying £1.8M gain as £3.5M was realised to fund the operating deficit and our capital expenditure programme (£2.5M across tangible and intangible assets). Within that we continue to invest in early stage innovation companies, in line with our charitable aim of being an impulse to innovation through the Stephenson LLP fund and we now have now invested £1.0M in 9 companies.

Intangible assets increased to £2.1M (2016 - £0.9M) as we invested in our digital transformation programme. The web site upgrade was subject to amortisation during 2017 while the main digital programme will start amortising in stages as the phases are completed, beginning in 2018.

Although long-term interest rates decreased slightly, the very strong investment performance eliminated the deficit on the pension fund, which is now in slight surplus. The sensitivity of this fund is such that a 0.5% movement in interest rates leads to a £5.2M increase in pension liabilities. The aim of the Trustees of the Pension fund and the Institution is to transfer the total risk to an acceptable financial vehicle, such as an insurance company, in the medium-term.

Due to the £1.4M overall increase in funds, group reserves increased to £30.9M from £29.5M in 2016. The Institution continues to remain financially sound. The Trustee board is committed to maintaining financial prudence and in particular making a surplus from trading activities.

Degree of financial dependency

The Institution is dependent on the voluntary efforts of its members. However, there is no significant degree of dependence on any single member or small group of members in respect of voluntary effort or financial contributions.

Income from events and publications is also derived from a large number of independent sources. However, the success of these activities is dependent on the general state of the economy.

Availability and adequacy of assets

The Trustee Board considers that there are sufficient assets available to meet the foreseeable requirements of all the Funds within its control.

Organisational context

The Institution's role is to promote the science and practice of mechanical engineering. However, mechanical engineering is not something that can exist in isolation and there are many important links with other engineering disciplines and sciences. Although totally separate from other organisations, the Institution seeks to co-operate in areas of common ground with other bodies.

Future Plans

During 2017 the trustees reviewed the strategy and decided that, from 2018, they would adopt a set of four strategic objectives, with a number of sub-objectives, replaing the previous six strategic imperatives. The new objectives, and the broad 2018 goals, are set out below:

SO1 - Develop Engineers

1.1 Be a leading PEI for Professional Registration
Maintain the diversity and volume of applications, migrations and registrations across the world during the 2018 Digital Transformation and Operating Model programme transition.

1.2 Provide world class products and services to engineers, and those engaged with engineering
Deliver CRM new digital platform to deliver existing offerings and plan and develop future products and services.

1.3 Ensure Employer relevance
Develop and deliver Career Developer 2.0.

1.4 Support contemporary ways of working and cover a broad range of disciplines
Evolve the Learned Society offer through the provision of a greater variety of Webinars attractive and accessible to a global audience.

1.5 Offer new, innovative forms of membership that support Engineering
Draw up proposals to attract the 3 million potential subscribers to professional engineering institutions, including an employer proposition.

SO2 - Promote Engineering

2.1 Collaborate with other key bodies to influence education policy
Use research and analysis to drive an evidenced based debate, working with partners to influence education policy.

2.2 Enable the next generation of engineers to be smarter, quicker and wider skilled than ever before
Maintain the Ambassador Programme and a balanced portfolio of outreach activities, including Bloodhound, to support the “Leading the Change” agenda internationally.

2.3 Recognise past achievements by linking them to our future goals and aspirations
Engage members in ambassador activity through the appropriate celebration of past engineering achievements internationally.

SO3 - Inform Opinion

3.1 We will be the trusted advisor to the media to drive proactive and reactive media coverage
Media coverage maintained at 2017 levels but 25% increase in digital engagement, through social media, website content, news stories and reports.

3.2 We will be the trusted advisor to employers, governments, academic bodies, and other institutions
Through the deployment of a new Public Affairs strategy and focused Policy Manager team, increase influence with key stakeholders with evidenced, timely and proactive interventions that shape government policy, influences academia and supports employers.

3.3 We will form, and inform opinion in the Engineering arena
Support the engineering profession and PEI/RAEng community by implementing the recommendations set out in the Uff Review

SO4 - Encourage Innovation

4.1 Act as an impulse to inventions that will be useful to the world

Evolve the technical training programme to meet the needs of developing engineers, with new courses to develop their skills in emerging, innovative technologies, with at least two new technical training programmes launched.

4.2 Continue to encourage research, innovation and entrepreneurship

The Technology Strategy Board (in partnership with the Policy Managers) will ascertain the value of new technologies when suggesting future policies that are designed to tackle societal problems and global challenges.

4.3 The IMechE continues to support the Stephenson Fund
The Stephenson fund continues to make investments in-line with the approved criteria, promoting the achievements and encouraging the innovative efforts of the beneficiaries.

Charity reserves

The Trustee Board has adopted a policy on reserves which requires that the level of free reserves, should reflect 8 months of charitable spend. At 31st December 2017 this calculation is as follows:

	31.12.17	**31.12.16**
	£000s	£000s
Total Charity funds	30,885	29,459
Endowment funds	(11,635)	(10,830)
Restricted income funds	(3,017)	(2,970)
Pension reserves	-	1,979
Unrestricted funds	16,233	17,638
Less intangible assets	(2,117)	(894)
Less tangible assets	(7,408)	(7,339)
Free reserves	6,708	9,405
Total Expenditure	23,661	23,030
Less: Restricted expenditure	(751)	(880)
Less non-charitable trading activities	(8,526)	(8,631)
Charitable activities expenditure	**14,384**	**13,519**
Months expenditure to free reserves	6 months	8 months

This policy is regarded as a medium term objective and is reviewed annually as part of the budgeting process. As a result of the reserves falling below target the trustees are actively reviewing our plans in the light of continued capital expenditure requirements.

a) Reserves are held to provide money for large projects that could not be funded out of annual cash flow.

b) To provide a contingency reserve for situations when income flows are disrupted. Most of the Institution’s activities are of a long-term nature requiring continuity of funding.

c) A number of the business activities included within the trading company are by their very nature cyclical. At times of poor commercial returns, the Institution has found that the income generated from reserves has been important in providing funds to maintain activities.

However, the trustees consider the lower level of free reserves to be a very low risk due to:

- the calculation is on the basis that income falls immediately to zero, which is exceedingly unlikely as subscriptions income is very stable due to the very large number of individual members. In addition, the majority of subscription income is received before, or very early in, the year to which it relates so corrective action could be taken if a material shortfall occurred.
- the Institution has freehold properties which could be used as collateral if cash was needed in the short term while longer term asset realisation and expense reduction activities were undertaken.

Summary of funds and investments

General
A description of all the various funds included within the Institution's accounts is provided below.

Investment policy and returns

The Trustee Board has established an investment policy which is reviewed on an annual basis. The policy includes the following principles:

1. A diversity of investments will be held, in so far as is appropriate to the fund concerned. This may be achieved via a pooled investment vehicle like a unit trust or investment trust.
2. Investment policy will be appropriate to the needs of the fund
3. Appropriately authorised investment managers will be employed.
4. Appropriately authorised nominees may be employed to hold individual stocks and shares.
5. Funds will not participate in:
   a) The sub-underwriting of issues or offers for sale
   b) Dealing in derivatives for any purpose
   c) Stock lending
6. The aim will be to obtain consistent long term returns avoiding undue risk and speculation.

The investment managers work towards the following objectives:

Reserve Fund, General Trust & James Clayton

Target asset allocations have been set for each fund with the objective of outperforming the relevant composite benchmark by 0.5% over rolling three year periods. The composite benchmark being calculated using the asset allocations and an appropriate index for the asset class.

Other Trusts

Funds are invested in special pooled funds restricted to charity use. It is not appropriate to set individual objectives for these investments. However, performance is compared against statistics prepared by the IM company.

A summary of the total annual rates of return (income and capital) achieved on investments during 2017 is as follows:

	Return Year to 31.12.17 %	Return Year to 31.12.16 %
Reserve Fund	11.9%	16.7%
General Trust	8.7%	17.5%
James Clayton Trust	8.8%	17.3%
Charities Official Investment Fund income units	13.2%	15.1%
Whitworth Scholarships Fund – Charishare	14.2%	15.6%
Whitworth Scholarships Fund – Charinco	2.7%	8.3%

Fundraising

The charity had no fundraising activities requiring disclosure under S162A of the Charities Act 2011

Disclosure of Information to Auditor

The Trustees who held office at the date of approval of this Trustees' report confirm that, so far as they are each aware, there is no relevant audit information of which the Institution's auditor is unaware; and each Trustee has taken all the steps that he/she ought to have taken as a Trustee to make himself/herself aware of any relevant information and to establish that the Institution's auditor is aware of that information.

The financial statements have been prepared in accordance with the accounting policies set out in the notes to the accounts and comply with the charity's governing documents, the Charities Act 2015 and Accounting and Reporting by Charities: Statement of Recommended Practice applicable to charities preparing their accounts in accordance with the Financial Reporting Standard applicable in the UK and Republic of Ireland published on 16 July 2014.

The annual report was approved by the Trustee Board on 18th April, 2018 and was signed on its behalf by:

I. R. Joesbury, Trustee

G. Baker, Trustee

Statement of Trustees' responsibilities in respect of the Trustees' annual report and the financial statements

Under the trust deed and rules of the charity and charity law, the trustees are responsible for preparing the Trustees' Annual Report and the financial statements in accordance with applicable law and regulations.

Charity law requires the trustees to prepare financial statements for each financial year. The trustees have elected to prepare the financial statements in accordance with FRS 102 *The Financial Reporting Standard applicable in the UK and Republic of Ireland.*

The group and charity's financial statements are required by law to give a true and fair view of the state of affairs of the group and the charity and of the group's excess of income over expenditure for that period.

In preparing these financial statements, generally accepted accounting practice entails that the trustees:

- select suitable accounting policies and then apply them consistently;
- make judgements and estimates that are reasonable and prudent;
- state whether applicable UK Accounting Standards and the Statement of Recommended Practice have been followed, subject to any material departures disclosed and explained in the financial statements;
- state whether the financial statements comply with the trust deed and rules, subject to any material departures disclosed and explained in the financial statements; and
- prepare the financial statements on the going concern basis unless it is inappropriate to presume that the group and the charity will continue in business.

The trustees are required to act in accordance with the trust deed and the rules of the charity, within the framework of trust law. They are responsible for keeping proper accounting records, sufficient to disclose at any time, with reasonable accuracy, the financial position of the charity at that time, and to enable the trustees to ensure that, where any statements of accounts are prepared by them under section 132(1) of the Charities Act 2011, those statements of accounts comply with the requirements of regulations under that provision. They have general responsibility for taking such steps as are reasonably open to them to safeguard the assets of the charity and to prevent and detect fraud and other irregularities.

The trustees are responsible for the maintenance and integrity of the financial and other information included on the charity's website. Legislation in the UK governing the preparation and dissemination of financial statements may differ from legislation in other jurisdictions.

Independent Auditor's Report to the Trustees of The Institution of Mechanical Engineers

Qualified Opinion

We have audited the financial statements of the Institution of Mechanical Engineers (the Charity) for the year ended 31 December 2017 which comprise the consolidated Statement of Financial Activities, the consolidated and charity only Balance Sheets and consolidated Statement of Cash Flows, and notes to the financial statements, including a summary of significant accounting policies.

This report is made solely to the charity's trustees, as a body, in accordance with Part 4 of the Charities (Accounts and Reports) Regulations 2008. Our audit work has been undertaken so that we might state to the charity's trustees 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 charity and the charity's trustees as a body, for our audit work, for this report, or for the opinions we have formed.

In our opinion, except for the effects of the matter described in the Basis for Qualified Opinion section of our report the financial statements

- give a true and fair view of the state of the group's and of the charity's affairs as at 31 December 2017 and of the group's incoming resources and application of resources for the year then ended;
- have been properly prepared in accordance with UK Generally Accepted Accounting Practice; and
- have been properly prepared in accordance with the requirements of the Charities Act 2011.

Basis for Qualified Opinion

As set out in Note 23, a subsidiary of the group (Amber Train Limited) has ceased trading and was placed into liquidation during the year. In light of the uncertainties detailed in Note 23, the underlying accounting records of the company may be unreliable, and consequently, the trustees have decided to exclude the results of the company from the consolidation and all balances have been fully provided for. However the company was a subsidiary during the year until it was placed into liquidation and should have been included in the consolidated results. Had the results been included income and expenditure relating to this company would have been included in the Statement of Financial Activities for the year.

We conducted our audit in accordance with International Standards on Auditing (ISAs). 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 Company in accordance with the ethical requirements that are relevant to our audit of the financial statements in UK, 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 qualified opinion.

Conclusions relating to going concern

We have nothing to report in respect of the following matters in relation to which the ISAs (UK) require us to report to you where:

- the trustees' use of the going concern basis of accounting in the 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 or the parent charity'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.

Other information

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

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 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 qualified opinion.

Matters on which we are required to report by exception

We have nothing to report in respect of the following matters in relation to which the Charities (Accounts and Reports) Regulations 2008 require us to report to you if, in our opinion:

- the information given in the financial statements is inconsistent in any material respect with the trustees' report; or
- sufficient accounting records have not been kept by the parent charity; or
- the financial statements are not in agreement with the accounting records and returns; or
- we have not received all the information and explanations we require for our audit.

Responsibilities of trustees

As explained more fully in the trustees' responsibilities statement set out on page 20, the trustees are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view, and for such internal control as the trustees determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the trustees are responsible for assessing the group's and the parent charity'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 charity or to cease operations, or have no realistic alternative but to do so.

Auditor's responsibilities for the audit of the financial statements

We have been appointed as auditor under Section 151 of the Charities Act 2011 and report in accordance with the Act and relevant regulations made or having effect thereunder.

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

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

Crowe Clark Whitehill LLP
Statutory Auditor
London
Crowe Clark Whitehill LLP is eligible for appointment as auditor of the charity by virtue of its eligibility for appointment as auditor of a company under section 1212 of the Companies Act 2006.
2 May 2018

Consolidated Statement of Financial Activities
For the year ended 31st December 2017

Consolidated Statement of Financial Activities

Income and Endowments from:	Notes	Unrestricted Funds £'000	Restricted Funds £'000	Endowment Funds £'000	2017 Total £'000	2016 Total £'000
Donations and Legacies		10	-	-	10	188
Charitable activities						
Membership subscriptions		11,319	-	-	11,319	10,697
Technical		2,005	-	-	2,005	2,172
Professional development & Membership		153	-	-	153	156
Information & Library services		5	-	-	5	5
Prizes, Awards and Scholarships		-	-	-	-	22
Marketing & Regional		-	-	-	-	141
Other trading activities						
Venue hire, Training, Learning & Development		7,261	-	-	7,261	7,166
Publishing Royalties		5	-	-	5	3
Investments						
Interest & Dividends	13	188	464	-	652	656
Other						
Other income		-	-	-	-	221
Rents Receivable		639	-	-	639	514
Total		21,585	464	-	22,049	21,941
Expenditure on:						
Raising funds						
Non-charitable trading activities		8,526	-	-	8,526	8,628
Investment management costs		-	-	-	-	3
Charitable activities						
Technical		6,362	-	-	6,362	5,621
Marketing		2,014	-	-	2,014	2,121
Regional activities		2,258	-	-	2,258	2,349
Professional development & Membership		1,022	-	-	1,022	830
Information & Library Services		1,222	-	-	1,222	1,151
Membership subscriptions		1,028	-	-	1,028	1,134
Public facilities - Birdcage Walk		478	-	-	478	313
Prizes, Awards and Scholarships		-	751	-	751	880
Total	3	22,910	751	-	23,661	23,030
Net income/(expenditure) before gains/(losses) on investment assets		(1,325)	(287)	-	(1,612)	(1,089)
Net Gains /(losses) on investment assets	13	983		805	1,788	2,815
Net income/(expenditure) before amortisation of goodwill		(342)	(287)	805	176	1,726
Amortisation of goodwill		(202)	-	-	(202)	(593)
Net (expenditure)/income		(544)	(287)	805	(26)	1,133
Transfers between funds	18	(334)	334		-	-
Amounts written off in respect of Amber Train Limited	23	(583)	-	-	(583)	(1,296)
Actuarial gains/(losses) on defined benefit pension scheme	10	2,035	-	-	2,035	(2,369)
Net movement in funds		574	47	805	1,426	(2,532)
Reconciliation of funds						
Total funds brought forward		15,659	2,970	10,830	29,459	31,991
Total funds carried forward	18	16,233	3,017	11,635	30,885	29,459

The notes to the accounts numbered 1 to 23 form part of these accounts.

Consolidated Statement of Financial Activities
For the year ended 31st December 2017

Consolidated Statement of Financial Activities

	Notes	Unrestricted Funds	Restricted Funds	Endowment Funds	2016 Total
Income and Endowments from:		£'000	£'000	£'000	£'000
Donations and Legacies		188	-	-	188
Charitable activities					
Membership subscriptions		10,697	-	-	10,697
Technical		2,172	-	-	2,172
Professional development & Membership		156	-	-	156
Information & Library services		5	-	-	5
Prizes, Awards and Scholarships		22	-	-	22
Marketing & Regional		141	-	-	141
Other trading activities					
Venue hire, Training, Learning & Development		7,166	-	-	7,166
Publishing Royalties		3	-	-	3
Investments					
Interest & Dividends	13	229	427	-	656
Other					
Other income		221	-	-	221
Rents Receivable		514	-	-	514
Total		21,514	427	-	21,941
Expenditure on:					
Raising funds					
Non-charitable trading activities		8,628	-	-	8,628
Investment management costs		3	-	-	3
Charitable activities					
Technical		5,621	-	-	5,621
Marketing		2,121	-	-	2,121
Regional activities		2,349	-	-	2,349
Professional development & Membership		830	-	-	830
Information & Library Services		1,151	-	-	1,151
Membership subscriptions		1,134	-	-	1,134
Public facilities - Birdcage Walk		313	-	-	313
Prizes, Awards and Scholarships		-	880	-	880
Total	3	22,150	880	-	23,030
Net income/(expenditure) before gains/(losses) on investment assets		(636)	(453)	-	(1,089)
Net Gains /(losses) on investment assets	13	1,371		1,444	2,815
Net income/(expenditure) before amortisation of goodwill		735	(453)	1,444	1,726
Amortisation of goodwill		593	-	-	593
Net income/ (expenditure)		142	(453)	1,444	1,133
Amounts written off in respect of Amber Train Limited	23	(1,296)	-	-	(1,296)
Actuarial (losses)/gains on defined benefit pension scheme	10	(2,369)	-	-	(2,369)
Net movement in funds		(3,523)	(453)	1,444	(2,532)
Reconciliation of funds					
Total funds brought forward		19,182	3,423	9,386	31,991
Total funds carried forward	17	15,659	2,970	10,830	29,459

The notes to the accounts numbered 1 to 23 form part of these accounts.

Consolidated Balance sheets
For the year ended 31st December 2017

Consolidated Balance sheets

	Notes	Group 2017	Group 2016	Institution 2017	Institution 2016
Fixed assets		£'000	£'000	£'000	£'000
Intangible assets	11	2,117	894	2,117	692
Tangible assets	12	7,408	7,339	6,511	6,560
Investments	13	22,496	24,239	15,864	18,210
Total fixed assets		32,021	32,472	24,492	25,462
Current assets					
Stocks		385	335	-	
Debtors	14	4,504	3,937	9,186	10,039
Cash at bank and in hand	15	2,373	1,395	1,307	1,051
Total current assets		7,262	5,667	10,493	11,090
Liabilities:					
Creditors: amounts falling due within one year	16	8,398	6,701	7,700	7,667
Net current assets or liabilities		(1,136)	(1,034)	2,793	3,423
Total assets less current liabilities		30,885	31,438	27,285	28,885
Defined benefit pension scheme liability	10	-	(1,979)	-	(1,979)
Net assets including pension liability	18	30,885	29,459	27,285	26,906
The funds of the charity					
Endowment funds		11,635	10,830	6,780	6,780
Restricted income funds		3,017	2,970	812	1,197
Unrestricted Funds		16,233	17,638	19,693	20,908
Pension reserves		-	(1,979)	-	(1,979)
Total unrestricted funds		16,233	15,659	19,693	18,929
Total charity funds	18	30,885	29,459	27,285	26,906

The financial statements were approved by the Trustee Board on 18th April 2018 and were signed on its behalf by:

I. R. Joesbury, Trustee

G. Baker, Trustee

The notes to the accounts numbered 1 to 23 form part of these accounts.

-

Charity registration Number: 206882

Consolidated statement of cash flows
For the year ended 31st December 2017

Consolidated statement of cash flows	Notes	2017	2016
		£'000	£'000
Cash flows from operating activities:			
Net cash provided by / (used in) operating activities	21	(752)	(2,301)
Cash flows from investing activities:			
Dividends, interest and rent from investments	13	652	656
Purchase of property, plant and equipment	12	(934)	(863)
Proceeds from sale of property, plant and equipment			19
Purchase of investments	13	(481)	(1,545)
Purchase of intangible assets	11	(1,520)	(294)
Purchase of investment in subsidiary			
Proceeds from sale of investments	13	4,022	2,766
Cash awaiting investment	15	(11)	503
Net cash used in investing activities		1,728	1,242
Change in cash and cash equivalents in the reporting period		976	(1,059)
Cash and cash equivalents at the beginning of the reporting period	15	1,395	2,452
Change in cash and cash equivalents due to exchange rate movements		2	2
Cash and cash equivalents at the end of the reporting period	15	2,373	1,395

The notes to the accounts numbered 1 to 23 form part of these accounts.

Notes to the accounts

1 Accounting Policies

The Charity is registered with the Charity Commission (registered number: 206882), domiciled in the UK and is a public benefit entity and incorporated by Royal Charter in 1930. The address of the registered office is 1 Birdcage Walk, London, SW1H 9JJ

a) **Basis of accounting**

The Institution meets the definition of a public benefit entity under FRS102 and the financial statements have been prepared in accordance with the Statement on Recommended Practice: Accounting and Reporting by charities preparing their accounts in accordance with the Financial Reporting Standard applicable in UK and Republic and Ireland (FRS 102) ("the SORP") issued on 16 July 2014 and the Charities Act 2011 and UK General Accepted Practice as it applies from 1 January 2015.

The Financial statements have been prepared to give a true and fair view and have departed from the charities (Accounts and Reports) Regulation 2008 only to the extent required to give a true and fair view. This departure has involved following the SORP rather than Accounting and Reporting for Charities: Statement of Recognised Practice (revised 2005) which has been withdrawn.

The annual accounts have been prepared on the historical cost basis of accounting, modified to incorporate the revaluation of investments.

b) **Going Concern**

The financial statements have been prepared on a going concern basis. The financial statements do not include any adjustments that would result from the group not being able to continue for the next 12 months. In light of the funds available, there are no material uncertainties about the group's ability to continue as a going concern.

c) **Basis of consolidation**

Consolidated figures for the Institution and group companies (see note.2 to the accounts) have been included in these financial statements for the year ended 31st December 2017. Companies acquired by the group are consolidated on an acquisition basis i.e. fair values are attributed to the Group's share of the net tangible assets and where the cost of acquisition (being the fair value of the purchase consideration and the expenses of the acquisition) is greater than the fair values attributable to such net assets, the difference is treated as goodwill.

d) Incoming resources

Income is recognised at the fair value of the consideration received or receivable for goods and services provided in the normal course of business, and is shown net of VAT and other sales related taxes.

With the exception of Membership Income, all incoming resources are included in the SOFA when the Institution is legally entitled to the income and the amount can be quantified with reasonable accuracy.

Legacies and donations are recognised when all the criteria have been met; entitlement when the Institution has been notified of distribution or legacy is received, the value is reliably measured and the likelihood of receiving the legacy is probable.

Membership subscription income is accounted for on the basis of the amount receivable for the year. Accordingly, the amounts received during the year in relation to future years are deferred.

Income from contracts for the provision of professional services (Professional development, Venue Hire, Training, Learning and Development categories) is recognised by reference to the stage of completion when the stage of completion, costs incurred and costs to complete can be estimated reliably. When the outcome cannot be estimated reliably, income is recognised only to the extent of the expenses recognised that are

Income from sale of goods is recognised when the significant risks and rewards of ownership of the goods have passed to the buyer, the amount can be measured reliably, it is probable that the economic benefits associated with the transaction will flow to the entity and the costs incurred or to be incurred in respect of the transaction can be measured reliably.

e) **Tangible fixed assets**

Tangible fixed assets are stated at cost less depreciation.

Depreciation is calculated so as to write off the cost of fixed assets on a straight line basis at the following rates:

Freehold buildings: Building improvements	2% or 4% per annum
Leasehold buildings: Building improvements	2% per annum
Furniture and equipment:	20% to 33.3% per annum
Plant and equipment:	20% per annum

Freehold land is not depreciated.

Fixed assets are regularly reviewed to consider whether they have been impaired and to ensure that the depreciation costs reflect their working life. Expenditure below £1,000 is not capitalised.

f) **Goodwill**

Goodwill represents the excess of the cost of acquisition of incorporated and unincorporated businesses over the fair value of net assets acquired. It is initially recognised as an asset at cost and is subsequently measured at cost less accumulated amortisation and accumulated impairment losses. Goodwill shall be considered to have a finite useful life, and shall be amortised on a systematic basis over its economic life of five years.
Where there are indications of impairment, an impairment review is undertaken to assess a recoverable amount, which considers a service potential and not cash flows.

g) **Website and Digital Transformation costs**

Website and digital transformation costs are capitalised when it is probable that the expected future economic benefits that are attributable will flow to the Group and their costs can be reliably measured. Website and Digital Transaformation costs are initially recognised at cost and amortised over the expected useful life of five years.

h) **Impairment of tangible and intangible assets**

At each reporting end date, the Group reviews the carrying amounts of its tangible and intangible assets to determine whether there is any indication that those assets have suffered an impairment loss. If any such indication exists, the recoverable amount of the asset is estimated in order to determine the extent of the impairment loss. Where it is not possible to estimate the recoverable amount of an individual asset, the company estimates the recoverable amount of the cash-generating unit to which the asset belongs.

Intangible assets with indefinite useful lives and intangible assets no yet available for use are tested for impairment annually, and whenever there is an indication that the asset may be impaired.

Recoverable amount is the higher of fair value less costs to sell and value in use. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset for which the estimates of future cash flows have not been adjusted.

If the recoverable amount of an asset (or cash-generating unit) is estimated to be less than its carrying amount, the carrying amount of the asset (or cash-generating unit) is reduced to its recoverable amount. An impairment loss is recognised immediately in SOFA, unless the relevant asset is carried at a revalued amount, in which case the impairment loss is treated as a revaluation decrease.

Recognised impairment losses are reversed if, and only if, the reasons for the impairment loss have ceased to apply. Where an impairment loss subsequently reverses, the carrying amount of the asset (or cash-generating unit) is increased to the revised estimate of its recoverable amount, but so that the increased carrying amount does not exceed the carrying amount that would have been determined had no impairment loss been recognised for the asset (or cash-generating unit) in prior years. A reversal of an impairment loss is recognised immediately in profit or loss, unless the relevant asset is carried in at a revalued amount, in which case the reversal of the impairment loss is treated as a revaluation increase.

i) **Financial assets**

The Group has elected to apply the provisions of Section 11 ‘Basic Financial Instruments’ and Section 12 ‘Other Financial Instruments Issues’ of FRS 102 to all of its financial instruments.

Financial assets are recognised in the company's statement of financial position when the Group becomes party to the contractual provisions of the instrument.

Financial assets are classified into specified categories. The classification depends on the nature and purpose of the financial assets and is determined at the time of recognition.

Basic financial assets are initially measured at transaction price including transaction costs and are subsequently carried at amortised cost using the effective interest method, unless the arrangement constitutes a financing transaction, where the transaction is measured at the present value of the future receipts discounted at a market rate of interest. Other financial assets including investment in equity instruments which are not subsidiaries, are initially measured at fair value, which is normally the transaction price. Such assets are subsequently carried at fair value and the changes in fair value are recognised on the statement of financial activities.

Loan and receivables

Loans and other receivables that have fixed or determinable payments that are not quoted in an active market are classified as 'loans and receivables'. Loans and receivables are measured at amortised cost using the effective interest method, less any impairment.

Interest is recognised by applying the effective interest rate, except for short-term receivables when the recognition of interest would be immaterial. The effective interest method is a method of calculating the amortised cost of a debt instrument and of allocating the interest income over the relevant period. The effective interest rate is the rate that exactly discounts estimated future cash receipts through the expected life of the debt instrument to the net carrying amount on initial recognition.

Impairment of financial assets

Financial assets, other than those held at fair value through profit and loss, are assessed for indicators of impairment at each reporting end date.

Financial assets are impaired where there is objective evidence that, as a result of one or more events that occurred after the initial recognition of the financial asset, the estimated future cash flows have been affected. The impairment loss is recognised in the statement of financial activities.

j) **Financial Liabilities**

Basic financial liabilities are initially measured at transaction price, unless the arrangement constitutes a financing transaction, where the debt instrument is measured at the present value of the future receipts discounted at a market rate of interest. Other financial liabilities classified as fair value through profit or loss are measured at fair value.

Other financial liabilities

Other financial liabilities, are initially measured at fair value, net of transaction costs. They are subsequently measured at amortised cost using the effective interest method, with interest expense recognised on an effective yield basis.

The effective interest method is a method of calculating the amortised cost of a financial liability and of allocating interest expense over the relevant period. The effective interest rate is the rate that exactly discounts estimated future cash payments through the expected life of the financial liability to the net carrying amount on initial recognition.

k) **Investments**

It is the Group's policy to keep valuations of stock exchange listed investments up to date, such that when investments are sold there is no gain or loss arising relating to prior years. As a result the statement of financial activities does not distinguish between the valuation adjustments relating to sales and those relating to continued holdings, as they are together treated as changes in the value of the investment portfolio throughout the year. Investments not listed on a recognised stock exchange are valued at cost, or at the most recent external transactional valuation.

The Charity purchased the building in Sheffield which is occupied by its subsidiaries for the use in the production, supply of goods or services and for an administrative purposes. The building is therefore held at cost less depreciation in the accounts.

Social Investments

The Institution formed a limited partnership with Stephenson LP in February 2014 to make venture capital investments into a portfolio of Companies involved in or associated with young innovative engineering businesses. This investment has a genuine mixed motive because investment is being made both for financial return but also to advance engineering. The investment is held at cost less impairment as its fair value cannot be measured reliably. If there is objective evidence of impairment, then an immediate impairment loss is recognised in the statement of financial activities.

l) **Foreign currency**

Monetary assets and liabilities denominated in foreign currencies are translated into sterling at the rates of exchange ruling at the balance sheet date. Transactions in foreign currencies are recorded at the rate ruling at the date of the transaction. All differences are taken to Statement of Financial Activities.

m) **Resources expended**

Expenditure is included in the Statement of Financial Activities on a accruals basis and is recognised once there is a legal or constructive obligation to transfer economic benefit to a third party, it is probable that a transfer of economic benefits will be required in settlement and the amount of the obligation can be measured realiably.

n) **Stocks**

Stocks are included in the financial statements at the lower of cost or net realisable value. Products in intermediate stages of completion are valued at the estimated cost incurred in bringing the products to their present location and condition.

Costs comprise direct material and, where applicable, direct labour costs and those overheads that have been incurred in bringing the stocks to their present location and condition. This is an estimation and is made assuming 40% gross margin is achieved on products sold.

Net realisable value is the estimated selling price less all estimated costs of completion and costs to be incurred in marketing, selling and distribution. The "percentage of completion method" is used to determine the appropriate amount to recognise in a given period. The stage of completion is estimated by the proportion of contract costs incurred for work performed to date compared to the estimated total contract costs. These costs re presented as stocks, prepayments or other assest depending on their nature, and provided it is probable they will be recovered.

o) **Retirement benefit**

The Charity operates a pension scheme providing benefits based on the final pensionable pay. The assets of the scheme are held separately from those of the charity.to the net carrying amount on initial recognition.

Pension scheme assets are measured using market values. Pension scheme liabilities are measured using a projected unit method and discounted at the current rate of return on a high quality corporate bond of equivalent term and currency to the liability.

The pension scheme surplus (to the extent that it is recoverable) or deficit is recognised in full. The movement in the scheme surplus/deficit is split between operating charges, finance items and, in the statement of total recognised gains and losses, actuarial gains and losses.

Additionally, a stakeholder pension plan has been established for employees who are not eligible to join the defined benefit pension scheme. The Group contributes to the stakeholder pension plan on a monthly basis and charges cost to the Statement of Financial Activities.

p) **Leasing and hire purchase commitments**

Assets held under finance leases, which are leases where substantially all the risks and rewards of ownership of the asset have passed to the company, and hire purchase contracts, are capitalised in the balance sheet and are depreciated over the hire purchase contracts are included as liabilities in the balance sheet.

q) **Critical accounting estimates and judgements**

In the application of the accounting policies, the trustees are required to make judgements, estimates and assumptions about the carrying value 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.

The estimates and assumptions which have a significant risk of causing a material adjustment to the carrying amount of assets and liabilities have been outlined below:

Actuarial assumptions in respect of defined benefit pension schemes

The application of actuarial assumptions relating to defined benefit pension schemes is incorporated in the financial statements in accordance with FRS102. In applying FRS102, advice is taken from independent qualified actuaries. In this context, significant judgement is exercised in a number of areas, including future changes in salaries and inflation, mortality rates and the selection of appropriate discount rates.

Bad debt provision

The Group makes an estimate of the recoverable value of trade and other debtors. When assessing impairment of trade and other debtors, management considers factors including the current credit rating of the debtors, the aging profile of debtors and historical experience.

2 Net Incoming Resources

The consolidated results for the Institution are presented in the statement of financial activities on page 23. These include the activity of the parent charity, The Institution of Mechanical Engineers, and the activities of its 100% owned subsidiaries, as detailed below. The incoming resources of the Institution alone for 2017 were £15,104,000 (2016: £14,335,000), and resources expended in 2017 were £15,187,000 (2016: £15,584,000). The overall movement in funds in 2017 was £397,000 (2016: £2,410,000)

Subsidiary Companies

Professional Engineering Projects Ltd, registered in England and Wales (Reg N 01103638), was established by the Institution as an organisation from which it could conduct the majority of its publishing activities, including the magazines that are made available to members. Whilst this main trade was disposed of during 2010, the company continues to carry on trading in non-charitable activities, mainly provision of training to engineers.

The company also has four wholly owned subsidiary companies, IMechE Services Ltd (Reg N 01361114), IMechE Engineering Training Solutions Limited (Reg N 01917207), Siantonas Ball Ltd (Reg N 01655732), Sonaspection Worldwide Limited (Reg N 04891363), all registered in England and Wales. Both IMechE Engineering Training Solutions (previously Argyll-Ruane Limited) Limited and Siantonas Ball Ltd became dormant on 1st January 2014. The active subsidiaries carry on non-charitable trading activities which are consolidated on a line by line basis with the relevant amounts described as "Other non-charitable trading activities" under Incoming Resources and Resources Expended in the Consolidated Statement of Financial Activities.

Sonaspection Worldwide has two wholly owned subsidiary companies, Sonaspection International Limited (Reg N 02050101) registered in England and Wales and Sonaspection Incorporated registered in the United States of America, which carry on non-charitable activities. These activities are consolidated on a line by line basis with the relevant amounts described as "Other non-charitable trading activities" under Incoming Resources and Resources Expended in the Consolidated Statement of Financial Activities.

The whole of the issued share capital of Professional Engineering Projects Ltd (£2) is held by nominees on behalf of the Institution. A summary of the company's consolidated profit and loss account is shown below. Audited accounts are filed with the Registrar of Companies for the individual companies. These figures are subject to the adjustments mentioned above prior to their incorporation in the Consolidated Statement of Financial Activities.

2 Net Incoming Resources (continued)

Subsidiary Companies

2017

	PEP	Sona Int'l	Sona Inc	IMechE Services
	£'000	£'000	£'000	£'000
Turnover	4,803	1,511	761	28
Cost of sales	(1,687)	(1,074)	(231)	(6)
Gross profit	3,116	437	530	22
Distribution costs		(30)		
Administration costs	(2,957)	(389)	(654)	
Interest payable and similar charges	(73)			
Profit/(loss) on ordinary activities before tax	86	18	(124)	22
Taxation	-		-	
Profit/(loss) for the year	86	18	(124)	22
Total assets	5,456	3,926	760	266
Total liabilities	(7,741)	(2,756)	(492)	(270)
Total Funds	(2,285)	1,170	268	(4)

2016

	PEP	Sona Int'l	Sona Inc	IMechE Services
	£'000	£'000	£'000	£'000
Turnover	4,612	1,304	1,165	108
Cost of sales	(1,519)	(842)	(900)	-
Gross profit	3,093	462	265	108
Distribution costs	(333)	(54)	(49)	-
Administration costs	(3,594)	(476)	(484)	-
Interest payable and similar charges	(111)	-	-	(5)
Other operating income	(1,510)			
Amortisation charge	-	-	58	-
Profit/(loss) on ordinary activities before tax	(2,455)	(68)	(210)	103
Gift Aid payment	31	-		(103)
Taxation	-		(76)	
Profit/(loss) for the year	(2,424)	(68)	(286)	0
Total assets	5,008	3,367	609	346
Total liabilities	(7,379)	(2,216)	(171)	(371)
Total Funds	(2,370)	1,151	438	(25)

3 Resources Expended

All expenditure is accounted for on an accruals basis and has been classified under headings that aggregate all costs related to that category.

For administrative purposes the Institution is divided into a number of directorates and then subdivided into departments. Accounting records permit the costs and revenues of all departments to be determined accurately.

The classification of costs in the Consolidated Statement of Financial Activities utilises this information to show expenditure broken-down into broad functional areas.

Where costs cannot be directly attributed to a particular heading, they have been allocated to activities on the basis of headcount and floor area.

Total resources expended	**Direct Costs**	**Allocated Support Costs**	**Totals 2017**
	£'000	**£'000**	**£'000**
Non Charitable activities	6,718	1,808	8,526
Marketing	1,644	370	2,014
Technical	4,285	2,077	6,362
Regional Activities & Marketing	1,819	439	2,258
Professional Development & Membership	693	329	1,022
Information & Library Services	231	991	1,222
Membership Subscriptions	1,028	-	1,028
Public Facilities – Birdcage Walk	-	478	478
Prizes, Awards & Scholarships	751	-	751
Total resources expended	**17,169**	**6,492**	**23,661**

Total resources expended	**Direct Costs**	**Allocated Support Costs**	**Totals 2016**
	£'000	**£'000**	**£'000**
Non Charitable activities	7,102	1,526	8,628
Marketing	1,821	300	2,121
Investment Management Costs	3	-	3
Technical	4,053	1,568	5,621
Regional Activities & Marketing	1,942	407	2,349
Professional Development & Membership	609	221	830
Information & Library Services	325	826	1,151
Membership Subscriptions	1,134	-	1,134
Public Facilities – Birdcage Walk	-	313	313
Prizes, Awards & Scholarships	880	-	880
Total resources expended	**17,869**	**5,161**	**23,030**

3 Resources Expended continued.

Support Cost	Non-charitable activity	Marketing	Technical	Regional	Professional Development	Information & library	Public Facilities	Totals 2017	Basis of allocation
	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	
Governance	535	115	329	140	82	321	173	1,695	Headcount
Finance &	428	92	263	112	66	257	138	1,356	Headcount
Information & Technology	506	109	311	132	78	304	163	1,603	Headcount
House Services	324	51	1,154	51	101	101	-	1,782	Floor Area
Pension charge/ (credit)	15	3	20	4	2	8	4	56	Headcount/ Floor Area
Total	1,808	370	2,077	439	329	991	478	6,492	

Support Cost	Non-charitable activity	Marketing	Technical	Regional	Professional Development	Information & library	Public Facilities	Totals 2016	Basis of allocation
	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	
Governance	571	117	290	165	63	336	141	1,683	Headcount
Finance &	430	88	218	124	48	253	106	1,267	Headcount
Information & Technology	515	105	261	149	57	303	127	1,517	Headcount
House Services	311	49	1,108	49	97	97	-	1,711	Floor Area
Pension charge/ (credit)	(301)	(59)	(309)	(80)	(44)	(163)	(61)	(1,017)	Headcount /Floor Area
Total	1,526	300	1,568	407	221	826	313	5,161	

4 Taxation

The Institution is considered to pass the tests set out in Paragraph 1 Schedule 6 Finance Act 2010 and therefore it meets the definition of a charitable trust for UK income tax purposes. Accordingly, the charity is potentially exempt from taxation in respect of income or capital gains received within categories covered by Part 10 Income Tax Act 2007 or Section 256 of the Taxation of Chargeable Gains Act 1992, to the extent that such income or gains are applied exclusively to charitable purposes.

The charity's trading subsidiaries are subject to corporation tax; however all of their taxable profits are paid to the Institution under gift aid.

5 Transactions With Members of the Trustee Board

	2017	2016
	£'000	£'000
Travel and subsistence expenses	21	21
	No.	No.
Number of members reimbursed	12	12

All Trustee costs are reimbursements to Trustees for costs incurred in fulfilling their duties.
The Trustees nor any person connected with them receive remuneration.

6 Indemnity Insurance

	2017	2016
	£'000	£'000
Indemnity insurance premiums paid	22	21

During 2017 the Institution paid for three insurance policies, covering professional indemnity, the liabilities of trustees and "directors and officers" liabilities. Cover applies to the Trustee Board, ordinary members involved with Institution affairs and employees.

7 Staff

	2017	2016
Average numbers of staff employed throughout the year:	No.	No.
The Institution of Mechanical Engineers	115	125
Professional Engineering Projects Limited	41	48
Sonaspection International Ltd	15	16
Sonaspection Incorporated	7	10
Total employees	178	199

The above figures do not take into account whether the staff are part-time or full-time.

8 Employment costs

	2017	2016
	£'000	£'000
Salaries and benefits	7,735	8,666
Employer's social security costs	696	785
Employer's pension costs	413	451
	8,844	9,902

The numbers of employees whose emoluments, excluding employer's pension contributions, exceeded £60,000 are as follows:

	2017	2016
	No.	No.
£60,001 - £70,000	13	11
£70,001 - £80,000	4	5
£80,001 - £90,000	-	2
£100,001 - £110,000	1	2
£130,001 - £140,000	2	1
£150,001 - £160,000	-	1
£160,001 - £170,000	-	1
£190,001 - £200,000	1	-
£200,001 - £210,000	1	1
	22	24

All of the above employees are members of the defined contribution scheme but not members of the defined benefit scheme.

8 Employment costs (continued)

During the year key management received remunerations and benefits of 2017: £806,677 (2016: £934,307). The remuneration of key management consists of salary, pension contributions and benefits in kind.

Number of Directors in 2017: 6 (2016: 6)

The charity designated six directors as key management personnel.

9 employees were made redundant during the year. The cost of redundancies was £176,712 of which £96,712 was paid during 2017.

9 Auditor's Remuneration

	2017	2016
	£'000	£'000
Fees for: the audit of 2017 financial statements	52	50
Fees for: the audit of 2016 financial statements	69	-
	121	50

10 Pensions

The Institution operates a defined benefit scheme. A full actuarial valuation was carried out and updated to 31 December 2017, by a qualified independent company of actuaries. The major assumptions used by the actuary are detailed within this note to the financial statements. The scheme is closed to new members with an effective date of 5 September 2002.

A Stakeholder pension plan has been established for employees who are not eligible to join the defined benefit pension scheme. The Institution has agreed to match employee contributions to the Stakeholder plan up to a maximum of 10% of salary. There is an outstanding contribution at the end of the financial year of £70,545 (2016: £76,464).

The pension cost charge for the period represents contributions payable by the Institution to the stakeholder plan and amounted to £698,000 (2016: £538,000).

Assumptions	**2017**	**2016**
	%	%
Price inflation	3.20	3.25
Pension increases	3.10	3.15
Salary increases	3.70	3.75
Return on Assets	4.00 *	4.00 *
Discount rate	2.60	2.85

* Equal to the discount rate (in line with FRS102)

Mortality assumptions used in 2016 and 2017 are based upon the S1PxA tables adjusted to reflect the broad wealth characteristics of each member. Future improvements are assumed to be in line with the CMI projection model, assuming improvements have peaked. The long term improvement is assumed to be 1.25% p.a. (2016: 1.25% p.a.), declining at older ages.

10 Pensions (continued)

The assumptions relating to longevity underlying the pension liabilities at the balance sheet date are based on standard actuarial mortality tables and include an allowance for future improvements in longevity. The assumptions are equivalent to expecting a 65-year old to live for a number of years as follows:

	31/12/17	31/12/16
Male currently age 40	90.3	90.8
Female currently age 40	92.0	92.7
Male currently age 65	88.6	88.7
Female currently age 65	90.1	90.4

Life expectancies are shown for a male member with a pension greater than £13,000 p.a. and a female member with a pension greater than £4,750 p.a.

Movements in present value of defined benefit obligation

	2017	2016
	£'000	£'000
At 1 January	55,241	47,070
Current service cost	160	160
Past service cost	-	(1,022)
Interest cost	1,549	1,827
Actuarial (gains)/losses	988	9,167
Benefits and expenses paid	(1,918)	(1,961)
At 31 December	56,020	55,241

Movements in fair value of plan assets

	2017	2016
	£'000	£'000
At 1 January	53,262	46,443
Interest on assets	1,493	1,822
Employer Contributions	160	160
Return on plan asset less interest	3,251	6,798
Benefits paid	(1,918)	(1,961)
At 31 December	56,248	53,262

Analysis of Amount Credited/(Charged) in SOFA	2017	2016
	£'000	£'000
Current service cost	(160)	(160)
Past service cost	-	1,022
	(160)	862

The Scheme is a closed scheme and therefore under the projected unit credit method the current service cost would be expected to increase as the members of the Scheme approach retirement.

Analysis of Pension Finance (Cost) / Income in SOFA	2017	2016
	£'000	£'000
Interest on obligation	(1,549)	(1,827)
Interest on scheme assets	1,493	1,822
Net cost	(56)	(5)

10 Pensions (continued)

	2017	2016
	(216)	857

Sensitivity of the value placed on the liabilities

Adjustments to assumptions	Approximate effect on liabilities
Discount rate decreased by 0.5% p.a.	+ £5,200,000
Inflation increased by 0.5% p.a.	+ £2,300,000
Long term rate of mortality improvement increased to 1.5% p.a.	+ £600,000

Analysis of Gains / (Losses) Recognised in SOFA	**2017**	**2016**
	£'000	£'000
Actuarial gains/(losses) on pension scheme assets	3,251	6,798
Change in impact of asset ceiling	(228)	-
Actuarial (losses)/gains on Obligation	-	(9,167)
Actuarial gain/ (loss) in Pension Scheme	3,023	(2,369)
Actuarial gain/(loss) in pension plan recognised in SOFA	3,023	(2,369)

Cumulative actuarial losses reported in the statement of total recognised gains and losses for accounting periods ending on 31 December 2017 are £18,278,000 (2016: £18,222,000).

Movement in Deficit During Year	**2017**	**2016**
	£'000	£'000
(Deficit) in scheme at 1 January	(1,979)	(627)
Current service cost	(160)	862
Employer contributions	160	160
Net return	(56)	(5)
Actuarial gain/(loss)	2,035	(2,369)
Deficit in scheme at 31 December	-	(1,979)

History of Experience Gains and Losses	**2017**	**2016**	**2015**	**2014**	**2013**
	£'000	£'000	£'000	£'000	£'000
Experience adjustments on scheme assets	3,251	6,798	(923)	2,559	1,409
Present value of scheme assets	56,248	53,262	46,443	47,547	44,662
Experience adjustment on scheme liabilities	(988)	236	940	(146)	(125)
Present value of scheme liabilities	56,020	55,241	47,070	52,706	45,977
Deficit/surplus in scheme	-	(1,979)	(627)	(5,159)	(1,315)

The updated actuarial valuation updated to 31 December 2017 showed the scheme having a surplus of £228,000 (before restrictions) (2016: deficit £1,979,000). As the scheme is now closed to the new members, the surplus is not considered recoverable and therefore has not been recognised. The scheme benefits have remained unchanged through the year. The projected unit method was used in the valuation of the fund and the financial assumptions as to growth rate, inflation, pay increases and discount rate are set out above. It is assumed that the current service cost will increase as employees participating in the scheme near retirement age. There were no contributions outstanding at the end of the financial year (2016: £nil).

The Company expects to contribute approximately £250,000 to its defined benefit plans in the next financial year.

11 Fixed Assets - Intangible Assets

	Goodwill	Website and DT costs	Total
Group	£'000	£'000	£'000
Cost			
At 1 January 2017	5,232	763	5,995
Additions	-	1,520	1,520
At 31 December 2017	5,232	2,283	7,515
Depreciation			
At 1 January 2017	5,030	71	5,101
Amortisation charged	202	95	297
At 31 December 2017	5,232	166	5,398
Net Book Value			
At 1 January 2017	202	692	894
At 31 December 2017	-	2,117	2,117

Website and Digital Transformation Programme, Platform costs

The intangible assets for the Institution is represented by Website and Digital Transformation (DT) costs. The website development was completed in March 2016 and begun being amortised from April. The DT costs were still an asset in construction at the year end and therefore was not amortised in 2017. Both website and DT costs were purchased and developed by the Institution.

12 Fixed Assets - Tangible Assets

Group	Land and Property £'000	Furniture and Equipment £'000	Motor Vehicles £'000	Total £'000
Cost				
At 1 January 2017	9,434	6,809	33	16,276
Additions	578	356	-	934
At 31 December 2017	10,012	7,165	33	17,210
Depreciation				
At 1 January 2017	3,285	5,667	(15)	8,937
Amount charged	361	455	48	864
At 31 December 2017	3,646	6,122	33	9,801
Net Book Value				
At 31 December 2017	6,366	1,043	-	7,408
At 1 January 2017	6,149	1,142	48	7,339

Institution	Land and Property £'000	Furniture and Equipment £'000	Motor Vehicles £'000	Total £'000
Cost				
At 1 January 2017	9,264	4,987	-	14,251
Additions	572	58	-	630
At 31 December 2017	9,836	5,045	-	14,881
Depreciation				
At 1 January 2017	3,197	4,494	-	7,691
Amount charged	365	314	-	679
At 31 December 2017	3,562	4,808	-	8,370
Net Book Value				
At 31 December 2017	6,274	237	-	6,511
At 1 January 2017	6,067	493	-	6,560

The Institution's head office at One Birdcage Walk is included in Land and Property above at its depreciated historical cost. The Trustees believe that its open market value is significantly in excess of this historical cost based on carrying value.

The Institution owns the freehold of One Birdcage Walk and its head office. Whilst part of the building is let out to third parties, the entire property is accounted for within tangible fixed assets at cost less depreciation as the fair value of the investment property component cannot be reliably measured without undue cost or effort.

Heritage assets

The institution holds a collection of heritage assets relating to the history of the Institution itself and the wider history of mechanical engineering, which includes printed works, pictures, and other artefacts. All these items have been donated to the Institution some time ago and so information on their cost or valuation is not available and cannot be obtained at a cost commensurate with the benefit to the users of the accounts and the charity.

13 Fixed Assets - Investments

Group	2017 Cost	2017 Market Value	2016 Cost	2016 Market Value
Analysis of Investments - UK	£'000	£'000	£'000	£'000
Fixed Interest Unit Trusts	826	1,498	863	1,536
Equities Unit Trusts	5,752	12,410	7,558	13,815
Charities Official Inv. Fund Income Units	1,120	2,770	1,124	2,818
Cash	103	103	92	92
Stephenson LP	1,400	1,400	1,150	1,150
Property - let on 999 year lease	9	9	9	9
	9,210	18,190	10,796	19,420
Analysis of Investments - outside the UK				
Fixed Interest Unit Trusts	583	573	650	636
Equities Unit Trusts	1,373	2,400	1,849	2,899
	1,956	2,973	2,499	3,535
Multi-Asset Funds	1,068	1,333	1,068	1,284
Total Investments	12,234	22,496	14,363	24,239

Analysis of Funds and Ranges	2017 Cost	2017 Market Value	2016 Cost	2016 Market Value
	£'000	£'000	£'000	£'000
Reserve Fund - Unrestricted				
Free range	4,293	6,222	6,669	9,016
Stephenson LP	1,400	1,400	1,150	1,150
	5,693	7,622	7,819	10,166
Whitworth Scholarships Fund				
Restricted	820	2,728	819	2,476
Endowment	663	3,904	663	3,553
	1,483	6,632	1,482	6,029
General Trust				
Wider range	2,785	3,868	2,785	3,697
Charities Official Inv. Fund Income Units	11	153	35	430
	2,796	4,021	2,820	4,127
James Clayton				
Wider range	1,144	1,595	1,143	1,519
Special - property	9	9	9	9
	1,153	1,604	1,152	1,528
Education & Research				
Charities Official Inv. Fund Income Units	872	2,038	872	1,875
Sundry Small Trusts				
Charities Official Inv. Fund Income Units	237	579	218	514
	12,234	22,496	14,363	24,239

The above figures refer to investments held by the Group, the figures for the Institution exclude the investments held by the Whitworth Scholarships Fund.
The investments of the Reserve Fund, General Trust and James Clayton Trust are managed by Schroder & Co Ltd. Investments of the Whitworth Scholarships Fund are managed by Blackrock Investment Management (UK) Ltd. The let property is part of the James Clayton Trust Fund and was included as part of assets left to the Institution in the will of the late James Clayton. A summary of the investment powers can be found in the Legal & Administrative Information section.
The Stephenson LP investment held within the Reserve fund is a social investment fund. The carrying value of investments in subsidiaries amounted to £2.

13 Investments (continued)

Movement of investments	2017 £'000	2016 £'000
Market value at 1 January	24,147	22,557
Acquisitions	481	1,545
Sales proceeds	(4,022)	(2,766)
Net investment gain / (loss)	1,787	2,811
Market value (excluding cash) at 31 December	22,393	24,147
Cash awaiting investment	103	92
Total market value at 31 December	22,496	24,239
Historic cost at 31 December	(12,234)	(14,363)
Unrealised investment gain at 31 December	10,262	9,876

	2017	2016
Net investment gain / (loss)	1,787	2,811
Foreign exchange translation gain	1	4
Total gains on investment assets	1,788	2,815

Interest & Dividends

	2017 £'000	2016 £'000
Dividends receivable from unit trusts	651	649
Bank interest - general funds	1	6
Bank interest - cash held as part of investment portfolio	-	1
	652	656

All the dividend and loan stock interest arises from the investments detailed above.

14 Debtors

	Group		Institution	
	2017 £'000	2016 £'000	2017 £'000	2016 £'000
Trade debtors	2,189	2,524	509	232
Other debtors incl VAT, other taxes	1,285	675	621	556
Prepayments and accrued income	1,030	738	369	469
Loans due from group companies	-	-	4,033	4,699
Amounts due from group companies	-	-	3,654	4,083
	4,504	3,937	9,186	10,039

Loans from group companies are charged interest at a rate of 2% above the National Westminster Bank base rate.

15 Analysis of Net Funds

	Group		
	Balance 1.1.2017 £'000	Cash Flows £'000	Balance 31.12.2017 £'000
Cash awaiting investment	92	11	103
Cash at bank and in hand	1,395	978	2,373
	1,487	989	2,476

16 Creditors - Amounts falling due within one year

	Group 2017	Group 2016	Institution 2017	Institution 2016
	£'000	£'000	£'000	£'000
Trade creditors	2,324	1,855	1,579	1,752
Other creditors	1,334	768	1,080	688
Amounts due to group companies	-	-	1,161	1,632
Accruals	448	104	-	-
Taxation and social security	-	220	-	-
	4,106	2,947	3,820	4,072
Deferred income	4,292	3,754	3,880	3,595
Total Creditors	8,398	6,701	7,700	7,667

Deferred income represents the value of membership subscriptions, property rents, and event income received in respect of the next calendar year.

Reconciliation of deferred income:

	Group 2017	Group 2016	Institution 2017	Institution 2016
	£'000	£'000	£'000	£'000
Balance at 1 January	3,754	3,795	3,595	3,388
Amount released to income	(3,754)	(3,795)	(3,595)	(3,388)
Amount deferred in the year	4,292	3,754	3,880	3,595
Balance at 31 December	4,292	3,754	3,880	3,595

17 Analysis of Group Net Assets Between Funds

Fund balances at 31 December are represented by:	Unrest'ted £'000	Endow'nt £'000	Restricted £'000	2017 Total £'000
Intangible fixed assets	2,117	-	-	2,117
Tangible fixed assets	7,408	-	-	7,408
Investments	7,895	11,635	2,966	22,496
Current assets	6,905	-	357	7,262
Current liabilities	(8,092)	-	(306)	(8,398)
Defined benefit pension scheme liability	-	-	-	-
	16,233	11,635	3,017	30,885

	Unrest'ted £'000	Endow'nt £'000	Restricted £'000	2016 Total £'000
Intangible fixed assets	894	-	-	894
Tangible fixed assets	7,339	-	-	7,339
Investments	10,497	10,830	2,912	24,239
Current assets	5,457	-	210	5,667
Current liabilities	(6,549)	-	- 152	(6,701)
Defined benefit pension scheme liability	(1,979)	-	-	(1,979)
	15,659	10,830	2,970	29,459

18 Capital & Income Funds - Analysis

Provided below is an analysis of the various funds included in these financial statements:

	Balance 1.1.2017	Incoming Resources	Resources Expended	Gains & (Losses)	Transfers	Balance 31.12.2017
	£'000	£'000	£'000	£'000	£'000	£'000
Unrestricted Funds						
Institution, Reserve Fund & PEP Ltd	15,659	21,585	(23,695)	3,018	(334)	16,233
Restricted Funds						
Whitworth Scholarships Fund	2,194	176	(107)	-	-	2,263
General Trust (includes legacy)	(82)	147	(399)	-	334	-
James Clayton Trust	165	54	(76)	-	-	143
Trust for Education & Research	475	68	(167)	-	-	376
Sundry small trusts	218	19	(2)	-	-	235
	2,970	464	(751)	-	334	3,017

	Balance 1.1.2017	Incoming Resources	Resources Expended	Gains & (Losses)		Balance 31.12.2017
	£'000	£'000	£'000	£'000		£'000
Endowment Funds						
Whitworth Scholarships Fund	3,876	-	-	603	-	4,479
General Trust	4,063	-	-	(82)	-	3,981
James Clayton Trust	1,404	-	-	75	-	1,479
Trust for Education & Research	1,154	-	-	163	-	1,317
Sundry small trusts	333	-	-	46	-	379
	10,830	-	-	805	-	11,635
Total Funds	29,459	22,049	(24,446)	3,823	-	30,885

The restricted and endowment funds mainly comprise a number of trusts established by deed, holding resources set aside to provide prizes and awards to recognise achievement and generally foster progress in mechanical engineering. The restricted funds represent the income and expenditure of each trust and the endowment funds the capital held to generate investment income. The Trustee Board acts as sole corporate trustee. The majority of the funds held originate from legacies and lifetime gifts donated to commemorate the achievements of prominent engineers. The General Trust and Trust for Education & Research were established with the agreement of the Charity Commissioners to aggregate the resources of a large number of smaller trusts with similar aims. The James Clayton Trust and some smaller trusts (for reasons of convenience totalled in the sundry category above) have more specific objectives and could not be included in the two main trusts. The Whitworth Scholarships Fund was originally established in 1868, with the trusteeship being transferred from the UK Government in December 2001.

The transfer from the unrestricted funds to the General Trust reflects the Institution decising to expend more resources in this area than could be supported from the income from the General Trust endowment fund and effectively funding the balance from unrestricted funds.

18 Capital & Income Funds - Analysis (continued)

	Balance 1.1.2016 Restated £'000	Incoming Resources £'000	Resources Expended & transfers £'000	Gains & (Losses) £'000	Balance 31.12.2016 £'000
Unrestricted Funds					
Institution, Reserve Fund & PEP Ltd	19,182	21,514	(22,150)	(2,887)	15,659
Restricted Funds					
Whitworth Scholarships Fund	2,225	167	(198)	-	2,194
General Trust (includes legacy)	(28)	127	(181)	-	(82)
James Clayton Trust	179	50	(64)	-	165
Trust for Education & Research	830	66	(421)	-	475
Sundry small trusts	217	17	(16)	-	218
	3,423	427	(880)	-	2,970

	Balance 1.1.2016 £'000	Incoming Resources £'000	Resources Expended £'000	Gains & (Losses) £'000	Balance 31.12.2016 £'000
Endowment Funds					
Whitworth Scholarships Fund	3,257	-	-	619	3,876
General Trust	3,592	-	-	471	4,063
James Clayton Trust	1,226	-	-	178	1,404
Trust for Education & Research	1,026	-	-	128	1,154
Sundry small trusts	285	-	-	48	333
	9,386	-	-	1,444	10,830
Total Funds	31,991	21,941	(23,030)	(1,443)	29,459

19 Trust & Prize Fund Individual Accounts

GENERAL TRUST
Benefactors Comprise

James Bates
Horace Bedford
Charles Sharpe Beecher
William Bennett
Joseph Bramah
T H Carr
Thomas Andrew Common
Gresham Cooke
Winifred Smart Crabtree
George Curry
Bernard Incledon Day
Bryan Donkin
H V Disney
A H Duncan
Christian Peter Dunkel
John Edward Elliott
James Moir Forbes
Sir Hugh Ford
Winifred Foreman
Andrew Fraser
Thomas Lowe Gray
Donald Julius Groen
Thomas Bernard Hall
Herbert Edward Hancocke
Francis Hewlett
Lord Hinton of Bankside
Shirley Nelson Howe
Robert Herbert Innes
Kenneth Harris James
Anne Labrow
Olive Mary Main
Ernest William Moss
The Reactionaries
Charles Howard Readman
William Sweet Smith
A M Strickland
Clifford S Steadman
Thomas Stephen
Thatcher Bros.
Fredrick Barnes Waldron
Edwin Walker
Neil Watson
Viscount Weir
Frau May Borner Wylie

TRUST FOR EDUCATION AND RESEARCH
Benefactors and Predecessor Trusts Comprise

John F Alcock Memorial Prize
Carl Louis Breedon
Henry Stacey Cattermole
Engineering Applied to Agriculture
Filtration
M M Flatman
Thomas Hawksley
Hele-Shaw National Certificate
Mrs P M Lowery
Manville Bequest Scholarship
E May
Ludwig Mond
F G Moore
Arthur Morley Higher National Diploma
John Player Lectureship
Raymond Coleman Prescott Scholarship
William Alexander Agnew Meritorious
Alastair Graham-Bryce
Frank Radcliffe
Alfred Rosling Bennett Premium
Clarence Noel Goodall
Charles S Lake
Rover Midlander
T A Stewart Dyer
Fredrick Harvey Trevithick
Sir Seymour Briscoe Tritton
Stanley Herbert Whitelegg
Safety Award in Mech. Engineering
Starley Premium
George Stephenson Research
Herbert Ackroyd Stuart
The Students Aid
Water Arbitration
Willans Premium
L Marson
Margaret Winifred Astridge

The above trust funds are under the trusteeship of the Institution of Mechanical Engineers. Because of the limited space available, the information presented is, of necessity, brief. If you would like more details, please contact the Secretary to the Trustee Board Awards Committee.

20 Related Party Transactions

The Institution of Mechanical Engineers, the parent charity, has five 100% owned subsidiaries which carry on non-charitable trading activities. All transactions between the Charity and its subsidiaries have a trading nature i.e. providing training, executing payroll, carrying out HR functions etc.

At the year end the Institution of Mechanical Engineers had the following outstanding balances with its subsidiary companies :

	2017	2016
Amounts due from/to Professional Engineering	4,461,182	5,193,207
Amounts due from/to IMechE Services Limited	87,866	(22,313)
Amounts due from/to Sonaspection International	1,976,650	1,978,861

All amounts are considered to be repayable on demand during the year.

	2017	2016
Transactions with Professional Engineering Projects	158,319	1,087,435
Transactions with IMechE Services Limited	1,204	13,966
Transactions with Sonaspection International	689,479	586,356

21 Reconciliation of net income to net cash flow from operating activities

		2017 £'000	2016 £'000
Net (expenditure)/income for the reporting period (as per the statement of financial activities)		(26)	1,133
Amounts written off in respect of Amber	Note 23	(583)	(1,296)
Adjustments for:			
Amortisation		297	1,626
Depreciation charges (includes write off)		864	1,037
Dividends, interest and rent from investments		(652)	(656)
(Increase)/decrease in debtors		(567)	1,176
Increase/(decrease) in creditors		1,697	(1,669)
(Increase)/decrease in stocks		(50)	179
(Gain)/losses on investments		(1,788)	(2,815)
Net cash provided by operating activities before		(808)	(1,284)
Increase in defined benefit pension scheme costs		56	(1,017)
		-	-
Net cash provided by operating activities		(752)	(2,301)

22 Financial Instruments

	Group		Institution	
	2017 £'000	2016 £'000	2017 £'000	2016 £'000
Financial assets measured at amortised cost	6,344	5,332	6,306	6,879
Financial liabilities measured at amortised cost	4,106	2,787	3,820	4,072
Financial assets measured at fair value	22,496	24,239	15,864	18,209

23 Amounts written off in respect of Amber Train Limited

As reported last year, the Company's subsidiaries undertaking, Amber Train Limited, was placed into liquidation on 24 July 2017. Losses in relation to this of £1,296k were recognised in the 2016 financial statements. A further £583k of costs were incurred in the period from 1 January 2017 to 24 July 2017 when it was placed into liquidation and have been recognised in the financial statements.

The 2017 write off includes certain costs after this date relating to vehicle lease terminations costs where the Institution had taken out contracts in its own name on behalf of Amber Train, and write off of intercompany balances. All of these costs ceased before the end of 2017. The balance of the write off relates to professional fees associated with the liquidation.

	2017	2016
	£'000	£'000
Write off of goodwill	-	962
Write back of deferred consideration	-	(255)
Write off of Intercompany balances and associated costs as at 31 December 2017	583	789
Write back of consideration held in escrow (no longer due)	-	(200)
Total	**583**	**1,296**

Reference and administrative details

Name
The Institution of Mechanical Engineers

Address of principal office
1 Birdcage Walk, Westminster, London, SW1H 9JJ

Charity registration numbers
The charity registration number of the Institution and subsidiary prize and award funds is 206882. The number for the Whitworth Scholarships Fund is 313756.

Governing document and constitution
The Institution was founded in 1847 and was incorporated by Royal Charter in 1930. Copies of the Royal Charter and By-Laws are available from the Trustee Department at the London address.

Trustees
The Trustee Board comprises the President, President-Elect, four Vice-Presidents, an International Vice-President and five or more ordinary members. All trustees are elected by the Corporate and Associate Membership of the Institution. Trustees are required to retire after a maximum of 3 years in post.

Trustee Board met 7 times during 2017 (2016: 8).

The names of those who served as trustees during the year and at the date of approval of this document are as follows:

	Number of meetings attended	Number of meetings in session
G Baker	7	7
S B M Beck	7	7
H A Clarke (elected 24 May 2017)	4	4
P A Finlay	7	7
C J Griffiths	7	7
G S Hartill (ceased 24 May 2107)	3	3
S Haslam (ceased 24 May 2107)	0	3
Professor J G Hawley (ceased 24 May 2107)	0	3
Dr C Hickman	6	7
J J R Hilton (ceased 24 May 2107)	3	3
I R Joesbury (elected 24 May 2017)	3	4
Professor A Lau	6	7
J H Lowe	7	7
C S Malpas (ceased 24 May 2107)	2	3
P J Peel	7	7
H C Rivers (elected 24 May 2017)	4	4
R P Smith (elected 24 May 2017)	4	4
S M Suleyman (elected 24 May 2017)	4	4

Chief Executive
The Chief Executive thoughout the period was Stephen Tetlow MBE.

Key Management Personnel
This includes the Chief Executive and four directors: Finance and Commercial Director, HR Director, Membership Operations Director and Chief Marketing Officer

Names and address of bankers and professional advisers

Auditor:	Crowe Clarke Whitehill LLP St. Bride's House 10 Salisbury Square London, EC4Y 8EH
Bankers:	National Westminster Bank plc P O Box 113 Cavell House 2a Charing Cross Road London, WC2H 0PD
	CAF BANK Ltd PO Box 289 Kings Hill West Malling Kent ME19 4TA
Investment managers:	Schroder & Co Limited 12 Moorgate London, EC2R 6DA
	Blackrock Investment Managers Limited 33 King William Street London EC4R 9AS
	CCLA Investment Management Limited 80 Cheapside London EC2V 6DZ
Solicitors:	Bristows 100 Victoria Embankment London EC4Y 0DH
Pension advisers:	Barnet Waddingham LLP Decimal Place Chiltern Avenue Amersham HP6 5FG
Internal auditor:	BDO 55 Baker Street London W1Y 7EU

Summary of funds (continued)

Reserve Fund

The Reserve Fund is the name used to describe the funds set aside by the Trustee Board out of surpluses generated in previous years. Its purpose is to provide investment income for day to day activities, capital for future major projects, as well as providing a contingency fund in the event of an interruption to normal flows of income.

The powers under which these monies are invested are set down in the By-laws of the Institution. From 13 February 2002 revised By-Laws came into effect which incorporates a "general investment power" in-line with the Trustee Act 2000. In addition, the By-laws grant the power to appoint an investment manager and to delegate to this post discretionary power in relation to the management of the Institution's investments. There is also a power to appoint a corporate body as the Institution's nominee to hold the investments.

All the Reserve Fund investments are managed by Schroder & Co. Limited, with their nominee company being used to hold investments.

Whitworth Scholarships Fund

On 11 December 2001, the trusteeship of the Whitworth Scholarships Fund was transferred from the Secretary of State for Education and Skills to the Institution. The Whitworth Scholarships Fund was established in 1868 under a deed of covenant and trust between Sir Joseph Whitworth, a leading manufacturer of machine tools and famous mechanical engineer, and the then President of the Committee of Council on Education. The objective of the Trust Fund is to bring science and industry together through the awarding of scholarships for the study of mechanical and related sciences.

The Trust consists of two funds: the Endowment Fund representing permanent capital and the Unrestricted Fund representing the accumulation of unspent income.

Investments in both funds consist of common investments funds managed by Merrill Lynch Investment Managers Limited – Charishare invests in equities and Charinco invests in gilts and fixed interest stocks.

General Trust

The General Trust was created by the Institution on 25 April 1979 by trust deed as part of an exercise to consolidate a number of existing small trust funds. The purposes of the General Trust have been widely drawn to allow the Trustee Board flexibility in using the trust's resources. Currently, funds are used almost exclusively for prizes and awards in the field of mechanical engineering.

The Trust Deed provides unrestricted investment powers, including the ability to appoint investment managers and to allow nominees to hold investments.

Schroder & Co. Limited manages the majority of the investments, with a small part being held in the form of Charities Official Investment Fund income units. The nominee company of Schroder's is used to hold the investments that they manage.

Summary of funds (continued)

James Clayton Trust Fund

The James Clayton Trust Fund was established shortly after the Second World War under the will of the late James Clayton. The objects of the trust are to provide various prizes and awards in the field of mechanical engineering.

The will does not specify investment powers, hence the Trustee Act 2000 is the governing document for these purposes. On 6 August 1996, the Charity Commission issued an order under Section 26 of the Charities Act 1993 formally granting the power to appoint an investment manager and to delegate to this post discretionary powers in relation to the management of the Trust's investments. The order provides the power to appoint a corporate body as the Trust's nominee to hold the investments.

All the James Clayton Fund Investments are managed by Schroder & Co. Limited with their nominee company being used to hold investments.

Trust for Education and Research

The Trust for Education and Research was created on 18 January 1982 under a scheme organised with the aid of the Charity Commission whose purpose was to consolidate twenty-six small trust funds. The objects of the trust are to provide various prizes and awards in the field of mechanical engineering education and research.

The Trust Deed does not grant specific investment powers and since its formation all investments have been held in the form of Charities Official Investment Fund income units.

Bruce Ball National Certificate Prize Fund

This Trust was established in 1965 to provide a prize in remembrance of Bruce Ball. The conditions attached were too specific for the Trust to be included in a consolidation.

The Trust Deed provides no investment powers beyond those granted by Trust Law and all capital is invested in Charities Official Investment Fund income units.

Paul Henderson Memorial Trust Fund

This Trust was established on 5 March 1968 to provide a prize in memory of Paul Henderson, with conditions specific enough to preventing its inclusion in a consolidation.

The Trust Deed provides unrestricted investment powers. However, in view of the relatively small value of the Trust, all capital is held in Charities Official Investment Fund income units.

C C Pounder National Certificate Prize Fund

This Trust was established on 31 August 1965. The same comments as provided for the Bruce Ball Fund are applicable.

Summary of funds (continued)

Tribology Award Fund

This Trust was established on 2 April 1969 to award annually a gold medal for outstanding achievement in the field of tribology.

The Trust Deed provides unrestricted investment powers. However, due to the relatively small value of the fund, all capital is invested in Charities Official Investment Fund income units.

James Watt International Medal Fund

This Trust was established on 31 August 1965. Its purpose is to award biennially a gold medal for outstanding achievement in the advancement of the science of mechanical engineering. However, in recent years the income generated has proved insufficient to pay for medals and the General Trust has purchased medals to allow awards to be made.

The Trust Deed provides investment powers identical to those available in the Institution By-Laws. However, because of the very small value of the fund, all capital is invested in Charities Official Investment Fund income units.

Spencer Wilks Trust

This Trust was established on 18 July 1973 to provide awards in the name of Spencer Wilks to promote, advance, assist, or encourage the study of and technical education in, the engineering aspects of transportation.

The Trust Deed provides unrestricted investment powers. However, because of the relatively small value of the fund, all capital is invested in Charities Official Investment Fund income units.

Research and Development Trust Fund

This Trust was established on 22 November 1995 to promote and support research and development in the field of mechanical engineering.

The Trust Deed provides unrestricted investment powers. However, as the trust currently does not hold any funds as capital, all income monies are placed on bank deposit.