

Institution of Chemical Engineers

**Council's annual report and
consolidated financial statements for the
year ended 31 December 2016**

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Council's Report

Council is pleased to present its annual report together with the financial statements of the charity and its subsidiaries for the year ending 31 December 2016.

The financial statements comply with the Charities Act 2011 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 (FRS 102) (effective 1 January 2015).

Reference and Administrative Details

The Institution of Chemical Engineers (IChemE) is a registered Charity in England and Wales (charity number 214379) and a charity registered in Scotland (SC039661).

Principal Office

Davis Building, Railway Terrace, Rugby, Warwickshire, CV21 3HQ

Auditors

BDO LLP, Two Snowhill, Birmingham, B4 6GA

Main Bankers

NatWest Bank Plc, Silbury House, 300 Silbury Boulevard, Milton Keynes, MK9 2ZF
CAF Bank Limited, Kings Hill, West Malling, Kent, ME19 4TA

Solicitors

Hill Hofstetter, Trigen House, Central Boulevard, Blythe Valley Park, Solihull, B90 8AB
Mills & Reeve, 100 Hills Road, Cambridge, CB2 1PH

Investment Managers

Rathbone Investment Management Limited, 8 Finsbury Circus, London, EC2M 7AZ
Ruffer LLP, 80 Victoria Street, London, SW1E 5JL

Trustees

The Trustees serving through the year were as follows:

Council Members

1 January 2016 – 24 May 2016

Elected members

Dr A Jamieson
Prof GC Maitland
Prof JPK Seville
Mr KJ Rivers
Mr SF Harrow
Mr IJ Martin
Dr J Glassey
Prof L Gladden

Co-opted members

Mr WJ Harper
Mr PR Ellis
Dr JP Sherlock
Mr JM McGagh
Dr Abdul Aziz Abdul Raman
Mr D Platts
Prof R Amal
Prof C Webb

Council Members

From 24 May 2016

Elected members

Prof JPK Seville
Dr A Jamieson
Mr JM McGagh
Mr KJ Rivers
Mr SF Harrow
Mr IJ Martin
Dr J Glassey
Prof L Gladden

Co-opted members

Mr WJ Harper
Mr PR Ellis
Dr JP Sherlock
Prof R Amal
Dr Abdul Aziz Abdul Raman
Mr D Platts
Mrs AMW Black
Prof C Webb

Chief Executive

Mr J Prichard (from 30 January 2017)
Mr J Blades (Interim CEO July 2016 – January 2017)
Dr DJ Brown (to 15 July 2016)

Senior Management Team

Mr N Atkinson: Director Qualifications & International Development
Mr J Blades: Deputy Chief Executive, Chief Operating Officer
Ms J Downham: Director Finance & Business
Mrs C Flavell-While: Director of Policy & Publications
Mr A Furlong: Director of Communication & Brand Development
Mr P Slane: Director Australia & New Zealand
Mr B Tallah: Director South East Asia (to 16 December 2016)

Objectives and activities for the public benefit

The Institution is a professional body committed to advancing the practice of chemical engineering worldwide for the benefit of society.

In support of this core purpose we promote a wide awareness of the role of chemical engineering. We develop, maintain and administer standards of professionalism, education, safety and engineering practice. We work to attract a broad range of talent from diverse backgrounds into the discipline, and we inspire young professionals to develop their competence in order to ensure that society is protected.

We assess applicants for membership through a rigorous peer review process thereby promoting professional development and competence in all those who enter the profession.

By promoting high standards we encourage chemical engineers to deliver economic benefit and wellbeing without causing harm to society or the planet.

Through the knowledge and expertise of our members we inform policy development and advance the practice of chemical engineering. We recognise and celebrate excellence; we undertake informed advocacy on behalf of chemical engineering and chemical engineers; and share the message that chemical engineering matters.

The object of the Institution as set out in the Royal Charter is:

to promote, foster and develop the general advancement of the science of chemical engineering in all its branches as an end in itself and as a means of furthering the scientific and economic development and application of processes in which chemical and physical changes of materials are involved and to promote, assist, finance and support such research, investigation and experimental work in chemical engineering as the Institution may consider likely to conduce to those ends and to the benefit of the community at large.

The powers vested in the Institution to achieve these objects are:

- To hold meetings of the Institution for reading and discussing papers and communications bearing upon the science of chemical engineering or the application thereof or upon subjects relating thereto and generally to advance knowledge of chemical engineering.
- To print, publish, sell, lend or distribute the proceedings or the reports of the Institution or any papers, communications, works or treatises on chemical engineering or its application or subjects connected therewith in the English or any foreign tongue or any abstracts thereof or extracts therefrom.
- To co-operate with Government Departments, Universities, other Educational Institutions and public educational authorities for the furtherance of knowledge of and education in chemical engineering, science or practice.
- To publish statements in the public interest for the education or information of the general public on matters involving the science or application of chemical engineering.
- To hold or prescribe examinations or other assessments for candidates for election to Voting and Non-Voting membership and by requiring standards of knowledge and experience approved by the Institution.
- To maintain, under licence from the Engineering Council (UK) or the Science Council, or any other successor organisations, or any other appropriate organisations, such Register, or parts thereof, as refer to relevant Chartered Practitioner status or to relevant Technician or other status.
- To co-operate with any other organisations to advance the cause of chemical engineering or for economic purposes related thereto.
- To do all other things incidental or conducive to the attainment of the above objects or any of them.

Our Business Plan for 2016 identified four key strategic goals and activities to achieve these objects:

- Build and sustain an active international professional community, united by a commitment to qualifications and standards that foster excellence and the delivery of benefits to society.
- Engage with others to promote the development, understanding and use of chemical engineering and the appreciation of its importance.
- Provide support and services to individuals, employers and others who further the practice and application of chemical engineering.
- Enable chemical engineers to interact and communicate with each other and with other disciplines.

The Business Plan sets out how we will pursue these goals, and the indicators by which we will know we are succeeding.

Public Benefit

The Institution works to fulfil these goals on a broad international scale, reflecting the global nature of its membership and of the chemical engineering profession, and bringing benefits to the public and society by promoting high standards of engineering competence, professional ethics, safety and sustainability, thus enabling industry and society to receive the benefit from a competent profession and its practitioners.

The Trustees confirm that they have referred to the Charity Commission's guidance on public benefit when reviewing the Institution's aims and objectives and in planning future activities.

Achievements and performance

The Institution's CEO Dr David Brown stepped down after nine years in July. The UK Engineering Council's CEO, Jon Prichard, was confirmed as his successor. Jon's appointment in early 2017 will be followed by a governance review and further progress on a new strategic plan that will reshape IChemE's activity as it heads for its centenary in 2022.

We will build and sustain an active international professional community, united by a commitment to qualifications and standards that foster excellence and the delivery of benefits to society

The Institution is committed to advancing chemical engineering worldwide. This ambition is fulfilled by inspiring member volunteers to support and deliver the Institution's work programmes.

Membership held steady in 2016, with just over 44,000 members in 120 countries worldwide. Australia (3,902), Malaysia (5,703) and the UK (24,620) were the top three domiciles.

Interest in UK chemical engineering first degree programmes waned for the first time since 2000. Applications and intake fell from 23,125 to 20,325 and 3,775 to 3,300 respectively. Nonetheless, IChemE's *OnCampus* work continued to make an impact, with over 2,500 students in the UK attending presentations by the Institution in 2016.

Public confidence in chemical engineers depends on the maintenance of professional standards. The Institution successfully completed licence reviews with the UK's Engineering Council and the Society for the Environment. Both licences were renewed for five years. In a further development, IChemE successfully piloted random sampling of the continuing professional development records for Chartered Members and Fellows. This process, which constitutes best practice for qualifying bodies, will be fully implemented from January 2017.

The University of Oveido was the second Spanish University to receive IChemE accreditation for its Bachelors programme. This was followed by accreditation of Chinese University Nottingham Ningbo's BEng programme. Lancaster University, UK was also accredited during 2016 and the South African Institution of Chemical Engineers (SAIChE) set up its first IChemE student chapter. IChemE's Safety Centre signed a collaborative agreement with the Centre of Advanced Process Safety at Universiti Teknologi Malaysia.

We will engage with others to promote the development, understanding and use of chemical engineering and the appreciation of its importance

IChemE exists because chemical engineering matters. The discipline creates, maintains and improves quality of life. This thinking was set out in the third edition of the *Chemical Engineering Matters* report. The report included a new section on minerals and manufacturing along with an assessment of external factors impacting the profession. A new, fifth 'vista' looking at the role of the chemical engineer in sustainable manufacturing is now planned.

The IChemE Energy Centre participated in the COP22 gathering in Morocco. Board members joined a well-attended side meeting, partnering with Imperial College London's Grantham Institute and US non-profit advocacy group the Natural Resources Defense Council. The discussion focussed on finance options for scaling up low-carbon technologies.

The Energy Centre also supported workshops examining the future of oil and gas in seven countries, including Australia, Malaysia, New Zealand, Qatar, Singapore, South Africa and the UK.

IChemE believes that no-one should get hurt in the workplace. The dissemination of process safety knowledge and lessons learned from earlier incidents is essential. The IChemE Safety Centre launched a new range of interactive case studies. The innovative training aids simulate decision-making challenges in a variety of hazardous locations including a gas plant, a coal mine and a tank farm. The Centre grew during the year, increasing its membership to 14 operating partners and ten industry partners.

2016 brought reminders of several infamous process safety incidents, including the 40th anniversary of the Seveso blast in Italy. The *Loss Prevention Bulletin (LPB)* published a special free issue to mark the occasion, re-examining several notable disasters and lessons learned.

The *European Symposium on Biochemical Engineering (ESBES)* was hosted for the first time by IChemE in Dublin, Ireland where a new *Biofutures* initiative was launched.

IChemE's Research Committee highlighted the most impactful chemical engineering research of the last decade. The research, which spanned the four *Chemical Engineering Matters* themes – water, energy, food and wellbeing, was presented in the UK parliament in December.

We will provide support and services to individuals, employers and others who further the practice and application of chemical engineering

The Institution's commitment to trustworthy professionalism is demonstrated through knowledge sharing, training and support.

IChemE's web-based information centre and analytical tool, *Knovel*, was updated with new equation-solving functionality. The number of user sessions increased to over 79,000. Six new open training courses were introduced during the year and more than 80 courses were delivered worldwide. In response to growing demand for virtual resources and training, IChemE delivered 65 webinars during the year, with more than 10,000 registrations logged.

There was progress in the physical world too. Dormant regional member groups were reactivated in Manchester, Portsmouth and Southampton. The East and West Midlands member groups merged into a single entity. In Malaysia, a Palm Oil Special Interest Group was established.

Five in-company training schemes gained Accredited Company Training Scheme (ACTS) status in the UK at ABB, Bilfinger, Dounreay, Process Systems Enterprise and Tarmac. DNV-GL in Malaysia also gained ACTS status.

IChemE's Corporate Partner programme helps to establish productive links with industry. Arup, DNV GL (Malaysia), Lorien Engineering Solutions, Penspen, and Process Systems Enterprise were welcomed as new Bronze Corporate Partners. OSL Consulting and United Utilities upgraded to Silver, and Johnson Matthey to Gold Corporate Partner status.

Diversity remains a priority. A new women's network was launched on LinkedIn, and the 2016 intake figures revealed that over a quarter of UK chemical engineering undergraduates are female – more than any other engineering discipline. IChemE also focussed on social mobility, sexuality, race and disability issues. The work was championed by a Diversity and Inclusion Working Group.

We will enable chemical engineers to interact and communicate with each other and with other disciplines

Member engagement is central to the success of IChemE events, notably the long-running *Hazards Symposium*. Edinburgh was the setting for *Hazards 26* and a memorable Trevor Kletz Lecture on lessons learned from the RAF Nimrod crash inquiry. Delivered by The Honorable Mr Justice Haddon-Cave, a free recording of the lecture was made available on the IChemE website.

The news that construction would start on the UK's first new nuclear power plant for over 20 years was welcomed by over 100 nuclear industry practitioners who in April gathered in Nottingham, UK for IChemE's third *Sustainable Nuclear Energy Conference*. The decision heralds a renaissance for a sector that relies heavily on professional chemical engineers.

Three successful *Hazards* process safety conferences were delivered in Edinburgh, UK; Melbourne, Australia; and, for the first time, in Singapore. Adelaide played host to *Chemeca*, the traditional meeting place for Australasian chemical engineers.

The University of Manchester hosted the UK's annual *IChemE Frank Morton Sports Day* at the Manchester Central Convention Centre. Over 2,500 undergraduate students attended, including newcomers from the Universities of Chester and Wolverhampton. This event offers the ideal opportunity to introduce young chemical engineers to their professional engineering institution.

IChemE's Malaysian community celebrated its tenth anniversary in 2016 with HRH Tuanku Zara Salim in attendance as Royal Patron. In Spain, IChemE's affiliate society, the Official College of Chemical Engineers in Valencia (COIQCV) also celebrated its tenth birthday.

Plans for the future

A new strategy

During 2016 Council initiated a thorough reassessment of the Institution's ambition and aims which resulted in the development of a new strategy for the period 2017-2022, taking the Institution up to its centenary year. The initial conclusions of the review emerged in July and were subsequently tested on members, attracting broad support.

The strategy will be rolled out and implemented under the leadership of the Institution's new CEO, Jon Prichard.

Our priorities for 2017 will focus on:

- progressing the review of the Institution's governance processes
- putting in place systems and processes to engage and support our volunteers
- identifying and confirming our strategic partners
- developing collaborative tools and practice
- capturing the collective and diverse experience of our members to develop a more involved and enabled membership in order to protect society
- implementing digital systems, specifically document control and management systems to deliver efficient back-office operations and developing digital solutions for enhanced delivery to our members
- reviewing and planning the resources required to deliver the new strategy

Financial Review

The financial statements for the year ended 31 December 2016 are set out on pages 13 to 31.

The consolidated financial statements include the results of the Institution's UK trading subsidiary IChemE Ltd and the charitable activities of the Institution's subsidiaries in Australia, Malaysia, New Zealand and Singapore.

In 2016 the Institution's training and events activity continued to feel the impact of the market as companies in the oil and gas sectors cut their discretionary spend. A number of difficult steps were taken by Council and the Senior Management Team early on in the year, which included a voluntary redundancy programme to reduce headcount by 10% and a decision to postpone a number of projects. The steps taken resulted in the Institution being able to improve its projected deficit position of £650,000, and after allowing for gains on unrestricted investments of £439,000, the Institution ended the year with net unrestricted income of £431,000.

Total income for the year, including restricted funds, was £7,954,000 (2015: £7,369,000). The principal sources of income for the year were; the sale of advertising space through the trading subsidiary £236,000; membership subscriptions and accreditation fees £3,762,000; delegate income for training courses £1,567,000 and company subscriptions to IChemE's Safety Centre £247,000; subscription income for the Technical Centres £270,000 which are held as restricted funds; conference income £605,000 and income from journals and publications £855,000; donations for the *whynotchemeng* campaign £60,000.

Total expenditure for the year, including restricted funds, was £8,091,000 (2015: £8,262,000).

After taking into account the total net gains on investments of £573,000 (2015: £104,000) and the actuarial loss of £3,059,000 (2015: gain £426,000) on the defined benefit pension scheme, the net movement in funds was a deficit of £2,623,000 (2015: £363,000). The total fund balances carried forward at the year-end was £3,161,000 (2015: £5,784,000).

The Institution's wholly owned trading subsidiary, IChemE Ltd, achieved an operating profit of £123,000 (2015: £171,000), which has been gift aided to the Institution.

The results of the UK trading subsidiary and of the subsidiary undertakings in Australia, Malaysia, New Zealand and Singapore are set out in note 2 to the financial statements.

The movement in restricted income funds is set out in note 17 to the financial statements.

Investment policy and powers

The investment policy adopted by Council is to achieve a target return of CPI + 3% over a 5 year rolling basis and over a rolling 3 year period to achieve a minimum return of CPI. The Institution's investment objective remains to achieve long term capital growth with income.

The investment portfolio for both IChemE and the Andrew legacy restricted fund are split between Rathbones Investment Management Limited and Ruffer LLP. Both organisations are working to this investment policy and apply their individual judgement for asset allocation and investment selection to achieve the investment objective.

During the year the investment funds received £94,000 (2015: £128,000) in interest and dividends, and generated unrealised gains of £573,000 (2015: £104,000). After taking into account management fees of £75,000 (2015: £71,000) the net return on investment funds was 8.9% (2015: 1.6%) for the year. A disinvestment of £500,000 (2015: £250,000) was made from IChemE's investment funds.

The market value of the combined investment funds at 31 December 2016 was £6,545,000 (2015: £6,452,000), of which £4,958,000 (2015: £5,004,000) relates to the Institutions unrestricted fund and £1,587,000 (2015: £1,448,000) relates to the Andrew legacy fund.

All income received during the year has been re-invested. The Institution's investments are recorded at market value. The gains and losses on revaluation have been transferred to the Statement of Financial Activities.

Investments are held in accordance with the By-laws of the Institution. Council has the power to invest all monies not immediately required for operational activities as it sees fit and to appoint advisers to make such investments on its behalf.

IChemE continues to use the services of an independent financial advisor to review and monitor the investment portfolio. The performance of the funds was formally reviewed by the Finance & Investment Committee throughout the year.

Reserves policy

The Finance and Investment Committee reviews IChemE's reserves policy and level of reserves held on an annual basis. The Committee takes into account all relevant information including the risks identified in the risk register.

The current reserves policy adopted by Council is to hold free reserves equivalent to the level of committed costs plus a margin of 10%. This level of reserves is considered appropriate to demonstrate appropriate financial management of the Institution and to ensure the financial stability of the Institution in periods where there is a short to medium term shortfall in operating income.

For 2016, the level of reserves required to meet this policy was £4,000,000.

The level of unrestricted reserves freely available at the year-end was £5,605,000 (2015: £5,104,000).

This level of free reserves is stated before taking account of the pension-funding deficit of £5,615,000 (2015: £2,625,000) calculated under FRS 102. Due to the extremely long term nature of the pension reserve, the unrestricted reserves freely available are considered a more appropriate measure.

The current level of reserves held is in excess of the policy. Council is comfortable holding some reserves in excess of the policy level due to the potential increase in pension scheme contributions at the next triennial valuation in 2018 and given the drawdown of reserves over the past two years from operating deficits due to the continuing challenging economic environment in which it operates.

The total funds held at year end, after taking into account the pension-funding deficit, amounted to £3,161,000 (2015: 5,784,000). The total fund balance includes restricted funds of £1,992,000 (2015: 1,987,000).

Council has considered the level of reserves held at year end and believes they are sufficient to protect it from risk of insolvency or serious disruption to its work.

Structure, Governance and Management

Governing Document

The Institution of Chemical Engineers was founded in 1922 and incorporated by Royal Charter in 1957.

The governing documents under which the Institution operates comprise the Royal Charter, as amended, the By-laws of the Institution and regulations made from time to time by the Institution's governing Council.

The Institution is a registered charity in England & Wales and a charity registered in Scotland. The members of Council are the Trustees of the charity.

Appointment of Trustees

The members of Council are elected in accordance with the Royal Charter and By-Laws.

Council is made up of:

- The Honorary Officers - President, Deputy President, Immediate Past President and Honorary Treasurer all of whom must be Fellows of the Institution. The President, Deputy President and Honorary Treasurer are elected annually by Council, with the President usually having been Deputy President in the previous year. The Presidential Nominations Commission recommends to Council the nominee for Deputy President.

The President serves for a term of one year plus one year preceding that as Deputy President and one year following as Immediate Past President.

The Honorary Treasurer is eligible for re-election annually up to a maximum of six years.

- Four elected ordinary members of whom at least three shall be Fellows or Chartered Members of the Institution. Ordinary members serve for a term not exceeding four years and at least one ordinary member is elected annually. In accordance with the By-Laws, voting members are invited to propose alternative nominations to those put forward by Council. In the event that more than one candidate is nominated for a vacancy, a direct election is conducted and the results are announced at the Annual General Meeting.
- Co-opted members who are appointed by Council and serve for a term not exceeding three years. The By-Laws currently allow for:

Four co-opted Vice Presidents (Qualifications, Technical, International, Australia);

One co-opted member elected by each country with more than 10% of the voting membership. These additional co-options currently apply to the UK and Australia;

Not more than three other co-opted members.

Trustee induction and training

All new members of Council receive an induction pack including the By-laws of the Institution, recent Council minutes, and the relevant Charity Commission publications outlining their roles and responsibilities as a Charity Trustee. Trustees are also encouraged to attend appropriate external training events where these will facilitate the undertaking of their role. An annual Trustee induction day is held for all new and existing Trustees to get an oversight of the structure of the Institution and its activities.

Council members have a legal duty to avoid conflicts of interest so that they can focus exclusively on the best interests of the Institution. The Institution maintains a register of interest, which is updated annually or when any changes are reported by Council members. Procedures are in place for managing conflicts of interest that may arise during Council meetings.

Institution structure

Council is the governing body of the Institution and has ultimate responsibility for the strategic direction of the Institution and for ensuring that the charitable objects set out in the governing document are met. Council meets at least six times a year to review performance against these objects.

The Chief Executive is appointed by Council and has delegated authority for the day to day operation of the Institution and its subsidiary undertakings. The Chief Executive is supported by the Senior Management Team.

The Institution's operations in Australia, Malaysia, New Zealand and Singapore, reported as subsidiary undertakings in the financial statements, each have their own local Boards operating under delegated authority from Council and in compliance with local regulatory requirements. In 2013, Council established a similar UK Board to enable Council itself to focus on strategic matters affecting the profession globally.

The Institution has a wholly owned trading subsidiary in the UK, IChemE Ltd, established to operate the sale of advertising space in the Institution's journals and publications. The company gift aids its taxable profits to the Institution.

There are a number of standing Boards and Committees, operating under delegated authority from Council, which have been established to facilitate the operation of key areas of business:

- HR & Remuneration Committee
- Audit and Risk Committee
- Finance and Investment Committee
- Nominations Committee
- Presidential Nominations Commission
- Qualifications Committee
- IChemE Safety Centre Advisory Board
- Energy Centre Board
- Research Committee
- Medals and Prizes Committee
- Contracts Committee
- Disputes Resolution Committee

In addition, the Institution has an extensive network of National / Regional Groups and specialist Special Interest Groups enabling members to get involved in the Institution's activities. Each group has its own committee, made up of members of the Institution, who meet regularly throughout the year. The activities conducted by the Groups include technical meetings, continuing professional development, schools liaison visits, and networking events.

The Charter, delegated powers, membership and reporting line into Council for all Boards and Committees are set by Council.

Staff participation is encouraged at all levels in the making of decisions which affect the Institution's management and future development. Formal meetings are held to update all staff on the Institution's activities and other emerging issues.

Volunteers

All members of Council and of the various Boards and Committees give their time on a voluntary basis. The voluntary effort and contribution on the part of the members is at the heart of the Institution's success.

Remuneration policy for key management personnel

The Institution considers its key management personnel to comprise Council, the Chief Executive and the Senior Management Team. All Council members give their time freely and no Council member received remuneration in the year. Details of Council member expenses and related party transactions can be found in note 7 and 18 to the accounts.

The pay of the Chief Executive and Senior Management Team is set by the HR & Remuneration Committee in line with the Institution's Remuneration Policy.

The Institution is committed to ensuring that it pays its staff fairly and in a way which ensures it attracts and retains appropriately qualified staff to lead, manage, support and deliver the Institution's charitable objects.

The objective of the Policy is to ensure that the Chief Executive and staff team are provided with appropriate incentives to encourage enhanced performance and are, in a fair and responsible manner, rewarded for their individual contributions to the success of the Institution.

The Policy is based on an aspiration to be the exemplary membership organisation of its type and an articulate advocate of chemical engineering. In determining remuneration levels the Committee take into account all factors which are deemed necessary.

The Committee secure professional advice where appropriate to establish appropriate benchmark levels for each position or group of positions. These benchmark rates are reviewed regularly. When inflation is relatively low this review may not be annual and so an interim inflationary adjustment to the benchmark salary level may be made.

New staff will normally be appointed between 80% and 100% of the benchmark rate for their position depending on prior experience and the calibre of the appointee. They should expect to advance to the benchmark levels by approximately five percentage points a year assuming a fully satisfactory performance.

The Institution does not employ interns without pay and it complies with the living wage for all staff.

In addition to financial remuneration, the Institution seeks to provide staff with a supportive working environment and wherever possible works to promote the wellbeing of staff and satisfactory work-life balance.

The appropriateness and relevance of the Remuneration Policy is reviewed annually by the Committee.

Risk management

Council is responsible for overseeing risk management across the organisation and for maintaining a sound system of internal control that supports the achievement of its strategic aims and objectives. The Audit & Risk Committee is responsible for assessing the effectiveness of risk management and internal controls across the organisation.

A strategic and operational risk register is maintained by the senior executive team and is formally reviewed on a quarterly basis. The risk register involves identifying the types of risk the Institution faces, both internally and externally, prioritising them in terms of potential impact, likelihood and reputational impact, and identifying means of mitigating those risks or minimising the impact on the Institution should those risks materialise. The risk owners report annually on the adequacy and effectiveness of the control measures in place. The Audit & Risk committee regularly review the risk registers, concentrating on the significant strategic risks and their control measures.

A full business case, including a risk log, is populated as part of IChemE's project management process for all new ventures and activities. The risk log is maintained by the project leader and reviewed by the senior executive team. A project overview, setting out the risk status of all major projects is circulated to the Audit & Risk Committee at each meeting.

The business planning and budgeting cycle is used to set objectives for the following three years, agree action plans, allocate resources, and to identify new risks or changes in existing risks or their control measures. Progress towards meeting the objectives and annual budget is monitored on a monthly basis by the Senior Management Team.

A number of internal policies and procedures form part of the internal control process which are reviewed on a regular cycle. These include:

- Financial Policies and Procedures
- HR Policies and Procedures
- IT Policies and Procedures
- Data Protection Policy
- Health and Safety Policy
- PR Policy
- Anti Bribery and Corruption Policy
- Conflicts of Interest Policy
- Corporate Gifts and Hospitality Policy
- Donations Policy

Council receives a summary of the top strategic risks and major projects at each meeting. Key changes in risk items will also be reported to Council as required.

The top operational and strategic risks identified in the risk register in 2016 were:

- Failure to respond or respond adequately to global changes in the industry and profession
- Over extension of staff resource
- Compliance with international legislation
- Impact of the pension scheme on future cashflows
- Sustained income fall in events
- Membership proposition undermined by competition of sector skills bodies

Council is satisfied that reasonable steps are being taken to limit the probability and impact of these risks.

Statement of Council's responsibilities

Council is responsible for preparing the trustees' annual report and the financial statements in accordance with applicable law and regulations.

Charity law requires Council to prepare financial statements for each financial year in accordance with United Kingdom Generally Accepted Accounting Practice (United Kingdom Accounting Standards and applicable law). Under Charity law Council must not approve the financial statements unless they are satisfied that they give a true and fair view of the state of affairs of the group and charity and of the incoming resources and application of resources, including the income and expenditure, of the group and charity for that period.

In preparing those financial statements, Council is required to:

- select suitable accounting policies and then applies them consistently;
- make judgements and estimates that are reasonable and prudent;
- state whether applicable UK accounting standards have been followed, subject to any material departures disclosed and explained in the financial statements;
- prepare the financial statements on a going concern basis unless it is inappropriate to presume that the Institution will continue its activities.

Council is responsible for keeping adequate accounting records that are sufficient to show and explain the charity's transactions and disclose with reasonable accuracy at any time the financial position of the charity and enable them to ensure that the financial statements comply with the Charities Act 2011, the Charities and Trustee Investment (Scotland) Act 2005 and regulations 6 and 8 of the Charities Accounts (Scotland) Regulations 2006. They are also responsible for safeguarding the assets of the charity and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

Approved by Council on 6 April 2017 and signed on its behalf by:



Prof J Seville
President



Mr KJ Rivers
Hon Treasurer

Davis Building
165-189 Railway Terrace
Rugby
CV21 3HQ

Independent Auditor's Report to the Trustees of the Institution of Chemical Engineers

We have audited the financial statements of the Institution of Chemical Engineers for the year ended 31 December 2016 which comprise the Group and Parent Statement of Financial Activities, the Group and Parent Charity Balance Sheets, the Group Cash Flow Statement and the related notes. The financial reporting framework that has been applied in their preparation is applicable law and United Kingdom Accounting Standards (United Kingdom Generally Accepted Accounting Practice).

This report is made solely to the charity's trustees, as a body, in accordance with the Charities Act 2011 and the Charities and Trustee Investment (Scotland) Act 2005. 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.

Respective responsibilities of trustees and auditor

As explained more fully in the Statement of Trustees' Responsibilities, the trustees are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view.

We have been appointed as auditor under section 44(1)(c) of the Charities and Trustee Investment (Scotland) Act 2005 and under section 144 of the Charities Act 2011 and report in accordance with regulations made under those Acts.

Our responsibility is to audit and express an opinion on the financial statements in accordance with applicable law and International Standards on Auditing (UK and Ireland). Those standards require us to comply with the Financial Reporting Council's (FRC's) Ethical Standards for Auditors.

Scope of the audit of the financial statements

A description of the scope of an audit of financial statements is provided on the FRC's website at www.frc.org.uk/auditscopeukprivate.

Opinion on financial statements

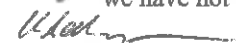
In our opinion the financial statements:

- give a true and fair view of the state of the group's and the parent charity's affairs as at 31 December 2016 and of the group's and parent charity's incoming resources and application of resources, including the income and expenditure, for the year then ended;
- have been properly prepared in accordance with United Kingdom Generally Accepted Accounting Practice; and
- have been prepared in accordance with the requirements of the Charities Act 2011, the Charities and Trustee Investment (Scotland) Act 2005 and regulations 6 and 8 of the Charities Accounts (Scotland) Regulations 2006 (as amended).

Matters on which we are required to report by exception

We have nothing to report in respect of the following matters where the Charities Act 2011 and the Charities Accounts (Scotland) Regulations 2006 (as amended) requires us to report to you if, in our opinion:

- the information given in the Trustees' Annual Report is inconsistent in any material respect with the financial statements; or
- sufficient accounting records have not been kept; or
- the parent charity's 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.


Kyla Bellingall (Statutory auditor)

For and on behalf of BDO LLP

Birmingham

United Kingdom

Date: 4 May 2017

BDO LLP is eligible to act as an auditor in terms of section 1212 of the Companies Act 2006.

BDO LLP is a limited liability partnership registered in England and Wales (with registered number OC305127).

Consolidated statement of financial activities for the year ended 31 December 2016

	Notes	Unrestricted Funds £000	Restricted Funds £000	Total 2016 £000	Unrestricted Funds £000	Restricted Funds £000	Total 2015 £000
INCOME AND ENDOWMENTS FROM							
Donations & legacies	3	60	-	60	51	33	84
Charitable activities:							
Build & sustain an active international community		3,762	-	3,762	3,350	-	3,350
Engage with others to promote chemical engineering		258	-	258	258	-	258
Provide support & services to others	17	1,814	270	2,084	1,843	250	2,093
Enable chemical engineers to interact & communicate		1,460	-	1,460	1,166	-	1,166
Other trading activities:							
Trading operations	2	236	-	236	290	-	290
Other operating income	2	-	-	-	-	-	-
Investments	4	73	21	94	101	27	128
TOTAL INCOME		7,663	291	7,954	7,059	310	7,369
EXPENDITURE ON							
Raising funds:							
Trading operations	2	(113)	-	(113)	(119)	-	(119)
Investment management costs		(58)	(17)	(75)	(56)	(15)	(71)
Charitable activities:							
Build & sustain an active international community		(2,266)	-	(2,266)	(2,423)	-	(2,423)
Engage with others to promote chemical engineering		(1,096)	-	(1,096)	(1,244)	-	(1,244)
Provide support & services to others	17	(2,091)	(403)	(2,494)	(2,225)	(322)	(2,547)
Enable chemical engineers to interact & communicate		(2,047)	-	(2,047)	(1,858)	-	(1,858)
TOTAL EXPENDITURE		(7,671)	(420)	(8,091)	(7,925)	(337)	(8,262)
Net gains / (losses) on investments	11	439	134	573	81	23	104
NET INCOME / (EXPENDITURE)		431	5	436	(785)	(4)	(789)
Actuarial gains/(losses) on defined benefit pension schemes	9	(3,059)	-	(3,059)	426	-	426
NET MOVEMENT IN FUNDS		(2,628)	5	(2,623)	(359)	(4)	(363)
Fund balances brought forward at 1 January		3,797	1,987	5,784	4,156	1,991	6,147
Fund balances carried forward at 31 December		1,169	1,992	3,161	3,797	1,987	5,784

The results relate to the continuing activities of the Institution. The group has no recognised gains or losses other than the net movement in funds for the year.

The notes on pages 17 to 31 form part of these financial statements.

Charity statement of financial activities for the year ended 31 December 2016

	Notes	Unrestricted Funds £000	Restricted Funds £000	Total 2016 £000	Unrestricted Funds £000	Restricted Funds £000	Total 2015 £000
INCOME AND ENDOWMENTS FROM							
Donations & legacies	3	60	-	60	51	33	84
Gift aid from subsidiary company	2	123	-	123	171	-	171
Charitable activities:							
Build & sustain an active international community		3,131	-	3,131	2,852	-	2,852
Engage with others to promote chemical engineering		238	-	238	235	-	235
Provide support & services to others	17	1,198	270	1,468	1,271	250	1,521
Enable chemical engineers to interact & communicate		1,341	-	1,341	1,065	-	1,065
Investments	4	73	21	94	101	27	128
TOTAL INCOME		6,164	291	6,455	5,746	310	6,056
EXPENDITURE ON							
Raising funds:							
Investment management costs		(58)	(17)	(75)	(56)	(15)	(71)
Charitable activities:							
Build & sustain an active international community		(2,151)	-	(2,151)	(2,152)	-	(2,152)
Engage with others to promote chemical engineering		(1,022)	-	(1,022)	(1,171)	-	(1,171)
Provide support & services to others	17	(1,447)	(403)	(1,850)	(1,664)	(322)	(1,986)
Enable chemical engineers to interact & communicate		(1,894)	-	(1,894)	(1,730)	-	(1,730)
TOTAL EXPENDITURE		(6,572)	(420)	(6,992)	(6,773)	(337)	(7,110)
Net gains / (losses) on investments	11	439	134	573	81	23	104
NET INCOME / (EXPENDITURE)		31	5	36	(946)	(4)	(950)
Actuarial gains/(losses) on defined benefit pension schemes	9	(3,059)	-	(3,059)	426	-	426
NET MOVEMENT IN FUNDS		(3,028)	5	(3,023)	(520)	(4)	(524)
Fund balances brought forward at 1 January		3,175	1,987	5,162	3,695	1,991	5,686
Fund balances carried forward at 31 December		147	1,992	2,139	3,175	1,987	5,162

Balance sheets at 31 December 2016

	Note	Group		Charity	
		2016	2015	2016	2015
		£000	£000	£000	£000
Fixed assets					
Tangible assets	10	1,138	1,318	1,119	1,292
Investments	11	6,545	6,452	6,545	6,452
		<u>7,683</u>	<u>7,770</u>	<u>7,664</u>	<u>7,744</u>
Current assets					
Debtors	12	1,163	1,140	1,162	1,271
Cash at bank and in hand		2,740	2,043	1,042	815
		<u>3,903</u>	<u>3,183</u>	<u>2,204</u>	<u>2,086</u>
Creditors: Amounts falling due within one year	13	<u>(2,769)</u>	<u>(2,544)</u>	<u>(2,073)</u>	<u>(2,043)</u>
Net current assets		<u>1,134</u>	<u>639</u>	<u>131</u>	<u>43</u>
Provisions for liabilities	15	<u>(41)</u>	<u>-</u>	<u>(41)</u>	<u>-</u>
Pension scheme funding deficit	9	(5,615)	(2,625)	(5,615)	(2,625)
Total Net Assets after pension deficit		<u>3,161</u>	<u>5,784</u>	<u>2,139</u>	<u>5,162</u>
Income funds					
Fixed asset reserves		1,138	1,318	1,119	1,292
Free reserves		5,646	5,104	4,643	4,508
Pension reserves	9	(5,615)	(2,625)	(5,615)	(2,625)
Unrestricted funds		<u>1,169</u>	<u>3,797</u>	<u>147</u>	<u>3,175</u>
Restricted income funds	17	<u>1,992</u>	<u>1,987</u>	<u>1,992</u>	<u>1,987</u>
		<u>3,161</u>	<u>5,784</u>	<u>2,139</u>	<u>5,162</u>

These financial statements were approved by the Council and authorised for issue on 6 April 2017.



Prof J Seville
President



Mr K Rivers
Hon Treasurer

Consolidated cash flow statement for the year ended 31 December 2016

		2016	2015
	<i>Note</i>	£000	£000
Cash flows from operating activities	<i>19</i>	(35)	(333)
Cash flows from investing activities:			
Dividends and interest from investments	<i>4</i>	94	128
Purchase of fixed asset investments	<i>11</i>	(94)	(128)
Disposal of fixed asset investments	<i>11</i>	500	250
Purchase of furniture and equipment	<i>10</i>	(5)	(52)
Net cash (used in)/provided by investing activities		495	198
Change in cash and cash equivalents in the reporting period		460	(135)
Cash and cash equivalents at the start of the reporting period		2,043	2,253
Change in cash and cash equivalents due to exchange rate movements		237	(75)
Cash and cash equivalents at the end of the reporting period		2,740	2,043

Notes forming part of the financial statements for the year ended 31 December 2016

1 Accounting policies

Basis of preparation

The financial statements have been prepared in accordance with the Statement of Recommended Practice: Accounting and Reporting by Charities preparing their accounts in accordance with the Financial Reporting Standard applicable in the UK and Republic of Ireland (FRS 102) (effective 1 January 2015) – (Charities SORP (FRS 102)); and the Charities Act 2011, the Charities and Trustee Investment (Scotland) Act 2005 and regulations 6 and 8 of the Charities Accounts (Scotland) Regulations 2006.

The financial statements have been prepared under the historical cost convention with items recognised at cost or transaction value unless otherwise stated in the relevant note(s) to these accounts.

The Institution meets the definition of a public benefit entity as defined by FRS 102.

Preparation of the accounts on a going concern basis

Council consider that there are no material uncertainties about the Institution's ability to continue as a going concern.

In 2016 the Institution's training and events activity continued to feel the impact of the market as companies in the oil and gas sector cut their discretionary spend. A number of difficult steps were taken by Council and the senior management team early in the year, which included a voluntary redundancy programme to reduce headcount by 10% and a decision to postpone of a number of projects. By taking these measures the Institution was able to improve its projected deficit position of £650,000 and after allowing for gains on investments of £439,000 the Institution ended the year with net income of £431,000.

The principal accounting policies adopted by the Institution are set out below:

Basis of consolidation

The financial statements consolidate the financial statements of the charity, its wholly owned UK trading subsidiary IChemE Ltd and its not-for-profit subsidiaries IChemE in Australia, IChemE in Malaysia, IChemE in New Zealand and IChemE in Singapore Ltd. The results of the subsidiaries are consolidated on a line by line basis. The results of the subsidiaries are summarised in note 2 of the financial statements.

Income

Income is recognised when the Institution has entitlement to the income, any performance conditions attached to the income have been met, it is probable that the income will be received and the amount can be measured reliably.

Donations are recognised when the Institution has been notified in writing of both the amount and settlement date.

Legacy gifts are recognised on a case by case basis following the granting of probate when the administrator of the estate has communicated in writing both the amount and settlement date. In the event that the gift is in the form of an asset other than cash or financial asset traded on a recognised stock exchange, recognition is subject to the value of the gift being reliably measurable with a degree of reasonable accuracy and the title to the asset having been transferred to the charity.

Subscriptions and events income are accounted for in the year to which they apply. Subscription income received during the year that relates to a subsequent financial accounting period is carried forward as a creditor in the balance sheet and shown as deferred income.

Investment income comprises the returns receivable on fixed asset investments for the year.

Expenditure

Liabilities are recognised as expenditure as soon as there is a legal and constructive obligation committing the Institution to the expenditure, it is probable that settlement will be required and the amount of the obligation can be measured reliably.

All expenditure is included in the statement of financial activities on an accruals basis.

1 Accounting policies (continued)

Expenditure is recorded net of value added tax unless irrecoverable.

All expenditure, including support costs, are allocated or apportioned to the applicable expenditure headings in the statement of financial activities.

Expenditure on raising funds consists of costs incurred in trading operations and investment management fees.

Allocation of support and governance costs

Governance costs comprise all costs involving the public accountability of the charity and its compliance with regulation and good practice.

Governance and support costs relating to charitable activities have been apportioned on the basis of staff costs associated with each activity. The allocation of support and governance costs is analysed in note 7.

Operating leases

Operating lease rentals are charged to the consolidated statement of financial activities on a straight line basis over the terms of the lease.

Tangible fixed assets and depreciation

Fixed assets are recorded at cost or valuation less accumulated depreciation. Expenditure on fixed assets costing over £500 is capitalised.

Depreciation is charged on a straight line basis to write off the cost or valuation of assets over their anticipated useful lives as at the following rates:

Freehold buildings	-	5%
Leasehold buildings	-	11% - 20%
Office equipment	-	15%
Computer software	-	33%

Freehold land is not depreciated.

Freehold property at Rugby was valued by Messrs David Storer & Partners, Chartered Surveyors, on the basis of open market value for their existing use in 1999. Depreciation is charged on the building element of property at Rugby at the rate of 5% per annum.

Investments

Fixed asset investments are initially recorded at their transaction value and subsequently measured at their market value as at the balance sheet date using the closing quoted market price. The statement of financial activities includes the net gains or losses arising on revaluation and disposals throughout the year.

Realised gains or losses on investments are calculated as the difference between the sales proceeds and their market value at 31 December (or historical cost if purchased within the year). Unrealised gains or losses are derived from the movement in market values during the year.

The Institution does not acquire put options, derivatives or other complex financial instruments.

Fund accounting

The Institution has different types of funds which require separate disclosure. These are as follows:

▪ Restricted income funds

These are earmarked by the donor for specific purposes within the overall aims of the Institution. The income generated must be used in accordance with the specific purpose.

▪ Unrestricted funds

Unrestricted funds comprise funds which are expendable at the discretion of the Council in connection with the objects of the Institution, including transfers into restricted income funds.

1 Accounting policies (continued)

Pension costs

Employees of the charity are entitled to join a group personal pension plan. This is a defined contribution pension scheme with assets held in the names of the individual members and managed by Standard Life Assurance Co Ltd. The charity contribution is restricted to the contributions disclosed in note 10. The costs of the defined contribution scheme are included within staff costs and are charged to the statement of financial activities in the year in which they become payable.

The charity also operates a defined benefit pension scheme. The scheme was closed to new members and future service accruals in 2006. The assets of the scheme are held separately from those of the Institution in an independently administered fund.

The difference between the fair value of the assets held in the defined benefit pension scheme and the scheme's liabilities measured on an actuarial basis using the projected unit method are recognised in the balance sheet as a pension asset or liability as appropriate. Changes in the defined pension scheme asset or liability arising from factors other than cash contribution by the Institution are charged to the profit and loss account or the statement of total recognised gains and losses in accordance with FRS 102.

Foreign exchange gains and losses

Foreign currency transactions are translated into sterling at the rates ruling when they occurred. Foreign currency monetary assets and liabilities are translated at the rates ruling at the balance sheet dates. Any differences are taken to the statement of financial activities.

Financial instruments

Financial assets, other than fixed asset investments, are initially measured at transaction price (including transaction costs) and subsequently held at cost, less any impairment.

Financial liabilities are classified according to the substance of the financial instrument's contractual obligations, rather than the financial instrument's legal form. Financial liabilities are initially measured at transaction price (including transaction costs) and subsequently held at amortised cost.

Judgements in applying accounting policies and key sources of estimation uncertainty

In preparing these financial statements, Council is required to make judgements, estimates and assumptions about the carrying amounts of assets and liabilities that are not readily apparent from other sources. The estimates and associated assumptions are based on historical experience and other factors that are considered to be relevant. Actual results may differ from those estimates and underlying assumptions are continually reviewed.

The following are critical judgements that Council has made in the process of applying the Institution's accounting policies:

- determining whether leases entered into by the group either as a lessor or a lessee are operating leases or finance leases. These decisions depend on an assessment of whether the risks and rewards of ownership have been transferred from the lessor to the lessee on a lease by lease basis.

Other key sources of estimation uncertainty:

- Tangible fixed assets (see note 11). Tangible fixed assets are depreciated over their useful lives taking into account residual values where appropriate. The actual lives of these assets are assessed annually and may vary depending on a number of factors. In assessing asset lives, factors such as life cycle and maintenance programmes are taken into account. Residual value assessments consider issues such as the remaining life of the asset and project disposal values.
- Trade debtors (see note 13). At each reporting date, trade debtors are assessed for recoverability. If there is any evidence of impairment, the carrying amount of the debtor is reduced to its recoverable amount. The impairment loss is recognised immediately in the income statement.
- Pensions costs (see note 10). The defined benefit pension scheme obligations are based on actuarial assumptions such as discount rate, the expected rate of return on scheme assets, and mortality rates, which are extensively detailed in note 10.

2 Results of subsidiaries

The summary financial position of the subsidiaries is shown below:

	IChemE Ltd	IChemE in Australia	IChemE in Malaysia	IChemE in New Zealand	IChemE in Singapore Ltd	Total	2015
	£000	£000	£000	£000	£000	£000	£000
Income	236	1,094	200	92	-	1,622	1,484
Expenditure	(113)	(819)	(241)	(63)	(5)	(1,241)	(1,132)
Net Income / Expenditure	123	275	(41)	29	(5)	381	352
Amount gift aided to the Institution	(123)	-	-	-	-	(123)	(171)
Retained in subsidiary	-	275	(41)	29	(5)	258	181

Balance sheets

	IChemE Ltd	IChemE in Australia	IChemE in Malaysia	IChemE in New Zealand	IChemE in Singapore Ltd	Total	2015
	£000	£000	£000	£000	£000	£000	£000
Fixed assets	14	-	5	-	-	19	26
Current assets	172	1,703	95	163	-	2,133	1,480
Current liabilities	(186)	(677)	(225)	(37)	(5)	(1,130)	(884)
Net current assets	(14)	1,026	(130)	126	(5)	1,003	596
Total net assets	-	1,026	(125)	126	(5)	1,022	622

IChemE Ltd (company number 2817128) is a company limited by shares, incorporated in the United Kingdom.

IChemE in Australia (ABN 75112253040) is a registered charity in Australia.

IChemE in Malaysia (PPM-026-14-23111988) is a registered society in Malaysia.

IChemE in New Zealand (society number 980425) is an incorporated society in New Zealand.

IChemE in Singapore Ltd (201523087E) is a company limited by guarantee in Singapore.

3 Income from donations and legacies

	2016 £000	2015 £000
Donations	60	51
Legacies	-	33
	<u>60</u>	<u>84</u>

Income from donations and legacies was £60,000 (2015: £84,000) of which £60,000 (2015: £51,000) was unrestricted and £nil (2015: £33,000) was restricted. Unrestricted funds represent donations received in support of the Institution's *whynotchemeng* campaign.

4 Investment income

	2016 £000	2015 £000
Interest receivable	19	24
Dividends receivable	75	104
	<u>94</u>	<u>128</u>

5 Analysis of expenditure on charitable activities

	Direct activity costs £000	Grant funding activities £000	Support costs £000	2016 Total £000	2015 Total Restated £000
Build & sustain an active international community	1,413	-	853	2,266	2,423
Engage with others to promote chemical engineering	701	-	395	1,096	1,244
Provide support & services to others	2,042	27	425	2,494	2,547
Enable chemical engineers to interact & communicate	1,525	-	522	2,047	1,858
	<u>5,681</u>	<u>27</u>	<u>2,195</u>	<u>7,903</u>	<u>8,072</u>

	2016 £000	2015 £000
<i>Net income / (expenditure) for the year is stated after charging:</i>		
Depreciation	185	181
Operating leases:		
Plant and machinery	24	24
Land and buildings	197	156
Exchange rate differences	(221)	80
	<u>185</u>	<u>181</u>

6 Analysis of governance and support costs

Included within expenditure on charitable activities are governance and support costs amounting to £2,195,000 (2015: £2,307,000). These are analysed as:

	2016 £000	2015 £000
Staff costs	1,215	1,029
Finance	(73)	217
IT	274	292
Facilities	628	596
Management	100	125
Governance costs	51	48
	<u>2,195</u>	<u>2,307</u>

These costs have been apportioned across the charitable activities on the basis of staff time associated with each activity. The charge to each activity was as follows:

	2016 £000	2015 £000
Build & sustain an active international community	853	900
Engage with others to promote chemical engineering	395	433
Provide support & services to others	425	479
Enable chemical engineers to interact & communicate	522	494
	<u>2,195</u>	<u>2,307</u>

Analysis of governance costs:

	2016 £000	2015 £000
Audit of the charity's annual accounts	23	25
Audit of the charity's branches	9	5
Internal governance audit	-	1
AGM and annual report costs	6	5
Legal & professional fees	13	12
	<u>51</u>	<u>48</u>

7 Analysis of trustee remuneration and expenses

	2016 £000	2015 £000
Expenses paid to or on behalf of 10 (2015:12) Council members in respect of travel, subsistence and accommodation costs	34	35

Council members give freely their time and expertise without any form of remuneration or other benefit in cash or kind (2015: £nil).

8 Analysis of staff costs and remuneration to key management personnel

The average monthly headcount for the group and charity during the year was 100 (2015: 102). The number of full time equivalent persons employed by the group and charity during the year was as follows:

	Number of employees	
	2016	2015
Build & sustain an active international community	30	27
Engage with others to promote chemical engineering	5	8
Provide support & services to others	18	16
Enable chemical engineers to interact & communicate	12	16
Technical Centres	3	3
Management and Administration	25	24
	<hr/>	<hr/>
	93	94
	<hr/>	<hr/>

The aggregate payroll costs of these persons were as follows:

	£	£
Wages and salaries	3,408	3,165
Social security costs	279	301
Pension scheme contributions	284	273
Defined benefit pension scheme operating costs	87	44
Employee benefits	70	61
	<hr/>	<hr/>
	4,128	3,844
	<hr/>	<hr/>

During 2016, £210,000 (2015: £nil) was paid out as redundancy or termination payments.

The numbers of employees, including the Chief Executive, whose total employee benefits, excluding employer pension contributions, exceeded £60,000, fell within the following ranges:

	Number of employees	
	2016	2015
£60,001 - £70,000	1	-
£70,001 - £80,000	3	4
£80,001 - £90,000	3	3
£90,001 - £100,000	2	-
£200,001 - £210,000	-	1
£260,001 - £270,000	1	-
	<hr/>	<hr/>

The number of employees who earned more than £60,000 for whom pension benefits are accruing under the defined contribution pension scheme is 7 (2015: 6). Contributions in respect of these employees amounted to £64,000 (2015: £48,000).

The Institution considers its key management personnel to comprise Council, the Chief Executive and the Senior Management Team. The total employment benefits of 8 (2015: 7) key management personnel staff, including employer pension contributions were £924,000 (2015: £757,000).

9 Pension scheme

Defined contribution scheme

The Institution's defined contribution pension scheme was established in April 2006 following the closure of the defined benefit scheme. The assets of the scheme are held separately from those of the charity and are currently administered by Standard Life Assurance Co Ltd. The Institution pays one and a half times the percentage that the employee contributes up to a maximum of 12%. The total pension cost charge to the Institution, representing contributions payable to the fund amounted to £222,000 (£2015: £221,000).

Defined benefit scheme

The Institution operates a defined benefit pension arrangement called the Institution of Chemical Engineers Pension Scheme. The Scheme provides benefits based on salary and length of service on retirement, leaving service or death. In 2006, the Scheme was closed to new members, future service accruals and salary revaluations were limited with effect from 5 April 2006.

The scheme is funded with the assets being held by the pension scheme's trustees separately from the assets of the Institution.

The Scheme is subject to the Statutory Funding Objective under the Pensions Acts 2004. A valuation of the Scheme is carried out at least every three years to determine whether the Statutory Funding Objective is met. As part of the process the Institution must agree with the trustees of the Scheme the contributions to be paid to address any shortfall against the Statutory Funding Objective.

The most recent comprehensive actuarial valuation of the Scheme was carried out as at 31 January 2015. The results of that valuation were updated by an independent qualified actuary to 31 December 2016 allowing for cashflows in and out of the Scheme and changes to assumptions over the period.

The Institution expects to contribute £173,000 to the Scheme during the year to 31 December 2017.

The Institution has also agreed to provide additional security to the Scheme by way of a charge of £500,000 on the freehold property in Rugby. The security agreement to put the charge in place has been signed off by both parties and was submitted to the Land Registry in March 2017.

The principal assumptions used to calculate Scheme liabilities include:

	2016 %	2015 %
Discount rate	2.8% pa	4.0% pa
RPI Price Inflation	3.5% pa	3.4% pa
CPI Price Inflation	2.5% pa	2.4% pa
Pension increases applied to pensions accrued on or after 6 April 1997	2.4% pa	2.3% pa
Revaluation in deferment	2.5% pa	2.4% pa
Long term expected rate of return on the Scheme's assets net of expenses	2.8% pa	4.0% pa
Mortality assumption (see table below)	SAPS 'S2NA' tables rated by 90% using CMI 2015 projections with a long term rate of improvement of 1.25% pa	SAPS 'SINA' tables rated by 90% using CMI 2011 projections with a long term rate of improvement of 1.25%
Tax-free cash	All members are assumed to take 25% of their pension as tax-free cash	All members are assumed to take 25% of their pension as tax-free cash

9 Pension scheme (continued)

The major categories of assets are as follows:

Asset category	2016 £'000	2015 £'000
BlackRock Dynamic Diversified Growth Fund	3,686	3,987
BlackRock Dynamic Return Strategy Fund	3,663	3,944
Scheme bank account	33	34
Total	<u>7,382</u>	<u>7,965</u>

The actual return on the Scheme's assets (net of investment manager expenses) over the period to the Review Date was approximately -4.3%. The assets do not include any investment in shares of the Institution.

Amounts recognised in the balance sheet at 31 December 2016:

	2016 £'000	2015 £'000
Fair Value of Assets	7,382	7,965
Present Value of Funded Obligations	(12,997)	(10,590)
Surplus / (Deficit)*	<u>(5,615)</u>	<u>(2,625)</u>

*Surplus / (Deficit) shown prior to deferred taxation.

Amounts recognised in the statement of financial activities over the year:

	2016 £'000	2015 £'000
Interest on liabilities	415	413
Interest on assets	(314)	(301)
Total	<u>101</u>	<u>112</u>

Remeasurements over the year:

	2016 £'000	2015 £'000
Loss / (gain) on scheme assets in excess of interest	651	401
Losses / (gains) from changes to demographic assumptions	(323)	(344)
Losses / (gains) from changes to financial assumptions	2,731	(483)
Total	<u>3,059</u>	<u>(426)</u>

9 Pension scheme (continued)

Reconciliation of assets and defined benefit obligation:

	2016 £'000	2015 £'000
Fair value of assets at beginning of period	7,965	8,212
Interest on assets	314	301
Institution contributions	170	170
Benefits paid	(416)	(317)
Return on plan assets less interest	(651)	(401)
	<hr/>	<hr/>
Fair value of assets at end of period	7,382	7,965
	<hr/>	<hr/>

The change in the defined benefit obligation over the period was:

	2016 £'000	2015 £'000
Defined benefit obligation at the beginning of the period	10,590	11,321
Interest cost	415	413
Benefits paid	(416)	(317)
Changes to demographic assumptions	(323)	(344)
Changes to financial assumptions	2,731	(483)
	<hr/>	<hr/>
Defined benefit obligation at end of period	12,997	10,590
	<hr/>	<hr/>

Amounts recognised in the statement of total recognised gains and losses over the year:

	2016 £'000	2015 £'000
Actuarial (losses) / gains	(3,059)	426
	<hr/>	<hr/>
Total amount recognised in the statement of total recognised gains and losses	(3,059)	426
	<hr/>	<hr/>

The cumulative amount of actuarial gains / (losses) recognised in the statement of financial activities is (£6,097,000) (2015: (£3,038,000)).

Summary of prior year amounts:

	2016 £'000	2015 £'000	2014 £'000	2013 £'000	2012 £'000
Present value of defined benefit obligation	(12,997)	(10,590)	(11,321)	(9,989)	(9,796)
Scheme Assets	7,382	7,965	8,212	7,905	7,419
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
Surplus / (Deficit)	(5,615)	(2,625)	(3,109)	(2,084)	(2,377)
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
Changes in demographic assumptions	323	344	0	0	(70)
Changes in financial assumptions	(2,731)	483	(1,091)	(25)	(967)
Experience adjustments on scheme assets	(561)	(401)	(11)	135	146

The annual contribution level for the period 1 February 2016 to 31 January 2017 will be increased in line with the Consumer Prices Index (CPI) from £170,028 to £173,094.

10 Tangible fixed assets

Group	Freehold Property	Short leasehold property	Office equipment	Computers	Total
	£000	£000	£000	£000	£000
Cost or valuation					
At beginning of year	1,800	220	288	537	2,845
Additions	-	-	-	5	5
Disposals	-	-	-	(2)	(2)
At end of year	1,800	220	288	540	2,848
Depreciation					
At beginning of year	623	220	260	424	1,527
Charge for the year	76	-	9	100	185
Disposals	-	-	-	(2)	(2)
At end of year	699	220	269	522	1,710
Net book value					
At 31 December 2016	1,101	-	19	18	1,138
At 31 December 2015	1,177	-	28	113	1,318
Charity					
	Freehold Property	Short leasehold property	Office equipment	Computers	Total
	£000	£000	£000	£000	£000
Cost or valuation					
At beginning of year	1,800	202	287	490	2,779
Additions	-	-	-	1	1
Disposals	-	-	-	(1)	(1)
At end of year	1,800	202	287	490	2,779
Depreciation					
At beginning of year	623	202	260	402	1,487
Charge for the year	76	-	9	89	174
Disposals	-	-	-	(1)	(1)
At end of year	699	202	269	490	1,660
Net book value					
At 31 December 2016	1,101	-	18	0	1,119
At 31 December 2015	1,177	-	27	88	1,292

Freehold property at 31 December 2016 includes land at valuation of £280,000 (2015 £280,000) which is not depreciated.

11 Fixed asset investments

Group and Charity

	2016 £000	2015 £000
Market value at 1 January	6,452	6,541
Acquisitions at cost	2,455	2,963
Disposals at cost	(2,935)	(3,156)
Net gain/(loss) on revaluation	573	104
Market value at 31 December	6,545	6,452
Historical cost at 31 December	4,883	5,363

All investments are carried at their market value.

An analysis of the market value of the investments at 31 December 2016 is as follows:

	2016 £000	2015 £000
Equities	3,709	4,153
Fixed Interest	1,695	1,642
Cash	578	311
Other	563	346

Investments in Subsidiaries

The Charity holds 2 shares of £1 each in its wholly owned trading subsidiary company IChemE Ltd which is incorporated in the United Kingdom. These are the only shares allotted, called up and fully paid. The activities and results of this company is summarised in note 2.

Chemistry Innovation Ltd ceased operation in 2015 and the directors and shareholders of the company, the Royal Society of Chemistry and the Institution of Chemical Engineers, decided to dissolve the company. The company was formally dissolved with Companies House on 15 November 2016. There were no assets to be distributed and the Institution's 33% shareholding of £33 was written off to the Statement of Financial Activities in 2016.

12 Debtors

	Group		Charity	
	2016 £000	2015 £000	2016 £000	2015 £000
Trade debtors	763	743	370	541
Amount due from subsidiaries	-	-	416	383
Other debtors	26	88	44	66
Prepayments and accrued income	374	309	332	281
	1,163	1,140	1,162	1,271

13 Creditors: amounts falling due within one year

	Group		Charity	
	2016 £000	2015 £000	2016 £000	2015 £000
Trade creditors	571	442	512	419
Other creditors	266	209	141	70
Taxation and social security	106	122	62	82
Accruals	247	263	226	247
Deferred income	1,579	1,508	1,132	1,225
	<u>2,769</u>	<u>2,544</u>	<u>2,073</u>	<u>2,043</u>

Deferred income relates to annual subscriptions payments and events income which have been paid to the Institution in advance. All deferred income is released to the statement of financial activities in the following year.

14 Financial instruments

	Group		Charity	
	2016 £000	2015 £000	2016 £000	2015 £000
Financial assets	-	-	-	-
Financial assets measured at fair value through profit or loss	6,545	6,452	6,545	6,452
Financial assets measured at amortised cost	3,529	2,874	1,872	1,805
	<u>1,084</u>	<u>914</u>	<u>879</u>	<u>736</u>

Financial assets measured at fair value through profit or loss comprise fixed asset investments.

Financial assets measured at amortised cost comprise trade debtors, other debtors, amounts owed by subsidiary companies and cash at bank.

Financial liabilities measured at amortised cost comprise trade creditors, other creditors and accruals.

15 Provisions for liabilities

	Group		Charity	
	2016 £000	2015 £000	2016 £000	2015 £000
At 1 January 2016	-	-	-	-
Charged to Statement of Financial Activities	41	-	41	-
	<u>41</u>	<u>-</u>	<u>41</u>	<u>-</u>

A provision of £41,000 (2015: £nil) has been made for costs relating to dilapidation expenses for the leasehold premises in London. A provision for the total expected dilapidation cost will be made over a three year period which will be realised in November 2018 when the current lease on the premises expires.

16 Commitments

Total future commitments under non-cancellable operating leases are as follows:

	Group and Charity			
	2016			2015
	Land and buildings £000	Other £000	Land and Buildings £000	Other £000
Operating leases which expire:				
In less than one year	272	18	165	24
In the second to fifth years inclusive	251	32	356	49
	<u>523</u>	<u>50</u>	<u>521</u>	<u>73</u>

17 Analysis of movements in restricted funds

	International Process Safety Group (IPSG)	European Process Safety Centre (EPSC)	John Collier Memorial Fund	Andrew Legacy Fund	Total
	£000	£000	£000	£000	£000
At 1 January 2016	72	338	37	1,540	1,987
Incoming resources	25	245	-	21	291
Resources expended	(40)	(337)	-	(43)	(420)
Net gain/(loss) on investment	-	-	-	134	134
At 31 December 2016	<u>57</u>	<u>246</u>	<u>37</u>	<u>1,652</u>	<u>1,992</u>

The John Collier Memorial Fund was established in 1996 following the death in 1995 of John Collier, serving President of the Institution. The fund commenced with a donation from industry and seeks to have a two yearly Lecture and Medal ceremony. The capital and the income generated are to be used to fund the award and lectures in perpetuity.

The IPSG and EPSC funds relate to international industry- funded technical centres within the Institution that have to be administered in accordance with each Group's Statute. These dictate that monies can only be utilised in furtherance of each centres specific objectives.

The Institution was notified of a bequest in December 2011 from the estate of the late Professor Andrew. The funds are to be used for the founding of a medal lecture on the theme of 'The Science of Formulation of Heterogeneous Catalysts' and the remainder to be devoted to the support of academic research in enhancing the science of formulation of heterogeneous catalysts. The majority of the fund has been transferred into investment funds.

18 Analysis of group net assets between funds

Fund balances at 31 December 2016 are represented by:

	Unrestricted funds £000	Group and Charity Restricted Funds £000	Total £000
Tangible fixed assets	1,138	-	1,138
Investments	4,958	1,587	6,545
Pension scheme funding deficit	(5,615)	-	(5,615)
Net current assets / (liabilities)	729	405	1,134
Provision for liabilities	(41)	-	(41)
	<hr/>	<hr/>	<hr/>
Total net assets	1,169	1,992	3,161
	<hr/>	<hr/>	<hr/>

19 Reconciliation of net movement in funds to net cash flow from operating activities

	2016 £000	2015 £000
Net Income / (Expenditure)	436	(789)
Adjustments for:		
Depreciation on tangible fixed assets	185	181
(Gains) / losses on investments	(573)	(104)
Dividends and interest from investments	(94)	(128)
Investment management fees	75	71
Loss / (profit) on disposal of tangible fixed assets	-	2
Difference between pension charge and cash contribution	(70)	(57)
Decrease / (increase) in debtors	(23)	393
Increase / (decrease) in creditors	225	23
Increase / (decrease) in provisions	41	-
Change in cash and cash equivalents due to exchange rate movements	(237)	75
	<hr/>	<hr/>
Net cash (used in) provided by operating activities	(35)	(333)
	<hr/>	<hr/>

20 Related party transactions

During the year recharges have been made between the charity and its subsidiary undertakings in Australia, Malaysia, New Zealand and Singapore. Recharges are made for staff costs and direct costs incurred by one party on behalf of the other, and for income collected by the subsidiaries from members for third party registrations fees, journal subscription fees and benevolent fund donations.

The net amount recharged was:

	Net amount recharged from / (to) the charity in the year		Balance outstanding at year end included in debtors for the charity	
	2016 £000	2015 £000	2016 £000	2015 £000
IChemE in Australia	103	99	55	3
IChemE in Malaysia	(32)	49	180	186
IChemE in New Zealand	27	5	17	34
IChemE in Singapore Ltd	5	-	5	-

The charity incurred staff costs of £33,000 (2015: £29,000) in support of advertising sales activity which has been recharged to IChemE Ltd. IChemE Ltd gift aids its operating profit to the charity and the balance of £123,000 (2015: £171,000) is included in debtors for the charity at year end.