

Institution of Chemical Engineers

Annual Report and Consolidated
Financial Statements
for the year ended 31 December 2020

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Trustees' Report

The Board of Trustees is pleased to present its annual report together with the financial statements of the charity and its subsidiaries for the year ending 31 December 2020.

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

RSM UK Audit LLP, St Philips Point, Temple Row, Birmingham, B2 5AF

Main Bankers

NatWest Bank Plc, Silbury House, 300 Silbury Boulevard, Milton Keynes, MK9 2ZF

Solicitors

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:

1 January 2020 – 15 June 2020

Prof SM Richardson
Mr KJ Rivers
Mr IJ Martin
Mr AB Just
Prof J Glassey
Mr THL White
Prof PJ Ashman
Mrs JV Atkinson
Mrs MD Isles-Ahite
Eur Ing KC Plumb
Mr DM Sutton
Mrs WJ Wilson

From 15 June 2020

Prof SM Richardson
Ms LJ Cutler
Mr KJ Rivers
Mr IJ Martin
Mr AB Just
Prof J Glassey
Mr THL White
Prof PJ Ashman
Mrs JV Atkinson
Mrs MD Isles-Ahite
Eur Ing KC Plumb
Mr DM Sutton
Mrs WJ Wilson

Chief Executive

Mr JL Prichard

Senior Management Team

Ms J Downham: Director, Finance & Business
Mrs C Flavell-While: Director, Learned Society
Ms P Kerin: Director, IChemE Safety Centre
Mr D Lloyd-Roach: Director, Qualifications
Mr P Slane: Director, Regions

Objectives and activities for the public benefit

The Institution of Chemical Engineers (IChemE) is an internationally recognised professional body committed to advancing the contribution of chemical engineering 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 to ensure that society is protected.

We assess applicants for membership and professional registration 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 strategy

The IChemE Board of Trustees, Congress and Senior Management Team launched a five-year strategy for the organisation in July 2019.

The strategy sets out IChemE's enduring purpose to advance the contribution of chemical engineering worldwide for the benefit of society; and its vision as being led by members, supporting members, and serving society. We will have realised this vision and fulfilled our purpose if we achieve four key aims by 2024. They are:

- ***Respected for professionalism and technical competence***

IChemE will continue to set and uphold professional standards, offering routes to recognized qualifications for all chemical engineers who should be qualified. The Institution will encourage and champion professional development and apprenticeship opportunities to meet existing and future demand. This will be supported by an increase in, and enhancement of, external organisational partnerships.

- ***Recognised as a vibrant learned society that addresses the Global Grand Challenges***

This will be achieved by developing insight and opinion and by working alongside other professions to provide a collective voice on joint issues. Showing technical leadership by engaging with governments and other global bodies to inform policy/decision-making is vital. By using new technology and platforms, the Institution can engage and empower members to spread technical expertise across geographies, special interests and with peers and partners – helping them to adapt to (and influence) current and future challenges.

- ***Acknowledged as an Institution of choice in which an engaged membership receives and adds value***

Improving societal understanding of the history of chemical engineering, as well as its contribution to tackling the *Grand Challenges for Engineering* and the *United Nations Sustainable Development Goals*, is important in inspiring the next generation of engineers. Just as important is properly communicating the value proposition of IChemE to existing members, tailoring engagement carefully, depending on their level and ambitions. A more engaged membership adds value back into the Institution, creating greater value for society and for all prospective and current members.

- ***Known as a high-performing organisation delivering significant value***

Embracing digitalization will be key, creating a platform which is befitting of a modern multinational professional body and allows instantaneous transfer of knowledge and skills, regardless of geography. To support this, a streamlined business architecture and measures to ensure financial sustainability will also be introduced.

Public Benefit

The Institution works to fulfil these goals on an 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

IChemE set out at the start of the year with an ambition to continue delivering improvement activities and income growth. However, by the end of March, the impact of the COVID-19 pandemic was being felt across the globe and IChemE had to quickly adjust its expectations and implement home working and virtual operating for all its offices. The majority of membership income had been secured, but commercial income that relied upon a physical presence was conservatively forecast to drop away. Tight cost control measures were promptly implemented, and the use of national government employment support mechanisms were applied for. Significant effort was expended in migrating charitable and commercial activity to online delivery. As a result, by the end of May, IChemE was able to confirm staffing and activity levels for the remainder of the year.

Aim 1: Respected for professionalism and technical competence

IChemE continued to set and uphold standards, while offering flexible routes to professional qualification. Significant progress was made by member volunteers and employees on developing Programme SMART (Sustainable Membership Achieved via Robust Transactions), with the development and successful trials of a new three-stage process for membership applications. Stage 1 is the assessment of an applicant's educational base for membership, with the new Individual Case Procedure (ICP) route giving recognition to those who have not completed accredited programmes of study but have the relevant knowledge. Stage 2 assesses an applicant's initial professional development (IPD) - their experience and development of competencies. Stage 3 is professional review - to confirm demonstration of an applicant's competence and commitment. Stage 3 also includes the new streamlined procedure that seeks to process Chartered Member applications within three-months. Significant work was undertaken in 2020 to build and test these processes into a new membership application system, which will be fully realised in 2021.

Embedding ICP into the new system has progressed well. Forty-three people took part in three pilots between January 2018 to May 2020. From May to December 2020, 55 people were invited to participate in the new process in small tranches to fully test the system. Meanwhile, the Institution recruited and began training for more than 330 member volunteers for the new Professional Reviewer, ICP Reviewer and IPD Assessor roles, as well as comparable roles for Professional Process Safety Engineer applications, so that Programme SMART can be fully implemented.

IChemE continued to support academia and industry with chemical engineering skills development and successfully adapted its processes to assist throughout the COVID-19 pandemic and subsequent restrictions.

IChemE sought a one-year blanket extension for its accredited programmes from the Engineering Council to allow university departments to focus on coping with a unique and rapidly changing landscape for their teaching. In its role to maintain high professional standards, IChemE developed a COVID-19 Impact Report Form to closely collaborate with accredited universities to record changes implemented to programmes that enabled students to still meet the required learning outcomes for registration.

Twelve university accreditation visits took place physically, virtually, or semi-virtually, and IChemE shared learnings of good professional practice of the latter two with other engineering institutions. Heriot-Watt University was the first institution to have its Malaysia campus semi-virtually accredited and its programme in Dubai the first accreditation for IChemE in the Middle East region.

High hazards training provider Reynolds Training Services became the first organisation to have its level 3 diploma qualification, a part of its apprenticeship scheme, approved by IChemE. Senior leaders at IChemE and Arup gathered online to present the engineering consultancy with their Gold Corporate Partner Award to recognise their commitment in supporting undergraduates and graduates.

Member volunteers and employees in the UK, Australia, Malaysia, and New Zealand supported members in their continuing professional development with in-company, online and on-demand courses. In-company training was primarily delivered virtually for the first time to adapt to COVID-19 restrictions, except in New Zealand where training was safely conducted face-to-face. Fifty delegates attended a newly developed online HAZOP course tailored for Rio Tinto in Australia. Plus, 57 live online courses were conducted and on-demand training courses were purchased by individuals in 33 countries.

To boost access to employment and support connections between industry suppliers, *The Chemical Engineer* magazine launched an improved jobs board and an online Consultants and Contractors Directory.

To set the bar for appropriate national standards to address sustainability and traceability requirement of the palm oil industry in Malaysia, IChemE's Palm Oil Processing Special Interest Group members Qua Kiat Seng and Chong Mei Fong contributed to the review of the Supply Chain Certification Standard upon the Malaysian Palm Oil Certification Council's Sustainable Palm Oil standards working group.

IChemE's year-end membership figure was 33,461, which represents a fall of 5.3% from 2019 (35,345). This reduction is due to a number of factors, including the ongoing work in developing a sustainable membership subscription model, with the numbers truly reflecting the Institution's active, paying membership. Other geo-political, economic, and pandemic forces also contribute to the shifting membership profile. Strategy 2024 sets out a sustainable growth and retention activity strand, which means that the Institution will continue to focus upon supporting all those wishing to become professionally qualified, whilst ensuring that they maintain their technical competence. The Institution will do this by providing suitable learning opportunities and resources for members, supporting them in their continuing professional development. In 2020, IChemE supported 71 Fellows, 318 Chartered Chemical Engineers and 1,483 Associate Members to become elected. In the overall membership, 37% was professionally qualified – up from 35% in 2019.

Aim 2: Recognised as a vibrant learned society that materially impacts on the Global Grand Challenges

To perform as a leading learned society in chemical engineering that make a positive impact on Global Grand Challenges, IChemE's Learned Society Committee identified and began delivering on three priority topics for the Institution to focus on through to 2024: responsible production; major hazard management; and digitalisation.

IChemE aims to deliver tangible outputs on various aspects of responsible production, including climate change, ethics, systems engineering and life-cycle analysis. A major milestone was achieved in this with the development and launch of the Institution's climate change position statement. The project group engaged with members with an array of technical expertise across the Institution's specialist groups and committees, and also invited input from the Institution's 33,000 wider membership. The position statement commits IChemE to support and enable members, through education, research, and sustainable engineering practices, to contribute to the transition to a 'net zero' world by 2050. It also commits IChemE to develop plans to achieve net zero carbon emissions in its own global operations by 2025 and report progress annually. IChemE also published a collection of climate change articles to showcase the range of related research papers in its journals.

All IChemE journals saw a rise in their Impact Factor, which is a quantitative measurement of a journal in relation to its competitors. *Sustainable Production and Consumption* received its first Impact Factor and overall a record 8,712 manuscripts were submitted for IChemE journals in 2020 – up 43% from 2019.

The Institution continued to provide technical leadership and expert opinion to decision-makers through contributions to UK policy responses, such as the nuclear decommissioning strategy and the 2020 Spending Review. Members' access to technical resources continued in 2020, which included publishing a compilation of 20 articles on opportunities and challenges in the hydrogen economy that was collated by the Clean Energy Special Interest Group and *The Chemical Engineer*. IChemE secured access for members to view technical books through Knovel's associated app, KnovelToGo. This enables members to freely access more than 300 leading technical references, including 25 new books for 2020.

A Major Hazards Committee was formed to cohere all process safety activities into a unified approach, enabling IChemE to improve the way that it promotes safety related knowledge, good practice, and learning from others.

In 2020, the IChemE Safety Centre (ISC) boosted its range of digital resources thereby extending the breadth of its offer. It delivered seven times more webinars than in 2019, with almost 3,000 attendees across the world and a further 7,200 viewings of the recordings on YouTube. The ISC also launched a social media campaign to share one-minute videos of incidents and their learnings on their respective anniversaries. This demonstrated how effective learnings opportunities can be achieved in a relatively short timeframe. Fifty-five videos gained over 2,600 YouTube views and tens of thousands of hits on additional social media channels. Additionally, ISC Director Trish Kerin's new podcast collaboration with *Chemical Processing* magazine saw 3,815 downloads of 14 podcasts in 2020.

To promote technical standards, the ISC published a collection of papers that shared both good practice and pitfalls, to help organisations manage risk during COVID-19. These were presented at the Organisation for Economic Co-operation and Development (OECD) Working Group on Chemical Accidents' virtual conference.

Knowledge-sharing and supporting CPD continued through physical-turned-virtual conferences. Piper Alpha survivor Steve Rae shared his model for developing and sustaining robust safety in the Trevor Kletz Lecture at *Hazards 30*. To boost learning, the 31 hours of technical presentations from the two-day conference were made available to delegates for 30 days, who made full use of the opportunity collectively spending 640 hours on the platform after the event. More than 330 delegates also attended the four-week webinar series *Bite-sized Chemeca*. Innovations, lessons, and best practice were shared by speakers under the theme 'renew, sustain, disrupt and advance'.

A three-year digitalisation project, led by the new Digitalisation Technical Advisory Group, was launched in 2020. The Group will provide thought-leadership as to how digital technologies, such as big data, artificial intelligence,

and virtual reality, and skill areas, enabled by ethical and organisational leadership, education and life-long learning, will affect chemical engineering professionals, as well as preparing them for the future.

To support the global response to the coronavirus pandemic, 80 members from 11 countries, supported by professionals from other disciplines with expertise in vaccine development, diagnostics manufacturing, therapeutics, and medicine supplies, formed the IChemE COVID-19 Response Team. Collaborating with the International Society of Pharmaceutical Engineering UK Affiliate, the National Engineering Policy Centre, the Royal Society and IChemE's Energy Centre, the team developed numerous workstreams to address challenges, identifying where chemical engineers could provide support and appropriate solutions. The Team offered support to the UK government and the NHS, and contributed to various policy reports. Their work included solutions for the decontamination and reuse of personal protective equipment, the scale up and roll out of vaccine manufacture, and they provided recommendations for a recovery from COVID-19 which would also assist the UK in achieving net zero targets.

To support members during the pandemic, IChemE developed the Coronavirus Hub, a web area centralising resources and information on IChemE's response to the pandemic and signposting members to the Chemical Engineers Benevolent Fund if they were experiencing hardship. Members also shared their stories in *The Chemical Engineer* on how they have helped during the crisis, advised policymakers and describing the impact of the pandemic on education, operations, and safety.

Aim 3: Acknowledged as a peer-group leader in which an engaged membership receives and adds value

IChemE continued its efforts to strengthen member engagement, improve understanding of the profession, and to support the member lifecycle. This included helping to inspire the next generation of chemical engineering professionals.

103 members, from across the world, joined IChemE's first fully virtual Annual General Meeting. Of this, 95 attendees were voting members – which is the largest number since 2002 and seventh highest on record. A new deputy president and 11 Congress members were elected to office and actively participated in strategic initiatives to shape the direction of the Institution. Members featured in two new video series (IChemE Insight and In Conversation), which were launched to enhance members' understanding of progress that has been made with key IChemE initiatives and to introduce them to the member volunteers leading them.

In February, at the Frank Morton Sports Day Careers Fair in Birmingham, IChemE launched the 'career profiles in the bioeconomy' booklet to promote early career opportunities. At the event, IChemE's National Young Members Committee chair, Heather Williams, and IChemE employees helped develop students' understanding of professionalism by answering questions on careers and on how to become a Chartered Member.

In July, a new Student Summit for undergraduates in Australia, Malaysia and New Zealand was organised and run very successfully by student members. The online event saw more than 630 participants learn from key speakers on the emerging opportunities and challenges affecting future generations of chemical engineers. Popular workstreams included those provided on sustainable design solutions and alternative energies.

Engagement activities to support university students in Malaysia were expanded to include five new Student Chapters. IChemE also brought together leading industry speakers to support Malaysian universities at the virtual Regional Chemical Engineering Undergraduates Congress enabling over 200 students to learn about sustainable technologies and Industry 4.0.

A 60-strong member volunteer group was formed to plan how IChemE can showcase 100 years of chemical engineering achievements to celebrate the Institution's centenary in 2022. Members worldwide contributed stories that mark past and present chemical engineering initiatives that have delivered societal benefit and will support the attainment of the UN Sustainable Development Goals, as well as other innovations being developed for the future.

Over the course of the year, virtual activities were ramped up Member Groups and Special Interest Groups to encourage wider access to technical knowledge and professional development. More than 18,980 people attended 267 webinars. 130 early career members were matched with a mentor. 102 Get Chartered and 61 On Campus presentations were delivered. Also, IChemE launched a new workshop to support individuals with their competence and commitment report for Chartered Member application.

To improve societal understanding of chemical engineering, three IChemE Fellows featured as experts in *Disasters Engineered*, a new UK Discovery Channel television series. They gave technical accounts of incidents and explained what professionals working in hazardous industries have learned from them. Furthermore, Sky News interviewed Trustee Keith Plumb about wide-scale testing for COVID-19.

As part of promoting a diverse profession, Trustee Macsene Isles-Ahite and an autistic engineer shared their stories in *The Chemical Engineer* on what the profession and IChemE could do to improve diversity and be more

supportive to members' needs. Through the Institution's commitment to improve and encourage equality, diversity and inclusion, a member working group was established to develop a programme of work to be delivered as part of Strategy 2024.

For International Women in Engineering Day, to celebrate diversity, recognise volunteer efforts and enhance understanding of the profession, IChemE created a video campaign with members explaining how women chemical engineers help shape the world. The video gained over 1,200 views on YouTube, with strong engagement upon IChemE's other social media channels, including with engineers and other engineering institutions.

Work on the programme to support and recognise volunteers was taken forward, including rolling out General Data Protection Regulations (GDPR) training to over 3,000 member volunteers and publishing a new centralised web area for members to find out about volunteering opportunities.

As a part of the awards and medals programme, 26 chemical engineers from across the world were recognised by their peers with online award ceremonies. More than 170 entries made it to the finals of the IChemE Global Awards and the first-ever virtual IChemE Malaysia Awards. For the Global Awards, achievements were showcased in 20 categories in a three-week webinar series, where finalists presented their projects and took questions from the online audience, culminating in the winners' announcement. *Best Consultancy*, *Process Automation and Digitalisation*, and *Public Engagement* were all new categories for 2020. UK-based Plastic Energy's world-first process that sustainably recycles contaminated plastic waste that cannot be mechanically recycled won the *Outstanding Achievement Award*, *Innovative Product Award* and *Sustainability Award*.

Aim 4: Known as a high-performing organisation delivering significant value

2020 marked a considerable step forward in modernising IChemE's legacy systems, business processes and governance for more resilient operations that deliver value and enable better connectivity for members.

Further investment in digital systems saw the launch of the Knowledge Hub, which provides centralised access and search functionality for 10,000 resources from IChemE's publications, including historic journals issues, policy consultations and incident reports.

The migration to IChemE's new Contact Relationship Management (CRM) system began in September. This new home for the membership database is the vital tool which over time will help to improve direct communications with members and IChemE's customers. It is also the key system that enables the integration of other IChemE systems which will lead to better functionality and interaction with the IChemE website. Progress was also made on upgrading the Institution's finance and membership application systems so that they can fully integrate with the CRM. Further improvements to the CRM will be made during 2021 to enable improved functionality to be developed thereby enhancing the user experience.

IChemE also extended its common platforms, including SharePoint and MS Teams, to enable employees and members to share documents in a secure GDPR compliant area and improve online meetings.

To deliver a coherent business architecture and governance structure, new member-led panels and committees were created to oversee IChemE's regional engagement activity, finances, and governance.

As part of the Business Architecture Programme, IChemE also initiated changes to the Member Group structure in Malaysia that will improve consistency and compliance. The new structure will establish the member group in Malaysia as an IChemE branch transitioning from the current independent Society in early 2021. In September, the South African Institution of Chemical Engineers (SAIChE) confirmed as a part of the same programme that it preferred to retain independence rather than become an IChemE Branch. This will require a new relationship to be established during the course of 2021.

As the Institution works towards ISO9001 compliance, IChemE's Publications team became the first department to achieve ISO9001 certification, spearheading a wider push for improved process across the organisation.

IChemE employees were able to respond swiftly and effectively to COVID-19 lockdown, due to the prior investment in online resources. All offices quickly converted to virtual working practices whilst seamlessly continuing to provide services. This was aided by the flexibility and resilience of employees and support from members. Processes, policies and an employee COVID-19 survey were developed and implemented to ensure employees had effective resources and equipment, as well as regular communication to support working at home and their mental health.

Moreover, employee engagement initiatives and training were rolled out in 2020 to help broaden the internal skills base, including mental health first-aiders, resilience and wellbeing, and equal opportunities. A staff survey was also re-established with the results from this and focus groups formulating an employee engagement plan for 2021.

Plans for the future

The key activities to deliver against each of the strategic aims are set out as follows:

Aim 1: Respected for professionalism and technical competence

We will promote professional and technical competence by:

- accrediting educational programmes
- maintaining relevant qualifications
- assessing and promoting member competence
- supporting ongoing skills development

Aim 2: Recognised as a vibrant learned society that materially impacts on the Global Grand Challenges

We will advance Chemical Engineering by:

- developing an authoritative voice
- promoting innovation
- developing technical guidance and standards
- promoting good practice

Aim 3: Acknowledged as an Institution of choice in which an engaged membership receives and adds value

We will improve understanding and engagement by:

- promoting chemical engineering's contribution to society
- educating future generations
- promoting diversity and inclusion
- encouraging collaboration
- Securing member engagement

Aim 4: Known as a high-performing organisation delivering significant value

We will enhance capability and performance by:

- embracing digitalisation
- optimising governance structures
- maintaining financial security
- developing organisational capability

Financial Review

The financial statements for the year ended 31 December 2020 are set out on pages 22 to 41.

The charity only financial statements incorporate the results of the UK and Australian charitable operations.

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 Malaysia, New Zealand and Singapore.

Unrestricted funds

Total group income for the year was £7,047,000 (2019: £7,954,000). The principal sources of income were:

- Membership subscription and accreditation fees totalling £3,939,000 (2019: £3,907,000).
- Within the Learned Society activity, training courses generated income of £889,000 (2019: £1,730,000). The training course activity, which had previously been offered predominantly as physical events, was severely impacted by the Covid-19 pandemic. The commercial team, together with the course directors, worked quickly to translate the physical events to online modules running 57 courses between April and December 2020.
- Income from journals and publications was £1,071,000 (2019: £989,000), and a further £199,000 (2019: £723,000) was received from conferences, seminars and events. The impact of Covid-19 was also felt in this area as it was not possible to hold the conferences and events physically. However, the annual Hazards conference and the Awards events did go ahead and were successfully converted to virtual events with positive feedback from participants.
- Income from the Institution's knowledge communities, which includes company subscriptions to the IChemE Safety Centre and Special Interest Group activity was £317,000 (2019: £372,000). Other income, generated from collaboration with other entities, was £7,000 (2019: £8,000).
- Funding from various government support schemes in response to the Covid-19 pandemic was available to the Institution during 2020. At the start of the pandemic, 10 staff members in the UK were placed on furlough for a period of 3-5 months with £72,000 being claimed from the UK government's Coronavirus Job Retention Scheme. Further funding of £114,000 was available from the local government wage subsidy schemes for the staff based in Australia, New Zealand and Malaysia. The total funding of £186,000 received in 2020, is shown as income on the Statement of Financial Activities under the heading 'exceptional government funding'.
- The income of the Institution's trading subsidiary IChemE Ltd, which is generated mainly through the sale of advertising space in the Institution's magazine, was £155,000 (2019: £148,000).
- A further instalment of £230,000 (2019: *£nil*) was received from the legacy originally notified to the Institution in December 2017. A final sum of money is still due to be paid from the former member's estate, which at the point of signing the accounts is unknown in terms of value and payment date. There were no donations received in 2020 (2019: £29,000).
- Dividends and interest on the Institution's investment portfolio was £54,000 (2019: £77,000).

Total group expenditure for the year was £6,956,000 (2019: £8,066,000). This includes expenditure of £321,000 (2019: £344,000) on the IT Transformation Programme to be funded from the designated fund. Details of the designated fund are set out in note 16 to the financial statements. Overall expenditure for the year decreased as a result of the lower cost base of running online or virtual training courses and events, holding the majority of trustee and committee meetings virtually, and other cost saving measures put in place to counter the fall in income as a result of the pandemic.

The Institution's wholly owned trading subsidiary, IChemE Ltd, achieved an operating profit of £82,000 (2019: £59,000), which has been gift aided to the Institution. The results of the UK trading subsidiary and of the subsidiary undertakings in Malaysia, New Zealand and Singapore are set out in note 2 to the financial statements.

Net income, before gains on investments funds, was £91,000 (2019: *net expenditure* £112,000). Gains on investments for the year were £367,000 (2019: £491,000) resulting in an overall net income of £458,000 (2019: £379,000).

After the transfer between unrestricted and restricted funds of £29,000 (2019: £30,000) and other recognised gains or losses; actuarial loss on the defined benefit pension scheme of £1,316,000 (2019: £1,256,000); as well as exchange gains on the retranslation of the balance sheets of the foreign branches and subsidiaries of £136,000 (2019: losses £76,000), the unrestricted fund balance at year end decreased by £693,000 (2019: £923,000) to £986,000 (2019: £1,679,000).

Restricted funds

Restricted funds are income funds that can only be used for specific purposes which have been specified by the donor, or by the terms applied to an appeal for funds.

The net expenditure in restricted funds was £57,000 (2019: net income £17,000). A further £29,000 (2019: £30,000) was transferred from restricted to unrestricted funds, representing the staff support costs for the running of the funds. The total restricted fund balance at year end was £1,239,000 (2019: £1,305,000). The movement in restricted income funds is set out in note 15 to the financial statements.

Investment policy and powers

The investment policy adopted by the Trustees 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 is 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 £54,000 (2019: £77,000) in interest and dividends, and incurred management fees of £55,000 (2019: £54,000). The funds generated unrealised gains of £367,000 (2019: £491,000). The total return for the year, taking into account all income, management fees and market value movements, was an increase of 6.4% (2019: 9.4%).

No disinvestments were made from the funds in 2020 (2019: £nil). All income received during the year has been re-invested.

The Institution's investments are recorded at market value. The market value of the investment portfolio at 31 December 2020 was £6,090,000 (2019: £5,724,000). 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. The Trustees have 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 & HR Committee throughout the year.

Reserves policy

The Finance and HR Committee reviews the Institution's reserves policy and level of reserves held on an annual basis. The Committee considers all relevant information including the three-year budget and business plan, the strategic plan and the risks identified in the risk register.

The current reserves policy adopted by the Trustees 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 2020, the level of reserves required to meet this policy was £3,700,000.

The level of unrestricted reserves freely available at the year-end was £5,272,000 (2019: £4,924,000).

Unrestricted free reserves exclude the designated fund of £835,000 (2019: £656,000), fixed asset reserves of £798,000 (2019: £885,000) and are stated before taking account of the pension-funding deficit of £5,919,000 (2019: £4,875,000) 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. The Trustees are comfortable holding excess reserves due to:

- the investment required to meet Strategy 2024, some of which may require funding from reserves;
- the potential decline in the market value of the investment funds due to uncertainty in the investment market;
- to protect the Institution against fluctuating income levels;
- the defined benefit pension scheme liabilities could increase further, with the results of the next triennial valuation expected in 2021.

Recognising the long-term nature of the liability, the Trustees are fully committed to the continuing support of the Defined Benefit Pension Scheme and working closely with the Pension Scheme Trustees when considering the triennial valuation results and in setting any recovery plan to eliminate the deficit in the Scheme. The contributions paid into the Scheme are included in the Institution's annual budgeting process to ensure, where possible, they are covered from operational activity rather than drawn down from reserves. The Trustees also work closely with the Pension Scheme Trustees to look at ways that the Scheme could be de-risked further, having already been closed to new members and future accruals and having utilised a Liability Driven Investment structure.

It is anticipated that the next triennial valuation, due in 2021, will show an increase in the deficit position of the Scheme. This is mainly due to the increase in the value of the Scheme liabilities as a result of the fall in the gilt yield since the last triennial valuation. The Trustees will seek their own actuarial advice as part of the process where necessary.

Further information on the Defined Benefit Pension Scheme can be found in note 21 below.

In 2018, the Trustees agreed to set aside £1,000,000 as a designated fund for an IT Transformation Programme to run over a two-to-three-year period. A transfer of £1,000,000 was made from general funds to designated funds in December 2018 to be allocated against the Programme in 2019 to 2021. The purpose of the Programme is to modernise the provision of IT services and platforms, and to address a number of risks by moving business applications off premise and into the cloud.

Expenditure of £321,000 (2019: £344,000) was incurred on the Programme in 2020. The budget, scope and timeline for the Programme is being closely managed and based on current estimates will be delivered as planned and in line with the original designation.

Having built the foundations of the Institution's IT, business systems and procedures in the first phase of work, a further £500,000 was transferred to designated funds in December 2020. This second phase of work will enable further enhancements to be made to the new business applications and to start to deliver the digitalisation of services to members.

The total funds held at year end, after taking into account the pension-funding deficit, amounted to £2,225,000 (2019: £2,984,000). The total fund balance includes restricted funds of £1,239,000 (2019: £1,305,000).

The Trustees have 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 Board of Trustees, which is the Institution's governing body.

The Institution is a registered charity in England & Wales and a charity registered in Scotland.

Appointment of Trustees

The Board of Trustees are elected in accordance with the Royal Charter and By-laws and is comprised of the following roles:

- President
- Deputy President
- Immediate Past President
- Honorary Treasurer
- three Vice-Presidents
- three ordinary members
- two regional members

The Honorary Officers, consisting of the President, Deputy President, Immediate Past President and Honorary Treasurer, are elected annually. Those eligible for election as President shall be the Deputy President or, if in the opinion of the Board of Trustees special circumstances exist, a Fellow. The person eligible as Immediate Past President shall be the retiring President. Those eligible for Honorary Treasurer shall be as determined by the Nominations Committee.

The Vice-Presidents, ordinary members and regional members of the Board shall be elected for a term not exceeding three years nor less than one year.

Trustee induction and training

All new Trustees receive an induction pack including the By-laws and Regulations of the Institution, recent minutes of meetings, and the relevant Charity Commission publications outlining their roles and responsibilities as a Charity Trustee. 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.

Trustees 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 interests, which is updated annually or when any changes are reported by Trustees. Procedures are in place for managing conflicts of interest that may arise during Trustee meetings.

Institution structure

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

Congress is the representative advisory body serving as a link between the Institution's members and the Board of Trustees. Congress consists of up to forty members, all members of the Institution, who are nominated and elected by their peers from a functional or geographical college. The functional college consists of up to 15 representatives to broadly reflect the Institution's membership across the various grades. The regional college consists of up to 25 representatives to reflect the geographical footprint of the Institution's membership. Congress members are elected for a term of three years, renewable up to a maximum term of six years.

The Congress Steering Group is responsible for the oversight and facilitation of the conduct of Congress and the engagement of Congress members. The Steering Group consists of the Congress Chair, Vice-Chair, the Chief Executive and a designated Trustee lead.

Congress holds up to six sessions a year, five of which will be held as online open forums and each lasting up to thirty days. The agenda for the sessions is determined by the Chair of Congress in consultation with the Congress Steering Group.

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

The Board of Trustees are the registered Trustees of IChemE's branch in Australia, which is registered with the Australian Charities and Not-for-profits Commission. The branch has a National Board to advise the Trustees on how IChemE's strategy can be delivered locally.

The Institution's operations in Malaysia, New Zealand and Singapore, each have their own National Boards operating under delegated authority from the Board of Trustees and in compliance with local regulatory requirements.

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.

In addition to Congress and the local National Boards, there are a number of standing Committees operating under delegated authority from the Board of Trustees which have been established to facilitate the operation of the charity. These consist of:

- Qualifications Committee
- Learned Society Committee
- Regions Committee
- Governance Panel
- Finance & HR Committee
- Audit and Risk Committee
- Succession Planning Committee
- Nominations Committee
- Disciplinary Committee
- Appeals Committee
- Professional Conduct Pool

The Terms of Reference, which include the delegated powers and membership of these Boards, Committees and Panels are set by the Board of Trustees and reviewed regularly.

The Institution also has an extensive network of National, Regional and 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, school liaison visits, and networking events.

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 Trustees and the various members of boards, committees and panels 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.

Fundraising

The Institution does not actively undertake any fundraising activities from the general public or use the services of professional fundraisers or commercial participators.

The Institution is not bound by any regulatory scheme and is not subject to any voluntary code of practice regulating fundraising.

No complaints have been received by the Institution in relation to fundraising activities.

Remuneration policy for key management personnel

The Institution considers its key management personnel to comprise the Board of Trustees, the Chief Executive and the Senior Management Team. All Trustees give their time freely and no Trustee received remuneration in the year. Details of Trustees' expenses and related party transactions can be found in note 8 and 17 to the accounts.

The pay of the Chief Executive and Senior Management Team is set by the Finance & HR 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 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.

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

The Trustees are 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, and for reviewing the Institution's risk policy on an annual basis.

A strategic and operational risk register is maintained by the Senior Management Team and is formally reviewed on a quarterly basis. A change risk register is overseen by the Future Institution Transformation (FIT) Board. The risk registers capture the types of risk internally and externally, prioritises them in terms of potential impact, likelihood and reputational impact, and identifies means of mitigating those risks or minimising the impact on the Institution should those risks materialise. Both the senior executive team and the FIT Board regularly review the classification of the risks and the effectiveness of the control measures. The Audit & Risk Committee regularly review the risk registers, concentrating on the significant strategic risks and their control measures.

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.

The Trustees receive an annual report from the Audit & Risk Committee highlighting the top strategic and operational risks. Key changes in risk items will also be reported to the Trustees as required.

The top risks identified in 2020 which could impact the delivery of the strategy are listed below. During 2020, extensive work was carried out to review these risks and embed effective risk management across the organisation. This work will be built upon in 2021 when the launch of a new cloud-based system to manage risks will be introduced and will be used to improve and embed risk management within day-to-day decision making.

Risk	Control and Mitigation Measures
The Business Plan is not achievable or affordable	Clear prioritisation has been undertaken and effectively communicated to staff, members and stakeholders. Since the launch of the 2021 Business Plan, all key Change activity has been grouped together to ensure resource conflicts and inter-dependencies are managed.
We are not able to deliver on the agreed priorities aligned to the Strategy	Gap analysis conducted on existing activities vs the aims of the strategy. Business case being developed to address any gaps identified within the Future Information Transformation Programme (FIT Phase 2).
IChemE is not valued by individuals and/or organisation	Run annual membership engagement survey with the services of an external research company to ensure appropriate and effective questioning, and to benchmark performance against other similar organisations. In addition, run smaller consultations and surveys with targeted groups of members and other stakeholders. Develop better understanding of member engagement with our new CRM system.
Membership lacks diversity and growth	Run a full calendar of marketing communication activities to help existing members progress through a range of membership grades and to recruit new members. Specific campaigns targeting students, early careers and members needing support with skills transition to be developed during 2021. Increased focus on diversity through our volunteer engagement programme and the development of a formalised ED&I positioning statement.

IChemE staff, members, volunteers do not support transformation	Develop as part of the Future Institution Transformation Programme (FIT Phase 2) a cohesive and coherent approach to Stakeholder communications that consistently makes the case for change.
Lose the ability to qualify members	Address any weaknesses in existing processes as part of the replacement Application System, then review further as part of the planned enhancements to this system to be delivered by Q2 2022. Close relationships and engagement with the Regulators to ensure ongoing compliance is fully understood.
Insufficient volunteers to deliver the vision of being member led	Through the Volunteer Engagement Programme, develop and deliver a cohesive and coherent approach to Volunteer Engagement and Volunteer Management; identify all volunteering roles, put in place process for succession planning, advertise volunteering opportunities more visibly and put in place a mechanism to recognise our volunteers.
Governance structures do not provide leadership and decision making	Governance Panel established in 2020. Committee / Panel structure to continue to be reviewed and Scheme of Delegation to be put in place. Continue with the roll out of the Business Architecture programme of work. Establish consistent model for project governance that conforms to best practice.
Defined Benefit Pension Scheme becomes a disproportionate financial burden and/or unable to reach agreement with Pension Scheme Trustees on recovery plan	Next triennial valuation due in 2021. Maintain regular dialogue with Pension Scheme Trustees. Demonstrate strength of employer covenant. Seek independent actuarial advice where necessary.

The Trustees are satisfied that reasonable steps are being taken to limit the probability and the impact of risk.

Statement of Trustees' responsibilities

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 in accordance with United Kingdom Generally Accepted Accounting Practice (United Kingdom Accounting Standards and applicable law). Under Charity law the Trustees 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, the Trustees are required to:

- select suitable accounting policies and then applies them consistently.
- make judgements and estimates that are reasonable and prudent.
- prepare the financial statements on a going concern basis unless it is inappropriate to presume that the Institution will continue its activities.

The Trustees are 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.

The Trustees are responsible for the maintenance and integrity of the corporate and financial information included on the charity's website.

Legislation in the United Kingdom governing the preparation and dissemination of financial statements may differ from legislation in other jurisdictions.

Approved by the Board of Trustees on 22 April 2021 and signed on its behalf by:



Prof SM Richardson
President



Mr IJ Martin
Honorary Treasurer

Davis Building
165-189 Railway Terrace
Rugby
CV21 3HQ

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

Opinion

We have audited the financial statements of the Institution of Chemical Engineers (the 'charity')/(the 'parent charity') and its subsidiaries (the 'group') for the year ended 31 December 2020 which comprise Consolidated and Charity Statements of Financial Activities, the Group and Charity Balance Sheets, the Group and Charity Cash Flow Statements and notes to the financial statements, including significant accounting policies. The financial reporting framework that has been applied in their preparation is applicable law and United Kingdom Accounting Standards, including FRS 102 "The Financial Reporting Standard applicable in the UK and Republic of Ireland" (United Kingdom Generally Accepted Accounting Practice).

In our opinion the financial statements:

- give a true and fair view of the state of the group's and parent charity's affairs as at 31 December 2020 and of the group's and parent charity's incoming resources and application of resources 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 and Trustee Investment (Scotland) Act 2005, regulations 6 and 8 of the Charities Accounts (Scotland) Regulations 2006 (as amended) and the Charities Act 2011.

Basis for opinion

We have been appointed auditors under section 44(1)(c) of the Charities and Trustee Investment (Scotland) Act 2005 and under section 151 of the Charities Act 2011 and report in accordance with regulations made under those Acts.

We conducted our audit in accordance with International Standards on Auditing (UK) (ISAs (UK)) and applicable law. Our responsibilities under those standards are further described in the Auditor's responsibilities for the audit of the financial statements section of our report. We are independent of the group and parent charity in accordance with the ethical requirements that are relevant to our audit of the financial statements in the UK, including the FRC's Ethical Standard and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Conclusions relating to going concern

In auditing the financial statements, we have concluded that the trustees' use of the going concern basis of accounting in the preparation of the financial statements is appropriate.

Based on the work we have performed, we have not identified any material uncertainties relating to events or conditions that, individually or collectively, may cast significant doubt on the group's or parent charity's ability to continue as a going concern for a period of at least twelve months from when the financial statements are authorised for issue.

Our responsibilities and the responsibilities of the trustees with respect to going concern are described in the relevant sections of this report.

Other information

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

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

We have nothing to report in this regard.

Matters on which we are required to report by exception

We have nothing to report in respect of the following matters where the Charities Accounts (Scotland) Regulations 2006 (as amended) and the Charities Act 2011 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' annual report; or
- proper and sufficient accounting records have not been kept by the parent charity; or
- the parent charity 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 statement of trustees' responsibilities set out on page 18 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 and 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 group or parent charity or to cease operations, or have no realistic alternative but to do so.

Auditor's responsibilities for the audit of the financial statements

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

The extent to which the audit was considered capable of detecting irregularities, including fraud

Irregularities are instances of non-compliance with laws and regulations. The objectives of our audit are to obtain sufficient appropriate audit evidence regarding compliance with laws and regulations that have a direct effect on the determination of material amounts and disclosures in the financial statements, to perform audit procedures to help identify instances of non-compliance with other laws and regulations that may have a material effect on the financial statements, and to respond appropriately to identified or suspected non-compliance with laws and regulations identified during the audit.

In relation to fraud, the objectives of our audit are to identify and assess the risk of material misstatement of the financial statements due to fraud, to obtain sufficient appropriate audit evidence regarding the assessed risks of material misstatement due to fraud through designing and implementing appropriate responses and to respond appropriately to fraud or suspected fraud identified during the audit.

However, it is the primary responsibility of management, with the oversight of those charged with governance, to ensure that the entity's operations are conducted in accordance with the provisions of laws and regulations and for the prevention and detection of fraud.

In identifying and assessing risks of material misstatement in respect of irregularities, including fraud, the audit engagement team:

- obtained an understanding of the nature of the sector, including the legal and regulatory frameworks that the group and parent charity operate in and how the group and parent charity are complying with the legal and regulatory frameworks;
- inquired of management, and those charged with governance, about their own identification and assessment of the risks of irregularities, including any known actual, suspected or alleged instances of fraud;
- discussed matters about non-compliance with laws and regulations and how fraud might occur including assessment of how and where the financial statements may be susceptible to fraud.

As a result of these procedures we consider the most significant laws and regulations that have a direct impact on the financial statements are FRS 102, Charities and Trustee Investment (Scotland) Act 2005, regulations 6 and 8 of the Charities Accounts (Scotland) Regulations 2006 (as amended), the Charities Act 2011, the parent charity's governing document and tax legislation.

We performed audit procedures to detect non-compliances which may have a material impact on the financial statements which included reviewing the financial statements including the Trustees' Report, remaining alert to new or unusual transactions which may not be in accordance with the governing documents, inspecting correspondence with local tax authorities and evaluating advice received from internal/external advisors.

The most significant laws and regulations that have an indirect impact on the financial statements are those in relation to General Data Protection Regulation (GDPR). We performed audit procedures to inquire of management and those charged with governance whether the group/charity is in compliance with these law and regulations and read minutes.

The audit engagement team identified the risk of management override of controls and as the area where the financial statements were most susceptible to material misstatement due to fraud. Audit procedures performed included but were not limited to testing manual journal entries and other adjustments, evaluating the business rationale in relation to significant, unusual transactions and transactions entered into outside the normal course of business and challenging judgments and estimates.

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

Use of our report

This report is made solely to the charity's trustees, as a body, in accordance with section 44(1)(c) of the Charities and Trustee Investment (Scotland) Act 2005, and regulation 10 of the Charities Accounts (Scotland) Regulations 2006 (as amended) and the Charities Act 2011. 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 its trustees as a body, for our audit work, for this report, or for the opinions we have formed.

RSM UK Audit LLP

Statutory Auditor
St Philips Point
Temple Row
Birmingham
B2 5A

Date: 5 May 2021

RSM UK Audit LLP is eligible to act as an auditor in terms of section 1212 of the Companies Act 2006

Consolidated statement of financial activities for the year ended 31 December 2020

	Notes	Unrestricted Funds £000	Restricted Funds £000	Total 2020 £000	Unrestricted Funds £000	Restricted Funds £000	Total 2019 £000
INCOME							
Donations & legacies	3	230	-	230	-	29	29
Charitable activities:	4						
Qualifying Chemical Engineers		3,939	-	3,939	3,907	-	3,907
Operating a Learned Society for Chemical Engineers		2,483	20	2,503	3,822	25	3,847
Exceptional government funding		186	-	186	-	-	-
Other trading activities:							
Trading operations	2	155	-	155	148	-	148
Investments	5	54	-	54	77	-	77
TOTAL INCOME		7,047	20	7,067	7,954	54	8,008
EXPENDITURE ON							
Raising funds:							
Trading operations	2	(73)	-	(73)	(89)	-	(89)
Investment management costs		(55)	-	(55)	(54)	-	(54)
Charitable activities:	6						
Qualifying Chemical Engineers		(2,848)	-	(2,848)	(3,020)	-	(3,020)
Operating a Learned Society for Chemical Engineers		(3,980)	(57)	(4,037)	(4,903)	(37)	(4,940)
TOTAL EXPENDITURE		(6,956)	(57)	(7,013)	(8,066)	(37)	(8,103)
Net gains / (losses) on investments	11	367	-	367	491	-	491
NET INCOME / (EXPENDITURE)		458	(37)	421	379	17	396
Transfer between funds	15	29	(29)	-	30	(30)	-
Other recognised gains / (losses):							
Actuarial (losses) / gains on defined benefit pension schemes	21	(1,316)	-	(1,316)	(1,256)	-	(1,256)
Exchange gains / (losses) arising from retranslation of foreign branches & subsidiaries		136	-	136	(76)	-	(76)
NET MOVEMENT IN FUNDS		(693)	(66)	(759)	(923)	(13)	(936)
Fund balances brought forward at 1 January		1,679	1,305	2,984	2,602	1,318	3,920
Fund balances carried forward at 31 December		986	1,239	2,225	1,679	1,305	2,984

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 26 to 41 form part of these financial statements.

Charity statement of financial activities for the year ended 31 December 2020

	Notes	Unrestricted Funds £000	Restricted Funds £000	Total 2020 £000	Unrestricted Funds Restated £000	Restricted Funds Restated £000	Total 2019 Restated £000
INCOME							
Donations & legacies	3	230	-	230	-	29	29
Gift aid from subsidiary company	2	82	-	82	59	-	59
Charitable activities:	4						
Qualifying Chemical Engineers		3,794	-	3,794	3,762	-	3,762
Operating a Learned Society for Chemical Engineers		2,482	20	2,502	3,661	25	3,686
Exceptional government funding		179	-	179	-	-	-
Investments	5	54	-	54	77	-	77
TOTAL INCOME		6,821	20	6,841	7,559	54	7,613
EXPENDITURE ON							
Raising funds:							
Investment management costs		(55)	-	(55)	(54)	-	(54)
Charitable activities:	6						
Qualifying Chemical Engineers		(2,786)	-	(2,786)	(2,938)	-	(2,938)
Operating a Learned Society for Chemical Engineers		(3,923)	(57)	(3,980)	(4,734)	(37)	(4,771)
TOTAL EXPENDITURE		(6,764)	(57)	(6,821)	(7,726)	(37)	(7,763)
Net gains / (losses) on investments	11	367	-	367	491	-	491
NET INCOME / (EXPENDITURE)		424	(37)	387	282	(13)	269
Transfer between funds	15	29	(29)	-	30	(30)	-
Other recognised gains / (losses):							
Actuarial (losses) / gains on defined benefit pension schemes	21	(1,316)	-	(1,316)	(1,256)	-	(1,256)
Exchange gains / (losses) arising from retranslation of foreign branches & subsidiaries		130	-	130	(72)	-	(72)
NET MOVEMENT IN FUNDS		(733)	(66)	(799)	(974)	(13)	(987)
Fund balances brought forward at 1 January		1,502	1,305	2,807	2,476	1,318	3,794
Fund balances carried forward at 31 December		769	1,239	2,008	1,502	1,305	2,807

Balance sheets at 31 December 2020

	<i>Note</i>	2020	Group	2020	Charity
		2019		2019	
		£000	£000	£000	£000
Fixed assets					
Tangible assets	10	798	885	798	884
Investments	11	6,090	5,724	6,090	5,724
		<u>6,888</u>	<u>6,609</u>	<u>6,888</u>	<u>6,608</u>
Current assets					
Debtors	12	666	794	739	918
Cash at bank and in hand		2,819	3,027	2,521	2,628
		<u>3,485</u>	<u>3,821</u>	<u>3,260</u>	<u>3,546</u>
Creditors: Amounts falling due within one year	13	(2,229)	(2,661)	(2,221)	(2,562)
Net current assets		1,256	1,160	1,039	984
		<u>8,144</u>	<u>7,769</u>	<u>7,927</u>	<u>7,592</u>
Pension scheme funding deficit	21	(5,919)	(4,785)	(5,919)	(4,785)
Total net assets after pension deficit		2,225	2,984	2,008	2,807
		<u><u>2,225</u></u>	<u><u>2,984</u></u>	<u><u>2,008</u></u>	<u><u>2,807</u></u>
Income Funds					
Unrestricted funds					
General funds		6,070	5,808	5,853	5,631
Designated funds	16	835	656	835	656
Pension reserve	21	(5,919)	(4,785)	(5,919)	(4,785)
		<u>986</u>	<u>1,679</u>	<u>769</u>	<u>1,502</u>
Restricted funds	15	1,239	1,305	1,239	1,305
Total funds		2,225	2,984	2,008	2,807
		<u><u>2,225</u></u>	<u><u>2,984</u></u>	<u><u>2,008</u></u>	<u><u>2,807</u></u>

These financial statements were approved by the Board of Trustees and authorised for issue on 22 April 2021.

Stephen Richardson

Prof SM Richardson
President

IJ Martin

Mr IJ Martin
Honorary Treasurer

Consolidated cash flow statement for the year ended 31 December 2020

	<i>Note</i>	2020 £000	2019 £000
Cash flows from operating activities	<i>19</i>	(323)	223
Cash flows from investing activities:			
Dividends and interest from investments	<i>5</i>	54	77
Purchase of fixed asset investments	<i>11</i>	(54)	(77)
Disposal of fixed asset investments	<i>11</i>	-	-
Purchase of furniture and equipment	<i>10</i>	-	-
Net cash provided by / (used in) investing activities		-	-
Change in cash and cash equivalents in the reporting period		(323)	223
Cash and cash equivalents at the start of the reporting period		3,027	2,889
Change in cash and cash equivalents due to exchange rate movements		115	(85)
Cash and cash equivalents at the end of the reporting period		2,819	3,027

Charity cash flow statement for the year ended 31 December 2020

	<i>Note</i>	2020 £000	2019 £000
Cash flows from operating activities	<i>19</i>	(113)	195
Cash flows from investing activities:			
Dividends and interest from investments	<i>5</i>	54	77
Purchase of fixed asset investments	<i>11</i>	(54)	(77)
Disposal of fixed asset investments	<i>11</i>	-	-
Purchase of furniture and equipment	<i>10</i>	-	-
Net cash provided by / (used in) investing activities		-	-
Change in cash and cash equivalents in the reporting period		(113)	195
Cash and cash equivalents at the start of the reporting period		2,628	2,444
Change in cash and cash equivalents due to exchange rate movements		6	(11)
Cash and cash equivalents at the end of the reporting period		2,521	2,628

Notes forming part of the financial statements for the year ended 31 December 2020

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 financial statements are presented in Sterling (£) and are rounded to the nearest thousand pounds.

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

Preparation of the accounts on a going concern basis

The Trustees have assessed whether the use of a going concern basis is appropriate when preparing these financial statements and have concluded that there are no material uncertainties about the Institution's ability to continue as a going concern.

In arriving at this decision, the Trustees have taken into account the groups financial performance during 2020, including the impact of the Covid-19 pandemic, together with the budgets and cashflow predictions for the next three-year period which demonstrates that the Institution has sufficient cash reserves to continue to meet liabilities as they fall due.

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

Basis of consolidation

The financial statements consolidate the financial statements of the UK and Australian charitable bodies, its wholly owned UK trading subsidiary IChemE Ltd and its not-for-profit subsidiaries IChemE in Malaysia, IChemE in New Zealand and IChemE in Singapore Ltd, by virtue of the control exercised by the charity. 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 entitlement to the funds, it is probable that the income will be received, and the amount can be measured reliably. When donors specify that donations are to be used for a specific purpose, they will be included in income as a restricted fund when receivable.

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.

Interest and dividends on investments are accounted for when receivable.

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.

1 Accounting policies (continued)

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

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.

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 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, net of depreciation and any provision for impairment. Expenditure on individual fixed assets costing over £2,500 is capitalised.

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

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

Freehold land is not depreciated.

Freehold property at Rugby was valued on the basis of open fair value for their existing use by Chartered Surveyors 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 fair value as at the balance sheet date using the closing bid 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 fair value at 31 December (or historical cost if purchased within the year). Unrealised gains or losses are derived from the movement in fair 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 Board of Trustees in connection with the objects of the Institution. Designated funds comprise unrestricted funds that have been set aside by the Trustee for a particular purpose.

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 through the statement of financial activities.

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. The charity contribution is restricted to the contributions disclosed in note 21. 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 Statement of Financial Activities in accordance with FRS 102.

Provisions

Provisions are recognised when the Institution has a present obligation, legal or constructive, as a result of a past event, it is probable that the Institution will be required to settle the obligation, and a reliable estimate can be made of the amount of the obligation.

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, the Trustees are required to make judgements, estimates and assumptions about the carrying amounts of assets and liabilities. 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 the Trustees have 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 10). 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 12). 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 21). 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 21.

2 Results of subsidiaries

The summary financial performance and position of the subsidiaries is shown below:

	IChemE Ltd	IChemE in Malaysia	IChemE in New Zealand	IChemE in Singapore Ltd	2020 Total	2019 Total
	£000	£000	£000	£000	£000	£000
Income	155	96	58	0	309	454
Expenditure	(73)	(70)	(48)	(2)	(193)	(339)
Net Income / Expenditure	82	26	10	(2)	116	115
Amount gift aided to the Institution	(82)	-	-	-	(82)	(59)
Retained in subsidiary	-	26	10	(2)	34	56

Balance sheets

	IChemE Ltd	IChemE in Malaysia	IChemE in New Zealand	IChemE in Singapore Ltd	2020 Total	2019 Total
	£000	£000	£000	£000	£000	£000
Fixed assets	-	-	-	-	-	1
Current assets	99	120	186	-	405	518
Current liabilities	(99)	(70)	(5)	(14)	(188)	(342)
Net current assets	-	50	181	(14)	217	176
Total net assets	-	50	181	(14)	217	177

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

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

Group and Charity	2020 £000	2019 £000
Donations	-	29
Legacies	230	-
	230	29

4 Analysis of income from charitable activities

	Group		Charity	
	2020	2019	2020	2019
	£000	£000	£000	£000
<i>Qualifying Chemical Engineers:</i>				
Membership subscription and accreditation fees	3,939	3,907	3,794	3,762
<i>Operating a Learned Society for Chemical Engineers:</i>				
Journals & publications	1,071	989	1,071	989
Knowledge communities	317	372	317	368
Conferences, seminars & events	199	723	198	656
Provision of training	889	1,730	889	1,640
Other income	7	8	7	8
Subscriptions to technical centres (restricted funds)	20	25	20	25
<i>Exceptional government funding:</i>				
Coronavirus Job Retention Scheme (UK)	72	-	72	-
Government wage subsidy schemes (Non-UK)	114	-	107	-
	6,628	7,754	6,475	7,448

The Institution has been eligible to claim funding in the year from government support schemes in response to Covid-19. In the UK, 10 staff were furloughed for a period of 3-5 months under the government's Coronavirus Job Retention Scheme. Funding was also available from the local government wage subsidy schemes for the staff based in Australia, Malaysia and New Zealand. The funding relates to staff costs which are included within note 9 below.

5 Investment income

Group and Charity	2020	2019
	£000	£000
Interest receivable	2	2
Dividends receivable	52	75
	54	77

6 Analysis of expenditure on charitable activities

Group	Direct activity costs	Support costs	2020 Total	2019 Total
	£000	£000	£000	£000
Qualifying Chemical Engineers	1,800	1,048	2,848	3,020
Operating a Learned Society for Chemical Engineers	2,824	1,213	4,037	4,940
	4,624	2,261	6,885	7,960

Expenditure on charitable activities was £6,885,000 (2019: £7,960,000) of which £6,828,000 was unrestricted (2019: £7,923,000) and £57,000 was restricted (2019: £37,000).

Charity	Direct activity costs	Support costs	2020 Total	2019 Total
	£000	£000	£000	£000
Qualifying Chemical Engineers	1,773	1,013	2,786	2,938
Operating a Learned Society for Chemical Engineers	2,795	1,185	3,980	4,771
	4,568	2,198	6,766	7,709

6 Analysis of expenditure on charitable activities (continued)

Net income for the year is stated after charging / (crediting):

	Group		Charity	
	2020	2019	2020	2019
	£000	£000	£000	£000
Depreciation	87	90	86	89
Operating leases:				
Plant and machinery	9	16	9	16
Land and buildings	61	67	44	42
Exchange rate differences	(96)	8	(42)	(19)
	<u>87</u>	<u>90</u>	<u>86</u>	<u>89</u>

7 Analysis of governance and support costs

Included within expenditure on charitable activities are governance and support costs amounting to £2,261,000 (2019: £2,426,000). These are analysed as:

	Group		Charity	
	2020	2019	2020	2019
	£000	£000	£000	£000
Staff costs	904	1,026	853	984
Finance	291	167	283	156
IT	505	446	501	440
Facilities & HR	506	585	508	576
Management	19	137	18	135
Governance costs	36	65	35	62
	<u>2,261</u>	<u>2,426</u>	<u>2,198</u>	<u>2,353</u>

The governance and support 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:

	Group		Charity	
	2020	2019	2020	2019
	£000	£000	£000	£000
Qualifying Chemical Engineers	1,048	1,146	1,013	1,106
Operating a Learned Society for Chemical Engineers	1,213	1,280	1,185	1,247
	<u>2,261</u>	<u>2,426</u>	<u>2,198</u>	<u>2,353</u>

Analysis of governance costs:

	Group		Charity	
	2020	2019	2020	2019
	£000	£000	£000	£000
External audit	28	32	28	32
General meeting costs	4	14	4	13
Legal & professional fees	4	18	3	16
Governance reform	-	1	-	1
	<u>36</u>	<u>65</u>	<u>35</u>	<u>62</u>

8 Analysis of trustee remuneration and expenses

Group and Charity	2020 £000	2019 £000
Expenses paid to or on behalf of 5 (2019: 13) Trustees in respect of travel, subsistence, and accommodation costs	4	46

The Trustees give freely their time and expertise without any form of remuneration or other benefit in cash or kind (2019: £nil).

9 Analysis of staff costs and remuneration to key management personnel

The average monthly headcount for the group and charity during the year was 96 (2019: 99). The number of full-time equivalent persons employed by the group and charity during the year was as follows:

	Group		Charity	
	2020	2019	2020	2019
Qualifying Chemical Engineers	32	32	28	28
Operating a Learned Society for Chemical Engineers	35	36	34	34
Management and Administration	19	21	18	20
	86	89	80	82

The aggregate payroll costs of these persons were as follows:

	Group		Charity	
	2020 £000	2019 £000	2020 £000	2019 £000
Wages and salaries	3,187	3,133	3,116	3,026
Social security costs	273	267	272	265
Pension scheme contributions	277	282	270	269
Defined benefit pension scheme operating costs	81	82	81	82
Employee benefits	45	40	45	40
	3,863	3,804	3,784	3,682

During 2020, £nil (2019: £31,000) 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:

	Group		Charity	
	2020	2019	2020	2019
£60,001 - £70,000	3	1	3	1
£70,001 - £80,000	1	1	1	1
£80,001 - £90,000	2	2	2	2
£90,001 - £100,000	1	1	1	1
£100,001 - £110,000	1	1	1	1
£190,001 - £200,000	1	-	1	-
£200,001 - £210,000	-	1	-	1

The number of employees who earned more than £60,000 for whom pension benefits are accruing under the defined contribution pension scheme is 6 (2019: 5). Contributions in respect of these employees amounted to £57,000 (2019: £53,000).

The Institution considers its key management personnel to comprise the Board of Trustees, the Chief Executive, and the Senior Management Team. The total employment benefits of 6 (2019: 5) key management personnel staff, including employer pension contributions and employer's national insurance, were £774,000 (2019: £662,000).

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	19	213	409	2,441
Additions	-	-	-	-	-
Disposals	-	-	(72)	(88)	(160)
At end of year	1,800	19	141	321	2,281
Depreciation					
At beginning of year	927	19	212	398	1,556
Charge for the year	76	-	1	10	87
Disposals	-	-	(72)	(88)	(160)
At end of year	1,003	19	141	320	1,483
<i>Net book value</i>					
At 31 December 2020	797	-	-	1	798
At 31 December 2019	873	-	1	11	885
Charity	Freehold Property	Short leasehold property	Office equipment	Computers	Total
	£000	£000	£000	£000	£000
Cost or valuation					
At beginning of year	1,800	19	213	372	2,404
Additions	-	-	-	-	-
Disposals	-	-	(72)	(60)	(132)
At end of year	1,800	19	141	312	2,272
Depreciation					
At beginning of year	927	19	212	362	1,520
Charge for the year	76	-	1	9	86
Disposals	-	-	(72)	(60)	(132)
At end of year	1,003	19	141	311	1,474
<i>Net book value</i>					
At 31 December 2020	797	-	-	1	798
At 31 December 2019	873	-	1	10	884

Freehold property at 31 December 2020 includes land at valuation of £280,000 (2019 £280,000) which is not depreciated.

11 Fixed asset investments

Group and Charity	2020 £000	2019 £000
Fair value at 1 January	5,724	5,210
Acquisitions at cost	1,875	1,866
Proceeds of disposals	(1,876)	(1,843)
Net gains / (loss) on revaluation	367	491
Fair value at 31 December	6,090	5,724
Historical cost at 31 December	3,720	3,721

All investments are carried at their fair value. An analysis of the fair value of the investments at 31 December 2020 is as follows:

Group and Charity	2020 £000	2019 £000
Equities	3,478	3,428
Fixed Interest	1,079	1,349
Other	1,130	678
Cash	403	269

Investments in Subsidiaries

The Institution 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.

IChemE in Singapore Limited, which is incorporated in Singapore, is a company limited by guarantee and is a wholly owned subsidiary of the Institution.

The activities and results of these companies are summarised in note 2.

A new private limited company was established in Malaysia in October 2020, IChemE Malaysia SDN. BHD. The Institution holds 100 shares of MYR 1 each in the wholly owned subsidiary. The company was dormant during 2020 with all IChemE activities in Malaysia transferring from the registered society, IChemE in Malaysia, to the private limited company with effect from 1 January 2021.

12 Debtors

	Group		Charity	
	2020 £000	2019 £000	2020 £000	2019 £000
Trade debtors	246	238	175	192
Amount due from subsidiaries	-	-	156	244
Other debtors	27	32	38	29
Prepayments and accrued income	393	524	370	453
	666	794	739	918

13 Creditors: amounts falling due within one year

	Group		Charity	
	2020	2019	2020	2019
	£000	£000	£000	£000
Trade creditors	447	400	445	385
Amounts due to subsidiaries	-	-	13	-
Other creditors	427	376	427	376
Taxation and social security	118	106	116	100
Accruals	160	232	149	201
Deferred income	1,077	1,547	1,071	1,500
	2,229	2,661	2,221	2,562

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 Commitments

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

Group	2020		2019	
	Land and buildings	Other	Land and Buildings	Other
	£000	£000	£000	£000
Amounts falling due:				
In less than one year	57	9	61	9
In the second to fifth years inclusive	32	17	88	25
Over five years	-	-	-	-
	89	26	149	34

Charity	2020		2019	
	Land and buildings	Other	Land and Buildings	Other
	£000	£000	£000	£000
Amounts falling due:				
In less than one year	46	9	42	9
In the second to fifth years inclusive	32	17	75	25
Over five years	-	-	-	-
	78	26	117	34

A first charge of £500,000 was placed on the freehold premises at Rugby in favour of the Defined Benefit Pension Scheme in March 2017.

15 Analysis of movements in restricted funds

Group and Charity	International Process Safety Group (IPSG)	Medals & Awards (MM Sharma / SIESO)	John Collier Memorial Fund	Andrew Legacy Fund	Total
	£000	£000	£000	£000	£000
At 1 January 2020	53	40	35	1,177	1,305
Income	20	-	-	-	20
Expenditure	(2)	(1)	-	(54)	(57)
Transfer between funds	(22)	-	-	(7)	(29)
At 31 December 2020	49	39	35	1,116	1,239

The IPSG funds relates to an industry funded technical centre which is administered in accordance with its Statute.

In 2018, the Institution received a donation of £13,000 from the JB Joshi Foundation which is to be used for the creation of a new award, to be known as the MM Sharma Medal, for excellence in the field of chemical engineering. An award of £1,000 will be made to the winner(s) of the medal, and the donation will also be used to fund administration expenses of up to £250 a year.

The SIESO Medal was launched early 2019 following a bequest of £29,500 from SIESO (a society that Shared Information and Experience for Safer Operation) which ceased operations in 2018. The medal seeks to raise awareness of process safety among science, business, and engineering students. It consists of an award of £750 and up to £250 in travel allowance to attend the presentation, and is awarded to one or more students for an excellent presentation on major accidents and learning outcomes.

The John Collier Memorial Fund 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 Andrew Legacy Fund seeks to hold a medal lecture on the theme of ‘The Science of Formulation of Heterogeneous Catalysts’ and to support academic research in enhancing the science of formulation of heterogeneous catalysts. The medal and lecture are normally awarded every three years. The Institution has also set up the Andrew Fellowship which funds up to two early career researchers a year to undertake research in the field of Heterogeneous Catalysts. The Fellowship consists of a stipend of £10,000 a year plus £5,000 a year in expenses for a period of up to four years. Additionally, in 2020 the Institution agreed to fund the ‘Sydney Andrew PhD Scholarship in Multiscale Catalysis Research’ run by the University of Bath. Funding for the Scholarship has been agreed at £25,300 a year for the period 2020-2024.

16 Analysis of movements in unrestricted designated funds

Group and Charity	IT Transformation Programme	Institution Transformation Programme	Total
	£000	£000	£000
At 1 January 2020	656	-	656
Expenditure	(321)	-	(321)
Transfer between funds	-	500	500
At 31 December 2020	335	500	835

In 2018, the Trustees set aside £1,000,000 as a designated fund for an IT Transformation Programme to run over a two-to-three-year period. The Programme is made up of a number of projects to improve and modernise the Institution’s IT services and platforms, and to address a number of risks by moving business applications off premise and into the cloud.

A further £500,000 was designated in December 2020 for a second phase of work which will enable further enhancements to be made to the new business applications and to start to deliver the digitalisation of services to members.

17 Related party transactions

During the year recharges have been made between the charity and its subsidiary undertakings. These relate to direct costs and staff costs incurred by one party on behalf of the other, and for income collected by the overseas 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 / (creditors) for the charity	
	2020 £000	2019 £000	2020 £000	2019 £000
IChemE Ltd	27	32	82	90
IChemE in Malaysia	10	7	61	89
IChemE in New Zealand	4	9	(13)	18
IChemE in Singapore Ltd	2	2	13	12
	<u>43</u>	<u>50</u>	<u>143</u>	<u>209</u>

IChemE Ltd gift aids its operating profit to the charity and the balance of £82,000 (2019: £59,000) is included in debtors for the charity at year end.

18 Analysis of group and charity net assets between funds

Fund balances at 31 December 2020 are represented by:

Group	Unrestricted funds £000	Restricted Funds £000	Total £000
Tangible fixed assets	798	-	798
Investments	4,950	1,140	6,090
Pension scheme funding deficit	(5,919)	-	(5,919)
Net current assets / (liabilities)	1,157	99	1,256
	<u>986</u>	<u>1,239</u>	<u>2,225</u>
Total net assets	<u>986</u>	<u>1,239</u>	<u>2,225</u>

Charity	Unrestricted funds £000	Restricted Funds £000	Total £000
Tangible fixed assets	798	-	798
Investments	4,950	1,140	6,090
Pension scheme funding deficit	(5,919)	-	(5,919)
Net current assets / (liabilities)	940	99	1,039
	<u>769</u>	<u>1,239</u>	<u>2,008</u>
Total net assets	<u>769</u>	<u>1,239</u>	<u>2,008</u>

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

Group	2020	2019
	£000	£000
Net Income	421	396
Adjustments for:		
Depreciation on tangible fixed assets	87	90
(Gains)/losses on investments	(367)	(491)
Dividends and interest from investments	(54)	(77)
Investment management fees	55	54
Difference between pension charge and cash contribution	(182)	(167)
Decrease/(increase) in debtors	128	624
(Decrease)/increase in creditors	(432)	(215)
Exchange gains / (losses) arising from retranslation of foreign branches & subsidiaries	136	(76)
Change in cash and cash equivalents due to exchange rate movements	(115)	85
Net cash from/(used in) operating activities	(323)	223

Charity	2020	2019
	£000	£000
Net Income	387	269
Adjustments for:		
Depreciation on tangible fixed assets	86	89
(Gains)/losses on investments	(367)	(491)
Dividends and interest from investments	(54)	(77)
Investment management fees	55	54
Difference between pension charge and cash contribution	(182)	(167)
Decrease/(increase) in debtors	179	733
(Decrease)/increase in creditors	(341)	(226)
Exchange gains / (losses) arising from retranslation of foreign branches & subsidiaries	130	(72)
Change in cash and cash equivalents due to exchange rate movements	(6)	11
Net cash from/(used in) operating activities	(113)	195

20 Analysis of changes in net debt

Group	At 1 January 2020	Cash flows	Foreign exchange movements	At 31 December 2020
	£000	£000	£000	£000
Cash	3,027	(323)	115	2,819
Total	3,027	(323)	115	2,819
Charity	At start of year	Cashflows	Foreign exchange movements	At end of year
	£000	£000	£000	£000
Cash	2,628	(113)	6	2,521
Total	2,628	(113)	6	2,521

21 Pension scheme

Defined contribution scheme

The Institution's Defined Contribution Pension Scheme for UK based staff 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 during 2020 were 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 £227,000 (£2019: £231,000).

Following the annual review of the Scheme in 2020, the Board of Trustees decided to change the pension scheme provider from Standard Life Assurance Co Ltd to The People's Pension Scheme with B&CE. This change took effect from 1 January 2021 with all contributions from that date being paid into the new scheme.

The total pension cost for the staff of the branch in Australia, which is paid under the superannuation scheme at 9.5% of base salary, was £43,000 (2019: £38,000).

Pension costs relating to the employees of the Institution's subsidiaries IChemE in Malaysia and IChemE in New Zealand amounted to £7,000 (2019: £13,000).

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 2018. The results of that valuation will be updated by an independent qualified actuary on an annual basis allowing for cashflows in and out of the Scheme and for changes to assumptions over that period.

The recovery plan, updated with the latest triennial valuation, agreed that the annual contribution level from the Institution into the Scheme would remain at £265,000 per annum, increasing in line with CPI, from 1 February 2018 to 31 January 2028. In addition, a lump sum payment of £1,150,000 was paid into the Scheme in December 2018. Administrative and other expenses of the Scheme are payable separately by the Institution.

The Institution has also provided 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 was submitted to the Land Registry in March 2017.

The principal assumptions used to calculate Scheme liabilities include:

	2020 %	2019 %
Discount rate	1.25% pa	2.0% pa
Inflation (RPI)	3.1% pa	3.2% pa
Inflation (CPI)	2.65% pa	2.4% pa
Pension increase (LP15)	2.55% pa	2.3% pa
Post-retirement mortality	90% of 'S2NA' tables with CMI 2017 projections and a long-term rate of improvement of 1.25% pa	90% of 'S2NA' tables with CMI 2017 projections and a long-term rate of improvement of 1.25% pa
Commutation	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

21 Pension scheme (*continued*)

The major categories of assets are as follows:

Asset category	2020 £000	2019 £000
Liability Driven Investment (LDI)	4,056	3,030
Multi-asset funds	6,399	6,101
Cash	31	74
	<hr/>	<hr/>
Total	10,486	9,205
	<hr/>	<hr/>

The return on the Scheme's assets (net of investment manager expenses) over the period to the Review Date was approximately 14.6%.

Amounts recognised in the balance sheet:

	2020 £000	2019 £000
Fair Value of Assets	10,486	9,205
Present Value of Funded Obligations	(16,405)	(13,990)
	<hr/>	<hr/>
(Deficit) in Scheme	(5,919)	(4,785)
	<hr/>	<hr/>

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

	2020 £000	2019 £000
Interest on liabilities	276	342
Interest on assets	(184)	(239)
	<hr/>	<hr/>
Total	92	103
	<hr/>	<hr/>

Remeasurements over the year:

	2020 £000	2019 £000
Losses / (gains) on scheme assets in excess of interest	(1,156)	(768)
Experience (gains) / losses on liabilities	-	-
Losses / (gains) from changes to demographic assumptions	-	-
Losses / (gains) from changes to financial assumptions	2,472	2,024
	<hr/>	<hr/>
Total	1,316	1,256
	<hr/>	<hr/>

21 Pension scheme (continued)

The change in the value of the assets over the period was:

	2020 £000	2019 £000
Value of assets at beginning of period	9,205	8,275
Interest on assets	184	239
Institution contributions	274	270
Benefits paid	(333)	(347)
Return on assets less interest	1,156	768
	<hr/>	<hr/>
Value of assets at end of period	10,486	9,205
	<hr/>	<hr/>

The change in the value of the defined benefit liabilities over the period was:

	2020 £000	2019 £000
Value of liabilities at the beginning of the period	13,990	11,971
Past service cost	-	-
Interest on liabilities	276	342
Benefits paid	(333)	(347)
Experience (gains) / losses on liabilities	-	-
Changes to demographic assumptions	-	-
Changes to financial assumptions	2,472	2,024
	<hr/>	<hr/>
Defined benefit obligation at end of period	16,405	13,990
	<hr/>	<hr/>

	2020 £000	2019 £000
Actuarial (losses) / gains	(1,316)	(1,256)
	<hr/>	<hr/>

The cumulative amount of actuarial (losses) / gains recognised in the statement of financial activities is (£8,027,000) (2019: (£6,711,000)).

The annual contribution level for the period 1 February 2021 to 31 January 2022 will be increased in line with CPI from £274,080 to £275,724.