



# ANNUAL REPORT AND FINANCIAL STATEMENTS 2014

THE INSTITUTE OF MATERIALS,  
MINERALS AND MINING

CHARITY REGISTRATION NO: 269275



The Institute of Materials,  
Minerals and Mining

The global network for the materials cycle



The Institute of Materials,  
Minerals and Mining

The principal office of the Institute is 1 Carlton House Terrace, London SW1Y 5DB.  
From 22 June 2015 we will be relocating to 297 Euston Road, London NW1 3AQ.

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The Institute of Materials Minerals and Mining (IOM3) is a registered charity with registration number 269275.

# ANNUAL REPORT AND FINANCIAL STATEMENTS 2014

## INTRODUCTION

The Institute is a professional body seeking to promote all aspects of the science, engineering and technology of materials, minerals and mining through its members for the benefit of mankind. The trustees, who are duly elected members of Council, are pleased to present their annual report together with the financial statements of the Institute for the year ended 31 December 2014.

The annual report and financial statements have been prepared in accordance with the provisions of 'Accounting and Reporting by Charities: Statement of Recommended Practice (revised 2005)'.

## VISION

Our vision is to be recognised as the global leader for professionals involved with the materials cycle.

## MISSION

- To promote the science, design, engineering and technology of materials, minerals and mining and their practical applications.
- To facilitate qualifications, professional recognition and development, and to deliver knowledge, information and networking services to a global membership and wider community.

## PUBLIC BENEFIT

Materials form an integral and important part of all our lives. The materials cycle covers the exploration and extraction of raw materials from the earth, processing them into industrial/engineered materials, application of these materials, recycling of waste and the ultimate disposal of waste in an environmentally friendly way. It is more important than ever that the scientists, engineers and technologists involved in the materials cycle are qualified and experienced to make the best use of materials in terms of economics, efficiency and sustainability for the benefit of the public. The objectives and activities of the Institute (see page 21) have been designed to support the wider materials, minerals and mining community together with government and other interested parties to achieve these ideals.

The Institute has referred to the Charity Commission's guidance on public benefit when reviewing its aims and objectives and in planning future activities. In particular, the Council considers how planned activities will contribute to the aims and objectives it has set.

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**Featured image:** Isochromatic fringe patterns around a steel platelet in a photo-elastic two-part epoxy resin.

# TRUSTEES' REPORT

## AN OVERVIEW

JON BINNER  
PRESIDENT  
2013-2014



## LOOKING TO THE FUTURE

MIKE HICKS  
PRESIDENT  
2015-2016



As I write this at the start of 2015, it is amazing to think that my term of office as President is already over; it passed so quickly!

Of course, the big news is that we now have a new home in London, which we will move into this summer. This property, located at 297 Euston Road and well within the new Knowledge Exchange Quarter, will be very different from Carlton House Terrace, but I truly believe that it will serve our needs very well and allow us to grow in new and vibrant directions.

I said last year that I have been impressed by the dedication and enthusiasm of our members at the grass roots. Many of the activities, but not enough, are recognised by the IOM3 Awards. I have met some astounding people and heard of wonderful achievements – but we need all members to continue to submit recommendations for noteworthy individuals. The Institute's committees are charged with identifying possible nominees as part of their annual cycle, but individual members are also welcome to submit nominations and I would encourage you all to do so when next year's nominations are invited.

The final of the Young Persons' World Lecture Competition was another tremendous success in 2014. Held in Riverside, California, every competitor justified their selection by their country and performed extremely well. The 2015 event will be held in Ireland in October and if any of you wish to attend you would be more than welcome to do so and to be impressed, I've no doubt, by a fresh cadre of exciting, young individuals and their super projects.

The one disappointment is that our plans for Governance change that were overwhelmingly approved by the membership, have still to achieve final approval by the Privy Council. Elections for the new structure are already completed so that all of the necessary individuals are in place ready for the new structure to come into existence.

I would like to finish as I did last year by personally thanking all of the IOM3 staff and the many volunteers from the membership for their hard work. I look forward to two years of chairing the Institute's Managing Board.

It's a great honour for me to take on the role of President. I never like to take on jobs unless I can give them 100% of my attention, so now is the perfect time following my retirement at the end of 2014. The fact that I still have a large network of both industrial and academic contacts will also be valuable.

I would like to express my sincere thanks to Jon Binner who took on the Presidency in 2013 with little notice when I had to pull out due to work commitments. Jon has done a tremendous job and I look forward to working with him on the IOM3 Managing Board.

Over the next two years my priorities can be captured and easily remembered as 3Ms for IOM3: Management: Financial...balancing our books, implementing the new governance structure, managing the significant amount of change under way. Moving from 1CHT: Establishing our HQ in the new and exciting premises at Euston Road and building on our presence in the Knowledge Quarter. Membership: Growing numbers towards our 20k target for 2020, focusing on attracting and retaining younger members, achieving a greater gender and ethnic diversity, addressing key issues facing society.

The key thing I will be doing is listening to the views of people, both members and key stakeholders. I also want to make sure that our governance is efficient and transparent. At Rolls-Royce, we had a saying that you need to put the customer at the heart of everything you do. I think we can use the same approach with our membership - putting the members at the heart of everything and making sure we address matters that are directly relevant to their lives.

## REVIEW OF 2014

BERNIE RICKINSON  
CHIEF EXECUTIVE



## CORPORATE AIMS

Our strategic plan contains the following corporate aims:

- Increase the membership and the retention of members.
- Promote the importance and relevance of our subject areas and increase our influence.
- Improve membership services in extent, quality and perception
- Operate at a surplus with sufficient reserves to meet at least one year's activities.

## OUR PLANS FOR 2014

- Review our knowledge exchange activities in the light of the reorganisation of the Knowledge Transfer Networks (KTN).
- Develop and implement membership offerings and services to enhance our activities in specific grades of membership such as Industry Affiliate and Technician grades of membership.
- Continue to implement new technology and streamline our processes to deliver our products and services more efficiently and in a way that is relevant to members in the 21st century – to include launch of the new website and mobile apps, among others.
- Continue to develop membership outside of the UK with particular emphasis towards younger members.
- Extend the development of new income streams and take steps to reduce the overhead costs of the organisation.

## OUR ACHIEVEMENTS IN 2014

Our increased staff and volunteer resource supporting the Membership Growth Initiative has achieved more than we forecast for the year. Overall, membership increased by 8% but within this year of success, registration for professional qualifications, Technician membership and women members grew substantially. Each of these segments of membership growth have been achieved through a change of engagement strategy. Additional member benefits to be delivered in 2015 will further support our growth targets. Our events programme in 2014, encompassing divisional and Materials KTN events, was hugely successful and delivered a broad series of conferences and

workshops endorsed by members and non members alike. This visibility and importance of the materials community has contributed to Advanced Materials being recognised by the UK Government as one of the eight great UK technologies. Broader engagement, particularly with the design, law enforcement and manufacturing sectors, sets the Institute apart with its rich delivery of societal benefit. Our specific activity to deter the theft of metal infrastructure was recognised as outstanding and led to a National Metal Theft Taskforce Award.

Our relevance to the professional development of young members was clearly demonstrated by the success of our 10th World Lecture Competition (WLC) held in California, USA. Feedback from finalists and previous winners reaffirmed the value and esteem that this competition provides. We see this as a foundation to build on for Younger Member growth across the world. In 2015, we will be organising our first WLC country final in the USA, having successfully engaged with university departments in three different states. The event has unique deliverables addressing young people's needs. We aim to grow other global activity to consolidate this position.

Beyond our success in locating a new London office, our new premises provide a springboard for more effective space use as well as delivering knowledge to new audiences. We will be working with all of our communities to develop new and different methods of knowledge transfer and our website and App launches in 2015 will provide a step change in digital delivery. Looking to our achievements in 2014 and our plans for 2015, the Institute staff team deserve a special thank you for their sustained efforts and enthusiasm.

## OUR PLANS FOR 2015

- Transfer the Institute's London based activities into new contemporary premises within London's Knowledge Quarter.
- Continue to progress the growth of the Institutes' membership and further assist younger members' in the development of their professional status.
- Reduce overhead and administrative costs but simultaneously extend our public benefit and recognition as the voice of the materials, minerals and mining community.

# TRUSTEES' REPORT

## HIGHLIGHTS OF 2014

A summary of the Institute's objectives and activities is given on page 21. The following pages describe some highlights of the broad range of activities and initiatives undertaken by IOM3 in 2014 in pursuing its objectives and supporting its members.

Council is grateful to all those members who give their time and expertise freely in furthering the aims of the Institute and appreciates the valuable contribution made by staff.

### MEMBERSHIP

2014 was the first delivery year of the Membership Growth Initiative, which has the target of increasing membership to 20,000 by 2020. The results achieved during the year far exceeded both targets and expectations: a record 1,982 new members were recruited against our target of 600, bringing membership to just short of 17,500. In addition to growing Institute membership, a record number of registrants were submitted to the Engineering Council during the year with 122 being added to the register; the first time ever IOM3 has made a three-figure return.

In a move set to give increased activity and prominence to the recruitment of technician members, a new initiative was endorsed by the Institute's Managing Board and trustees. The organisational change, catalysed both by previous concerns about the lack of visibility of technician activity, and the perceived low value of the membership offer, culminated in the launch of a new brand (M3), new resources and a change of focus to secure technician membership growth. M3 was chosen to reflect the link both to the Institute and to Level 3 qualifications as the foundation for career development. Encouragingly, 64 of our new members in 2014 were technicians.

The IOM3 Industry Affiliate Scheme was relaunched in 2014, following an extensive restructure. The scheme was established in 1996 and aims to develop partnerships with organisations working in the materials sector. In addition to a wide range of member benefits, the Industry Affiliate Scheme offers organisations access to the consultancy services of the Materials Information Service, which has unrivalled knowledge and understanding of materials and their processing.

The relaunched scheme boasts an extended and enhanced list of member benefits focused around the areas of technical support, professional development of staff, access to materials information and research, and opportunities to raise the profile of a member company within the materials community. The scheme offers the flexibility of full or affiliate membership options with associated online access to member benefits.

Work also commenced in 2014 on a major clean up and consolidation of our member database in preparation for integration with the new IOM3 website.

### EDUCATION

2014 was a year of successes for education at the Institute. We ran the pilot of our new primary school initiative (funded by the Goldsmiths' Company via Tomorrow's Engineers) designed to encourage 7 to 11 year olds to think more about science and engineering and bring the materials topics in the curriculum to life. In total the pilot was delivered to over 600 learners. The handling collection and activities that were developed will be rolled out nationwide during 2015.

Membership of the Schools Affiliate Scheme reached 800 towards the end of 2014 and we hope that it will continue to grow in popularity in the year ahead, 1,000 members is now well within reach! The Materials Discovery Boxes, put together to give schools access to a wide variety of materials and artefacts, have proved popular but there is still high demand for a more personal interaction and visits to schools are a firm favourite with teachers.

### PROMOTION AND SOCIAL MEDIA

IOM3's social media presence continued to increase to 2,877 Twitter followers, 1,873 Facebook fans and more than 7,000 LinkedIn Group members. The latter receive a regular weekly newsletter promoting IOM3 events, activities and services. Our social media activity has become pivotal in the way we communicate to both members and non-members.

Use of new emailing marketing software Campaignmaster has enabled targeted marketing emails with trackable results. This has been a very successful way of communicating events, awards and staff news. In the future, we will be able to further analyse the data from the marketing emails to engage members and communicate on behalf of the technical divisions.

Work on the major project to redevelop the IOM3 website continued throughout 2014 and the new site is due to launch at the end of March 2015. Key features of the new site include a more contemporary design, online joining for non-professional grades, clearer navigation and more interactive elements for an enhanced user experience.

## LOCAL SOCIETIES

Highlights from some of our Affiliated societies.

### Cleveland Institution of Engineers **1**

The Cleveland Institution of Engineers celebrated its 150<sup>th</sup> Anniversary in 2014, and as part of the celebrations, had a commemorative stained glass window made and installed at St Cuthbert's Church, Marton. The window was designed and made by Saltburn glass artist Chloe Buck, and installed during the summer, thanks to the liaison skills of Dr Frank Fitzgerald, who was a Trustee of the CIE at the time. On 23 November, The Bishop of Whitby, the Very Reverend Paul Ferguson conducted a Dedication Service in the church. Representatives of local learned institutions, companies and educational establishments were present as special guests. St Cuthbert's churchyard contains the vaults of the Bolckow and Vaughan families, who were major ironmasters in the area.

### East Midlands Materials Society

The highlight of the East Midlands Materials Society meetings in 2014 was a talk by Professor Sarah Hainsworth entitled CSI Leicester - The Remains of Richard III. Sarah gave a fascinating insight into the discovery and identification of the remains and the forensic work, which took place to identify the injuries sustained in Richard's death.

### ICTa North Staffordshire & West Western Institute of Mining and Minerals

North Staffs ICTa, together with WestIMM, held their first heat of the Young Persons' Lecture Competition. The winner was Peter Keeley, who presented 'The Recovery of Valuable Metals from Secondary Sources via Thermal Plasma Arc Technology'.

### Minsouth **2**

MinSouth has sponsored students in mining, geology, metallurgy or mineral processing related degrees for several years. In 2014, it presented grants of £1,000 each to four students, two from the Royal School of Mines and one each from Oxford and Bristol universities. This is the highest number of grants awarded in a single year. Coupled with supporting some 76 students with their membership of IOM3, and also its support of the Young Persons' Lecture Competition held each year at the Royal School of Mines, this illustrates the society's commitment to encouraging new engineers and geologists to enter the mining profession.

### South Wales Materials Association

The SWMA programme of events in 2014 reflected the huge range of issues that concern materials scientists and engineers, from helicopters to ships, and tubes to dead kings. They held numerous talks including, the processing and development of UK manufactured Tata Tubes, highlighting the value added through research and innovation, and a presentation by



Professor Sarah Hainsworth on how materials science techniques were employed in the forensic investigations on the remains of Richard III aka The King in the Car Park; a talk on large scale steel roll manufacture; a talk from Lloyds Register of Shipping. The year concluded with the Vivian Prestige lecture and a one-day conference on Achieving Zero Carbon Buildings Using Steel. The diversity in titles has kept the audience interested - more than 80 people regularly attend the events.

### Scottish Association for Metals **3**

The Scottish Association for Metals increased its support for the Formula Student competition and now sponsors teams from Edinburgh Napier University, the University of Strathclyde and the University of Glasgow.

# TRUSTEES' REPORT

## YOUNGER MEMBERS

### Young Persons' Lecture Competition

On 9 April 2014, The Worshipful Company of Armourers and Brasiers in London played host to the Young Persons' Lecture Competition final. The South East took the top-spot, represented by Duncan Johnstone from the University of Oxford. He captivated the audience with his lecture, Layered Inorganic Nanomaterials: Going Beyond Graphene. Second place was awarded to Matthew Topping who represented the North West, from the University of Manchester, and Richard Driscoll from the University of Bath, representing the South West, came in third place.



### Young Persons' World Lecture Competition (YWPWC)

The YWPWC celebrated its 10<sup>th</sup> anniversary in 2014. The final was held in California and finalists were treated to a week-long stay, which included a sight-seeing tour and trips to Luxfer Gas Cylinders factory, Cryoquip (fabricator of cryogenic vapourisers and industrial gas equipment) and Bourns Inc.

The winner of the 2014 competition was Raphael Smith of South Africa with his lecture The design, construction and testing of a hermetically sealed breast platform for dual-modality mammography. In second place was David Bishop of the University of Ulster, Ireland, Addressing an unmet need in von Willebrand disease: A biosurface solution. Third place went to Losini Amarasan, Multimedia University, Malaysia for the presentation Silica Fibre: The Next Material for Thermoluminescence Dosimeter (TLD).



### Matopoly

Following the success of the 2013 event, the 2014 Matopoly event (a strategic team orienteering challenge on a materials theme) travelled to Manchester and attracted seven teams who were challenged to visit as many landmarks in Manchester as possible. Materials Girls, a team comprising of current and former students of the University of Manchester, were announced as the champions. They were each rewarded for their hard work with a Monopoly: Manchester Edition game. The members of Team Blank, who came in second place, each received a goody bag which was kindly donated by Rolls-Royce.



### Ten years of the YWPWC

The 2014 World Lecture Competition winner and some previous winners from the past ten years all came together at a special anniversary event at Carlton House Terrace in November. Attendees included 2006 winner, Andrew Tarpey from the UK, 2007 winner Mary Donnabelle I Balela from Malaysia, 2008 winner Sinan Al Bermami from the UK, 2010 winner Jason Myers from the USA, 2011 winner Mitani Kakran from Singapore, 2012 winner Brian Weden from USA, 2013 winner Cornelis van Niekerk from South Africa and 2014 winner Raphael Smith from South Africa.





## REGIONAL AND INTERNATIONAL AFFAIRS

International activity in 2014 focused on substantiating the Institute's presence in the USA. Highlights include the creation of the first Student Forum (an IOM3 supported student society) in the Mid West at Michigan State University and the record participation of 10 finalists in the Young Persons' World Lecture Competition held in Riverside, California.

The 2<sup>nd</sup> International Affairs Forum was held during the YPWLC week and the presentation of the Institute's International Medal to Mr James Rickard, past IOM3 Hong Kong President, took place during the dinner after the competition.

The Institute's International societies, which currently exist in Hong Kong, California, Singapore, South Africa, Brazil and the USA, were also encouraged to engage student members in their activities.

## TRAINING

2014 saw the first group of IOM3 Training Academy students successfully complete the Level 2 Award in Timber and Panel Products course, one of whom (Mary Baugh of James Latham) achieved the PIABC Best Student Award for the qualification.

A new refresher day course has been written and a pilot completed as part of the Audited CPD scheme for Quarry Managers and Responsible Persons. The course will be open for registration later in 2015. The Scheme itself saw an increased level of participation, which looks set to rise again in the 2014/15 term.

The Technical Certificate in Clay Building Products was once again fully subscribed, and included an updated induction session split over two days. This meant the students were able to see two very different examples of clay building product factories. Work has started on the Technical Certificate in Clay Building Products revalidation in 2016. The IOM3 Training Academy is currently consulting with industry representatives to identify what level and format future courses should take. In 2015 we are working with a number of global FMCG companies to deliver bespoke packaging training courses.

## PUBLICATIONS

A busy year for the IOM3 magazines team saw significant changes. Coinciding with new staff and a team restructure, the June 2014 issue of *Materials World* was the first of a larger 76-page magazine incorporating *The Packaging Professional* and *Wood Focus*. The graphic design team also grew to three, the new team implementing a redesign of *Materials World* that received excellent feedback from readers. Reader engagement was better than ever, with Letters to the Editor flooding in each month from members discussing issues raised in the magazine.

Digitally, focus continued on building social media followers across the magazines' existing Tumblr and Twitter accounts, as well as generating new audiences via additional platforms such as Facebook (launched in March 2014) and Instagram (launched November 2014). Over the course of 2014, total social media followers grew from ~14,500 to ~22,000, representing a 52% year-on-year increase. The aim of translating this largely non-member audience into website traffic to the magazine pages also showed encouraging results, with page views showing a steady 2% year-on-year growth.

The long-awaited *Materials World* app also reached the final stages of development, with a launch date confirmed of 2 April 2015. It is expected that the app will allow *Materials World* to reach a new audience, improve the offering for existing readers and build commercial revenue opportunities.

2014 ended on a high note – in December, for the second time in three years, Senior Reporter Eoin Redahan was named 'Writer of the Year' at the 2014 Independent Publisher Awards through the Professional Publisher's Association (PPA), showing the continued drive in journalistic standards within the team.

IOM3 journals and selected other materials journals are available to IOM3 members via Maney Online (this changed from IngentaConnect on 20 December 2013). Two new editors have been appointed for Applied Earth Science; Dr Simon Jowitt from Monash University and Dr Marat Abzalov from Rio Tinto Exploration. Their expert knowledge should help build the journal's profile.

The Packaging Hub website continues to grow with more than 460 published resources relating to packaging.

# TRUSTEES' REPORT

## MARKETING

Sponsorship and exhibition revenue generated from PVC and two other major IOM3 conferences in 2014 far exceeded forecast. The comprehensive marketing plans put in place for each conference helped to raise the profile of each event and drive delegate numbers. However, 2014 was a challenging year for the Sales and Marketing team as the trend away from on paper advertising continued in 2014 with *Materials World* seeing falls in both its display and recruitment advertising revenues. The move towards digital promotion is reflected in an increase of 55% in online recruitment revenues on the previous year. The sales team continue to focus their sales strategy around promoting the benefits of utilising the varied promotional routes available to reach IOM3 members and the wider materials community. The launch of the new IOM3 website and *Materials World* app will deliver additional commercial opportunities.

Following the Industry Affiliate Scheme (IAS) relaunch and the scheme's new enhanced package of member benefits we welcomed new high profile IAS members, including DS Smith Featherstone, Pentaxia and Jaguar Land Rover.

## CONFERENCES

Our expectations of 2014 as a successful year for events were surpassed in attendance, sponsorship support, delegate feedback and financial returns. The conference team helped deliver 13 divisional events and five events for the Materials KTN.

February saw the launch of a European Oxide Scale Conference for the Bulk Metalforming Committee and our last event for the Materials KTN – the Materials Research Exchange: showcasing the UK's Centres of Excellence in materials research and development, with a large exhibition, lecture programme and poster competition. The month also featured the launch event for the report on Biomaterials and Tissue Engineering by the Biomedical Applications Division.

In April, the Polymer Division's PVC 2014 Conference reinforced its reputation as the leading event in the sector, with a quality programme and record sales in attendances and sponsorships. This was shortly followed by HIP Processing of Materials for Offshore Energy Applications in Aberdeen, organised by the Particulate Engineering Committee and Surface Engineering Division.

The Polymer Division hosted RubberCon 2015 in May, with a highly successful conference programme featuring the Rubber Foundation Lecture on Liquid Crystalline Rubbers by Professor Mark Warner FRS, Cavendish Laboratory and a sell-out exhibition.

The Mineral Processing and Extractive Metallurgy Division continued the run of successful events with the launch of its Geometallurgy Conference at 1 Carlton House Terrace in June - the success and positive feedback of this event leading to plans for a follow up conference in 2016. June also heralded the Energy Materials Group Inaugural Energy Materials Lecture - Saving Fossil Fuels: Wind Power versus Gallium Nitride by Professor Sir Colin Humphreys of the University of Cambridge.

Two important events in September both delivered on target and reputation: the second in our series of conferences on Optimising Performance through Integrated Modelling of Microstructure (OPTIMoM 2014) for the Structure of Materials and High Temperature Materials Committees, held in Oxford, and the European Steel Environment and Energy Congress (ESEC 2014) in Teesside. Within ESEC 2014, the Iron and Steel Society successfully combined three respected International conferences - the 3<sup>rd</sup> International Conference on Clean Technologies in the Steel Industry, the 2<sup>nd</sup> International Conference on Energy Efficiency and CO<sub>2</sub> Reduction in the Steel Industry and the International Conference on Materials Efficiency and Product Life Cycles in the Steel Industry.

The last events of 2014 were held in November. The Bessemer lecture was given by Dr Hiroshi Timono, Representative Director and Vice Chairman of Nippon Steel and Sumitomo Metal Corporation with the preceding Masterclass session delivered by Louis Brimacombe of Tata Steel. The Bulk Metalforming Committee took its Maximising Mill Performance II Conference to Tata Steel IJmuiden, the Netherlands. Following the success of the Iron and Steel Society's Steel Strategy Seminar Series, the second series of seminars was launched with a preview event showcasing the forthcoming themes of Product Development, Challenges of Competitive Materials, the UK Innovation Landscape and Sustainability of Steel Products and Green Issues. Closing the year, Claytech UK yet again recorded a growth in its exhibition for the Ceramics Society and ICTa, leading to an encouraging outlook for the 2015 event.

2015 will be a quieter year for our events programme, however flagship events Rolls 2015, the International Conference on Manufacturing of Advanced Composites and the Charles Parsons Turbine and Generator Conference are already looking promising. Plans are also under way to introduce targeted seminars during the course of the year.

## TECHNICAL COMMUNITIES

Highlights of 2014 from some of our technical communities

### Wood Technology Society

On 6 September 2014, WTS board member Iain Thew arranged for the Younger Members' Committee to visit Ecton copper mine. The visit began with a talk by Dr Graham Woodrow, the mine manager, and a member of the board of trustees at Ecton Copper Mine. The history of the mining activity at Ecton, which began in the Bronze Age and only ceased at the very end of the 19th century, was explained. Achievements at Ecton included the sinking of the deepest mine shaft in Britain at that time, the reputed first use of explosives in British mines, the building of an early Boulton and Watt steam engine, and the efficient use of water power for mine pumping.

### Surface Engineering Division

The Surface Engineering Division continues to flourish and promoted or supported over seven exciting technical events covering a wide range of topics. As usual these events were organised by the Division's constituent committees: Coatings and Surface Treatments Committee; Corrosion Committee; The Vitreous Enamellers' Society; Society of Adhesion and Adhesives; and UK Tribology. The Division is also actively involved in the organisation of a number of major conferences in 2015 such as HiPerNano 2015, Parsons 2015 and a UK Tribology launch event.

### Ceramics Society

An ICTa technical roadshow, a webinar based activity, was hosted by the ICTa Yorkshire branch on 18 February 2014, with the topic being clay preparation. This was relayed by web conferencing to a number of other ICTa branches.

The annual ClayTech UK conference and exhibition took place on 20 November at the Staffordshire Showground. The exhibition was larger than in previous years and the total number of delegates and exhibitors attending was close to 140. This year's event incorporated the 54<sup>th</sup> Mellor Memorial Lecture, entitled An Invitation for Brick Quality Control to Join the 21<sup>st</sup> Century, which was given by Professor Denis Brosnan of Clemson University North Carolina, USA.

The Cementitious Materials Group (on behalf of IOM3) was one of the sponsors of the 2<sup>nd</sup> Young Researchers' Forum (YRF) on Construction Materials held at University College London on 19 February 2014. Seventy delegates attended from eight countries, with 14 papers and 26 posters presented. The IOM3 Prize went to Miss Julia Herterich, University of Leeds. The YRF is a multi-institutional meeting convened on this occasion by the Institute of Concrete Technology. IOM3 (via the Cementitious Materials Group) agreed to host the next meeting in 2016 at Imperial College.



Jon Binner (right) presenting a commemorative plate to Denis Brosnan following the Mellor Memorial Lecture, held at ClayTechUK

The Cementitious Materials Group organised the 34<sup>th</sup> Cement and Concrete Science Conference which took place at the University of Sheffield from 13–15 September, with 120 delegates attending. 32 papers were presented with an additional 45 posters. This was followed by a one-day workshop on cements for nuclear waste isolation, also held in Sheffield on 16 September 2014.

An IOM3 delegation made a return visit to the China Concrete and Cement Producers' Association in Beijing on 14 October 2014.

### Materials Science and Technology Division

MSTD organised the Optimising Performance Through Integrated Modelling of Microstructure Conference. This attracted 80 world class delegates, with high quality papers on a topical subject of considerable commercial interest.

### Mineral Processing and Extractive Metallurgy Division

The major technical activity of the Minerals Processing and Extractive Metallurgy Division (MPEM) during the year was the highly successful Geometallurgy 2014 Conference. This was organised under the direction of the Conference Chairman, Professor Hylke Glass and other members of the MPEM Board. The Conference was held on 9–10 June at 1 Carlton House Terrace and was attended by 56 delegates from all over the world. There were 22 papers of outstanding quality presented by leaders in the field. It is intended to publish selected papers in a future edition of the *Minerals Processing and Extractive Metallurgy, IMM Transactions of the Institutions of Mining and Metallurgy, Section C*. The Board plans to organise a second Geometallurgy Conference in 2017.

# TRUSTEES' REPORT

## WOMEN IN MATERIALS

### Parliamentary enquiry

In 2013, a parliamentary inquiry was launched into the diminishing number of women studying science and continuing to work in scientific fields. Our Women in Materials Group compiled a response and submitted it as evidence. In February 2014, a report of the submissions and oral evidence included the Women in Materials response and concluded that more action is required to encourage women to pursue, and remain in, scientific careers.

### National Women in Engineering Day

## NATIONAL WOMEN In ENGINEERING DAY

On 23 June 2014, as part of the inaugural

National Women in Engineering Day, the Women in Materials Group held an event at 1 Carlton House Terrace entitled 'Engineering Success'. Chaired by Professor Mark Miodownik FIMMM of UCL, it featured two distinguished speakers: Dame Sue Ion OBE FREng, named in *The Sunday Times* as one of 100 most influential people of the 21<sup>st</sup> Century, and Peter Bonfield OBE FREng CEng FIMMM, CEO of the Building Research Establishment, who gave an employer's view of working in a company where 46% of the staff is female. The event was a great success, attracting women members of all ages and across all sectors, and providing positive feedback for similar events to be organised in future.

### Aberdeen event

'Inspirational, life changing and enthralling' summed up the response to the third workshop on mentoring and career progression organised by the IOM3 Women in Materials Group and hosted by Shell at its offices in Aberdeen on 29 April. The event was cross disciplinary, attended by more than 50 women and men from industry and academia, with backgrounds ranging from materials, metallurgy, geology, civil engineering, chemical engineering and the nuclear industry to the oil and gas sector.



Attendees of the first ever Women in Materials Group professional qualifications workshop

## INFORMATION SERVICES

The Materials Information Service (MIS) continues to provide technical help and information to individual members, corporate members and the general public. 2014 saw a steady increase in enquiries from a more global audience via the IOM3 website. Although the majority of these enquiries were of a highly technical and specific nature, the Information Services Team had a great year in providing a high quality service and response which exceeded the expectation of most enquirers. As a result of this and other initiatives 2014 saw an increasing number of companies joining the Industry Affiliate Scheme.

The MIS Team continued to increase its support for the 22 technical groups within IOM3, particularly identifying areas of synergy between various communities, and was involved in two major projects concerning the circular economy. One examined the opportunities for increased recovery of valuable materials from end-of-life vehicles. This involved collaboration with a UK car manufacturer and one of the leading UK recycling companies. The other project explored the way in which facades are treated when buildings are being upgraded. Team members tracked the recycling routes of all the major component materials of facades. For both projects, recommendations were made for improvements in project management at the end-of-life and design stages of the product life cycle that will significantly improve the recovery of increasingly scarce materials.

The MIS team co-ordinated a stand at Resource 2014 – the first conference and exhibition specifically devoted to the circular economy. This allowed IOM3 to highlight its commitment to sustainability and the importance of considering the complete materials lifecycle. The MIS team also represented IOM3 at a number of exhibitions and trade fairs throughout the year.

The Library Services staff actively contributes to the work of the Institute in assisting overseas visitors to IOM3 headquarters, for instance by giving tours of the building to a group of engineering students from Texas who visited in the summer of 2014. This year also saw an increase in the number of visitors to the library and in photocopies supplied, most notably for historical enquiries. This contributes to both the understanding of the heritage and the income generating activities of the Institute.

The IMMAGE (Information on Mining, Metallurgy and Geological Exploration) bibliographic database continues to be produced and managed by Information Services staff and is highly appreciated by members, subscribers and researchers worldwide. As mining courses have vanished from the UK and elsewhere we have lost some academic subscribers, so in 2014 it was pleasing to welcome the University of Zimbabwe and to know that access to IMMAGE by students and staff will be contributing to the rebuilding of that country's minerals industry.

The library team is actively investigating and engaged in the preliminary stages of a digitisation programme which will make a significant contribution to the future IOM3 Virtual Library and the Institute's participation in the OneMine project.

2014 saw the culmination of two FP7 projects funded by the European Commission: MatVal – a value chain approach to materials research and innovation, and InnoMatNet – promoting collaboration between materials researchers, designers in industry and others involved in innovation. The team also saw the successful submission to participate in a Horizon 2020 work package – MATCH (MATERials Common House) commencing in January 2015.

MIS is also heavily involved in the Signature Materials project to develop technological solutions to deter metal theft in the UK and beyond. After a very successful and ground breaking year in 2013, 2014 was a challenge. The year saw the effects of new legislation come into full affect in England and Wales, combined with major reductions in the prices of commodity metals such as copper and lead. These metals were more difficult to sell on when stolen, with lower rewards and, combined with a concerted effort from the law enforcement agencies, the levels of metal thefts continued to drop. As the thieves get smarter (and more organised in their criminal activities), users of metals and companies like IOM3 have to stay one step ahead.

The trial work for Electricity North West (ENWL) marking electricity substations was completed, leading to an award from the National Metal Theft Taskforce. Operating franchises for the electricity companies are up for renewal in 2015, and budgets were uncertain which led to hoped for follow-on work being deferred to 2015. Signature Materials tendered for a major follow on to the substation work, which is still live, as well as looking at R&D projects across all the operators.

A successful trial was completed with Transport for Greater Manchester, further work undertaken on lead marking on various public buildings, and in the latter part of 2014 a trial started to mark catalytic converters with Kwik Fit and the Metropolitan Police. Opportunities exist with Network Rail, with trials set for early 2015. A lot of effort was expended in 2014 in getting the name of Signature Materials out in the marketplace which will bear fruit in 2015 and beyond.

In November we were pleased to welcome the local MEP, Emma McClarkin to have a look round the Grantham facility. This should develop good links for both Signature Materials and the Institute locally in the East Midlands as well as in Brussels. IOM3 is looking at hosting an exhibit at the European Parliament to showcase the metal theft deterrents offered by Signature Materials.

Another project that IOM3 was involved in was the development of the TheFFT website with the Home Office. The project aimed to track news and trends in crime in order to forecast future crime, and in turn assist local police officers with their work.



Emma McClarkin MEP and Stuart Preston of MIS at the Signature Materials facility in Grantham

## STARPACK

The Starpack Awards are the UK's premier annual awards scheme recognising innovation in packaging design and technology. Student and Industry winners gathered at IOM3 head office in London in September for the Starpack Awards 2014 ceremony. Guests enjoyed a champagne reception, followed by an inspiring talk from speaker Sanjay Patel, Global Sparkling Innovation Ignitor, Coca-Cola Company, who presented "Sanjay Patel: V1.0 to now". The Schools Starpack Awards ceremony was held earlier in the day.

The WorldStar Awards continue to thrive under the auspices of IOM3. The WorldStar Presentations and cocktail reception saw 390 guests attending the ceremony in Dusseldorf in May. More than 100 companies attended to collect their accolade and out of the 16 UK entrants, nine took a WorldStar Award.



Sanjay Patel (left) from Coca Cola presented an inspiring talk at the Starpack Awards 2014. Here, he presents Tim Lynch from Britvic with the Best in Show Award

# TRUSTEES' REPORT

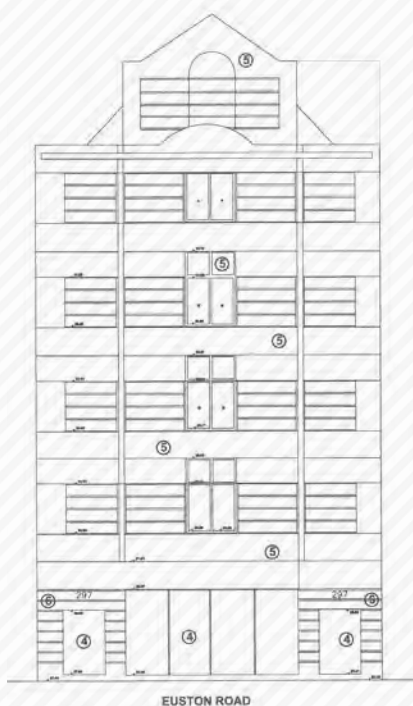
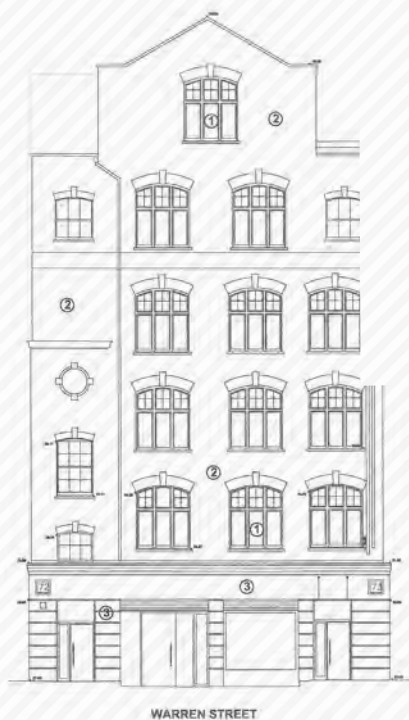
## OUR MOVE FROM CARLTON HOUSE TERRACE TO EUSTON ROAD

The Institute and its predecessors have occupied 1 Carlton House Terrace as their London headquarters since 1972, when the then Iron and Steel Institute moved into the renovated building together with the then Institute of Metals. The building was leased from the Crown Estate at a favourable rent since the Iron and Steel Institute had invested heavily in refurbishing the building to its former glory.

During the most recent rent review for the property, the Crown Estate provided an offer to purchase the remaining portion of the lease. The Institute Trustees carried out a detailed review of the proposal and reached a unanimous decision to surrender the lease and to seek an alternative London location.

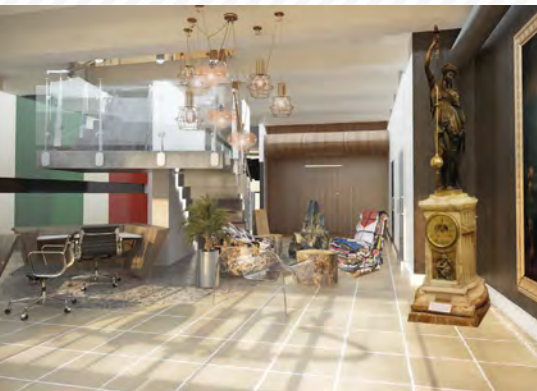
The Institute's London office relocation strategy, highlighted in detail in the August 2014 issue of *Materials World*, was further developed by IOM3 Trustees at their meeting on 11 November. A vote by Council to acquire the freehold of an office building on Euston Road was approved and formal purchase of the property was completed in December 2014.

Council was of the view that the Euston Road building provides a significant opportunity to develop the Institute's capability and future financial strength. The availability of freehold office property in central London is not only in short supply, but demand is driving strong capital growth. To have located a building that addresses our size, cost and location needs was a significant undertaking in the space of only six months.



The building, which fronts onto both Euston Road and Warren Street, is located within one minute's walk of Warren Street underground station. Providing exceptionally easy access to most of London's mainline railway stations, Eurostar, and future Crossrail and HS2 connections, the building is better placed than the Institute's present headquarters. Vacant possession of the building was gained at the end of March 2015. With the engagement of a project management company, the design and build phase is expected to be complete by mid 2015. Vacation of the Carlton House Terrace premises will be phased over a period of two months, but is expected to be complete by 30 June 2015. Jan Lewis, Chairman of the IOM3 Managing Board, said, 'This building has the capability to provide those current and future needs identified by Council and staff. We have been very fortunate to secure this building at a time when London is recognised as a destination of choice for global businesses and institutions. I look forward to welcoming members and new users to this space, and encourage all of our Institute communities to fully support the transition to the new site'.

The office move positions the Institute well within the newly designated Knowledge Quarter for London. Those organisations providing information, resources and knowledge exchange within a one-mile radius of St Pancras station are seeking to work together in a new network officially launched in December 2014. Some 36 organisations centred in the quarter, including the British Library, Central St Martin's, the Francis Crick Institute, Google, UCL and the Wellcome Trust, have joined the initiative, and the office move will place the Institute in an ideal position to support this interdisciplinary initiative with its own community knowledge.



Above: The ground floor reception area seen here from two angles.

Below: A 3D view of the top floor.



The building, which is set over seven floors, was built in 1903, and was significantly extended by its former owners in 1998. For much of its early life, the building (then known as Austin House), served as a major showroom for cars. Other retail businesses followed, with the last 40 years acting as a focal point for the development and distribution of architectural fixings and fittings. The ground floor, which can be accessed both from Euston Road and Warren Street, has the capability to be used as a large demonstration and visitor centre.

The location provides a significantly increased footfall past the premises and, this will enable materials, minerals and mining activity to be showcased directly to the public. Designs for the building's development will provide IOM3 staff accommodation on the first and second floors in an open plan office environment. The third floor will be rearranged to create a space for large conferences, Council meetings and awards presentations and will be designed to offer a very flexible space with a choice of contemporary or heritage atmosphere. The fourth floor is organised in a series of differently sized office spaces and we believe that these will be suitable for our other partner businesses.

At the top of the building, the fifth floor will offer a members' lounge and two separate meeting spaces for boards and committees. The final space, the basement area, will house a catering kitchen, building services and a large networking/dining area. All together the building comprises about 12,500 sq ft, some 25% smaller than our present Carlton House Terrace office, but offers the potential for more effective space use and a range of new services. An official opening of the building is planned for November.

# TRUSTEES' REPORT

## MEDALS AND PRIZES 2014

The Institute's medals and prizes are awarded for outstanding contributions to science, technology and management in the field of materials, minerals and mining. The premier and other awards made throughout the year were:

### PREMIER AWARDS

Bessemer Gold Medal	Dr Hiroshi Tomono
Gold Medal	Prof Andrew Sherry
Platinum Medal	Mr Paul O'Brien
Silver Medal	Dr Ben Britton
Sir Andrew Bryan Medal	Mr David Seath
Chapman Medal	Prof Roger Feneley
Futers Gold Medal	Mr Kenneth Severs
Griffith Medal/Prize	Prof Norman Fleck
Medal for Excellence	Dr Geoffrey Cowley
International Medal	Mr James M Rickard

### PERSONAL ACHIEVEMENT AWARDS

Colclough Medal and Prize	Prof David Porter
Dowding Medal and Prize	Mr Andrew Bainbridge
Frank Fitzgerald Medal and Travel Grant	Dr Sinan Al Bermani
Sir Robert Hadfield Medal & Prize	Mr Louis Brimacombe
Hancock Medal	Dr Ranjit Matthan
R T Holland Medal	Mr Stuart Bridge
Leslie Holliday Prize	Prof Anthony Kelly
Hume Rothery Prize	Prof André V da Costa e Silva
Colin Humphreys Education Award	Prof Phil Withers
	Ms Lorna Harratt-Jones
John Hunt Medal	Prof Rohit Trivedi
Ivor Jenkins Medal	Dr W Brian James
Kroll Medal and Prize	Dr Vasant Kumar
Outstanding Contribution Award	Dr Robert Quarshie
T B Marsden Professional Medal	Dr Irene Turner
Rosenhain Medal and Prize	Dr Natalie Stingelin
Stokowiec Medal and Prize	Prof Par Jonsson
Technician Medal	Mr Stannas Bellaby
Thomas Medal and Prize	Mr Christopher McDonald
Verulam Medal and Prize	Prof Andrew Bell

### PUBLICATION AWARDS

Adrian Normanton Award	K Steneholm, M Andersson, A Tilliander & P G Jönsson
Alan Glanvill Award	S B Huang, Z Y Jiang, X Y Ma, X P Qiu, Y F Men, L X Gao & M X Ding
Guy Bengough Award	F Scenini, K Govender, S Lyon & A Sherry
Billiton Gold Medal	1. S Mostaghel, T Matsushita, C Samuelsson, B Bjorkman & S Seetharaman
	2. S Matsushita, T Samuelsson, B Bjorkman & S Seetharaman
	3. S Mostaghel, T Matsushita, C Samuelsson, B Bjorkman & S Seetharaman
Composite Award	W J B Groupe, G Vanden Poel, L L Warnet & R Akkerman
Cook/Ablett Award	U A Sachadel, P F Morris & P D Clarke
Douglas Hay Medal	I Onederra, A Catalan & G Chitombo
Mann Redmayne Award	1. J Zhang, N Subasinghe, A Daniels & J Mascini
	2. R Goodfellow & R Dimitrakopoulos
Materials World Medal	Guy Richards
Pfeil Award	T Bak, J Nowotny, N J Sucher & E D Wachsman
James S Walker Award	Ms Anna Ploszjaski
Wardell Armstrong Prize	W L Pohl, M Biryabarema & B Lehmann
Williams Award	Th Wondrak, S Eckert, V Galindo, G Gerbeth, F Stefani, K Timmel, A J Peyton, W Yin & S Riaz
Science and Technology of Welding and Joining Best Paper Award	M Mehta, K Chatterjee & A De



## OTHER AWARDS

Royal Charter Prize  
 R H Craven Award  
 A T Green Award  
 Technician of the Year:  
 National Award  
 Higher Award  
 Young Persons' National  
 Lecture Competition  
 Young Persons' World  
 Lecture Competition

Mr Daryl Yee  
 Ms Samantha Gabriel  
 Ms Faye McCarthy  
  
 Mr Joshua Foster  
 Mr Jonathan Forster  
 Mr Duncan Johnston  
  
 Mr Raphael Smith

## JOINT AWARDS

Beilby Medal and Prize  
 Harvey Flower Titanium Prize  
 Charles Hatchett Award

Vanadium Award

Prof Javier Pérez-Ramírez  
 Mr Mark Dixon  
 A Iza-Mendia, M A Altuna,  
 B Pereda & I Gutiérrez  
 P Dae-Bum, H Moo-Young,  
 J Woo-Sang, S Jin-Yoo, S  
 Jae-Hyeok & L Seung-Cheol

## LOCAL SOCIETY OF THE YEAR

### LARGE SOCIETY

**South Wales Materials Association** continues to grow from strength to strength. They organise a local Young Persons' Lecture Competition heat every year as well as Young Technicians' events. A full and active programme of events attracts good attendance and this is helped by their active use of social media.

### SMALL SOCIETY

**West of England Metals and Materials Association (WEMMA)** has managed to rebrand itself and attract a wider audience in the face of declining numbers and an ageing membership, by engaging with schools and students. Their committee makes regular contributions to Materials World magazine and, by running a very active lecture programme, has attracted larger numbers to each meeting.



L-R: Laurence Wilshire, Chair of the West of England Metals and Materials Association, winner of the Small Local Society of the Year Award, and Professor Jon Binner



L-R: Anna Ploszajski, winner of the James S Walker Award and Professor Jon Binner



L-R: David Penney, Chair of the South Wales Materials Association, winner of the Large Local Society of the Year Award, and Professor Jon Binner

# TRUSTEES' REPORT



Charles Hatchett Award winners, A Iza-Mendia, M A Altuna, B Pereda, I Guti rre at the Premier Award ceremony in July



Each year, the Institute makes two awards for Technician of the Year. Above Jonathan Forster (left) accepts his Technician of the Year Higher Award from Chief Executive Dr Bernie Rickinson



Winners at Special and Publications Awards were presented at IOM3 in London on 15 October 2014



Stannas Bellaby (left), winner of the inaugural Technicians' Medal at the Premier Awards in July



L-R: Barry Lye presented Dr Hiroshi Tomono with the Bessemer Gold Medal at the Bessemer Dinner



Karl Greig (above left), Packaging Technologist at Warburtons Bakery in Bolton, gained the Best Packaging Related Research Project Award for the Level 5 Diploma in Packaging Technology qualification and Charlotte Perkins (above right) from Avon gained the Best Student Award for the Level 3 Certificate in Packaging qualification. Charlotte was also Highly Commended in the Technician of the Year Award. Both received their certificates from Jan Lewis (centre), IOM3 Past-President

## HONOURS AND AWARDS

Council has been informed of the following honours/awards made to members and wishes to record its congratulations to all recipients.

### OFFICERS OF THE ORDER OF THE BRITISH EMPIRE

Sue Dunkerton CEng FIMMM, Director, Knowledge Transfer Network, received an OBE for services to Health and Engineering.

Professor David John Williams FEng FIMMM, Director, EPSRC Centre for Innovative Manufacturing in Regenerative Medicine, received an OBE for services to Science and Engineering.

### COMMANDER OF THE ORDER OF THE BRITISH EMPIRE

Simon James Alexander Toole CEng MIMMM, Head of Exploration, Licensing and Development, Department of Energy and Climate Change, was awarded a CBE for services to Oil and Gas and Energy Infrastructure Development.

Professor Helen Valerie Atkinson CBE CEng FIMMM. Chair, Metals Processing and Head, Department of Engineering, University of Leicester. For services to Engineering and Education (Bedfordshire).

### MOST EXCELLENT ORDER OF THE BRITISH EMPIRE

Dr Deborah Anne Pullen CEng FIMMM, Director, Modern Built Environment Knowledge Transfer Network and Group Research Director, BRE. For services to Innovation and Knowledge Transfer (Furneux Pelham, Hertfordshire).

### FELLOWSHIP OF THE ROYAL ACADEMY OF ENGINEERING

Professor Steve Bull CEng FIMMM

Dr Esteban Busso CEng FIMMM

Professor David Jiles FIMMM

John Marlow CEng FIMMM

Professor Mark Miodownik CEng FIMMM

Andy MacLeod FEng CEng MIMMM

Professor Karen Scrivener CEng FIMMM

Professor Constantinos Soutis CEng FIMMM

Professor John Watts CEng FIMMM DSC

Dr Paul Woollin FIMMM

Philip Tracy FEng CEng MIMMM FIoD

### HONORARY FELLOWSHIP OF THE INSTITUTE OF MATERIALS, MINERALS AND MINING

Lord Simon Haskel Hon FIMMM

### OTHER AWARDS

Professor Mark Miodownik FEng CEng FIMMM received the Royal Society Winton Prize for his book, *Stuff Matters*.



Winners of the 2014 IOM3 Premier Awards gathered at 1 Carlton House Terrace to celebrate their achievements

# TRUSTEES' REPORT

## FINANCIAL REVIEW

After the challenges faced in 2013, 2014 was a positive and eventful year for the Institute, resulting in an overall surplus of £12,117k (2013 - £335k) and a strengthened balance sheet, with net assets reaching £22,166k (2013 - £10,049k) by the end of the year. Significant improvement in the Institute's financial position comes as a result of the Trustees' decision to surrender the remainder of the lease of the Institute's London premises. A premium paid by the landlord enabled the Institute to purchase freehold property in London's Knowledge Quarter, which will act as IOM3 headquarters from 1 July 2015.

The majority of the Institute's incoming resources are generated from the activities of its trading subsidiary, IOM Communications Ltd. IOM Communications Ltd turnover for the year ended 31 December 2014 was £2,938k (2013 - £3,455k) and the company donated £429k (2013 - £505k) to IOM3. A summary of IOM Communications Ltd results for the year is detailed in note 1.

Needless to say, operating challenges faced in 2013 did not disappear overnight. IOM3 involvement in the administration of the Materials KTN contract came to an end on 31 March 2014, resulting in a significant drop of information services income and related activities. The team has since been busy developing new ways of promoting materials science and sharing knowledge within the materials community and beyond.

On the other hand, 2014 was a very successful year for conferences, with PVC and RubberCon attracting 467 and 221 delegates respectively. Although the 2015 conference programme is smaller than that of 2014, the team is looking to build on the success of 2014 and expand the Institute's conference and seminar programme going forward.

Other significant sources of income in 2014 include income from members (either as membership fees or for additional services provided to members) and, as mentioned above, a premium paid by the landlord for the surrender of the remainder of a long lease.

In light of the acquisition of freehold property in London, the Trustees decided to review the accounting treatment of the Institute's freehold properties. It has subsequently been agreed that a market value method would provide better representation of the Institute's financial position than the depreciation method used to date. The Institute's Stoke property has therefore been revalued, resulting in an unrealised gain on revaluation of £189k.

Realising that the significant investment made in the Grantham leasehold property does not necessarily reflect its market value, the Trustees decided to carry out an impairment review of the Grantham leasehold and write down the value of the property to its deemed market value of £321k.

Following the various property movements detailed above, £9,638k was transferred from the General Fund to the Asset Development Fund.

There have been no significant variances in the operating expenditure of the Institute or its trading subsidiary and teams have been working hard to renegotiate contracts with suppliers and reorganise operations

in order to reduce running costs going forward. Increase in the costs of membership and related activities is attributable to the impairment of Grantham leasehold, while the increase in the governance costs reflects management and Trustee time spent negotiating with the Carlton House Terrace landlord and searching for alternative premises.

The Institute has adopted a policy of maximising total returns from investments commensurate with acceptable risk for a charitable organisation. Amounts required to fund operations of the Institute are set aside in a short-term fund consisting of cash or easily realisable investments. All other investments are placed in a long-term fund. An appropriate benchmark (depending on the Institute's requirements) is agreed with the investment managers to measure performance.

The actuarial gains and losses arise from the defined benefit pension scheme valuation required by Financial Reporting Standard 17 (FRS17) and are detailed in note 22. The FRS17 calculation is made for accounting purposes only and does not drive the amount of contributions to be paid or the timing of payments. Scheme assets are valued at current market value and liability calculations are based on the yield on AA rated corporate bonds at the balance sheet date. As the scheme assets are not totally invested in corporate bonds there can be great volatility between annual valuations.

Council has identified the following major risks facing the Institute:

- Difficulty in maintaining steady level of income year on year.
- Loss of members through reduction in the market.
- Impact of funding required to cover defined pension scheme deficit.
- Major reduction in investment values.

The Institute's strategic plan recognises these risks and incorporates actions to eliminate or manage any adverse effect.

Council's policy on reserves is to:

- Set aside sufficient reserves to fund the net book value of all tangible fixed assets and the cost of future capital expenditure requirements. These amounts are held in the asset development fund and total £13,177k at 31 December 2014.
- Set aside reserves to develop and improve the quality of services provided by the Institute. These reserves are held in the services development fund and total £88k as at 31 December 2014.
- Retain sufficient liquid reserves to cover the future expenditure of charitable, management and administrative costs of up to one year. This level of reserves is considered appropriate to allow the Institute to be managed effectively, to provide a buffer for uninterrupted services and to achieve the long-term objectives of the Institute. The unrestricted reserves total £6,678k at the year end and represent 135% of the total budgeted expenditure for 2015.

In light of the London office move, Council has set a budget for net expenditure of £578k for 2015 to support relocation costs, initiatives for the development of membership and conference programmes, as well as establishing new sources of income.

## STRUCTURE, GOVERNANCE AND MANAGEMENT

The founding body of this Institute was created in 1869. The Institute of Materials, Minerals and Mining is a body incorporated by Royal Charter dated 25 July 1965 and modified on 26 June 2002. As such it does not have company directors or share capital.

### COUNCIL

The governance of the Institute is vested in the Council. Members of Council, other than co-opted members, are trustees of the Institute for the purpose of charity law. Under the bye-laws of the Institute, members of Council are elected by members of the Institute at the annual general meeting to serve for varying terms. Under the Institute's regulations, Council is entitled to co-opt honorary vice presidents and five members of Council.

Regular induction meetings are held for new Council members to ensure that they understand their responsibilities as trustees of the charity. The induction process provides trustees with information about the role of Council, its supporting boards and the organisational structure of the Institute. The objects of the Institute together with the mission statement and corporate strategies are explained. Each trustee is provided with an information pack and points of access to further details. Ongoing training is provided to trustees in relation to the individual responsibilities undertaken by them wherever appropriate.

Council meets at least three times during the year to review strategy and approve operating plans and budgets.

Council has overall responsibility for ensuring that the Institute has appropriate systems of control, financial and otherwise. It is responsible for safeguarding the assets of the charity and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities. Council has introduced a formal risk management process to enable it to assess business risks and implement risk management strategies on a regular basis. It involves identifying the types of risks the Institute faces, prioritising them in terms of potential impact and likelihood of occurrence, and identifying means of mitigating the risks. As part of this process Council reviews the adequacy of the charity's current internal controls. The systems of internal control are designed to provide reasonable, but not absolute, assurance against material misstatement or loss. They include:

- a strategic plan and an annual budget approved by Council
- regular consideration by Council of financial results, variance from budgets, non-financial performance indicators and benchmarking reviews
- delegation of authority and segregation of duties

The law applicable to charities in England and Wales requires Council to prepare financial statements for each financial year which give a true and fair view of the state of affairs of the charity and of the incoming resources and application of resources of the charity for that period. In preparing those financial statements, Council is required to:

- select suitable accounting policies and apply them consistently
- observe the methods and principles in the Charities SORP (Statement of Recommended Practice)
- make judgements and estimates that are reasonable and prudent
- state whether applicable accounting standards have been followed, subject to any material departures disclosed and explained in the financial statements
- prepare the financial statements on the going concern basis unless it is inappropriate to presume that the Institute will continue to operate

Council is responsible for:

- preparing the trustees' report and the financial statements in accordance with applicable law and United Kingdom accounting standards (Generally Accepted Accounting Practice)
- keeping proper accounting records which disclose with reasonable accuracy at any time the financial position of the Institute and enable Council to ensure that annual financial statements comply with the Charities Act 2011, the Charity (Accounts and Reports) Regulations 2008 and the provisions of the Royal Charter and bye-laws
- the maintenance and integrity of the charity 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.

### AUDIT COMMITTEE

The Audit Committee, which reports directly to the Council, comprises a chairman and three other members of Council or membership who are not associated with the Managing Board or management of the Institute. Appointments are endorsed by Council. Members who served during the year are set out on page 23. The committee normally meets twice a year or as the chairman of the committee sees fit. The Chief Executive and Finance Director generally attend, with others invited as and when appropriate. The committee is authorised to keep under review the effectiveness of the Institute's financial reporting, internal control policies and operating procedures, together with a broad remit to review all elements and levels of Institute governance and function. Advice is given on the appointment of external auditors. A regular dialogue is maintained with the Institute's external auditors to review matters identified from audits as being in need of management attention and the actions to be taken to resolve the same. The chairman has direct access to the President and Council.

# TRUSTEES' REPORT

## MANAGING BOARD

Council delegates its responsibility for the ongoing management of strategy and performance of the Institute to the Managing Board. Membership of this board is drawn from senior members of the Institute and staff. The day to day management of the Institute's activities is delegated to the Chief Executive and staff.

The Managing Board reviews the progress of the Institute's subsidiaries, boards and committees.

- **IOM Communications Ltd**  
The charitable trading activities are carried out by this wholly owned subsidiary. The Board of this company, meets regularly to assess the commercial opportunities and effectiveness of the company's trading activities.
- **Nominations Committee**  
The committee reviews the role, membership and performance of the major committees including Council and oversees adherence to the Charter and bye-laws.
- **Remuneration Committee**  
The committee agrees the remuneration package for all executive directors and the overall levels of remuneration for other staff.
- **Industry and Technology Policy Board**  
The board is responsible for the co-ordination of seventeen technical divisions. In turn, the role of the divisions is to further the networking and professional development of their members. The board consists of the divisional chairmen who are elected by the technical community they represent.
- **Professional Policy Board**  
The board is responsible for membership, education, accreditation and professional development and technician activities. Four committees support the board.
- **Local Affairs Board**  
The board is responsible for the promotion of the interests of regional members, communication between Council and regional members and the establishment of links with affiliated local societies.
- **International Affairs Board**  
The IAB is responsible for communications between the Institute and its international communities. It also encourages the development of new activities and communities outside the UK.
- **Younger Members' Committee**  
The younger members play a vital and active role in the development of the Institute and their activities are co-ordinated by the Younger Members' Committee.

- **External Affairs Group**  
The group makes submissions to UK government, parliamentary committees and the European Commission on behalf of the Institute.
- **Women in Materials Group**  
The IOM3 Women in Materials Group was formed in 2012 to raise the profile of female members within IOM3, to support networking, mentoring, and work in schools to educate girls about the benefits of a career in science and engineering.
- **Materials Institute Services Ltd**  
This is a wholly owned subsidiary responsible for non-charitable activities. The company has not traded for a number of years.

## IOM3 TECHNICAL COMMUNITIES

### MATERIALS DIVISIONS

The British Composites Society  
The Ceramics Society  
Functional Materials Division  
The Iron and Steel Society  
Materials Science and Technology Division  
Light Metals Division  
The Polymer Society  
The Wood Technology Society

### MINERALS AND MINING DIVISIONS

International Mining & Minerals Association (IMMa)  
(representing the four Resources Divisions below)  
Mining Technology Division  
Oil and Gas Division  
Applied Earth Science Division  
Mineral Processing and Extractive Metallurgy Division

### APPLICATIONS DIVISIONS

Automotive Applications Division  
Biomedical Applications Division  
The Casting and Solidification Society  
The Packaging Society  
Surface Engineering Division

### MULTIDISCIPLINARY GROUPS

Construction Materials Group  
Energy Materials Group  
Natural Materials Association  
Sustainable Development Group

## OBJECTIVES AND ACTIVITIES

The objects of the Institute, as set out in the Royal Charter, shall be: To advance and develop all aspects of the science, engineering and technology of the discovery, exploration, development, characterisation, exploitation, processing, application and recycling of materials, minerals and fuels; To further and co-ordinate education, training and practice in these disciplines and to facilitate the acquisition, preservation and dissemination of knowledge pertaining to these disciplines. In pursuing these objects in so far as they may be similar to those of existing organisations, the Institute shall use its best endeavours to co-operate with them and to ensure that its activities are complementary to those of such organisations. Through our activities we aim to provide:

- a wide range of member services including professional recognition and networking opportunities through technical divisions
- information through our website, libraries, conferences, publications and consultancy services
- an active education programme through schools and universities to attract young people into the profession
- support and encouragement to younger members and affiliated societies in the UK and overseas
- the visibility of new technology to industry with funding from government

Members play a prime role in promoting the objects of the Institute and providing public benefit. Accordingly, a wide range of member services and benefits have been developed in pursuance of our objectives and to attract newcomers to the Institute. Benefits of membership include professional recognition, networking opportunities to share knowledge and experience, free materials information services, a members' magazine, a members' business centre and use of facilities, discounted conferences and publications and additional web-based benefits and services. The Institute provides support to its worldwide membership through its UK offices and a network of affiliated local societies based in the UK and overseas. All members are encouraged to join their local society ([www.iom3.org/local-societies](http://www.iom3.org/local-societies)) because the societies provide an important point of contact and deliver a range of valuable services to members, students and the general public. Systems have been developed to recognise career progression/membership upgrade and the Institute is licensed to deal with applications for Chartered Engineer, Chartered Scientist, Chartered Environmentalist, Incorporated Engineer, Engineering Technician, Registered Scientist and Registered Science Technician status. The Institute collaborates with many like-minded societies in the UK and overseas.

Eighteen technical divisions have been set up with direct access to Council. Each division holds regular meetings and, through its supporting network of committees, members and affiliated societies, organises a programme of events to promote and develop its discipline.

The Institute has an active education programme to attract young people into a career in the materials, minerals and mining science, engineering and technology sector. Our Schools Affiliate Scheme provides help, advice and teaching materials to schools and the education team regularly attends schools and careers fairs. The Institute accredits a number of university, college and industry courses in the UK and overseas. We also provide a special membership package for undergraduates. The Institute has a thriving Younger Members' Committee organising special events for their peers.

The divisions, boards and committees mentioned above are all composed of volunteers drawn from the Institute's membership, who freely give their time and expertise to further the Institute's professional activities, develop its communities and provide peer review processes where needed. The Institute depends on the engagement of its members in the broad range of its activities and could not deliver its objectives effectively without their significant contribution.

The Institute works very closely with government and EC departments particularly in relation to the delivery of new technology to industry. This work has enhanced the reputation of the Institute and is now seen as a first port of call in our area of expertise. The Institute operates an Industry Affiliate Scheme to provide small and medium sized enterprises with access to its information and consultancy services.

Through its subsidiary, IOM Communications Ltd, the Institute publishes technical books, learned journals and member magazines and organises conferences on materials, minerals and mining related subjects. The publishing of technical books and learned journals has been outsourced to Maney Publishing. In-house teams publish the member magazines and organise the majority of conferences. IOM Communications Ltd also operates information services and provides consultancy advice on materials. All these services are fundamental in achieving the Institute's objectives.

There is a regular programme to ensure that employees are involved in the direction and progress of the Institute. Employees are consulted and kept fully informed on issues of concern to them. Staff training and development appropriate to the Institute's goals is assessed on a regular basis and provided internally and externally.

# TRUSTEES' REPORT

## OFFICERS AND COUNCIL MEMBERS (FROM 1 JANUARY 2014 TO MAY 2015)

President	Professor J G P Binner (to December 2014) Dr M A Hicks (from January 2015)	<b>COUNCIL MEMBERS REPRESENTING CORPORATE MEMBERS FROM THE REGIONS</b>	Automotive Applications	Mr A Haggie
Senior Vice-President	Dr M A Hicks (to December 2014) Mr M Cox (from January 2015)		Scotland	Dr C S Hindle
Honorary Treasurer	Dr M J May		North East	Vacancy
Vice Presidents	Mr M C Cox (to December 2014) Dr S M Best (from March 2015) Dr P J E Bischler		North West	Vacancy
Chairman of Managing Board and Past President	Mr J C H Lewis (to December 2014) Professor J G P Binner (from January 2015)		Midlands	Mr D R Evetts
Chairman of Professional Policy Board	Dr C W Corti		South East	Vacancy
Chairman of Industry and Technology Policy Board	Dr D J Gooch		South West & Wales	Vacancy
Chairman of the Local Affairs Board	Dr P J E Bischler		<b>COUNCIL MEMBERS REPRESENTING ALL CORPORATE MEMBERS</b>	
Chairman of Younger Members' Committee	Dr J P E Forsdike (to March 2015) Dr K Thornton (from March 2015)		Professional Members & Members	Dr J R Wilcox Mr M C Cox
Chairman of International Affairs Board	Mr B D Lye		Associate Members	Mr S J Wood Dr S O Matthews
		Technician Members	Mr S L J Bellaby	
		<b>COUNCIL MEMBERS REPRESENTING THE FOLLOWING DISCIPLINES</b>		
		Metals	Dr K A Ridal	
		Ceramics	Professor J G P Binner	
		Plastics & Rubber	Mr K L Forsdyke	
		Minerals & Mining	Mr R G Siddall	
		<b>DIVISIONAL BOARD CHAIRMEN</b>		
		Applied Earth Science	Mr M D Forrest Ms L Carroll	
		Biomedical Applications	Professor S M Best (to March 2015) Prof A L Lewis (from March 2015)	
		The British Composites Society	Dr R H Martin (to July 2014) Mr E G Shahidi (from July 2014)	
		The Casting and Solidification Society	Dr P Withey and Professor Z Fan	
		The Ceramics Society	Professor J G P Binner	
		Functional Materials	Prof R A Dorey	
		Light Metals	Dr M R Clinch	
		Materials Science & Technology	Dr M R Winstone	
		Mineral Processing & Extractive Metallurgy	Mr A D Francis	
		Mining Technology	Dr P J Foster	
		The Packaging Society	Mr K V H Barnes	
		Oil & Gas	Eur Ing S A Bedford	
		The Polymer Society	Mr S G Patrick (to November 2014) Dr A K Wood (from November 2014)	
		The Iron & Steel Society	Dr R P Thackray	
		Surface Engineering	Mr K A Harrison	
		The Wood Technology Society	Mr A J True	



## MEMBERSHIP OF SENIOR BOARDS AND PROFESSIONAL ADVISERS

### MANAGING BOARD

The Managing Board is chaired by the immediate past president and includes the following:

The President  
 Senior Vice-President  
 Honorary Treasurer  
 Vice Presidents  
 Chairman of IOM Communications Ltd  
 Chairman of Professional Policy Board  
 Chairman of Industry & Technology Policy Board  
 Chairman of Local Affairs Board  
 Chairman of International Affairs Board  
 Chairman of Younger Members' Committee  
 Chairman of PIABC  
 Chief Executive of the Institute  
 Deputy Chief Executive  
 Finance Director

### BOARD OF DIRECTORS – IOM COMMUNICATIONS LTD

The following served as directors during the year:

Chairman	<b>Dr E B Farmer</b> (to March 2015)
	<b>Mr J C H Lewis</b> (from March 2015)
Directors/trustees	<b>Mr N E Riley</b>
	<b>Dr A T Cole</b>
	<b>Dr M J May</b>
	<b>Mr K Shankland</b>
	<b>Prof A L Greer</b>
	<b>Dr S Garwood</b>
Chief Executive and trustee	<b>Dr B A Rickinson</b>

### AUDIT COMMITTEE

Chairman	<b>Mr P J K Haslehurst</b>
	<b>Dr D Elliott</b>
	<b>Mr C Hallas</b>
	<b>Mr S Patrick</b> (from May 2014)

### SENIOR STAFF

Chief Executive	<b>Dr B A Rickinson</b>
Deputy Chief Executive	<b>Dr G Woodrow</b>
Finance Director	<b>Ms J Bugajeva</b>

### PROFESSIONAL ADVISERS

<b>Bankers</b>	<b>Lloyds Bank plc</b> 8-10 Waterloo Place, London SW1Y 4BE
<b>Solicitors</b>	<b>Allen &amp; Overy LLP</b> One Bishops Square, London E1 6AD
	<b>Howes Percival LLP</b> 1 Bede Island Road Bede Island Business Park, Leicester LE2 7EA
	<b>Maurice Turnor Gardner LLP</b> 1 Threadneedle Street, London EC2R 8AY

<b>Auditors</b>	<b>Baker Tilly UK Audit LLP</b> Statutory Auditor Portland 25 High Street Crawley West Sussex RH10 1BG
<b>Investment Managers</b>	<b>Blackrock Investment Management (UK) Ltd</b> 33 King William Street, London EC4R 9AS
<b>Actuaries</b>	<b>First Actuarial plc</b> First House, Kingsclere Road, Basingstoke, Hampshire RG21 6UG

### AUDITOR

Baker Tilly UK Audit LLP has indicated its willingness to continue in office.

### APPROVAL OF TRUSTEES' REPORT

This report was approved by the trustees on 20 May 2015.

Professor J G P Binner



# AUDITOR'S REPORT

## INDEPENDENT AUDITOR'S REPORT TO THE TRUSTEES OF THE INSTITUTE OF MATERIALS MINERALS AND MINING

We have audited the financial statements of The Institute of Materials Minerals and Mining for the year ended 31 December 2014 on pages 25 to 45 The financial reporting framework that has been applied in their preparation is applicable law and United Kingdom Accounting Standards (United Kingdom Generally Accepted Accounting Practice).

This report is made solely to the charity's trustees as a body, in accordance with the Charities Act 2011. Our audit work has been undertaken so that we might state to the charity's trustees those matters we are required to state to them in an auditor's report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the charity and the charity's trustees as a body, for our audit work, for this report, or for the opinions we have formed.

### Respective responsibilities of trustees and auditors

As explained more fully in the Statement of Trustees' responsibilities set out on page 19, the Trustees are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view.

We have been appointed as auditors under section 151 of the Charities Act 2011 and report in accordance with regulations made under section 154 of that Act. Our responsibility is to audit and express an opinion on the financial statements in accordance with applicable law and International Standards on Auditing (UK and Ireland). Those standards require us to comply with the Auditing Practices Board's (APB's) Ethical Standards for Auditors.

### Scope of the audit of the financial statements

A description of the scope of an audit of financial statements is provided on the Financial Reporting Council's website at:

<http://www.frc.org.uk/auditscopeukprivate>

### Opinion on financial statements

In our opinion the financial statements:

- give a true and fair view of the state of the group's and charity's affairs as at 31 December 2014 and of their 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 Act 2011.

### Matters on which we are required to report by exception

We have nothing to report in respect of the following matters where the Charities Act 2011 requires us to report to you if, in our opinion:

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

BAKER TILLY UK AUDIT LLP

Statutory Auditor  
Portland  
25 High Street  
Crawley  
West Sussex  
RH10 1BG

15 June 2015

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

# FINANCIAL STATEMENTS

## CONSOLIDATED STATEMENT OF FINANCIAL ACTIVITIES FOR THE YEAR ENDED 31 DECEMBER 2014

	Notes	Unrestricted funds		Restricted funds	Permanent endowment	Total funds 2014	Total funds 2013
		General £'000	Designated £'000	£'000	£'000	£'000	£'000
<b>INCOMING RESOURCES</b>							
<b>Incoming resources from charitable activities</b>							
Membership and related activities		1,441	-	-	-	1,441	1,406
Charitable trading activities	1	2,938	-	-	-	2,938	3,455
		4,379	-	-	-	4,379	4,861
<b>Incoming resources from generated funds</b>							
Voluntary income	2	-	-	2	-	2	22
Activities for generating funds	3	310	-	-	-	310	327
Investment income	4	421	4	50	-	475	479
Other incoming resources	5	14,536	-	-	-	14,536	-
<b>Total incoming resources</b>		<b>19,646</b>	<b>4</b>	<b>52</b>	<b>-</b>	<b>19,702</b>	<b>5,689</b>
<b>RESOURCES EXPENDED</b>							
<b>Charitable activities</b>							
Membership and related activities		3,497	-	30	-	3,527	2,722
Charitable trading activities	1	2,509	-	-	-	2,509	2,945
		6,006	-	30	-	6,036	5,667
<b>Cost of generating funds</b>							
Activities for generating funds	3	310	-	-	-	310	327
Investment management costs		28	-	-	-	28	33
Governance costs		314	-	-	-	314	135
<b>Total resources expended</b>	6	<b>6,658</b>	<b>-</b>	<b>30</b>	<b>-</b>	<b>6,688</b>	<b>6,162</b>
<b>Net incoming/(outgoing) resources before transfers</b>		<b>12,988</b>	<b>4</b>	<b>22</b>	<b>-</b>	<b>13,014</b>	<b>(473)</b>
<b>Transfers</b>							
Gross transfers between funds	7	(9,638)	9,638	-	-	-	-
<b>Net incoming/(outgoing) resources before other recognised gains and losses</b>		<b>3,350</b>	<b>9,642</b>	<b>22</b>	<b>-</b>	<b>13,014</b>	<b>(473)</b>
<b>Other recognised gains/(losses)</b>							
Gains/(losses) on investment assets		113	2	38	-	153	783
Unrealised gain on revaluation of freehold property		-	189	-	-	189	-
Actuarial (losses)/gains on defined benefit pension scheme	22.7	(1,239)	-	-	-	(1,239)	25
<b>NET MOVEMENT IN FUNDS</b>		<b>2,224</b>	<b>9,833</b>	<b>60</b>	<b>-</b>	<b>12,117</b>	<b>335</b>
<b>Reconciliation of funds</b>							
Total funds brought forward		4,454	3,644	1,918	33	10,049	9,714
<b>TOTAL FUNDS CARRIED FORWARD</b>		<b>6,678</b>	<b>13,477</b>	<b>1,978</b>	<b>33</b>	<b>22,166</b>	<b>10,049</b>

The statement of financial activities includes all gains and losses recognised in the year. All incoming and outgoing resources derive from continuing activities.

# FINANCIAL STATEMENTS

## CONSOLIDATED AND CHARITY BALANCE SHEET AS AT 31 DECEMBER 2014

	Notes	Group		Institute	
		2014 £'000	2013 £'000	2014 £'000	2013 £'000
<b>FIXED ASSETS</b>					
Intangible assets	9	16	-	-	-
Tangible assets	10	13,477	2,728	13,477	2,728
Investments	11	9,472	9,319	9,472	9,319
		22,965	12,047	22,949	12,047
<b>CURRENT ASSETS</b>					
Stock and work in progress	13	33	157	3	3
Debtors	14	4,435	1,058	4,095	357
Bank balances		178	166	1	3
		4,646	1,381	4,099	363
<b>CREDITORS: Amounts falling due within one year</b>	15	(3,580)	(2,582)	(3,360)	(1,919)
<b>NET CURRENT (LIABILITIES)</b>		1,066	(1,201)	739	(1,556)
<b>NET ASSETS BEFORE PENSION LIABILITY</b>		24,031	10,846	23,688	10,491
Defined benefit pension scheme liability	22.3	(1,865)	(797)	(1,865)	(797)
<b>NET ASSETS</b>	16	22,166	10,049	21,823	9,694
<b>PERMANENT ENDOWMENT FUND</b>					
	17	33	33	33	33
<b>RESTRICTED FUNDS</b>					
Restricted funds	18	1,978	1,918	1,978	1,893
<b>UNRESTRICTED FUNDS</b>					
Designated funds	19	13,477	3,644	13,477	3,644
General fund		6,678	4,454	6,335	4,124
<b>TOTAL FUNDS</b>		22,166	10,049	21,823	9,694

The financial statements on pages 25 to 45 were approved and authorised for issue by the trustees on 20 May 2015 and signed on their behalf by

Professor J Binner, President 2013-14



Dr M J May, Honorary Treasurer



## CONSOLIDATED CASH FLOW

	Notes	2014 £'000	2013 £'000
<b>Reconciliation of the net (outgoing)/incoming resources to net cash flow from operating activities</b>			
Net incoming/(outgoing) resources		13,014	(473)
Depreciation an amortisation and impairment (including profits/losses on sale of fixed assets)		(13,204)	167
Interest and dividends receivable		(475)	(479)
Pension contributions		(52)	248
Decrease/(Increase) in stocks		124	(140)
(Increase)/Decrease in debtors		(3,377)	609
Increase/(Decrease) in creditors		852	(151)
<b>NET CASH (OUTFLOW) FROM OPERATING ACTIVITIES</b>		<b>(3,118)</b>	<b>(219)</b>

## CASHFLOW STATEMENT

Net cash (outflow) from operating activities		(3,118)	(219)
Returns on investments and servicing of finance	23.1	356	381
Capital receipts less expenditure	23.2	2,628	(172)
<b>(DECREASE) IN CASH</b>		<b>(134)</b>	<b>(10)</b>

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

(Decrease) in cash in the year		(134)	(10)
Net (debt) at 1 January 2014		(245)	(235)
<b>NET (DEBT) AT 31 DECEMBER 2014</b>	23.3	<b>(379)</b>	<b>(245)</b>

# FINANCIAL STATEMENTS

## ACCOUNTING POLICIES

### BASIS OF FINANCIAL STATEMENTS

The financial statements of the Institute are prepared in accordance with the Charities (Accounts and Reports) Regulations 2008 and the provisions of "Accounting and Reporting by Charities: Statement of Recommended Practice" (revised 2005) and in accordance with applicable UK accounting standards. They are also drawn up on the historical accounting basis except that investments held as fixed assets and freehold properties are carried at market value.

### GOING CONCERN POLICY

The Council members confirm that at the time of approving the financial statements, there is a reasonable expectation that the Institute has adequate resources to continue in operational existence for the foreseeable future. In arriving at this conclusion the Council members have taken account of current and anticipated financial performance in the current economic conditions, and the Institute's reserves position. For this reason, the going concern basis continues to be adopted in the preparation of the Institutes financial statements.

### GROUP FINANCIAL STATEMENTS

The financial statements consolidate the results of the wholly owned subsidiary companies and companies over which the Institute exercises dominant influence. The members' benevolent funds are not consolidated because they are under independent control.

The Institute has taken advantage of the exemption in paragraph 397 of "Accounting and Reporting by Charities: Statement of Recommended Practice" (revised 2005) from preparing a statement of financial activities detailing the charity's own activities. Details of the Institute's total incoming resources and net movement in funds are shown in the notes.

### RELATED PARTY TRANSACTIONS

The Institute has taken advantage of the exemptions conferred by Financial Reporting Standard No 8 from the requirement to make disclosure concerning transactions with entities that are wholly owned.

### INCOME RECOGNITION

Subscription income represents the amount received in respect of current and past years. Amounts received in advance are carried forward to the following year and subscriptions in arrears have not been anticipated.

Income from conferences represents the amount receivable in respect of the current year. Amounts received in respect of conferences to be run in future years are carried forward to the following year.

Incoming resources from grants, where related to performance and specific deliverables, are accounted for as the charity earns the right to consideration by its performance.

Other income is recognised where there is entitlement, certainty of receipt and the amount can be measured with sufficient reliability.

### RESOURCE EXPENDITURE

All expenditure is accounted for on an accruals basis and has been classified under headings that aggregate all costs related to the category. Where costs cannot be clearly attributed to particular headings they have been allocated to activities on a basis consistent with the use of the resources. Overheads have been allocated on the basis of head count.

Grants and prizes are awarded annually, mainly to affiliated societies and individuals.

### SUPPORT COSTS

Support costs comprise employment, establishment and administration costs in support of the charitable activities of the Institute. Allocations of these costs are made to the various activities of the Institute using standard rates based on staff time involved on each activity and facility usage.

### DONATED SERVICES AND MATERIALS

Where services are provided to the Institute as a donation that would normally be purchased from suppliers, this contribution is included in the financial statements at an estimate based on the value of the contribution to the Institute.

### DEPRECIATION AND AMORTISATION

Individual fixed assets are capitalised where the purchase price exceeds £1,500.

Depreciation is calculated by reference to the cost of fixed assets using the straight line method at rates considered appropriate having regard to their expected useful lives. The bases used are:

Leasehold property over the term of the lease

Furniture 15%-20% p.a.

Equipment 20%-33% p.a.

Intangible assets 20% p.a.

Impairment reviews are carried out where there is an indication that the recoverable amount of a fixed asset is below its net book value. Any such impairments are charged through the statement of financial activities in the year in which the impairment occurs.

### INTANGIBLE FIXED ASSETS

Intangible fixed assets, including purchased goodwill and patents, are amortised at rates calculated to write off the assets on a straight line basis over their estimated useful economic lives. Where it is not

possible to make a reliable estimate of the useful life of an intangible asset, the life shall not exceed five years. Impairment of intangible assets is only reviewed where circumstances indicate that the carrying value of an asset may not be fully recoverable.

## INVESTMENTS AND INVESTMENT INCOME

Investments are shown at market value at the balance sheet date. Any resulting unrealised gain or loss is taken to the fund to which it relates. Income is included together with the tax related credit in the financial statements of the year in which it is receivable. Investment income and any gain or loss on the asset development and service development designated funds is taken to general funds.

## GOVERNANCE COSTS

Governance costs comprise those costs relating to the general running of the Institute. Where costs are not fully attributable to governance costs, employment, establishment and administration costs are allocated on the basis of staff time and facility usage at standard rates.

## STOCKS AND WORK IN PROGRESS

Sundry stocks are valued at cost. Work in progress is valued at cost and includes staff and other overheads.

## FOREIGN CURRENCIES

Assets and liabilities denominated in foreign currencies are translated at the rate of exchange ruling at the balance sheet date. Transactions in foreign currencies are recorded at an internal rate of exchange ruling at the date of the transaction. All differences are taken to the statement of financial activities.

## OPERATING LEASES

The rentals under operating leases are charged to the statement of financial activities on a straight line basis over the lease term.

## IRRECOVERABLE VAT

Irrecoverable VAT incurred in respect of the year is included in the statement of financial activities except for any amounts relating to capital expenditure which are included in the cost of fixed asset additions.

## PENSION COSTS

The Institute participates in both a defined benefit scheme and defined contribution schemes.

Under the defined benefit scheme, the Institute makes contributions to The Institute of Materials Pension and Life Assurance Scheme. Pension costs are assessed in accordance with actuarial advice and based on the most recent actuarial valuation of the scheme. The scheme was closed to new entrants during 2002.

Under the defined contribution schemes, the Institute contributes to group personal pension plans providing benefits for some employees. Pension costs are based on current salaries and charged to the statement of financial activities in the year in which they are due.

## DEFINED BENEFIT PENSION SCHEME

The amount charged to the statement of financial activities in respect of pension costs and other post retirement benefits is the estimated regular cost of providing the benefits accrued in the year, adjusted to reflect variations from that cost. The interest cost and expected return on assets are included within other finance costs in support costs.

Actuarial gains and losses arising from new valuations and from updating valuations to the balance sheet date are recognised in the statement of financial activities.

The assets of the scheme are held separately from the Institute in separate trustee administered funds. Full actuarial valuations, by a professionally qualified actuary, are obtained at least every three years, and updated to reflect current conditions at the balance sheet date. The pension scheme assets are measured at fair value. The pension scheme liabilities are measured using the projected unit method and discounted at the current rate of return on a high quality corporate bond of equivalent term and currency. A pension scheme asset is recognised in the balance sheet only to the extent that the surplus may be recovered by reduced future contributions or to the extent that the Council have agreed a refund from the scheme at the balance sheet date. A pension liability is recognised to the extent that the group has a legal obligation to settle the liability.

## INSTITUTE FUNDS AND RESERVES POLICY

Funds held by the Institute are:

Unrestricted general funds – these are funds that can be used in accordance with the charitable objects at the discretion of the Council. The Institute's policy is to maintain sufficient liquid reserves to cover the future expenditure of charitable and administrative costs for up to one year.

Designated funds – these are funds set aside by Council out of unrestricted general funds for specific future purposes or projects.

Restricted funds – these are funds that can only be used for particular restricted purposes within the objects of the Institute. Restrictions arise when specified by the donor or when funds are raised for particular restricted purposes.

Further explanation of the nature and purpose of each fund is included in the notes to the financial statements.

## LIABILITIES

Liabilities are recognised when the entity has an obligation to transfer economic benefit as a result of past transactions or events.

# FINANCIAL STATEMENTS

## NOTES TO FINANCIAL STATEMENTS

1 CHARITABLE TRADING ACTIVITIES	2014 £'000	2013 £'000
<b>TURNOVER</b>		
Publishing	1,430	1,443
Conferences and exhibitions	772	172
Information services	831	1,918
Technology improvement awards	109	94
Training services	251	283
	3,393	3,910
Internal contribution for costs included in sales	(455)	(455)
<b>Incoming resources</b>	<b>2,938</b>	<b>3,455</b>
<b>COST OF CHARITABLE TRADING ACTIVITIES</b>		
Publishing	757	723
Conferences and exhibitions	635	231
Information services	1,190	2,064
Technology improvement awards	115	113
Training services	267	269
	2,964	3,400
Internal contribution to sales	(455)	(455)
	2,509	2,945
<b>NET CONTRIBUTION FROM CHARITABLE TRADING ACTIVITIES</b>		
Publishing	673	720
Conferences and exhibitions	137	(59)
Information services	(359)	(146)
Technology improvement awards	(6)	(19)
Training services	(16)	14
	429	510



# FINANCIAL STATEMENTS

2 VOLUNTARY INCOME	2014 £	2013 £
Donations for medal funds	2	22
	2	22

## 3 ACTIVITIES FOR GENERATING FUNDS

The Institute has a policy to generate income from its property facilities when not required for its own purpose. Related expenditure includes direct costs, employment costs and relevant overheads.

4 INVESTMENT INCOME	2014		2013	
	<i>Unrestricted</i> £'000	<i>Restricted</i> £'000	<i>Unrestricted</i> £'000	<i>Restricted</i> £'000
Listed securities				
Fixed interest	84	26	91	30
UK equities	208	23	225	26
Overseas equities	13	-	8	-
Cash and cash equivalents	1	1	-	1
	306	50	324	57
Return on pension scheme assets	119	-	98	-
	425	50	422	57

## 5 OTHER INCOMING RESOURCES

During the year the Institute sold its leasehold interest in 1 Carlton House Terrace, London. A long leasehold property asset with a net book value of £707k has been disposed of in the year and a profit on disposal of £14,536k has been recognised in the consolidated Statement of Financial Activities for the year ended 31 December 2014. The Institute has entered into an operating leaseback transaction in respect of 1 Carlton House Terrace which ceases on 30 June 2015.

# FINANCIAL STATEMENTS

## 6 TOTAL RESOURCES EXPENDED

SUMMARY	2014 £'000	2014 £'000	2013 £'000	2013 £'000
Direct charitable costs	-	1,990	-	2,209
Employment costs	-	-	-	-
Salaries	2,012	-	2,132	-
Social security costs	200	-	212	-
Pension costs	176	-	286	-
Temporary and other staff costs	150	-	134	-
Redundancy costs	8	-	-	-
	-	2,546	-	2,764
Establishment costs				
Property costs	343	-	293	-
Information technology	140	-	181	-
Depreciation	172	-	167	-
Impairment	1,209	-	-	-
	-	1,864	-	641
Administration costs				
Travel, meeting and committee expenses	90	-	131	-
Postage and telecommunications	68	-	65	-
Printing and stationery	26	-	36	-
Finance costs	25	-	267	-
Professional fees	71	-	45	-
Office and other costs	8	-	4	-
	-	288	-	548
	-	6,688	-	6,162

### BREAKDOWN OF COSTS OF ACTIVITIES

	Direct costs £'000	Support costs £'000	2014 Total £'000	2013 Total £'000
Charitable activities				
Membership and related services	1,075	2,452	3,527	2,722
Charitable trading activities	827	1,682	2,509	2,945
	1,902	4,134	6,036	5,667
Costs of generating funds				
Activities for generating funds	60	250	310	327
Investment management costs	28	-	28	33
Governance costs	-	314	314	135
	1,990	4,698	6,688	6,162

# FINANCIAL STATEMENTS

SUPPORT COST BREAKDOWN BY ACTIVITY	<i>Employment costs</i>	<i>Establishment costs</i>	<i>Admin costs</i>	<i>2014 Total</i>	<i>2013 Total</i>
	£'000	£'000	£'000	£'000	£'000
Membership and related services	854	1,452	146	2,452	1,676
Charitable trading activities	1,269	313	100	1,682	1,903
Activities for generating funds	200	30	20	250	270
Governance costs	223	69	22	314	135
	2,546	655	288	4,698	3,984

Employment costs are allocated to activities based on the cost of the estimated time spent on those activities.

Establishment and administration costs are apportioned to activities on the basis of employment costs.

EMPLOYEE INFORMATION	<i>2014 No.</i>	<i>2013 No.</i>
The average number of full time equivalent employees during the year was	56	61
The number of employees who earned more than £60,000 per annum including benefits was:		
£70,001 - £80,000	1	2
£150,001 - £160,000	-	1
£160,001 - £170,000	1	-
The number of employees who earned more than £60,000 per annum and accrued benefits in the Institute's pension scheme was:		
Defined benefit scheme	1	2
Money purchase scheme	1	1

TOTAL EXPENDITURE INCLUDES:	<i>2014 £'000</i>	<i>2013 £'000</i>
Auditor's remuneration		
Audit fee – current year	30	30
Accountancy, taxation and other services	16	3
Travel expenses paid to 28 (2013: 26) Council Members for attending Council and other meetings	33	28

	<i>2014 £'000</i>	<i>Other</i>	<i>2013 £'000</i>
Operating lease rentals expiring within:	Land and buildings		Land and buildings
Within one year	250	-	-
Within two to five years	-	7	-
After five years	27	-	152

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## OTHER TRANSACTIONS WITH TRUSTEES

Mr K Harrison provided technology expertise to IOM Communications Ltd during the year and was paid fees of £19,024 (2013: £17,808). No other members of the Council have directly or indirectly received any remuneration during the years ended 31 December 2013 and 2014. Mr M D Forrest is the principal of Mining Research Co. UK, a business that provides commissioning editor services to Institute's subsidiary IOM Communications Ltd. During 2014, fees paid to Mining Research Co. UK amounted to £nil (2013 £11,833).

## 7 TRANSFERS BETWEEN FUNDS

Following our investment in freehold property in London, £9,638k was transferred to the Asset development fund during the year. There were no transfers between funds during 2013.

## 8 EXTRACTS FROM THE INSTITUTE'S STATEMENT OF FINANCIAL ACTIVITIES

	2014 £'000	2013 £'000
Total incoming resources	15,984	2,739
Net movement in funds	12,117	330

## 9 INTANGIBLE FIXED ASSETS

	<i>Patent costs £'000</i>	<i>Total £'000</i>
<b>GROUP</b>		
<b>Cost</b>		
1 January 2014	-	-
Additions in the year	16	16
31 December 2014	16	16
<b>Amortisation</b>		
1 January 2014	-	-
Change for the year	-	-
31 December 2014	-	-
<b>Net book value</b>		
31 December 2014	16	16
31 December 2013	-	-

# FINANCIAL STATEMENTS

## 10 TANGIBLE FIXED ASSETS

	<i>Freehold property £'000</i>	<i>Short leasehold property £'000</i>	<i>Furniture, fittings &amp; equipment £'000</i>	<i>Total £'000</i>
<b>GROUP AND PARENT</b>				
<b>Cost</b>				
1 January 2014	158	3,409	1,099	4,666
Additions in the year	12,546	2	108	12,656
Disposals in the year	-	(1,139)	-	(1,139)
Revaluations	141	-	-	141
31 December 2014	12,845	2,272	1,207	16,324
<b>Depreciation</b>				
1 January 2014	44	980	914	1,938
Provided during the year	3	136	33	172
Disposals in the year	-	(425)	-	(425)
Revaluations	(47)	-	-	(47)
Impairment	-	1,209	-	1,209
31 December 2014	-	1,900	947	2,847
<b>Net book value</b>				
31 December 2014	12,845	372	260	13,477
31 December 2013	114	2,429	185	2,728

During the year the trustees reviewed the Institute's accounting policies and agreed that the freehold land and buildings should be accounted for using the valuation method. The existing freehold property has therefore been revalued at its present market value of £300k by Ian Robertson MRICS on 20 February 2014. The next valuation of freehold properties is due to take place in 2019.

Realising that the significant investment made in the Grantham leasehold property does not necessarily reflect its market value, the Trustees decided to carry out an impairment review of the Grantham leasehold and write down the value of the property to its deemed market value of £321k.

# FINANCIAL STATEMENTS

## 11 INVESTMENTS

	<i>Group</i>		<i>Institute</i>	
	<i>2014</i>	<i>2013</i>	<i>2014</i>	<i>2013</i>
	<i>£'000</i>	<i>£'000</i>	<i>£'000</i>	<i>£'000</i>
Analysis of movements in the year				
Market value at 1 January as restated	9,319	8,536	9,319	8,536
Additions at cost	567	571	567	571
Disposals at opening market value	(567)	(571)	(567)	(571)
Revaluations	153	783	153	783
Market value at 31 December	9,472	9,319	9,472	9,319
At the balance sheet date, the portfolio was invested as follows				
<i>Listed investments</i>				
Fixed interest	2,460	2,178	2,460	2,178
UK equities	6,341	6,566	6,341	6,566
Overseas equities	459	409	459	409
<i>Unlisted investments</i>				
Cash and cash equivalents	212	166	212	166
Subsidiary undertakings (note 12)	-	-	-	-
Market value at 31 December	9,472	9,319	9,472	9,319
At the balance sheet date, the following investments represent more than 5% of the portfolio by market value				
Charinco (UK fixed interest common investment fund)	2,381	2,097	2,381	2,097
Charishare (UK equities common investment fund)	6,330	6,554	6,330	6,554
Blackrock International Equity Fund	459	409	459	409
Historical cost at 31 December	7,057	6,937	7,057	6,937

## 12 SUBSIDIARY UNDERTAKINGS

The Institute has three subsidiary organisations:

IOM Communications Ltd, a charitable trading company limited by shares.

The Institute of Packaging, a company limited by guarantee.

Materials Institute Services Ltd, a company limited by shares.

All subsidiary companies are incorporated in the UK and file accounts with the Registrar of Companies. The accounts of IOM Communications Ltd are audited. IOM Communications Limited and Materials Institute Services Limited are wholly owned subsidiaries. The Institute holds 100 shares of £1 each in IOM Communications Limited and 2 shares of £1 each in Materials Institute Services Limited. No premium was paid on acquisition.

IOM Communications Limited undertakes the charitable trading activities of the Institute of Materials, Minerals and Mining. The Institute of Packaging and Materials Institute Services Limited did not trade during 2014.

A summary of the 2014 results and balance sheet of IOM Communications Limited together with comparative figures for 2013 is shown below.

The Institute has taken advantage of FRS8 exemption from disclosing transactions with its wholly owned subsidiaries.

	2014 <i>Total</i> £'000	2013 <i>Total</i> £'000
<b>Results</b>		
Charitable trading activities	3,394	3,910
Total incoming resources	3,394	3,910
Charitable trading activities	2,965	3,400
Donation to the Institute	429	505
Total outgoing resources	3,394	3,905
Net incoming resources	-	5
Balances brought forward	340	335
Balances carried forward	340	340
<b>Balance sheets at 31 December</b>		
Fixed assets	16	-
Current assets	803	1,237
Creditors: amounts falling due within one year	(479)	(897)
Net current assets	340	340
Shareholders' funds	340	340

The net assets of Materials Institute Services Limited at 31 December 2013 and 2014 were £3,447.

The net assets of The Institute of Packaging at 31 December 2013 and 2014 were £nil.

# FINANCIAL STATEMENTS

	<i>Consolidated</i>		<i>Institute</i>	
	<i>2014</i> £'000	<i>2013</i> £'000	<i>2014</i> £'000	<i>2013</i> £'000
<b>13 STOCK AND WORK IN PROGRESS</b>				
Work in progress	32	155	2	1
Sundry stocks	1	2	1	2
	<b>33</b>	<b>157</b>	<b>3</b>	<b>3</b>

## 14 DEBTORS

Trade debtors	263	400	64	159
Other debtors	3,869	22	3,869	23
Prepayments and accrued income	303	636	162	175
	<b>4,435</b>	<b>1,058</b>	<b>4,095</b>	<b>357</b>

## 15 CREDITORS: Amounts falling due within one year

Trade creditors	212	669	99	359
Taxes and social security costs	119	157	119	157
Subscriptions and orders paid in advance	679	772	411	346
Other creditors and accruals	2,013	573	1,914	411
Amounts due to subsidiary companies	-	-	260	235
Bank overdraft	557	411	557	411
	<b>3,580</b>	<b>2,582</b>	<b>3,360</b>	<b>1,919</b>



# FINANCIAL STATEMENTS

## 16 ANALYSIS OF NET ASSETS BETWEEN FUNDS

Group	Unrestricted funds		Restricted	Permanent	Total
	General £'000	Designated £'000	funds £'000	Endowment fund £'000	funds £'000
Intangible assets	16	-	-	-	16
Tangible fixed assets	-	13,477	-	-	13,477
Investments	7,823	-	1,616	33	9,472
Current assets	4,284	-	362	-	4,646
Current liabilities	(3,580)	-	-	-	(3,580)
Net assets before pension liability	8,543	13,477	1,978	33	24,031
Pension liability	(1,865)	-	-	-	(1,865)
Total net assets	6,678	13,477	1,978	33	22,166

Institute	Unrestricted funds		Restricted	Permanent	Total
	General £'000	Designated £'000	funds £'000	Endowment fund £'000	funds £'000
Tangible fixed assets	-	13,477	-	-	13,477
Investments	7,823	-	1,616	33	9,472
Current assets	4,092	-	7	-	4,099
Current liabilities	(3,360)	-	-	-	(3,360)
Net assets before pension liability	8,555	13,477	1,623	33	23,688
Pension liability	(1,865)	-	-	-	(1,865)
Total net assets	6,690	13,477	1,623	33	21,823

## 17 PERMANENT ENDOWMENT FUND

	Balance at 1 January 2014 £'000	Incoming resources £'000	Resources expended £'000	Investment gains/ (losses) £'000	Transfers between funds £'000	Balance at 31 December 2014 £'000
Mining Club	33	-	-	-	-	33

The income of the Mining Club is dealt with in a restricted fund that provides grants for travel, study or attendance at international conferences related to the minerals industry.

# FINANCIAL STATEMENTS

## 18 RESTRICTED FUNDS

	<i>Balance at 1 January 2014 £'000</i>	<i>Incoming resources £'000</i>	<i>Resources expended £'000</i>	<i>Investment gains/ (losses) £'000</i>	<i>Transfers between funds £'000</i>	<i>Balance at 31 December 2014 £'000</i>
Stanley Elmore Fellowship	633	18	(7)	29	-	673
Andrew Carnegie Trust Fund	522	14	(10)	4	-	530
Bosworth Smith Trust	224	6	(2)	1	-	229
Tom Seaman Travelling Scholarship	228	6	(6)	1	-	229
Metals & Metallurgy Trust Fund	90	3	(2)	2	-	93
Edgar Pam Fellowship	87	2	-	1	-	90
G Vernon Hobson Bequest	57	2	(1)	-	-	58
Other funds	20	-	-	-	-	20
Prize funds	57	1	(2)	-	-	56
	1,918	52	(30)	38	-	1,978

The income of these restricted funds are to be used for the following purposes:

Stanley Elmore Fellowship, Bosworth Smith Trust, Edgar Pam Fellowship and G Vernon Hobson Bequest - to provide grants to assist post-graduate research, together with the unexpended balance of Mining Club income.

Andrew Carnegie Trust Fund – to support the award of scholarships and awards in the field of materials.

Tom Seaman Travelling Scholarship Fund is for the purpose of awarding scholarships to persons who are engaged in or associated with the coal mining industry.

The Metals & Metallurgy Trust Fund – to support the award or grants, scholarships and prizes in the field of metals and metallurgy.

Other funds include

A G Charleton Fund – to award prizes to deserving students at the Imperial College of Science Technology and Medicine.

Centenary Student Sponsorship Fund – to provide membership benefits of the Institute to students.

Dixie Dean Bursary Fund – to provide bursaries for foreign students associated with the packaging industry.

Prize funds include the R T Holland Fund, Dennis Chapman Medal Award, Frank Fitzgerald Medal and other funds set up for the award of medals or money to appropriate recipients.

Further information about scholarships, bursaries, professional and travel grants including details of case studies are shown on our website ([www.iom3.org/scholarships-grants-and-bursaries](http://www.iom3.org/scholarships-grants-and-bursaries)).

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	<i>Balance at 1 January 2014 £'000</i>	<i>Incoming resources £'000</i>	<i>Resources expended £'000</i>	<i>Investment gains/ (losses) £'000</i>	<i>Transfers between funds £'000</i>	<i>Balance at 31 December 2014 £'000</i>
<b>19 DESIGNATED FUNDS</b>						
Asset development fund	3,350	-	-	189	9,638	13,177
Services development fund	86	2	-	-	-	88
Sir Julius Wernher Memorial Fund	117	2	-	2	-	121
Packaging education fund	50	-	-	-	-	50
Materials education	24	-	-	-	-	24
Robert A Moore Fund	17	-	-	-	-	17
	3,644	4	-	191	9,638	13,477

The designated funds have been set up for the following purposes:

Asset development fund – representing the total amount (at cost or market value less depreciation) invested in freehold and leasehold properties, furniture, equipment and computers used for the functional purposes of the Institute and amounts set aside to meet future capital requirements.

Services development fund – representing amounts designated by Council to develop and improve the quality of services provided by the Institute.

Sir Julius Wernher Memorial Fund – representing amounts designated to provide for memorial lectures.

Packaging education fund – representing amounts set aside to promote and develop packaging education.

Materials education fund – representing income generated for and costs relating to the promotion of materials education in schools.

Robert A Moore Fund – representing amounts designated to promote the aims of the Institute in the name of Robert A Moore.

	<i>Consolidated</i>		<i>Institute</i>	
	<i>2014 £'000</i>	<i>2013 £'000</i>	<i>2014 £'000</i>	<i>2013 £'000</i>
<b>20 UNREALISED GAINS/(LOSSES)</b>				
General fund	2,072	2,105	2,072	2,105
Designated funds	12	12	12	12
	2,084	2,117	2,084	2,117
Restricted funds	312	273	312	273
	2,396	2,390	2,396	2,390

## 21 CAPITAL COMMITMENTS

The Institute had no capital commitments at 31 December 2013 and 2014.

# FINANCIAL STATEMENTS

## 22 PENSION SCHEMES

### 22.1 INTRODUCTION

The Institute operates a funded defined benefit occupational pension scheme. The assets of the scheme are held separately from those of the Institute and are invested in an insured fund administered by the Prudential Assurance Company Limited and the Newton Exempt Fund administered by Mellon Fund Managers Limited. Under the terms of the Trust Deeds, the scheme is administered by the Trustees.

The scheme was closed to new members during 2002 and new employees are given the opportunity to join the group personal pension arrangements with Scottish Life. The group personal pension plan is a defined contribution benefit scheme and complies with the stakeholder legislation.

At the year end, the scheme had 10 current staff members and 85 deferred members.

Results of the most recent triennial actuarial valuations, at 1 January 2007, 2010 and 2013 showed the following results.

	2007 £'000	2010 £'000	2013 £'000
Market value of the scheme's assets	5,065	6,404	7,361
Liability for projected accrued benefits	(5,311)	(6,925)	(9,201)
(Deficit)	(246)	(521)	(1,840)

Arrangements have been made for the deficit shown by the actuarial valuation at 1 January 2013 to be funded at the rate of:

- £29k p.a. payable in equal monthly instalments from 1 January 2013 to 31 December 2014.
- £29k increasing at 3.4% p.a. payable in equal monthly instalments from 1 January 2015 to 31 December 2028.

### 22.2 PRINCIPAL ACTUARIAL ASSUMPTIONS

A valuation of the defined benefit pension scheme assets and liabilities at 31 December 2014 under FRS17 has been carried out by a qualified independent actuary. The projected unit valuation method has been used. The major financial assumptions used by the actuary were:

Years ended	2014 % p.a.	2013 % p.a.
Discount rate	3.50	4.50
Price inflation – pre-retirement (RPI)	3.10	3.30
Consumer Prices Inflation – pre-retirement (CPI)	2.10	2.30
Future salary increases	2.10	3.80
Rate of increases of pensions in payment (RPI)	3.00	3.20
Rates of increases of pensions in payment – non-pensioners (CPI)	1.30	1.90
Rate of increase for deferred pensioners	2.10	2.30
Expected return on scheme assets at 31 December	5.40	6.40

## 22 PENSION SCHEMES (continued)

The overall expected return on assets assumption of 5.4% at 31 December 2014 has been derived by calculating the weighted average of the expected return for each asset class. The following approach has been used to determine the expected rate of return for each asset class:

- Fixed interest securities: Current market yields
- Equities: Allowance for an additional return of 5.3% above that available for UK government securities
- Property: Allowance for an additional return of 5.3% above that available for UK government securities
- Cash/other: In line with RPI

The following demographic assumptions were used in the valuation:

	Year ended 31/12/2014		Year ended 31/12/2013	
	Males	Females	Males	Females
Mortality pre-retirement	As for post retirement		AMC00/AFC00	
Mortality post-retirement	S2PA CHI 2014 M/F 1% (yob)		SIPA CMI 2013 M/F 1% (yob)	
Life expectancy for a current 65 year old in 2013	22.0 years	24.0 years	21.9 years	24.1 years
Life expectancy at age 65 for an individual aged 45 in 2013	23.3 years	25.5 years	23.3 years	25.7 years

22.3 AMOUNTS RECOGNISED IN THE BALANCE SHEET FOR DEFINED BENEFIT SCHEME	2014 £'000	2013 £'000
Present value of liabilities	(10,317)	(8,904)
Market value of scheme assets	8,452	8,107
Pension scheme liability recognised in the balance sheet	(1,865)	(797)

22.4 CHANGES IN THE VALUE OF SCHEME LIABILITIES IN THE YEAR	2014 £'000	2013 £'000
Opening liabilities	(8,904)	(8,008)
Service cost	(95)	(109)
Past service cost	-	(246)
Interest cost	(399)	(363)
Member contributions	(38)	(43)
Benefits paid	216	155
Actuarial (losses)	(1,097)	(290)
Closing liabilities	(10,317)	(8,904)

# FINANCIAL STATEMENTS

## 22 PENSION SCHEMES (continued)

22.5 CHANGES IN THE MARKET VALUE OF SCHEME ASSETS IN THE YEAR	2014 £'000	2013 £'000
Opening scheme assets	8,107	7,337
Expected return	518	462
Actuarial (losses)/gains	(142)	314
Employer contributions	147	106
Member contributions	38	43
Benefits paid	(216)	(155)
Closing scheme assets	8,452	8,107
Amount recognised in balance sheet	8,452	8,107

22.6 MAJOR CATEGORIES OF SCHEME ASSETS	%	%
Equities	54	64
Corporate bonds	9	17
Government bonds	18	3
Properties	2	2
Cash	9	10
Other assets	8	4
Total scheme assets	100	100

## 22.7 AMOUNTS RECOGNISED IN THE STATEMENT OF FINANCIAL ACTIVITIES

Amounts recognised in net incoming resources are as follows:	£'000	£'000
Current service cost	95	109
Past service cost	-	246
Interest on obligations	399	363
Expected return on scheme assets	(518)	(462)
Net (charge)/credit	(24)	256

The actual return on scheme assets was a gain of £376k (2013: £807k)

The Institute expects to contribute £108k to its defined benefit pension scheme in 2015. This is in addition to paying all the expenses of the scheme including fees, levies and life assurance premiums.

The actuarial losses recognised in the statement of financial activities for 2014 were £1,239k and the cumulative losses recognised from 2002 to 2014 amounted to £2,308k.

# FINANCIAL STATEMENTS

## 22.8 HISTORY OF SCHEME ASSETS, FUNDING OBLIGATIONS, EXPERIENCE GAINS AND LOSSES

	2014 £'000	2013 £'000	2012 £'000	2011 £'000	2010 £'000
Scheme liabilities	(10,317)	(8,904)	(8,008)	(7,429)	(6,823)
Scheme assets	8,452	8,107	7,337	6,731	7,210
Scheme (deficit)/surplus	(1,865)	(797)	(671)	(698)	387
Experience adjustments on scheme obligations	-	(173)	1	(1)	246
Change of basis adjustments to scheme obligations	(1,097)	(117)	(251)	(506)	258
Experience adjustments on scheme assets	(142)	314	277	(703)	286

## 22.9 OUTSTANDING PENSION CONTRIBUTIONS AT THE YEAR END

Contributions for the defined benefit scheme amounting to £12k (2013 - £12k) were outstanding at the year-end. Contributions for the defined contributions schemes amounting to £8k (2013 - £5k) were outstanding at the year-end.

## 23 GROSS CASH FLOWS

23.1 RETURNS ON INVESTMENTS AND SERVICING OF FINANCE	2014		2013	
	£'000	£'000	£'000	£'000
Interest received	1		1	
Dividend income	355		380	
		356		381

## 23.2 CAPITAL EXPENDITURE

Payments to acquire tangible fixed assets	(12,656)		(176)	
Payments to acquire intangible fixed assets	(16)		-	
Purchase of investments	(567)		(571)	
Receipts for sale of fixed assets	15,300		-	
Receipts for sale of investments	567		575	
		2,628		(172)

## 23.3 ANALYSIS OF CHANGES IN NET FUNDS

	At 01.01.14 £'000	Cash flows £'000	Other changes £'000	At 31.12.14 £'000
Cash at bank and in hand	166	12	-	178
Bank overdraft	(411)	(146)	-	(557)
	(245)	(134)	-	(379)

