

THE INSTITUTE OF MATERIALS, MINERALS & MINING

England & Wales · Charity number 269275

Details

Other names IOM3

Status Registered

Legal form Other

Registered 1975-02-12

Register [View on the Charity Commission register](#)

Contact

Address Institute of Materials Minerals & M
& MINING
297 Euston Road
London
NW1 3AD

Phone 02074517300

Email governance@iom3.org

Website www.iom3.org

Activities

Objects: TO ADVANCE AND DEVELOP ALL ASPECTS OF SCIENCE, ENGINEERING AND TECHNOLOGY AS APPLIED TO THE DISCOVERY, EXPLORATION, DEVELOPMENT, CHARACTERISATION, EXPLOITATION, PROCESSING, APPLICATION AND RECYCLING OF MATERIALS, MINERALS AND FUELS, TO FURTHER AND CO-ORDINATE EDUCATION, TRAINING AND PRACTISE IN THESE DISCIPLINES AND TO FACILITATE THE ACQUISITION, PRESERVATION AND DISSEMINATION OF KNOWLEDGE PERTAINING TO THESE DISCIPLINES, PROVIDED THAT 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

Activities: 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.

Classification

- **How:** Provides Advocacy/advice/information
- **What:** Education/training
- **Who:** The General Public/mankind

Geography

- Throughout England And Wales

Finances

Period end	Income	Expenditure	Assets	Employees
2024-12-31	£5,161,000	£5,048,000	£14,502,000	44
2023-12-31	£4,818,000	£7,987,000	£12,823,000	42
2022-12-31	£3,997,000	£3,983,000	£16,316,000	41
2021-12-31	£3,859,000	£3,922,000	£17,273,000	44
2020-12-31	£3,459,000	£3,801,000	£15,203,000	51

Trustees

Name	Role	Appointed
Christine Anne Blackmore		2020-11-01
Dr Alexander Norori-McCormac		2024-02-01
Dr Colleen Mann		2025-01-08
Dr David Andrew Stewart		2022-09-27
Dr Duncan Andrew Broughton		2026-04-29
Dr Graham Alan Ormondroyd		2022-12-14
Dr Kate Thornton		2015-03-11
Dr Michael Kenyon		2026-01-02
Dr Michael Raymond Clinch		2013-11-12
Dr Richard Michael Oblath		2024-05-01
Ian Richard Marchant		2023-11-14
Jason Matthew Webb		2023-11-01
Martin Christian Cox		2022-02-01
Martyn Anthony Jones		2020-02-21
Thomas Rowland Hill		2023-05-02

Linked charities

- ANDREW CARNEGIE RESEARCH FUND (269275-1)
- THE WILLIAMS PRIZE FUND (269275-2)
- BESSEMER MEDAL FUND (269275-3)
- TOM COLCLOUGH MEDAL AND PRIZE FUND (269275-4)
- THE METALS AND METALLURGY TRUST (269275-5)

THE INSTITUTE OF MATERIALS, MINERALS & MINING

England & Wales - Charity number 269275

Accounts

The global network for
the materials cycle.

I.M3 Institute of Materials,
Minerals & Mining

2024 ANNUAL REPORT & FINANCIAL STATEMENTS

The annual report and financial statements have been prepared in accordance with the accounting policies set out on pages 78 to 81 and comply with the Charity's Royal Charter, the Charities Act 2011 and Accounting and Reporting by Charities: Statement of Recommended Practice applicable to charities preparing their financial statements in accordance with the financial reporting standard applicable in the UK and Republic of Ireland (FRS102) (effective 1 January 2019).

IOM3 supports professionals in materials, minerals, mining and associated technical disciplines to be champions of the transition to a low-carbon, resilient and resource efficient society. It seeks to be the best professional membership body it can be by providing modern, flexible services; quality technical content; and value for money.

Our activities promote and develop all aspects of the materials cycle, from exploration and extraction, to characterisation, processing and application, to product recycling, repurposing and reuse.

Public benefit

Materials form an integral and important part of all our lives. The materials cycle covers the exploration and extraction of raw materials, processing them into industrial/engineered materials, application of these materials, recycling of waste and the ultimate disposal of waste in an environmentally responsible 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 all. The objectives and activities of the Institute, together with government and other parties, have been designed to support and achieve these ideals.

The Institute has referred to the Charity Commission's guidance on public benefit when reviewing its aims, objectives, and future activities.

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.

I·M3 Institute of Materials, Minerals & Mining

IOM3 London

297 Euston Road, London NW1 3AD

IOM3 Grantham

The Boilerhouse, Springfield Business Park,
Caunt Road, Grantham NG31 7FZ

t. 020 7451 7300 • www.iom3.org

The Institute of Materials, Minerals & Mining (IOM3) is a body incorporated by Royal Charter (company no RC000267) and a charity registered in England & Wales (269275) and in Scotland (SC050586).

Patron: HM The King

Trustees' Report

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Now that my term as President has ended, it is my pleasure to present the Annual Report for the final time. It has been another busy and successful year for the Institute and its members, though, as always, not without its challenges.

One of the key achievements for IOM3 this year has been recording a surplus, even after depreciation and defined benefit pension scheme deficit funding and running costs. This success is due to our rigorous approach to budgeting and spending, as well as the enhanced royalty payment we received from Sage Publishing for our journals. While we acknowledge that the transition to Sage Publishing was not without its challenges for some journals and editorial teams, we are now beginning to see the benefits of this shift in many aspects. I would like to extend my sincere thanks to everyone involved for their dedication, hard work, and perseverance in making this possible.

It was an event-packed year, with *PVC 2024* in April, *FEMS Junior EUROMAT 2024* in July, and the *1st International Conference on*

Surface Science, Engineering and Technology, 43rd Cement and Concrete Science, and 16th Adhesion all in September. I was fortunate enough to attend *FEMS Junior EUROMAT 2024* as Conference Chair, and I was encouraged to see the engagement and networking between the students and early career researchers. I have no doubt that many future collaborations started at that conference – something that I have been particularly heartened to witness several times during my term. These cross-sector collaborations aim to address the key societal challenges we all face, in which materials, minerals and mining play a significant part. By continuing to foster collaboration, embracing inclusion and encouraging innovative thinking, I have no doubt that we will continue to see great progress in our fields.

Within IOM3, we continue to embed equity, diversity and inclusion in everything we do – from event planning to our webinars, such as 'Inclusion Unmasked', to our new hashtag #WeAreIOM3. The latter, in particular, is aimed at highlighting that IOM3 is a membership body for everyone within the materials, minerals and mining

PRESIDENT'S

OVERVIEW

sector, regardless of background, gender, ethnicity and sexuality (to name a few). Hopefully, you have seen this yourself over the years, but if you feel we could do more to make IOM3 a more inclusive and welcoming place, please do not hesitate to get in touch. We are always willing to learn so we can do better.

An area in which IOM3 has excelled in recent years has been playing a key role in shaping policies that impact the materials, minerals and mining industries. A major milestone was the release of its energy transition policy paper, which outlined the critical role of materials science in the UK's shift towards low-carbon energy. IOM3 highlighted the need for strategic investment in sustainable materials and supply chains to support clean energy technologies, positioning itself as a leading voice in the transition to a greener economy.

Additionally, IOM3 responded to key government initiatives, including the Autumn Budget, where it welcomed commitments to industrial strategy and funding for critical minerals. The Institute also contributed to national discussions on resource security and sustainability, supporting recommendations for

'IOM3 is a membership body for everyone within the materials, minerals and mining sector, regardless of background, gender, ethnicity and sexuality.'

Dr Kate Thornton **CEng CSci FIMMM** **IOM3 President** **(2023–2024)**

strengthening the UK's materials supply chains. Towards the end of the year, IOM3 Chief Executive, Dr Colin Church, was appointed to the UK's Circular Economy Taskforce, reinforcing the organisation's influence in policy development. Through consultations reports, and active engagement with stakeholders, IOM3 continued to advocate for policies that drive innovation and sustainability in its sectors. ►



On sustainability, we hosted the second Sustainable Future Awards in November. It was amazing to see what our members are up to and how they are dedicating their time to a variety of problems, as well as the imaginative and sustainable solutions they have come up with. This is a new addition to our awards programme, and we continue to host the annual IOM3 Awards & Prizes. I was proud to see an increased level of interest this year in the awards – with applications up 28.5% on the previous year. While this led to increased work for all the judges (thank you, judges!), I can safely say it was well worth it, having reviewed numerous inspiring applications myself. It was our honour to celebrate with all our worthy winners and I hope that they all share the stories that led to their awards in the coming months.

Given that all sectors of IOM3 are currently facing a skills gap, as highlighted by the open letter that IOM3 was a co-signatory of in November 2023, the more we can do to help promote and showcase our, at times, weird and wonderful sectors, the better. As such, we have continued to host the UK final of the Young Persons' Lecture Competition in London, followed by the Young Persons' World Lecture Competition in November. These seminal events are a highlight for many of our student and early career members. I am always impressed by their enthusiasm for their topics and the variety of ways they present their material to keep the audiences engaged, whether in person or online. 2025 is a big year for the Young Persons' World Lecture Competition as it marks its 20th anniversary. I hope to see as many members as possible attending to see what changes the Student & Early Career Group have implemented following their review of this event. Engagement with student and early career researchers continues with the ever-popular Starpack Competition. This is a great way of engaging future

packaging specialists and linking them with potential companies through the sponsorship of awards. Each year, the judges are blown away by the creativity and imaginative approaches, and I look forward to seeing what is designed this year.

It has been my pleasure to be your President for the past two years, and I would like to take this time to thank the team, volunteers, and members of IOM3 for making it a unique and supportive environment. This year, two stalwarts of IOM3 have retired – Sarah Boad and Dr Nuna Staniaszek. Both have worked for and supported IOM3 and its members for a long time, so their presence will surely be missed. I wish them both many years of happy and healthy retirement and extend my sincere thanks for everything they have done over the years.

I have no doubt you will be as supportive and welcoming to the challenges of the coming years for our new President, Christine Blackmore, as you have been for me. I would also like to wish our new Vice-President, Dr Colleen Mann, the best of luck at the start of her Presidential journey, and I hope she enjoys it as much as I have.

Thank you once again for this opportunity – I hope I did you all and IOM3 proud.

 *'Through consultations, reports, and active engagement with stakeholders, IOM3 continued to advocate for policies that drive innovation and sustainability in its sectors.'*



It is a great honour to become President of IOM3, and it marks the high point of my career. Over the past 30 years, I have taken on various roles within IOM3, each presenting valuable learning opportunities.

Firstly, I sincerely thank Dr Kate Thornton, the outgoing President, for her leadership and commitment. She played a crucial role in advancing IOM3, particularly by supporting students and early career professionals. She also championed equity,

diversity and inclusion (EDI), ensuring that the Institute recognises and values the diverse needs of all its members.

IOM3 actively contributes to the critical discussion on Critical Raw Materials (CRMs) and their applications. This key growth area closely aligns with the expertise and interests of our members. CRMs drive technological advancements and the transition towards a more sustainable future. Improving our capacity to recycle

and repurpose materials remains crucial to reducing reliance on virgin raw materials and minimising environmental impact.

Recently, several IOM3 members attended the House of Commons for the launch of the National Materials Innovation Strategy, brought together by the Henry Royce Institute with support from IOM3 and many other stakeholders. This focuses on fostering economic growth through material innovation. ▶

INCOMING PRESIDENT'S LOOK AHEAD

'Over the past 30 years, I have taken on various roles within IOM3, each presenting valuable learning opportunities.'



Advanced materials play a vital role in national economic and technological progress, and IOM3 will continue advocating for responsible material sourcing, use, and reusability.

Despite these opportunities, the energy crisis continues to challenge both industry and individuals. Soaring energy costs, supply chain disruptions and policy uncertainties place immense pressure on businesses as well as families, particularly enterprises in energy-intensive sectors such as metals, ceramics and mining. Energy market volatility drives up production costs, reduces output and, in some cases, forces facility closures.

Industries now prioritise energy security by seeking stable and affordable energy supplies. While transitioning to renewable energy is essential and welcome, it presents its own challenges, including the need for improved storage technologies and grid stability. Additionally, geopolitical tensions including conflicts and trade disputes, disrupt energy supply chains and create uncertainty over the availability of key energy sources such as natural gas and oil. This global instability underscores the urgency of developing diversified and resilient energy strategies that can withstand geopolitical shifts.

Christine Blackmore
CEnv CSci FIMMM
IOM3 President
(2025-2026)

Looking ahead, I will focus on supporting Affiliated Local Societies (ALS) across the IOM3 network. These societies form the backbone of our community, and keeping them engaged is vital for attracting new members. Virtual meetings have increased accessibility, but face-to-face interactions remain irreplaceable for networking and knowledge-sharing. I encourage members to take advantage of in-person opportunities whenever possible.

Another priority of my Presidency is to encourage students and early career people to engage with the materials cycle. Developing new materials is fundamental to progress. The metals we mine and use today differ from those of previous generations, and the mining and materials industries continue to undergo remarkable transformations.

'Exciting developments in materials science, from battery technologies to sustainable composites, are reshaping industries. IOM3 plays a vital role in supporting this evolution through events, publications and advocacy. We must continue to be a platform that inspires and educates the next generation of professionals in this field.'

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Lastly, maintaining high standards, policies and diversity at the core of IOM3 remains a priority. I will uphold an open-door policy throughout my Presidency, ensuring that IOM3 remains accessible, supportive and proactive in addressing the needs of its members.

By fostering inclusivity, innovation and engagement, IOM3 will continue thriving as a leading institution in materials, minerals and mining. I look forward to working with members and stakeholders to advance our collective goals in the years ahead.

This year has seen some substantial change for IOM3, both in terms of the world around us following the 'year of elections' and in more parochial terms with service and team changes. Through it all, I am immensely pleased to say, the active supporters and volunteers and the IOM3 team have continued to do us all proud. From our scientific journal editors and their boards who worked so hard to make the transition to our new publishing partner work well, to the new dynamic duo of membership recruitment, Paul Skerry and Jamie Graham, through the hard work of conference organising and scientific committees and IOM3 teams running a whole host of other activities, it has been another year of real progress in supporting professionals in materials, minerals, and mining and delivering our charitable purpose. This hard work has also meant that IOM3 continues to generate an operational surplus, which means we can deliver more charitable activity whilst keeping our membership fees reasonable.

Dr Colin Church CEnv FIMMM IOM3 Chief Executive



CEO'S REVIEW

In 2024, our membership numbers remained broadly stable, though recruitment to some grades did fall back as a result of the gap without a Director of Membership and the time for the new team to get up to speed. However, our new membership development strategy, adopted by trustees at the end of 2024, maps a clear path to recover and grow further. Our new Qualified for Minerals Reporting (QMR) registration continues to attract applicants, with over a hundred now on this register. Adding a successful Science Council Licence Review to last year's Engineering Council and Society for the Environment ones was another highlight.

IOM3 continues to work hard to provide our members and wider society with high quality technical content, whether through our webinars, in-person events, member magazines, podcasts or news items. A special mention too for the extensive range of content offered by our Affiliated Local and International Societies, who do so much to support local communities of professionals in materials, minerals, and mining, and who are fully back now into the post-COVID routine. If you haven't already signed up to receive information about their activities, I strongly encourage you to do so via your MyIOM3 account on our website.

'IOM3 continues to work hard to provide our members and wider society with high quality technical content, whether through our webinars, in-person events, member magazines, podcasts or news items.'

With the help of our editorial boards, the transition of our scholarly journals to Sage Publishing completed on time at the beginning of the year, and – for such a big exercise – went pretty smoothly. Our journals now reach even more readers across the globe, representing one of the major tools IOM3 has to promote better understanding of materials, minerals and mining. And all of these – and many other journals in our fields – are free to access for IOM3 members via our website. ►

Members will continue to have free access not only to the suite of IOM3 journals but also to this year's content highlights, which include:

- 20 webinars, 7 in-person events and 3 hybrid events with almost 4,000 registrations from 39 countries
- Hosting several major international conferences, including *PVC 2024* (Edinburgh, April); *FEMS Junior EUROMAT 2024* (Manchester, July) and the *1st International Conference on Surface Science, Engineering & Technology* (Manchester, September)
- 12 episodes of the 'IOM3 investigates...' podcast were released this year, with over 3,500 plays in 2024

Despite a difficult economic context for training, the IOM3 professional development offering remains strong. The Training Academy successfully ran 44 courses for over 200 learners, (93 in classroom, 76 virtual, and 58 online). We also continued to provide end point assessment services for several apprenticeships via PIABC, the IOM3-owned Awarding Body and End Point Assessment Organisation.

This year again had a great interest in our awards, with 147 nominations across 43 categories for the 2024 IOM3 Awards & Prizes and good interest for our Student & Apprentice Awards. Our second outing for the Sustainable Future Awards, sponsored by Cornish Lithium, brought in a very impressive set of nominations. Winners were announced at the dinner following on from the Fellows Day lecture from Professor Mark Miodownik MBE FREng CEng HonFIMMM.

IOM3 seeks to influence society to value and use the expertise of our members. The political landscape in the UK changed significantly in 2024, and the new national government has launched a whole series of consultations, calls for evidence and initiatives relevant to IOM3 members. In line with the priority areas IOM3 identified before the UK General Election, the team has been kept busy co-ordinating member input on the industrial strategy, critical materials, skills, industrial decarbonisation, packaging, the school curriculum, access to finance for advanced manufacturing, deep sea mining, chemical recycling of plastics and many more. If you are interested in keeping in touch with this area of activity, do check out the Policy and Influence pages on the website.

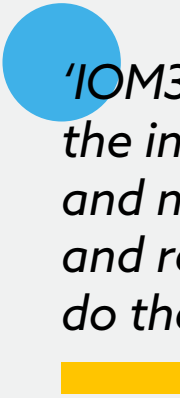
Our influence work also covers what we do to reach out to learners at school and university to help them understand the availability and importance of careers in materials, minerals and mining. In 2024, we were able to further increase our activity thanks to generous funding from the IOM3 Education & Outreach Trust, a separate but linked charity that exists to do what its name suggests. For example, the Polymer Study Tours have generally 'sold out' within hours of launch and have proven so successful that we are looking to extend them to other materials, minerals and mining topics in 2025.

One reflection of the success of IOM3 and others in raising awareness of the importance of undergraduate mining education is that the Camborne School of Mines at the University of Exeter confirmed it will reintroduce a BEng in Mining Engineering from the 2025/26 academic year.

IOM3 has been increasingly successful in highlighting the importance of professionals in materials, minerals and mining to the transition to a low-carbon, resilient and resource-efficient society, and we are also keen to do the right thing in our own operations too. For example, we have set ourselves the target of reaching net-zero own greenhouse gas emissions by 2030 and are well on the way to achieving this. We have also implemented a number of other measures to continue to improve our organisational sustainability, such as removing single-use items and moving our recycling up to 69% in 2024. There is more still to do, but we are proud of what we have achieved to date.

Before I close, I would like to make particular mention of two stalwarts of the IOM3 team who have finally hung up their tools this year. Sarah Boad, Membership Development Manager, left in the spring and Dr Nuna Staniaszek FIMMM, Director of Communications, left just before Christmas. Between them, they had almost 70 years of service for the members of IOM3 and they will both be remembered fondly by their former colleagues.

My final word goes, as is only proper, in thanks: to the active supporters and volunteers who give up their time and share their expertise to support our work across a multitude of roles; and to the fantastic group of people who make up the team here at IOM3. Together, this combination delivers year after year for professionals in materials, minerals and mining, and for society as a whole.



'IOM3 has been increasingly successful in highlighting the importance of professionals in materials, minerals and mining to the transition to a low-carbon, resilient and resource-efficient society, and we are also keen to do the right thing in our own operations too.'

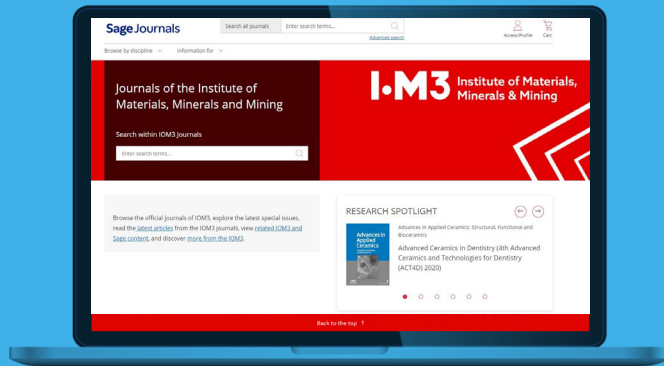


HIGHLIGHTS
OF THE YEAR

This annual report reflects the work, aims, and objectives of IOM3 in 2024. Committed to being a leading professional membership body, IOM3 continued to provide modern, flexible services, high-quality technical content, and value for money.

Bringing together professionals across disciplines, the Institute's 22 Technical Communities provide pathways to professional registration (including chartership), mentoring and access to expert technical content. As the global network advancing sustainability and circularity in the materials cycle, IOM3 empowers members to make a lasting impact in their field and beyond.

IOM3 is grateful to all its active supporters and volunteers, who contribute at all levels and across all sectors, both in the UK and overseas. The trustees also acknowledge the hard work and dedication of the team in delivering the Institute's mission. Highlights from IOM3 activities in 2024 are outlined in the following pages.



- Successfully transferred IOM3 journal portfolio from Taylor & Francis to Sage Publishing, now the new home for IOM3 journals

January



- IOM3 published an energy transition policy paper outlining four critical areas essential for delivering the energy transition at the required pace
- EDI champions organised the webinar *Inclusion Unmasked: Navigating Complexity & Realities*

March



- Young Persons' Lecture Competition final held at The Armourers' Hall, London
- HM King Charles III announced as the Patron of IOM3
- IOM3 hosted a free Packaging Data for pEPR webinar featuring Defra officials
- Sarah Boad, Membership Development Manager, retired after 30 years of service

May



February

- IOM3 hosted a panel session with Defra and key industry stakeholders on making a success of packaging Extended Producer Responsibility



April

- PVC 2024 conference returned as an in-person event, held at the Edinburgh International Conference Centre in Scotland, welcoming nearly 500 delegates from 38 countries.
- IOM3 President Dr Kate Thornton reported on the Advisory Council meeting



June

- 2024 member survey launched
- WIM3 celebrated International Women in Engineering Day with a free webinar on 'Enhanced Engineering'
- ADM3 contributed to IOM3 podcast to discuss neurodiversity in STEM
- Starpack Students Competition winners announced at awards ceremony in London
- IOM3 published policy priorities for the next UK government
- IOM3 shortlisted for the Memcom Awards in the 'Organisation Sustainability' category





- FEMS Junior EUROMAT 2024 held in Manchester, with President Dr Kate Thornton as conference co-chair
- IOM3 celebrated the release of impact factors for its journal portfolio
- 2024 Awards & Prizes winners announced

July



AGM 2024

10 SEPTEMBER 2024

- AGM held at 297 Euston Road, with 22 members attending in person and 72 online
- Society for the Environment celebrated 20 years of Chartered Environmentalists (CEnv)
- Busy month for in-person events, including the *1st International Conference on Surface Science, Engineering & Technology*, the *43rd Cement & Concrete Science Conference*, and *16th Adhesion*, held in Manchester, Belfast, and Oxford respectively

September



- 2024 Fellows Day and Sustainable Future Awards Ceremony took place at 297 Euston Road, London
- The Young Persons' World Lecture Competition took place virtually
- IOM3 submitted a response to the Industrial Strategy consultation
- IOM3 submitted a response to the Curriculum and Assessment Review call for evidence



November



August

- IOM3 and partners sent a joint letter to the new Education Secretary, calling for minerals and mining to be included in Skills England's assessment of future skills needs
- IOM3 sent letters to the newly appointed Secretaries of State, emphasising the vital role of materials, minerals and mining within their departments



October

- IOM3 contributed to the National Engineering Policy Centre's report on demand management of critical materials
- Finalists for the 2024 Sustainable Future Awards announced
- Three industry practitioners discussed the future of foundation industries on the IOM3 podcast
- A new free webinar series launched: *Navigating Industry 4.0 in Materials, Minerals & Mining*
- Last issue of *Clay Technology Magazine*



December

- 2024 IOM3 Awards Day celebration took place at 297 Euston Road, London
- Dr Nuna Staniaszek retired as Director of Communications after 38 years of service to IOM3 and its predecessors
- Starpack Schools Celebration event
- Dr Colleen Mann CEng FIMMM appointed as new Vice-President of IOM3

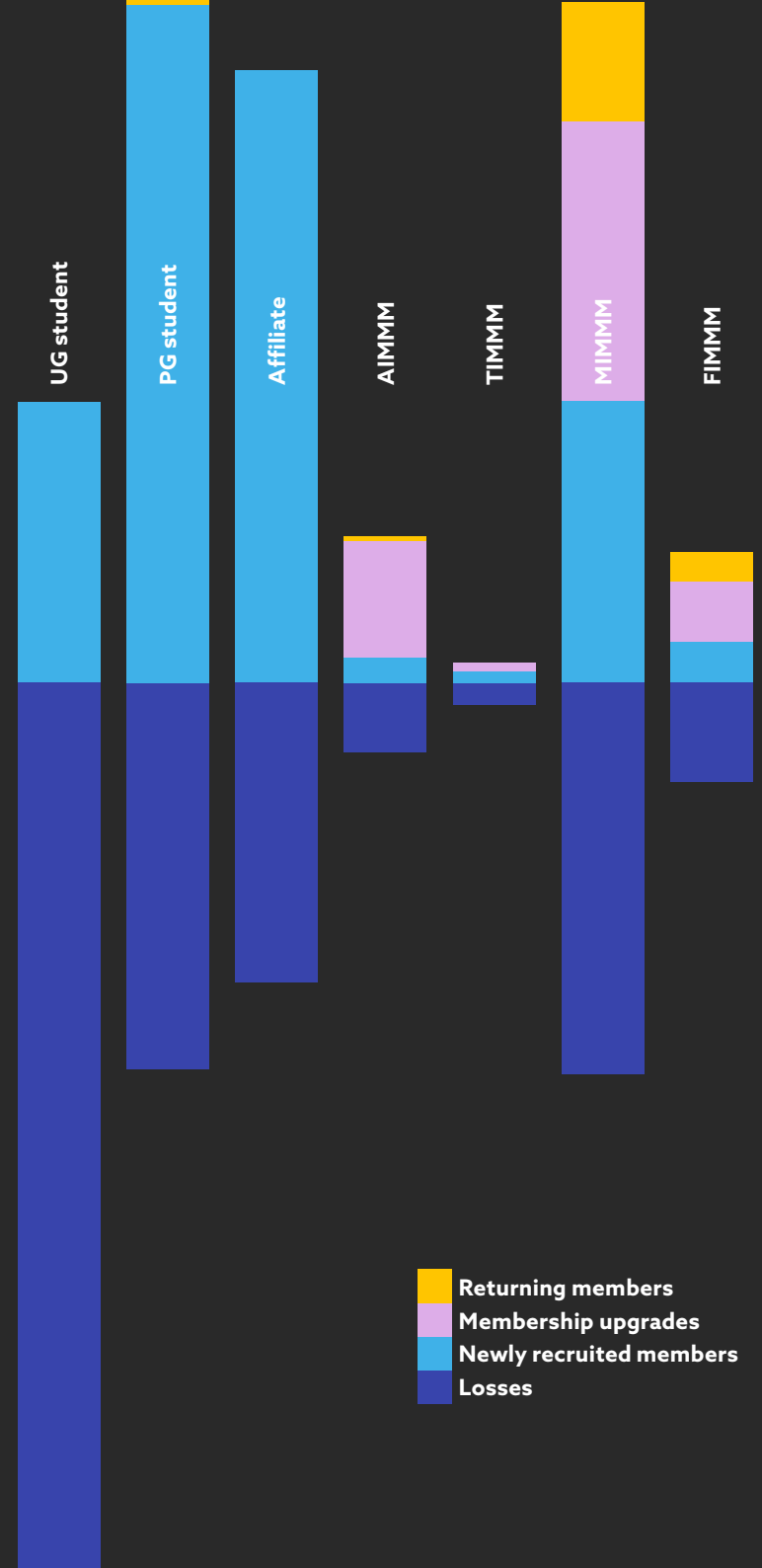


MEMBERSHIP

2024 was a busy year for membership. While new member recruitment stood at 1,540, slightly lower than in previous years, 375 members upgraded, and 122 returned to IOM3. This resulted in membership income remaining broadly on target at £1.67m, a 4% increase on the previous year.

Significant progress was made in helping members progress through the grades to support their career development. Alongside the benefits to individual members, this will also underpin member retention and organic growth in the long term. At the end of the year, the Membership Strategy, setting priorities through to 2030, was presented to the Executive Board. The strategy is data-driven and reflects 12 key themes based on recent member feedback. In 2025, IOM3 team will work with member networks and communities to develop tools that will help its active supporters and volunteers (ASVs) take a more active role in supporting membership growth.

We continued to see healthy interest from members seeking professional registration. In 2024, IOM3 recorded 158 new Engineering Council registrants (CEng, IEng and EngTech), 36 new Science Council registrants (CSci, RSci and RSciTech), and 9 new Society for the Environment registrants (CEnv and REnvP). IOM3 also successfully renewed its Science Council licence and took part in the Royal Academy of Engineering's Engineers 2030 initiative and the Engineering Council's 2030 strategy.



Demand for membership workshops remained strong, with 43 sessions held across accreditation, membership, and registration, including 'Become a FIMMM', 'CEng in a Day', and professional registration workshops for the Science Council and Society for the Environment. The LinkedIn Mentoring Group grew to over 600 members, supported by new Bitesize video content. Volunteer engagement in membership activities also increased by 20% since.

IOM3 accredited two company training schemes and programmes of study at seven universities. Interest in company accreditations has continued to grow following the pandemic. 2024 also saw further progress with the Qualified for Minerals Reporting (QMR) qualification, with 49 new registrants, taking the total number of active registrants to 112 at the end of the year (see below for more on QMR). At the end of the grandparenting period, new processes for interview were introduced improving accessibility for new registrants along with the first annual renewal process that supports the continued development of those that are registered.

'I'd like to take a moment to express my sincere gratitude to you and the entire PRI panel for their time, expertise and professionalism throughout the entire process. I am deeply appreciative of the opportunity to learn from such esteemed individuals, and I am grateful for their support in helping me advance through this important stage in my career. Thank you once again for making this experience so positive and rewarding!'

IOM3 member Mr Thomas Drew IEng MIMMM, Incorporated Engineer (IEng) registration via the Technical Report Route

QMR

QMR (Qualified for Minerals Reporting) is a relatively new postnominal approved by the Privy Council and outlined in the updated IOM3 Bye-Laws. It recognises members who meet the necessary qualifications and professional experience to be considered minerals reporting industry professionals. QMR aligns with Committee for Mineral Reserves International Reporting Standards (CRIRSCO) reporting standards, demonstrating competency in preparing or contributing to public reports on exploration results, mineral resources, and ore reserves. This designation is aimed at maintaining high professional standards across reporting activities in the extractive industries.

In 2024, the membership team focused on further developing the processes for QMR interviews and due diligence checks as part of annual registration. We also began planning to engage volunteers as interviewers, CPD assessors, and support for the Disciplinary Panel. Looking ahead, we're reviewing training and conferences to further strengthen the CPD process. By the end of the year, QMR had been awarded to 49 new registrants, with a total of 112 active on the register.

#WeAreIOM3

We launched a new campaign, #WeAreIOM3, which showcases our diverse membership under the tagline, 'Many disciplines. One community. Shaping the future.' This campaign celebrates the varied skills and experiences of our members, highlighting how IOM3 supports personal and professional growth. By sharing encouraging stories, we aim to strengthen our community and inspire new members to join us in shaping the future of materials, minerals and mining.



Active Supporters & Volunteers (ASVs)

We have added some free training for ASVs on data protection, with EDI training to follow in 2025.

We have developed a new Active Supporter & Volunteers (ASV) social media best practice guide with the aim of supporting our members and volunteers to become advocates on social media. We thank everyone who has supported our online efforts.



New appointments:

January

- Dr Alexander Norori-McCormac CEng CSci MIMMM co-opted as a Trustee.
- Dr Ilija Rašović MIMMM as the new Chair of the IOM3 Student & Early Career Group.
- Avery Cunningham AIMMM as the new Chair of the IOM3 Pride Member Network Group.
- Seven elected representatives for IOM3 Advisory Council:
 - Brendan Costello FIMMM QMR
 - Dr Nilmini Dissanayake CEnv CSci FIMMM
 - Gemma Dixon CEng FIMMM
 - Lucy England MIMMM
 - Caitlin Fitzpatrick AIMMM
 - Dr Tiziana Marrocco CEng FIMMM
 - Professor Paul Withey CEng FIMMM

May

- Dr Richard M Oblath CEng FIMMM FEI as Chair of the Technology Communities Board (TCB) and Trustee.

July

- Joane Copping CSci elected to IOM3 Advisory Council to represent Affiliate grade.

September

- Dr Jitendra Patel CEng FIMMM as the new Chair of the IOM3 Iron and Steel Group.
- Professor Dr Sally Beken FIMMM as Chair of the IOM3 Polymer Group.
- Tony Palmer CEng FIMMM as Chair of the IOM3 Energy Transition Group.

October

- Jim Hannigan CEng FIMMM co-opted as a Trustee.
- Dr Robert Bowell MRSC EurGeol FIMMM as Chair of the IOM3 Applied Earth Sciences Group.
- Dr Aimee Goodall CEng CSci FIMMM and Dr Alexander Norori-McCormac CEng CSci MIMMM as Trustees of IOM3 Education & Outreach Trust.

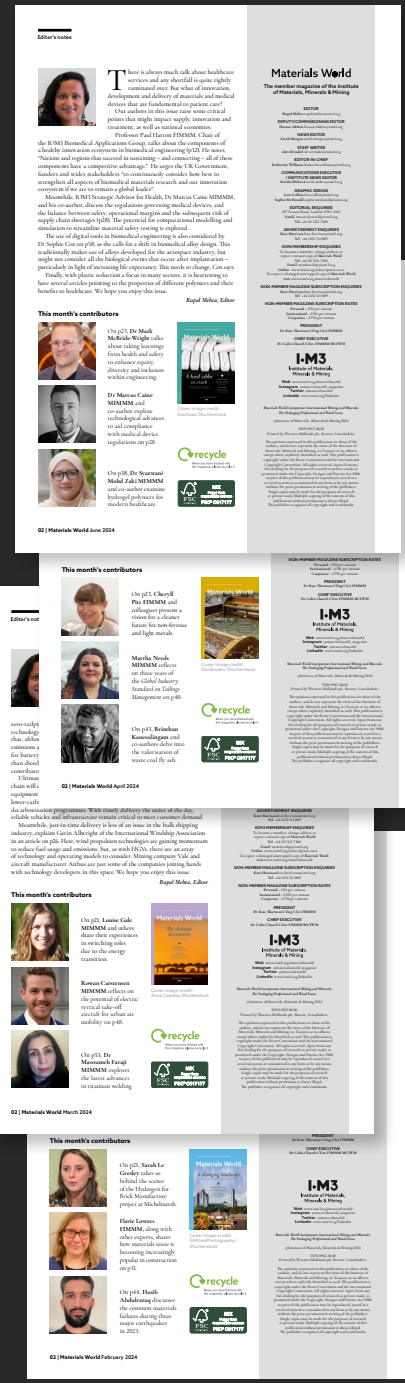
Equity, Diversity & Inclusion (EDI)

The Executive Board (the IOM3 Trustee board) is 19% female, compared to the overall membership of 16%. The IOM3 Advisory Council, which gives strategic advice to trustees, is 42% female.

The five member network groups (ADM3, EMM3, PRIDE, SECG, and WIM3) continue to promote diversity within the fields of materials, minerals and mining. They participate in various content formats, including Materials World articles, hosting events, blog posts and podcasts.

Throughout 2024, we observed several important awareness days, including National Inclusion Week, Black History Month, World Mental Health Day, Pride Month, UK Recycling Week, Women in Engineering Day, UK Disability Month, and many more.

In 2024, IOM3 widened the equity, diversity and inclusion (EDI) data it asks its members and other contacts to share with it. This information is held confidentially and is used in aggregate for statistical analysis of members, conference attendees, learners, etc., to better understand their makeup.



Materials World

A diverse range of contributors have increasingly requested to write for the magazine or feature in the professional development section, including more early-career members. There is a steady stream of content addressing issues around EDI. Examples include an article on the mental health of postgraduate researchers, a podcast on neurodiversity in science, technology, engineering and mathematics (STEM), and coverage of EDI issues in the Foundation Industries (ceramics, chemicals, concrete, glass, metals, and paper). Contributions have come from the IOM3 Pride and Abla Different networks, the Student & Early Career Group, and profiles of Women in Materials, Minerals and Mining (WIM3).

Student & Early Career (SEC)

Student & Early Career (SEC) Committee members joined forces again to publish a collective piece titled *European Communities and My Career*, reflecting on how European connections have influenced their careers.

Former SEC Group Chair, Dr Aimee Goodall CEng CSci FIMMM, concluded her blog series on her journey to professional registration.

Dr Aimee Goodall CEng CSci FIMMM, Judith Gilpin IEng MIMMM, Dr Hollie Cockings CEng FIMMM, and Paul Skerry CEng FIMMM were the key presenters at this year's online *Road to Chartership*, where they discussed various types and routes to registration and becoming Fellows.

Dr Nicoletta Palladino, Research Engineer in Soft Materials at LVMH Gaia, delivered the annual online Art Lecture on *19th & 20th Century Zinc White Paints: Multidimensional Physico-Chemical Characterisation*.

Harry Chapman's
winning image -
'Running out of time'

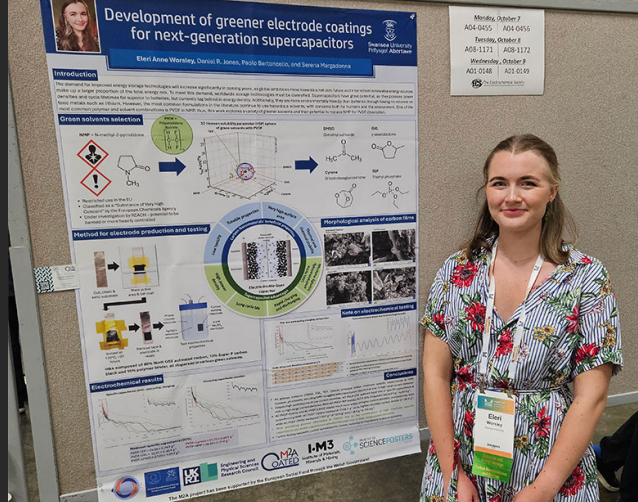
The SEC Group Image Competition, 'Materials, Minerals & Mining in... a Sustainable Future', was launched, inviting IOM3 students and early career professional members to submit their entries for the best image in materials, minerals and mining. Congratulations to Harry Chapman (University College London), winner of the materials category.

Visit the SEC Hub to find out more about awards, competitions, funding opportunities, event recordings, information on upcoming events, relevant news, SEC Committee opinion pieces and blogs, and resources relevant to students and early career professionals.

Grants to Support Knowledge Exchange

We've collected a range of testimonials from our 2024 Grants to Support Knowledge Exchange recipients, sharing their experiences.

You can read them online at: iom3.info/IOM3SECHub, under IOM3 Funding.



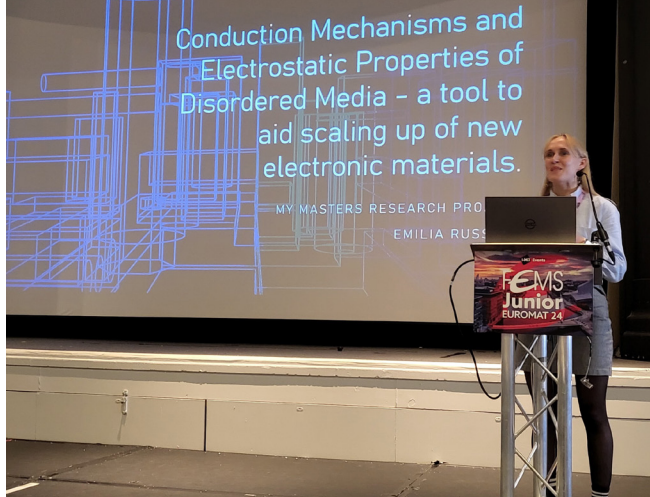
'In October 2024, I was fortunate to be able to attend the ECS PRiME 2024 Conference in Honolulu, Hawai'i, thanks to the generous assistance provided by the IOM3 Grants to Support Knowledge Exchange.'

Eleri Worsley



'Thanks to the generous support of the IOM3 Grant for Knowledge Exchange, Eleanor Bower, Laura Kelsall, and I from the University of St Andrews successfully completed our mapping project as part of our BSc Geology dissertation. Our fieldwork took us to Arzon, a coastal village in the Morbihan region of South Brittany, France, where we investigated the migmatite core complex and its surrounding units.'

Ciaran Vass



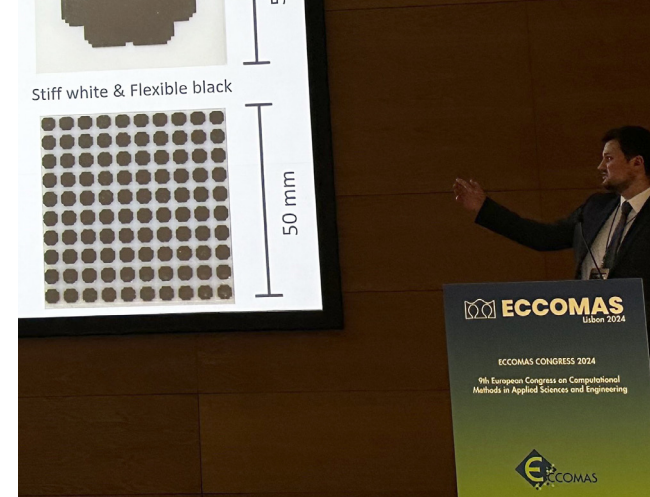
'This is a version of the extremely prestigious EUROMAT conference, specifically tailored to early careers researchers and was an incredible opportunity for me to not only learn about cutting edge materials research, but also to meet a number of potential collaborators from all across Europe. I would not have dreamt of being able to attend if it hadn't been for the financial support offered by IOM3.'

Emilia Russell



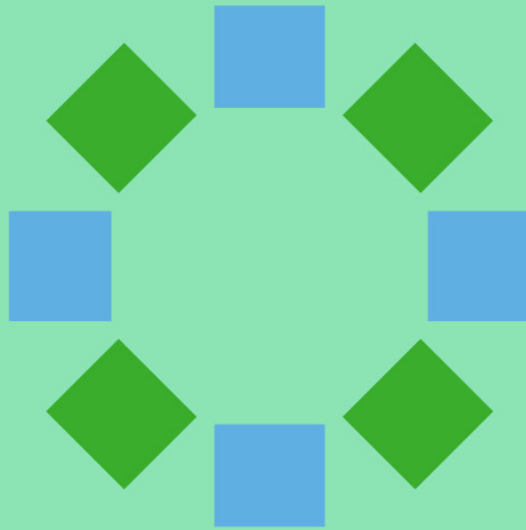
'My special thanks to the IOM3 (Institute of Materials, Minerals and Mining) for the Knowledge Exchange Support Grant awarded to me, which enabled my participation as a speaker at the 2024 International Elastomer Conference (IEC) held at David Lawrence convention centre, between 9 and 12 September 2024, in the city of Pittsburgh of the Commonwealth of Pennsylvania, USA.'

Christian Nwosu



'Such a large-scale conference comes with added costs to attendees, so I was very grateful for the support from IOM3 and the Grants to Support Knowledge Exchange. The application process was simple, and the institute's focus on the sustainability cost of attending was an interesting challenge for applicants to think about.'

James Smith



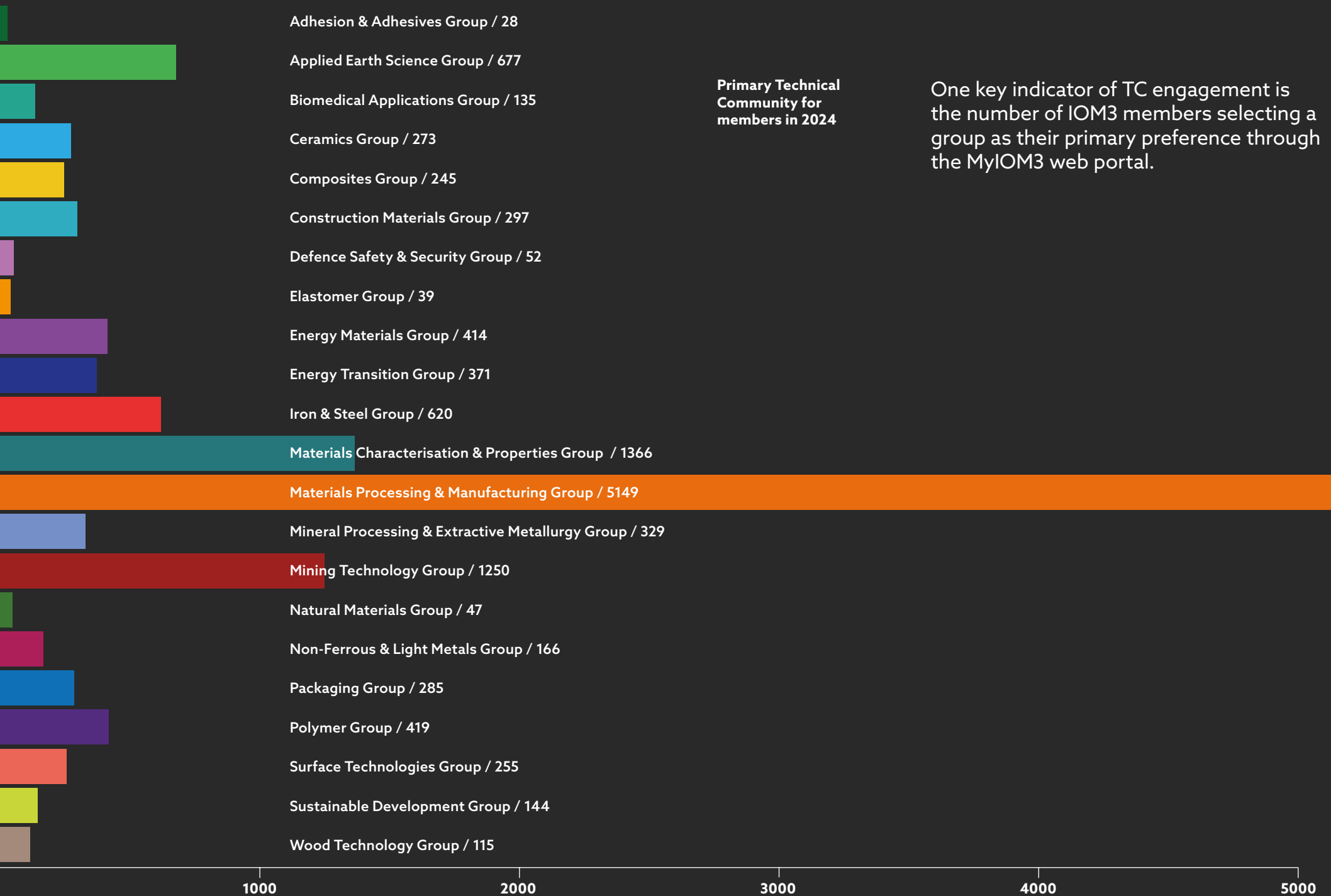
Technical communities

The Technical Community (TC) structure, launched in 2022, has continued to evolve and refine its structure and operations. In 2024, several groups appointed new Chairs who, where appropriate, began refreshing their Leadership Teams, which oversee the activities of each TC group. IOM3 remains committed to keeping these groups visible, active, and inclusive.

A full review of the Technology Communities Board (TCB), which governs TC activity, was undertaken and reported in 2023 and the TCB was restructured, comprising senior IOM3 members, TC Chairs, and Strategic Advisors. As the outgoing Chair stood down after becoming a Vice-President of IOM3, a new Chair was appointed. Richard Oblath CEng FIMMM brings extensive experience both of IOM3 TCs (he was the Chair of the Energy Transition Group) and of service on external boards. We extend our sincere thanks to Professor Mike Clinch FEng CEng FIMMM for his outstanding service as the previous TCB Chair.

Throughout 2024, the TCB worked to define the best ways to measure TC activity, structure and operation, aiming to facilitate cross-group collaboration and identify best practices both within IOM3 and externally. This led to the development and rollout of the strategy and objectives for TC Groups, approved by the TCB, alongside a set of metrics and reporting requirements.

As part of this, each TC group was asked to submit an Annual Activity Report outlining its achievements against the agreed objectives set by TCB, for the previous year. These reports have been collated in Jan/Feb 2025 and will be assessed by TCB at their March meeting, to gauge TC performance, highlight areas of excellence, and identify where additional support may be needed. Once assessed by TCB in March 2025 the outcomes from these annual reports will be published on the IOM3 website. These will also help identify gaps in TC provision and ensure the groups remain relevant in an ever-changing landscape.



TECHNICAL CONTENT

Events

Our in-person events have had a truly international reach, with participants from 39 countries. The 2024 events programme received strong support from sponsors and exhibitors, with organisations using their presence to raise their profiles and network with industry professionals. Sponsors and exhibitors in 2024 included the Henry Royce Institute, Inovyn, Anglo American, Lucideon and Netzsch Instruments.

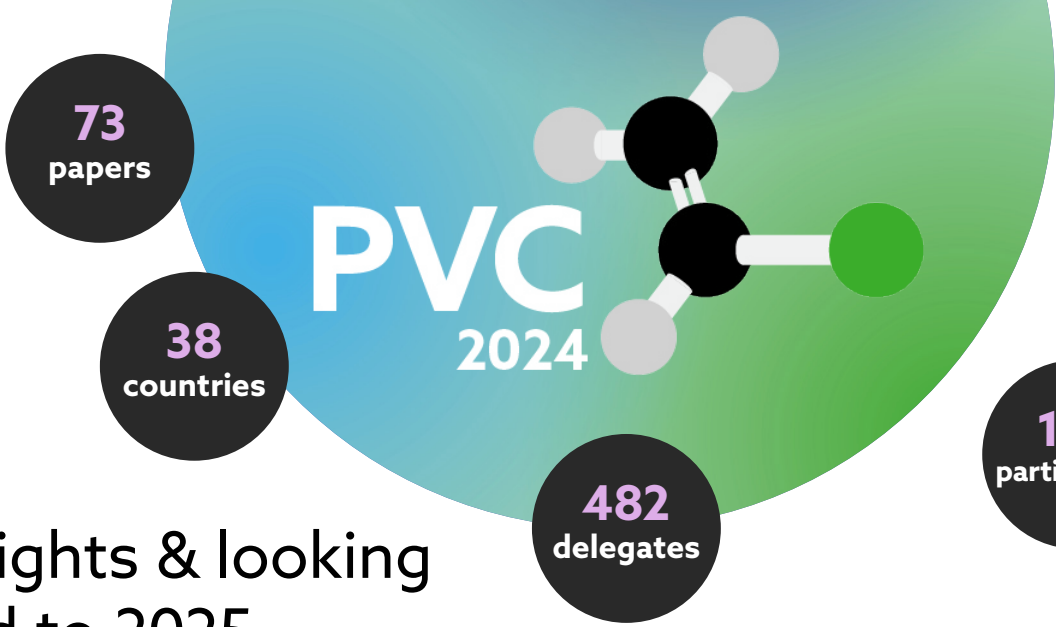
20 Webinars
7 In-person events
3 Hybrid events

Our events attracted a total of 4,383 delegates, of whom 2,217 (51%) were IOM3 members



'The conference was amazing. I met a lot of PhD colleagues. The organization was outstanding. The idea of using the key and lock game gave me opportunities to know people in an easier way since I am a shy person.'

Participant at FEMS Junior EUROMAT 2024



73
papers

38
countries

PVC
2024

482
delegates

Highlights & looking ahead to 2025

PVC 2024 (Edinburgh, April): featured 73 papers over three days, with 482 delegates from 38 countries.

SEC Group Chair, Dr Ilija Rašović co-chaired the Scientific Committee of *FEMS Junior EUROMAT 2024* conference, (Manchester, July) and with other SEC Committee members organised and led a career planning workshop, which included guest lectures from Petra Rudolf and Dr Sarah Glanvill CEng CSci FIMMM on pathways through academia and industry, respectively, and a Matopoly: Manchester event. The conference showcased 88 oral presentations and 70 posters over three days, with 183 participants from 20 countries, of whom 85% were students or early-career professionals.

New webinar series – *Navigating Industry 4.0 in Materials, Minerals, and Mining* (October) launched with 269 registrations, addressing emerging trends in digital and industrial advancements.

Future conferences secured: IOM3 was formally selected as the host association for two major conferences in 2026 – the *World Sampling and Blending Conference* and the *European Conference on Constitutive Models for Rubbers*.



70
posters

88
oral
presentations

183
participants

20
countries

FEMS
Junior
EUROMAT 24



269
delegates

**Navigating Industry
4.0 in Materials,
Minerals & Mining**

Materials, Minerals & Mining for People, Places, Planet (M3P3)

IOM3 is launching a pan-Institute convention in 2025, designed to celebrate our members' diverse interests, support collaboration and showcase the many disciplines of IOM3 in one community, shaping the future together. The two-day convention will feature keynotes and plenary panels on industrial strategy, circular economy, the UK skills landscape and the critical materials strategy. The event will also offer four parallel themes delivered in three 2-hour sessions, focusing on:

- AI, digital transformation, data & industry 4.0
- Circular economy & supply chains
- Infrastructure & transport
- Society

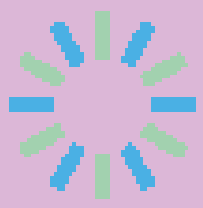
Each day will conclude with a plenary presentation followed by a Q&A, offering valuable insights and engagement for all attendees. There will also be a wide range of networking opportunities as well as dedicated events for 16-18 learners, teachers and bite-sized training workshops. The Education & Outreach Trust has committed funding to support the activities for schools and grants to make it easier for student members to attend the convention.



Materials, Minerals & Mining for People, Places, Planet

Join us at our new flagship event Materials, Minerals & Mining for People, Places, Planet (M3P3), where we will celebrate our community #WeAreIOM3 and all things IOM3 with an event designed for inspiration, collaboration, connection and professional development.

bit.ly/m3p3



INSPIRE
INSPIRE
INSPIRE



COLLABORATE
COLLABORATE
COLLABORATE



PROGRESS
PROGRESS
PROGRESS



CONNECT
CONNECT
CONNECT

Scan for more info



Purpose-driven planning

Beyond ensuring excellent technical content, IOM3 event planning is centred on sustainability and human connection, emphasising a people-focused, collaborative, and community-driven experience. We adopt a person-centred approach that prioritises individual needs and encourages human engagement to create lasting memories and impact beyond the conference walls. Participants are placed at the heart of planning as we aim to build legacy through thoughtful design, asking for, learning from, and responding to attendee feedback.

Our events are designed to improve accessibility and inclusivity, with features such as prayer rooms, quiet spaces, family-friendly accommodations, and activities that reduce barriers to participation. Creative community-building ideas, including selfie and photo competitions, WhatsApp groups, and social runs, help establish connections and memories. Interactive elements like our 'Power of Play' lock-and-key networking game and informal social venues, create spaces and opportunities for relaxed and meaningful networking.

Sustainability is embedded in our practices. We've transitioned from plastic pull-up banners to 100% recyclable eco-banners made of paper and cardboard, signposted social enterprises like 'Invisible Cities' and social enterprise cafés, and reduced printed materials in favour of a conference app. This commitment to sustainable practices ensures that our events not only support participants but also contribute positively to the community and the environment.



'This was a highly successful conference. I have attended small and large fairs, professional meetings, congresses and conferences over several decades, but I never before experienced anything as well organised as PVC 2024. Thanks, and congratulations!'

Participant at PVC 2024

'I recommend this conference due to the high quality of networking opportunities, the ability to connect more closely with a smaller group of people, and the impressive expertise of the presenters. The diverse studies presented also provided a broad learning experience.'

Participant at Surface Science, Engineering & Technology

Member magazines

Strong multidisciplinary content across materials, minerals and mining from academia and industry in *Materials World* magazine was supplemented with daily news on the website. The variety of content types, from news, features, professional development, event reports and thought leadership pieces seeks to deliver member value and interest. This translates to good traction on social media, engagement through letters and continued interest by contributors in sharing their work in the publication.

We have strong engagement and contributions from IOM3 Technical Communities and Strategic Advisors, as well as other prominent networks and organisations, including the Henry Royce Institute, Innovate UK, UK Atomic Energy Authority and Glass Futures.

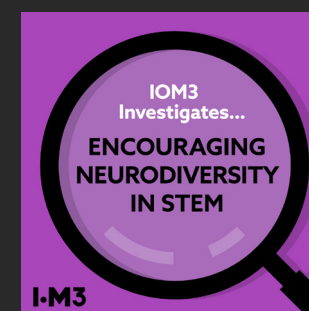
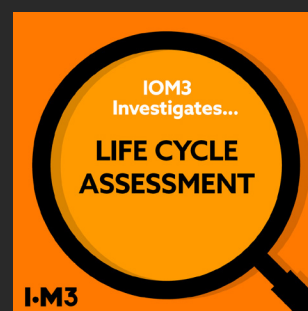
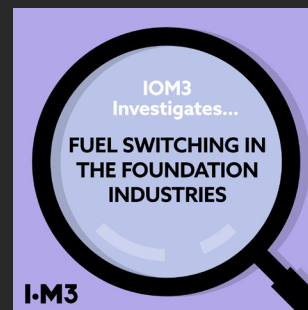
We craft regular content that showcases our sectors' efforts towards a low-carbon, resource-efficient society, championing the role of mining and metals in the energy transition, along with discussions around critical materials and minerals supply.

Key IOM3 policy areas and outputs are covered in *Materials World*, including critical skills in mining, the energy transition, creation of a national materials strategy, and the transformation of the Foundation Industries. An article promoting IOM3 policy work and the skills gained by members participating in this work has received positive feedback and promotion on social media.



Podcasts

Twelve episodes of the 'IOM3 investigates...' podcast were released this year. These episodes gained over 3,500 plays between January and the start of December. Topics covered included the Carbon Border Adjustment Mechanism (CBAM), EDI issues and Life Cycle Assessment.



Online Industry News

Interaction with online industry news remains strong, making it one of the most popular sections of the website in terms of regular engagement. We publish multiple items on weekdays to cover the breadth of our membership interests and keep members up to date with policy developments. This year, our most popular items have focused on the changes occurring in the UK steel industry, metals for the energy transition, and plastics.

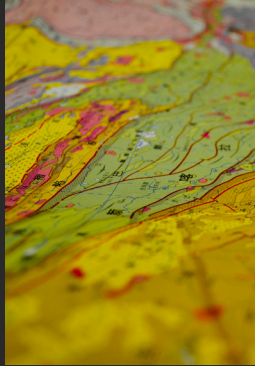


Library

The IOM3 Library remains a key resource for information dissemination, supporting academics, authors and journalists. In 2024, we completed the main cataloguing of our extensive collection, and our online catalogue, ICON, now lists over 172,000 items including books, journals, articles, maps, reports, theses and webinars. Many of these can be supplied as copies for members and the public upon request.

Our library team continues to provide a wide range of services, including answering technical enquiries, assisting with research, offering scans of papers and facilitating postal book loans. We welcomed a number of visitors throughout the year, supporting their research needs.

The IOM3 Library is part of a network of engineering institute libraries that offer reciprocal services, including in-person visits, to our members.

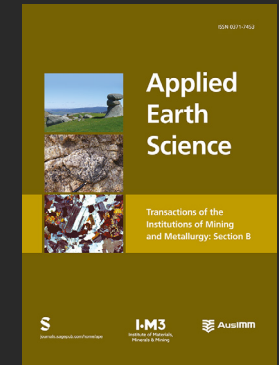
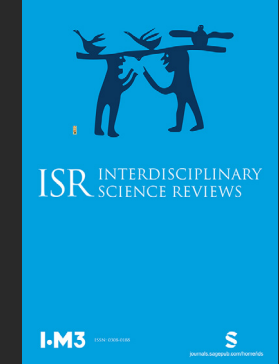


Journals

Following significant preparatory work in late 2023, IOM3 successfully transitioned its journal portfolio to Sage Publishing in January 2024. Members continue to benefit from free access to the full portfolio, along with 70 other related publications. The transfer process went smoothly, and our editors have adapted well to the new systems.

Mid-2024 saw the release of the 2023 impact factors, with six IOM3 journal titles achieving an increase. While some journals faced challenges in meeting year-end targets, overall performance has exceeded expectations in the first year with Sage Publishing.

IOM3 extends its thanks to our journal editors for their dedication and support throughout this transition. The IOM3 Scholarly Publications Committee (SPC) continues to monitor the portfolio and explore opportunities for further improvement.



PROFESSIONAL DEVELOPMENT

Awards & competitions

IOM3 presents a range of awards, medals, and prizes to recognise personal achievement, published work, and contributions to the Institute, knowledge, outreach and the profession.

Awards are available in various categories for individuals at different career stages, as well as for organisations, IOM3 members and non-members. They are presented at special events throughout the year, with some award winners delivering lectures open to all members.

Right: Harvey Flower
Titanium Prize winner
Nigel Martin CEng FIMMM

Below: IOM3 President
Kate Thornton and the
winners at the 2024
Premier Awards Dinner



IOM3 judging panels reviewed 147 nominations across 43 categories for the 2024 IOM3 Awards & Prizes. The winners were presented with their medals, prizes and certificates at the 2024 IOM3 Awards Day on 5 December at 297 Euston Road, London. The Student & Apprentice Awards, recognising excellence among IOM3 members who have recently completed a qualification or apprenticeship in materials, minerals or mining, were launched with new category names. Following online interviews, the winners were announced at the Special & Publication Awards Lunch Reception, part of the 2024 IOM3 Awards Day in December. Congratulations to Ameer Zaki from Queen Mary University London, the winner of both the IOM3 Award for Excellence in Undergraduate Studies and the 2024 Royal Charter Prize.



Below left: Bessemer Gold Medal winner Prof William Rainforth FREng CEng FIMMM

Below: Frank Paine Packaging Award winner Anne Emblem

Above: Winners at the Special & Publication Awards Lunch held in December 2024



Over 90 entrants from five countries participated in the local, regional and national heats and finals of the Young Persons' Lecture Competition and Young Persons' World Lecture Competition. Congratulations to Emilia Russell, who won the UK final, and to Sebasa Theresa Ramahlare from South Africa, who won the world final.

A total of 109 entries across six categories were submitted to the Starpack Students Competition, celebrating its 60th anniversary. The judging panels awarded 41 Certificates of Entry, 10 Highly Commended, 20 Bronze, 13 Silver, 12 Gold, and 8 Sponsors' Awards.

The second IOM3 Fellows Day welcomed new and existing Fellows to the Institute's London offices, where Prof Mark Miodownik MBE FREng CEng HonFIMMM delivered a talk titled 'The Death of Consumerism'. The day concluded with a dinner during which the shortlisted nominees for the 2024 Sustainable Future Awards were presented, and winners announced.

**Right: Materials World Medal winner
Dr Jehangir Cama**



Below: The 2024 Starpack Students Competition award ceremony





Personal Achievement Awards

Contribution to the Institute & Affiliated Local Societies Awards

IOM3 International Medal

Prof Marcel Van De Voorde FIMMM

Outstanding Contribution Award for EDI (joint)

EUR ING Dawn Bonfield MBE FEng CEng FIMMM & Dr Cathryn MacCallum CEnv FIMMM

Sir Andrew Bryan Medal

William Tinsley CEng FIMMM

T B Marsden Professional Medal

Prof James Busfield FEng CEng FIMMM

Local Society of the Year Award

EMMS (East Midlands Materials Society)



Contribution to Knowledge

Gold Medal

Dr Gareth Hinds FEng CEng FIMMM

Medal for Excellence

NUSINC led by Prof Richard Spontak FIMMM

Platinum Medal (joint)

Prof Sir Andre Geim & Prof Sir Konstantin Novoselov FRS

Silver Medal

Dr Matthew Wadge MIMMM

The Henry Royce Institute Award for Innovation by a Technical Professional

Dr Peter Karstev Petrov (Principal Research Scientist & Royce Technology Platform Lead, Imperial College, London)

The Henry Royce Institute for Outstanding Contribution by a Technical Professional

Dr Penelope Rathbone CEng FIMMM (Senior Technical Manager, Sellafield Ltd)

Contribution to Outreach

Robert Perrin Award

Dr Elizabeth Driscoll MIMMM

Sir Colin Humphreys Education Award

Gareth James

'I look at a lot of the past recipients, many of whom I know and respect. I feel honoured to be following in their footsteps and to have received this award. I hope that, years from now, others will look at me in the same way.'

Prof Eric Palmiere CEng FIMMM
Tom Colclough Medal



Technical Specific Awards

2023 Harvey Flower Titanium Prize (Retrospective)

Nigel Martin CEng FIMMM (Technical Specialist – Titanium, Rolls-Royce plc)

Award for Innovation in Defence, Safety & Security Materials

Dr Nicholas Bazin FIMMM CChem CSci MRSC (Principal Scientist – Materials & Analytical Science, AWE)

Bessemer Gold Medal

Prof Mark Rainforth FEng CEng FIMMM (POSCO Professor of Iron & Steel, University of Sheffield)

Chapman Medal

Prof David Jones FEng CEng FIMMM (Pharmaceutical & Biomaterial Engineering Professor, School of Pharmacy, Queen's University Belfast)

Frank Fitzgerald Medal & Travel Grant

David A Thomson MIMMM (Rolls-Royce plc)

Frank Paine Packaging Award

Anne Emblem (Retired Packaging Professional, Educator & Author)

Hancock Medal

Pulikaparambil Kochaidrew Mohamed (Chief Advisor, R&D Asia - Apollo Tyres Ltd)

Hadfield Medal

Dr Martin Brunnock CEng FIMMM (Director, Public Affairs, Tata Steel)

Leslie Holliday Prize

Frazer J Barnes (Chairman & CTO, Gen2Carbon)

Stokowiec Medal

Stephen Phillips (Technical Director, Sheffield Forgemasters)

Swinburne Medal

Prof Michael Shaver FIMMM FRSC (Polestar/ Royal Academy of Engineering Chair in Sustainable Automotive Polymers)

Thomas Medal

Stephen Thornton (Scientific Fellow - Data Science & Analytics, Tata Steel)

Thornton Medal

Dr Frederick Auld FIMMM (Retired Consultant)

Tom Bell Surface Engineering Medal

Prof Ping Xiao CEng FIMMM (Research Chair in Advanced Coating Technology, University of Manchester)

Tom Colclough Medal

Prof Eric Palmiere CEng FIMMM (Professor of Metallurgy, University of Sheffield)

Verulam Medal

Dr Finn Giuliani MIMMM (Professor, Imperial College London)



Publication Awards

2023 Vanadium Award (Retrospective)

Evolution of the microstructure and mechanical properties of a V-containing microalloyed steel during coiling

Chen Gu, Colin Scott, Fateh Fazeli, Michael J Gaudet, Jing Su, Xiang Wang, Nabil Bassim & Hatem Zurob

Adrian Normanton Medal

Influence of heat flux difference between wide and narrow face in continuous casting mould on unevenness of hypo-peritectic steel solidification at off-corner

Dr Kohei Furumai, Dr Norich Aramaki & Dr Katsunari Oikawa

Alan Glanvill Award

Effect of Zn-nanoHA concentration on the mechanical performance and bioactivity of 3D printed PEEK composites for craniofacial implants

Dr Faisal Manzoor, Dr Atefeh Golbanga, Prof Alistair McIlhagger, Prof Eileen Harkin-Jones, Dr Daniel Crawford, Elena Mancuso

Composite Award

Energy efficient out-of-oven manufacturing of natural fibre composites with integrated sensing capabilities and improved water barrier properties

Yushen Wang, Xudan Yao, Thomas D S Thorn, Shanshan Huo, Harshit Porwal, Mark Newton, Yi Liu, Dimitrios Papageorgiou, Emiliano Bilotti & Han Zhang

Guy Bengough Award

Monitoring corrosion rates with ER-probes: A critical assessment based on experiments and numerical modelling

Dr Federico Martinelli-Orlando & Prof Ueli Angst

James S Walker Award

Advanced Polymer Nanocomposites for Potential Sensing Applications

Ciaran Duffy (Queen's University Belfast)

Mann Redmayne Medal C

Upgrading a Brahmaputra River sand from northern Bangladesh by flotation to produce a high-grade silica glass sand concentrate

Dr Md Aminur Rahman, Kevin J Davey, Graeme W Heyes, Warren J Bruckard, Graham J Sparrow, Dr Mark I Pownceby, James Tardio & Md Nazim Zaman

Materials World Medal

The sixth sense

Prof Sohini Kar-Narayan FIMMM (Department of Materials Science & Metallurgy University of Cambridge) & Dr Jehangir Cama (ArtioSense Ltd)

Pfeil Award

Highly wear resistant dual-phase (Ti-Zr-Nb-Hf-Ta)C/(Ti-Zr-Nb-Hf-Ta) B2 high-entropy ceramics

Annamária Naughton-Duszová, Dávid Medveď, Lenka Ďaková, Alexandra Kovalčíková, Peter Švec, Peter Tatarko, Hakan Ünsal, Pavol Hvizdoš, Pavol Šajgalík & Ján Dusza

Williams Award

CFD modelling of the off-gas system of Hlsarna iron making process. Part 1: Model development using detailed reaction mechanism for post-combustion of CO-H2 mixture and carbon particles

Dr Ashkan Hosseini, Vinod Dhiman, Koen Meijer, Christiaan Zeilstra, Johannes Hage, Tim Peeters, Erik Offerman & Yongxiang Yang



'Recognising achievement is vital because it not only celebrates the achievement of the individual or the team effort, but also inspire others to strive for excellence. The recognition forces a culture of innovation, motivates continued progress and underscores the value of dedication and hard work in driving scientific and technology of advances.'

*Dr Peter Petrov
HRI Award for Innovation
by a Technical Professional*



Awards from other bodies

Beilby Medal & Prize

Dr Robert Hoye CEng CSci FIMMM
(Associate Professor & RAEng Research Fellow, Department of Chemistry, University of Oxford)

Charles Hatchett Award

Electrochemically induced amorphous-to-rock-salt phase transformation in niobium oxide electrode for Li-ion batteries

Pete Barnes, Yunxing Zuo, Kiev Dixon, Dewen Hou, Sungsik Lee, Zhiyuan Ma, Justin G Connell, Hua Zhou, Changjian Deng, Kassiopeia Smith, Eric Gabriel, Yuzi Liu, Olivia O Maryon, Paul H Davis, Haoyu Zhu, Yingge Du, Ji Qi, Zhuoying Zhu, Chi Chen, Zihua Zhu, Radong Zhou, Paul J Simmonds, Ariel E Briggs, Darin Schwartz, Shyue Ping Ong & Hui Xiong

Grants & Bursaries

Grants to Support Knowledge Exchange

Cameron Gunn

Henry Lodge

Siddhi Barhanpurkar

Archibald Davies

Isla Farrell

Peter Ibrahim

Luke Malone

Sean Telford

Jonathan Draper

Benjamin Sanders

EleriWorsley

Jose Sebastian Nava de la Peña

Urszula Filipowicz

Chukwudike Ukeje AIMMM

Dr Ashande Fernando AIMMM

Dipl Ing Parul Bishnoi

Amelia-Rose Edgley

Ciaran Vass

Eleanor Bower

James Smith

Gonzalo Larrabure Moreyra

Obey Suleyman

Anna Dickinson-Lomas

Emilia Russell

Competitions

UK Young Persons' Lecture Competition

Winner:

Emilia Russell, North West

2nd place:

Philipp Schulz, South East

3rd place:

Hannah Hilton-Tapp, Midlands

Young Persons' World Lecture Competition

Winner:

Sebasa Theresa Ramahlare, South Africa

2nd place:

Oliver Marian Preuß, FEMS

3rd place:

Jerome Liew, Malaysia

Student & Early Career Image Competition

Winner:

Harry Chapman

2nd place:

Allin Groom MIMMM

3rd place:

Kaushal Apte

Student & Apprentice Awards

IOM3 Award for Excellence in Undergraduate Studies & Royal Charter Prize

Ameer Zaki

Sustainable Future Awards

Circular Economy

Freefoam Building Products

Sustainable Materials Enabling Net-zero

Ecobelt

Inclusive Practices

Johnson Matthey

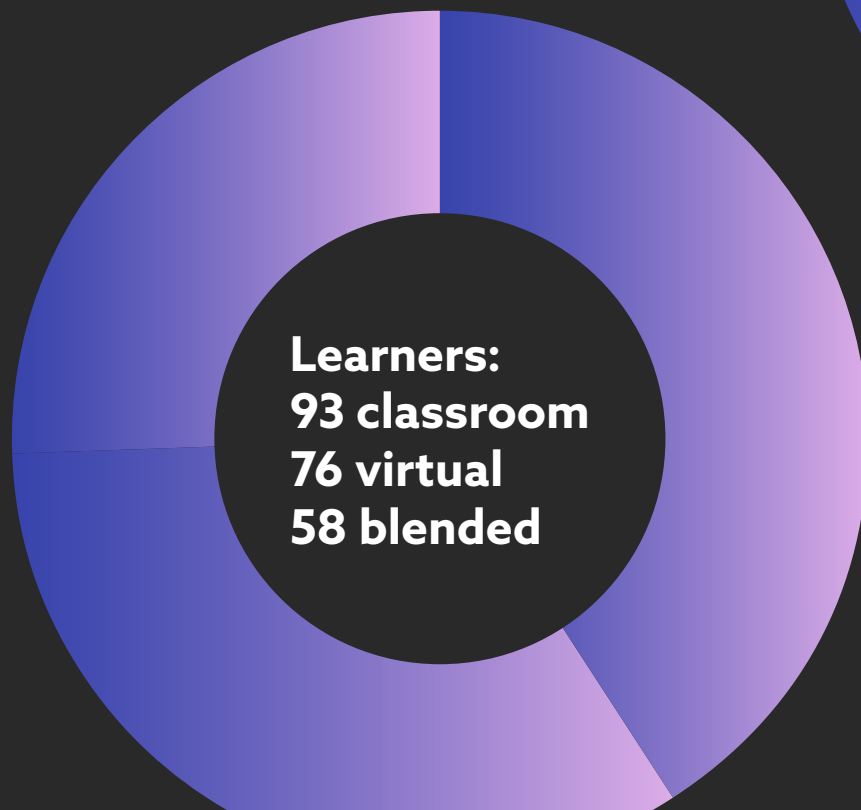
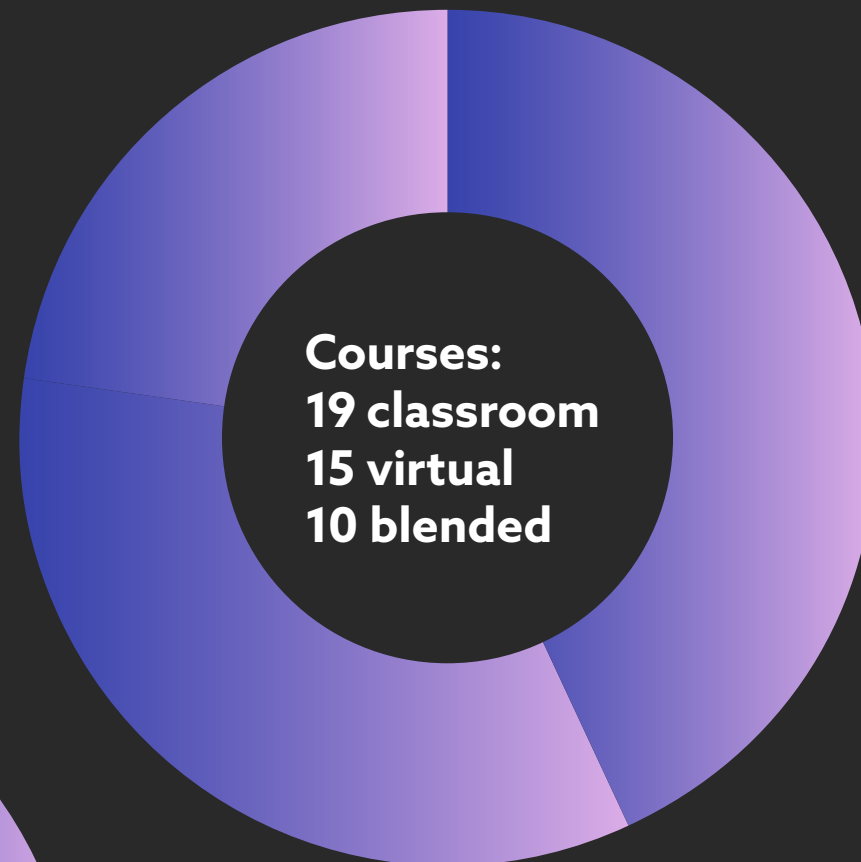
'The 2024 YPLC was such an incredible experience! Getting to meet some amazing PhD students and learn about their research, and having the opportunity to talk about my own in such a beautiful venue feels like a dream come true. I am honoured to have been awarded first place and I am really looking forward to being able to communicate my research on an even larger scale in the future.'

Emilia Russell, YPLC winner

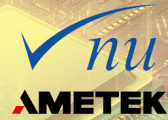


Training & Apprenticeships

The training market has remained under pressure throughout 2024. Despite these challenging conditions, the Training Academy successfully ran 44 courses (19 classroom, 15 virtual, and 10 online/distance learning/blended), with a total of 227 learners participating (93 in classroom, 76 virtual, and 58 online). New courses on additive manufacturing and structural integrity challenges for nuclear energy have been introduced, and several additional courses are already planned for 2025.



From Semiconductors to Superalloys



Two INFORM webinars took place, attracting a total of 409 registrations. These webinars covered *The Evolution of Graphene and Other 2D Materials* and *The Role of Glow Discharge Mass Spectrometry in Materials Analysis*.

PIABC has continued to recruit and train assessors to support End Point Assessment activities, conducting eight assessments for the Level 3 Composites Technician standard and four assessments for the Level 7 Materials Process Engineer standard.

The Evolution of Graphene & other 2D Materials



'Excellent course, engaging presenters with exceptional knowledge of their subject. Hugely detailed content with clear and concise delivery.'

'Extremely comprehensive course with the best set of accompanying notes I have had on a training course. Much better value than similar types of courses I have been on.'

'The PIABC Level 5 Diploma in Packaging is an excellent opportunity for anyone looking to pursue a career in packaging or enhance their existing knowledge in this area. The 'independent learning' aspect of the course allowed me to work my studies around my busy schedule and the learning material was easy to navigate and contained everything I needed.'

INFLUENCE

Education & Outreach

The appointment of a new Education & Outreach Co-ordinator has strengthened our activities for schools.

In 2024, we ran four Polymer Study Tours at WHS Plastics in Larkhall, Victrex, Bericap, and Biffa Polymers to improve the subject knowledge of 38 secondary school Design & Technology teachers.

We also hosted three Materials Matter one-day conferences for approximately 150 Year 12 learners, showcasing careers at Rolls-Royce plc in Derby and Bristol, as well as at Luxfer MEL Technologies. These events were run in conjunction with the SEC Group and the Non-ferrous & Light Metals Group.

Right:
Polymer Study
Tours at Victrex



'In my 27 years of teaching this is certainly the most useful course that I have been on.'

The Magic of Materials course was run in collaboration with St Paul's School in London for 35 Year 10 learners. Additionally, IOM3 exhibited and presented at the inaugural Careers for Next Generation Minerals event, organised by the Critical Minerals Association at the Natural History Museum.

The Education & Outreach Trust, formed in 2022 through the amalgamation of a number of historic restricted funds, provides financial support for initiatives which develop interest, recognise excellence and support professional development in materials, minerals and mining. In the first category, our recently launched resource development grants are available to members wishing to develop resources/activities to enrich and enhance the topics in the 5-19 curriculum related to the materials cycle, while our STEM Intervention Access grants are designed to help schools to provide exciting educational opportunities for their learners. The prizes for the Student & Apprentice Awards are provided by the Trust and are highlighted in the Awards & Competitions section. In 2024 the Institute supported 24 student and early-career professional members to attend conferences to present their work through the Grants to Support Knowledge Exchange and our undergraduate bursary scheme (Bursaries to Support Learning) continues to develop.

'The opportunity to participate in the course has been invaluable in enhancing my knowledge and enthusiasm for materials science... I am excited to implement the student-friendly, hands-on activities that provide a tangible link between theoretical concepts and real-world applications.'

'From start to finish, everything was exceptionally well-organised, and it was clear that a great deal of thought and effort went into ensuring everything ran smoothly. The experience exceeded my expectations, and I left feeling genuinely inspired by the energy, passion, and commitment of everyone involved. I found myself encouraged to take new ideas and inspiration back to deliver to my students.'

Policy

IOM3 has developed its policy and influence strategy, identifying five key themes to focus efforts where it can drive positive change and support the transition to a low-carbon, resilient and resource-efficient society: materials strategy, critical raw materials, packaging policy reforms, transitioning the foundation industries and skills.

The first policy paper led by a IOM3 Technical Community Leadership Team was published this year. *The Energy Transition: Getting to Net-zero* explores a range of materials related challenges and steps that need to be taken for the UK to meet its net-zero energy goals.

Ahead of the general election, IOM3 outlined priority areas for the incoming government and provided members with a digest of the main UK party manifestos regarding materials, minerals and mining.

Following the election, IOM3 wrote to the relevant new Secretaries of State, highlighting the vital role of materials, minerals and mining across their respective departments.

To help inform the new government and build relationships, IOM3 has met with officials from the Department for Business and Trade (DBT), the Department for Environment, Food and Rural Affairs (Defra), the Department for Energy Security and Net Zero (DESNZ) and the Department for Science, Innovation and Technology (DSIT).



IOM3 has continued to seek member input to inform policy decisions across a range of important agendas, including the development of the modern Industrial Strategy, the transition to a circular economy and skills development.

IOM3 has collaborated with partners, including the National Engineering Policy Centre (NEPC), the Environmental Policy Forum and the Science Council to amplify messages and showcase the expertise of its members.

As part of the NEPC Materials Working Group, IOM3 contributed to a report on demand-side resource efficiency measures for critical materials, as well as follow-up briefings for media and policymakers.

IOM3 has also continued to contribute to the conversation on packaging Extended Producer Responsibility (pEPR), supporting members through panel discussions at trade shows and a webinar with Defra officials.

Materials World has featured increased policy content, including information on IOM3 policy activity and members' experiences of getting involved.

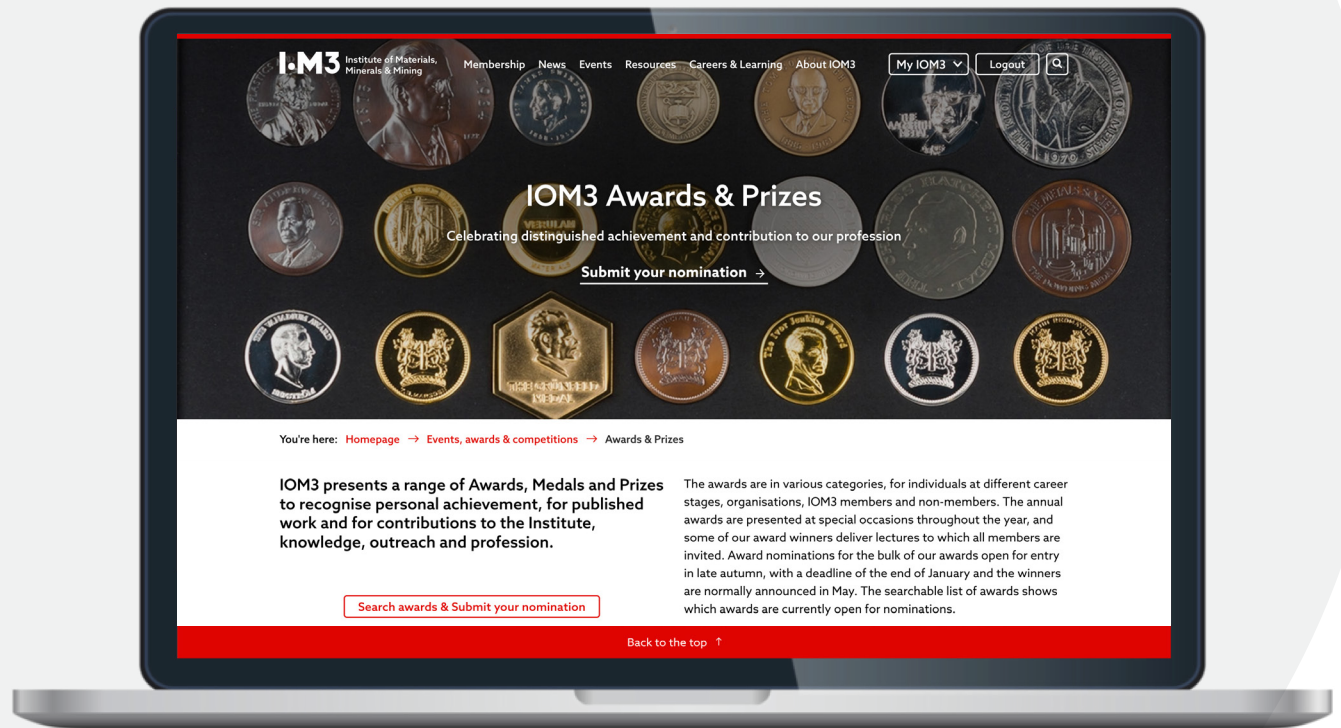
Communication regarding IOM3 policy activity is evolving, with a new approach to media outreach and dedicated marketing campaigns.

IOM3 influence and media recognition has continued to grow, with coverage across a range of publications from the *Financial Times* to industry newsletters and trade press.

UNDERPINNING INFRASTRUCTURE

Digital

Following the launch of our new website and database systems in 2020 as Project Optimus, IOM3 remains committed to continuous improvement in digital capabilities. With the retirement of Dr Nuna Staniaszek FIMMM, a decision was made to recruit a full-time Business Systems Manager to oversee our CRM and build on the strong foundations established since its launch.



Throughout 2024, preparations for this transition were a key focus, with teams working to deepen their knowledge of systems and processes. Several successful development sprints took place to enhance system efficiency, including enabling Gift Aid functionality and integrating our new EDI data collection facility. Enhancements made during 2024 included the following:

- New functionality was introduced to allow members to add international e-memberships, make charitable donations to the Member's Benevolent Trust or the Education & Outreach Trust, or Gift Aid their membership subscription at any time of the year, with the scheduled implementation planned before the 2025 subscription renewals.
- Engagement scoring was implemented on CRM to provide information about where efforts should be focused to improve member engagement.
- The IOM3 Digital Library (Capture) was integrated with the IOM3 website to allow single sign on.
- Following the change of our publishing partner for journals, the IOM3 website was integrated with the Sage Publishing journals platform for single sign on access to IOM3 journals for members.
- Diversity data collection via a questionnaire linked from the website has been set up and will help identify what resources are needed to strengthen diversity and inclusion within IOM3.
- PayPal integration was completed, allowing more flexibility in payment options.
- Improvements were made to the Events Management System to manage group bookings, ahead of the PVC 2024 conference.
- Email layouts were improved and adjustments made to how awards and events listings are presented on the website.
- CRM was configured to manage the new Association Partner Programme effectively.
- The process for QMR registration administration has been reviewed, and tests are ongoing to use existing CRM functionality to track and approve QMR registrations more efficiently.
- Significant progress was made with data de-duplication and cleansing.
- Amendments were made to the website portal to ensure that organisation data added by members was consistent and complete.
- Efficiency improvements were introduced by automating manual processes in membership processing, in particular a custom import tool for student data.

People

Winter/Spring 2024

In January, Paul Skerry CEng FIMMM joined as our new Director of Membership. In February, we welcomed Caroline Stewart as our Education & Outreach Manager and Kovida Mehra as our Communications Manager.

In March, Fabiola Franco joined as our new Head of Marketing to develop a new marketing strategy. In May, Jamie Graham MIMMM succeeded Sarah Boad CEng CSci FIMMM as Membership Development Manager, after Sarah's retirement in the spring.

Summer 2024

In July, Fungai Mundoma joined in the new role of Business Systems Manager, taking over responsibility for our Optimus digital platforms from Dr Nuna Staniaszek FIMMM, Director of Communications, who retired at the end of the year. We also welcomed Sarah Daniels as Librarian. In August, Tolu Dada joined as Graphic Designer.

Autumn/Winter 2024

In October, Tina Byrne joined as Front of House Executive for the London office. In November, we welcomed Debra Close as Technical Communities Administrator, and the Policy Team grew with the addition of Aoife Burke as Policy Officer.



Venues, estates & sustainability

We continue to work towards our goal of net-zero by 2030. In 2023, our overall carbon output was reduced to just 10 tCO₂e for scope 1 (direct emissions) and 2 (indirect energy emissions). We also used 2023 as our baseline year for scope 3 emissions (indirect supply chain emissions), now estimated at 506 tCO₂e, including investments, and 93 tCO₂e excluding investments. In line with best practice, we have committed to an absolute reduction in our total scope 3 emissions. Due to the complexities of managing investment-related scope 3 emissions within charity law, we are not setting a specific reduction target for this area, but aim for an absolute reduction by 2035. For the remaining 93 tCO₂e, we are committed to a 20% reduction by 2035.

Our London hub was awarded the EcoSmart Silver Award for venues, and we're working with the team to move towards the Gold Award. This recognition highlights our commitment to sustainability, including food waste recycling, eliminating single-use plastics, and partnering with zero-to-landfill suppliers. We also achieved the First Mile Silver Recycling Standard for 2024. This means we recycled at least 50% of our waste last year and sent nothing to landfill, marking an important step towards a more sustainable future.

The estates continued to provide a valuable source of income for the Institute, with some smaller maintenance and improvement works carried out throughout the year. Our focus on improving the building is driven by our commitment to sustainability, as well as ensuring a safe and welcoming space for members, visitors, and the team.

IOM3 was proud to be shortlisted for the Memcom Sustainability Award as part of the Memcom Excellence Awards 2024, recognising our ongoing commitment to sustainability initiatives.

In November 2024, we also launched our new Sustainability Strategy, which addresses both carbon and non-carbon sustainability measures.

We have plans for our Grantham hub to transition to 100% renewable electricity, with this expected to be realised by mid-2025.

Sustainable Future

Sustainability remains at the heart of IOM3 activities, with many of our events, webinars, and policy initiatives aligning with the Sustainable Future theme.

Several key events in 2024 had sustainability as a core focus, including *PVC 2024*, themed 'A Roadmap to a Sustainable Future', and *FEMS Junior EUROMAT 2024*, which featured a dedicated track on 'Materials for Sustainability'. The *Cement & Concrete Science* conference also explored advancements in Sustainable Cementitious Materials.

Sustainability was a recurring theme across the *NMG Lunchtime Seminar Series*, with sessions on packaging, composites, bamboo, proteins, textiles, surface coating materials, bioplastics, and biomimicry. Additionally, other IOM3-hosted webinars addressed sustainability in diverse contexts, such as *Inclusion Unmasked: Navigating Complexity & Realities (EDI focus)* and *Navigating Industry 4.0 in Materials, Minerals & Mining*.

NMG Lunchtime Seminars:
Packaging

NMG Lunchtime Seminars:
Composites

NMG Lunchtime Seminars:
Focus on Bamboo

NMG Lunchtime Seminars:
Focus on Proteins

NMG Lunchtime Seminars:
Focus on Textiles

NMG Lunchtime Seminars:
Focus on Surface Coatings

NMG Lunchtime Seminars:
Focus on Bioplastics

NMG Lunchtime Seminars:
Focus on Biomimicry

NMG Lunchtime Seminars:
End of Year Quiz

The Sustainable Future Awards were refined for 2024, recognising outstanding contributions in three key areas:

- Circular economy
- Sustainable materials innovation for net-zero
- Inclusive practices and social responsibility

The awards ceremony, held alongside 2024 IOM3 Fellows Day, saw strong engagement, with half of the attendees representing shortlisted entries for the Sustainable Future Awards.

By embedding sustainability across events, thought leadership, and recognition programmes, IOM3 continues to drive progress towards a more sustainable and responsible future.

Financial review

Overview

In 2024 IOM3 income grew by 7% from £4.8m in 2023 to £5.2m in 2024. As it can be seen from the graphs on page 69, membership subscriptions continue to represent the majority of IOM3 income, closely followed by scientific journal royalties. It should also be noted that change in IOM3 journals publishing partner resulted in 38% year-on-year journals royalty income growth (£1.5m in 2024 vs £1.1m in 2023). Combined membership subscriptions and journal royalties generate nearly two-thirds of the Institute's income. IOM3 commercial activities continued to perform well, with conferences, training academy and venue hire contributing combined 24% of IOM3 group income.

In 2024 IOM3 general fund generated an operating surplus of £113k (2023 – deficit of £3,169k). After taking into account realised and unrealised gains on disposal and market value of IOM3 investment portfolio and actuarial gains on the defined benefit pension scheme, IOM3 ended 2024 with an overall surplus of £1,679k (2023 – deficit of £3,493k).

Financial review

Investments review

In March 2024 IOM3 trustees engaged an independent investment advisor to review IOM3 investment policy and strategy to de-risk IOM3 investments portfolio and align income generation and capital growth with IOM3 strategy and future business needs. Following review, trustees agreed to diversify both restricted and unrestricted investment portfolios and move investments to a number of different funds. Transition from BlackRock portfolio commenced in November 2024 and was complete in March 2025.

At the end of 2024 majority of restricted and unrestricted investments were still being held in BlackRock Charities Growth & Income Fund, a sustainable investments fund which aims to provide a return on investment (net of fees) over a period of 5 or more consecutive years through an increase to the value of the assets held and/or income received from those assets whilst adhering to the Fund's environmental, social and governance criteria.

Fund net performance (% net return)

	2024	2023	<i>Benchmark: 60% Global Equities, 20% Global Aggregate, 20% SONIA+3%</i>
Fund	8.34%	4.3%	
Benchmark	12.02%	10.1%	

	2024	2023	<i>The distribution yield represents the ratio of distributed income over the last 12 months to the fund's current net asset value.</i>
Distribution yield	3.4%	3.3%	

BlackRock Charities Growth & Income Fund measures at 5 out of 7 on Risk Indicator. Key risks include:

- Changes to interest rates, credit risk and/or issue defaults impacting performance of fixed income securities.
- Political, economic and significant company events affecting the value of equities and equity-related securities.
- Liquidity risk; the Fund's investments may have low liquidity which often causes the value of these investments to be less predictable. In extreme cases, the Fund may not be able to realise the investment at the latest market price or at a price considered fair.

Reserves review

The Trustees' 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 £7,582k at 31 December 2024.
- 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 £57k as at 31 December 2024.
- 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.

IOM3 unrestricted investments portfolio was valued at £5,024k at 31 December 2024 and represents 114% of the budgeted operating expenditure for 2025. The trustees consider this level of reserves sufficient to achieve the long-term objectives of the Institute. In addition, the trustees are also looking at ways of maximising the use of the Institute's fixed assets and broadening the use of restricted funds.


The trustees set a budget for net operating surplus of £235k for 2025 (before depreciation and defined benefit pensions scheme costs) to support ongoing initiatives for the development of membership, training and conference programmes.

Principal risks and uncertainties

Trustees have identified the following major risks facing the Institute:

- Loss of members through the ageing population and economic impact within the industry;
- Failure of IT systems and compromise to the use of the membership database as a result of cyber security breach;
- Difficulty in maintaining and growing current streams, in particular royalties generated from the scientific journal publishing;
- Financial impact of the deficit of the defined benefit pension scheme on the Institute's future strategy;
- Reputational and financial impact resulting from adverse volunteer actions;
- Major adverse change in investment values; and
- Major adverse change in the UK and global economy.

The risk register is being reviewed and updated on a regular basis and the trustees, employees and professional advisors are taking steps to mitigate these risks and minimise their impact on the Institute's future performance.



STRUCTURE & GOVERNANCE

The oldest nationwide constituent of this Institute was created in 1869. The Institute of Materials, Minerals & Mining is a body incorporated by Royal Charter (RC000267) dated 25 July 1975 and modified on 26 June 2002 and is a Registered Charity in England & Wales (269275) and in Scotland (SC050586). Its Patron is HM King Charles III HonFIMMM.

Governance

Executive Board

IOM3 is managed by an Executive Board, the members of which are the Trustees of the Institute. They are drawn from senior members of the Institute and are responsible for the ongoing management of strategy and performance of the Institute. The members of the Board include those who are following the presidential succession, and members involved as chairs of other activity boards.

Advisory Council

The IOM3 Advisory Council exists to advise the Executive Board on major strategic decisions and strategic planning and consists of the Officers of the Institute together with 22 members representing the Technical Communities, five representing the Member Networks, eight members representing Grades and seven members representing UK and overseas regions.

Governance committees

The Executive Board is supported by three governance committees (Audit, Nominations and Remuneration) that have standard responsibilities. In addition, the Awards Committee also reports to the Executive Board.

Audit Committee

The Audit Committee keeps 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.

Awards Committee

The Awards Committee oversees the operation of the Institute's Awards programme and is responsible for making recommendations to the Executive Board accordingly.

Nominations Committee

The Nominations Committee leads the process for appointment to the Executive Board, Institute Officers and Chairs of Primary Boards and other Boards which are not already prescribed by regulations or election.

Remuneration Committee

The Remuneration Committee aims to ensure that levels of remuneration are in line with the performance and needs of the Institute and the institutional sector.

Technology Communities Board (TCB)

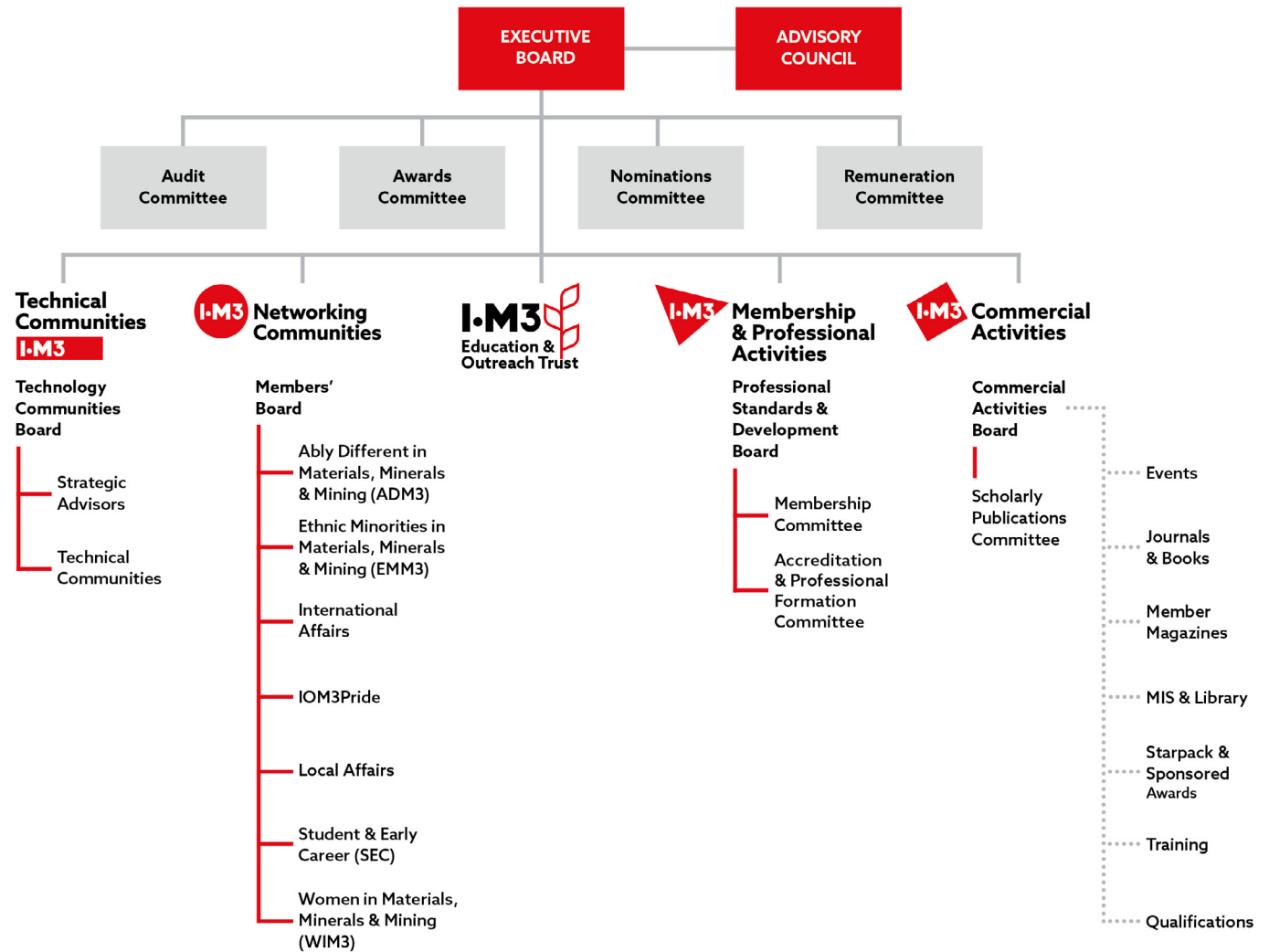
The TCB is responsible for overseeing and co-ordinating the activities of IOM3 as a 'Learned Society', focusing on promoting and sharing knowledge across materials, minerals and mining. With the support of nine Strategic Advisors, the TCB achieves this through 22 Technical Communities (TCs), which serve as focal points of expertise in various technical sectors. These communities organise regular meetings, events, and maintain an online presence, communicating their activities to both members and non-members through web content, newsletters and social media. The events provide valuable opportunities for networking, learning about the latest developments and engaging with individuals from academia, industry, and government, often on an international scale.

The TCB also oversees the structure and activities of the 22 TCs, ensuring they align with agreed objectives. Following

a revamp in 2023, the TCB is composed of a diverse group of IOM3 members, including representatives from the TCs and Strategic Advisors (SAs), both of whom hold seats on the TCB. Each TC is guided by its leadership team (TCLT), which is responsible for delivering the agreed objectives, with oversight from the TCB. Through the TCB's guidance, the TCs generate relevant technical content, organise events, and engage in policy and influence activities, addressing the technical needs of IOM3 members and the broader community.

Members' Board

The Members' Board is responsible for co-ordinating the Institute's activities in the regions and other member networks. The Institute has a network of affiliated societies throughout the UK, as well as overseas groups. Events and activities co-ordinated by local groups and societies are also supported through the technical community structure. The Members' Board also looks after the interests of the Member Networks, currently Aibly Different in Materials Minerals & Mining (ADM3), Ethnic Minorities in Materials, Minerals & Mining (EMM3), IOM3Pride, Student & Early Career (SEC) and Women in Materials, Minerals & Mining (WIM3).



Ably Different in Materials, Minerals & Mining Group (ADM3)

Ably Different is a voluntary network of IOM3 whose goal is to achieve equality of opportunity professionally for IOM3 members identifying as disabled and allies such as family members, carers and work colleagues. Together, it will do this by advancing the interests of disabled people, raising awareness and supporting equality of opportunity for IOM3 members in materials, minerals and mining and supporting equity, diversity and inclusion within the wider STEM community.

Ethnic Minorities in Materials, Minerals & Mining (EMM3)

The long-term goal of this group is to promote equality of opportunity professionally for ethnic minorities within the materials, minerals and mining industries. In the short term, the focus will be around gathering data from members belonging to minority groups to understand any issues they may face in the industry or in education and how IOM3 can help to address these. The group will also promote the creation of inclusive policies within the Institute, as well as raising awareness with regards to issues such as unconscious biases in the workplace

International Affairs Committee

The IAC is responsible for communications between the Institute and its international communities. It also encourages the development of new activities and communities outside the UK.

IOM3Pride

IOM3Pride is a voluntary network of IOM3 whose goal is to achieve equality of opportunity professionally for LGBTQIA+ identifying IOM3 members. It aims to do this by highlighting issues related to LGBTQIA+ individuals in materials, minerals and mining and supporting equity, diversity and inclusion within the wider STEM community.

Local Affairs Committee

IOM3 has a network of Affiliated Local Societies (ALS) across the UK. These are independent organisations which run their own programmes of events and activities locally, and by affiliation with IOM3 receive funding and support. Some ALS also engage with local schools, universities and businesses to provide valuable support for teaching and learning. The Local Affairs Committee is responsible for communications between the Institute and its ALS.

Student & Early Career (SEC)

The SEC Group was established in 1967 to represent the views and interests of the Institute's younger members, and is one of the longest running committees in our history. It organises various events and activities throughout the year.

Women in Materials, Minerals & Mining (WIM3)

IOM3 Women in Materials, Minerals & Mining (WIM3) was established in 2012 to provide a focus for women members within the Institute and help support them in their careers. Its leadership team has organised several successful events around the UK which have attracted female members at all stages of their career and provided valuable networking opportunities for women.

IOM3 Education & Outreach Trust

The IOM3 Education & Outreach Trust was formed by the amalgamation of a number of historical restricted funds and was granted charitable status at the end of 2022. The purpose of the Trust is to offer support to initiatives that raise awareness of and support members in the early stages of a career in the materials cycle. There are three streams of funding which involve activities that develop interest, recognise excellence and support professional development in the materials cycle.

Professional Standards & Development Board

Professional affairs within the Institute are overseen by the Professional Standards & Development Board, which deals with membership, qualifications and accreditation.

Membership Committee

The Membership Committee is responsible for the evaluation of membership applications for both Institute grades and professional registration such as Chartered Engineer, Chartered Environmentalist, or Chartered Scientist.

Accreditation & Professional Formation Committee (APFC)

The APFC oversees the standards and processes for the accreditation of academic programmes, and company Initial Professional Development (IPD) schemes to meet the requirements for registration levels for which IOM3 has licences, in the UK and abroad.

Commercial Activities Board

The Commercial Activities Board is responsible for trading strategy development and co-ordination of revenue generation activities other than membership. This includes charitable activities such as the provision of information on materials, minerals and mining through Institute publications, conferences, training and information services. It also has oversight of Materials Institute Services Ltd, a wholly owned subsidiary of the Institute responsible for IOM3 venue hire and other non-charitable trading activities.

Scholarly Publications Committee (SPC)

The SPC is charged with providing strategic, non-executive direction for the Institute's scholarly publications programme. These include, providing a forum for research publication users and producers to input to the IOM3 scholarly publication programme, and providing strategic oversight of the IOM3 scholarly publishing arrangements.

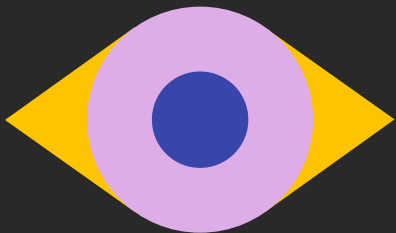
Objectives & activities

The charitable objects of IOM3, as set out in the Royal Charter, are:

To advance and develop all aspects of science, engineering and technology as applied to the discovery, exploration, development, characterisation, exploitation, processing, application and re-cycling 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, provided that 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 complimentary to those of such organisations.

Our Corporate Strategy sets two objectives for IOM3:

1. To support professionals in materials, minerals, mining to be champions of the transition to a low-carbon, resilient & resource efficient society.
2. To be the best professional membership body it can be.

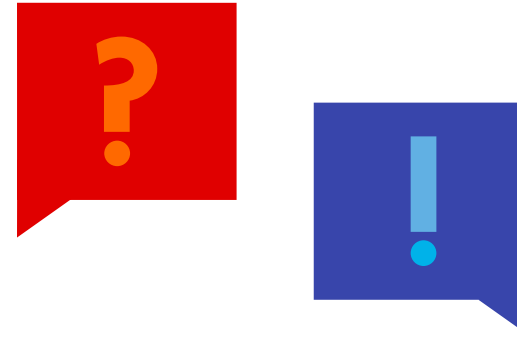


Through our activities we aim to:

Raise the profile of our sectors as technologies vital to the health and wealth of the nation; engage in public, policy and media debate to increase the visibility of materials, minerals, and mining.

IOM3 has always worked closely with Government in relation to the delivery of new technology to industry. We are also increasingly deploying the expertise of our members to influence the public, media and policy debates that have materials, minerals and mining aspects, including through participation in Government advisory groups and contributing to public and parliamentary consultations. Our communications efforts also explain the vital importance of materials, minerals and mining to the future of our society.

Stimulating innovation in the extraction, use and application of materials, IOM3 organises both UK and worldwide competitions to develop a broad understanding of the importance of materials, minerals and mining, and such events engage with schools, students and businesses from the UK and beyond. Separately, IOM3 provides an extensive range of awards both to members and non-members who have provided outstanding contributions to our communities and professions.



Support people within the materials, minerals and mining sectors to address the societal challenges we face today such as climate change, equity, diversity and inclusion, etc.

The Sustainable Future theme brings together many IOM3 activities that seek to ensure our members and wider society understand how materials, minerals and mining need to contribute to the transition to a low-carbon, resilient and resource efficient society. Both individually, and as part of the wider networks of engineering, environmental and scientific professional institutions, IOM3 encourages and promotes the participation of under-represented and minority groups in the engineering, environment and science professions. To help support and encourage individuals in STEM careers who share particular characteristics or non-technical interests, IOM3 has created five Member Networks (ADM3, EMM3, IOM3Pride, SEC and WIM3).

Support and encourage education in materials, minerals and mining to attract young people to the profession.

IOM3 accredits a number of university, college and industry courses in the UK and overseas, and provides a special low-cost membership package for undergraduates which is often sponsored by local societies or by their university. The thriving Student & Early Career Group organises regular events for students and early career members. IOM3 has an active education programme that enriches the teaching of materials, minerals and mining in the curriculum and promotes careers within our sphere of influence. We provide help, advice and teaching materials free of charge to teachers that have signed up to our School Affiliate service and to date over 1,200 schools have registered. Our schools presentations have so far been delivered to more than 100,000 pupils throughout the UK. The team also organises study days for teachers and events to allow older pupils to interact with young people already working in the sector. Together with the IOM3 Education & Outreach Trust we provide financial support for schools, students and early career researchers.

Provide a central resource of expertise and information through content; disseminate information through conferences, events, publications, online resources and social media; increase the visibility of new technology to industry; provide networking opportunities through technical, local and other activities to increase interaction between industry, academia and government.

IOM3 publishes technical books, learned journals and member magazines and organises conferences on materials, minerals and mining related subjects. The publishing of learned journals was outsourced to Taylor & Francis until 31 December 2023 and is outsourced to Sage Publishing from 1 January 2024. Access to this material is available to both members and non-members. In-house teams publish the member magazines and organise the majority of conferences. IOM3 maintains an extensive resource of technical and historical publications that form the core of our information and library services, a source of expertise accessible to all. The IOM3 Technical Enquiries service provides consultancy and advice services to anyone who needs access to expertise in materials, both individuals and organisations. Of the 1,500 enquiries routinely handled each year, 50% originate from the UK public. The Business Partner Programme enables organisations to visibly associate themselves with IOM3 and access its resources and work programmes. Confirmed subscribers to date include Lucideon, National Composites Centre and Lloyds Register.

IOM3 organises dozens of events every year covering a wide range of topics of relevance to professionals in materials, minerals and mining. In addition, we partner with other organisations to support similar activities, including the UK-wide network of local societies affiliated to IOM3, our international affiliated societies, other UK and international professional bodies and learned societies and other like-minded organisations.

Provide our members with benefits, services and opportunities to support their careers.

IOM3 technical communities, boards and committees are all composed of active supporters and volunteers (ASVs) drawn from the IOM3 membership, who freely give their time and expertise to deliver the Institute's charitable purposes and professional activities, develop our communities and provide peer review processes where needed. IOM3 depends on the engagement of our members in the broad range of our activities and could not deliver our objectives effectively without their significant contribution. IOM3 members play a prime role in promoting our objectives and providing public benefit. Accordingly, a wide range of member services and benefits have been developed in pursuance of our objectives and to attract new members. Benefits of membership include professional recognition, networking opportunities to share knowledge and experience, free technical enquiry services, a choice of members' magazine, a members' business centre and use of facilities, discounted conference fees, training courses and publications, and additional online services. In addition, the regulation of the profession provides benefits to both members – who are recognised as competent and professional – and to wider society.

IOM3 provides support to our worldwide membership through our UK offices, our technical communities and societies, and our network of affiliated local societies and national groups. Career progression is recognised through various grades of membership and IOM3 is licensed to deal with applications for Chartered Engineer, Incorporated Engineer, Engineering Technician, Chartered Environmentalist, Registered Environmental Practitioner, Chartered Scientist, Registered Scientist and Registered Science Technician status.

Statement of Trustees' responsibilities

The Trustees are responsible for preparing the Trustees' Report and the financial statements in accordance with applicable law and United Kingdom Accounting Standards (United Kingdom Generally Accepted Accounting Practice).

The Law applicable to charities in England & Wales requires the Trustees to prepare financial statements for each financial year which give a true and fair view of the state of affairs of the group and charity and of the incoming resources and application of resources of the group and charity for that period. In preparing these financial statements, the Trustees are required to:

- Select suitable accounting policies and then apply them consistently
- Observe the methods and principles in the applicable Charities SORP
- Make judgements and estimates that are reasonable and prudent
- State whether applicable United Kingdom 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 charity will continue in business

The Trustees are responsible for keeping proper accounting records that disclose with reasonable accuracy at any time the financial position of the group and charity and enable them to ensure that the financial statements comply with the Charities Act 2011, the Charity (Accounts and Reports) Regulations and the provisions of the Royal Charter and Bye-Laws. They are also responsible for safeguarding the assets of the group and charity and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities. The Trustees are responsible for the maintenance and integrity of the group and 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.

Trustees, senior boards & professional advisors

Details of the current Board and Committee members can be found at www.iom3.org/about-us/governance.html

Executive Board & Trustees

Neil E Glover, Chair & Immediate Past President (until Dec 2024)

Dr Kate Thornton, Chair & Immediate Past President (from Jan 2025)

Dr Kate Thornton, President (until Dec 2024)

Christine Blackmore, Senior Vice-president (until Dec 2024)

Christine Blackmore, President (from Jan 2025)

Prof Michael R Clinch, Vice-president (until Dec 2024)

Prof Michael R Clinch, Senior Vice-president (from Jan 2025)

Prof Graham Ormondroyd, Vice-president

Dr Colleen Mann, Vice-president (from Jan 2025)

Thomas R Hill, Honorary Treasurer

Dr Ilija Rašović, Chair of Student & Early Career Group (from Jan 2024)

Martyn Jones, Chair of Members' Board

Martin C Cox, Chair of International Affairs Committee

Dr David Stewart, Chair of Professional Standards & Development Board

Ian R Marchant, Chair of Commercial Activities Board

Judith Allan, Advisory Council Representative

Jason M Webb, Advisory Council Representative

Dr Alexander Norori-McCormac, co-opted

James Hannigan, co-opted (from Nov 2024)

Dr Richard M Oblath, Chair of Technology Communities Board (from May 2024)

Board of Directors, Materials Institute Services Ltd.

The following served as directors during the year:

Directors	Dr C Church N E Glover (until December 2024) K Harrison I R Marchant T R Hill (from February 2025)
Company Secretary	J Bugajeva

Board of Directors, PIABC Ltd.

The following served as directors during the year:

Directors	Dr C Church N E Glover (until December 2024) T R Hill (from February 2025)
Company Secretary	J Bugajeva

Key management personnel

Chief Executive	Dr C Church
Finance Director	J Bugajeva
Director of Communications	Dr I A N Staniaszek (until December 2024)
Director of Operations	K Harrison
Director of Membership	P R Skerry (from January 2024)
Director of Business Support	C Marriott

Professional advisors

Bankers	Santander UK plc 4th Floor 100 Ludgate Hill London EC4M 7RE
Solicitors	Howes Percival LLP 3 The Osiers Business Centre Leicester LE19 1DX
Auditors	HaysMac LLP 10 Queen Street Place London EC4R 1AG (appointed November 2024)
Investment Managers	Blackrock Investment Management (UK) Ltd 12 Throgmorton Avenue London EC2N 2DL (until March 2025) Epoch Consulting 12 Smithfield Street London EC1A 9BD (appointed July 2024)
Actuaries	First Actuarial LLP Second Floor The Square Basing View Basingstoke RG21 4EB

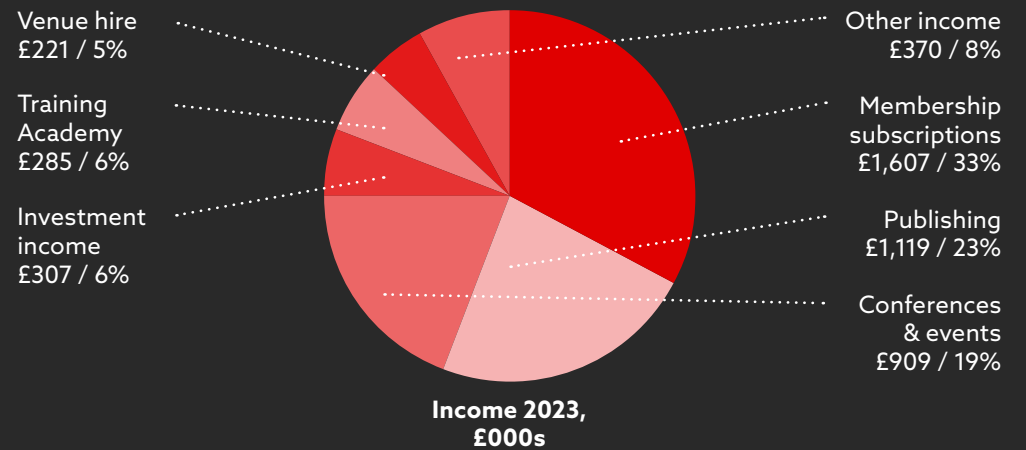
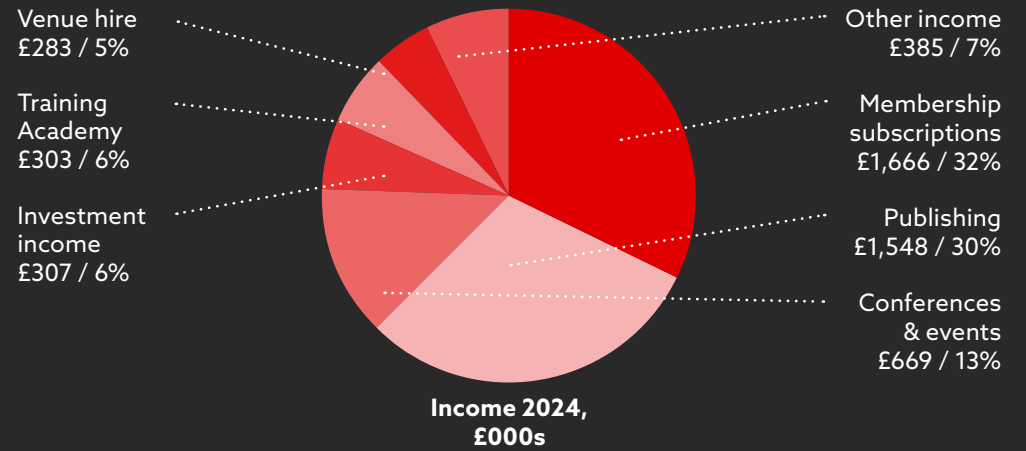
This report was approved by
the Trustees on 7 July 2025



K Thornton



FINANCIAL
STATEMENTS



The following pages detail financial activities for the year ended 31 December 2024, reflecting operating performance, assets and obligations. Income for the year 2024 is summarised in the chart above.

Independent auditor's report to the Trustees of the Institute of Materials, Minerals & Mining

Opinion

We have audited the financial statements of The Institute of Materials, Minerals and Mining for the year ended 31 December 2024, which comprise the Consolidated Statement of Financial Activities, the Consolidated and Parent Balance Sheets, the Consolidated Statement of Cash Flows and notes to the financial statements, including a summary of significant accounting policies. The financial reporting framework that has been applied in their preparation is applicable law and United Kingdom Accounting Standards, including Financial Reporting Standard 102, the Financial Reporting Standard applicable in the UK and Republic of Ireland (United Kingdom Generally Accepted Accounting Practice).

In our opinion the financial statements:

- give a true and fair view of the state of the group's and of the parent charitable company's affairs as at 31 December 2024 and of the group's and parent charitable company's net movement in funds, including the income and expenditure, for the year then ended;
- have been properly prepared in accordance with United Kingdom Generally Accepted Accounting Practice; and
- have been prepared in accordance with the requirements of the Companies Act 2006 and the Charities and Trustee Investment (Scotland) Act 2005 and regulation 8 of the Charities Accounts (Scotland) Regulations 2006.

Basis for opinion

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

Conclusions relating to going concern

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

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

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

Other information

The trustees are responsible for the other information. The other information comprises the information included in the Trustees' Annual Report and the Letter from the Chair and Letter from the Chief Executive. Our opinion on the financial statements does not cover the other information and, except to the extent otherwise explicitly stated in our report, we do not express any form of assurance conclusion thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements, or our knowledge obtained in the audit or otherwise appears to be materially misstated. If we identify such material inconsistencies or apparent material misstatements, we are required to determine whether there is a material misstatement in the financial statements or a material misstatement of the other information. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Opinions on other matters prescribed by the Companies Act 2006

In our opinion, based on the work undertaken in the course of the audit:

- the information given in the Trustees' Annual Report (which includes the strategic report and the directors' report prepared for the purposes of company law) for the financial year for which the financial statements are prepared is consistent with the financial statements; and
- the strategic report and the directors' report included within the Trustees' Annual Report have been prepared in accordance with applicable legal requirements.

Matters on which we are required to report by exception

In the light of the knowledge and understanding of the group and the parent charitable company and its environment obtained in the course of the audit, we have not identified material misstatements in the Trustees' Annual Report (which incorporates the strategic report and the directors' report).

We have nothing to report in respect of the following matters in relation to which the Companies Act 2006 and the Charity Accounts (Scotland) Regulations (as amended) require us to report to you if, in our opinion:

- adequate accounting records have not been kept by the parent charitable company, or returns adequate for our audit have not been received from branches not visited by us; or
- the parent charitable company financial statements are not in agreement with the accounting records and returns; or
- certain disclosures of trustees' remuneration specified by law are not made; or
- we have not received all the information and explanations we require for our audit.

Responsibilities of trustees for the financial statements

As explained more fully in the trustees' responsibilities statement set out on p65, the trustees (who are also the directors of the charitable company for the purposes of company law) are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view, and for such internal control as the trustees determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the trustees are responsible for assessing the group's and the parent charitable company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the trustees either intend to liquidate the group or the parent charitable company or to cease operations, or have no realistic alternative but to do so.

Auditor's responsibilities for the audit of the financial statements

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

Irregularities, including fraud, are instances of non-compliance with laws and regulations. We design procedures in line with our responsibilities, outlined above, to detect material misstatements in respect of irregularities, including fraud. The extent to which our procedures are capable of detecting irregularities, including fraud is detailed below.

Based on our understanding of the group and the environment in which it operates, we identified that the principal risks of non-compliance with laws and regulations related to company and charity law in England and Wales, company and charity law in Scotland and compliance with overseas laws and regulations in the jurisdictions the Group operates in. We considered the extent to which non-compliance might have a material effect on the financial statements. We also considered those laws and regulations that have a direct impact on the preparation of the financial statements such as the Companies Act 2006 and the Charities Act 2011, Charity Accounts (Scotland) Regulations (as

amended), Charities and Trustee Investment (Scotland) Act 2005 and the impact of payroll taxes and sales taxes.

We evaluated management's incentives and opportunities for fraudulent manipulation of the financial statements (including the risk of override of controls), and determined that the principal risks were related to posting inappropriate journal entries to revenue, the cut-off of revenue at the year end and management bias in areas of accounting estimate. Audit procedures performed by the engagement team included:

- Inspecting correspondence with regulators and tax authorities;
- Discussions with management including consideration of known or suspected instances of non-compliance with laws and regulation and fraud;
- Evaluating management's controls designed to prevent and detect irregularities;
- Identifying and testing journals, in particular journal entries posted with unusual account combinations, postings by unusual users or with unusual descriptions; and
- Challenging assumptions and judgements made by management in their critical accounting estimates, including the valuation of heritage assets and freehold property, the useful economic lives of fixed assets, any provision for irrecoverable debts and year end accruals and deferrals.

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

Use of our report

This report is made solely to the charitable company's members, as a body, in accordance with Chapter 3 of Part 16 of the Companies Act 2006, section 44(1)(c) of the Charities and Trustee Investment (Scotland) Act 2005 and regulation 10 of the Charities Accounts (Scotland) Regulations 2006. Our audit work has been undertaken so that we might state to the charitable company's members those matters we are required to state to them in an Auditor's report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the charitable company and the charitable company's members as a body, for our audit work, for this report, or for the opinions we have formed.



HaysMac LLP
Statutory Auditor
Chartered Accountants
10 Queen Street Place
London EC4R 1AG

Date: 09/07/2025

HaysMac LLP is eligible to act as an auditor in terms of Section 1212 of the Companies Act 2006

Consolidated statement of financial activities for the year ended 31 December 2024

	Notes	Unrestricted funds General £'000	Unrestricted funds Designated £'000	Restricted funds £'000	Permanent endowment £'000	Total funds 2024 £'000	Total funds 2023 £'000
INCOME AND ENDOWMENTS FROM:							
Donations and legacies	4	42	-	-	-	42	16
Charitable activities							
Membership and related activities		1,929	-	-	-	1,929	1,877
Charitable trading activities	3	2,457	-	-	-	2,457	2,267
Other trading activities	13	426	-	-	-	426	351
Investments	6	237	2	68	-	307	307
Total income		5,091	2	68	-	5,161	4,818
EXPENDITURE ON:							
Raising funds		421	-	-	-	421	321
Charitable activities							
Membership and related activities		2,895	1	62	-	2,958	6,159
Charitable trading activities	3	1,669	-	-	-	1,669	1,507
Total expenditure		4,985	1	62	-	5,048	7,987
Operating income/(expenditure)		106	1	6	-	113	(3,169)
Net gains on investments	12	257	3	67	-	327	62
Net income/(expenditure)		363	4	73	-	440	(3,107)
Other recognised gains/(losses)							
(Losses) on revaluation of fixed assets	10,11	-	(21)	-	-	(21)	(497)
Actuarial gains on defined benefit pension schemes	22.7	1,260	-	-	-	1,260	111
NET MOVEMENT IN FUNDS		1,623	(17)	73	-	1,679	(3,493)
Reconciliation of funds							
Total funds brought forward		2,090	8,347	2,353	33	12,823	16,316
TOTAL FUNDS CARRIED FORWARD		3,713	8,330	2,426	33	14,502	12,823

Consolidated and charity balance sheets as at 31 December 2024

	Notes	Group		Institute	
		2024 £'000	2023 £'000	2024 £'000	2023 £'000
FIXED ASSETS					
Intangible assets	9	96	142	96	142
Tangible assets	10	7,874	7,904	7,874	7,904
Heritage assets	11	348	456	348	456
Investments	12	6,974	7,816	6,974	7,816
Total fixed assets		15,292	16,318	15,292	16,318
CURRENT ASSETS					
Stock and work in progress	14	111	155	111	155
Debtors	15	1,970	1,304	1,963	1,252
Cash at bank and in hand		870	132	783	106
Total current assets		2,951	1,591	2,857	1,513
CREDITORS: Amounts falling due within one year	16	(2,304)	(2,290)	(2,233)	(2,235)
NET CURRENT ASSETS/(LIABILITIES)		647	(699)	624	(722)
NET ASSETS BEFORE PENSION LIABILITY		15,939	15,619	15,916	15,596
Defined benefit pension scheme liability	22	(1,437)	(2,796)	(1,437)	(2,796)
NET ASSETS AFTER PENSION LIABILITY		14,502	12,823	14,479	12,800
THE FUNDS OF THE CHARITY					
ENDOWMENT FUNDS	18	33	33	33	33
RESTRICTED INCOME FUNDS					
Restricted funds	19	2,426	2,353	2,426	2,353
UNRESTRICTED FUNDS					
General funds		3,713	2,090	3,690	2,067
Designated funds	20	7,894	7,891	7,894	7,891
Revaluation reserve	20	436	456	436	456
TOTAL CHARITY FUNDS		14,502	12,823	14,479	12,800

The financial statements on pages 68 to 104 were approved and authorised for issue by the Trustees and signed on their behalf by:

Dr K Thornton,
Trustee and President 2024
on 7 July 2025



T R Hill,
Trustee and Honorary Treasurer
on 7 July 2025



Consolidated and charity statement of cash flows for the year ended 31 December 2024

	Notes	Group		Institute	
		2024 £'000	2023 £'000	2024 £'000	2023 £'000
Cash flows from operating activities:					
Net cash used in operating activities	T1	(602)	(91)	(663)	(93)
Cash flows from investing activities:					
Dividends, interest and rents from investments		307	307	307	307
Purchase of intangibles		(45)	(50)	(45)	(50)
Purchase of property, plant and equipment		(91)	(237)	(91)	(237)
Proceeds from sale of investments		2,970	750	2,970	750
Purchase of investments		(1,801)	-	(1,801)	-
Net cash provided by investing activities		1,340	770	1,340	770
Change in cash and cash equivalents in the reporting period		738	679	677	677
Cash and cash equivalents at the beginning of the reporting period		132	(547)	106	(571)
Cash and cash equivalents at the end of the reporting period	T2	870	132	783	106

T1 Reconciliation of net income/ (expenditure) to net cash flow from operating activities

	<i>Group</i>		<i>Institute</i>	
	<i>2024</i>	<i>2023</i>	<i>2024</i>	<i>2023</i>
	<i>£'000</i>	<i>£'000</i>	<i>£'000</i>	<i>£'000</i>
Net income/(expenditure) for the reporting period (as per the statement of financial activities)	440	(3,107)	440	(3,107)
Adjustments for:				
Depreciation and amortisation charges and impairment of fixed assets	299	3,351	299	3,351
(Gains)/losses on investments	(327)	(62)	(327)	(62)
Pension costs	(99)	(81)	(99)	(81)
Dividends, interest and rents from investments	(307)	(307)	(307)	(307)
Decrease/(increase) in stocks	44	(75)	44	(75)
(Increase)/decrease in debtors	(666)	252	(711)	275
Increase/(decrease) in creditors	14	(62)	(2)	(87)
Net cash used in operating activities	(602)	(91)	(663)	(93)

T2 Analysis of cash and cash equivalents

	<i>Group</i>		<i>Institute</i>	
	<i>2024</i>	<i>2023</i>	<i>2024</i>	<i>2023</i>
	<i>£'000</i>	<i>£'000</i>	<i>£'000</i>	<i>£'000</i>
Cash in hand	870	132	783	106
Total cash and cash equivalents	870	132	783	106

Accounting policies

Basis of financial statements

The Institute of Materials, Minerals and Mining ("the Charity") is an unincorporated charity domiciled in England. The address of the Charity's registered office and principal place of business is 297 Euston Road, London NW1 3AD.

The Charity's principal activities and the nature of the Charity's operations are described in the Trustees' Report on pages 56-64.

The financial statements have been prepared in accordance with Accounting and Reporting by Charities: Statement of Recommended Practice applicable to charities preparing their accounts in accordance with the Financial Reporting Standard applicable in the UK and Republic of Ireland (FRS 102) (effective 1 January 2019) - (Charities SORP (FRS 102)), the Financial Reporting Standard applicable in the UK and Republic of Ireland (FRS 102) and the Charities Act 2011.

The Institute of Materials, Minerals and Mining meets the definition of a public benefit entity under FRS 102. Assets and liabilities are initially recognised at historic cost or transaction value unless otherwise stated in the relevant accounting policy notes.

The financial statements are prepared in sterling, which is the functional currency of the Charity. Monetary amounts in these financial statements are rounded to the nearest £1,000.

Preparation of the accounts on a going concern basis

The Trustees confirm that at the time of approving these financial statements, there is a reasonable expectation that the Institute has adequate resources to continue for the foreseeable future. In arriving at this conclusion, the Trustees have taken into account the current and anticipated financial performance in the current economic conditions and the charity's reserves position. The Trustees have considered forecasts to June 2026. The Trustees are satisfied that the charity has adequate reserves and strategies in place and have concluded that it remains appropriate to prepare the financial statements on the going concern basis.

Group financial statements

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

Details of the Institute's total incoming resources and net movement in funds are shown in the notes.

Income

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

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, probability of receipt and the amount can be measured with sufficient reliability.

Expenditure

Expenditure is recognised once there is a legal or constructive obligation to make a payment to a third party, it is probable that settlement will be required and the amount of the obligation can be measured reliably.

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.

Allocation of 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. The basis on which support costs are allocated is set out in note 7.

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.

Heritage Assets

A description of heritage assets held by the Charity is given in note 11. These assets were valued in April 2025 and details are given in note 11.

The heritage assets have been recognised in the Institute's balance sheet at valuation.

Tangible fixed assets 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:

Freehold Property (excluding land)	2% p.a.
Leasehold property	over the term of the lease
Furniture	15%-20% p.a.
Equipment	20%-33% 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.

Freehold property is accounted for using the revaluation method with the building element depreciated at a rate of 2% per annum and revalued to its market value at the end of the financial year. The net value of gains on revaluation are held in the revaluation reserve.

The Institute's freehold property is recognised in the financial statements at its market value.

Intangible fixed assets

Intangible fixed assets, including patents and software, 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 reviewed where circumstances indicate that the carrying value of an asset may not be fully recoverable. Intangible fixed assets are amortised over the following periods:

Website and software costs	4-5 years
----------------------------	-----------

Investments and investment income

Listed investments are shown at market value at the balance sheet date. Realised and unrealised gains or losses are taken to the fund to which they relate via the Statement of Financial Activities in the year in which they arise. Unlisted investments are held at cost. 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.

Stocks and work in progress

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

Debtors

Trade and other debtors are recognised at the settlement amount due after any trade discount offered. Prepayments are valued at the amount prepaid net of any trade discounts due 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.

Cash at bank and in hand

Cash at bank and in hand includes cash and short term highly liquid investments with a short maturity of three months or less from the date of acquisition or opening of the deposit or similar account.

Creditors and provisions

Creditors and provisions are recognised where the charity has a present obligation resulting from a past event that will probably result in the transfer of funds to a third party and the amount due to settle the obligation can be measured or estimated reliably. Creditors and provisions are normally recognised at their settlement amount after allowing for any trade discounts due.

Financial instruments

The Institute only has financial assets and financial liabilities of a kind that qualify as basic financial instruments. Basic financial instruments are measured at their settlement value.

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 and was closed to accrual on 31 December 2021.

The assets of the scheme are held independently 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. Fair value is based on the market price information and in the case of quoted securities is the published bid price.

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 that has been rated at AA or equivalent basis 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 Trustees 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.

The actuarial gain or loss arising in the year is included under 'other recognised gains or losses'. Contributions are charged to expenditure so as to spread the regular cost of pensions over the expected working lives of the employees in the scheme. Any difference between the cumulative amounts charged and contributions paid is included as an asset or liability on the balance sheet.

The interest element of the defined benefit cost represents the change in present value of scheme obligations relating to the passage of time and is determined by applying a discount rate to the opening present value of the benefit obligation, valuing into account material changes in the obligation during the year. The expected return on plan assets is based on an assessment made at the beginning of the year of long-term market returns on scheme assets adjusted for the effect on the fair value of plan assets of the contributions received and benefits paid during the year. The difference between the expected return on plan assets and the interest costs is recognised in the consolidated SOFA (Statement of Financial Activities) as pension finance income or within resources expenses as appropriate.

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.

Critical accounting estimates and assumptions

The Institute makes estimates and assumptions concerning the future. The resulting estimates and assumptions will, by definition, seldom equal the related actual results. The estimates and assumptions that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year are those used by the scheme actuary in calculating the Institute's defined benefit scheme liability (see note 22 for details).

Revaluation of freehold property: the revaluation is based on the building element of freehold properties depreciated at a rate of 2% per annum and revalued to its market value at the end of the financial year (see note 10 for details).

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 Trustees. 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 the Trustees out of unrestricted general funds for specific future purposes or projects. The revaluation reserve within designated funds represents the value of gains on revaluation of freehold property.
- 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.
- Permanent endowment fund – 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.

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

Notes to financial statements

1. Consolidated statement of financial activities for the year ended 31 December 2023

	Notes	Unrestricted funds General £'000	Unrestricted funds Designated £'000	Restricted funds £'000	Permanent endowment £'000	Total funds 2023 £'000	Total funds 2022 £'000
INCOME AND ENDOWMENTS FROM:							
Donations and legacies	4	16	-	-	-	16	42
Charitable activities							
Membership and related activities		1,877	-	-	-	1,877	1,805
Charitable trading activities	3	2,267	-	-	-	2,267	1,517
Other trading activities	13	351	-	-	-	351	286
Investments		240	3	64	-	307	270
Other income	10	-	-	-	-	-	77
Total income		4,751	3	64	-	4,818	3,997
EXPENDITURE ON:							
Raising funds		321	-	-	-	321	236
Charitable activities							
Membership and related activities		3,020	3,099	40	-	6,159	2,841
Charitable trading activities	3	1,507	-	-	-	1,507	906
Total expenditure		4,848	3,099	40	-	7,987	3,983
Operating (expenditure)/income		(97)	(3,096)	24	-	(3,169)	14
Net gains/(losses) on investments	12	19	-	43	-	62	(1,133)
Net (expenditure)/income		(78)	(3,096)	67	-	(3,107)	(1,119)
Other recognised gains/(losses)							
(Losses)/gains on revaluation of fixed assets	10	-	(497)	-	-	(497)	86
Actuarial gains on defined benefit pension schemes		111	-	-	-	111	76
NET MOVEMENT IN FUNDS		33	(3,593)	67	-	(3,493)	(957)
Reconciliation of funds							
Total funds brought forward		2,057	11,940	2,286	33	16,316	17,273
TOTAL FUNDS CARRIED FORWARD		2,090	8,347	2,353	33	12,823	16,316

2. Charity only statement of financial activities for the year ended 31 December 2024

	Unrestricted funds General £'000	Designated £'000	Restricted funds £'000	Permanent endowment £'000	Total funds 2024 £'000	Total funds 2023 £'000
INCOME AND ENDOWMENTS FROM:						
Donations and legacies	48	-	-	-	48	46
Charitable activities						
Membership and related activities	1,823	-	-	-	1,823	1,757
Charitable trading activities	2,457	-	-	-	2,457	2,267
Investments	237	2	68	-	307	307
Total income	4,565	2	68	-	4,635	4,377
EXPENDITURE ON:						
Raising funds	1	-	-	-	1	-
Charitable activities						
Membership and related activities	2,789	1	62	-	2,852	6,039
Charitable trading activities	1,669	-	-	-	1,669	1,507
Total expenditure	4,459	1	62	-	4,522	7,546
Net gains on investments	257	3	67	-	327	62
Net income/(expenditure)	363	4	73	-	440	(3,107)
Other recognised (losses)/gains:						
(Losses) on revaluation of fixed assets	-	(21)	-	-	(21)	(497)
Actuarial gains on defined benefit pension schemes	1,260	-	-	-	1,260	111
NET MOVEMENT IN FUNDS	1,623	(17)	73	-	1,679	(3,493)
Reconciliation of funds						
Total funds brought forward	2,067	8,347	2,353	33	12,800	16,293
TOTAL FUNDS CARRIED FORWARD	3,690	8,330	2,426	33	14,479	12,800

3. Charitable trading activities

	2024 £'000	2023 £'000
TURNOVER		
Publishing	1,548	1,118
Conferences and exhibitions	606	853
Training services	303	296
Incoming resources	2,457	2,267
COST OF CHARITABLE TRADING ACTIVITIES		
Publishing	722	166
Conferences and exhibitions	606	937
Information services	1	5
Training services	340	399
Expenditure	1,669	1,507
NET CONTRIBUTION FROM CHARITABLE TRADING ACTIVITIES		
Publishing	826	952
Conferences and exhibitions	-	(84)
Information services	(1)	(5)
Training services	(37)	(103)
Net income	788	760

4. Donations and legacies

	2024 £'000	2023 £'000
Other donations	42	16
	<u>42</u>	<u>16</u>

5. Other trading activities

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. These activities are undertaken by Materials Institute Services Ltd (see note 13: Subsidiary undertakings).

6. Investment income

	2024			2023		
	Unrestricted £'000	Restricted £'000	Total £'000	Unrestricted £'000	Restricted £'000	Total £'000
Listed securities						
Growth & Income fund	180	43	223	213	40	253
Fixed interest	10	4	14	1	4	5
UK equities	3	21	24	4	20	24
Cash and cash equivalents	46	-	46	25	-	25
	<u>239</u>	<u>68</u>	<u>307</u>	<u>243</u>	<u>64</u>	<u>307</u>

7. Total resources expended

Summary

	2024 £'000	2024 £'000	2023 £'000	2023 £'000
Direct charitable costs		1,264		1,437
Employment costs				
Salaries	2,035		1,814	
Social security costs	218		195	
Pension costs	391		378	
Temporary and other staff costs	109		89	
		2,753		2,476
Establishment costs				
Property costs	355		338	
Information technology	235		227	
Depreciation and amortisation	299		253	
Impairment of fixed assets	-		3,098	
		889		3,916
Administration costs				
Travel, meeting and committee expenses	50		48	
Postage and telecommunications	8		24	
Printing and stationery	13		13	
Finance costs	2		4	
Professional fees	57		65	
Office and other costs	12		4	
		142		158
		5,048		7,987

Breakdown of costs of activities

	<i>Direct costs</i> £'000	<i>Support costs</i> £'000	<i>2024 Total</i> £'000	<i>2023 Total</i> £'000
Charitable activities				
Membership and related services	470	2,488	2,958	6,159
Charitable trading activities	717	952	1,669	1,507
	1,187	3,440	4,627	7,666
Costs of raising funds				
Activities for raising funds	76	344	420	321
Investment management costs	1	-	1	-
	1,264	3,784	5,048	7,987

Support cost breakdown by activity

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.

Admin costs include governance, finance, HR, IT and, sales and marketing costs, which are apportioned to activities on the basis of employment costs.

	<i>Employment costs</i> £'000	<i>Establishment costs</i> £'000	<i>Admin costs</i> £'000	<i>2024 Total</i> £'000	<i>2023 Total</i> £'000
Membership and related services	1,898	521	69	2,488	5,628
Charitable trading activities	700	188	64	952	671
Activities for raising funds	155	180	9	344	251
	2,753	889	142	3,784	6,550

Employee information

	2024 No.	2023 No.
The average number/(full time equivalent) employees during the year was	44(42)	42(40)
The number of employees who earned more than £60,000 per annum including benefits was:		
£60,001 - £70,000	3	2
£70,001 - £80,000	2	1
£80,001 - £90,000	1	2
£90,001 - £100,000	1	-
£120,001 - £130,000	-	1
£130,001 - £140,000	1	-
The number of employees who earned more than £60,000 per annum and accrued benefits in the Institute's pension scheme was:		
Money purchase scheme	8	6

	2024 £'000	2023 £'000
Total remuneration of key management personnel, including benefits during the year was	530	507
Total employer National Insurance contributions paid on the key management personnel remuneration	64	55
Contributions to the pension funds during the year were:		
Defined benefit scheme	220	220
Money purchase scheme	117	101

The key management personnel of the charity are detailed on page 67.

Total expenditure includes

2024
£'000

2023
£'000

Auditor's remuneration		
Audit fee – current year	47	50
Accountancy, taxation and other services	5	7
Travel expenses paid to 8 (2023: 6) Trustees for attending Executive board and other meetings	2	1
Travel expenses paid on behalf of 16 (2023: 13) Trustees for attending Executive board and other meetings	4	7
Operating lease charges	38	37

None of the Trustees received any remuneration in either year.

2024
£'000

2023
£'000

The total future minimum lease payments under non-cancellable operating leases	Land and buildings	Other	Land and buildings	Other
Within one year	29	4	29	8
Within two to five years	115	-	115	4
After five years	43	-	72	-

Other transactions with Trustees

Jason Webb provided apprenticeship End-point assessment services during 2024 to the Institute's subsidiary, PIABC Ltd. The value of these services during the year was £1,500 (2023 - £4,500). At 31 December 2024 the balance due to Mr Webb was £nil (2023 - £nil).

Judith Allan provided training services during 2023 to the Institute. The value of these services during the year was £nil (2023 - £635). At 31 December the balance due to Allan was £nil (2023 - £nil).

No other Trustees directly or indirectly received any remuneration during the years ended 31 December 2024 and 2023.

8. Transfers between funds

There were no transfers between funds during 2024 or 2023.

9. Intangible fixed assets

	<i>Group and parent Website and software £'000</i>	<i>Total £'000</i>
Cost		
1 January 2024	907	907
Additions in the year	45	45
31 December 2024	952	952
Amortisation		
1 January 2024	765	765
Charge for the year	91	91
31 December 2024	856	856
Net book value		
31 December 2024	96	96
31 December 2023	142	142

10. Tangible fixed assets

	<i>Freehold property £'000</i>	<i>Short leasehold property £'000</i>	<i>Furniture, fittings & equipment £'000</i>	<i>Total £'000</i>
GROUP AND PARENT				
Cost or valuation				
1 January 2024	13,432	2,249	1,427	17,108
Additions in the year	29	5	57	91
Disposals in year	-	-	-	-
31 December 2024	13,461	2,254	1,484	17,199
Depreciation				
1 January 2024	6,102	2,112	990	9,204
Charge for the year	87	28	93	208
Revaluation	(87)	-	-	(87)
31 December 2024	6,102	2,140	1,083	9,325
Net book value				
31 December 2024	7,359	114	401	7,874
31 December 2023	7,330	137	437	7,904

10. Tangible fixed assets (continued)

The Institute's freehold land and buildings are accounted for using the valuation method. The London property was revalued at its market value of £7.33m by Michael Riordan MRICS on 18 December 2023, and is stated at this value plus the cost of improvements in 2024 at 31 December 2024.

Trustees have reviewed the value of the freehold property at 31 December 2024 and are satisfied that there is no impairment to the value.

A total impairment loss of £3,596k was recognised on revaluation in 2023. £497k was deducted from the revaluation reserve against previously recognised gains. The remaining impairment loss of £3,099k was recognised as an expense in the statement of financial activities.

If the freehold property was stated using the historical cost model, the carrying amount recognised at 31 December 2024 would have been £7.272m.

11. Heritage assets

In addition to the assets outlined in note 10, the Institute owns a collection of paintings and artefacts of historic and scientific importance which is deemed to be heritage assets as defined under SORP (FRS 102). The collection comprises portraits, paintings, artefacts and sculptures, which the Institute has commissioned, acquired or received as a donation to either enhance the fabric of its building or to celebrate its history in science, engineering and technology.

The Institute maintains a comprehensive register of these assets. The Institute's heritage assets were valued in February 2019 by Penny Bingham (MRICS), an independent Fine Art Valuer, at a combined value of £287k. The most valuable items (forming 70% of this collection by 2019 valuation) were revalued in April 2025 by Gurr Johns Ltd, with an average reduction of 37.5% from the previous valuation. This has been taken as an indication of impairment to the whole collection at 31 December 2024 and the collection is recognised at the reduced value of £179k at 31 December 2024. The impairment loss of £108k has been deducted from the revaluation reserve against previously recognised gains.

Separately, the Institute's Mining Lamp collection was valued in May 2016 by David Rimmer of the Miners Lamp Society at a combined value of £169k. A new independent, specialist valuation of the lamps is being sought in 2025.

The independent valuers consider that the resale value of individual heritage assets is very sensitive to the number of potential purchasers with the ability and willingness to pay.

	<i>At valuation: Mining lamps £'000</i>	<i>At valuation: Other heritage assets £'000</i>	<i>Total £'000</i>
Carrying amount brought forward at 1 January 2024	169	287	456
Revaluation	-	(108)	(108)
Carrying amount at 31 December 2024	169	179	348

12. Investments

	<i>Group and Institute</i>		<i>Institute</i>	
	<i>2024</i>	<i>2023</i>	<i>2024</i>	<i>2023</i>
	<i>£'000</i>	<i>£'000</i>	<i>£'000</i>	<i>£'000</i>
Analysis of movements in the year				
Opening market value	7,816	8,504	7,816	8,504
Additions at cost	1,801	-	1,801	-
Disposals at market value	(2,970)	(750)	(2,970)	(750)
Revaluations	327	62	327	62
Closing market value	6,974	7,816	6,974	7,816
Invested as follows				
<i>Listed investments</i>				
Black Rock Charities Growth & Income fund	4,372	7,011	4,372	7,011
Fixed interest	822	134	822	134
UK equities	736	668	736	668
Overseas equities	973	-	1,801	-
Alternatives	50	-	50	-
<i>Unlisted investments</i>				
Cash and cash equivalents	21	3	21	3
Subsidiary undertakings	-	-	-	-
Closing market value	6,974	7,816	6,974	7,816
At the balance sheet date, the following investments represent more than 5% of the portfolio by market value				
Black Rock Growth & Income fund	4,372	7,011	4,372	7,011
Charishare (UK equities common investment fund)	615	599	615	599
ISHARES IV PLC MSCI USA ESG UCITS ETF	431	-	431	-
Historical cost at 31 December	3,633	5,086	3,633	5,086

13. Subsidiary undertakings

The Institute has two active subsidiary organisations:

- Materials Institute Services Ltd (company number 2882544), a company limited by shares.
- PIABC Ltd (company number 10371273) a company limited by shares.

All subsidiary companies are incorporated in the UK and file accounts with the Registrar of Companies. The accounts of Materials Institute Services Ltd and PIABC Ltd are audited. Materials Institute Services Ltd and PIABC Ltd are wholly owned subsidiaries. The Institute holds one share of £1 in PIABC Ltd and 2 shares of £1 each in Materials Institute Services Ltd.

Materials Institute Services Ltd undertakes income generating activities of the Institute of Materials, Minerals and Mining. PIABC Ltd undertakes awarding body activities on behalf of the Institute of Materials, Minerals and Mining.

Summaries of the 2024 results and balance sheets for Materials Institute Services Ltd and PIABC Ltd together with comparative figures for 2023, where applicable, are shown in this note.

The Institute also has a number of dormant subsidiary organisations, including:

- IOM Communications Ltd (company number 3285009, charity number 1059475), a charitable trading company limited by shares.
- The Institute of Packaging (company number 786826, charity number 295762), a company limited by guarantee.
- IOM3 Education and Outreach Trust (charity number 1201414), a registered charity.

The Institute holds 100 shares of £1 each in IOM Communications Ltd. The net assets of IOM Communications Ltd at 31 December 2024 and 31 December 2023 were £100.

The net assets of The Institute of Packaging at 31 December 2024 and 31 December 2023 were £nil.

The net assets of IOM3 Education and Outreach Trust at 31 December 2024 and 31 December 2023 were £nil.

IOM Communications Ltd, The Institute of Packaging and IOM3 Education and Outreach Trust did not trade in 2024 or 2023.

13. Subsidiary undertakings (continued)

Materials Institute Services Limited

	2024 <i>Total</i> £'000	2023 <i>Total</i> £'000
Results		
Turnover	426	351
Total incoming resources	426	351
Costs	420	321
Donation to the Institute	6	30
Total outgoing resources	426	351
Net incoming resources	-	-
Balances brought forward	23	23
Balances carried forward	23	23
Balance sheets at 31 December		
Current assets	100	110
Creditors: amounts falling due within one year	(77)	(87)
Net current assets	23	23
Shareholders' funds	23	23

13. Subsidiary undertakings (continued)

PIABC Limited

	2024 <i>Total £'000</i>	2023 <i>Total £'000</i>
Results		
Turnover	106	121
Total incoming resources	106	121
Costs	106	121
Total outgoing resources	106	121
Net incoming resources	-	-
Balances brought forward	1	1
Balances carried forward	1	1
Balance sheets at 31 December		
Current assets	16	21
Creditors: amounts falling due within one year	(15)	(20)
Net current assets	1	1
Shareholders' funds	1	1

14. Stock and work in progress		<i>Consolidated</i>		<i>Institute</i>	
		2024	2023	2024	2023
		£'000	£'000	£'000	£'000
	Work in progress	110	154	110	154
	Sundry stocks	1	1	1	1
		111	155	111	155

15. Debtors	Trade debtors	1,037	1,102	1,015	1,055
	Other debtors	7	4	8	3
	Prepayments and accrued income	926	198	918	194
	Amounts due from subsidiary companies	-	-	22	-
		1,970	1,304	1,963	1,252

16. Creditors: Amounts falling due within one year	Trade creditors	256	133	244	112
	Taxes and social security costs	205	204	206	202
	Subscriptions and orders paid in advance	1,467	1,614	1,408	1,528
	Other creditors and accruals	376	339	375	341
	Amounts due to subsidiary companies	-	-	-	52
		2,304	2,290	2,233	2,235

Subscriptions and orders paid in advance

At 1 January	1,614	1,626	1,528	1,588
Recognised in year	(1,507)	(1,539)	(1,430)	(1,508)
Provided for in year	1,360	1,527	1,310	1,448
At 31 December	1,467	1,614	1,408	1,528

The Institute collected registration fees on behalf of the Engineering Council during the year. A total of £184k was received during the year with £146k paid over during the year. A balance of £76k held on their behalf at 31 December 2024 is included in other creditors.

The Institute holds funds on behalf of the International Rubber Conference Organisation. £12k was received on their behalf in the year and £8k paid out. A balance of £37k held on their behalf at 31 December 2024 is included in other creditors.

The Institute holds funds on behalf of the Global Mineral Professionals Alliance. £31k was received on their behalf during the year, £16k paid out. A balance of £15k held on their behalf at 31 December 2024 is included in other creditors.

17. Analysis of net assets between funds at 31 December 2024

Group	Unrestricted funds		Restricted	Permanent	Total
	General £'000	Designated £'000	funds £'000	Endowment fund £'000	
Intangible assets	96	-	-	-	96
Tangible fixed assets	205	7,669	-	-	7,874
Heritage assets	-	348	-	-	348
Investments	4,948	76	1,917	33	6,974
Current assets	2,205	237	509	-	2,951
Current liabilities	(2,304)	-	-	-	(2,304)
Net assets before pension liability	5,150	8,330	2,426	33	15,939
Pension liability	(1,437)	-	-	-	(1,437)
Total net assets	3,713	8,330	2,426	33	14,502

Institute	Unrestricted funds		Restricted	Permanent	Total
	General £'000	Designated £'000	funds £'000	Endowment fund £'000	
Intangible fixed assets	96	-	-	-	96
Tangible fixed assets	205	7,669	-	-	7,874
Heritage assets	-	348	-	-	348
Investments	4,948	76	1,917	33	6,974
Current assets	2,111	237	509	-	2,857
Current liabilities	(2,233)	-	-	-	(2,233)
Net assets before pension liability	5,127	8,330	2,426	33	15,916
Pension liability	(1,437)	-	-	-	(1,437)
Total net assets	3,690	8,330	2,426	33	14,479

17. Analysis of net assets between funds at 31 December 2023

Group	Unrestricted funds		Restricted	Permanent	Total
	General £'000	Designated £'000	funds £'000	Endowment fund £'000	
Intangible assets	142	-	-	-	142
Tangible fixed assets	322	7,582	-	-	7,904
Heritage assets	-	456	-	-	456
Investments	5,860	72	1,851	33	7,816
Current assets	852	237	502	-	1,591
Current liabilities	(2,290)	-	-	-	(2,290)
Net assets before pension liability	4,886	8,347	2,353	33	15,619
Pension liability	(2,796)	-	-	-	(2,796)
Total net assets	2,090	8,347	2,353	33	12,823

Institute	Unrestricted funds		Restricted	Permanent	Total
	General £'000	Designated £'000	funds £'000	Endowment fund £'000	
Intangible fixed assets	142	-	-	-	142
Tangible fixed assets	322	7,582	-	-	7,904
Heritage assets	-	456	-	-	456
Investments	5,860	72	1,851	33	7,816
Current assets	774	237	502	-	1,513
Current liabilities	(2,235)	-	-	-	(2,235)
Net assets before pension liability	4,863	8,347	2,353	33	15,596
Pension liability	(2,796)	-	-	-	(2,796)
Total net assets	2,067	8,347	2,353	33	12,800

18. Permanent endowment fund

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.

Group and Institute	Balance at 1 January 2024 £'000	Incoming resources £'000	Resources expended £'000	Investment gains/ (losses) £'000	Transfers between funds £'000	Balance at 31 December 2024 £'000
Mining Club	33	-	-	-	-	33

19. Restricted funds

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

Stanley Elmore Fellowship, 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.

IOM3 Education & Outreach Trust - to support the award of grants and bursaries to students and young professionals in the fields of materials, minerals and mining.

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

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.

	<i>Balance at 1 January 2024 £'000</i>	<i>Incoming resources £'000</i>	<i>Resources expended £'000</i>	<i>Investment gains/ (losses) £'000</i>	<i>Transfer between funds £'000</i>	<i>Balance at 31 December 2024 £'000</i>
Group and Institute						
Stanley Elmore Fellowship	632	20	(27)	25	-	650
IOM3 Education & Outreach Trust	684	21	(32)	22	-	695
Andrew Carnegie Trust Fund	759	21	-	11	-	791
Edgar Pam Fellowship	110	3	-	4	-	117
G Vernon Hobson Bequest	72	2	-	3	-	77
Other funds	25	1	-	2	-	28
Prize funds	71	-	(3)	-	-	68
	2,353	68	(62)	67	-	2,426

20. Designated funds

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

- Asset development fund – representing selected amounts (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 as deemed appropriate by the Trustees.
- Revaluation reserve - representing the value of heritage assets as detailed in note 11 and when applicable gain or loss on revaluation of tangible fixed assets.
- 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>Balance at 1 January 2024 £'000</i>	<i>Incoming resources £'000</i>	<i>Resources expended £'000</i>	<i>Gains/ (losses) £'000</i>	<i>Balance at 31 December 2024 £'000</i>
Asset development fund	7,582	-	-	-	7,582
Revaluation reserve	456	-	-	(21)	435
Services development fund	57	-	-	-	57
Sir Julius Wernher Memorial Fund	161	2	(1)	3	165
Packaging education fund	50	-	-	-	50
Materials education	24	-	-	-	24
Robert A Moore Fund	17	-	-	-	17
	8,347	2	(1)	(18)	8,330

21. Cumulative unrealised investment gains

	<i>Consolidated</i>		<i>Institute</i>	
	<i>2024 £'000</i>	<i>2023 £'000</i>	<i>2024 £'000</i>	<i>2023 £'000</i>
General fund	1,088	1,941	1,088	1,941
Designated funds	27	24	27	24
	1,115	1,965	1,115	1,965
Restricted funds	626	559	626	559
	1,741	2,524	1,741	2,524

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 Mobius Life Fund administered by Mobius Life 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 closed to accrual on 31 December 2021. New employees are given the opportunity to join the group personal pension arrangements with Royal London. The group personal pension plan is a defined contribution benefit scheme and complies with the stakeholder legislation.

At the year end, the scheme had 51 deferred members.

Results of the most recent triennial actuarial valuations, at 1 January 2016, 2019 and 2022 showed the following results.

	2016 £'000	2019 £'000	2022 £'000
Market value of the scheme's assets	13,970	13,641	14,639
Liability for projected accrued benefits	(15,593)	(17,330)	(19,105)
(Deficit)	(1,623)	(3,689)	(4,466)

Arrangements have been made for the deficit shown by the actuarial valuation at 1 January 2022 to be funded at the rate of:

- £220k p.a. payable in a lump sum during years ending 31 December 2023 - 2025.
- £100k p.a. increasing at 3.5% payable in equal monthly instalments from 1 January 2026 to 31 December 2034.
- £2,175k payable on 31 December 2034.

22.2 Principal actuarial assumptions

A valuation of the defined benefit pension scheme assets and liabilities at 31 December 2024 under FRS102 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	2024 % p.a.	2023 % p.a.
Discount rate	5.50	4.50
Price inflation – pre-retirement (RPI)	3.10	3.00
Consumer Prices Inflation – pre-retirement (CPI)	2.70	2.60
Rate of increases of pensions in payment (RPI)	3.00	2.90
Rates of increases of pensions in payment – (CPI)	2.10	2.00
Revaluation of deferred pensions (non-GMP)	2.70	2.60

The following demographic assumptions were used in the valuation:

	Year ended 31/12/2024		Year ended 31/12/2023	
	As for post retirement		As for post retirement	
Mortality pre-retirement	S4PMA CMI 2023 1%		S3PMA CMI 2022 1%	
Mortality post-retirement	Males	Females	Males	Females
Life expectancy for a current 65 year old in 2024	86.1 years	88.6 years	85.9 years	88.5 years
Life expectancy at age 65 for an individual aged 45 in 2024	87.1 years	89.7 years	86.8 years	89.6 years

22.3 Amounts recognised in the balance sheet for defined benefit scheme

	2024 £'000	2023 £'000
Present value of defined benefit obligation	(11,733)	(12,977)
Fair value of scheme assets	10,296	10,181
Pension scheme liability recognised in the balance sheet	(1,437)	(2,796)

22.4 Changes in present value of defined benefit obligation

	2024 £'000	2023 £'000
Defined benefit obligation at 1 January	(12,977)	(12,860)
Interest cost	(565)	(601)
Benefits paid	839	669
Actuarial gains/(losses)	970	(185)
Defined benefit obligation at 31 December	<u>(11,733)</u>	<u>(12,977)</u>

22.5 Changes in fair value of scheme assets

	2024 £'000	2023 £'000
Plan assets at 1 January	10,181	9,871
Return on plan assets (excluding net interest on defined benefit obligations)	290	296
Interest income	444	463
Employer contributions	220	220
Benefits paid	(839)	(669)
Plan assets at 31 December	<u>10,296</u>	<u>10,181</u>

22.6 Major categories of scheme assets

	%	%
Equities	36	30
Corporate bonds	10	14
Gilts	14	15
Cash	6	3
Annuities	22	24
Other assets	12	14
Total scheme assets	<u>100</u>	<u>100</u>

22.7 Amounts recognised in the statement of financial activities

The actual return on scheme assets was a gain of £734k (2023 - £759k).

The Institute expects to contribute £220k to its defined benefit pension scheme in 2025.

The actuarial gains recognised in the statement financial activities were £1,260k (2023 - £111k) and the total cumulative net losses recognised from 2002 to 2024 amounted to £2,627k.

Amounts recognised in net incoming resources are as follows:

	2024 £'000	2023 £'000
Net interest	121	138
Net charge	121	138

22.8 Outstanding pension contributions at the year end

Contributions for the defined benefit scheme amounting to £nil (2023 - £nil) were outstanding at the year-end. Contributions for the defined contributions schemes amounting to £38k (2023 - £29k) were outstanding at the year-end.

23 Related party transactions

Transactions with Trustees in the year are detailed in note 7. There were no other related party transactions to report in the period.

IOM3 London:
297 Euston Road, London NW1 3AD

IOM3 Grantham:
The Boilerhouse, Springfield Business Park, Caunt Road, Grantham NG31 7FZ

t. 020 7451 7300 • www.iom3.org

The Institute of Materials Minerals & Mining (IOM3) is a body incorporated by Royal Charter (company no RC000267) and a charity registered in England & Wales (269275) and in Scotland (SC050586).

THE INSTITUTE OF MATERIALS, MINERALS & MINING

England & Wales - Charity number 269275

Accounts

The global network for
the materials cycle.

I.M3 Institute of Materials,
Minerals & Mining

2023 ANNUAL REPORT & FINANCIAL STATEMENTS

The annual report and financial statements have been prepared in accordance with the accounting policies set out on pages 66 to 69 and comply with the Charity's Royal Charter, the Charities Act 2011 and Accounting and Reporting by Charities: Statement of Recommended Practice applicable to charities preparing their financial statements in accordance with the financial reporting standard applicable in the UK and Republic of Ireland (FRS102) (effective 1 January 2019).

IOM3 supports professionals in materials, minerals, mining and associated technical disciplines to be champions of the transition to a low-carbon, resilient & resource efficient society. It seeks to be the best professional membership body it can be by providing modern, flexible services; quality technical content; and value for money.

Our activities promote and develop all aspects of the Materials Cycle, from exploration and extraction, to characterisation, processing and application, to product recycling, repurposing and reuse.

Public benefit

Materials form an integral and important part of all our lives. The materials cycle covers the exploration and extraction of raw materials, processing them into industrial/engineered materials, application of these materials, recycling of waste and the ultimate disposal of waste in an environmentally responsible 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 all. The objectives and activities of the Institute (see page 50) 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.

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.

I.M3 Institute of Materials, Minerals & Mining

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Patron: HM The King

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It was with great trepidation that I became the youngest ever President of the Institute of Materials, Minerals and Mining. Being the successor of such a strong and illustrious record of Presidents was daunting. In addition to having witnessed first-hand the amazing work of Neil Glover during his presidency, I knew I had big boots to fill. Yet somehow, without realising it, here I am one year into it with the honour of presenting our annual report for the first time.

In a world constantly evolving, our members' and Institute's commitment to innovation, sustainability and excellence

remains unwavering. Despite another uncertain year with challenges that have tested our resilience, I am proud to see how everyone has faced these and looked for unique ways to collaborate and build a better future for us all.

This was demonstrated across a number of events in 2023 including the introduction of the Sustainable Future Awards in November 2023. This was combined with the IOM3 Fellows' Day to great success – we were able to celebrate our new Fellows, hear inspiring talks from Iain Ferguson and Dr Anna Ploszajski before recognising the worthy winners

of the inaugural awards. Themes from this event – and key to the success of our industries going forward – was to know your facts, be unafraid to look at things differently, and then tell your story.

As professionals in science, engineering and the environment, we need to make a conscious effort to put ourselves and our involvement in projects in the spotlight more and tell our story. Only by doing so, will we help people outside of our world understand the importance of what we do, and attract new people to our industries to address the critical skills gaps we are facing. The Institute played a key role in

PRESIDENT'S OVERVIEW

this in 2023 by not only publishing the report, *The Talent Gap: Critical Skills for Critical Materials*, but also by signing a joint letter to over 140 university leaders highlighting the essential role materials, minerals and mining will play in building a sustainable world. In order to further promote the work we do, our podcast released 18 new 'IOM3 Investigates' episodes in 2023.

One of my key focuses for my term as President is finding new ways to engage with members of the Student & Early Career Group. I was delighted to have attended both the UK and World finals of the Young Persons' Lecture Competition. Each time I was left in awe of the contestants' communication skills, in addition to their technical abilities and keen desire to find solutions to modern day problems. While I was unable to attend the Starpack Students awards ceremony, I have no doubt I would have felt the same for these contestants as well. I was delighted to hear of a returning contestant who, since participating, has gone on to secure a career within the packaging field. This clearly demonstrates that events such as these are of vital importance, not only to help promote the packaging industry,

'In a world constantly evolving, our members' and Institute's commitment to innovation, sustainability and excellence remains unwavering. Despite another uncertain year with challenges that have tested our resilience, I am proud to see how everyone has faced these and looked for unique ways to collaborate and build a better future for us all.'

Dr Kate Thornton
CEng CSci FIMMM
IOM3 President
(2023-2024)



but also in the way they can transform people's lives. Between these events I have every confidence in the next generation of scientists, engineers and environmental professionals within materials, minerals and mining.

I am happy to report that we also saw a number of larger conference successes for those at all stages of their career. The IOM3 Events team had an exceptionally busy year where they hosted RubberCon 2023, World Titanium Conference and 11th International Ground Freezing Symposium. These events cumulatively attracted over 800 attendees and were a great success to build on for the coming years.

At my inauguration in March, where I detailed my focus for the presidential term, I was delighted we were able to get representatives from the five Member Networks (Able Different, Ethnic Minorities in Materials, Minerals & Mining, IOM3 Pride, Student & Early Career and Women in Materials, Minerals & Mining) together for the first time. It was inspiring, though upsetting at times, to hear first-hand their experiences and ways we could improve things going forward to benefit all of our members. It was a stark reminder and one



'When we look for commonalities across our technical divisions rather than being siloed, we can accelerate progress and build unique solutions. This is something I am sure we will see more of going forward following the review of our Technical Communities, including the setting of nine cross-cutting technical themes to work across the new structure.'



that has been echoed across this year that we all have far more in common than we think, and we should treat everyone with kindness and respect.

When we look for commonalities across our technical divisions rather than being siloed, we can accelerate progress and build unique solutions. This is something I am sure we will see more of going forward following the review of our Technical Communities, including the setting of nine cross-cutting technical themes to work across the new structure. The Technology Communities Board was reviewed as well (both structure and terms of reference) and met in its new form for the first time in October. I look forward to seeing the results these collaborations will bring about.

Towards the end of the year, we saw the transition of our journals from Taylor & Francis to Sage Publications. While I am aware that this transition hasn't been the easiest at times, it is a testament to the dedication of all those involved including the editors and staff from both IOM3 and Sage, that through hard work and perseverance, this has been completed. Going forward we can look to build on these relationships and develop a better offering for all.

The final event of the year I had the privilege of attending was the IOM3 Awards Day. Across the day we were able to celebrate all of our worthy award winners and hear their amazing stories of success. It was also a great opportunity to connect with my peers across all disciplines and through these conversations realise that collaboration was a key factor in success for most of them. It was truly an inspiring day and I was humbled to be a small part of it.

We cannot just acknowledge the successes of the year without taking a moment to reflect on our losses. Over the course we lost a number of great members but the one with the widest impact was the sad loss of our Director of Membership and Professional Development EUR ING Ian Bowbrick in July. Having worked within IOM3 for over 10 years, he was a point of contact for many of our members – a smiling and reassuring presence who always seemed to know everyone and make connections between our members effortlessly. I would like to thank everyone who reached out with their condolences and memories for his family – I am sure they were very touched to have realised what an impression he had on so many people. Ian's amazing impact and loss will continue to be felt across the Institute for years to come, and I would like to personally thank him for everything he did for IOM3.

With this in mind, I would like to take this opportunity to thank all IOM3 active supporters, volunteers, and team. Without your hard work, commitment, and dedication the Institute would be a very different place. Everyone I have had the privilege to meet this year has inspired me in some way and made me realise how collectively we make a unique environment. As we embark on the journey ahead, let us continue to collaborate, innovate, and lead the way towards a sustainable future for all.

'Everyone I have had the privilege to meet this year has inspired me in some way and made me realise how collectively we make a unique environment. As we embark on the journey ahead, let us continue to collaborate, innovate, and lead the way towards a sustainable future for all.'

2023 has been another busy year for IOM3 as we work to advance and develop all aspects of materials, minerals, and mining. With the support of our members, we continue to support professionals in those fields be champions of the transition to a low-carbon, resilient and resource-efficient society. 2023 has also been a year where IOM3 has been able to maintain its return to financial health, with a fourth consecutive year of operational surplus.

Despite the sad and unexpected loss of our friend and colleague EUR ING Ian Bowbrick in the middle of the year, membership recruitment has continued to be a positive story for us. For the second year in a row, we have recruited over 2,000 new members. We have also hit our targets for professional registrations such as Chartered Engineer, Environmentalist and Scientist as well as for Fellows, Associates and Students. The new accreditation of Qualified for Mineral Reporting (QMR), introduced this year, has also been awarded to 73 members who need it to be able to sign

off on mineral resource and reserve reporting. And successfully undergoing our five-yearly Licence Reviews with the Society for the Environment and the Engineering Council was another significant achievement for the team.

We continue to receive really positive feedback about the quality of the technical content members can access through IOM3. Our webinars, in-person events, member magazines, podcasts and news items, so many of which are only possible thanks to our members' willingness to share their knowledge, are great ways of making sure you are informed about latest developments in your field and others that might be of interest.

Of course, big news this year was the decision of IOM3 to move its scholarly journals publication partnership from Taylor & Francis to Sage Publications from the end of 2023. As the President mentions, we hope the inevitable teething problems from the transition are now all resolved and we look forward to developing the relationship with Sage over the next five years. Members will continue to have free access not only to the suite of IOM3 journals, but also to over 100 other Sage-published journals in our fields via your MyIOM3 account on our website.

CEO'S REVIEW

'2023 has also been a year where IOM3 has been able to maintain its return to financial health, with a fourth consecutive year of operational surplus.'

Dr Colin Church CEnv FIMMM IOM3 Chief Executive

'We continue to receive really positive feedback about the quality of the technical content members can access through IOM3.'

Some of this year's content highlights are:

- 25 webinars, 5 hybrid in-person/online events and 9 in-person events, with over 4,700 registrations from 53 different countries
- Hosting several major international conferences, including the IRCO RubberCon 2023 (Edinburgh, May); the World Titanium Conference (Edinburgh, June); and the 11th International Symposium on Ground Freezing (London, October)
- Over a million article downloads across our journals, and five more journals receiving an impact factor for the first time
- 18 new 'IOM3 Investigates...' podcast episodes released, with 3,398 plays in 2023
- Over 1,000 new items of content created on the IOM3 website, including 650 news items
- The nine new technical themes (digital, energy, health, infrastructure, materials & manufacturing, mining, skills, sustainability, transport) that organise our work were implemented across the website, making finding material easier



'2023 also saw significant interest in our professional awards, with 147 nominations across 38 categories, a testimony to the benefits of the rationalisation of the programme.'

IOM3 has worked hard to extend its offering of professional development options. In 2023, we ran almost 50 courses for over 300 learners, including via our new online learning platform. We also continued to provide end point assessment services for several apprenticeships via PIABC, the IOM3-owned Awarding Body and End Point Assessment Organisation.

2023 also saw significant interest in our professional awards, with 147 nominations across 38 categories, a testimony to the benefits of the rationalisation of the programme. The winners of these and the Student & Apprentice Awards were celebrated at the annual IOM3 Awards Day in London on 7 December.

We also introduced our new Sustainable Future Awards during the year, sponsored by UKRI Innovate and Cornish Lithium. Alongside presentations from Frank Paine Packaging Award winner Iain Ferguson and celebrity science communicator Dr Anna Ploszajski, IOM3 new Fellows were present to see Nextek win the Circular Economy category for its work to recycle plastic films, whilst the Sustainable Materials & Technology award went to a group consisting of ARIP, SCS Railways and University of Leeds for their work to repurposing excavation spoil. If your organisation is involved in real-life delivery on a more sustainable future through materials, minerals & mining, keep an eye out for the 2024 awards.

The expertise of IOM3 members has never been more important to society and economy, and making sure that expertise is fed into the public and policy debates is a key aim of ours. Our work on influence in 2023 includes significant effort on the topic of critical raw materials. The report written by our own Rachel Stonehouse, *The Talent Gap: Critical Skills for Critical Materials*, has been well received and sets out a qualitative analysis of the skills supply chain. We and several partner organisations then followed this up with an open letter to university leaders on the vital importance of skills in materials, minerals and mining in the transition to a low-carbon future. IOM3 has also been involved in the industry group on critical minerals resilience, which has now passed its report to Ministers. We have also continued our work to help all actors in the packaging value chain come together to make the forthcoming extended producer responsibility rules work as a key part of moving towards a more sustainable future. A third strand has been our work with the Henry Royce Institute and others to help develop a national strategy for materials innovation. Alongside all that, IOM3 has continued its regular round of input to formal and informal policy discussions across the breadth of materials, minerals and mining.

'The expertise of IOM3 members has never been more important to society and economy, and making sure that expertise is fed into the public and policy debates is a key aim of ours.'

Our work on outreach continues to develop. Beside our co-operation with the Discover Materials Partnership, we have also agreed to support Minerals Matter, a joint effort to promote the importance of mining and minerals. We have now almost finished the task of bringing all our endowments into one vehicle, the IOM3 Education & Outreach Trust. This has an active programme to provide funding to develop interest, recognise excellence and support professional development for students and those early in their career in materials, minerals and mining. Members who would like to support this work can also make donations to the Trust via the IOM3 website at www.iom3.org/about-us/governance/education-and-outreach-trust.html.

As always, the highs of successful delivery are tempered by sadness. Our thoughts are with the families and friends of those members of IOM3 who passed away during the year. Alongside Ian Bowbrick, I would also like to mention our Trustee and mining stalwart David Seath, and member of our Advisory Council Mike Scott.

I'd like to finish this review by thanking all of our active supporters and volunteers in different roles such as assessors, Technical Community leadership group members and Trustees, who enable IOM3 to carry out its work on behalf of society and its members; and to the wonderful team here at IOM3 for a further year of delivery in support of materials, minerals and mining.



HIGHLIGHTS
OF THE YEAR

This annual report reflects the work, aims and objectives of IOM3 in 2023. IOM3 continued to strive to be the best professional membership body by providing modern, flexible services, quality technical content and value for money.

IOM3 continued to deliver on its charitable objectives through its Corporate Strategy, focused on membership, content, professional development and influence in public and policy debates. Highlights of 2023 from all IOM3 activities are described in the following pages.

IOM3 is thankful to the work of supporters and volunteers contributing at all levels and across all sectors, both in the UK and overseas. The Trustees would also like to acknowledge the hard work and dedication of the team at IOM3.



- Dr Kate Thornton CEng CSci FIMMM becomes youngest ever IOM3 President
- 30th anniversary of *Materials World*

January



- First in person Technical Communities Forum held in London
- IOM3 hosts a Cambridge Judge Business School MPhil in Technology Policy Final Group Project focussing on the role of ceramics in energy transition technologies
- Presidential Address features presentations on EDI by IOM3 Member Network Chairs

March



- I·M3** ADM3
- I·M3** EMM3
- I·M3** PRIDE
- I·M3** SEC
- I·M3** WIM3



- RubberCon 2023 hosted in Edinburgh
- YPLC final held at the Armourers' Hall

May



- Packaging webinar with Defra and HMRC to unpack data requirements for Extended Producer Responsibility and the Plastic Packaging Tax
- 2023 IOM3 Awards & Prizes closed with record 147 nominations across 38 categories

February



- IOM3 plays key role in new Critical Minerals Taskforce

April



- World Titanium Conference hosted in Edinburgh
- IOM3 wins bid to host FEMS Junior EUROMAT 2024

June





- Talent gap report published

July



- IOM3 Annual General Meeting 2023 held at London office
- Packaging panel discussion with Defra Director and industry experts

September



- First IOM3 Fellows Day and Sustainable Future Awards event held in London
- Lodewikus Vorster (South Africa) wins YPWLC final
- Joint letter sent to over 140 university leaders on the essential role of materials, minerals and mining skills

November



August

- Grantham office upgrades include new ceilings, improved heating and cooling
- IOM3 wins bid to host EuroCorr 2026



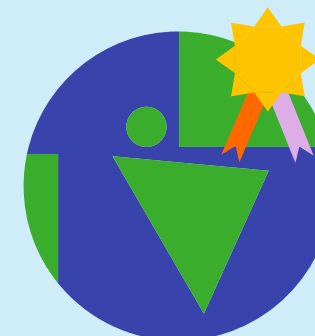
October

- 11th International Ground Freezing Symposium hosted in London
- Active Supporter & Volunteer Hub launched
- First Strategic Advisors (SA) team meeting, defining work against nine themes



December

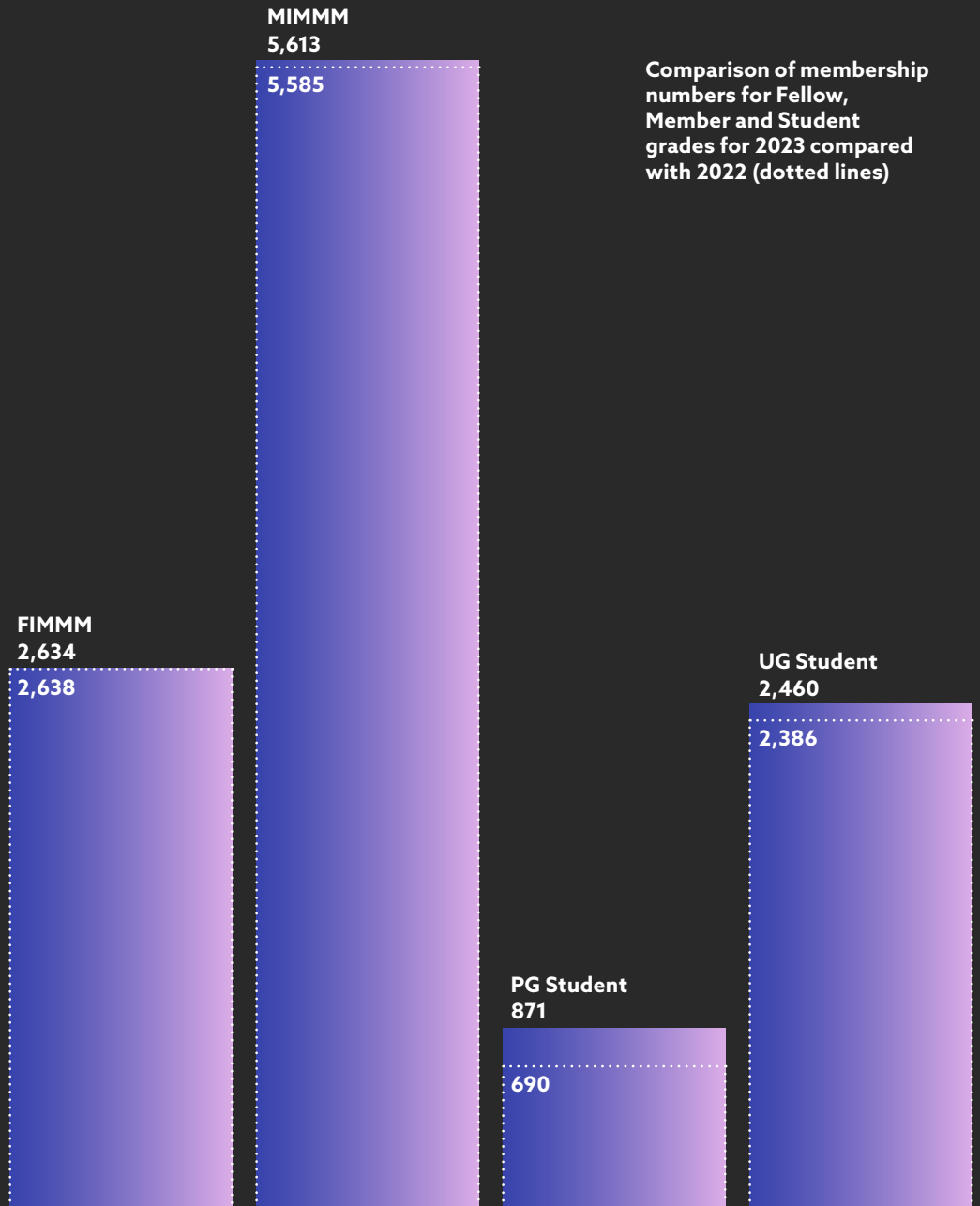
- IOM3 celebrates 2023 Awards & Prizes winners
- Future Materials, Minerals & Mining Conference held in Coventry
- IOM3 reduces net-zero scope 1 & 2 emissions to 10 tCo2e for the year



Membership

It was a busy year for membership where we maintained member numbers and the income derived from membership surpassed £1.6m. With the ongoing situation in Ukraine, IOM3 is still unable to renew membership for individuals who are resident or working in Russia. This, and the shift to post-pandemic working continues to impact member growth, though overall membership has remained broadly stable at about 15,000 as we recruited over 2,000 new members for the second year in a row.

The number of members seeking professional registration continued to grow. IOM3 recorded 175 new Engineering Council registrants (CEng, IEng & EngTech), 35 new Science Council registrants (CSci, RSci & RSciTech) and 18 new Society for the Environment registrants (CEnv & REnvP). In 2023, IOM3 successfully renewed its licences with both the Engineering Council and the Society for the Environment, and the Science Council review is planned for 2024.



The demand for membership workshops continued, with 54 accreditation, membership, and registration workshops (such as Become a FIMMM, CEng in Day and other Science Council and Society for the Environment professional registration workshops) held. These were held virtually across the year with more than 400 members attending. The programme will continue in 2024 with a wider focus on mentoring, progressive development and early career engagement. These are also linked to our active process of academic and industrial programme accreditations, of which 47 were carried out in 2023.

2023 also saw the introduction of the Qualified for Minerals Reporting (QMR) accreditation following its approval as a postnominal by the Privy Council. IOM3 is recognised as a Professional Organisation by the Committee for Mineral Reserves International Reporting Standards (CRIRSCO). In 2023, 73 members gained accreditation through grandparenting rights. This is an arrangement which continued through the first quarter of 2024 before wider implementation of the qualification.

Right: New IOM3 Qualified for Minerals Reporting (QMR) accreditation badge



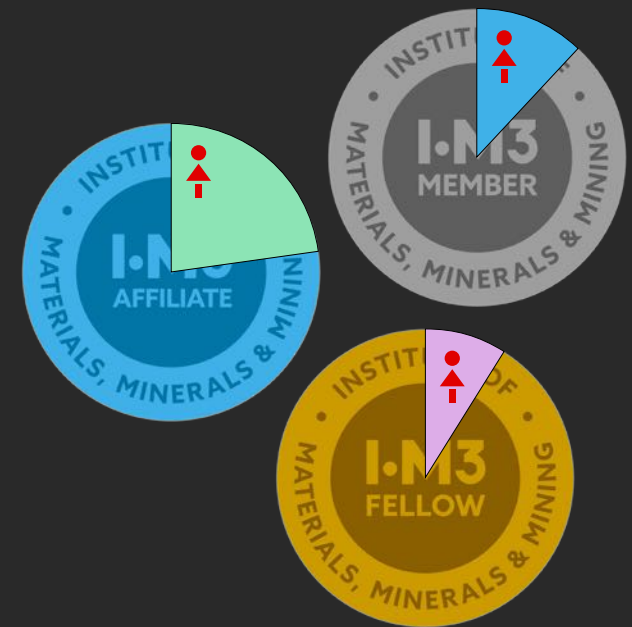
Diversity & inclusion

Kate Thornton took on the role of President of IOM3 this year, the youngest ever. Kate kicked off her presidency with her inauguration speech focused on our commitment to EDI. This was supported by the Chairs of the IOM3 Member Networks (see page 18), who highlighted issues relating to their specific member communities.

A new overarching EDI statement was launched in March for both the IOM3 team and members. In line with this, IOM3 took a number of actions to support more inclusion:

- IOM3 participated in a case study for TransFIRE (transfire-hub.org/) in the latter half of the year, focusing on the development of the IOM3 Member Networks for an EDI playbook, 'EDI Case Study: Launching Member Networks at IOM3 - Transfire' (transfire-hub.org/edi-case-study-launching-member-networks-at-iom3/). We also co-operated with working groups looking at progression frameworks and implementation for professional membership organisations' bids to create EDI hubs for resource and support.

- Audio-visual systems in the Bessemer and Mine suites in the London office were upgraded to include hearing loops, and baby changing facilities were installed to support those attending events with young children. Our new room and event booking forms specifically ask visitors if they have additional needs during their visit, giving individuals who require support a means to let the team know without feeling there is a hurdle to bringing it up.
- IOM3 continues to focus on EDI within the IOM3 recruitment process, encouraging applicants who do not meet all the criteria to still apply if they believe they can do the job, as well as interviewing flexibly for those who need more time or adjustments in the process. For members approaching the registration phase of their career, we offer both virtual and in-person workshops, as well as 1-2-1 mentoring, and make reasonable adjustments at the professional review interview as appropriate.
- In both events and the content and contributors in the magazines, conscious efforts are made to reflect the diversity of IOM3 members.



IOM3 is also pleased to report a significant increase in women members at Affiliate, Member and Fellow grades since 2016. Affiliate members have seen an increase from 17% to 23%, Members from 7% to 12%, and Fellows more than doubled from 4% to 9%. When it comes to professional registration, 10% of our Chartered Engineers (CEng) are female, as are 14% of our Chartered Environmentalists and 18% of our Chartered Scientists. This reflects the increasing contribution that women are making to the materials, minerals and mining professions. Overall, IOM3 membership is now 18% female, compared to under 17% in 2016. In IOM3 governance, at the end of 2023 the Advisory Council was 39% female, and the Executive Board 31% female.

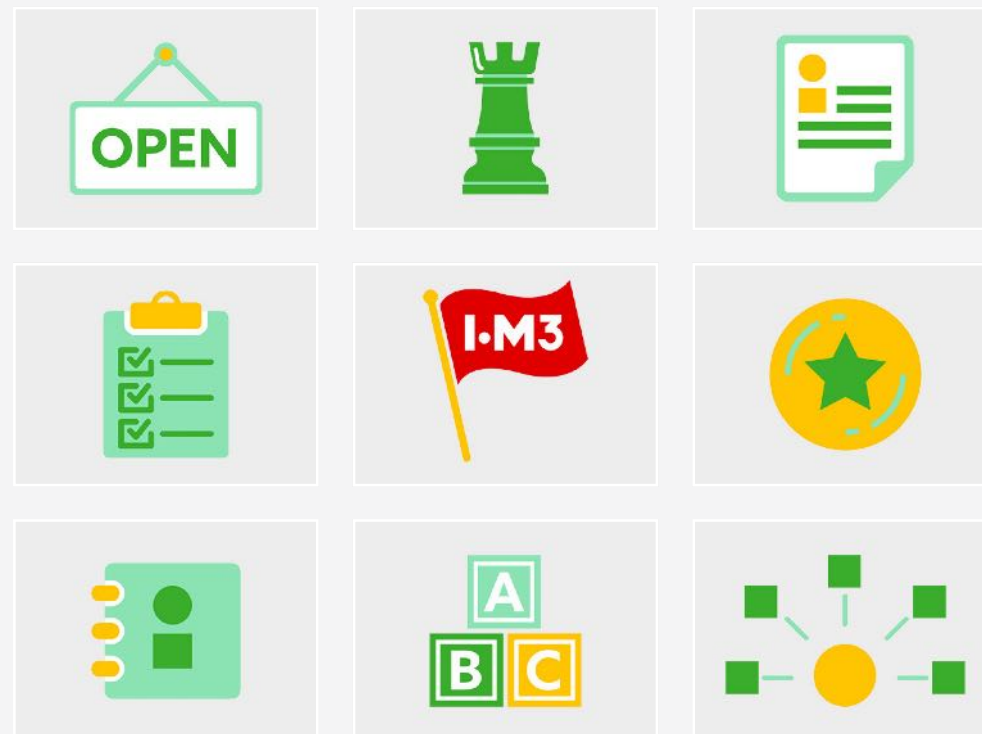
Communications & website

Open rates for regular email newsletters remain consistently good and several new newsletters were introduced during the year for interested recipients: a monthly Jobs & Vacancies newsletter, Affiliated Local Society events newsletter and a Higher Education newsletter. We increased the number of opt-in newsletters available to members and website users in an effort to ensure that users can easily select the communications they wish to receive. The IOM3 website content continued to be added to, with over 1,000 new items published during the year, of which 650 were current news items. We also moved to a new platform for social media scheduling to better manage increased demand. Follower numbers on social media continued to grow, with LinkedIn seeing particular strength, followed by X (formerly Twitter).

We launched a new Active Supporter & Volunteer (ASV) hub during 2023 containing useful information for our ASVs who support IOM3 in governance, peer review assessment, course accreditation, Technical Community Leadership Teams, conference organisation and Member Networks. This uses icons for signposting users to information, a device that we intend to use in other areas of the website in future.

ASV hub icons

An external review of IOM3 marketing activity during the year led to a restructuring of the Communications team. A Head of Marketing role was introduced, intended to spearhead a more holistic and consistent approach across our various teams and activities. The new role will be active from the spring of 2024 and will introduce a new marketing strategy to directly support our business plan.



Member Networks

The Institute has five Member Networks supporting members in the early stages of their careers and in underrepresented groups:

- Ably Different in Materials, Minerals & Mining (ADM3);
- Ethnic Minorities in Materials, Minerals & Mining (EMM3);
- IOM3 Pride;
- Student & Early Career (SEC) Group; and
- Women in Materials, Minerals & Mining (WIM3).

The Chairs of all these groups contributed to the Equity, Diversity & Inclusion (EDI) session which followed Dr Kate Thornton's 2023 Presidential Address in March, focusing on the issues relating to their specific member communities.

Left to right: Dr Kate Thornton, Dr Margaret Wegrzyn (WIM3), Dr Aimee Goodall (SEC), Avery Cunningham (Keynote on EDI), Dr Emily Radley (IOM3 Pride), Jude Allan (IOM3 Advisory Council & EDI Lead), Martin Griffin (ADM3), Ajay Kapadia (EMM3)

During 2023, SEC Committee Chair, Dr Aimee Goodall CSci MIMMM, published the second blog on her journey to professional registration, and SEC Committee members joined forces once again to publish two collective pieces on *Pathways through Materials Science and Mentoring*. Dr Chris Melvin CEng CSci MIMMM and Sarah Boad CEng CSci FIMMM, Membership Development Manager at IOM3, were the key presenters on the SEC Group-organised Road to Chartership online event, with particular emphasis on mentoring.





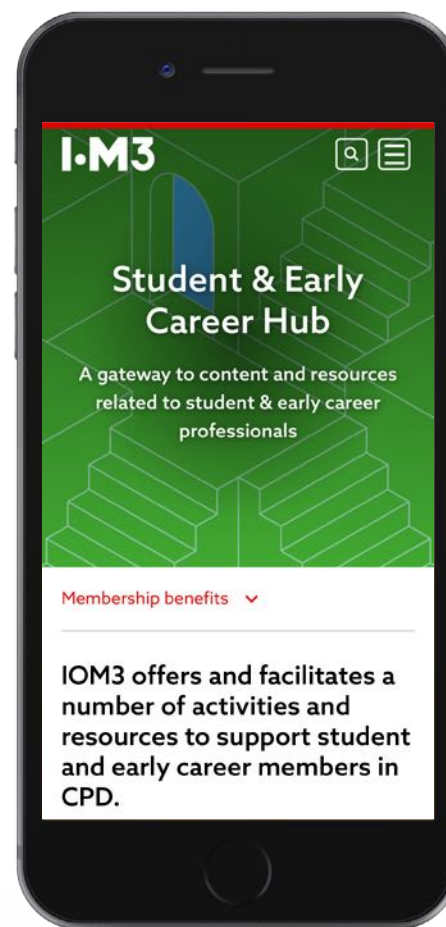
Left: Delegates at the Future Materials, Minerals & Mining Conference 2023



Dr Martino Quantivalla delivered the annual SEC Art Lecture, *Materials Engineering in stringed instruments: A journey between physics and craftsmanship*. The biennial SEC Future Materials, Minerals & Mining Conference was held on 12 December at the Manufacturing Technology Centre in Coventry, focusing on disseminating knowledge among early career materials, minerals and mining scientists, and presenting their research.

In November, the SEC Group launched the Student & Early Career Hub on the IOM3 website, with information on awards, competitions and funding opportunities, upcoming events and recordings, relevant news, SEC Committee opinion pieces, blogs, and all resources relevant to student and early career professionals.

The Member Networks were active in contributing to our member magazines and in creating podcasts. The Chair of EMM3 contributed to a podcast on *Driving Ethnic Diversity in STEM* and WIM3 continued their series of *Inspiring Women in Materials, Minerals & Mining* which now runs to 12 episodes. WIM3 also ran two webinars during the year, the first entitled *A Level Playing Field*, focusing on improving working conditions for gender equality, and a second on International Women in Engineering Day in June on *Women's Safety in the Workplace*.



'Awards targeted at people in the first few years of their career are invaluable, and help to make your name, whether that be in your workplace or in the materials community as a whole.'

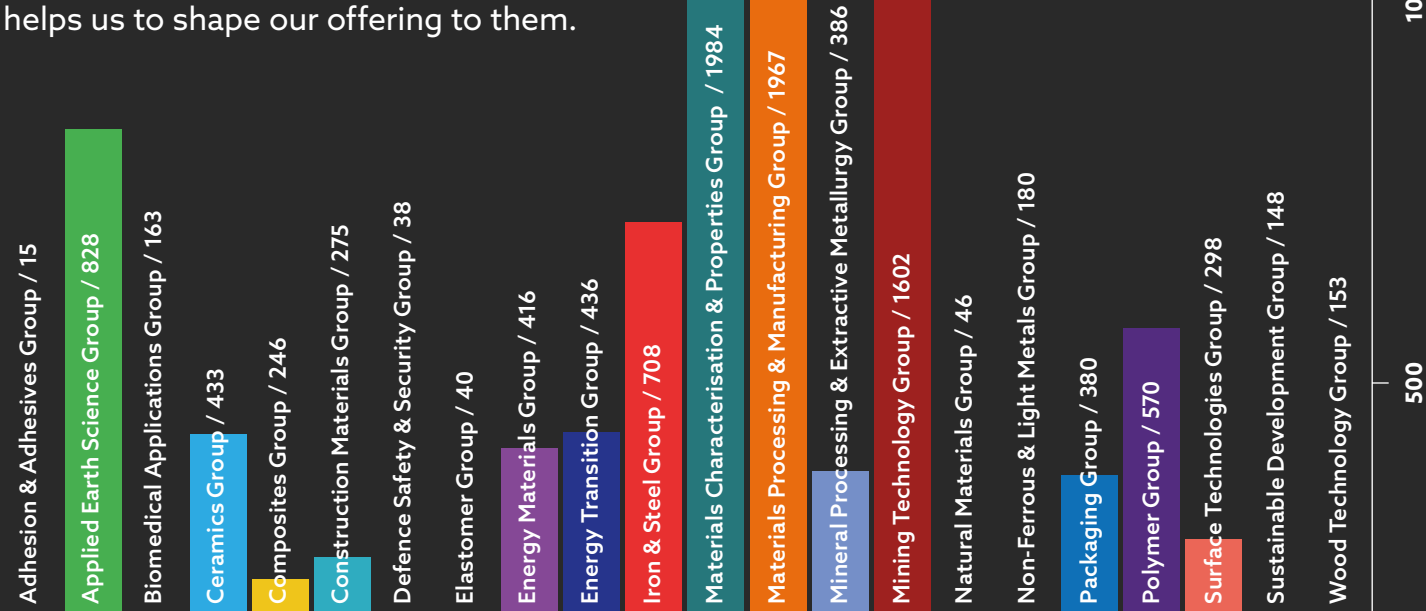
Alice Robinson CEng MIMMM,
2023 Frank Fitzgerald Medal & Travel Grant

Technical communities

2023 saw a settling down of the Technical Community (TC) structure launched in 2022. Within the 22 TC groups, new Chairs were appointed. All Leadership Teams began a refresh of members to help to keep the groups active and to ensure that the teams are as inclusive as possible. A key change in 2023 was a full review of the Technology Communities Board (TCB) which governs TC activity, with new members, and advertising for a new Chair at the end of 2023 (Professor Mike Clinch stands down as he has become Vice-President). The first meeting of the new TCB took place in late 2023 as it started to define how to best measure TC activity, structure, and operation, to facilitate cross-group working and identify best practices, both from within and externally.

One of the easier measures of TC performance is the number of IOM3 members who select a group as their primary preference through the MyIOM3 web portal. Reporting tools developed as part of the Optimus digital transformation programme, now allow detailed quantification of membership of the groups and tracking of changes. In 2023, it was pleasing to see a 14% overall increase in the number of members with a primary TC identified on their member profile, which helps us to shape our offering to them.

Primary Technical Community for members in 2023





EUR ING Ian Bowbrick CEng CEnv FIMMM FRSA
9 June 1964 – 2 July 2023

IOM3 team

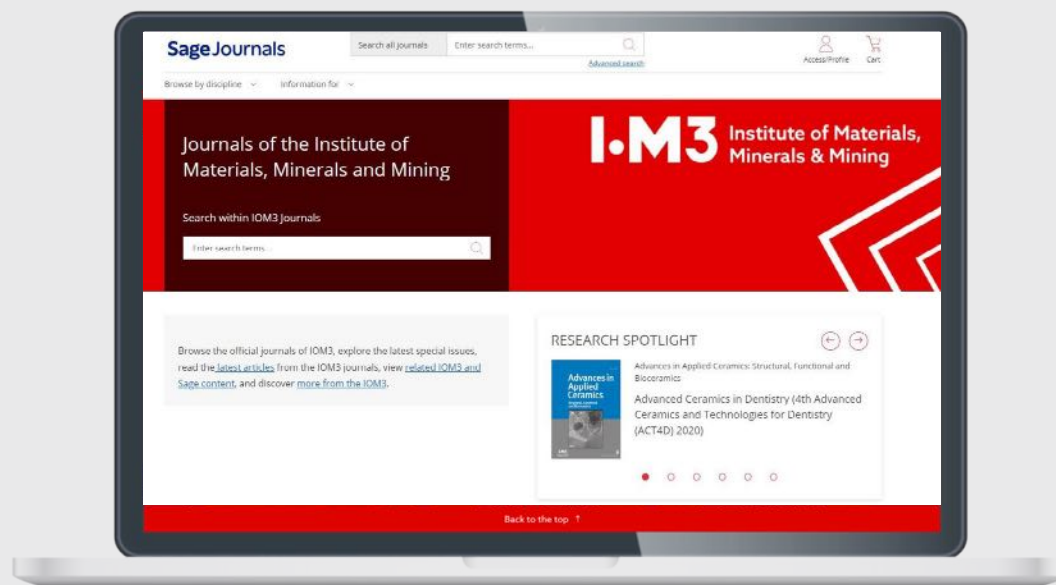
2023 was a challenging year for the team, with the sad and sudden loss of our friend and colleague Ian Bowbrick, but as testament to the team's dedication and commitment everyone rallied together and continued to deliver.

With a visit to the Suez recycling plant in Birmingham during the spring Team Day, the team had the opportunity to learn more about an industry where some of our members work. In October we hosted a Menopause in the Workplace workshop to highlight the effects of menopause which the team found helpful.

We started 2024 with our new Director of Membership, Paul Skerry, in place and ready for new challenges, and with new recruits in the Communications and Outreach teams. New team members are also due to join us during the year in Membership, Business Systems and Marketing.

Journals

Over a million article downloads were seen across the IOM3 journals portfolio and five of our journals received an Impact Factor for the first time this year. In June, we announced Sage Publications Ltd as the new publishing partner of the IOM3 journals from January 2024 onwards. The transfer from Taylor & Francis to Sage went smoothly at the end of December. The International Scholarly Publications Committee (SPC) was assembled to support IOM3 in improving its journals offering.



Library

The IOM3 Library continued the process of cataloguing our collections. Our online catalogue ICON now has almost 170,000 bibliographic records including books, journals, articles, maps, reports, theses, and webinars. Library services, including answering technical enquiries for members and non-members, providing a postal book loan service, and scans of papers, continued to be provided, in addition to supporting in person visits and assistance with book research. The IOM3 Library is part of a network of engineering institute libraries that offer reciprocal library services, including visits in person, to our members.

46
courses

309
learners

11
new
courses

Training & qualifications

In 2023, two new team members join the IOM3 Training Academy. We also launched 11 new courses including: *Hydrogen in Steelmaking*, delivered by Sara Hornby and Bessemer Gold Medal winner, Geoff Brooks; *Design for Sustainability and Circular Economy*; *Introduction to Engineering Metallurgy*; and *Coaching and Mentoring*. Overall, and despite a challenging economic climate, the Training Academy successfully ran 46 courses altogether, with a total of 309 learners. The IOM3 online learning platform has also gone from strength to strength with three new packaging short courses added and existing qualifications moved over from the old system.

It was a busy year for End Point Assessment activity, with 15 candidates completing the Level 3 Composites Technician qualification. The first cohorts also completed the Level 6 Materials Science Technologist and Level 7 Materials Process Engineer apprenticeships. PIABC, the awarding body for IOM3, has been approved as the End Point Assessment Organisation for the revised version of the composites technician standard which started recruiting in the autumn of 2023. We expect the first candidates through for End Point Assessment in 2026 but in the meantime we will be focusing on developing the assessment materials.

Digital transformation

Our website software was upgraded early in the year to provide improved functionality and the website hosting was moved to the cloud which provides better security and faster processing. After fixing the inevitable bugs that resulted, we embarked on a process of data cleansing to remove duplicates from our database and ensure that contact details for individuals and organisations were valid and up to date. The programme of data review and cleansing will continue during 2024.

New functionality was launched during the year to manage the Course Accreditation and Membership & Registration Assessment processes. The website tagging set-up was restructured to incorporate the Institute's nine overarching technical themes.

Icons for the 9 technical themes



Education & outreach

Our Education & Outreach work continues to develop and in 2023 we ran two successful Polymer Study Tours for teachers; the Magic of Materials Summer School for Year 10 pupils; and a Materials Matter event at Tata Steel in South Wales for Year 12. The Magic of Materials course saw the largest group of attendees since its launch in 2015. In addition to the in-person conference, schools were able to join many of the lectures online.

Early in 2023, IOM3 signed a Memorandum of Understanding with the Mineral Products Qualifications Council to foster collaboration with the Minerals Matter initiative to promote careers in the extractives industries. During the latter part of the year we commissioned an exercise to identify where materials, minerals and mining-related topics appear in the school and college curriculum for ages 5-19. This will help steer future strategy and ensure that IOM3 resources remain engaging and relevant.

Member magazines

Conscious effort was made during 2023 to continually enhance the range of multidisciplinary content across materials, minerals and mining from academia and industry in our members' magazine, *Materials World*. This involved strong engagement with IOM3 Technical Communities (TCs) and other prominent networks and organisations, such as the Critical Minerals Association, Henry Royce Institute, Innovate UK and the Transforming Foundation Industries Challenge. Synergies were also promoted between IOM3 disciplines through the articles produced and by encouraging Technical Community collaboration, such as articles that discussed shared challenges for packaging and construction.

Regular content was crafted to showcase the efforts of our sectors towards a low-carbon, resource-efficient society, including championing the role of mining and metals for the energy transition and discussion around critical materials and minerals supply. The Editorial team endeavoured to ensure the diversity of contributors to the magazine, as well as content tackling issues around EDI, for example a podcast on *Driving Ethnic Diversity in STEM*, while *Materials World* included contributions from the IOM3 Pride and ADM3 networks, the SEC Group, and profiled women in materials, minerals and mining. More policy-based content was also included in our magazines over the course of the year, reflecting the growing presence of IOM3 in this arena.



The team also produced three issues of *Clay Technology* magazine for our members in the heavy clay community. This encompasses content related to the circular economy, decarbonisation and technical R&D that impacts both manufacturing but also end-use construction applications.

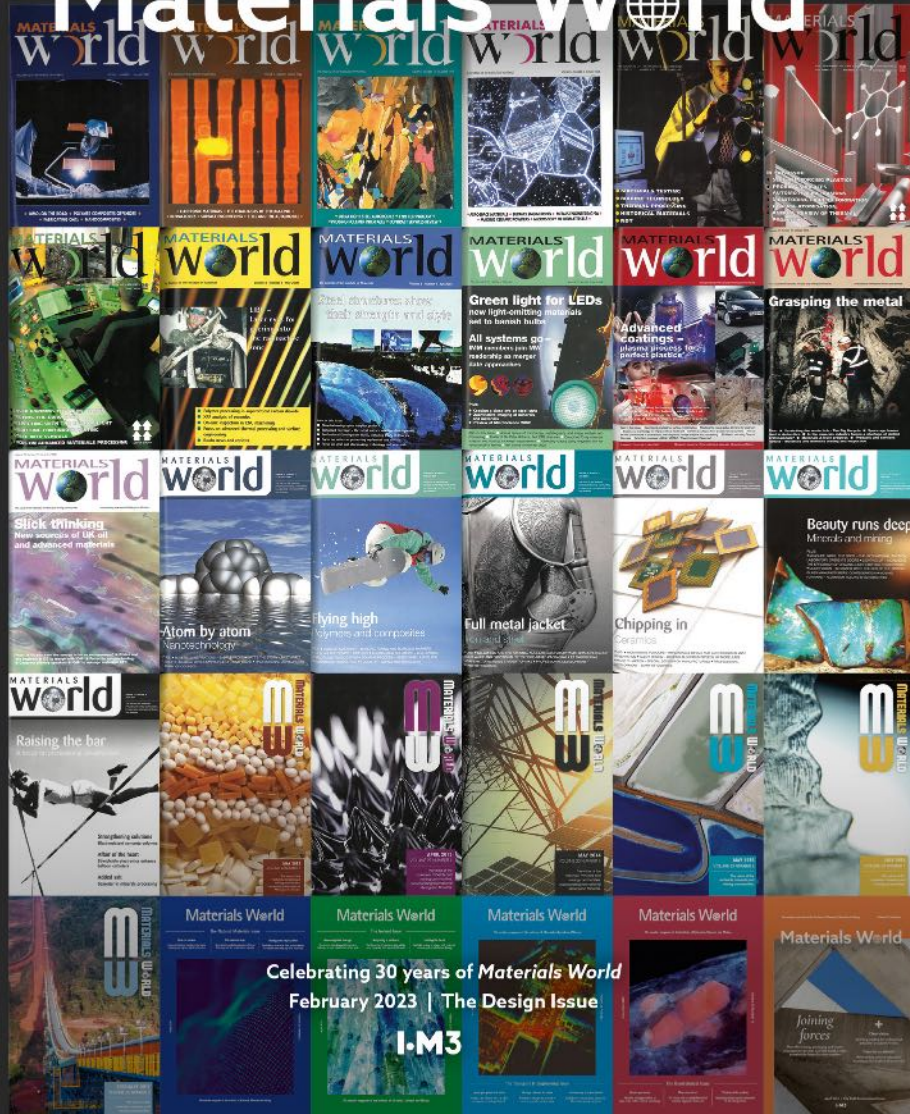


Interaction with online industry news created by the Editorial team remains strong. This is a popular section of the website and gives readers an overview of materials, minerals and mining related news. Multiple items are published by the magazines team on weekdays, aiming to cover the breadth of our members' interests.



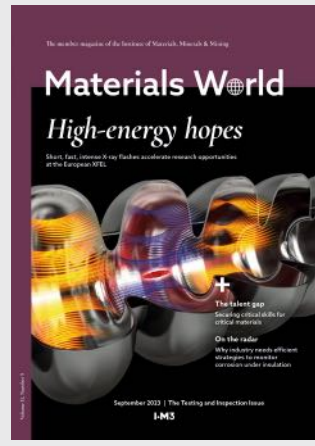
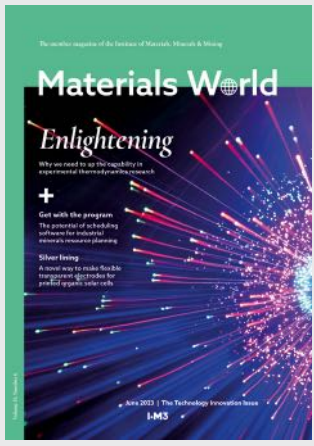
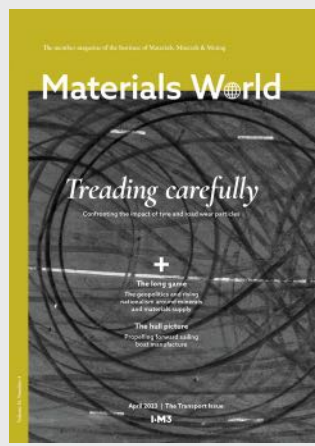
The member magazine of the Institute of Materials, Minerals & Mining

Materials World



Celebrating 30 years of *Materials World*
 February 2023 | The Design Issue
I-M3

Volume 31, Number 2



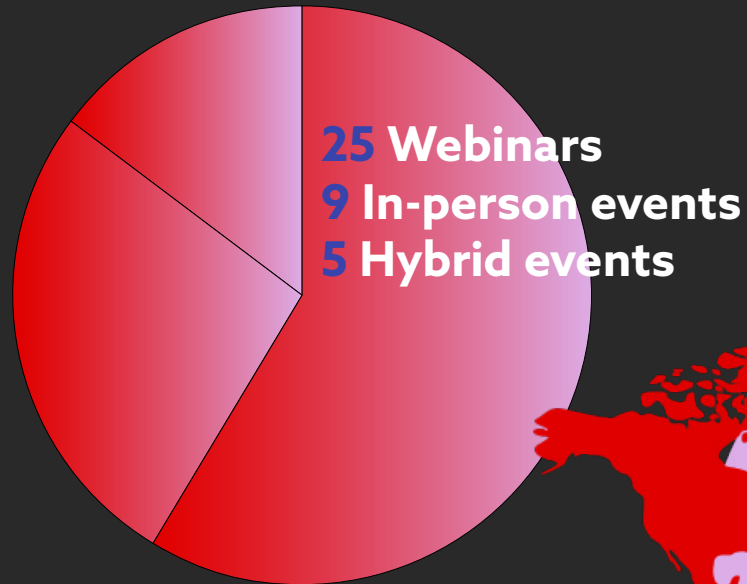
HIGHLIGHTS OF THE YEAR

Events

Reviewing the 2023 programme of events, IOM3 delivered 25 webinars, five hybrid and nine in-person events, attracting over 4,700 registrations from delegates representing 53 countries. We encourage our events to feature diversity of gender and/or ethnicity, and arrangements are made to ensure accessibility (such as providing a family-friendly environment to support attendance by participants with young children).

Highlights of the year included hosting the IRCO RubberCon 2023 at the University of Edinburgh in May which attracted 306 delegates from 27 countries, the World Titanium Conference at the Edinburgh International Conference Centre in June, attracting 488 delegates from 28 countries and, following a 16 year hiatus, the 11th International Ground Freezing Symposium in London, with 133 delegates from 12 countries. All three events attracted strong levels of sponsor and exhibitor support.

In July, the team supported the European



Collaborative Creep Committee to deliver the 6th International Creep and Fracture Conference which attracted 107 delegates. Unfortunately, ClayTech UK 2023 scheduled for November – a conference the industry looks forward to each year – had to be cancelled due to the industry downturn which resulted in organisations being unable to support their delegates' attendance.





ECCC

2023 6th International
Creep & Fracture
Conference

107
delegates

During 2023, IOM3 successfully won bids to host the FEMS Junior EUROMAT 2024 (Manchester, 15-18 July) and the European Federation of Corrosion EUROCORR conference in Dublin in September 2026.


Throughout 2023, IOM3 continued its strategy of supporting key industry events with the aim of generating profile for the Institute. This support took the form of sponsorship, exhibitor presence at an event, or branding via co-sponsorship agreements. Some of these activities during 2023 included sponsorship of the Design in Plastics Awards and the Hatfield Lecture, exhibitor presence at Packaging Innovations and UK Metals Expo, and co-sponsorship of Resourcing Tomorrow and the Foundation Industry Forum.



**11th International
Symposium on
Ground Freezing**

306
delegates

133
delegates



**RUBBER
CON 2023**
University of Edinburgh

306 delegates

488
delegates



Ti-2023
**The 15th World
Conference
on Titanium**

'Being able to talk to so many young people so early on their career and explain to them the benefits of EDI and how they can bring this to their workplaces, to their universities has been really special.'

Avery Cunningham AIMMM Future Materials, Minerals & Mining conference Keynote speaker

'The Future Materials, Minerals & Mining conference is a great opportunity to bring together people from a diverse range of different disciplines.'

Dr Katerina Christofidou MIMMM Future Materials, Minerals & Mining conference Keynote speaker

Policy & influence

IOM3 members hold a unique wealth and breadth of knowledge that is of great value to policy debates. By mobilising this expert insight and diversity of perspectives, IOM3 is helping shape the policy landscape for the benefit of wider society. In 2023, IOM3 engaged with key stakeholders and policy makers across Government departments to inform and influence policy decisions spanning a range of important agendas.

Contributing to critical raw materials policy, IOM3 played a crucial role as part of the Government's Critical Minerals Expert Committee, the Critical Minerals Intelligence Centre (CMIC) Steering Group, and the Independent Task & Finish Group on Industry Resilience and its report outlining sector specific risks and recommendations to promote supply chain resilience.

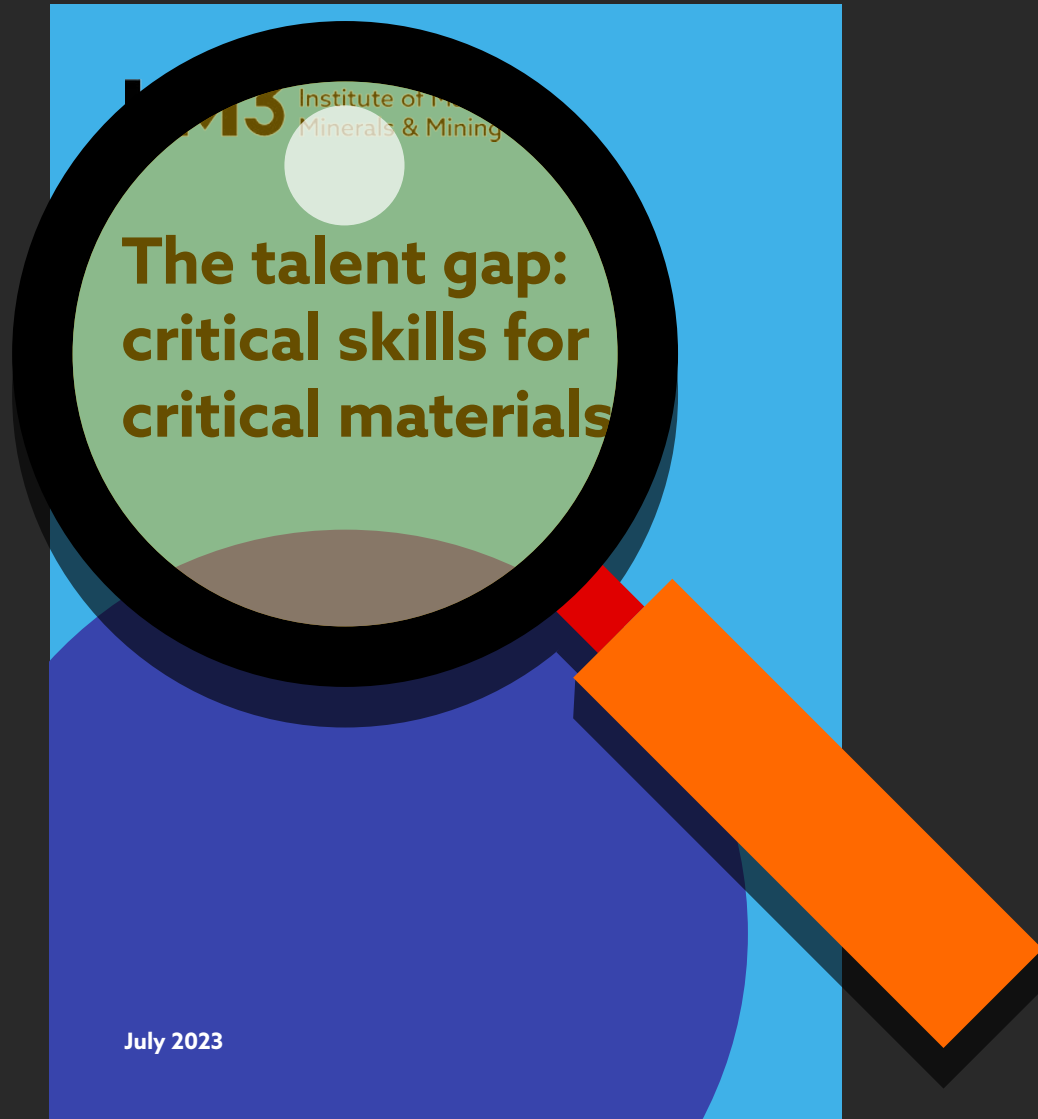
A report on *The Talent Gap: Critical Skills for Critical Materials* was authored by IOM3 and published in July, setting out a qualitative analysis of the skills-related challenges and gaps facing the minerals value chain. The report was welcomed by UK Government

and industry, with the findings presented at the first annual CMIC conference and *Resourcing Tomorrow*. To inform the report, IOM3 convened key actors from across industry and academia through a series of workshops with the Department for Business and Trade (DBT) and the Department for Education (DfE). This work was highlighted in the UK Government *Critical Minerals Strategy Refresh* and also contributed to the DfE and Department for Energy Security and Net Zero (DESNZ) activity, exploring the challenges and barriers in creating the workforce needed to deliver net-zero.

Following on from this work, IOM3 partnered with several organisations to pen an open letter to over 140 UK university leaders setting out the essential role of materials, minerals and mining skills in modern society and the transition to net-zero.

Further adding to the green skills agenda, IOM3 contributed to roundtables with key stakeholders, the Green Jobs Delivery Group and DESNZ. IOM3 also undertook research into cross-sector green skills barriers and opportunities, as part of the Environmental Policy Forum Skills Working Group and signing a joint open letter with over 40 organisations to put green jobs and skills higher up the COP agenda.

We have worked with numerous partners to shape public and policy discussions and to promote the positive contributions made by professionals in materials, minerals and mining to society. We have also been members of the National Engineering Policy Centre (NEPC), Environmental Policy Forum, Science Council Policy Forum, and Professional Bodies Climate Action Charter.



Championing the need for an overarching structure, with a focus on responsible sourcing, research, development, and management of materials, we have continued to work closely with the Henry Royce Institute and other partners to support the development of a National Materials Innovation Strategy. IOM3 has also contributed to the NEPC working group focussing on materials for net-zero.

To explore the transition to a circular economy for construction, IOM3 partnered with Constructing Excellence for a collaborative programme of events. The series investigated transition challenges and opportunities such as the enabling role platforms can play as well as de-risking reuse standards, warranties, and insurances.

Continuing our active engagement with the packaging policy reforms, IOM3 has been supporting the value chain by contributing to policy progress through hosting and participating in webinars, roundtables and panel discussions with the Department for Environment, Food & Rural Affairs (Defra), HM Revenue & Customs (HMRC) and other key industry representatives. IOM3 also submitted a response to the HMRC consultation on the potential adoption of a mass balance approach for chemically recycled plastic in the Plastic Packaging Tax.

Policy content has increased across IOM3 channels including online news, *Materials World* articles and responses to Government announcements and publications. IOM3 influence continues to grow, and coverage has increased with IOM3 policy activity featuring across a breadth of publications, from *The Times* newspaper to industry newsletters and trade press in 2023.

Awards & competitions

The IOM3 Awards & Prizes in 2023 received 147 nominations across 38 categories. The winners were presented with their medals, prizes and certificates at the 2023 IOM3 Awards Day on 7 December at the IOM3 office in London.

The Student & Apprentice Awards, recognising excellence in members of IOM3 who have recently completed a qualification or apprenticeship in a materials, minerals or mining field, were also presented as part of the 2023 IOM3 Awards Day.

The IOM3 Education & Outreach Trust reviewed and awarded over 15 Grants to support knowledge exchange, giving the opportunity to student and early career members to attend conferences or present their work.

50 entrants from five countries took part in the local, regional, and national Young Persons' Lecture Competition and Young Persons' World Lecture Competition heats and finals. In May we held the UK final, where Georgina Burgoyne Morris took home the first prize, and Lodewikus Vorster from South Africa went on to win the world final in November.

The winning entries in the 2023 Starpack Students Competition, designed to excite the next generation into thinking of packaging as a career, showed great promise. The competition provides an opportunity for students to showcase their ideas and in

'I hope that winning this award will give me the confidence to pursue opportunities during my career that perhaps I would feel I wasn't qualified or good enough to put myself forwards for.'

*Rosanna Roskilly AIMMM,
2023 Royal Charter Prize winner*



2023 we received a total of 110 entries from 17 universities and colleges submitted across five category challenges set by Alupro, Logoplaste, Metal Packaging Manufacturers Association, Smurfit Kappa and VPK UK & Ireland. The judging panel comprised independent packaging and design experts who marked the entries along the criteria of innovation, design, sustainability, quality and market potential. The awards ceremony was held at the Curzon cinema in Hackney, London where 18 highly commended, 32 bronze, 23 silver and 17 gold awards were given. Past winners of the competition have gone on to successfully enter the packaging industry which demonstrates that the competition succeeds in its aims.

Sustainable Future

The IOM3 Sustainable Future theme continued throughout 2023 with events, policy activity, podcasts, editorial content and the launch of the IOM3 Sustainable Future Awards.

Presented for the first time during 2023, the IOM3 Sustainable Future Awards celebrated organisations and individuals championing sustainability, EDI, and the need for greater circularity in the extraction, processing and use of natural resources.

2023 also saw the launch of a brand-new *Transition Talks* event series and numerous webinars and conferences supporting the Sustainable Future theme. Podcasts highlighted and explored issues ranging from industrial decarbonisation and investigating greenwashing, to sustainability through geology and ground engineering.

In editorial content and policy activity, the Sustainable Future theme included topics such as championing the role of mining and metals for the energy transition, opportunities for decarbonising the foundation industries, and unlocking a more circular economy.



Venues, estates & sustainability

2023 was a great year for our venues, with a return to in-person meetings and events driving a return of demand for them. Both London and Grantham sites saw investment providing new security systems, CCTV and access control. Grantham, the home of our Training Academy, was given a fresh new look with improvements to our main training room, with some more to come in 2024. In London, a new hybrid meeting system was installed in the Bessemer and Mine suites with PTZ (Pan Tilt Zoom) cameras, new speakers and microphones, providing a high quality in-room and hybrid offering for meetings and events. The Mineral Products Association also joined IOM3 as a tenant on the first floor of the London building.

IOM3 has continued to improve its waste management, increasing its recycling rate from its London building to 66% from only 16% in 2018, and sending nothing to landfill. This has been helped by the removal of single-use bottles and cups and donation of unwanted furniture to new businesses and local charities.

In 2023 the IOM3 London building participated in the London Mayor's Business Climate Challenge (BCC). This challenges business users within London to reduce their energy usage by 10%, and we have been supported by both the BCC and our BID partner Fitzrovia Partnership with training and development for our team, energy audits and ideas for energy saving improvements. This challenge will carry on for two more years (2024-2025) so we can continue to benchmark and report our reductions.

GREENHOUSE GAS EMISSION CATEGORIES

SCOPE 1: direct emissions from an organisation such as gas or oil burned for heat, air conditioning unit leaks, fleet fuel use, etc

SCOPE 2: indirect emissions that arise in the production of the energy (usually electricity) used by an organisation

SCOPE 3: emissions coming from activities indirectly linked to an organisation up and down its supply chain. This includes buying, using and disposing of goods; venue hire; water use; investments; and many more areas.



Since 2020 IOM3 has made significant steps forward in reducing its carbon output and in 2023 reduced its scope 1 and 2 emissions to 10.43 tonnes of carbon dioxide equivalent (tCO₂e), which is a reduction of just over 92% on its baseline emissions of 170 tCO₂e in 2019.

In 2019, IOM3 estimated its scope 3 emissions as approximately 171 tCO₂e. As we have learned more about scope 3 monitoring, we have expanded our reporting in this area. We now estimate that our scope 3 emissions were 506 tCO₂e in 2023 including investments, and 93 tCO₂e excluding investments. This year more accurately reflects the activities of IOM3 and will now become our baseline year for scope 3. In line with good practice, we are committed to an absolute reduction in our overall scope 3 emissions. Because of the complexity of managing our investment-related scope 3 emissions in the context of charity law, we are not currently setting a numerical reduction target for that element beyond an absolute reduction by 2035. For the remaining 93 tCO₂e, we plan to set reduction goals for 2035 during 2024.

Podcasts

During 2023, 18 'IOM3 Investigates...' podcast episodes were released, with 3,398 plays during the year. Topics covered included the Ground Freezing event, issues surrounding greenwashing, the importance of the foundation industries and common challenges faced by the mining and the packaging industries.

Podcasts released in 2023





**AWARDS, MEDALS
& PRIZES**

IOM3 presents a range of Awards, Medals and Prizes to recognise personal achievement, for published work and for contributions to the Institute, knowledge, outreach and profession.

The awards are in various categories, for individuals at different career stages, organisations, IOM3 members and non-members. The annual awards are presented at special occasions throughout the year, and some of our award winners deliver lectures to which all members are invited.



Above: Winners at the Special & Publication Awards Lunch held in December 2023

Below: IOM3 President Kate Thornton presenting the Sir Colin Humphreys Education Award to Beverley Maloney



Above: Winners at the 2023 Premier Awards Dinner

Below: Gold Medal winner Prof Iain Todd CEng FIMMM



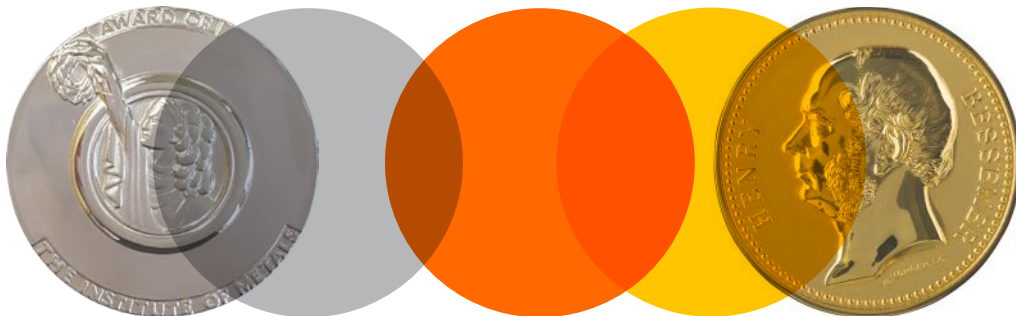
Personal achievement awards

Contribution to knowledge

Platinum Medal	Prof Robert M McMeeking
Gold Medal	Prof Iain Todd CEng FIMMM
Silver Medal	Dr Lewis R Owen AIMMM

Contribution to IOM3 & Affiliated Local Societies

Sir Andrew Bryan Medal	David Evetts CEng FIMMM
T B Marsden Professional Medal	Keith V Barnes CEng CSci FIMMM
IOM3 International Medal (joint)	Jennifer Haigh CEng CEnv FIMMM, Dr Kenneth Stanton CEng FIMMM
Outstanding Contribution Award to EDI	Martin Griffith CEng FIMMM



Technical specific awards

Bessemer Gold Medal	Prof Geoffrey A Brooks FIMMM
Chapman Medal	Prof Robert Hill
Colwyn Medal	Dr Wilma K Dierkes
Frank Fitzgerald Medal & Travel Grant	Alice J Robinson CEng MIMMM
Hadfield Medal & Prize	Dr Laura J Baker CEng FIMMM
Harvey Flower Titanium Prize 2022 (Retrospective)	Prof Nicholas G Jones AIMMM
Leslie Holliday Prize	Prof John Summerscales CEng CEnv CSci FIMMM
Stokowiec Medal & Prize	Mark Tomlinson CEng FIMMM
Thomas Medal & Prize	Dr Stuart Southern CEng FIMMM
Thornton Medal	<i>Rethinking industrial policy in an uncertain world (COP26 & beyond... the pathway to net-zero)</i> Christopher McDonald FEng FIMMM Dr Andy Trowsdale CEng FIMMM
Tom Colclough Medal & Prize	Dr Andy Trowsdale CEng FIMMM
Verulam Medal	Prof Shaowei Zhang FIMMM

Contribution to outreach

Robert Perrin Award Prof Saiful Islam

Sir Colin Humphreys
Education Award Beverley Maloney

Sustainable Future awards

Enabling Net-zero:
Sustainable Materials
& Technology ARUP, SCS Railways JV,
University of Leeds

Circular Economy Nextek Ltd

Awards from other bodies

Beilby Medal & Prize Assistant Professor Charlotte Vogt

Charles Hatchett Award *Design Principles for Zero-Strain
Li-ion Cathodes Xinye*
Zhao, Yaosen Tian, Zhengyan Lun,
Zijian Cai, Tina Chen, Bin Ouyang
& Gerbrand Ceder

Local Society awards

Local Society of the Year Midlands Packaging Society

*'It's a valuable opportunity to give
visibility to both people's research
but individuals as well, and that
can often be important for people
who are from less represented
backgrounds and groups.'*

Dr Lewis Owen AIMMM



Other awards

IOM3 President's Award Jan C H Lewis CEng CEnv FIMMM

Student & apprentice awards

IOM3 Award for Excellence
in Foundation Learning
(Category 1) Alexandra Wainwright TIMMM

IOM3 Award for Excellence
in Undergraduate Studies
(Categories 3&4) Rosanna Roskilly AIMMM

Royal Charter Prize Rosanna Roskilly AIMMM

Publication awards

2022 Vanadium Award (Retrospective)

Assessing the Role of Vanadium Technologies in Decarbonising Hard-to-abate Sectors and Enabling the Energy Transition

David A Santos, Manish K Dixit, Pranav Pradeep Kumar, Sarbajit Banerjee

Adrian Normanton

General Mass Balance for Oxygen Steelmaking

N Madhavan, G A Brooks, M A Rhamdhani, B K Rout, F N H Schrama & A Overbosch

Alan Glanvill Award

Contact Resistance Heating of Unidirectional Carbon Fibre Tows in a Powder-Epoxy Towpregging Line

Ben Robertson, Ian M Robinson, D Stocks & Richard L Thompson

Composite Award

Wear of carbon black reinforced natural rubber compounds

Murat Çelik, Thomas Noble, Abdul Haseeb, James Maguire, Colin Robert & Conchúr M Ó Brádaigh

James S Walker Award

Biodegradable and Water Resistant Poly(vinyl) Alcohol (PVA)/Starch (ST)/Glycerol (GL)/Halloysite Nanotube (HNT) Nanocomposite Films for Sustainable Food Packaging

Zainab Waheed Abdullah & Yu Dong

Materials World Medal

Hidden Value

Anita Parbhakar-Fox



Above: Mr John Hilbert
Vanitec Ltd CEO presenting
the 2022 Vanadium Prize to
winner Prof Sarbajit Banerjee



Right: Robert Perrin Award
winner Prof Saiful Islam
and Nicola Davies, the late
Dr Perrin's daughter

Pfeil Award

Temperature Dependence in Ageing Process in Commercial Zirconia Dental Ceramics

Shafique Ahmed, Chunxiao Song, Jiyue Wu, Bo Li & Haixue Yan

Williams Award

Review of Hydrogen-rich Ironmaking Technology in Blast Furnace

Yanbiao Chen & Haibin Zuo

IOM3 funding

Grants to Support Knowledge Exchange:

Paulina del Pilar Quintanilla Perez AIMMM

Shona McNab

Danny van der Haven

Atreya Danturthi

Ali Tabatabaeian

Takashi Lawson CEng CSci MIMMM

Jo Samuel Joseph Subramanian

Tim Kreuz

Ian Thompson CEng FIMMM

Christian Nwosu

Vivien Alves Passing

Lewis Adams

Ulzhalgas Karatayeva

Emily Rose Lewis

Harry Edward Chapman

Hannah Olivia Hilton-Tapp

Jia Ge

Jessica Tjandra

Adam Klein

Ollie Thomas

Competitions

2023 Starpack Students

Brief A: Replacing multi-material packaging sponsored by Alupro

James Albosh,
Nottingham Trent University

Brief B: World Cup Qatar 2022 - promotional soft drinks bottle sponsored by Logoplaste

Duncan Wyllie,
City of Glasgow College

Brief C: Metal gift pack for champagne or sparkling wine sponsored by The Metal Packaging Manufacturers Association

Matthew Noon,
Loughborough University

Brief D: Walkers crisp in or crisp out front of store display sponsored by Smurfit Kappa

Hajra Shaheer,
University of Engineering and Technology,
Lahore

Brief E: Sustainable solutions with corrugated cardboard sponsored by VPK UK & Ireland

Luke-Anthony Peart,
Nottingham Trent University

The Eric Dickens Memorial Award
Nottingham Trent University

Young Persons' Lecture Competition

Winner:

Georgina Burgoyne Morris
(South East)

2nd place:

Toby Reid (Midlands)

3rd place:

Phil Smith
(South West & South Wales)

Young Persons' World Lecture Competition

Winner:

Lodewikus Vorster (South Africa)

2nd place:

Kugambikai Vangetaraman (Malaysia)

3rd place:

Georgina Burgoyne Morris (UK)

Young Persons'
World Lecture
Competition

Young Persons'
Lecture
Competition

Financial review

Overview

2023 was a positive year for IOM3 with income growing by 20% from £4m in 2022 to just over £4.8m in 2023. As can be seen from the graphs on page 57, membership subscriptions continue to make up the majority of IOM3 income, closely followed by scientific journal royalties. Combined, these two streams generate nearly two-thirds of IOM3 income. With several national and international conferences organised by the IOM3 team in 2023, conference and event activity returned to pre-Covid levels and contributed towards 18% of group income.

Following a 5-year cycle, the IOM3 freehold property in London was revalued to its present market value at the end of 2023, leading to a £3.6m loss on paper. The London office is currently valued at £7.33m. The loss on revaluation is reflected in the designated fund and details can be found in notes 10 and 20 to the Financial Statements.

The IOM3 team and Trustees continued to maintain operating cost control throughout the year while ensuring that high quality services continue to be provided to members. The IOM3 general fund finished 2023 with an operating deficit of £97k (2022 surplus of £21k).

Internally, Trustees evaluate operating results based on the performance within IOM3 team's control, that is before depreciation and defined benefit pension scheme costs. The table below shows the reconciliation of the statutory operating deficit as reported on page 62 to the operating surplus as reported to the Trustees.

General Fund	2023	2022
Statutory operating (expenditure) / income	(97)	21
Add back:		
• Depreciation and amortisation	253	314
• Defined benefit pension scheme costs	277	114
Internally reported operating surplus	433	449

After considering changes to property value, unrealised losses on the market value of the IOM3 investment portfolio and actuarial gains on the defined benefit pension scheme, IOM3 ended 2023 with an overall deficit of £3,493k (2022 -£957k). The reduction in the market value of the London property also had a significant effect on the IOM3 Balance Sheet with total net assets as of 31 December 2023, being £12.82m, down from £16.3m at the end of 2022.

Investments review

The majority of the IOM3 investments portfolio is managed by BlackRock Charities Growth & Income Fund. This is a sustainable investments fund which aims to provide a return on investment (net of fees) over a period of five or more consecutive years through an increase to the value of the assets held and/or income received from those assets whilst adhering to the Fund's environmental, social and governance (ESG) criteria. IOM3 Trustees adopted a policy of maximising total returns from investments commensurate with acceptable risk for a charitable organisation.

The BlackRock Growth & Income Fund delivered positive performance in the last quarter of the year with UK equities and UK Government bonds contributing strongly to the Fund's performance. With current geopolitical tensions, emerging markets are expected to remain vulnerable and growth in China to remain subdued.

Fund net performance (% net return)

	2023	2022	
Fund	4.3%	-9.7%	<i>Benchmark: 30% FTSE Custom All-Share ex Investment Trusts, Tobacco, Aerospace & Defence, Beverages Index / 30% MSI World SRI Index (GBP) / 20% Bloomberg Barclays GBP Gilts Index / 10% IDP All Balanced Funds Property Index / 10% Cash.</i>
Benchmark	10.1%	-9.3%	

	2023	2022	
Distribution yield	3.3%	3.1%	<i>The distribution yield represents the ratio of distributed income over the last 12 months to the fund's current net asset value.</i>

Key risks include:

- Changes to interest rates, credit risk and/or issue defaults impacting performance of fixed income securities.
- Political, economic and significant company events affecting the value of equities and equity-related securities.
- Liquidity risk, referring to the the Fund's investments which may have low liquidity and can often cause the value of these investments to be less predictable. In extreme cases, the Fund may not be able to realise the investment at the latest market price or at a price considered fair.

In March 2024 IOM3 Trustees engaged an independent investment advisor to review IOM3 investment policy and strategy to ensure that it is appropriate for IOM3 going forward and compliant with revised Charity Commission guidance CC14.

Reserves review

The Trustees' 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 £7,582k as of 31 December 2023.
- 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 £57k as of 31 December 2023.
- 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 IOM3 unrestricted investments portfolio was valued at £5,932k as of 31 December 2023 and represents 129% of the budgeted operating expenditure for 2024. The Trustees consider this level of reserves sufficient to achieve the long-term objectives of the Institute. In addition, the Trustees are also looking at ways of maximising the use of IOM3 fixed assets and broadening the use of restricted funds.


The Trustees set a budget for net operating surplus of £20k for 2024 (before depreciation and defined benefit pensions scheme costs) to support ongoing initiatives for the development of membership, training and conference programmes.

Principal risks and uncertainties

Trustees have identified the following major risks facing the Institute:

- Net loss of members through change in demographics and economic impact within the industry
- Failure of IT systems and compromise to the use of the membership database as a result of cyber security breach
- Difficulty in maintaining and growing current streams, in particular royalties generated from scientific journal publishing
- Financial impact of the deficit of the defined benefit pension scheme on the Institute's future strategy
- Reputational and financial impact resulting from adverse volunteer actions
- Major adverse change in investment values
- Major adverse change in the UK and global economy

The risk register is reviewed and updated on a regular basis and the Trustees, employees and professional advisors are taking steps to mitigate these risks and minimise their impact on the Institute's future performance.



STRUCTURE & GOVERNANCE

The oldest nationwide constituent of this Institute was created in 1869. The Institute of Materials, Minerals and Mining is a body incorporated by Royal Charter (RC000267) dated 25 July 1975 and modified on 26 June 2002 and is a Registered Charity in England & Wales (269275) and in Scotland (SC050586).

Governance

Executive Board

IOM3 is managed by an Executive Board, the members of which are the Trustees of the Institute. They are drawn from senior members of the Institute and are responsible for the ongoing management of strategy and performance of the Institute. The members of the Board include those who are following the presidential succession, and members involved as chairs of other activity boards.

Advisory Council

The IOM3 Advisory Council exists to advise the Executive Board on major strategic decisions and strategic planning and consists of the Officers of the Institute together with 22 members representing the Technical Communities, five representing the Member Networks, eight members representing Grades and seven members representing UK and overseas regions.

Governance committees

The Executive Board is supported by three governance committees (Audit, Nominations and Remuneration) that have standard responsibilities. In addition, the Awards Committee also reports to the Executive Board.

Audit Committee

The Audit Committee keeps 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.

Awards Committee

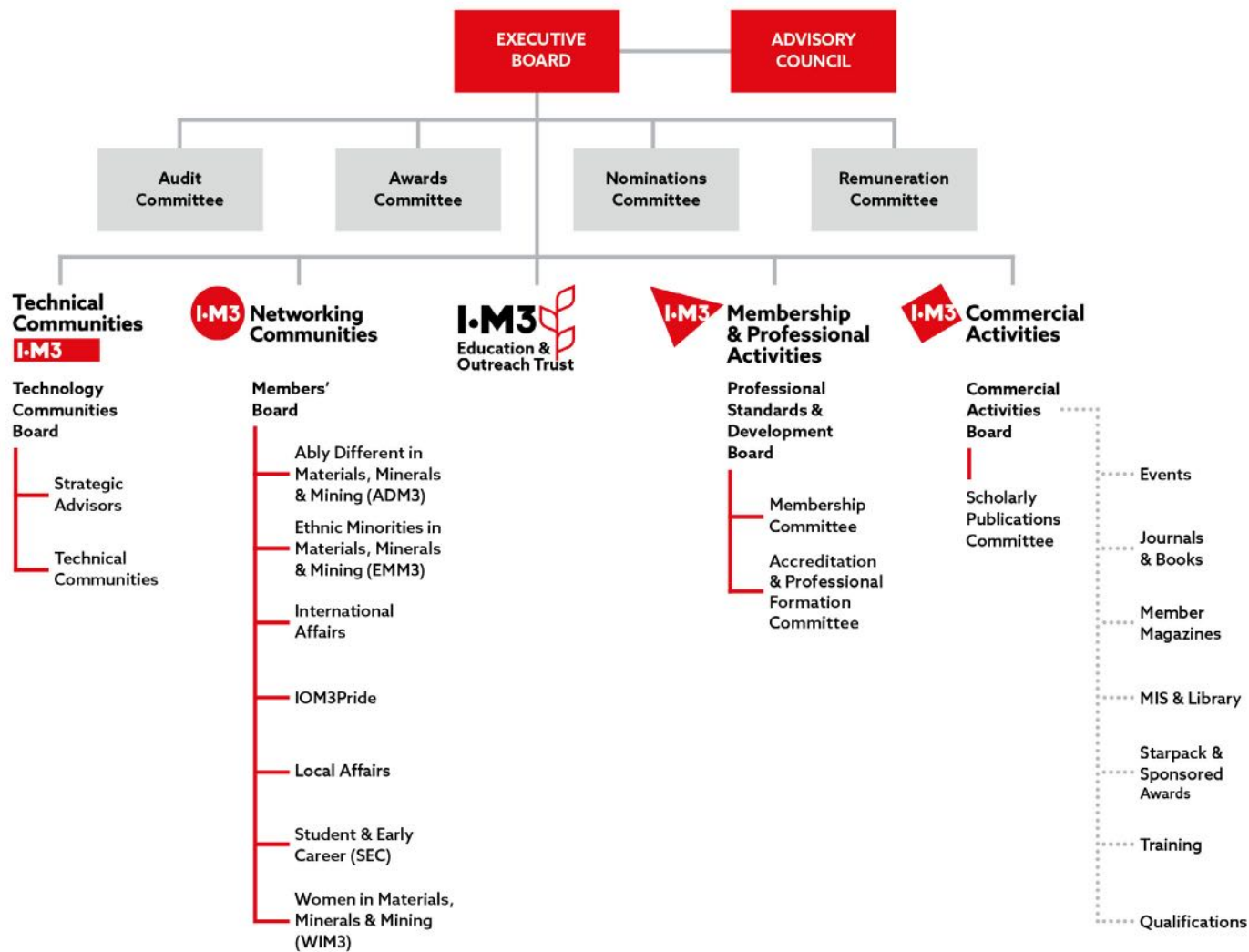
The Awards Committee oversees the operation of the Institute's Awards programme and is responsible for making recommendations to the Executive Board accordingly.

Nominations Committee

The Nominations Committee leads the process for appointment to the Executive Board, Institute Officers and Chairs of Primary Boards and other Boards which are not already prescribed by regulations or election.

Remuneration Committee

The Remuneration Committee aims to ensure that levels of remuneration are in line with the performance and needs of the Institute and the institutional sector.



Technology Communities Board (TCB)

The TCB is responsible for overseeing and co-ordinating the work IOM3 does as a 'Learned Society'. This means our activities to promote and share knowledge on materials, minerals and mining. With the help of the nine Strategic Advisors, it does so through the 22 Technical Communities (special interest groups) that sit under it. These act as a focus of expertise within the broad range of technical sectors embraced by IOM3. Each group holds regular meetings and, through its supporting networks, organises a programme of events to promote and develop its discipline. Each also has an online presence and communicates its activities to members and non-members alike through web content, newsletters and social media. Events organised by the technical groups are open to all and serve to inform about the latest developments within the discipline as well as providing networking opportunities for people from academia, industry and government, often in an international context. Networking events attract non-members from the UK and overseas, who can make up a significant proportion of the event audience.

Members' Board

The Members' Board is responsible for co-ordinating the Institute's activities in the regions and other member networks. The Institute has a network of affiliated societies throughout the UK, as well as overseas groups. Events and activities co-ordinated by local groups and societies are also supported through the technical community structure. The Members' Board also looks after the interests of the Member Networks, currently Aply Different in Materials Minerals & Mining, Ethnic Minorities in Materials, Minerals & Mining, IOM3Pride, Student & Early Career and Women in Materials, Minerals & Mining.

Aply Different in Materials, Minerals & Mining Group (ADM3)

Aply Different is a voluntary network of IOM3 whose goal is to achieve equality of opportunity professionally for IOM3 members identifying as disabled and allies such as family members, carers and work colleagues. Together, it will do this by advancing the interests of disabled people, raising awareness and supporting equality of opportunity for IOM3 members in materials, minerals and mining and supporting equity, diversity and inclusion within the wider STEM community.

Ethnic Minorities in Materials, Minerals & Mining (EMM3)

The long-term goal of this group is to promote equality of opportunity professionally for ethnic minorities within the materials, minerals and mining industries. In the short term, the focus will be around gathering data from members belonging to minority groups to understand any issues they may face in the industry or in education and how IOM3 can help to address these. The group will also promote the creation of inclusive policies within the Institute, as well as raising awareness with regards to issues such as unconscious biases in the workplace

International Affairs Committee

The IAC is responsible for communications between the Institute and its international communities. It also encourages the development of new activities and communities outside the UK.

IOM3Pride

IOM3Pride is a voluntary network of IOM3 whose goal is to achieve equality of opportunity professionally for LGBTQ+ identifying IOM3 members. It aims to do this by highlighting issues related to LGBTQ+ individuals in materials, minerals and mining and supporting equity, diversity and inclusion within the wider STEM community.

Local Affairs Committee

IOM3 has a network of Affiliated Local Societies (ALS) across the UK. These are independent organisations which run their own programmes of events and activities locally, and by affiliation with IOM3 receive funding and support. Some ALS also engage with local schools, universities and businesses to provide valuable support for teaching and learning. The Local Affairs Committee is responsible for communications between the Institute and its ALS.

IOM3 Education & Outreach Trust

The IOM3 Education & Outreach Trust was formed by the amalgamation of a number of historical restricted funds and was granted charitable status at the end of 2022. The purpose of the Trust is to offer support to initiatives that raise awareness of and support members in the early stages of a career in the materials cycle. There are three streams of funding which involve activities that develop interest, recognise excellence and support professional development in the materials cycle.

Student & Early Career (SEC)

The was established in 1967 to represent the views and interests of the Institute's younger members, and is one of the longest running committees in our history. It organises various events and activities throughout the year.

Women in Materials, Minerals & Mining (WIM3)

IOM3 Women in Materials, Minerals & Mining (WIM3) was established in 2012 to provide a focus for women members within the Institute and help support them in their careers. Its leadership team

has organised several successful events around the UK which have attracted female members at all stages of their career and provided valuable networking opportunities for women.

Professional Standards & Development Board

Professional affairs within the Institute are overseen by the Professional Standards & Development Board, which deals with membership, qualifications and accreditation.

Membership Committee

The membership committee is responsible for the evaluation of membership applications for both Institute grades and professional registration such as Chartered Engineer, Chartered Environmentalist, or Chartered Scientist.

Accreditation & Professional Formation Committee (APFC)

The APFC oversees the standards and processes for the accreditation of academic programmes, and company Initial Professional Development (IPD) schemes to meet the requirements for registration levels for which IOM3 has licences, in the UK and abroad.

Commercial Activities Board

The Commercial Activities Board is responsible for trading strategy development and co-ordination of revenue generation activities other than membership. This includes charitable activities such as the provision of information on materials, minerals and mining through Institute publications, conferences, training and information services. It also has oversight of Materials Institute Services Ltd, a wholly owned subsidiary of the Institute responsible for IOM3 venue hire and other non-charitable trading activities.

Scholarly Publications Committee (SPC)

The SPC is charged with providing strategic, non-executive direction for the Institute's scholarly publications programme. These include, providing a forum for research publication users and producers to input to the IOM3 scholarly publication programme, and providing strategic oversight of the IOM3 scholarly publishing arrangements.

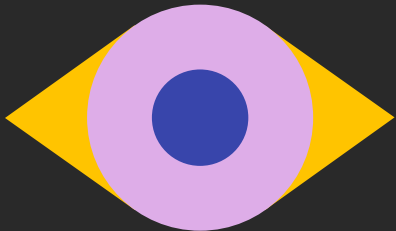
Objectives & activities

The charitable objects of IOM3, as set out in the Royal Charter, are:

To advance and develop all aspects of science, engineering and technology as applied to the discovery, exploration, development, characterisation, exploitation, processing, application and re-cycling 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, provided that 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 complimentary to those of such organisations.

Our Corporate Strategy sets two objectives for IOM3:

1. To support professionals in materials, minerals, mining to be champions of the transition to a low-carbon, resilient & resource efficient society.
2. To be the best professional membership body it can be.

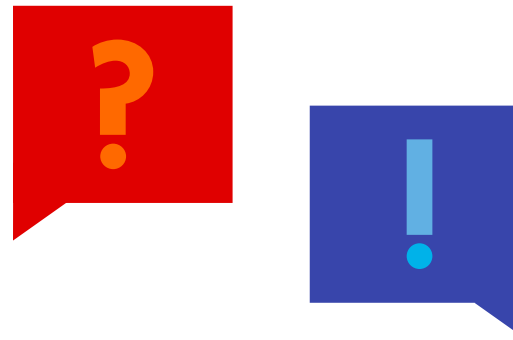


Through our activities we aim to:

Raise the profile of our sectors as technologies vital to the health and wealth of the nation; engage in public, policy and media debate to increase the visibility of materials, minerals, and mining

IOM3 has always worked closely with Government in relation to the delivery of new technology to industry. We are also increasingly deploying the expertise of our members to influence the public, media and policy debates that have materials, minerals and mining aspects, including through participation in Government advisory groups and contributing to public and parliamentary consultations. Our communications efforts also explain the vital importance of materials, minerals and mining to our future society.

Stimulating innovation in the extraction, use and application of materials, IOM3 organises both UK and worldwide competitions to develop a broad understanding of the importance of materials, minerals and mining, and such events engage with schools, students and businesses from the UK and beyond. Separately IOM3 provides an extensive range of awards both to members and non-members who have provided outstanding contributions to our communities and professions.



Support people within the materials, minerals and mining sectors to address the societal challenges we face today such as climate change, equity, diversity and inclusion, etc

The Sustainable Future theme brings together many of the IOM3 activities that seek to ensure our members and wider society understand how materials, minerals and mining need to contribute to the transition to a low-carbon, resilient and resource efficient society. Both individually, and as part of the wider networks of engineering, environmental and scientific professional institutions, IOM3 encourages and promotes the participation of under-represented and minority groups in the engineering, environment, and science professions. To help support and encourage individuals in STEM careers who share particular characteristics or non-technical interests, IOM3 has created five Member Networks (ADM3, EMM3, IOM3Pride, SEC and WIM3).

Support and encourage education in materials, minerals and mining to attract young people to the profession

IOM3 accredits a number of university, college and industry courses in the UK and overseas, and provides a special low-cost membership package for undergraduates, which is often sponsored by local societies or by their university. A thriving Student & Early Career Group organises regular events for students and early career members. IOM3 has an active education programme that enriches the teaching of materials, minerals and mining in the curriculum and promotes careers within our sphere of influence. We provide help, advice and teaching materials free of charge to teachers that have signed up to our School Affiliate service and to date over 1,200 schools have registered. Our schools presentations have so far been delivered to more than 100,000 pupils throughout the UK. The team also organises study days for teachers and events to allow older pupils to interact with young people already working in the sector. We also - through the IOM3 Education & Outreach Trust - provide financial support for schools, students and early career researchers.

Provide a central resource of expertise and information through content; disseminate information through conferences, events, publications, online resources and social media; increase the visibility of new technology to industry; provide networking opportunities through technical, local and other activities to increase interaction between industry, academia and government

IOM3 publishes technical books, learned journals and member magazines and organises conferences on materials, minerals and mining related subjects. The publishing of learned journals was outsourced to Taylor & Francis until 31 December 2023 and is outsourced to Sage Publishing from 1 January 2024. Access to this material is available to both members and non-members. In-house teams publish the member magazines and organise the majority of conferences. IOM3 maintains an extensive resource of technical and historical publications that form the core of our information and library services, a source of expertise accessible to all. The IOM3 Technical Enquiries service provides consultancy and advice services to anyone who needs access to expertise in materials, both individuals and organisations. Of the 1,500 enquiries routinely handled each year, 50% originate from the UK public. The Business Partner Programme enables organisations to visibly associate themselves with IOM3 and access its resources and work programmes. Confirmed subscribers to date include Lucideon, National Composites Centre and Lloyds Register.

IOM3 itself organises dozens of events every year covering a wide range of topics of relevance to professionals in materials, minerals and mining. In addition, we partner with other organisations to support similar activities, including the UK-wide network of local societies affiliated to IOM3, our international affiliated societies, other UK and international professional bodies and learned societies and other like-minded organisations.

Provide our members with benefits, services and opportunities to support their careers

IOM3 technical communities, boards and committees are all composed of active supporters and volunteers (ASVs) drawn from the IOM3 membership, who freely give their time and expertise to deliver the Institute's charitable purposes and professional activities, develop our communities and provide peer review processes where needed. IOM3 depends on the engagement of our members in the broad range of our activities and could not deliver our objectives effectively without their significant contribution. IOM3 members play a prime role in promoting our objects and providing public benefit. Accordingly, a wide range of member services and benefits have been developed in pursuance of our objectives and to attract new members. Benefits of membership include professional recognition, networking opportunities to share knowledge and experience, free technical enquiry services, a choice of members' magazine, a members' business centre and use of facilities, discounted conference fees, training courses and publications, and additional online services. In addition, the regulation of the profession provides benefits to both members – who are recognised as competent and professional – and to wider society.

IOM3 provides support to our worldwide membership through our UK offices, our technical communities and societies, and our network of affiliated local societies and national groups. Career progression is recognised through various grades of membership and IOM3 is licensed to deal with applications for Chartered Engineer, Incorporated Engineer, Engineering Technician, Chartered Environmentalist, Registered Environmental Practitioner, Chartered Scientist, Registered Scientist and Registered Science Technician status.

Statement of Trustees' responsibilities

The Trustees are responsible for preparing the Trustees' Report and the financial statements in accordance with applicable law and United Kingdom Accounting Standards (United Kingdom Generally Accepted Accounting Practice).

The Law applicable to charities in England & Wales requires the Trustees to prepare financial statements for each financial year which give a true and fair view of the state of affairs of the group and charity and of the incoming resources and application of resources of the group and charity for that period. In preparing these financial statements, the Trustees are required to:

- Select suitable accounting policies and then apply them consistently
- Observe the methods and principles in the applicable Charities SORP
- Make judgements and estimates that are reasonable and prudent
- State whether applicable United Kingdom 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 charity will continue in business

The Trustees are responsible for keeping proper accounting records that disclose with reasonable accuracy at any time the financial position of the group and charity and enable them to ensure that the financial statements comply with the Charities Act 2011, the Charity (Accounts and Reports) Regulations and the provisions of the Royal Charter and Bye-laws. They are also responsible for safeguarding the assets of the group and charity and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities. The Trustees are responsible for the maintenance and integrity of the group and 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.

Trustees, senior boards & professional advisors

Details of the current Board and Committee members can be found at www.iom3.org/about-us/governance.html

Executive Board & Trustees

Neil E Glover, Chair & Immediate Past President

Dr Kate Thornton, President

Christine A Blackmore, Senior Vice-President

Prof Michael R Clinch, Vice-President

Dr Graham A Ormondroyd, Vice-President

Vikas Mawkin, Honorary Treasurer (until March 2023)

Thomas R Hill, Honorary Treasurer (from May 2023)

Martyn A Jones, Chair of Members' Board

Dr Aimee L Goodall, Chair of Student & Early Career Committee (until February 2024)

Dr Ilija Rašović, Chair of Student & Early Career Committee (from February 2024)

Martin C Cox, Chair of International Affairs Board

Dr David Stewart, Chair of Professional Standards & Development Board

Jan C H Lewis, Chair of Commercial Activities Board (until November 2023)

Ian R Marchant, Chair of Commercial Activities Board (from December 2023)

Judith Allan, Advisory Council Representative

David Seath, Advisory Council Representative (until September 2023)

Jason M Webb, Advisory Council Representative (from November 2023)

Robert G Siddall, co-opted (until November 2023)

Dr Maurizio Carano, co-opted (until March 2023)

Dr Daniel Parvaz, co-opted (from August 2023)

Dr Alexander Norori-McCormac, co-opted (from February 2024)

Board of Directors, Materials Institute Services Ltd.

The following served as directors during the year:

Directors	Dr C Church N E Glover K Harrison J C H Lewis (until November 2023) I R Marchant (from December 2023)
Company Secretary	J Bugajeva

Board of Directors, PIABC Ltd.

The following served as directors during the year:

Directors	Dr C Church N E Glover
Company Secretary	J Bugajeva

Key management personnel

Chief Executive	Dr C Church
Finance Director	J Bugajeva
Director of Communications	Dr I A N Staniaszek
Director of Operations	K Harrison
Director of Membership	EUR ING I J Bowbrick (until July 2023)
Director of Business Support	C Marriott

Professional advisors

Bankers	Santander UK plc 4th Floor 100 Ludgate Hill London EC4M 7RE
Solicitors	Howes Percival LLP 3 The Osiers Business Centre Leicester LE19 1DX
Auditors	RSM UK AUDIT LLP 25 Farringdon Street London EC4A 4AB RSM UK Audit LLP has indicated its willingness to continue in office.
Investment Managers	Blackrock Investment Management (UK) Ltd 12 Throgmorton Avenue London EC2N 2DL
Actuaries	First Actuarial LLP Second Floor, The Square Basing View, Basingstoke Hampshire RG21 4EB

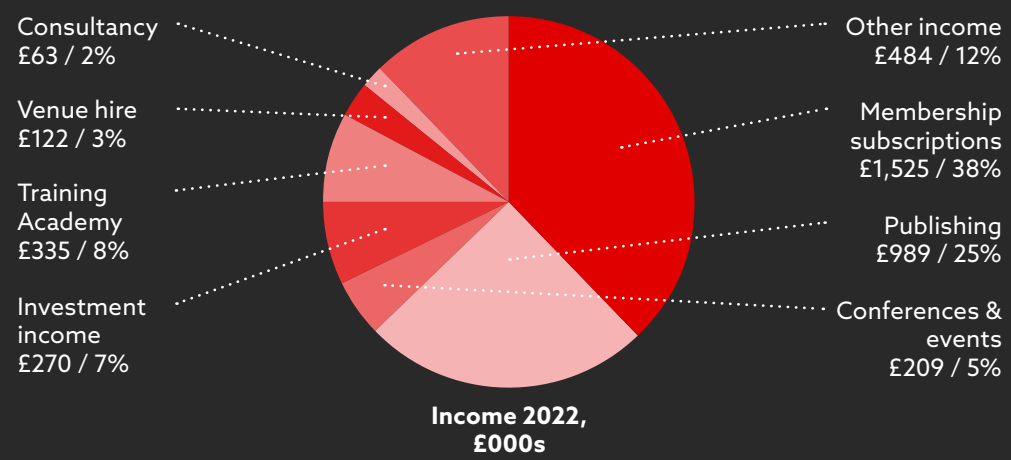
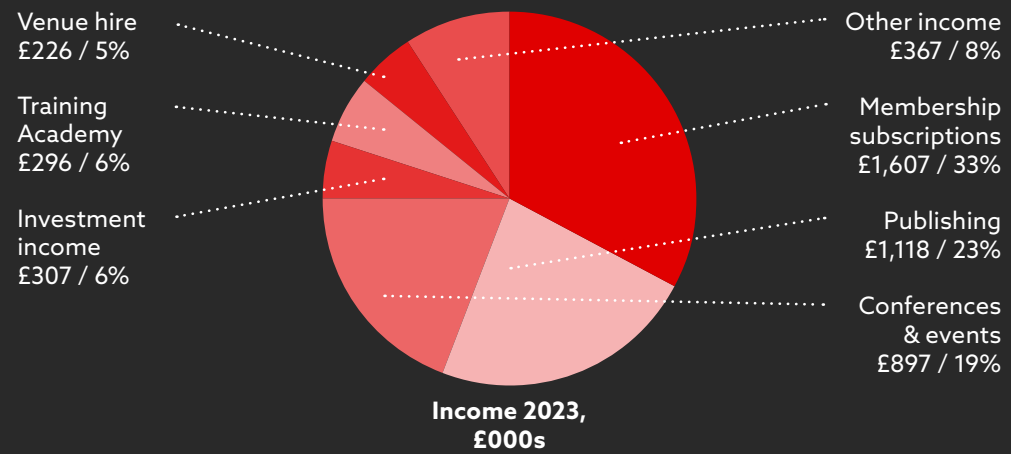
This report was approved by the Trustees on 26 June 2024



Dr Kate Thornton



FINANCIAL
STATEMENTS



The following pages detail financial activities for the year ended 31 December 2023, reflecting operating performance, assets and obligations. Income for the year 2023 is summarised in the chart above.

Independent auditor's report to the Trustees of the Institute of Materials, Minerals & Mining

Opinion

We have audited the financial statements of The Institute of Materials, Minerals and Mining (the 'parent charity') and its subsidiaries (the 'group') for the year ended 31 December 2023 which comprise Consolidated Statement of Financial Activities, the Consolidated and parent charity Balance Sheets, the Consolidated and parent charity Statement of Cash Flows and notes to the financial statements, including significant accounting policies. The financial reporting framework that has been applied in their preparation is applicable law and United Kingdom Accounting Standards, including FRS 102 'The Financial Reporting Standard applicable in the UK and Republic of Ireland' (United Kingdom Generally Accepted Accounting Practice).

In our opinion the financial statements:

- give a true and fair view of the state of the group's and parent charity's affairs as at 31 December 2023 and of the group's and parent charity's incoming resources and application of resources for the year then ended;
- have been properly prepared in accordance with United Kingdom Generally Accepted Accounting Practice; and
- have been prepared in accordance with the requirements of the Charities and Trustee Investment (Scotland) Act 2005, regulations 6 and 8 of the Charities Accounts (Scotland) Regulations 2006 (as amended) and the Charities Act 2011.

Basis for opinion

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

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

Conclusions relating to going concern

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

Based on the work we have performed, we have not identified any material uncertainties relating to events or conditions that, individually or collectively, may cast significant doubt on the group's or parent charity's ability to continue as a going concern

for a period of at least twelve months from when the financial statements are authorised for issue.

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

Other information

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

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

We have nothing to report in this regard.

Matters on which we are required to report by exception

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

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

Responsibilities of Trustees

As explained more fully in the statement of Trustees' responsibilities set out on page 53 the Trustees are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view, and for such internal control as the Trustees determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the Trustees are responsible for assessing the group and parent charity's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the Trustees either intend to liquidate the group or parent charity or to cease operations, or have no realistic alternative but to do so.

Auditor's responsibilities for the audit of the financial statements

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

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

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

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

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

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

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

As a result of these procedures we consider the most significant laws and regulations that have a direct impact on the financial statements are FRS 102, Charities SORP (FRS 102), Charities and Trustee Investment (Scotland) Act 2005, regulations 6 and 8 of the Charities Accounts (Scotland) Regulations 2006 (as amended), the Charities Act 2011, the parent charity's governing document. We performed audit procedures to detect non-compliances which may have a material impact on the financial statements which included reviewing the financial statements disclosures including the Trustees' Report and remaining alert to new or unusual transactions which may not be in accordance with the governing documents.

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

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

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

Use of our report

This report is made solely to the charity's Trustees, as a body, in accordance with section 44(1)(c) of the Charities and Trustee Investment (Scotland) Act 2005, and regulation 10 of the Charities Accounts (Scotland) Regulations 2006 (as amended) and the Charities Act 2011. Our audit work has been undertaken so that we might state to the charity's Trustees those matters we are required to state to them in an auditor's report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the charity and its Trustees as a body, for our audit work, for this report, or for the opinions we have formed.

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

RSM UK Audit LLP

RSM UK AUDIT LLP
Statutory Auditor
Chartered Accountants
25 Farringdon Street
London
EC4A 4AB

Date: 9 July 2024

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

Consolidated statement of financial
activities for the year ended
31 December 2023

	Notes	Unrestricted funds General £'000	Designated £'000	Restricted funds £'000	Permanent endowment £'000	Total funds 2023 £'000	Total funds 2022 £'000
INCOME AND ENDOWMENTS FROM:							
Donations and legacies	4	16	-	-	-	16	42
Charitable activities							
Membership and related activities		1,877	-	-	-	1,877	1,805
Charitable trading activities	3	2,267	-	-	-	2,267	1,517
Other trading activities	13	351	-	-	-	351	286
Investments		240	3	64	-	307	270
Other income	10	-	-	-	-	-	77
Total income		4,751	3	64	-	4,818	3,997
EXPENDITURE ON:							
Raising funds		321	-	-	-	321	236
Charitable activities							
Membership and related activities		3,020	3,099	40	-	6,159	2,841
Charitable trading activities	3	1,507	-	-	-	1,507	906
Total expenditure		4,848	3,099	40	-	7,987	3,983
Operating (expenditure)/income		(97)	(3,096)	24	-	(3,169)	14
Net gains/(losses) on investments	12	19	-	43	-	62	(1,133)
Net (expenditure)/income		(78)	(3,096)	67	-	(3,107)	(1,119)
Other recognised gains/(losses)							
(Losses)/gains on revaluation of fixed assets	10	-	(497)	-	-	(497)	86
Actuarial gains on defined benefit pension schemes		111	-	-	-	111	76
NET MOVEMENT IN FUNDS		33	(3,593)	67	-	(3,493)	(957)
Reconciliation of funds							
Total funds brought forward		2,057	11,940	2,286	33	16,316	17,273
TOTAL FUNDS CARRIED FORWARD		2,090	8,347	2,353	33	12,823	16,316

Consolidated and charity balance sheets as at 31 December 2023

	Notes	Group		Institute	
		2023 £'000	2022 £'000	2023 £'000	2022 £'000
FIXED ASSETS					
Intangible assets	9	142	238	142	238
Tangible assets	10	7,904	11,370	7,904	11,370
Heritage assets	11	456	456	456	456
Investments	12	7,816	8,504	7,816	8,504
Total fixed assets		16,318	20,568	16,318	20,568
CURRENT ASSETS					
Stock and work in progress	14	155	80	155	80
Debtors	15	1,304	1,556	1,252	1,527
Cash at bank and in hand		132	30	106	6
Total current assets		1,591	1,666	1,513	1,613
CREDITORS: Amounts falling due within one year	16	(2,290)	(2,929)	(2,235)	(2,899)
NET CURRENT LIABILITIES		(699)	(1,263)	(722)	(1,286)
NET ASSETS BEFORE PENSION LIABILITY		15,619	19,305	15,596	19,282
Defined benefit pension scheme liability	22	(2,796)	(2,989)	(2,796)	(2,989)
NET ASSETS AFTER PENSION LIABILITY		12,823	16,316	12,800	16,293

The financial statements on pages 62 to 92 were approved and authorised for issue by the Trustees and signed on their behalf by:

Dr K Thornton,
Trustee and President 2023
on 26 June 2024



Mr T R Hill,
Trustee and Honorary Treasurer
on 26 June 2024



THE FUNDS OF THE CHARITY					
ENDOWMENT FUNDS	18	33	33	33	33
RESTRICTED INCOME FUNDS					
Restricted funds	19	2,353	2,286	2,353	2,286
UNRESTRICTED FUNDS					
General funds		2,090	2,057	2,067	2,034
Designated funds	20	7,891	10,986	7,891	10,986
Revaluation reserve	20	456	954	456	954
TOTAL CHARITY FUNDS		12,823	16,316	12,800	16,293

Consolidated and charity statement of cash flows for the year ended 31 December 2023

	Notes	Group		Institute	
		2023 £'000	2022 £'000	2023 £'000	2022 £'000
Cash flows from operating activities:					
Net cash used in operating activities	T1	(91)	(29)	(93)	51
Cash flows from investing activities:					
Dividends, interest and rents from investments		307	270	307	270
Purchase of intangibles		(50)	(29)	(50)	(35)
Purchase of property, plant and equipment		(237)	(393)	(237)	(393)
Proceeds from sale of property, plant and equipment		-	347	-	347
Proceeds from sale of investments		750	-	750	-
Net cash provided by investing activities		770	195	770	189
Change in cash and cash equivalents in the reporting period		679	166	677	240
Cash and cash equivalents at the beginning of the reporting period		(547)	(713)	(571)	(811)
Cash and cash equivalents at the end of the reporting period	T2	132	(547)	106	(571)

T1 Reconciliation of net income/ (expenditure) to net cash flow from operating activities

	<i>Group</i>		<i>Institute</i>	
	2023 £'000	2022 £'000	2023 £'000	2022 £'000
Net (expenditure)/income for the reporting period (as per the statement of financial activities)	(3,107)	(1,119)	(3,107)	(777)
Adjustments for:				
Depreciation and amortisation charges and impairment of fixed assets	3,351	314	3,351	309
(Gains)/losses on disposal of fixed assets	-	(77)	-	(77)
(Gains)/losses on investments	(62)	1,133	(62)	1,133
Pension costs	(81)	(146)	(81)	(146)
Dividends, interest and rents from investments	(307)	(270)	(307)	(270)
(Increase)/decrease in stocks	(75)	(26)	(75)	(67)
(Increase)/decrease in debtors	252	(73)	275	19
Increase/(decrease) in creditors	(62)	235	(87)	(73)
Net cash used in operating activities	(91)	(29)	(93)	51

T2 Analysis of cash and cash equivalents

	<i>Group</i>		<i>Institute</i>	
	2023 £'000	2022 £'000	2023 £'000	2022 £'000
Cash in hand	132	30	106	6
Bank overdraft	-	(577)	-	(577)
Total cash and cash equivalents	132	(547)	106	(571)

Accounting policies

Basis of financial statements

The Institute of Materials, Minerals and Mining ("the Charity") is an unincorporated charity domiciled in England. The address of the Charity's registered office and principal place of business is 297 Euston Road, London NW1 3AD.

The Charity's principal activities and the nature of the Charity's operations are described in the Trustees' Report on pages 50-52.

The financial statements have been prepared in accordance with Accounting and Reporting by Charities: Statement of Recommended Practice applicable to charities preparing their accounts in accordance with the Financial Reporting Standard applicable in the UK and Republic of Ireland (FRS 102) (effective 1 January 2019) - (Charities SORP (FRS 102)), the Financial Reporting Standard applicable in the UK and Republic of Ireland (FRS 102) and the Charities Act 2011.

The Institute of Materials, Minerals and Mining meets the definition of a public benefit entity under FRS 102. Assets and liabilities are initially recognised at historic cost or transaction value unless otherwise stated in the relevant accounting policy notes.

The financial statements are prepared in sterling, which is the functional currency of the Charity. Monetary amounts in these financial statements are rounded to the nearest £1,000.

Preparation of the accounts on a going concern basis

The Trustees confirm that at the time of approving these financial statements, there is a reasonable expectation that the Institute has adequate resources to continue for the foreseeable future. In arriving at this conclusion, the Trustees have taken into account the current and anticipated financial performance in the current economic conditions and the charity's reserves position. The Trustees have considered the forecasts for 2024/25. The Trustees are satisfied that the charity has adequate reserves and strategies in place and have concluded that it remains appropriate to prepare the financial statements on the going concern basis.

Group financial statements

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

Details of the Institute's total incoming resources and net movement in funds are shown in the notes.

Income

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

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.

Income from Government and other grants is recognised when the charity has entitlement to the funds, any performance conditions attached to the grant are met, it is probable that the income will be received and the amount can be measured reliably.

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, probability of receipt and the amount can be measured with sufficient reliability.

Expenditure

Expenditure is recognised once there is a legal or constructive obligation to make a payment to a third party, it is probable that settlement will be required and the amount of the obligation can be measured reliably.

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.

Allocation of 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. The basis on which support costs are allocated is set out in note 7.

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.

Heritage Assets

A description of heritage assets held by the Charity is given in note 11. These assets were valued in February 2019 and details are given in note 11.

The heritage assets have been recognised in the Institute's balance sheet at valuation. The Trustees reviewed the value of the heritage assets and are in agreement that there was no change in value as at 31 December 2023.

Tangible fixed assets 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:

Freehold Property (excluding land)	2% p.a.
Leasehold property	over the term of the lease
Furniture	15%-20% p.a.
Equipment	20%-33% 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.

Freehold property is accounted for using the revaluation method with the building element depreciated at a rate of 2% per annum and revalued to its market value at the end of the financial year. The net value of gains on revaluation are held in the revaluation reserve.

The Institute's freehold property is recognised in the financial statements at its market value as at 31 December 2023.

Intangible fixed assets

Intangible fixed assets, including patents and software, 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 reviewed where circumstances indicate that the carrying value of an asset may not be fully recoverable.

Investments and investment income

Listed investments are shown at market value at the balance sheet date. Realised and unrealised gains or losses are taken to the fund to which they relate via the Statement of Financial Activities in the year in which they arise. Unlisted investments are held at cost. 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.

Stocks and work in progress

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

Debtors

Trade and other debtors are recognised at the settlement amount due after any trade discount offered. Prepayments are valued at the amount prepaid net of any trade discounts due 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.

Cash at bank and in hand

Cash at bank and in hand includes cash and short term highly liquid investments with a short maturity of three months or less from the date of acquisition or opening of the deposit or similar account.

Creditors and provisions

Creditors and provisions are recognised where the charity has a present obligation resulting from a past event that will probably result in the transfer of funds to a third party and the amount due to settle the obligation can be measured or estimated reliably. Creditors and provisions are normally recognised at their settlement amount after allowing for any trade discounts due.

Financial instruments

The Institute only has financial assets and financial liabilities of a kind that qualify as basic financial instruments. Basic financial instruments are measured at their settlement value.

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 and was closed to accrual on 31 December 2021.

The assets of the scheme are held independently 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. Fair value is based on the market price information and in the case of quoted securities is the published bid price.

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 that has been rated at AA or equivalent basis 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.

The actuarial gain or loss arising in the year is included under 'other recognised gains or losses'. Contributions are charged to expenditure so as to spread the regular cost of pensions over the expected working lives of the employees in the scheme. Any difference between the cumulative amounts charged and contributions paid is included as an asset or liability on the balance sheet.

The interest element of the defined benefit cost represents the change in present value of scheme obligations relating to the passage of time and is determined by applying a discount rate to the opening present value of the benefit obligation, valuing into account material changes in the obligation during the year. The expected return on plan assets is based on an assessment made at the beginning of the year of long-term market returns on scheme assets adjusted for the effect on the fair value of plan assets of the contributions received and benefits paid during the year. The difference between the expected return on plan assets and the interest costs is recognised in the consolidated SOFA (Statement of Financial Activities) as pension finance income or within resources expenses as appropriate.

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.

Critical accounting estimates and assumptions

The Institute makes estimates and assumptions concerning the future. The resulting estimates and assumptions will, by definition, seldom equal the related actual results. The estimates and assumptions that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year are those used by the scheme actuary in calculating the Institute's defined benefit scheme liability (see note 22 for details).

Revaluation of freehold property: the revaluation is based on the building element of freehold properties depreciated at a rate of 2% per annum and revalued to its market value at the end of the financial year.

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. The revaluation reserve within designated funds represents the value of gains on revaluation of freehold property.
- 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.
- Permanent endowment fund – 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.

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

Notes to financial statements

1. Consolidated statement of financial activities for the year ended 31 December 2022

	Notes	Unrestricted funds General £'000	Unrestricted funds Designated £'000	Restricted funds £'000	Permanent endowment £'000	Total funds 2022 £'000	Total funds 2021 £'000
INCOME AND ENDOWMENTS FROM:							
Donations and legacies	4	42	-	-	-	42	57
Charitable activities							
Membership and related activities		1,805	-	-	-	1,805	1,641
Charitable trading activities	3	1,517	-	-	-	1,517	1,610
Other trading activities	13	286	-	-	-	286	321
Investments		212	3	55	-	270	230
Other income	10	77	-	-	-	77	-
Total income		3,939	3	55	-	3,997	3,859
EXPENDITURE ON:							
Raising funds	13	236	-	-	-	236	202
Charitable activities							
Membership and related activities		2,776	1	64	-	2,841	2,385
Charitable trading activities	3	906	-	-	-	906	1,335
Total expenditure		3,918	1	64	-	3,983	3,922
Operating income/(expenditure)		21	2	(9)	-	14	(63)
Net (losses)/gains on investments	12	(911)	(11)	(211)	-	(1,133)	759
Net (expenditure)/income		(890)	(9)	(220)	-	(1,119)	696
Other recognised gains/(losses)							
Gains on revaluation of fixed assets	10	-	86	-	-	86	84
Actuarial gains on defined benefit pension schemes		76	-	-	-	76	1,290
NET MOVEMENT IN FUNDS		(814)	77	(220)	-	(957)	2,070
Reconciliation of funds							
Total funds brought forward		2,871	11,863	2,506	33	17,273	15,203
TOTAL FUNDS CARRIED FORWARD		2,057	11,940	2,286	33	16,316	17,273

2. Charity only statement of financial activities for the year ended 31 December 2023

	Unrestricted funds General £'000	Designated £'000	Restricted funds £'000	Permanent endowment £'000	Total funds 2023 £'000	Total funds 2022 £'000
INCOME AND ENDOWMENTS FROM:						
Donations and legacies	46	-	-	-	46	466
Charitable activities						
Membership and related activities	1,757	-	-	-	1,757	1,664
Charitable trading activities	2,267	-	-	-	2,267	1,501
Investments	240	3	64	-	307	270
Other income	-	-	-	-	-	77
Total income	4,310	3	64	-	4,377	3,978
EXPENDITURE ON:						
Charitable activities						
Membership and related activities	2,900	3,099	40	-	6,039	2,701
Charitable trading activities	1,507	-	-	-	1,507	921
Total expenditure	4,407	3,099	40	-	7,546	3,622
Net (losses)/gains on investments	19	-	43	-	62	(1,133)
Net (expenditure)/income	(78)	(3,096)	67	-	(3,107)	(777)
Other recognised (losses)/gains:						
(Losses)/gains on revaluation of fixed assets	-	(497)	-	-	(497)	86
Actuarial gains on defined benefit pension schemes	111	-	-	-	111	76
NET MOVEMENT IN FUNDS	33	(3,593)	67	-	(3,493)	(615)
Reconciliation of funds						
Total funds brought forward	2,034	11,940	2,286	33	16,293	16,908
TOTAL FUNDS CARRIED FORWARD	2,067	8,347	2,353	33	12,800	16,293

3. Charitable trading activities

	2023 £'000	2022 £'000
TURNOVER		
Publishing	1,118	989
Conferences and exhibitions	853	193
Information services	-	-
Training services	296	335
Incoming resources	2,267	1,517
COST OF CHARITABLE TRADING ACTIVITIES		
Publishing	166	72
Conferences and exhibitions	937	430
Information services	5	5
Training services	399	399
Expenditure	1,507	906
NET CONTRIBUTION FROM CHARITABLE TRADING ACTIVITIES		
Publishing	952	917
Conferences and exhibitions	(84)	(237)
Information services	(5)	(5)
Training services	(103)	(64)
Net income	760	611

4. Donations and legacies

	2023 £'000	2022 £'000
Other donations	16	42
	<u>16</u>	<u>42</u>

5. Other trading activities

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. These activities are undertaken by Materials Institute Services Ltd (see note 13: Subsidiary undertakings).

6. Investment income

	2023		2022	
	Unrestricted £'000	Restricted £'000	Unrestricted £'000	Restricted £'000
Listed securities				
Growth & Income fund	213	40	209	37
Fixed interest	1	4	1	4
UK equities	4	20	4	14
Cash and cash equivalents	25	-	1	-
	<u>243</u>	<u>64</u>	<u>215</u>	<u>55</u>

7. Total resources expended

Summary

	2023 £'000	2023 £'000	2022 £'000	2022 £'000
Direct charitable costs		1,437		754
Employment costs				
Salaries	1,814		1,671	
Social security costs	195		189	
Pension costs	378		301	
Temporary and other staff costs	89		97	
Redundancy costs	-		26	
		2,476		2,284
Establishment costs				
Property costs	338		286	
Information technology	227		182	
Depreciation and amortisation	253		314	
Impairment of fixed assets	3,098		-	
		3,916		782
Administration costs				
Travel, meeting and committee expenses	48		24	
Postage and telecommunications	24		33	
Printing and stationery	13		14	
Finance costs	4		20	
Professional fees	65		67	
Office and other costs	4		5	
		158		163
		7,987		3,983

Breakdown of costs of activities

	<i>Direct costs</i> £'000	<i>Support costs</i> £'000	<i>2023 Total</i> £'000	<i>2022 Total</i> £'000
Charitable activities				
Membership and related services	531	5,628	6,159	2,841
Charitable trading activities	836	671	1,507	906
	1,367	6,299	7,666	3,747
Costs of raising funds				
Activities for raising funds	70	251	321	236
	1,437	6,550	7,987	3,983

Support cost breakdown by activity

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.

Admin costs include governance, finance, HR, IT and sales and marketing costs, which are apportioned to activities on the basis of employment costs.

	<i>Employment costs</i> £'000	<i>Establishment costs</i> £'000	<i>Admin costs</i> £'000	<i>2023 Total</i> £'000	<i>2022 Total</i> £'000
Membership and related services	1,847	3,667	114	5,628	2,333
Charitable trading activities	479	158	34	671	691
Activities for raising funds	150	91	10	251	205
	2,476	3,916	158	6,550	3,229

Employee information

	2023 No.	2022 No.
The average number/(full time equivalent) employees during the year was	42(40)	41(37)
The number of employees who earned more than £60,000 per annum including benefits was:		
£60,001 - £70,000	2	2
£70,001 - £80,000	1	2
£80,001 - £90,000	2	-
£110,001 - £120,000	-	1
£120,001 - £130,000	1	-
The number of employees who earned more than £60,000 per annum and accrued benefits in the Institute's pension scheme was:		
Money purchase scheme	6	5

	2023 £'000	2022 £'000
Total remuneration of key management personnel, including benefits during the year was	507	504
Total employer National Insurance contributions paid on the key management personnel remuneration	55	59
Total amount of redundancy payments made during the year was	-	26
Contributions to the pension funds during the year were:		
Defined benefit scheme	220	200
Money purchase scheme	101	103

The key management personnel of the charity are detailed on page 55.

Total expenditure includes

2023
£'000

2022
£'000

Auditor's remuneration		
Audit fee – current year	50	50
Accountancy, taxation and other services	7	4
Travel expenses paid to 6 (2022: 5) Trustees for attending Executive board and other meetings	1	1
Travel expenses paid on behalf of 13 (2022: 15) Trustees for attending Executive board and other meetings	7	3
Operating lease charges	37	39

None of the Council members received any remuneration in either year.

2023
£'000

2022
£'000

The total future minimum lease payments under non-cancellable operating leases	Land and buildings	Other	Land and buildings	Other
Within one year	29	8	29	8
Within two to five years	115	4	115	12
After five years	72	-	101	-

Other transactions with Trustees

Ms Judith Allan (trustee) provided training services during 2023 to the Institute. The value of these services during the year was £635 (2022 - £1,953). At 31 December the balance due to Ms Allan was £nil (2022 - £nil).

No other Trustees directly or indirectly received any remuneration during the years ended 31 December 2023 and 2022.

8. Transfers between funds

There were no transfers between funds during 2023 or 2022.

9. Intangible fixed assets

	<i>Group and parent Website and software £'000</i>	<i>Total £'000</i>
Cost		
1 January 2023	857	857
Additions in the year	50	50
31 December 2023	907	907
Amortisation		
1 January 2023	619	619
Charge for the year	146	146
31 December 2023	765	765
Net book value		
31 December 2023	142	142
31 December 2022	238	238

10. Tangible fixed assets

	<i>Freehold property £'000</i>	<i>Short leasehold property £'000</i>	<i>Furniture, fittings & equipment £'000</i>	<i>Total £'000</i>
GROUP AND PARENT				
Cost or valuation				
1 January 2023	13,417	2,221	1,233	16,871
Additions in the year	15	28	194	237
Disposals in year	-	-	-	-
31 December 2023	13,432	2,249	1,427	17,108
Depreciation				
1 January 2023	2,506	2,087	908	5,501
Charge for the year	-	25	82	107
Impairment	3,596	-	-	3,596
31 December 2023	6,102	2,112	990	9,204
Net book value				
31 December 2023	7,330	137	437	7,904
31 December 2022	10,911	134	325	11,370

10. Tangible fixed assets (continued)

The Institute's freehold land and buildings are accounted for using the valuation method. The London property was revalued at its present market value of £7.3m by Michael Riordan MRICS on 18 December 2023.

A total impairment loss of £3,596k has been recognised on revaluation. £497k has been deducted from the revaluation reserve against previously recognised gains. The remaining impairment loss of £3,099 has been recognised as an expense in the statement of financial activities.

The Stoke property was sold in December 2022 for £346k. A gain on disposal of £76k was included in other income in 2022.

11. Heritage assets

In addition to the assets outlined in note 10, the Institute owns a collection of paintings and artefacts of historic and scientific importance which is deemed to be heritage assets as defined under SORP (FRS 102). The collection comprises portraits, paintings, artefacts and sculptures, which the Institute has commissioned, acquired or received as a donation to either enhance the fabric of its building or to celebrate its history in science, engineering and technology.

The Institute maintains a comprehensive register of these assets. The Institute's heritage assets were valued in February 2019 by Penny Bingham (MRICS), an independent Fine Art Valuer, at a combined value of £287k. Separately, the Institute's Mining Lamp collection was valued in May 2016 by David Rimmer of the Miners Lamp Society at a combined value of £169k.

Both independent valuers consider that the resale value of individual heritage assets is very sensitive to the number of potential purchasers with the ability and willingness to pay.

The heritage assets were recognised in the Institute's balance sheet at 31 December 2018 at valuation and have been subsequently held at valuation subject to annual review for indications of any impairment.

Trustees have reviewed the assets at 31 December 2023 and do not consider there to be any impairment.

12. Investments

	<i>Group and Institute</i>		<i>Institute</i>	
	<i>2023</i>	<i>2022</i>	<i>2023</i>	<i>2022</i>
	<i>£'000</i>	<i>£'000</i>	<i>£'000</i>	<i>£'000</i>
Analysis of movements in the year				
Opening market value	8,504	9,637	8,504	9,637
Disposals at market value	(750)	-	(750)	-
Revaluations	62	(1,133)	62	(1,133)
Closing market value	7,816	8,504	7,816	8,504
Invested as follows				
<i>Listed investments</i>				
Black Rock Growth & Income fund	7,011	7,735	7,011	7,735
Fixed interest	134	132	134	132
UK equities	668	634	668	634
<i>Unlisted investments</i>				
Cash and cash equivalents	3	3	3	3
Subsidiary undertakings	-	-	-	-
Closing market value	7,816	8,504	7,816	8,504
At the balance sheet date, the following investments represent more than 5% of the portfolio by market value				
Black Rock Growth & Income fund	7,011	7,735	7,011	7,735
Charishare (UK equities common investment fund)	599	567	599	567
Historical cost at 31 December	5,086	5,342	5,086	5,342

13. Subsidiary undertakings

The Institute has a number of active subsidiary organisations:

- IOM Communications Ltd (company number 3285009, charity number 1059475), a charitable trading company limited by shares (dormant at of 1 January 2024)
- Materials Institute Services Ltd (company number 2882544), a company limited by shares.
- PIABC Ltd (company number 10371273) a company limited by shares.

All subsidiary companies are incorporated in the UK and file accounts with the Registrar of Companies. The accounts of Materials Institute Services Ltd and PIABC Ltd are audited. IOM Communications Ltd and Materials Institute Services Ltd and PIABC Ltd are wholly owned subsidiaries. The Institute holds 100 shares of £1 each in IOM Communications Ltd, one share of £1 in PIABC Ltd and 2 shares of £1 each in Materials Institute Services Ltd.

Materials Institute Services Ltd undertakes income generating activities of the Institute of Materials, Minerals and Mining. PIABC Ltd undertakes awarding body activities on behalf of the Institute of Materials, Minerals and Mining. The Institute of Packaging did not trade in 2023 or 2022. IOM Communications Ltd did not trade in 2023.

IOM Communications Limited

	2023 Total £'000	2022 Total £'000
Results		
Charitable trading activities	-	17
Total incoming resources	-	17
Charitable trading costs	-	(15)
Donation to the Institute	-	374
Total outgoing resources	-	359
Net incoming resources	-	(342)
Balances brought forward	-	342
Balances carried forward	-	-
Balance sheets at 31 December		
Fixed assets	-	-
Current assets	-	-
Creditors: amounts falling due within one year	-	-
Net current assets	-	-
Shareholders' funds	-	-

Summaries of the 2023 results and balance sheets for IOM Communications Ltd, Materials Institute Services Ltd and PIABC Ltd together with comparative figures for 2022, where applicable, are shown in this note. The net assets of The Institute of Packaging at 31 December 2023 and 31 December 2022 were £nil.

IOM Communications Ltd previously undertook charitable trading activities of the Institute of Materials, Minerals and Mining. These activities were transferred to The Institute of Materials, Minerals and Mining by the end of 2022. IOM Communications Ltd ceased to trade at the end of 2022 and will remain a dormant company for the foreseeable future.

13. Subsidiary undertakings (continued)

Materials Institute Services Limited

	2023 <i>Total</i> £'000	2022 <i>Total</i> £'000
Results		
Turnover	351	286
Total incoming resources	351	286
Costs	321	236
Donation to the Institute	30	50
Total outgoing resources	351	286
Net incoming resources	-	-
Balances brought forward	23	23
Balances carried forward	23	23
Balance sheets at 31 December		
Current assets	110	52
Creditors: amounts falling due within one year	(87)	(29)
Net current assets	23	23
Shareholders' funds	23	23

13. Subsidiary undertakings (continued)

PIABC Limited

	2023 <i>Total £'000</i>	2022 <i>Total £'000</i>
Results		
Turnover	121	140
Total incoming resources	121	140
Costs	121	140
Total outgoing resources	121	140
Net incoming resources	-	-
Balances brought forward	1	1
Balances carried forward	1	1
Balance sheets at 31 December		
Current assets	21	15
Creditors: amounts falling due within one year	(20)	(14)
Net current assets	1	1
Shareholders' funds	1	1

14. Stock and work in progress

	<i>Consolidated</i>		<i>Institute</i>	
	2023 £'000	2022 £'000	2023 £'000	2022 £'000
Work in progress	154	78	154	78
Sundry stocks	1	2	1	2
	155	80	155	80

15. Debtors

Trade debtors	1,102	1,352	1,055	1,324
Other debtors	4	4	3	3
Prepayments and accrued income	198	200	194	200
	<u>1,304</u>	<u>1,556</u>	<u>1,252</u>	<u>1,527</u>

16. Creditors: Amounts falling due within one year

Trade creditors	133	212	112	212
Taxes and social security costs	204	227	202	227
Subscriptions and orders paid in advance	1,614	1,626	1,528	1,588
Other creditors and accruals	339	287	341	287
Amounts due to subsidiary companies	-	-	52	8
Bank overdraft	-	577	-	577
	<u>2,290</u>	<u>2,929</u>	<u>2,235</u>	<u>2,899</u>

Subscriptions and orders paid in advance

At 1 January	1,626	1,525	1,588	1,447
Recognised in year	(1,539)	(1,506)	(1,508)	(1,429)
Provided for in year	1,527	1,607	1,448	1,570
At 31 December	<u>1,614</u>	<u>1,626</u>	<u>1,528</u>	<u>1,588</u>

The Institute collected registration fees on behalf of the Engineering Council during the year. A total of £178k was received during the year with £176k paid over during the year. A balance of £39k held on their behalf at 31 December 2023 is included in other creditors.

The Institute holds funds on behalf of the International Rubber Conference Organisation. £8k was received on their behalf in the year £13k paid out. A balance of £32k held on their behalf at 31 December 2023 is included in other creditors.

17. Analysis of net assets between funds at 31 December 2023

Group	Unrestricted funds		Restricted	Permanent	Total
	General £'000	Designated £'000	funds £'000	Endowment fund £'000	
Intangible assets	142	-	-	-	142
Tangible fixed assets	322	7,582	-	-	7,904
Heritage assets	-	456	-	-	456
Investments	5,860	72	1,851	33	7,816
Current assets	852	237	502	-	1,591
Current liabilities	(2,290)	-	-	-	(2,290)
Net assets before pension liability	4,886	8,347	2,353	33	15,619
Pension liability	(2,796)	-	-	-	(2,796)
Total net assets	2,090	8,347	2,353	33	12,823

Institute	Unrestricted funds		Restricted	Permanent	Total
	General £'000	Designated £'000	funds £'000	Endowment fund £'000	
Intangible fixed assets	142	-	-	-	142
Tangible fixed assets	322	7,582	-	-	7,904
Heritage assets	-	456	-	-	456
Investments	5,860	72	1,851	33	7,816
Current assets	774	237	502	-	1,513
Current liabilities	(2,235)	-	-	-	(2,235)
Net assets before pension liability	4,863	8,347	2,353	33	15,596
Pension liability	(2,796)	-	-	-	(2,796)
Total net assets	2,067	8,347	2,353	33	12,800

17. Analysis of net assets between funds at 31 December 2022

Group	Unrestricted funds		Restricted	Permanent	Total
	General	Designated	funds	Endowment	funds
	£'000	£'000	£'000	fund	£'000
Intangible assets	238	-	-	-	238
Tangible fixed assets	193	11,177	-	-	11,370
Heritage assets	-	456	-	-	456
Investments	6,580	82	1,809	33	8,504
Current assets	964	225	477	-	1,666
Current liabilities	(2,929)	-	-	-	(2,929)
Net assets before pension liability	5,046	11,940	2,286	33	19,305
Pension liability	(2,989)	-	-	-	(2,989)
Total net assets	2,057	11,940	2,286	33	16,316

Institute	Unrestricted funds		Restricted	Permanent	Total
	General	Designated	funds	Endowment	funds
	£'000	£'000	£'000	fund	£'000
Intangible fixed assets	238	-	-	-	238
Tangible fixed assets	193	11,177	-	-	11,370
Heritage assets	-	456	-	-	456
Investments	6,580	82	1,809	33	8,504
Current assets	911	225	477	-	1,613
Current liabilities	(2,899)	-	-	-	(2,899)
Net assets before pension liability	5,023	11,940	2,286	33	19,282
Pension liability	(2,989)	-	-	-	(2,989)
Total net assets	2,034	11,940	2,286	33	16,293

18. Permanent endowment fund

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.

Group and Institute	Balance at 1 January 2023 £'000	Incoming resources £'000	Resources expended £'000	Investment gains/(losses) £'000	Transfers between funds £'000	Balance at 31 December 2023 £'000
Mining Club	33	-	-	-	-	33

19. Restricted funds

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

Stanley Elmore Fellowship, 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.

IOM3 Education & Outreach Trust - to support the award of grants and bursaries to students and young professionals in the fields of materials, minerals and mining.

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

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.

	<i>Balance at 1 January 2023 £'000</i>	<i>Incoming resources £'000</i>	<i>Resources expended £'000</i>	<i>Investment gains/ (losses) £'000</i>	<i>Transfer between funds £'000</i>	<i>Balance at 31 December 2023 £'000</i>
Group and Institute						
Stanley Elmore Fellowship	626	18	(16)	4	-	632
IOM3 Education & Outreach Trust	678	19	(21)	8	-	684
Andrew Carnegie Trust Fund	709	20	-	30	-	759
Edgar Pam Fellowship	106	3	-	1	-	110
G Vernon Hobson Bequest	70	2	-	-	-	72
Other funds	23	2	-	-	-	25
Prize funds	74	-	(3)	-	-	71
	2,286	64	(40)	43	-	2,353

20. Designated funds

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

- Asset development fund – representing selected amounts (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 as deemed appropriate by the Trustees.
- Revaluation reserve - representing the value of heritage assets as detailed in note 11 and when applicable gain or loss on revaluation of tangible fixed assets.
- 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>Balance at</i> 1 January 2023 £'000	<i>Incoming</i> <i>resources</i> £'000	<i>Resources</i> <i>expended</i> £'000	<i>Gains/</i> <i>(losses)</i> £'000	<i>Balance</i> <i>at 31</i> <i>December</i> 2023 £'000
Asset development fund	10,680	-	(3,098)	-	7,582
Revaluation reserve	953	-	-	(497)	456
Services development fund	57	-	-	-	57
Sir Julius Wernher Memorial Fund	159	3	(1)	-	161
Packaging education fund	50	-	-	-	50
Materials education	24	-	-	-	24
Robert A Moore Fund	17	-	-	-	17
	11,940	3	(3,099)	(497)	8,347

21. Cumulative unrealised investment gains

	<i>Consolidated</i>		<i>Institute</i>	
	2023 £'000	2022 £'000	2023 £'000	2022 £'000
General fund	1,941	2,144	1,941	2,144
Designated funds	24	26	24	26
	1,965	2,170	1,965	2,170
Restricted funds	559	517	554	517
	2,524	2,687	2,524	2,687

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 Mobius Life Fund administered by Mobius Life 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 closed to accrual on 31 December 2021. New employees are given the opportunity to join the group personal pension arrangements with Royal London. The group personal pension plan is a defined contribution benefit scheme and complies with the stakeholder legislation.

At the year end, the scheme had 64 deferred members.

Results of the most recent triennial actuarial valuations, at 1 January 2016, 2019 and 2022 showed the following results.

	2016 £'000	2019 £'000	2022 £'000
Market value of the scheme's assets	13,970	13,641	14,639
Liability for projected accrued benefits	(15,593)	(17,330)	(19,105)
(Deficit)	(1,623)	(3,689)	(4,466)

Arrangements have been made for the deficit shown by the actuarial valuation at 1 January 2022 to be funded at the rate of:

- £220k p.a. payable in a lump sum during years ending 31 December 2023 - 2025.
- £100k p.a. increasing at 3.5% payable in equal monthly instalments from 1 January 2026 to 31 December 2034.
- £2,175k payable on 31 December 2034.

22.2 Principal actuarial assumptions

A valuation of the defined benefit pension scheme assets and liabilities at 31 December 2023 under FRS102 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	2023 % p.a.	2022 % p.a.
Discount rate	4.50	4.80
Price inflation – pre-retirement (RPI)	3.00	3.00
Consumer Prices Inflation – pre-retirement (CPI)	2.60	2.60
Rate of increases of pensions in payment (RPI)	2.90	3.00
Rates of increases of pensions in payment – (CPI)	2.00	2.00
Revaluation of deferred pensions (non-GMP)	2.60	2.60

The following demographic assumptions were used in the valuation:

	Year ended 31/12/2023		Year ended 31/12/2022	
	As for post retirement		As for post retirement	
Mortality pre-retirement	As for post retirement		As for post retirement	
Mortality post-retirement	S3PMA CMI 2022 1%		S3PMA CMI 2021 1%	
	Males	Females	Males	Females
Life expectancy for a current 65 year old in 2023	85.9 years	88.5 years	86.1 years	88.7 years
Life expectancy at age 65 for an individual aged 45 in 2023	86.8 years	89.6 years	87.0 years	89.8 years

22.3 Amounts recognised in the balance sheet for defined benefit scheme

	2023 £'000	2022 £'000
Present value of defined benefit obligation	(12,977)	(12,860)
Fair value of scheme assets	10,181	9,871
Pension scheme liability recognised in the balance sheet	<u>(2,796)</u>	<u>(2,989)</u>

22.4 Changes in present value of defined benefit obligation

	2023 £'000	2022 £'000
Defined benefit obligation at 1 January	(12,860)	(17,521)
Interest cost	(601)	(327)
Benefits paid	669	577
Actuarial gains/(losses)	(185)	4,411
Defined benefit obligation at 31 December	<u>(12,977)</u>	<u>(12,860)</u>

22.5 Changes in fair value of scheme assets

	2023 £'000	2022 £'000
Plan assets at 1 January	9,871	14,310
Return on plan assets (excluding net interest on defined benefit obligations)	296	(4,335)
Interest income	463	268
Employer contributions	220	204
Member contributions	-	1
Benefits paid	(669)	(577)
Plan assets at 31 December	<u>10,181</u>	<u>9,871</u>

22.6 Major categories of scheme assets

	%	%
Equities	30	24
Corporate bonds	14	3
LDIs	-	10
Gilts	15	-
Cash	3	2
Annuities	24	27
Other assets	14	34
Total scheme assets	<u>100</u>	<u>100</u>

22.7 Amounts recognised in the statement of financial activities

The actual return on scheme assets was a gain of £759k (2022: Loss - £4,067k).

The Institute expects to contribute £220k to its defined benefit pension scheme in 2024.

The actuarial gains recognised in the statement financial activities were £111k (2022 - £76k) and the total cumulative net losses recognised from 2002 to 2023 amounted to £3,887k.

Amounts recognised in net incoming resources are as follows:

	2023 £'000	2022 £'000
Net interest	138	59
Net charge	138	59

22.8 Outstanding pension contributions at the year end

Contributions for the defined benefit scheme amounting to £nil (2022 - £nil) were outstanding at the year-end. Contributions for the defined contributions schemes amounting to £29k (2022 - £14k) were outstanding at the year-end.

London office:
297 Euston Road, London NW1 3AD

Grantham office:
The Boilerhouse, Springfield Business Park, Caunt Road, Grantham NG31 7FZ

t. 020 7451 7300 • www.iom3.org

The Institute of Materials Minerals & Mining (IOM3) is a body incorporated by Royal Charter (company no RC000267) and a charity registered in England & Wales (269275) and in Scotland (SC050586).

THE INSTITUTE OF MATERIALS, MINERALS & MINING

England & Wales - Charity number 269275

Accounts

The global network for
the materials cycle.

I.M3 Institute of Materials,
Minerals & Mining

2022 ANNUAL REPORT & FINANCIAL STATEMENTS

The annual report and financial statements have been prepared in accordance with the accounting policies set out on pages 68 to 71 and comply with the Charity's Royal Charter, the Charities Act 2011 and Accounting and Reporting by Charities: Statement of Recommended Practice applicable to charities preparing their financial statements in accordance with the financial reporting standard applicable in the UK and Republic of Ireland (FRS102) (effective 1 January 2019).

IOM3 supports professionals in materials, minerals, mining and associated technical disciplines to be champions of the transition to a low-carbon, resilient & resource efficient society. It seeks to be the best professional membership body it can be by providing modern, flexible services; quality technical content; and value for money.

Our activities promote and develop all aspects of the Materials Cycle, from exploration and extraction, to characterisation, processing and application, to product recycling, repurposing and reuse.

Public benefit

Materials form an integral and important part of all our lives. The materials cycle covers the exploration and extraction of raw materials, 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 all. The objectives and activities of the Institute (see page 52) 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.

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.

I.M3 Institute of Materials, Minerals & Mining

IOM3 London

297 Euston Road, London NW1 3AD

IOM3 Grantham

The Boilerhouse, Springfield Business Park,
Caunt Road, Grantham NG31 7FZ

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Patron: The Late Queen Elizabeth II

Trustees' Report

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Now my time as President of IOM3 has come to an end, I look back on another busy and productive year for the Institute with many successes to celebrate across the breadth of our activity and member interests.

In a turbulent world, the work of our members across all sectors is more important than ever. The inter-related issues of the cost of living crisis, energy security, geo-political instability and the urgent need for climate action continue to affect us all to a greater or lesser degree. But they also highlight the key relevance of materials, minerals and mining, in meeting these global challenges.

Thanks to the commitment of our team, hard-working volunteers and members we have been able to continue to adapt to our changing world and deliver on many of our strategic priorities supporting professionals in materials, minerals and mining to play their part in the transition to a more sustainable, net-zero society. It remains our goal to provide the best possible service and value for money to our members. In that light it has been particularly pleasing to see the sustained growth in our membership and the increasing influence of IOM3 representing our sectors in national and international policy.

2022 saw new members across all grades exceed 2,000 for the first time ever in one year. This was supported by the continued success of our membership and registration workshops and the implementation of our simplified grade structure agreed in 2021. We welcomed new members from across our communities to both Executive Board and Advisory Council, increasing our diversity, and launched the new Technical Communities Structure to better reflect the range of interests of our members. A return to in-person recruitment events, saw student members exceed 3,000 for

PRESIDENT'S OVERVIEW

the first time. A great success especially after two years of restricted engagement with universities through the pandemic. This was supported by the excellent work of our Student and Early Career Committee, culminating in the newly launched Student and Apprentice Awards, which it was my pleasure to present at the Education and New Fellows' dinner.

Participating in the Institute Awards has been one of the very best aspects of my Presidency; to gain an insight into the truly exceptional work of professionals in materials, minerals and mining around the world and have the opportunity to meet so many of them at awards events has been both humbling and inspiring. The careful review conducted throughout 2022 will further strengthen this, ensuring our awards continue to be representative of our profession and membership into the future. As in previous years a personal highlight was the final of the Young Persons' World Lecture Competition. This year saw competitors from six nations compete and was won by Rathosivan Gopal from Malaysia. Yet again the judges were dazzled by the quality of the presentations and left confident that the future of our profession is in good hands. ►

Neil Glover FREng CEng FIMMM IOM3 President (2021-2022)

'Thanks to the commitment of our team, hard-working volunteers and members we have been able to continue to adapt to our changing world and deliver on many of our strategic priorities supporting professionals in materials, minerals and mining to play their part in the transition to a more sustainable, net-zero society.'



The growth in our external influence has seen us contribute to policy development in areas as diverse as UK Advanced Materials strategy, green steel, waste water pollution from abandoned metal mines and critical materials. We have also been able to provide important input on the future skills required in the UK to address the challenges of the net-zero transition and the sustainable supply of critical minerals and materials that it will demand. Through this activity we are able to represent the strength, breadth and expertise of our membership and the key importance of the whole materials cycle. 2022 has also seen continued strengthening of our digital content with an active programme of podcasts, webinars, virtual and hybrid events and the creation of our new digital training platform. I was delighted to be able to personally participate in events ranging from the hybrid 'COP26 and Beyond ... The Pathway to Net-Zero' to the launch of our multi-media series 'Materials Change: Resourcing Net Zero' in partnership with Content With Purpose; both of which serve to spotlight the importance of materials, minerals and mining. All of this enabled by the continued development of our digital capability initially established through 2019/20's Project Optimus.

Over the last year we have also delivered significant milestones in the IOM3 estates strategy. The sale of the Stoke office sees us reduce our footprint to our two sites in Grantham and London. Here we have been able to improve the environmental performance and useability of our space through essential refurbishments and

'2022 saw the end of an era for our country and the Institute with the passing of Her late Majesty Queen Elizabeth the Second, our patron of many years.'

energy efficiency improvements and have continued with the important work of cataloguing our heritage and library collections, with our online catalogue now exceeding 160,000 records.

2022 saw the end of an era for our country and the Institute with the passing of Her late Majesty Queen Elizabeth the Second, our patron of many years. I would like to take this opportunity to express my appreciation for her long support and that of her late husband Prince Philip to our Institute and the wider UK science and engineering community.

It has been a real privilege to be President of our Institute for the last two years and, now I come to hand-over that honour, I would like to offer my successor Kate Thornton all my best wishes for her time in office. I would also like to give my sincere thanks to my fellow trustees and to all of the volunteers and IOM3 team who make everything we do possible. I would also like to particularly mention my predecessor Professor Serena Best who is now stepping down as Past President and Chair of Trustees after many years of dedicated service to the Institute; her advice and wisdom will be very much missed.

It is a great honour and privilege to become the President of IOM3. I have had the great fortune to have worked with several past presidents during nearly 15 years of volunteering and I hope to continue the amazing work that they have started.

I would like to thank our immediate Past President Neil Glover who has done a brilliant job leading us through a turbulent two years that has seen Covid lockdowns, a war in Ukraine and the ongoing energy and cost of living crisis.

Looking forward, sadly, I don't see anything easing in the near future and we will ensure that IOM3 continues to meet its members needs now and in the future. However, as Neil rightly points out – our members are in the unique position to able address some of these current and upcoming issues, such as climate action, and make a positive societal impact in a way not seen before.

One of the issues that we will need to address is we are now in the fourth ►

'One of the issues that we will need to address is we are now in the fourth industrial revolution, and the way we work will rapidly change. As a membership body we need to ensure that we provide the right training and developmental opportunities to allow our members to meet this change head on and become leaders in their field.'

INCOMING

PRESIDENT'S

LOOK AHEAD

industrial revolution, and the way we work will rapidly change. As a membership body we need to ensure that we provide the right training and developmental opportunities to allow our members to meet this change head on and become leaders in their field. IOM3 has a specific volunteer group looking at ways to meet member needs and we hope to see articles and other outputs from them this year. In addition, they are working closely with the training team to ensure new courses address and meet the changing industrial demands.

While we have seen great improvements in membership numbers over the past few years (a huge thank you to the membership team and the volunteers who have helped deliver this) we sadly continue to see fewer students applying for degrees or careers within the materials, minerals and mining sectors. I hear so often 'I just sort of fell into it' or 'I didn't know this existed' and in the future I would love to see a reverse in numbers and ideally 'It's because of IOM3 I found out about ...'. I have fortunately heard one of these stories first hand, as a colleague chose her career after attending the first ever Materials Matter, hosted by the Student & Early Career Group and Dr Diane Aston in 2015. It was amazing to hear how one event and conversation impacted on their university and career choices and has inspired me to see if this is something we can continue to do. One focus during my presidential term is to try and find ways to promote the wealth of opportunities that a career within these areas offer.

One area I am keen to champion is equity, diversity and inclusion (EDI) as it is important to so many of our members. IOM3 and its five member networks (Able Different Member Group (ADM3), Ethnic Minorities in Materials, Minerals & Mining (EMM3),



IOM3Pride Group, Student & Early Career Group (SEC) and Women in Materials, Minerals & Mining (WIM3) have done a brilliant job in recent years making this a priority to ensure we aren't overlooking the needs of members.

While we have made great strides forward with EDI, we must continue to put a focus on it and not rest on our laurels. That is why I am proud to see IOM3 publish its results on the diversity of its membership and team. We chose to publish this despite not having a complete dataset as we want to be open and transparent with our members. During 2023, we will introduce a more comprehensive diversity data collection system. We understand that you may not be comfortable sharing this with us and that is completely OK. If you feel comfortable and safe in doing so, I urge all members to update this information when requested to later this year. By knowing the diversity of our members we will be able to better meet your needs and ensure that we are delivering an inclusive environment at our events.

During Neil's term as President there was a significant push on sustainability following COP26 and IOM3 and its communities

'While we have made great strides forward with EDI we must continue to put a focus on it and not rest on our laurels, that is why I am proud to see IOM3 publish its results on the diversity of its membership and staff. We chose to publish this despite not having a complete dataset as we want to be open and transparent with our members.'

hosted a range of brilliant events and webinars on the subject. This great work looks set to continue following the launch of the IOM3 Sustainable Future Awards. I look forward to hearing and promoting the great work so many of you are doing in this sector.

I also look forward to meeting as many members as possible during my Presidency. In the meantime however, if there is anything of concern or you would like to make a suggestion, please do not hesitate to get in touch via email and I will answer as soon as I can. With the ongoing cost of living crisis, I would also implore any members or employees, past or present, affected to contact the Member's Benevolent Trust which may be able to provide assistance.

In 2022, IOM3 has continued its charitable work to advance and develop all aspects of materials, minerals, and mining, including by being the best professional membership body it can be.

Supporting professionals in those fields to be champions of the transition to a low-carbon, resilient and resource-efficient society remained central to that work. In order to help showcase this role, we partnered with Content With Purpose to produce the multi-media campaign Material Change: Resourcing Net Zero. This uses videos, podcasts, interviews and articles to explain how crucial our sectors are for the future, and how exciting a career in them can be.

CEO'S REVIEW

'A real feature for IOM3 this year has been the continued growth in members, especially at the Member grade, with that passing 5,500 for the first time ever.'

A real feature for IOM3 this year has been the continued growth in members, especially at the Member grade, with that passing 5,500 for the first time ever. All in all, over 2,000 new members joined IOM3 in 2022 – again, a record for organic recruitment. Again and again, we hear that members are joining because they see the importance and relevance of IOM3 for their lives, both in terms of the access to technical content and to professional recognition for themselves, and because of the desire to see the voice of professionals in materials, minerals, and mining be heard in the public and policy debates. The extensive range of webinars, podcasts, conferences, training events, articles and policy papers that the IOM3 community has produced this year to support this is hugely impressive. ▶

Dr Colin Church CEnv FIMMM IOM3 Chief Executive

'The extensive range of webinars, podcasts, conferences, training events, articles and policy papers that the IOM3 community has produced this year to support this is hugely impressive.'



Some of the highlights of this activity include:

- 38 IOM3-hosted events with almost 4,000 registrations from 44 countries
- 16 IOM3 Investigates... podcast episodes, expanding a programme of episodes that has been listened to over 7,000 times since its launch
- Delivery of the *Materials World* facelift, providing a cleaner look that allows clear representation of all our activities and showcases the diversity of multidisciplinary content
- *Materials World* and its editorial team being shortlisted for several publishing awards over the year, receiving a highly commended as Best In-house Magazine by Memcom
- Continued improvement in impact factors for many of our scholarly journals
- Unveiling of a new platform for online teaching and learning, including updated qualifications in packaging technology
- Restarting face to face outreach and teacher support activity to help share the importance of a career in materials, minerals, and mining
- Seeing the UK Government finally produce a – pretty decent – strategy on critical minerals, as IOM3 had been calling for
- Engagement with Government departments on a number of other developing policy issues, such as the call for evidence on the challenges and opportunities for UK advanced materials and the consultation on legally binding environmental targets

'The Technical Communities form one of the four pillars of IOM3 and play an important role in generating and sharing technical content, supporting our influencing work and creating professional networks. Their activities also contribute to our nine technical themes: Digital, Energy, Health, Infrastructure, Manufacturing, Mining, Skills, Sustainability, and Transport.'

Digital, Energy,
Health, Infrastructure,
Manufacturing, Mining, Skills,
Sustainability, & Transport

In 2022, we also implemented the final phases of the governance modernisation programme. This involved the launch of the new structure for our Technical Communities in April and revisions to our Bye-laws in September.

We now have twenty two groups covering the technical interests of IOM3 members, each with its own Leadership Team of active supporters and volunteers, aided by the IOM3 team. The Technical Communities form one of the four pillars of IOM3 and play an important role in generating and sharing technical content, supporting our influencing work and creating professional networks. Their activities also contribute to our nine technical themes: Digital, Energy, Health, Infrastructure, Manufacturing, Mining, Skills, Sustainability, and Transport.

Our Bye-laws, which are approved by the Privy Council Office and form a major part of our constitution, have been updated to reflect things like being able to hold general meetings online and using gender-neutral language throughout. The main change though was to update the membership grade structure, removing some confusion and unnecessary complexity. We now have 5 voting grades – Technician, Associate, Member, Fellow and Honorary Fellow – plus Affiliate and Student. This makes the grades easier for everyone to understand and for actual and potential members to see where their career might take them.

As Neil Glover says, 2022 also saw the end of an era for both IOM3 and the wider nation with the passing of Her late Majesty Queen Elizabeth II, our Patron since 1952. Both Her Majesty and late Prince Philip were great supporters of IOM3 and of the wider engineering and scientific community. I'd like to express the

heartful appreciation of IOM3 for all their encouragement and assistance over the past seventy years.

More parochially, our thoughts are also with the families and friends of those members of IOM3 who passed away during the year. I would particularly like to mention our former Honorary Treasurer, Dr 'Mick' May, whose long and distinguished service to the Institute was so valuable.

In what has been a pretty consistent theme for the past few years, 2023 looks fit to offer its own challenges and problems for IOM3 and its members.

As the cost of living crisis continues to bite, it will be more important than ever that IOM3 supports its members in their professional journeys and helps them overcome the barriers and stumbling blocks that may occur. We've started that by keeping our membership fee increase well below inflation, and will continue it though ongoing provision of the best membership services, technical content, professional development, and networking opportunities we can. We also hope to be able to extend our influencing activity still further and to work with more partners to spread the word about the value of a career in materials, minerals, and mining.

Last but by no means least, my huge thanks to the hundreds of active supporters and volunteers in different roles such as assessors, Technical Community leadership group members and Trustees, who enable IOM3 to carry out its work on behalf of its members. And thank you to the wonderful team here at IOM3 for another year of high quality delivery.



HIGHLIGHTS
OF THE YEAR

This annual report reflects the work, aims and objectives of IOM3 in 2022. IOM3 continued to strive to be the best professional membership body by providing modern, flexible services; quality technical content; and value for money. During 2022 over 2,000 new members joined the Institute which is a new record for organic recruitment.

The work on Project Optimus (the digital transformation development) continued as the Institute used a new email platform for a full 12 months, learning how to better reach members by discipline and interest. The new system was also used for awards judging, reducing waiting times through live chat and advertising digitally across iom3.org.

IOM3 continued to deliver on its charitable objectives through its Corporate Strategy, focused on membership, content, professional development and influence in public and policy debates. Highlights of 2022 from all IOM3 activities are described in the following pages. IOM3 is thankful to the work of supporters and volunteers contributing at all levels and across all sectors, both in the UK and overseas. The Trustees would also like to acknowledge the hard work and dedication of the team at IOM3.



- 2022 member survey launched
- Launched *Materials World* redesign

January



- IOM3 submitted evidence as part of call on UK Advanced Materials
- IOM3 submitted evidence to the Environmental Audit Committee inquiry into green steel

March



- YPLC UK Final returned to The Armourers' Hall, London, UK

May



February

- Member toolkit added to IOM3 website



April

- New IOM3 Technical Community structure launched
- IOM3 shortlisted for two Professional Publishers Association Awards



June

- Celebrated 20 years of IOM3
- IOM3 responded to the consultation on legally binding environmental targets and contributed to a joint Environmental Policy Forum submission





- London building closed for repairs and refurbishment

July



- New IOM3 membership grade structure launched
- New Bye-laws came into effect
- 297 refurbishment completed
- IOM3 highly commended in Memcom Excellence Awards for Best In-House Magazine

September



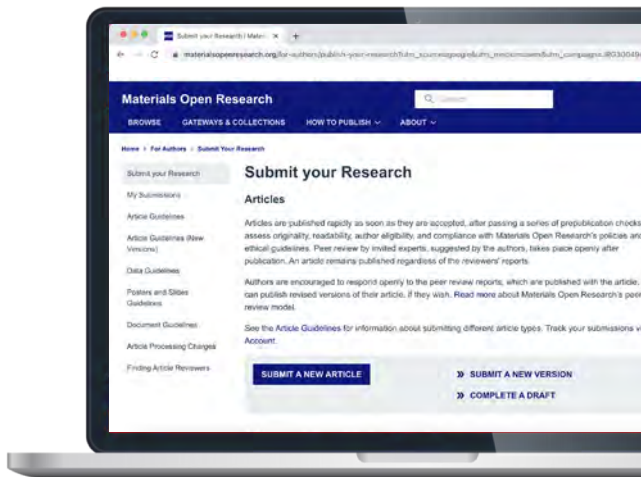
- Rathosivan Gopal of Malaysia won online YPWLC 2022
- EFRA committee published plastic waste report as part of its inquiry, informed by oral evidence given by Chair of the IOM3 Packaging Group

November



August

- Materials Open Research published first articles and welcomes submissions



October

- Digital series champions materials, minerals, and mining in driving net-zero
- IOM3 submitted a response to the net-zero review call for evidence



December

- IOM3 launched new route for IEng to progress to CEng
- IOM3 celebrated 2022 Awards & Prizes winners



Membership

The membership team had a busy year and achieved a 1.2% growth in individual member numbers and an income derived from membership surpassing £1.5m. Due to the Russian invasion of Ukraine in February 2022, IOM3 was, and is still unable to renew membership for individuals who are resident and working in Russia. This unfortunately has negatively impacted member growth.

Despite this the Member (MIMMM) community has grown to 5,585 (from 5,275 in 2021), and the Fellow (FIMMM) community has stabilised with 2,634 at the end 2022 (in comparison to 2,633 in 2021). In addition to MIMMM and FIMMM growth, 158 members were awarded Associate (AIMMM) or Technician (TIMMM) grades.

Likewise, the number of members seeking professional registration continued to be high. IOM3 recorded 155 new Engineering Council Registrants (CEng, IEng & EngTech), 28 new Science Council Registrants (CSci, RSci & RSciTech) and 15 new Council for the Environment Registrants (CEnv & REnvP).

The demand for membership workshops continued with 60 membership and registration 'Become a FIMMM', 'CEng in day' and other Science Council and Society for the Environment professional registration workshops. These were held virtually across the year with more than 511 members attending. The programme will continue in 2023.

MIMMM

5,585

5,275

Comparison of membership numbers for Fellow, Member and Student grades for 2022 compared with 2021 (dotted lines)

FIMMM

2,634

2,633

UG Student & Apprentice

2,386

2,125

PG Student

690

573

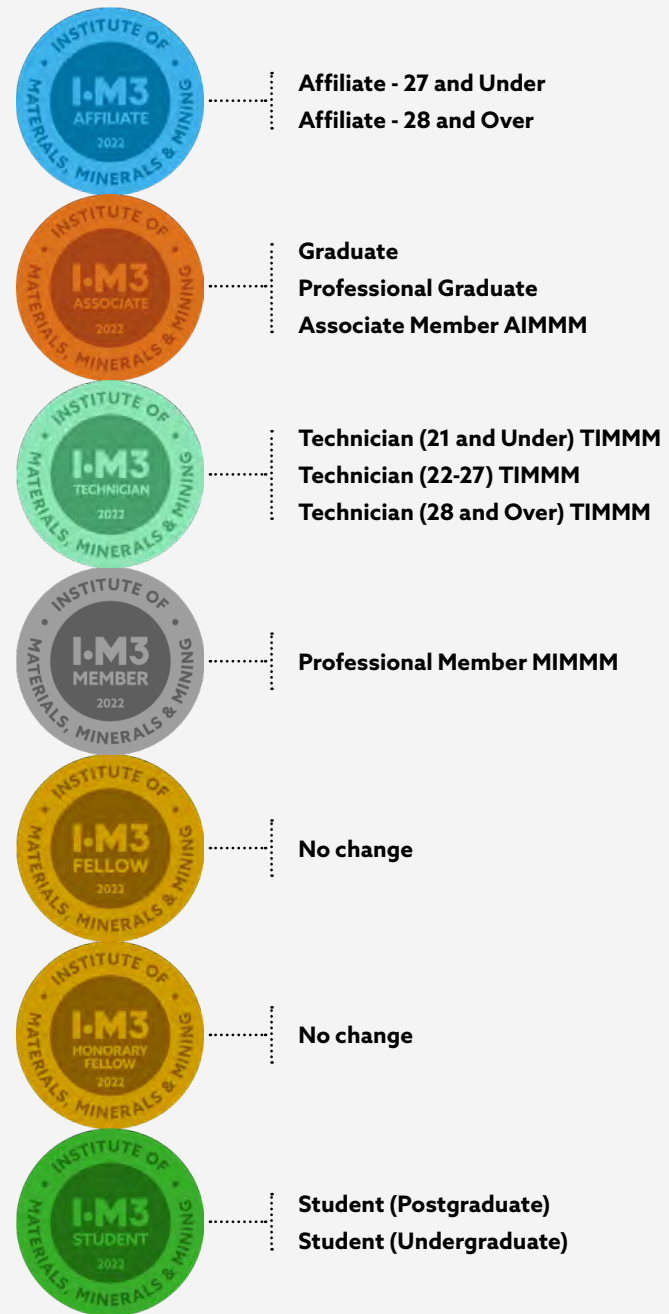
Following a positive vote by members at the 2021 AGM and Privy Council Office approval, amendments to the IOM3 grade structure were agreed and implemented. The previous structure was introduced in 1997 to map onto the formation stages leading to professional engineering registration through the Engineering Council SARTOR 3 system, which had long since been defunct.

The Graduate, Professional Graduate and Associate Member grades were merged into a new voting grade called Associate, and the Undergraduate student grade and Postgraduate student grades were merged into a single Student grade. This has two levels: one for undergraduates and apprentices, and the other for postgraduates. The new structure provides a clearer progression path through our grades, from Student to Fellow.

Right: New IOM3 grade structure diagram

New grades below.

Old grades below which merged in to the new grade.

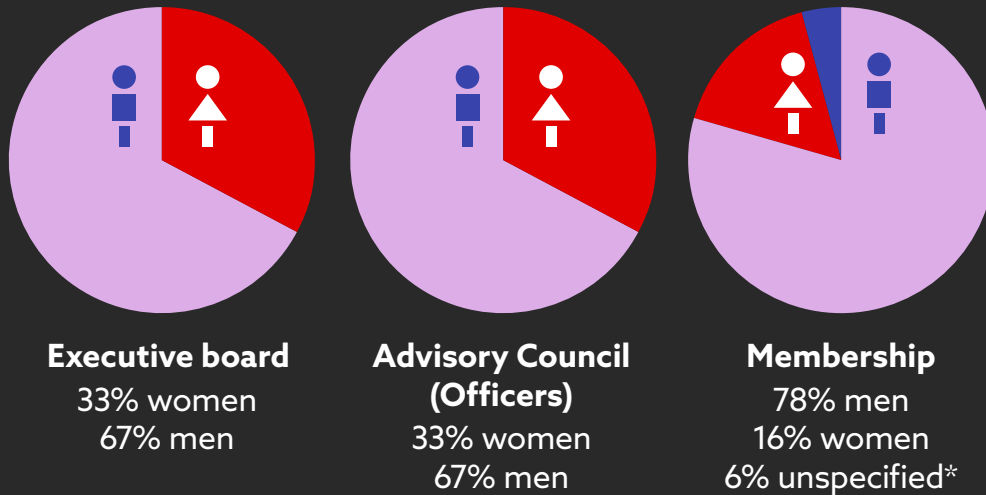


Diversity & inclusion

The Institute continued to support inclusion and diversity for our team, members and communities. Internally we supported employees to share their life experiences where comfortable to improve understanding within our team. Our Equity, Diversity and Inclusion (EDI) Lead also joined a Professional Engineering Institute group with representatives from similar bodies to discuss ways to work together on data collection and analysis to inform how we can better support members and attract new people to our communities. We also had our first recipient of the IOM3 Outstanding Contribution Award for EDI.



Above: Avery Cunningham at the 2022 Special & Publication Awards Lunch Reception



'Science and engineering has a place for everyone. Everyone can feel included and celebrated in this place. It's great to see the Institute take steps to recognise these different things and working towards making a better place for everyone in materials.'

Avery Cunningham AIMMM,
Outstanding Contribution Award for EDI

* Data taken from name prefix where available.

Student & Early Career (SEC)

In 2022 the Student & Early Career Group welcomed Dr Aimee Goodall CSci MIMMM and Dr Ilija Rasovic MIMMM as their new Chair and Vice-Chair for 2022-23. Again, 2022 was a productive year with over 100 student and early career members and non-members joining online events. Dr Kyle Marshall CEng MIMMM, Dr Tannaz Pak CEng MIMMM and Sarah Boad CEng CSci FIMMM took part in *'Road to Chartership'*, a free event for student and early career professionals on why they should aspire to becoming chartered.

Prof MariaPia Pedefferri delivered the annual Art Lecture *'Interference Colours on Titanium: from Science to Art'*, which covered an electrochemical method of painting which exploits the peculiarity of oxide growth. Former Chairs of the SEC Committee also gave presentations on their career progression with useful advice to benefit those in the early stages of their career.

'I didn't see it coming. I thought the other presentations were incredible and I just feel honoured the judges felt mine was worthy of winning compared to everybody else as the standard was so high.'

*Lauren Eggleton, Young Persons' Lecture Competition
UK Final Winner*

SEC Committee members published two collective pieces on networking tips and how they got into materials science while Dr Aimee Goodall started her Chartership journey and is continuing to share her experience via an online blog.

In 2022 IOM3 offered multiple opportunities to share knowledge and skills whilst launching the *'Student & Early Career Professional Development resources'*. The page includes relevant news items, podcasts and events for members and non-members. Two SEC Committee members featured in the Materials World Professional Development section on careers in product compliance and materials failures, with more members contributing to articles throughout the year.

For the 2022 Starpack Schools and Students competition, 22 judges made up an independent panel of packaging and design experts who came together to judge work created by young designers. 281 entries were received across both competitions and were marked on innovation, design, sustainability, quality and market potential.



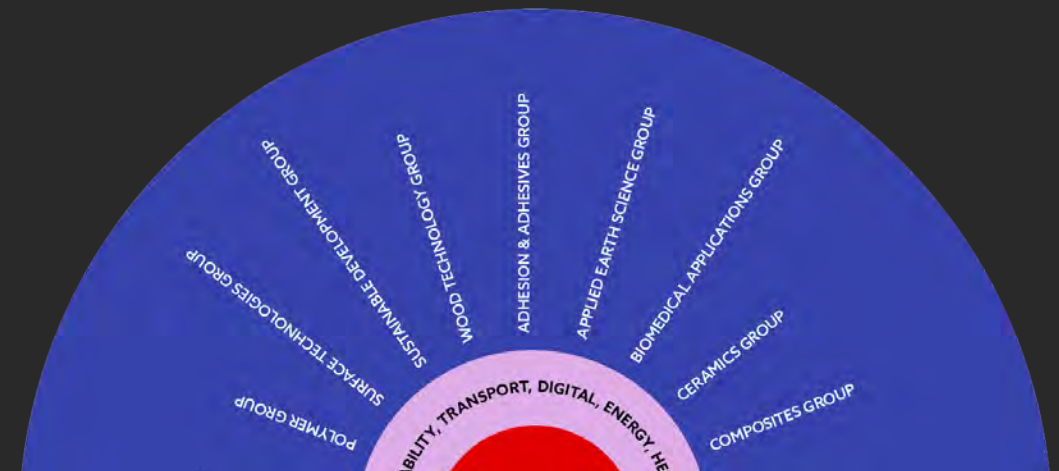
Technical communities

April 2022 saw the launch of the new Technical Community (TC) structure after nearly two years of extensive review and consultation across the membership. The new structure has 22 groups including two new groups covering Materials Characterisation & Properties, and Materials Processing & Manufacturing. Each group has a clear identity, consistent naming, structure and operation to optimise the benefit to members, and enhance the opportunities for increasing the awareness and influence of the Institute externally. During the year, Chairs and Leadership Teams were appointed with all 22 groups being active by the late summer.

The year also saw a review of how the Technology Communities Board (TCB) operates following recommendations from the Trustees. As a result, new TCB members are being recruited during 2023. The other key change saw each Strategic Advisor (SA) become responsible for one of the nine overarching IOM3 technical themes (Digital, Energy, Health, Infrastructure, Manufacturing, Mining, Skills, Sustainability, and Transport) which underpin all our technical activity. This change to the SA role is to further encourage TC collaboration. Each SA will look after two or three TC groups along with a dedicated IOM3 team member to foster good communication and working together towards the broader objectives of the Institute.



In December IOM3 held a virtual TC Forum which worked well and set the scene for an in-person meeting in March 2023. This will allow the TC chairs, SAs and IOM3 team members to share best practice and foster strong working relationships, building on the positive changes made during the year. Early in 2023 we are recruiting an additional team member to support both the TC and policy activities.

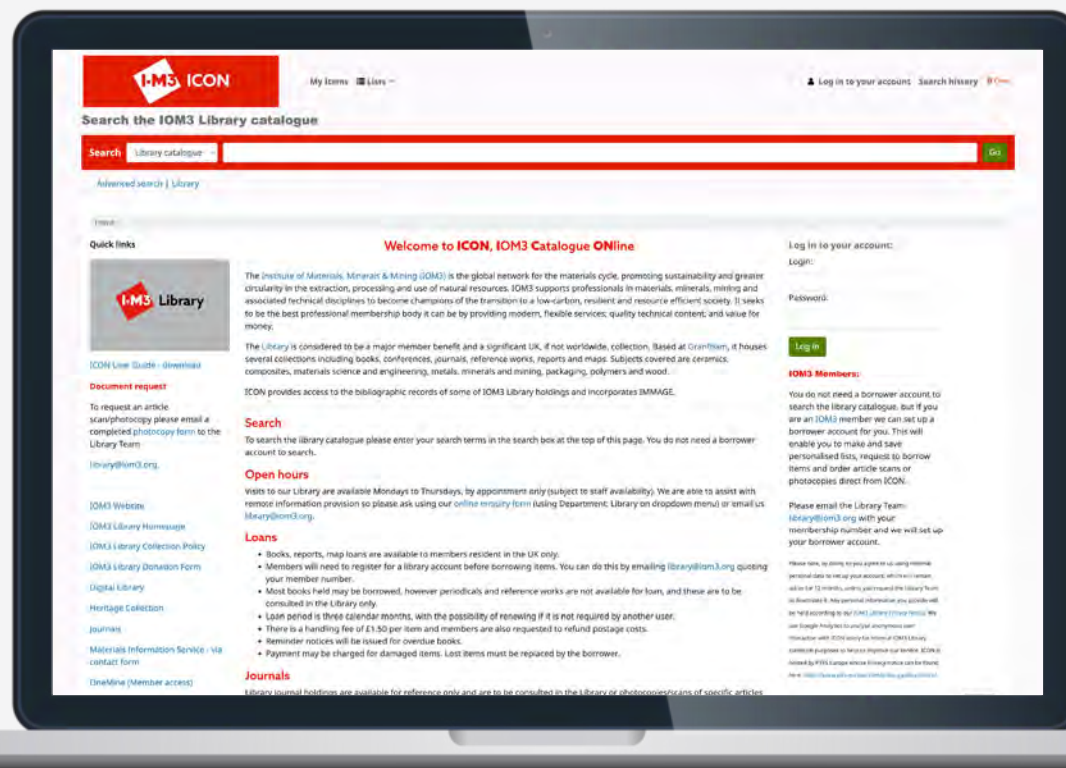


Library & journals

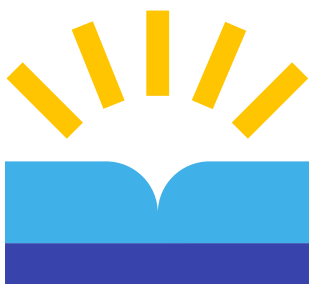
Our focus in 2022 was on continuing with cataloguing the items on our 3km of shelves. Our online library catalogue ICON now has over 160,700 bibliographic records including books, journals, articles, maps, reports, theses and webinars. We supplied 40 scans of papers and responded to 120 technical enquiries. In addition, the Library is part of a network of engineering institute libraries who are willing to offer reciprocal library services, including visits in person, to our members.

'The library in particular, and IOM3, are an amazing source of information for the mining and metallurgical world.'

P Mackey



**ICON now has
over 160,700
bibliographic
records**

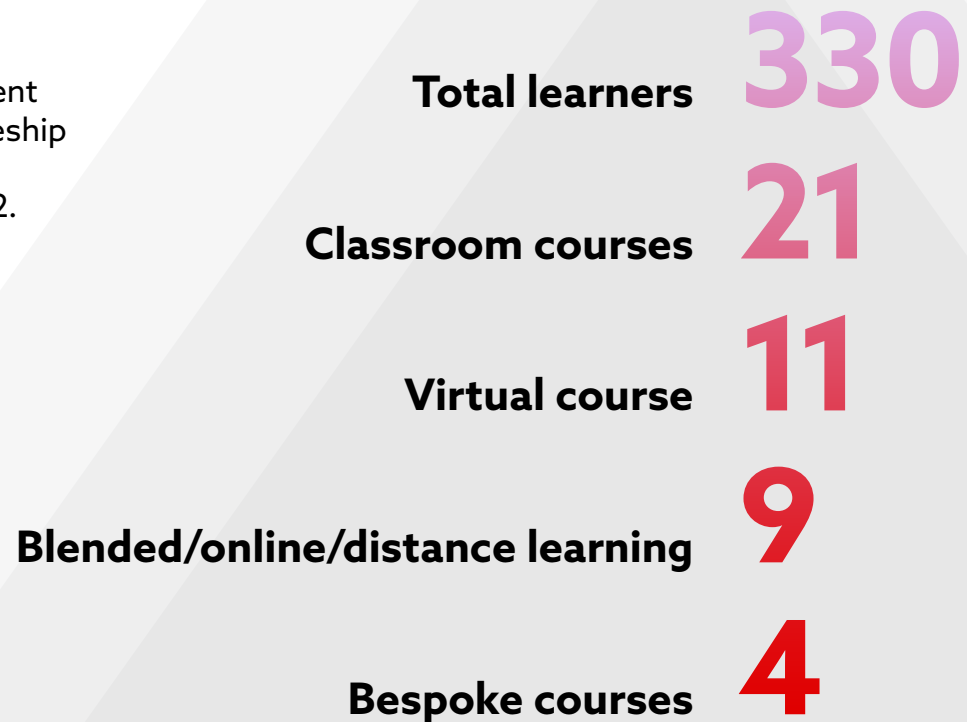


Education & training

2022 saw a welcome return to the classroom with over half of the Training Academy's programme being face-to-face teaching, the remainder being virtual courses, or distance learning. The launch of our new online learning site in the autumn facilitated the introduction of the revised PIABC Level 3 and Level 5 packaging qualifications and in the first half of 2023 more of our distance learning programmes will move to this platform. In addition, we ran four INFORM webinars to showcase innovation in materials, minerals and mining.

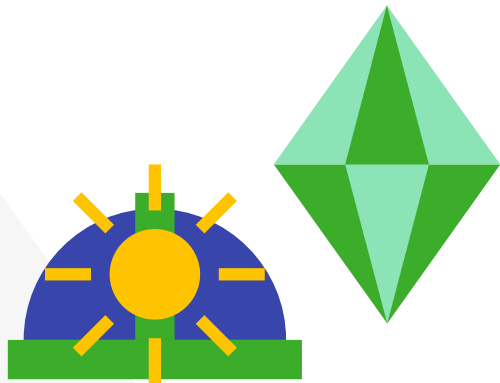
Through PIABC, we continue to act as the end point assessment organisation for the Level 3 Composites Technician apprenticeship standard and were thrilled that a recent graduate of the programme received the Institute's Royal Charter Prize in 2022. We look forward to continuing to recognise the success of Level 3 apprentices in 2023 and to start the EPA process for apprentices on the Level 6 Materials Science Technologist and Level 7 Materials Process Engineer standards.

In Education and Outreach, the Magic of Materials course at St Paul's School ran successfully in the summer, and we were delighted to return to running two Polymer Study Tours for teachers which received glowing feedback. We look forward to expanding these and the Materials Matter events in 2023.



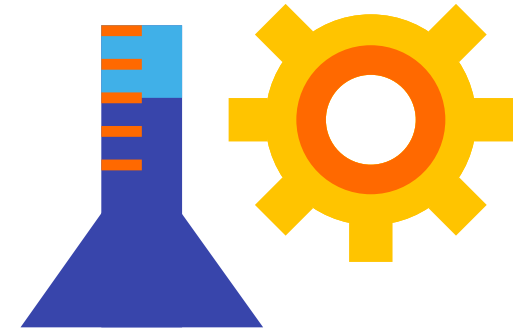
'From the beginning of the course, I was made to feel welcome and at ease by all facilitators. The knowledge and expertise presented by Alicia and Diane was outstanding.'

Simon Brown



'I thoroughly enjoyed myself during the two day course and it has given me a fantastic opportunity to develop greater understanding and knowledge of the plastics industry. By basing the course in industry it has provided me with in-depth insight into plastics manufacturing and how polymers can support the environmental issues prevalent today and in the future.'

David Houghton



'It was fantastic; the tours were incredible and delivery of the content of polymers by both yourself and your colleague were also brilliant. We all thoroughly enjoyed it and it was a great opportunity to meet up with other UTC staff delivering similar content.'

Mrs D Owen



Content & magazines

A rebrand of Materials World magazine during 2022 delivered a cleaner look that allows clear representation of all our activities and showcases the diversity of multidisciplinary content. Editorial, design and journalistic capabilities have been recognised with one of the team's Staff Writers nominated for a Newcomer Award by the Professional Publishers Association, and the magazine was highly commended as Best In-house Magazine by Memcom focusing on member value.

The magazines team continued to build strong relationships with the Technical Communities following their restructure, encouraging synergies to expand on content areas as identified in our reader survey last year. The 'unwrapped' copies of Materials World continue to be received well. The initiative rolled out in July 2021 was shortlisted for the Professional Publishers Association 2022 Sustainability Award and has saved around 680kg, so far, in single-use (and hard to recycle) polywrap.

'For a materials scientist, being in the IOM3 magazine is akin to an appearance in Vogue for those working in fashion.'

Laurie Winkless, Physicist, Science Storyteller, Consultant

IOM3 noted good daily interaction with our online industry news – these are some of the most popular pages of the website in terms of regular engagement. Sixteen 'IOM3 Investigates...' podcast episodes were released which focused on issues relevant to professionals working in materials, minerals and mining sectors.

In June the Institute marked 20 years since the merger of the Institute of Materials and the Institution of Mining and Metallurgy. In the pages of Materials World we looked back at the notable milestones since the summer of 2002, talked to Professor Sir Colin Humphreys CBE FREng FRS CEng FIMMM, the first President of IOM3, and searched the archives for how the creation of IOM3 was covered in print at the time.



**IOM3 saved
around 680kg
in single-use
polywrap**

Continuing the partnership that was announced in 2021, IOM3 collaborated with Content With Purpose to present 'Material Change: Resourcing Net Zero'. The digital series explored our industry's role in addressing the climate crisis through film, interviews, podcasts and social media content. On 19 October, 1 Birdcage Walk, London, played host to the documentary premier and was followed by a panel discussion on a handful of the topics raised. The evening was a great opportunity to celebrate the important work many are doing to ensure a more sustainable future.

'One of the pluses of IOM3 and its journal Materials World is that it opens up vistas into research and development of materials and technology beyond one's speciality. I have found this expansion of intellectual horizons very stimulating over many years. I have also been encouraged by the mentoring role the organisation has taken on for the younger cohort of scientists and technologists with whom the future lies.'

Dr David Ian Bevege AIMMM

'I really enjoy the quality and variety of Materials World magazine. As a reader, I enjoy the breadth of interest that the Institute covers brought together into feature themes. As a contributor, I embrace the opportunity to represent my Technical Community and to collaborate with other Technical Communities on subjects that are of interest to us both.'

Jude Allan MIMMM, IOM3 Packaging Group Chair

The member magazine of the Institute of Materials, Minerals & Mining

Volume 30, Number 1

Materials World

Building an innings

A new era for cricket bat manufacturing?



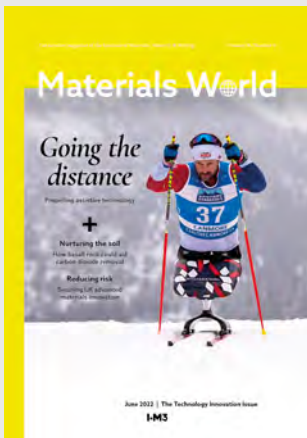
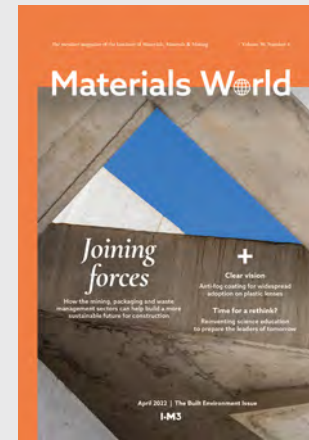
Remanufacture of dies
A circular economy approach to shaping metals

MXene electrodes
Engineering the 2D nanomaterial to boost energy storage

January 2022 | The Design issue

I-M3

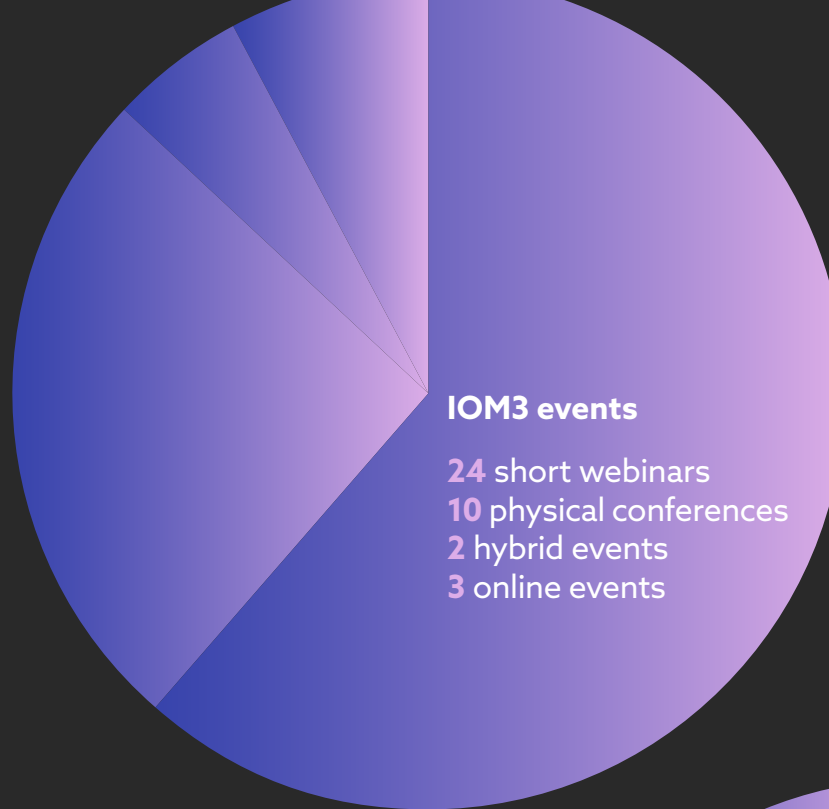
Materials World covers from 2022



Events

The return to face-to-face events in 2022 was well received. Whilst the continuation of online events remains important, the ability for networking in person still rates as an essential return on investment for our delegates. IOM3 delivered 39 events in 2022 which included 24 short webinars, ten physical conferences, two hybrid events and three exclusively online events. 5,123 delegates registered for our events during 2022, of that 2,729 were IOM3 members (53%).

June saw the winners of the 2022 Starpack Schools and Students awards announced. An independent panel of packaging and design experts came together to judge packaging created by young designers. The 281 entries received across both competitions were marked on innovation, design, sustainability, quality and market potential.



Engagement at our webinars averaged 49% of registrants watching the live broadcast. Across the whole year's programme (physical, hybrid and virtual) on average 17% of delegates were students and 28% of all registrants were from outside the UK.

Throughout 2022 IOM3 continued to co-sponsor select external events that align with the Institute's mission of promoting and developing all aspects of the Materials Cycle. These include London Packaging Week 2022, Packaging Innovations & Empack 2022, LGBTQ+ STEMinar 2022, UK Metals Expo 2022 and Advanced Engineering 2022.

2023 will see the Events Team host four major international conferences. RubberCon 2023, the topical conference series owned by the International Rubber Conference Organisation, will be held at the University of Edinburgh in May, followed by the 15th World Conference on Titanium, Ti-2023, at the Edinburgh International Conference Centre in June. SteelSIM, the 10th International Conference on Modelling and Simulation of Metallurgical Processes in Steelmaking will take place at the University of Warwick in September, and in October the 11th International Symposium on Ground Freezing returns to the UK for the first time since 1988.



'Great networking opportunity for someone new to the sector/industry. Everyone was friendly and a pleasure to engage with.'

Delegate at Timber 2022 (July 2022)

'Plenty of networking opportunities and useful contacts.'

Delegate at Cement & Concrete Science (Sept 2022)



Mineral Processing &
Extractive Metallurgy 2022
Presents

Geometallurgy

'Great conference, great content, great support from IOM3 staff, pretty smooth experience.'

Delegate at Geometallurgy 2022 (July 2022)

Manufacture & Materials for
Fission & Fusion Net-zero

'Fantastic range of speakers, who all presented well on their topics.'

Delegate at Manufacture & Materials for Fission & Fusion Net-zero (Dec 2022)

'A very well organised and interesting conference. Excellent to talk amongst the UK surface engineering community, and hear about the different work underway.'

Delegate at Surface Technology Innovations for Net-zero by 2050 (Oct 2022)

'A good chance to network and see the sort of work happening across the world.'

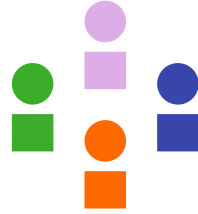
'Meeting face to face at a conference for the first time in 2 years. As a "senior", it is good to meet with "juniors" over coffee breaks.'

Delegates at International Conference on Adhesion 2022 (Sept 2022)

Surface Technology
Innovations for
Net-zero by 2050

Adhesion
2022

Policy & influence



Through the expertise and experience of our members, IOM3 continues to inform and influence key policy decisions across a range of important agendas. In 2022, IOM3 responded to relevant consultations, calls for evidence and parliamentary inquiries, collaborated with partners, contributed to government thinking and helped members to understand key policy changes.

IOM3 made a number of formal submissions in 2022, including:

- Department for Business, Energy & Industrial Strategy designing a climate compatibility checkpoint for future oil and gas licensing in the UK Continental Shelf consultation
- Department for Business Energy & Industrial Strategy call for evidence on UK advanced materials
- Environmental Audit Committee inquiry into green steel as part of its work on technological innovations and climate change
- Department for Environment Food & Rural Affairs consultation on legally binding environmental targets focussing on the proposed targets to reduce river pollution from abandoned metal mines, halve residual waste and the future possibility of a resource productivity target
- Independent net-zero review call for evidence

Partnership working has continued with joint consultation responses and activities. These included working on the skills required for the transition as part of the Environmental Policy Forum (EPF) and providing joint evidence to the House of Lords Science and Technology Committee inquiry into people and skills in UK STEM with the National Engineering Policy Centre (NEPC). IOM3 also contributed to the development of the Science Council Climate Conference which took place in September.

Members represented IOM3 to share knowledge and help shape important policy decisions. These included part of the UK delegation that participated in the UK Global Expert Mission on Critical Materials, as well as President Neil Glover representing IOM3 as a member of the government's Critical Minerals Expert Committee, which played a pivotal role in shaping the UK Critical Minerals Strategy.

Throughout 2022 IOM3 kept members up to date and informed about important policy developments. These included commenting on key government announcements and sharing important updates with members via IOM3 news. Policy discussion events, including 'COP26 & beyond' brought together stakeholders from across the value chain to discuss the challenges and opportunities following the climate summit in Glasgow, and an event on 'Packaging EPR, what do you need to know?' helped to demystify the packaging policy reform.

Communications & design

In 2022 IOM3 continued to use an integrated emailing system which produces monthly updates and allows members and non-members to opt-in to communications by material, sector, and community. The system allows us to send and track more targeted communications to bring in links to content directly from the website, saving much manual work.

During the year, we increased our IOM3 news content (90 items/8 blogs) and continued to celebrate a number of calendar days throughout 2022 including Pride Month, Global Recycling Day, International Women in Engineering Day and more.

Our social media presence continues to grow, recording over 18,200 LinkedIn followers, 12,932 Twitter followers, 3,800 Facebook followers and 942 Instagram followers at the end of December 2022.

Right: *Material Change: Resourcing Net Zero* film stills

'This series (Material Change: Resourcing Net Zero) offers unique insight into the work of inspirational professionals who are providing, managing, and protecting vital resources for a sustainable future. It has been a pleasure to tell their stories, and we hope this inspires everyone across the materials cycle and beyond to embrace progress towards net-zero.'

Max Smith, Managing Director, CWP

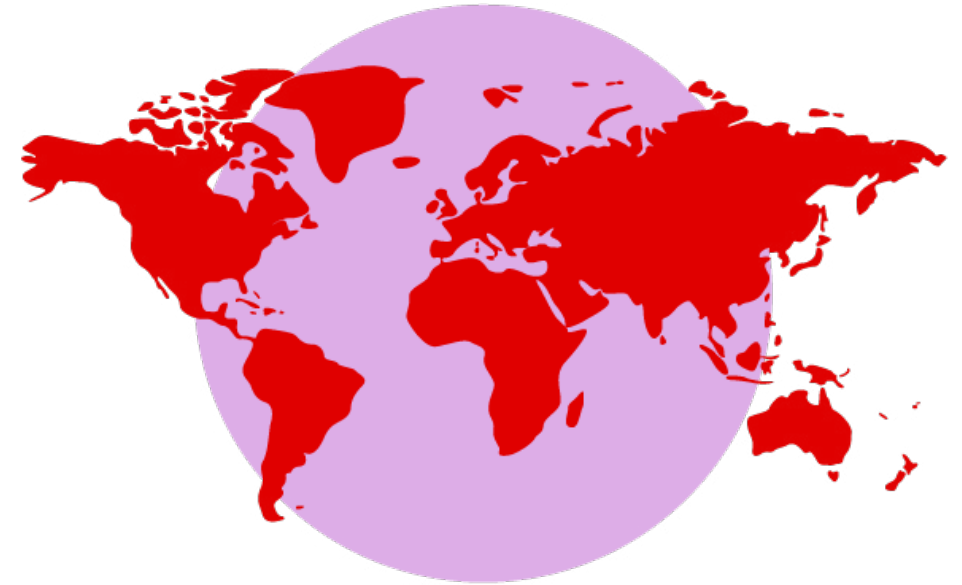


IOM3 team

2022 was a challenging year for IOM3, as for most organisations, with expected but significant flux within our team. The whole team navigated the changes and pressure exceptionally well whilst working hard to deliver excellent products and services to our members.

Hybrid working continued to be well received by the team, who enjoy the opportunity to meet physically with their colleagues while having the ability to have some focused time remotely. The whole team continues to meet twice a year for training and team building events.

Below: The IOM3 team at the 2022 London team day



International

During 2022, Martin Cox CEng FIMMM was confirmed as the Chair of the IOM3 International Affairs Committee. The partnership between IOM3 and ASM International continued during the year with two webinars in June and November on aluminium and nickel respectively, which in total received over 700 registrations. IOM3 is continuing to establish international links in India, Ireland, and Argentina as part of its international strategy.

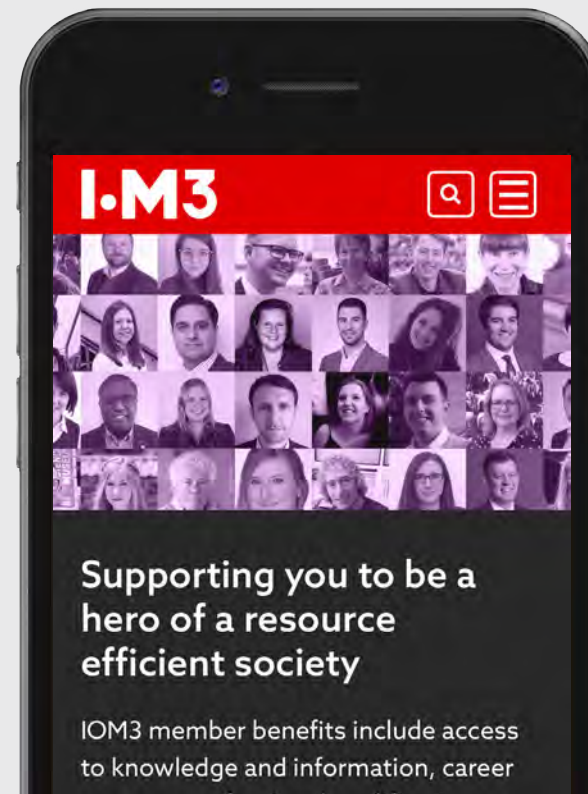
Digital transformation

The Institute's digital systems continued to develop and be enhanced during 2022 in order to support IOM3 activities in all areas. One of the main digital projects in 2022 was the Technical Communities restructure, which involved a significant data mapping exercise for our member interests and setting up a full set of new web pages for all of the new Technical Communities, with new logos and branding.

Another restructuring exercise took place with the IOM3 membership grades changes, where significant work was required to ensure that the new grades structure was implemented smoothly on our database and was also reflected in the website content. Some changes were introduced to the design of the website to make navigation less confusing and to assist users in finding content of interest. The restructured Business Partner programme resulted in an attractive new style of landing page with icons to signpost users to information. This will be replicated in some other landing pages in future for clearer and easier navigation.

A system has been established across all of our activities to ensure that emails are co-ordinated and customised as far as possible to people's interests. Our regular newsletters are now well established with good open rates. We have been measuring the effectiveness of our various communications in order to optimise the sharing of information on our activities to members and non-members.

The Preside website software was upgraded to a newer version, providing improved functionality and performance, and a move to cloud hosting will take place during 2023. In 2023 we will also start to implement engagement scoring on our customer-facing systems to be able to track engagement of members and non-members and understand where this can be improved. The aim is also to develop a membership benefits statement in future. Other digital projects planned for the year include collection of diversity data, integration of the ICON digital library and further enhancements to membership, registration and financial processes.



Venues

The end of 2022 saw the completion of sale of our Stoke site taking the Institute from three sites to two, London headquarters and the Boilerhouse in Grantham. During the summer of 2022 the London office benefited from a significant investment in its building infrastructure with a new roof, and a new low carbon resource-efficient heating and cooling system, completely removing the site's reliance on natural gas. Investment also included a change to LED occupancy sensor lighting to provide long term savings on carbon and energy costs. Removal of our entrance staircase has created a secure first floor office which will allow IOM3 to lease this floor in its entirety to generate further income to support our charitable activity.

Our pledge to net-zero goal set in 2020, to reduce our Scope 1 and 2 emission to 70tCO₂e by 2030 across all our sites, has been achieved well ahead of schedule by reaching around 43tCO₂e in 2022. We would like to thank the team for helping us to overachieve on this target and look forward to seeing what further improvements we can make.

The IOM3 London office has also joined the Mayor's Business Climate Challenge where we are working with other organisations to share knowledge and create carbon savings of 10% in the next year. Our Scope 3 targets were created on estimated data and 2022 provides a truer baseline of data including calculations for commuting, business travel and investments. With the expanded reporting capabilities we are currently reviewing a new target for Scope 3 emissions. Plans for 2023 include further investment at both sites in energy saving improvements, security and AV equipment.

IOM3s pledge to net-zero goals set in 2020, to reduce our Scope 1 and 2 emission to 70tCO₂e by 2030 across all our sites, has been achieved well ahead of schedule by reaching around 43tCO₂e in 2022





Podcasts created in 2022.



**AWARDS, MEDALS
& PRIZES**

A major review of the Institute's awards took place during 2022. Over the course of its history, IOM3 had accumulated over 55 personal achievement and publication awards and prizes, the majority of which are presented annually at different occasions. Although relevant at the time of launch, they no longer accurately reflected the Institute we know today.

The number of awards and prizes led to confusion and ineligible nominations and made promoting the awards more difficult. Following an audit of the awards process, a review of the programme was carried out to streamline processes and to repurpose and combine existing awards to address the breadth of IOM3 disciplines, broadly in line with the Technical Communities review. Following a period of consultation with the IOM3 Trustees, Committees and Leadership Groups, a number of changes to the personal achievement awards were introduced for the 2023 awards.

The Institute will be launching the new IOM3 Sustainable Future Awards in 2023 to recognise, encourage and highlight the champions from the materials, minerals and mining sectors who are advancing the transition to a low-carbon, resilient and resource efficient society. The awards ceremony will be held as the closing highlight of a week of content focussed on sustainability in October.



Above: The 2022
Premier Awards Dinner

'It's always fantastic to be recognised for your achievements. For industrialists it's important to have a mechanism for being recognised for your contribution. It is a good example for others who want to aspire to this.'

*Prof Andrew Lewis FEng FIMMM,
Gold Medal 2022*

'When I look at other winners of this year and also the previous winners of all these prestigious awards of the Institute, the researchers and scientists that I admire a lot, so I feel truly honoured I can have my name listed among them.'

Dr Han Zhang CSci MIMMM, Silver Medal 2022

'It feels absolutely amazing to be a 2022 award winner. Really humbling as well. Having looked at past winners in the Leslie Holliday Prize, I am very honoured to be in the same group of people.'

Dr Sue Halliwell, Leslie Holliday Prize 2022

Personal achievement awards

Bessemer Gold Medal	Prof Robertus Boom CEng MIMMM, Emeritus Professor, Delft University of Technology	Dowding Medal & Prize	Stuart Leflay Key Expert for Aluminium, Primetals Technologies
Chapman Medal	Prof Rachel Williams, Professor of Ophthalmic Bioengineering, University of Liverpool	Frank Paine Packaging Award	Iain Ferguson CEnv FIMMM, The Co-operative Group
Griffith Medal	Prof Judith Driscoll FEng CEng FIMMM, Professor of Materials Science, University of Cambridge	Gold Medal	Prof Andrew Lewis FEng FIMMM, Principal Scientist, Calla Lily Clinical Care Ltd & Director, Alchemed Bioscience Consulting Ltd
Medal for Excellence	Alan Kirk CEng HonFIMMM, Former Chief Mechanical Engineer, British Coal Corporation	Grunfeld Award & Medal	Dr Katerina Christofidou, Lecturer in Metallurgy, University of Sheffield
Silver Medal	Dr Han Zhang CEng CSci MIMMM, Senior Lecturer in Materials Science, Queen Mary University of London	Hadfield Medal & Prize	Dr Sara Hornby CEng FIMMM, Principal & Owner, Global Strategic Solutions
Sir Andrew Bryan Medal	Dr Phil Bischler CEng CSci FIMMM, Consultant, Magnox Electric Plc	Hancock Medal	Alan Bickley CEng FIMMM, Visiting Professor, University of Strathclyde
Swinburne Medal	Prof Anthony Ryan OBE, Professor of Physical Chemistry, University of Sheffield	Ivor Jenkins Medal	Prof Jose Manuel Torralba, Director, IMDEA Materials Institute
Award for Innovation in Defence, Safety & Security Materials	Dr Eoin O'Keefe FIMMM Stealth Materials Senior Technical Consultant, QinetiQ Plc		



John Hunt Medal	Prof Lorenz Ratke, Retired, Former Head of Department, DLR Institute of Materials Research	Rowbotham Medal	Dr Robert V Dennis-Pelcher, Global Raw Material Development & Approvals Principal Scientist, The Goodyear Tire & Rubber Company
Kroll Medal & Prize	Dr Julian Jones CEng FIMMM, Professor of Biomaterials, Imperial College London	Stokowiec Medal & Prize	Cathy Bell, Research & Forensic Metallurgy Manager, Liberty Special Steels
Leslie Holliday Prize	Dr Sue Halliwell, Operations Manager, Composites UK Limited	T B Marsden Professional Medal	Peter Haslehurst FIMMM, Retired, former CEO & Chairman of Luxfer PLC
Outstanding Contribution Award for Equality, Diversity & Inclusion (NEW in 2022)	Avery Cunningham GradIMMM, Director of Membership, oSTEM	Thornton Medal	<i>Innovating with the public (PVC 2021)</i> Prof Mark Miodownik MBE FREng CEng HonFIMMM, Lecturer, University College London
Platinum Medal	Prof Catherine M F Rae, Professor of Superalloys, Fellow & Director of Rolls-Royce University Technology Centre, University of Cambridge	Tom Bell Surface Engineering Medal	Prof Robert Wood FREng FIMMM, Professor of Surface Engineering & Tribology, University of Southampton
Prince Philip Award	Zotefoams plc	Tom Colclough Medal & Prize	Dr Philip R Kirkwood, Director, Micro-Met International
Robert Perrin Award	Dr Sarah-Jane Potts MIMMM, Technology Transfer Fellow, SPECIFIC, Swansea University	Verulam Medal & Prize	Dr Emma Claxton CEng FIMMM, Programme Manager for UltraFan Validation, Rolls-Royce
Rosenhain Medal & Prize	Dr Dimitrios Papageorgiou, Lecturer in Materials Science, Queen Mary University of London		



Publication awards

Adrian Normanton Prize

Effects of residual elements during the casting process of steel production: A critical review

Ishwar Kapoor, Claire Davis & Zushu Li

Alan Glanvill Award

Flexible piezoresistive strain sensor with high sensitivity based on carbonised waste thermosetting resin

Lei Wang, Dong Xiang, Wanqiu Zhu, Chunxia Zhao, Yuntao Li, Hongchang Han, Ping Wang & Jie Wang

Composite Award

Characterisation of tape-based carbon fibre thermoplastic discontinuous composites for energy absorption

Sachin Francis, Thomas Bru, Leif E Asp, Maciej Wysocki & Christopher Cameron

James S Walker Award

Wear of carbon black reinforced natural rubber compounds

Philip Antonio Hurrell, Queen Mary University of London

Materials World

Unintended consequences

Darryn Quayle, Worley

Mann Redmayne Medal A

Value chain excellence: Managing variability to stabilise and exploit the mine value chain

Martyn L Bloss, Geoff W Capes, Russell Seib, Liam V Alford, Jack L Light, Ilnur Minniakhmetov & Chris Nielsen

Pfeil Award

Athermal electric field effects in flash sintered zirconia

Jian Dong, Mattia Biesuz, Vincenzo M Sglavo, Milad Kermani, Xiaojia Su, Theo Saunders, Chunfeng Hu & Salvatore Grasso

2021 Vanadium Award (Retrospective)

Improvement of Strength-Ductility Balance by the Simultaneous Increase in Ferrite and Martensite Strength in Dual-Phase Steels

Elango Chandiran, Naoya Kamikawa, Yu Sato, Goro Miyamoto, and Tadashi Furuhashi

Williams Award

Rapid alloy prototyping for strip steel development: DP800 steel case study

Y Zhu, C Slater, S Connolly, D Farrugia & C Davis

'It was great to meet the 2022 winners, it's always good to meet people from across all our different membership activities, and to see the great work they are doing.'

Neil Glover FREng CEng FIMMM, President of IOM3



Above: The Special & Publication Awards Lunch held in December 2022



Below: IOM3 President Neil Glover presenting the 2022 Local Society of the Year Award to SMEA representatives Dr Colleen Mann and Mr Mark Tomlinson



Above: Winners at the 2022 Premier Awards Dinner

Below: Nicky Davies (left) presenting the Robert Perrin Award to Dr Sarah-Jane Potts



Awards from other bodies

Beilby Medal & Prize

Prof Sahika Inal, King Abdullah University of Science & Technology

Charles Hatchett Award

What is the role of Nb in nickel-rich layered oxide cathodes for lithium-ion batteries?

Fengia Xin, Hui Zhou, Yanxu Zong, Mateusz Zuba, Yan Chen, Natasha A Chernova, Jianming Bai, Ben Pei, Anshika Goel, Jatinkumar Rana, Feng Wang, Ke An, Louis F J Piper, Guangwen Zhou & M Stanley Whittingham

Local Society Awards

Local Society of the Year Award

Midland Institute of Mining Engineers (MIMinE)

Southern Counties Materials, Minerals & Mining Society (SCMMMS)

Outstanding Service Awards

Dr Simon Hogg FIMMM (EMMS)

Michael McLoughlin CEng FIMMM (MinSouth)

Student & Apprentice Awards

Category 1

Britoni Farrer-Williams

Category 2

Callum S W Partridge

Category 4

Martina Piemonte

Royal Charter Prize

Britoni Farrer-Williams

'It is truly a once in a lifetime opportunity. I learned a lot throughout the process.'

Rathosivan Gopal,
2022 YPWLC winner

Competitions

Young Persons' Lecture
Competition

Lauren Eggleton,
North East

Young Persons' World
Lecture Competition

Rathosivan Gopal,
Malaysia

IOM3 Funding

Grants to support
knowledge exchange

Callum Aaron Smith
Laura Stefanini

Gengyao (Felix) Wei

Alexander Bruce Matheson

Christian Bechteler

Matthew James McArdle

Aaron Todd

John Donald Morley

Luke Peter Malone

Emily Rose Lewis

Dominic Skeat

Jack William Bonfield

Bursaries to support learning

Callum Smith



Financial review

Overview

2022 was a year of two halves with a number of IOM3 activities and in-person events picking up in the second half of the year. As a result overall IOM3 income increased by 3.6% compared to 2021 (from £3,859k in 2021 to £3,997k in 2022). The IOM3 team and trustees continued to maintain operating cost control throughout the year while ensuring high quality services continued to be provided to members. We are pleased to report that IOM3 finished the year with a combined operating surplus of £13k (2021 – £63k deficit). It should also be noted that if depreciation and defined benefit pension scheme running costs and deficit funding are excluded, IOM3 operating results show an operating surplus of £449k (2021 - £400k) reflecting stellar performance of activities IOM3 team have direct responsibility for. After taking into account unrealised losses on the market value of IOM3 investment portfolio and actuarial gains on the defined benefit pension scheme, IOM3 ended 2022 with an overall deficit of £957k (2021 – surplus of £2,070k).

As can be seen from the graphs on page 59, membership subscriptions continue to represent the majority of IOM3 income, closely followed by scientific journal royalties. Combined, these two income streams generate nearly two-thirds of IOM3 income. IOM3 Training Academy continued to perform strongly during the year and its successful re-launch in September 2022 helped generate a further 8% of overall income. The IOM3 consultancy agreement with UNESCO Russia came to a contractual end in March 2022 and understandably was not renewed, leading to a significant decline in consultancy income compared to prior years.

Investments review

Most of the IOM3 investments portfolio is managed by BlackRock Charities Growth & Income Fund, a sustainable investments fund which aims to provide a return on investment (net of fees) over a period of 5 or more consecutive years through an increase to the value of the assets held and/or income received from those assets whilst adhering to the Fund's environmental, social and governance criteria. IOM3 trustees adopted a policy of maximising total returns from investments commensurate with acceptable risk for a charitable organisation.

With the conflict in Ukraine, rapidly rising inflation and political uncertainty, 2022 proved to be one of the most challenging market environments recorded in history with meaningfully negative returns across equity and fixed income assets. In 2023 key challenges remain high inflation, more restrictive central bank policies, geopolitical tensions and a potential European energy crisis. The trade-off faced by central banks of taming inflation by hiking interest rates or preserving growth is likely to be a principal focus of 2023. Additionally, volatility surrounding energy markets, driven by the ongoing conflict in Ukraine, expected economic growth momentum and weather patterns is likely to continue.

Fund net performance (% net return)

	2022	2021	
Fund	-9.7%	11.5%	Benchmark: 30% UK FTSE All-Share ex Investment Trusts, Tobacco, Aerospace & Defence, Beverages Index; 30% MSCI World SRI Index (GBP); 20% Bloomberg Barclays GBP Gilts Index; 10% IPD All Balanced Funds Property Index; 10% Cash (3M SONIA compounded in arrears).
Benchmark	-9.3%	14.5%	
	2022	2021	
Distribution yield	3.1%	2.3%	The distribution yield represents the ratio of distributed income over the last 12 months to the fund's current net asset value.

BlackRock Charities Growth & Income Fund risks:

- Smaller companies risk. Smaller company investments are often associated with greater investment risk than those of larger company shares.
- Liquidity risk. The Fund's investments may have low liquidity which often causes the value of these investments to be less predictable. In extreme cases, the Fund may not be able to realise the investment at the latest market price or at a price considered fair.

Reserves review

Trustees 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 £10,680k at 31 December 2022.
- 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 £57k as at 31 December 2022.
- 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.

IOM3 unrestricted investments portfolio was valued at £6,580k at 31 December 2022 and represents 140% of the budgeted operating

expenditure for 2023. The trustees consider this level of reserves sufficient to achieve the long-term objectives of the Institute. In addition, the trustees are also looking at ways of maximising the use of IOM3's fixed assets and broadening the use of restricted funds.

The trustees set a budget for net expenditure of £203k for 2023 to support ongoing initiatives for the development of membership, training and conference programmes.

Principal risks and uncertainties

Trustees have identified the following major risks facing the Institute:

- Loss of members through the ageing population and economic impact within the industry;
- Failure of IT systems and compromise to the use of the membership database as a result of cyber security breach;
- Difficulty in maintaining and growing current streams, in particular royalties generated from the scientific journal publishing;
- Financial impact of the deficit of the defined benefit pension scheme on the Institute's future strategy;
- Reputational and financial impact resulting from adverse volunteer actions;
- Major adverse change in investment values;
- Major adverse change in the UK and global economy.

The risk register is being reviewed and updated on a regular basis and the trustees, employees and professional advisors are taking steps to mitigate these risks and minimise their impact on the Institute's future performance.



STRUCTURE & GOVERNANCE

The oldest nation-wide constituent of this Institute was created in 1869. The Institute of Materials, Minerals and Mining is a body incorporated by Royal Charter (RC000267) dated 25 July 1975 and modified on 26 June 2002 and is a Registered Charity in England & Wales (269275) and in Scotland (SC050586).

Governance Modernisation

Following on from the governance changes that created the Advisory Council, the Executive Board and the four pillars of IOM3 in 2019 (Phases 1 and 2), the Trustees consulted members on the third phase of changes; a further modernisation of the Bye-laws. These changes were agreed by members at the 2021 Annual General Meeting, received approval from the Privy Council Office in August 2022 and came into force on 7 September 2022. The main changes in this revision are:

- A simpler, more streamlined membership grade structure
- Formally allowing for General Meetings to be held in a hybrid manner (ie both in person and online attendance)
- Clarifying some issues around Executive Board members
- Ensuring gender-neutral language is used throughout
- Creating a new professional registration ('Qualified for Minerals Reporting', or QMR) for members involved in mineral resources and reserves reporting

Phase 4 of our Governance Modernisation – a restructuring of our Technical Communities – came into effect in April 2022 following almost three years of discussion and consultation. We now have 22 Technical Communities covering the breadth of areas of IOM3 member interest, each of which contributes to the nine over-arching themes. This restructure seeks to maximise the contribution the Technical Communities and their Leadership Teams make to delivering benefits to members and to wider society.

Executive Board

IOM3 is managed by an Executive Board, the members of which are the trustees of the Institute. They are drawn from senior members of the Institute and are responsible for the ongoing management of strategy and performance of the Institute. The members of the Board include those who are following the presidential succession, and members involved as chairs of other activity boards.

Advisory Council

The Advisory Council forms part of the Institute's new governance structure which was approved by Privy Council in August 2019 and implemented on 5 November 2019. The Advisory Council exists to advise the Executive Board on major strategic decisions and strategic planning and consists of the Officers of the Institute together with 22 members representing the Technical Communities, five representing the Member Networks, eight members representing Grades and seven members representing UK and overseas regions.

Governance committees

The Executive Board is supported by three governance committees (Audit, Nominations and Remuneration) that have standard responsibilities. In addition, the Awards Committee also reports to the Executive Board.

Audit Committee

The Audit Committee keeps 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.

Awards Committee

The Awards Committee oversees the operation of the Institute’s Awards programme and is responsible for making recommendations to the Executive Board accordingly.

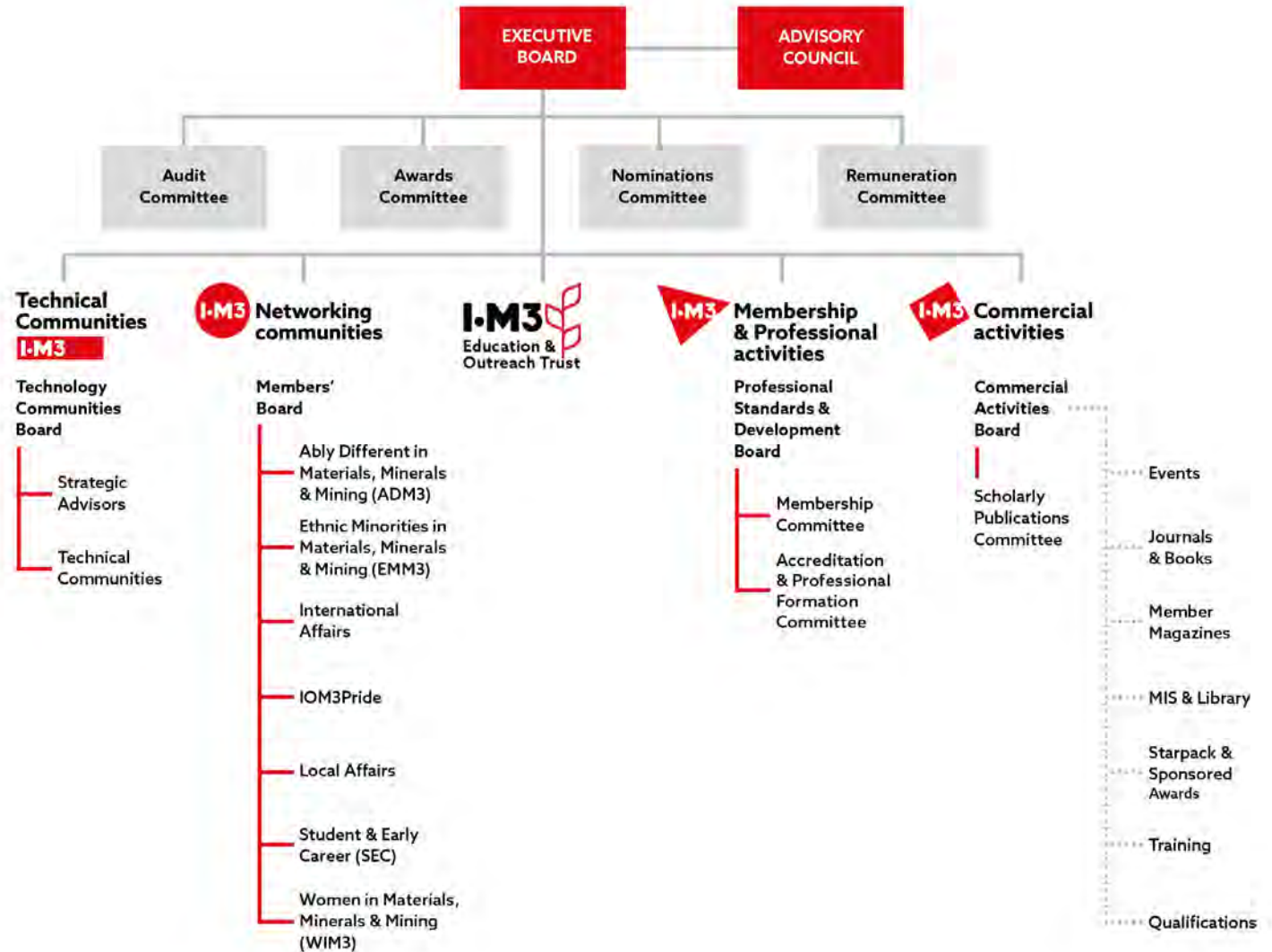
Nominations Committee

The Nominations Committee leads the process for appointment to the Executive Board, Institute Officers and Chairs of Primary Boards and other Boards which are not already prescribed by regulations or election.

Remuneration Committee

The Remuneration Committee aims to ensure that levels of remuneration are in line with the performance and needs of the Institute and the institutional sector.

Alongside those four committees, the work of IOM3 is organised in four pillars.



Technology Communities Board (TCB)

The TCB is responsible for overseeing and co-ordinating the work IOM3 does as a 'Learned Society'. This means our activities to promote and share knowledge on materials, minerals and mining. With the help of the nine Strategic Advisors, it does through the 22 Technical Communities (special interest groups) that sit under it. These act as a focus of expertise within the broad range of technical sectors embraced by IOM3. Each group holds regular meetings and, through its supporting networks, organises a programme of events to promote and develop its discipline. Each also has an online presence and communicates its activities to members and non-members alike through web content, newsletters and social media. Events organised by the technical groups are open to all and serve to inform about the latest developments within the discipline as well as providing networking opportunities for people from academia, industry and government, often in an international context. Networking events attract non-members from the UK and overseas, who can make up a significant proportion of the event audience.

Members' Board

The Members' Board is responsible for co-ordinating the Institute's activities in the regions and other member networks. The Institute has a network of affiliated societies throughout the UK, as well as overseas groups. Events and activities co-ordinated by local groups and societies are also supported through the technical community structure. The Members' Board also looks after the interests of the Member Networks, currently Aply Different in Materials Minerals & Mining, Ethnic Minorities in Materials, Minerals & Mining, IOM3Pride, Student & Early Career and Women in Materials, Minerals & Mining.

Aply Different in Materials, Minerals & Mining Group (ADM3)

Aply Different is a voluntary network of IOM3 whose goal is to achieve equality of opportunity professionally for IOM3 members identifying as disabled and allies such as family members, carers and work colleagues. Together, it will do this by advancing the interests of disabled people, raising awareness and supporting equality of opportunity for IOM3 members in materials, minerals and mining and supporting equity, diversity and inclusion within the wider STEM community.

Ethnic Minorities in Materials, Minerals & Mining (EMM3)

The long-term goal of this group is to promote equality of opportunity professionally for ethnic minorities within the materials, minerals and mining industries. In the short term, the focus will be around gathering data from members belonging to minority groups to understand any issues they may face in the industry or in education and how IOM3 can help to address these. The group will also promote the creation of inclusive policies within the Institute, as well as raising awareness with regards to issues such as unconscious biases in the workplace

International Affairs Committee

The IAC is responsible for communications between the Institute and its international communities. It also encourages the development of new activities and communities outside the UK.

IOM3Pride

IOM3Pride is a voluntary network of IOM3 whose goal is to achieve equality of opportunity professionally for LGBTQ+ identifying IOM3 members. It aims to do this by highlighting issues related to LGBTQ+ individuals in materials, minerals and mining and supporting equity, diversity and inclusion within the wider STEM community.

Local Affairs Committee

IOM3 has a network of Affiliated Local Societies (ALS) across the UK. These are independent organisations which run their own programmes of events and activities locally, and by affiliation with IOM3 receive funding and support. Some ALS also engage with local schools, universities and businesses to provide valuable support for teaching and learning. The Local Affairs Committee is responsible for communications between the Institute and its ALS.

Student & Early Career (SEC)

The Younger Members' Committee (YMC) was established in 1967 to represent the views and interests of the Institute's younger members, and is one of the longest running committees in our history. The YMC officially changed its name to Student & Early Career (SEC) Group in June 2020 following consultation with its membership. It organises various events and activities throughout the year.

Women in Materials, Minerals & Mining (WIM3)

IOM3 Women in Materials, Minerals & Mining (WIM3) was established in 2012 to provide a focus for women members within the Institute and help support them in their careers. Its leadership team has organised several successful events around the UK which have attracted female members at all stages of their career and provided valuable networking opportunities for women.

Professional Standards & Development Board

Professional affairs within the Institute are overseen by the Professional Standards & Development Board, which deals with membership, qualifications and accreditation.

Membership Committee

The membership committee is responsible for the evaluation of membership applications for both Institute grades and professional registration such as Chartered Engineer, Chartered Environmentalist, or Chartered Scientist.

Accreditation & Professional Formation Committee (APFC)

The APFC oversees the standards and processes for the accreditation of academic programmes, and company Initial Professional Development (IPD) schemes to meet the requirements for registration levels for which IOM3 has licences, in the UK and abroad.

Commercial Activities Board

The Commercial Activities Board is responsible for trading strategy development and co-ordination of revenue generation activities other than membership. This includes charitable activities such as the provision of information on materials, minerals and mining through Institute publications, conferences, training and information services. It also has oversight of Materials Institute Services Ltd, a wholly owned subsidiary of the Institute responsible for IOM3 venue hire and other non-charitable trading activities.

Objectives & activities

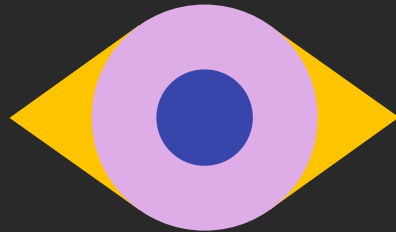
The charitable objects of IOM3, as set out in the Royal Charter, are:

To advance and develop all aspects of science, engineering and technology as applied to the discovery, exploration, development, characterisation, exploitation, processing, application and re-cycling 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, provided that 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 complimentary to those of such organisations.

Our Corporate Strategy sets two objectives for IOM3:

To support professionals in materials, minerals, mining to be champions of the transition to a low-carbon, resilient & resource efficient society.

To be the best professional membership body it can be.

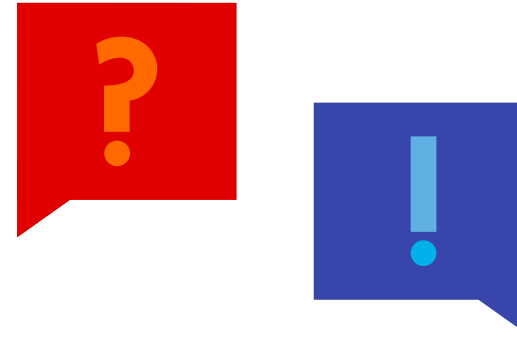


Through our activities we aim to:

Raise the profile of our sectors as technologies vital to the health and wealth of the nation; engage in public, policy and media debate to increase the visibility of materials, minerals, and mining

IOM3 has always worked closely with Government in relation to the delivery of new technology to industry. We are also increasingly deploying the expertise of our members to influence the public, media and policy debates that have materials, minerals and mining aspects, including through participation in Government advisory groups and contributing to public and parliamentary consultations. Our communications efforts also explain the vital importance of materials, minerals and mining to our future society.

Stimulating innovation in the extraction, use and application of materials, IOM3 organises both UK and worldwide competitions to develop a broad understanding of the importance of materials, minerals and mining, and such events engage with schools, students and businesses from the UK and beyond. Separately IOM3 provides an extensive range of awards both to members and non-members who have provided outstanding contributions to our communities and professions.



Support people within the materials, minerals and mining sectors to address the societal challenges we face today such as climate change, equity, diversity and inclusion, etc

The Sustainable Future theme brings together many of the IOM3 activities that seek to ensure our members and wider society understand how materials, minerals and mining need to contribute to the transition to a low-carbon, resilient and resource efficient society. Both individually, and as part of the wider networks of engineering, environmental and scientific professional institutions, IOM3 encourages and promotes the participation of under-represented and minority groups in the engineering, environment, and science professions. To help support and encourage individuals in STEM careers who share particular characteristics or non-technical interests, IOM3 has created five Member networks (ADM3, EMM3, IOM3Pride, SEC and WIM3).

Support and encourage education in materials, minerals and mining to attract young people to the profession

IOM3 accredits a number of university, college and industry courses in the UK and overseas, and provides a special low-cost membership package for undergraduates, which is often sponsored by local societies or by their university. A thriving Student & Early Career Group organises regular events for students and early career members. IOM3 has an active education programme that enriches the teaching of materials, minerals and mining in the curriculum and promotes careers within our sphere of influence. We provide help, advice and teaching materials free of charge to teachers that have signed up to our School Affiliate service and to date over 1,200 schools have registered. Our schools presentations have so far been delivered to more than 100,000 pupils throughout the UK. The team also organises study days for teachers and events to allow older pupils to interact with young people already working in the sector. We also - through the IOM3 Education & Outreach Trust - provide financial support for schools, students and early career researchers.

Provide a central resource of expertise and information through content; disseminate information through conferences, events, publications, online resources and social media; increase the visibility of new technology to industry; provide networking opportunities through technical, local and other activities to increase interaction between industry, academia and government

IOM3 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 is outsourced to Taylor & Francis. Access to this material is available to both members and non-members. In-house teams publish the member magazines and organise the majority of conferences. IOM3 maintains an extensive resource of technical and historical publications that form the core of our information and library services, a source of expertise accessible to all. The IOM3 Technical Enquiries service provides consultancy and advice services to anyone who needs access to expertise in materials, both individuals and organisations. Of the 1,500 enquiries routinely handled each year, 50% originate from the UK public. The Business Partner Programme enables organisations to visibly associate themselves with IOM3 and access its resources and work programmes. Confirmed subscribers to date include Lucideon, National Composites Centre and Lloyds Register.

IOM3 itself organises dozens of events every year covering a wide range of topics of relevance to professionals in materials, minerals and mining. In addition, we partner with other organisations to support similar activities, including the UK-wide network of local societies affiliated to IOM3, our international affiliated societies, other UK and international professional bodies and learned societies and other like-minded organisations.

Provide our members with benefits, services and opportunities to support their careers

IOM3 technical communities, boards and committees are all composed of active supporters and volunteers (ASVs) drawn from the IOM3 membership, who freely give their time and expertise to deliver the Institute's charitable purposes and professional activities, develop our communities and provide peer review processes where needed. IOM3 depends on the engagement of our members in the broad range of our activities and could not deliver our objectives effectively without their significant contribution. IOM3 members play a prime role in promoting our objects and providing public benefit. Accordingly, a wide range of member services and benefits have been developed in pursuance of our objectives and to attract new members. Benefits of membership include professional recognition, networking opportunities to share knowledge and experience, free technical enquiry services, a choice of members' magazine, a members' business centre and use of facilities, discounted conference fees, training courses and publications, and additional online services. In addition, the regulation of the profession provides benefits to both members - who are recognised as competent and professional - and to wider society.

IOM3 provides support to our worldwide membership through our UK offices, our technical communities and societies, and our network of affiliated local societies and national groups. Career progression is recognised through various grades of membership and IOM3 is licensed to deal with applications for Chartered Engineer, Incorporated Engineer, Engineering Technician, Chartered Environmentalist, Registered Environmental Practitioner, Chartered Scientist, Registered Scientist and Registered Science Technician status.

Statement of Trustees' responsibilities

The Trustees are responsible for preparing the Trustees' Report and the financial statements in accordance with applicable law and United Kingdom Accounting Standards (United Kingdom Generally Accepted Accounting Practice).

The Law applicable to charities in England & Wales requires the Trustees to prepare financial statements for each financial year which give a true and fair view of the state of affairs of the group and charity and of the incoming resources and application of resources of the group and charity for that period. In preparing these financial statements, the Trustees are required to:

- Select suitable accounting policies and then apply them consistently
- Observe the methods and principles in the applicable Charities SORP
- Make judgements and estimates that are reasonable and prudent
- State whether applicable United Kingdom 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 charity will continue in business

The Trustees are responsible for keeping proper accounting records that disclose with reasonable accuracy at any time the financial position of the group and charity and enable them to ensure that the financial statements comply with the Charities Act 2011, the Charity (Accounts and Reports) Regulations and the provisions of the Royal Charter and Bye-laws. They are also responsible for safeguarding the assets of the group and charity and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities. The Trustees are responsible for the maintenance and integrity of the group and 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.

Trustees, senior boards & professional advisors

Details of the current Board and Committee members can be found at www.iom3.org/about-us/governance.html

Executive Board & Trustees

Prof Serena M Best, Chair and Immediate Past President (to December 2022)

Neil E Glover, President (to December 2022);
Chair and Immediate Past President (from January 2023)

Dr Kate Thornton, Senior Vice-President (to December 2022);
President (from January 2023)

Christine A Blackmore, Vice-President (to December 2022);
Senior Vice-President (from January 2023)

Prof Michael R Clinch, Vice-President

Dr Graham A Ormondroyd, Vice-President (from December 2022)

Vikas Mawkin, Honorary Treasurer (until March 2023)

Dr Philip J E Bischler, Chair of Members' Board (to January 2022)

Martyn A Jones, Chair of Student & Early Career Committee (to January 2022);
Chair of Members' Board (from February 2022)

Dr Aimee L Goodall, Chair of Student & Early Career Committee (from February 2022)

Martin C Cox, Chair of International Affairs Board (from February 2022)

Dr Christopher W Corti, Chair of Professional Standards & Development Board (to July 2022)

Dr David Stewart, Chair of Professional Standards & Development Board (from September 2022)

Jan C H Lewis, Chair of Commercial Activities Board

Prof Mark R Jolly, Advisory Council Representative (until April 2022)

Judith Allan, Advisory Council Representative (from April 2022)

David Seath, Advisory Council Representative

Robert G Siddall, co-opted (from September 2022)

Dr Maurizio Carano, co-opted (February 2022 – March 2023)

Board of Directors, IOM Communications Ltd.

The following served as directors during the year:

Chair/Director	J C H Lewis
Directors/trustees	Dr C Church
Company Secretary	J Bugajeva

Board of Directors, Materials Institute Services Ltd.

The following served as directors during the year:

Directors	Dr C Church N E Glover K Harrison J C H Lewis
Company Secretary	J Bugajeva

Board of Directors, PIABC Ltd.

The following served as directors during the year:

Directors	Dr C W Corti (to July 2022) Dr C Church N E Glover
Company Secretary	J Bugajeva

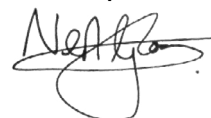
Key management personnel

Chief Executive	Dr C Church
Finance Director	J Bugajeva
Director of Communications	Dr I A N Staniaszek
Director of Operations & Professional Development	K Harrison
Director of Membership & Professional Standards	EUR ING I J Bowbrick
Director of Business Support	C Marriott

Professional advisors

Bankers	Santander UK plc 4th Floor 100 Ludgate Hill London EC4M 7RE
Solicitors	Howes Percival LLP 3 The Osiers Business Centre Leicester LE19 1DX
Auditors	RSM UK AUDIT LLP 25 Farringdon Street London EC4A 4AB
Investment Managers	Blackrock Investment Management (UK) Ltd 12 Throgmorton Avenue London EC2N 2DL
Actuaries	First Actuarial LLP Second Floor, The Square Basing View, Basingstoke Hampshire RG21 4EB

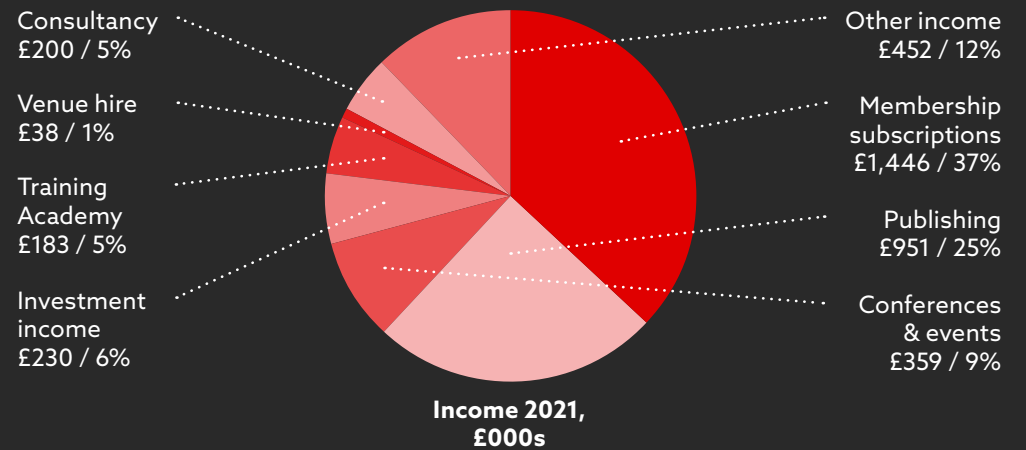
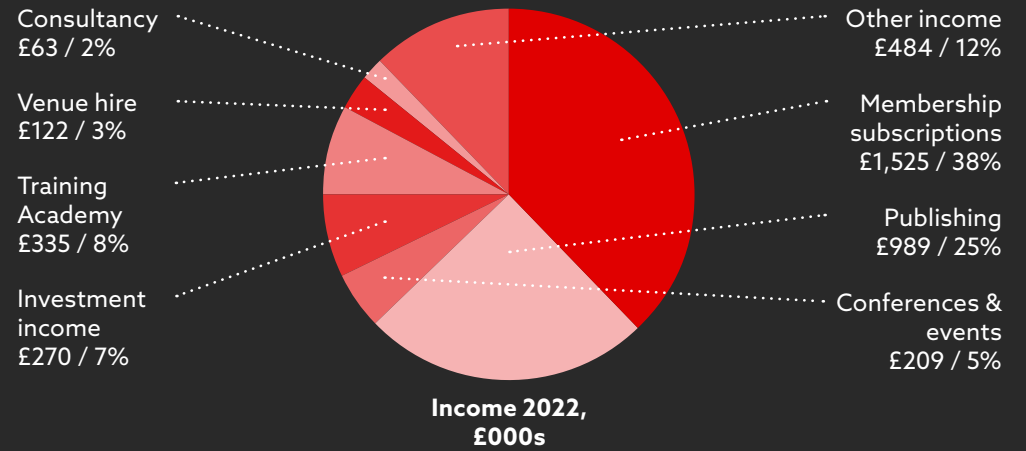
This report was approved by the trustees on 25 May 2023



Neil Glover



FINANCIAL **STATEMENTS**



The following pages detail financial activities for the year ended 31 December 2022, reflecting operating performance, assets and obligations. Income for the year 2022 are summarised in the chart above.

Independent auditor's report to the trustees of the Institute of Materials, Minerals & Mining

Opinion

We have audited the financial statements of The Institute of Materials, Minerals and Mining (the 'parent charity') and its subsidiaries (the 'group') for the year ended 31 December 2022 which comprise Consolidated Statement of Financial Activities, the Consolidated and parent charity Balance Sheets, the Consolidated and parent charity Statement of Cash Flows and notes to the financial statements, including significant accounting policies. The financial reporting framework that has been applied in their preparation is applicable law and United Kingdom Accounting Standards, including FRS 102 "The Financial Reporting Standard applicable in the UK and Republic of Ireland" (United Kingdom Generally Accepted Accounting Practice).

In our opinion the financial statements:

- give a true and fair view of the state of the group's and parent charity's affairs as at 31 December 2022 and of the group's and parent charity's incoming resources and application of resources for the year then ended;
- have been properly prepared in accordance with United Kingdom Generally Accepted Accounting Practice; and
- have been prepared in accordance with the requirements of the Charities and Trustee Investment (Scotland) Act 2005, regulations 6 and 8 of the Charities Accounts (Scotland) Regulations 2006 (as amended) and the Charities Act 2011.

Basis for opinion

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

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

Conclusions relating to going concern

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

Based on the work we have performed, we have not identified any material uncertainties relating to events or conditions that, individually or collectively, may cast significant doubt on the group's or parent charity's ability to continue as a going concern

for a period of at least twelve months from when the financial statements are authorised for issue.

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

Other information

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

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

We have nothing to report in this regard.

Matters on which we are required to report by exception

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

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

Responsibilities of trustees

As explained more fully in the statement of trustees' responsibilities set out on page 55 the trustees are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view, and for such internal control as the trustees determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the trustees are responsible for assessing the group and parent charity's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the trustees either intend to liquidate the group or parent charity or to cease operations, or have no realistic alternative but to do so.

Auditor's responsibilities for the audit of the financial statements

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

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

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

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

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

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

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

As a result of these procedures we consider the most significant laws and regulations that have a direct impact on the financial statements are FRS 102, Charities SORP (FRS 102), Charities and Trustee Investment (Scotland) Act 2005, regulations 6 and 8 of the Charities Accounts (Scotland) Regulations 2006 (as amended), the Charities Act 2011, the parent charity's governing document. We performed audit procedures to detect non-compliances which may have a material impact on the financial statements which included reviewing the financial statements disclosures including the Trustees' Report and remaining alert to new or unusual transactions which may not be in accordance with the governing documents.

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

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

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

Use of our report

This report is made solely to the charity's trustees, as a body, in accordance with section 44(1)(c) of the Charities and Trustee Investment (Scotland) Act 2005, and regulation 10 of the Charities Accounts (Scotland) Regulations 2006 (as amended) and the Charities Act 2011. Our audit work has been undertaken so that we might state to the charity's trustees those matters we are required to state to them in an auditor's report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the charity and its trustees as a body, for our audit work, for this report, or for the opinions we have formed.

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

RSM UK Audit LLP

RSM UK AUDIT LLP
Statutory Auditor
Chartered Accountants
25 Farringdon Street
London
EC4A 4AB

Date: 5 June 2023

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

Consolidated statement of financial activities for the year ended 31 December 2022

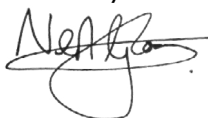
	Notes	Unrestricted funds General £'000	Unrestricted funds Designated £'000	Restricted funds £'000	Permanent endowment £'000	Total funds 2022 £'000	Total funds 2021 £'000
INCOME AND ENDOWMENTS FROM:							
Donations and legacies	4	42	-	-	-	42	57
Charitable activities							
Membership and related activities		1,805	-	-	-	1,805	1,641
Charitable trading activities	3	1,517	-	-	-	1,517	1,610
Other trading activities	13	286	-	-	-	286	321
Investments		212	3	55	-	270	230
Other income	10	77	-	-	-	77	-
Total income		3,939	3	55	-	3,997	3,859
EXPENDITURE ON:							
Raising funds	13	236	-	-	-	236	202
Charitable activities							
Membership and related activities		2,776	1	64	-	2,841	2,385
Charitable trading activities	3	906	-	-	-	906	1,335
Total expenditure		3,918	1	64	-	3,983	3,922
Operating income/(expenditure)		21	2	(9)	-	14	(63)
Net losses/(gains) on investments	12	(911)	(11)	(211)	-	(1,133)	759
Net expenditure/(income)		(890)	(9)	(220)	-	(1,119)	696
Other recognised gains/(losses)							
Gains on revaluation of fixed assets	10	-	86	-	-	86	84
Actuarial gains on defined benefit pension schemes		76	-	-	-	76	1,290
NET MOVEMENT IN FUNDS		(814)	77	(220)	-	(957)	2,070
Reconciliation of funds							
Total funds brought forward		2,871	11,863	2,506	33	17,273	15,203
TOTAL FUNDS CARRIED FORWARD		2,057	11,940	2,286	33	16,316	17,273

Consolidated and charity balance sheets as at 31 December 2022

	Notes	Group		Institute	
		2022 £'000	2021 £'000	2022 £'000	2021 £'000
FIXED ASSETS					
Intangible assets	9	238	350	238	339
Tangible assets	10	11,370	11,334	11,370	11,334
Heritage assets	11	456	456	456	456
Investments	12	8,504	9,637	8,504	9,637
Total fixed assets		20,568	21,777	20,568	21,766
CURRENT ASSETS					
Stock and work in progress	14	80	54	80	13
Debtors	15	1,556	1,483	1,527	1,546
Cash at bank and in hand		30	99	6	1
Total current assets		1,666	1,636	1,613	1,560
CREDITORS: Amounts falling due within one year	16	(2,929)	(2,929)	(2,899)	(3,207)
NET CURRENT LIABILITIES		(1,263)	(1,293)	(1,286)	(1,647)
NET ASSETS BEFORE PENSION LIABILITY		19,305	20,484	19,282	20,119
Defined benefit pension scheme liability	22	(2,989)	(3,211)	(2,989)	(3,211)
NET ASSETS AFTER PENSION LIABILITY		16,316	17,273	16,293	16,908

The financial statements on pages 64 to 95 were approved and authorised for issue by the trustees and signed on their behalf by:

Mr N Glover,
Trustee and President 2022
on 25 May 2023



Dr K Thornton,
Trustee and Senior Vice President 2022
on 25 May 2023



THE FUNDS OF THE CHARITY					
ENDOWMENT FUNDS	18	33	33	33	33
RESTRICTED INCOME FUNDS					
Restricted funds	19	2,286	2,506	2,286	2,506
UNRESTRICTED FUNDS					
General funds		2,057	2,871	2,034	2,506
Designated funds	20	10,986	10,996	10,986	10,996
Revaluation reserve	20	954	867	954	867
TOTAL CHARITY FUNDS		16,316	17,273	16,293	16,908

Consolidated and charity statement
of cash flows for the year ended
31 December 2022

	Notes	Group		Institute	
		2022 £'000	2021 £'000	2022 £'000	2021 £'000
Cash flows from operating activities:					
Net cash used in operating activities	T1	(29)	(386)	51	(409)
Cash flows from investing activities:					
Dividends, interest and rents from investments		270	230	270	230
Purchase of intangibles		(29)	(47)	(35)	(47)
Purchase of property, plant and equipment		(393)	(36)	(393)	(36)
Proceeds from sale of property, plant and equipment		347	-	347	-
Net cash provided by/(used in) investing activities		195	147	189	147
Change in cash and cash equivalents in the reporting period		166	(239)	240	(262)
Cash and cash equivalents at the beginning of the reporting period		(713)	(474)	(811)	(549)
Cash and cash equivalents at the end of the reporting period	T2	(547)	(713)	(571)	(811)

T1 Reconciliation of net income/ (expenditure) to net cash flow from operating activities

	<i>Group</i>		<i>Institute</i>	
	2022 £'000	2021 £'000	2022 £'000	2021 £'000
Net expenditure/(income) for the reporting period (as per the statement of financial activities)	(1,119)	696	(777)	698
Adjustments for:				
Depreciation and amortisation charges and impairment of fixed assets	314	300	309	295
(Gains)/losses on disposal of fixed assets	(77)	-	(77)	-
Losses/(gains) on investments	1,133	(759)	1,133	(759)
Pension costs	(146)	(132)	(146)	(132)
Dividends, interest and rents from investments	(270)	(230)	(270)	(230)
(Increase)/decrease in stocks	(26)	207	(67)	(10)
(Increase)/decrease in debtors	(73)	(29)	19	(241)
(Increase)/decrease in creditors	235	(439)	(73)	(30)
Net cash used in operating activities	(29)	(386)	51	(409)

T2 Analysis of cash and cash equivalents

	<i>Group</i>		<i>Institute</i>	
	2022 £'000	2021 £'000	2022 £'000	2021 £'000
Cash in hand	30	99	6	1
Bank overdraft	(577)	(812)	(577)	(812)
Total cash and cash equivalents	(547)	(713)	(571)	(811)

Accounting Policies

Basis of financial statements

The Institute of Materials, Minerals and Mining (“the Charity”) is an unincorporated charity domiciled in England. The address of the Charity’s registered office and principal place of business is 297 Euston Road, London NW1 3AD.

The Charity’s principal activities and the nature of the Charity’s operations are described in the Trustees’ Report on pages 52-54.

The financial statements have been prepared in accordance with Accounting and Reporting by Charities: Statement of Recommended Practice applicable to charities preparing their accounts in accordance with the Financial Reporting Standard applicable in the UK and Republic of Ireland (FRS 102) (effective 1 January 2019) – (Charities SORP (FRS 102)), the Financial Reporting Standard applicable in the UK and Republic of Ireland (FRS 102) and the Charities Act 2011.

The Institute of Materials, Minerals and Mining meets the definition of a public benefit entity under FRS 102. Assets and liabilities are initially recognised at historic cost or transaction value unless otherwise stated in the relevant accounting policy notes.

The financial statements are prepared in sterling, which is the functional currency of the Charity. Monetary amounts in these financial statements are rounded to the nearest £1,000.

Preparation of the accounts on a going concern basis

The Trustees confirm that at the time of approving these financial statements, there is a reasonable expectation that the Institute has adequate resources to continue for the foreseeable future. In arriving at this conclusion, the Trustees have taken into account the current and anticipated financial performance in the current economic conditions and the charity’s reserves position. The trustees have considered the forecasts for 2023 and 2024. The Trustees are however satisfied that the charity has adequate reserves and strategies in place

to deal with the economic impact as it develops and have therefore concluded that it remains appropriate to prepare the financial statements on the going concern basis.

Group financial statements

The financial statements consolidate the results of the wholly owned subsidiary companies and companies over which the Institute exercises dominant influence on a line-by-line basis. The members’ benevolent funds are not consolidated because they are under independent control.

Details of the Institute’s total incoming resources and net movement in funds are shown in the notes.

Income

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

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.

Income from Government and other grants is recognised when the charity has entitlement to the funds, any performance conditions attached to the grant are met, it is probable that the income will be received and the amount can be measured reliably.

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, probability of receipt and the amount can be measured with sufficient reliability.

Expenditure

Expenditure is recognised once there is a legal or constructive obligation to make a payment to a third party, it is probable that settlement will be required and the amount of the obligation can be measured reliably.

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.

Allocation of 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. The basis on which support costs are allocated is set out in note 7.

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.

Heritage Assets

A description of heritage assets held by the Charity is given in note 11. These assets were valued in February 2019 and details are given in note 11.

The heritage assets have been recognised in the Institute's balance sheet at 31 December 2018 at this valuation. The Trustees reviewed the value of the heritage assets and are in agreement that there was no change in value as at 31 December 2022.

Tangible fixed assets 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:

Freehold Property (excluding land)	2% p.a.
Leasehold property	over the term of the lease
Furniture	15%-20% p.a.
Equipment	20%-33% 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.

Freehold property is accounted for using the revaluation method with the building element depreciated at a rate of 2% per annum and revalued to its market value at the end of the financial year. The net value of gains on revaluation are held in the revaluation reserve.

The Institute's freehold property is recognised in the financial statements at its market value as at 31 December 2022.

Intangible fixed assets

Intangible fixed assets, including patents and software, 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 reviewed where circumstances indicate that the carrying value of an asset may not be fully recoverable.

Investments and investment income

Listed investments are shown at market value at the balance sheet date. Realised and unrealised gains or losses are taken to the fund to which they relate via the Statement of Financial Activities in the year in which they arise. Unlisted investments are held at cost. 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.

Stocks and work in progress

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

Debtors

Trade and other debtors are recognised at the settlement amount due after any trade discount offered. Prepayments are valued at the amount prepaid net of any trade discounts due 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.

Cash at bank and in hand

Cash at bank and in hand includes cash and short term highly liquid investments with a short maturity of three months or less from the date of acquisition or opening of the deposit or similar account.

Creditors and provisions

Creditors and provisions are recognised where the charity has a present obligation resulting from a past event that will probably result in the transfer of funds to a third party and the amount due to settle the obligation can be measured or estimated reliably. Creditors and provisions are normally recognised at their settlement amount after allowing for any trade discounts due.

Financial instruments

The Institute only has financial assets and financial liabilities of a kind that qualify as basic financial instruments. Basic financial instruments are measured at their settlement value.

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 and was closed to accrual on 31 December 2021.

The assets of the scheme are held independently 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. Fair value is based on the market price information and in the case of quoted securities is the published bid price.

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 that has been rated at AA or equivalent basis 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.

The actuarial gain or loss arising in the year included under 'other recognised gains or losses'. Contributions are charged to expenditure so as to spread the regular cost of pensions over the expected working lives of the employees in the scheme. Any difference between the cumulative amounts charged and contributions paid is included as an asset or liability on the balance sheet.

The interest element of the defined benefit cost represents the change in present value of scheme obligations relating to the passage of time and is determined by applying a discount rate to the opening present value of the benefit obligation, valuing into account material changes in the obligation during the year. The expected return on plan assets is based on an assessment made at the beginning of the year of long-term market returns on scheme assets adjusted for the effect on the fair value of plan assets of the contributions received and benefits paid during the year. The difference between the expected return on plan assets and the interest costs is recognised in the consolidated SOFA (Statement of Financial Activities) as pension finance income or within resources expenses as appropriate.

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.

Critical accounting estimates and assumptions

The Institute makes estimates and assumptions concerning the future. The resulting estimates and assumptions will, by definition, seldom equal the related actual results. The estimates and assumptions that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year are those used by the scheme actuary in calculating the Institute's defined benefit scheme liability (see note 22 for details).

Revaluation of freehold property: the revaluation is based on the building element of freehold properties depreciated at a rate of 2% per annum and revalued to its market value at the end of the financial year.

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. The revaluation reserve within designated funds represents the value of gains on revaluation of freehold property.
- 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.
- Permanent endowment fund – 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.

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

Notes to financial statements

1. Consolidated statement of financial activities for the year ended 31 December 2021

	Notes	Unrestricted funds General £'000	Unrestricted funds Designated £'000	Restricted funds £'000	Permanent endowment £'000	Total funds 2021 £'000	Total funds 2020 £'000
INCOME AND ENDOWMENTS FROM:							
Donations and legacies	4	52	-	5	-	57	90
Charitable activities							
Membership and related activities		1,641	-	-	-	1,641	1,535
Charitable trading activities	3	1,610	-	-	-	1,610	1,299
Other trading activities	13	321	-	-	-	321	276
Investments		176	2	52	-	230	259
Total income		3,800	2	57	-	3,859	3,459
EXPENDITURE ON:							
Raising funds	13	202	-	-	-	202	172
Charitable activities							
Membership and related activities		2,314	1	70	-	2,385	3,146
Charitable trading activities	3	1,335	-	-	-	1,335	483
Total expenditure		3,851	1	70	-	3,922	3,801
Operating (expenditure)/income		(51)	1	(13)	-	(63)	(342)
Net gains/(losses) on investments	12	597	7	155	-	759	(293)
Net income/(expenditure)		546	8	142	-	696	(635)
Other recognised gains/(losses)							
Gains on revaluation of fixed assets	10	-	84	-	-	84	84
Actuarial gains/(losses) on defined benefit pension schemes		1,290	-	-	-	1,290	(576)
NET MOVEMENT IN FUNDS		1,836	92	142	-	2,070	(1,127)
Reconciliation of funds							
Total funds brought forward		1,035	11,771	2,364	33	15,203	16,330
TOTAL FUNDS CARRIED FORWARD		2,871	11,863	2,506	33	17,273	15,203

2. Charity only statement of financial activities for the year ended 31 December 2022

	Unrestricted funds General	Unrestricted funds Designated	Restricted funds	Permanent endowment	Total funds 2022	Total funds 2021
	£'000	£'000	£'000	£'000	£'000	£'000
INCOME AND ENDOWMENTS FROM:						
Donations and legacies	466	-	-	-	466	255
Charitable activities						
Membership and related activities	1,664	-	-	-	1,664	1,528
Charitable trading activities	1,501	-	-	-	1,501	1,275
Investments	212	3	55	-	270	230
Other income	77	-	-	-	77	-
Total income	3,920	3	55	-	3,978	3,288
EXPENDITURE ON:						
Charitable activities						
Membership and related activities	2,636	1	64	-	2,701	2,269
Charitable trading activities	921	-	-	-	921	1,080
Total expenditure	3,557	1	64	-	3,622	3,349
Net losses/(gains) on investments	(911)	(11)	(211)	-	(1,133)	759
Net expenditure/(income)	(548)	(9)	(220)	-	(777)	698
Other recognised (losses)/gains:						
Gains on revaluation of fixed assets	-	86	-	-	86	84
Actuarial gains on defined benefit pension schemes	76	-	-	-	76	1,290
NET MOVEMENT IN FUNDS	(472)	77	(220)	-	(615)	2,072
Reconciliation of funds						
Total funds brought forward	2,506	11,863	2,506	33	16,908	14,836
TOTAL FUNDS CARRIED FORWARD	2,034	11,940	2,286	33	16,293	16,908

3. Charitable trading activities

	2022 £'000	2021 £'000
TURNOVER		
Publishing	989	970
Conferences and exhibitions	193	356
Information services	-	4
Training services	335	280
Incoming resources	1,517	1,610
COST OF CHARITABLE TRADING ACTIVITIES		
Publishing	72	526
Conferences and exhibitions	430	484
Information services	5	6
Training services	399	319
Expenditure	906	1,335
NET CONTRIBUTION FROM CHARITABLE TRADING ACTIVITIES		
Publishing	917	444
Conferences and exhibitions	(237)	(128)
Information services	(5)	(2)
Training services	(64)	(39)
Net income	611	275

4. Donations and legacies

During 2021, the charity made a application under the government coronavirus job retention scheme to assist with the financial impact of the Covid-19 pandemic. The amount claimed in 2021 totalled £12k and was recognised within donations and legacies. No amount was claimed in 2022.

	2022 £'000	2021 £'000
Other donations	42	45
Government grant	-	12
	42	57

5. Other trading activities

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. These activities are undertaken by Materials Institute Services Ltd (see note 13: Subsidiary undertakings).

6. Investment income

	2022		2021	
	Unrestricted £'000	Restricted £'000	Unrestricted £'000	Restricted £'000
Listed securities				
Growth & Income fund	209	37	174	31
Fixed interest	1	4	1	4
UK equities	4	14	3	17
Cash and cash equivalents	1	-	-	-
	215	55	178	52

7. Total resources expended

Summary

	2022 £'000	2022 £'000	2021 £'000	2021 £'000
Direct charitable costs		754		779
Employment costs				
Salaries	1,671		1,678	
Social security costs	189		177	
Pension costs	301		285	
Temporary and other staff costs	97		76	
Redundancy costs	26		1	
		2,284		2,217
Establishment costs				
Property costs	286		240	
Information technology	182		169	
Depreciation and amortisation	314		300	
		782		709
Administration costs				
Travel, meeting and committee expenses	24		16	
Postage and telecommunications	33		49	
Printing and stationery	14		16	
Finance costs	20		19	
Professional fees	67		111	
Office and other costs	5		6	
		163		217
		3,983		3,922

Breakdown of costs of activities

	<i>Direct costs</i> £'000	<i>Support costs</i> £'000	<i>2022 Total</i> £'000	<i>2021 Total</i> £'000
Charitable activities				
Membership and related services	508	2,333	2,841	2,385
Charitable trading activities	215	691	906	1,335
	724	3,024	3,748	3,720
Costs of raising funds				
Activities for raising funds	31	205	236	202
	754	3,229	3,983	3,922

Support cost breakdown by activity

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.

Admin costs include governance, finance, HR, IT and sales and marketing costs, which are apportioned to activities on the basis of employment costs.

	<i>Employment costs</i> £'000	<i>Establishment costs</i> £'000	<i>Admin costs</i> £'000	<i>2022 Total</i> £'000	<i>2021 Total</i> £'000
Membership and related services	1,654	562	117	2,333	2,056
Charitable trading activities	496	156	39	691	898
Activities for raising funds	134	64	7	205	189
	2,284	782	163	3,229	3,143

Employee information

	2022 No.	2021 No.
The average number/(full time equivalent) employees during the year was	41(37)	44(42)
The number of employees who earned more than £60,000 per annum including benefits was:		
£60,001 - £70,000	2	2
£70,001 - £80,000	2	2
£110,001 - £120,000	1	1
The number of employees who earned more than £60,000 per annum and accrued benefits in the Institute's pension scheme was:		
Money purchase scheme	5	5

	2022 £'000	2021 £'000
Total remuneration of key management personnel, including benefits during the year was	504	495
Total employer National Insurance contributions paid on the key management personnel remuneration	59	55
Total amount of redundancy payments made during the year was	26	1
Contributions to the pension funds during the year were:		
Defined benefit scheme	200	251
Money purchase scheme	103	76

The key management personnel of the charity are detailed on page 57.

Total expenditure includes

2022
£'000

2021
£'000

Auditor's remuneration		
Audit fee – current year	50	43
Accountancy, taxation and other services	4	4
Travel expenses paid to 5 (2021: 6) Trustees for attending Executive board and other meetings	1	1
Travel expenses paid on behalf of 15 (2021: 13) Trustees for attending Executive board and other meetings	3	1
Operating lease charges	39	38

None of the Council members received any remuneration in either year.

2022
£'000

2021
£'000

The total future minimum lease payments under non-cancellable operating leases	Land and buildings	Other	Land and buildings	Other
Within one year	29	8	29	8
Within two to five years	115	12	115	20
After five years	101	-	129	-

Other transactions with trustees

No Trustees directly or indirectly received any remuneration during the years ended 31 December 2022 and 2021.

8. Transfers between funds

There were no transfers between funds during 2022 or 2021.

9. Intangible fixed assets

	<i>Group and parent Website and software £'000</i>	<i>Group only £'000</i>	<i>Total £'000</i>
Cost			
1 January 2022	803	25	828
Additions in the year	29	-	29
Reclassification in year	25	(25)	-
31 December 2022	857	-	857
Amortisation			
1 January 2022	464	14	478
Charge for the year	136	5	141
Reclassification in year	19	(19)	-
31 December 2022	619	-	619
Net book value			
31 December 2022	238	-	238
31 December 2021	339	11	350

10. Tangible fixed assets

	<i>Freehold property held for sale £'000</i>	<i>Freehold property £'000</i>	<i>Short leasehold property £'000</i>	<i>Furniture, fittings & equipment £'000</i>	<i>Total £'000</i>
GROUP AND PARENT					
Cost or valuation					
1 January 2022	270	13,217	2,221	1,040	16,748
Additions in the year	-	200	-	193	393
Disposals in year	(270)	-	-	-	(270)
31 December 2022	-	13,417	2,221	1,233	16,871
Depreciation					
1 January 2022	-	2,506	2,062	846	5,414
Charge for the year	-	86	25	62	173
Revaluation	-	(86)	-	-	(86)
31 December 2022	-	2,506	2,087	908	5,501
Net book value					
31 December 2022	-	10,911	134	325	11,370
31 December 2021	270	10,711	159	194	11,334

10. Tangible fixed assets (continued)

The Institute's freehold land and buildings are accounted for using the valuation method. Both of the Institute's freehold properties were revalued at their present market value at the end of 2018. The London property was revalued at its present market value of £10.7m by Neil Burch MRICS on 31 March 2019. The next formal valuation of freehold properties is due to take place in 2024.

Trustees have reviewed the value of freehold properties at 31 December 2022 by reference to CBRE index and to the open market, and are satisfied that there is no impairment to value of freehold properties.

The Stoke property was sold in December 2022 for £346k. A gain on disposal of £76k is included in other income.

Other income also includes gains of £1k on disposal of IT equipment.

11. Heritage assets

In addition to the assets outlined in note 10, the Institute owns a collection of paintings and artefacts of historic and scientific importance which is deemed to be heritage assets as defined under SORP (FRS 102). The collection comprises portraits, paintings, artefacts and sculptures, which the Institute has commissioned, acquired or received as a donation to either enhance the fabric of its building or to celebrate its history in science, engineering and technology.

The Institute maintains a comprehensive register of these assets. The Institute's heritage assets were valued in February 2019 by Penny Bingham (MRICS), an independent Fine Art Valuer, at a combined value of £287k. Separately, the Institute's Mining Lamp collection was valued in May 2016 by David Rimmer of the Miners Lamp Society at a combined value of £169k.

Both independent valuers consider that the resale value of individual heritage assets is very sensitive to the number of potential purchasers with the ability and willingness to pay.

The heritage assets were recognised in the Institute's balance sheet at 31 December 2018 at valuation and have been subsequently held at valuation subject to annual review for indications of any impairment.

Trustees have reviewed the assets at 31 December 2022 and do not consider there to be any impairment.

12. Investments

	<i>Group and Institute</i>		<i>Institute</i>	
	<i>2022</i>	<i>2021</i>	<i>2022</i>	<i>2021</i>
	<i>£'000</i>	<i>£'000</i>	<i>£'000</i>	<i>£'000</i>
Analysis of movements in the year				
Opening market value	9,637	8,878	9,637	8,878
Revaluations	(1,133)	759	(1,133)	759
Closing market value	8,504	9,637	8,504	9,637
Invested as follows				
<i>Listed investments</i>				
Black Rock Growth & Income fund	7,735	8,811	7,735	8,811
Fixed interest	132	160	132	160
UK equities	634	663	634	663
<i>Unlisted investments</i>				
Cash and cash equivalents	3	3	3	3
Subsidiary undertakings	-	-	-	-
Closing market value	8,504	9,637	8,504	9,637
At the balance sheet date, the following investments represent more than 5% of the portfolio by market value				
Black Rock Growth & Income fund	7,735	8,811	7,735	8,811
Charishare (UK equities common investment fund)	567	588	567	588
Historical cost at 31 December	5,342	5,342	5,342	5,342

13. Subsidiary undertakings

The Institute has four subsidiary organisations:

- IOM Communications Ltd (company number 3285009, charity number 1059475), a charitable trading company limited by shares.
- The Institute of Packaging (company number 786826, charity number 295762), a company limited by guarantee.
- Materials Institute Services Ltd (company number 2882544), a company limited by shares.
- PIABC Ltd (company number 10371273) 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, Materials Institute Services Ltd and PIABC Ltd are audited. IOM Communications Ltd and Materials Institute Services Ltd and PIABC Ltd are wholly owned subsidiaries. The Institute holds 100 shares of £1 each in IOM Communications Ltd, one share of £1 in PIABC Ltd and 2 shares of £1 each in Materials Institute Services Ltd.

Materials Institute Services Ltd undertakes income generating activities of the Institute of Materials, Minerals and Mining. PIABC Ltd undertakes membership related activities on behalf of the Institute of Materials, Minerals and Mining. The Institute of Packaging did not trade in 2022 or 2021.

IOM Communications Limited

2022
Total
£'000

2021
Total
£'000

Results		
Charitable trading activities	17	335
Total incoming resources	17	335
Charitable trading costs	(15)	255
Donation to the Institute	374	80
Total outgoing resources	359	335
Net incoming resources	(342)	-
Balances brought forward	342	342
Balances carried forward	-	342

Balance sheets at 31 December		
Fixed assets	-	11
Current assets	-	554
Creditors: amounts falling due within one year	-	(223)
Net current assets	-	342
Shareholders' funds	-	342

Summaries of the 2022 results and balance sheets for IOM Communications Ltd, Materials Institute Services Ltd and PIABC Ltd together with comparative figures for 2021, where applicable, are shown in this note. The net assets of The Institute of Packaging at 31 December 2022 and 31 December 2021 were £nil.

IOM Communications Ltd previously undertook charitable trading activities of the Institute of Materials, Minerals and Mining. These activities were transferred to The Institute of Materials, Minerals and Mining by the end of 2022. IOM Communications Ltd ceased to trade at the end of 2022 and will remain a dormant company for the foreseeable future.

13. Subsidiary undertakings (continued)

Materials Institute Services Limited

	2022 <i>Total</i> £'000	2021 <i>Total</i> £'000
Results		
Turnover	286	321
Total incoming resources	286	321
Costs	236	202
Donation to the Institute	50	119
Total outgoing resources	286	321
Net incoming resources	-	-
Balances brought forward	23	23
Balances carried forward	23	23
Balance sheets at 31 December		
Current assets	52	143
Creditors: amounts falling due within one year	(29)	(120)
Net current assets	23	23
Shareholders' funds	23	23

13. Subsidiary undertakings (continued)

PIABC Limited

	2022 <i>Total £'000</i>	2021 <i>Total £'000</i>
Results		
Turnover	140	113
Total incoming resources	140	113
Costs	140	113
Total outgoing resources	140	113
Net incoming resources	-	-
Balances brought forward	1	1
Balances carried forward	1	1
Balance sheets at 31 December		
Current assets	15	16
Creditors: amounts falling due within one year	(14)	(15)
Net current assets	1	1
Shareholders' funds	1	1

14. Stock and work in progress

	<i>Consolidated</i>		<i>Institute</i>	
	2022 £'000	2021 £'000	2022 £'000	2021 £'000
Work in progress	78	53	78	12
Sundry stocks	2	1	2	1
	<u>80</u>	<u>54</u>	<u>80</u>	<u>13</u>

15. Debtors

Trade debtors	1,352	1,304	1,324	1,251
Other debtors	4	8	3	6
Prepayments and accrued income	200	171	200	169
Amount due from subsidiary companies	-	-	-	120
	<u>1,556</u>	<u>1,483</u>	<u>1,527</u>	<u>1,546</u>

16. Creditors: Amounts falling due within one year

Trade creditors	212	142	212	74
Taxes and social security costs	227	229	227	228
Subscriptions and orders paid in advance	1,626	1,525	1,588	1,447
Other creditors and accruals	287	221	287	214
Amounts due to subsidiary companies	-	-	8	432
Bank overdraft	577	812	577	812
	<u>2,929</u>	<u>2,929</u>	<u>2,899</u>	<u>3,207</u>

Subscriptions and orders paid in advance

At 1 January	1,525	1,646	1,447	1,348
Recognised in year	(1,506)	(1,580)	(1,429)	(1,340)
Provided for in year	1,607	1,459	1,570	1,439
At 31 December	<u>1,626</u>	<u>1,525</u>	<u>1,588</u>	<u>1,447</u>

17. Analysis of net assets between funds at 31 December 2022

Group	Unrestricted funds		Restricted	Permanent	Total
	General £'000	Designated £'000	funds £'000	Endowment fund £'000	
Intangible assets	238	-	-	-	238
Tangible fixed assets	193	11,177	-	-	11,370
Heritage assets	-	456	-	-	456
Investments	6,580	82	1,809	33	8,504
Current assets	964	225	477	-	1,666
Current liabilities	(2,929)	-	-	-	(2,929)
Net assets before pension liability	5,046	11,940	2,286	33	19,305
Pension liability	(2,989)	-	-	-	(2,989)
Total net assets	2,057	11,940	2,286	33	16,316

Institute	Unrestricted funds		Restricted	Permanent	Total
	General £'000	Designated £'000	funds £'000	Endowment fund £'000	
Intangible fixed assets	238	-	-	-	238
Tangible fixed assets	193	11,177	-	-	11,370
Heritage assets	-	456	-	-	456
Investments	6,580	82	1,809	33	8,504
Current assets	911	225	477	-	1,613
Current liabilities	(2,899)	-	-	-	(2,899)
Net assets before pension liability	5,023	11,940	2,286	33	19,282
Pension liability	(2,989)	-	-	-	(2,989)
Total net assets	2,034	11,940	2,286	33	16,293

17. Analysis of net assets between funds at 31 December 2021

Group	Unrestricted funds		Restricted funds £'000	Permanent Endowment fund £'000	Total funds £'000
	General £'000	Designated £'000			
Intangible assets	350	-	-	-	350
Tangible fixed assets	243	11,091	-	-	11,334
Heritage assets	-	456	-	-	456
Investments	7,492	93	2,019	33	9,637
Current assets	926	223	487	-	1,636
Current liabilities	(2,929)	-	-	-	(2,929)
Net assets before pension liability	6,082	11,863	2,506	33	20,484
Pension liability	(3,211)	-	-	-	(3,211)
Total net assets	2,871	11,863	2,506	33	17,273

Institute	Unrestricted funds		Restricted funds £'000	Permanent Endowment fund £'000	Total funds £'000
	General £'000	Designated £'000			
Intangible fixed assets	339	-	-	-	339
Tangible fixed assets	243	11,091	-	-	11,334
Heritage assets	-	456	-	-	456
Investments	7,492	93	2,019	33	9,637
Current assets	850	223	487	-	1,560
Current liabilities	(3,207)	-	-	-	(3,207)
Net assets before pension liability	5,717	11,863	2,506	33	20,119
Pension liability	(3,211)	-	-	-	(3,211)
Total net assets	2,506	11,863	2,506	33	16,908

18. Permanent endowment fund

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.

Group and Institute	Balance at 1 January 2022 £'000	Incoming resources £'000	Resources expended £'000	Investment gains/(losses) £'000	Transfers between funds £'000	Balance at 31 December 2022 £'000
Mining Club	33	-	-	-	-	33

19. Restricted funds

The income of these restricted funds is 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.

IOM3 Education & Outreach Trust - to support the award of grants and bursaries to students and young professionals in the fields of materials, minerals and mining.

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 of 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.

Group and Institute	Balance at 1 January 2022 £'000	Incoming resources £'000	Resources expended £'000	Investment gains/ (losses) £'000	Transfer between funds £'000	Balance at 31 December 2022 £'000
Stanley Elmore Fellowship	724	17	(42)	(73)	-	626
IOM3 Education & Outreach Trust	5	-	(12)	-	685	678
Andrew Carnegie Trust Fund	742	16	(9)	(40)	-	709
Bosworth Smith Trust	311	7	-	(33)	(285)	-
Tom Seaman Travelling Scholarship	305	7	-	(32)	(280)	-
Metals & Metallurgy Trust Fund	128	2	-	(10)	(120)	-
Edgar Pam Fellowship	115	3	-	(12)	-	106
G Vernon Hobson Bequest	75	2	-	(7)	-	70
Other funds	26	1	-	(4)	-	23
Prize funds	75	-	(1)	-	-	74
	2,506	55	(64)	(211)	-	2,286

During the year Charity Commission granted permission for objects of Metals & Metallurgy Trust Fund, Bosworth Smith Trust and Tom Seaman Travelling Scholarship to be aligned with the objects of IOM3 Education & Outreach Trust. Subsequently, the above named trusts were merged into the IOM3 Education & Outreach Trust.

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.

20. Designated funds

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

- Asset development fund – representing selected amounts (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 as deemed appropriate by the trustees.
- 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>Balance at</i> 1 January 2022 £'000	<i>Incoming</i> <i>resources</i> £'000	<i>Resources</i> <i>expended</i> £'000	<i>Gains/</i> <i>(losses)</i> £'000	<i>Balance</i> <i>at 31</i> <i>December</i> 2022 £'000
Asset development fund	10,680	-	-	-	10,680
Revaluation reserve	867	-	-	86	953
Services development fund	57	-	-	-	57
Sir Julius Wernher Memorial Fund	168	3	(1)	(11)	159
Packaging education fund	50	-	-	-	50
Materials education	24	-	-	-	24
Robert A Moore Fund	17	-	-	-	17
	11,863	3	(1)	75	11,940

21. Cumulative unrealised investment gains

	<i>Consolidated</i>		<i>Institute</i>	
	2022 £'000	2021 £'000	2022 £'000	2021 £'000
General fund	2,144	3,055	2,144	3,055
Designated funds	26	37	26	37
	2,170	3,092	2,170	3,092
Restricted funds	517	727	517	727
	2,687	3,819	2,687	3,819

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 Mobius Life Fund administered by Mobius Life 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 closed to accrual on 31 December 2021. New employees are given the opportunity to join the group personal pension arrangements with Royal London. The group personal pension plan is a defined contribution benefit scheme and complies with the stakeholder legislation.

At the year end, the scheme had 64 deferred members.

Results of the most recent triennial actuarial valuations, at 1 January 2016, 2019 and 2022 showed the following results.

	2016 £'000	2019 £'000	2022 £'000
Market value of the scheme's assets	13,970	13,641	14,639
Liability for projected accrued benefits	(15,593)	(17,330)	(19,105)
(Deficit)	(1,623)	(3,689)	(4,466)

Arrangements have been made for the deficit shown by the actuarial valuation at 1 January 2022 to be funded at the rate of:

- £220k p.a. payable in a lump sum during years ending 31 December 2023 - 2025.
- £100k p.a. increasing at 3.5% payable in equal monthly instalments from 1 January 2026 to 31 December 2034.
- £2,175k payable on 31 December 2034.

22.2 Principal actuarial assumptions

A valuation of the defined benefit pension scheme assets and liabilities at 31 December 2022 under FRS102 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	2022 % p.a.	2021 % p.a.
Discount rate	4.80	1.90
Price inflation – pre-retirement (RPI)	3.00	3.00
Consumer Prices Inflation – pre-retirement (CPI)	2.60	2.70
Rate of increases of pensions in payment (RPI)	3.00	3.00
Rates of increases of pensions in payment – (CPI)	2.00	2.10
Revaluation of deferred pensions (non-GMP)	2.60	2.70

The following demographic assumptions were used in the valuation:

	Year ended 31/12/2022		Year ended 31/12/2021	
	As for post retirement		As for post retirement	
Mortality pre-retirement	S3PMA CMI 2021 1%		S3PMA CMI 2020 1%	
Mortality post-retirement	Males	Females	Males	Females
Life expectancy for a current 65 year old in 2022	86.1 years	88.7 years	86.2 years	88.6 years
Life expectancy at age 65 for an individual aged 45 in 2022	87.0 years	89.8 years	87.2 years	89.8 years

22.3 Amounts recognised in the balance sheet for defined benefit scheme

	2022 £'000	2021 £'000
Present value of defined benefit obligation	(12,860)	(17,251)
Fair value of scheme assets	9,871	14,310
Pension scheme liability recognised in the balance sheet	<u>(2,989)</u>	<u>(3,211)</u>

22.4 Changes in present value of defined benefit obligation

	2022 £'000	2021 £'000
Defined benefit obligation at 1 January	(17,521)	(18,295)
Service cost	-	(60)
Interest cost	(327)	(235)
Member contributions	-	(20)
Benefits paid	577	558
Actuarial gains/(losses)	4,411	531
Defined benefit obligation at 31 December	(12,860)	(17,521)

22.5 Changes in fair value of scheme assets

	2022 £'000	2021 £'000
Plan assets at 1 January	14,310	13,662
Return on plan assets (excluding net interest on defined benefit obligations)	(4,335)	759
Interest income	268	176
Employer contributions	204	251
Member contributions	1	20
Benefits paid	(577)	(558)
Plan assets at 31 December	9,871	14,310

22.6 Major categories of scheme assets

	%	%
Equities	24	19
Corporate bonds	3	9
LDIs	10	9
Properties	-	1
Cash	2	1
Annuities	27	24
Other assets	34	37
Total scheme assets	100	100

22.7 Amounts recognised in the statement of financial activities

The actual return on scheme assets was a loss of £4,062k (2021: Gain - £935k)

The Institute expects to contribute £220k to its defined benefit pension scheme in 2023.

The actuarial gains recognised in the statement financial activities were £76k and the total cumulative net losses recognised from 2002 to 2022 amounted to £3,998k

Amounts recognised in net incoming resources are as follows:

	2022 £'000	2021 £'000
Current service cost	-	60
Net interest cost	59	59
Net charge	59	119

22.8 Outstanding pension contributions at the year end

Contributions for the defined benefit scheme amounting to £nil (2021 - £5k) were outstanding at the year-end. Contributions for the defined contributions schemes amounting to £14k (2021 - £10k) were outstanding at the year-end.

Principal office:
297 Euston Road, London NW1 3AD

Grantham centre:
The Boilerhouse, Springfield Business Park, Caunt Road, Grantham NG31 7FZ

t. 020 7451 7300 • www.iom3.org

The Institute of Materials Minerals & Mining (IOM3) is a body incorporated by Royal Charter (company no RC000267) and a charity registered in England & Wales (269275) and in Scotland (SC050586).

THE INSTITUTE OF MATERIALS, MINERALS & MINING

England & Wales - Charity number 269275

Accounts

The global network for
the materials cycle.

I·M3 Institute of Materials,
Minerals & Mining

2021 ANNUAL REPORT & FINANCIAL STATEMENTS

The annual report and financial statements have been prepared in accordance with the accounting policies set out on pages 68 to 71 and comply with the Charity's Royal Charter, the Charities Act 2011 and Accounting and Reporting by Charities: Statement of Recommended Practice applicable to charities preparing their financial statements in accordance with the financial reporting standard applicable in the UK and Republic of Ireland (FRS102) (effective 1 January 2019).

IOM3 supports professionals in materials, minerals, mining and associated technical disciplines to become heroes of the transition to a low-carbon, resource efficient society, not villains. We seek to be the best professional membership body we can be by providing modern, flexible services, quality technical content and value for money.

Our activities promote and develop all aspects of the materials cycle, from exploration and extraction, to characterisation, processing and application, to product recycling, repurposing and reuse.

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 all. The objectives and activities of the Institute (see page 52) 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.

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.

I.M3 Institute of Materials, Minerals & Mining

IOM3 London

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IOM3 Grantham

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It was my great pleasure and privilege to become President of the Institute of Materials, Minerals & Mining at the beginning of 2021 - though what a time to choose. I was very conscious of the challenge of taking over from Professor Serena Best CBE FREng CEng FIMMM, who led us so effectively through the uncertainties and difficulties of 2020. None of us could have foreseen the events of the last two years and the changes which have taken place in our lives, and many of us will have faced severe issues both at work and at home. The Institute has been in no way exempt from these problems and it is testament to the

resilience and resourcefulness of our membership, volunteers and the IOM3 staff that we were able to quickly adapt and sustain our activities throughout this unprecedented period. I am grateful for all your ongoing support.

I had hoped that 2021 would see a rapid return to a more normal environment and that I would be able to participate fully as President in the wider activities of the Institute. It is my great regret that I have not been able to do that and have been unable to meet as many of you as I would have wished in person, through local society, technical community, or technical events.

PRESIDENT'S

OVERVIEW

That said, a return to physical events has, more recently, become possible, and it was a real highlight for me to attend the Annual Dinner of the Midlands Institute of Mining Engineers in October. A wonderful evening with good food, good company, and a fascinating insight into the important work of a key part of our membership. A great opportunity to appreciate the breadth of skills and activities within IOM3 - which I truly believe is our key strength.

In my Inaugural Address, I spoke about the strong relevance of our profession to the global challenges we all face. Materials, minerals and mining will truly be at the heart of delivering the necessary technological solutions for a decarbonised future. The IOM3 Sustainable Future theme throughout 2021 emphasised the role of materials professionals in the run up to COP26. Under this theme, we enjoyed a wide range of activities including a week of webinars, podcasts, regular COP26 bulletins and a joint report with the Henry Royce Institute highlighting the contribution ►

Neil Glover FREng CEng FIMMM IOM3 President (2021-2022)

'It is testament to the resilience and resourcefulness of our membership, volunteers and the IOM3 staff that we were able to quickly adapt and sustain our activities throughout this unprecedented period.'



'Materials, minerals and mining will truly be at the heart of delivering the necessary technological solutions for a decarbonised future. The IOM3 Sustainable Future theme throughout 2021 emphasised the role of materials professionals in the run up to COP26.'



of materials to the UK Government's 10 point plan. To meet these challenges will require all of us, across the materials cycle, to play our part and will require international collaborations. In that light it was wonderful to contribute to the first webinar on 'Sustainability in Materials Engineering' as part of our new partnership with ASM International. These events and activities have been just a few examples of the progress made to deliver against our strategic priorities of membership, professional development, content and influence.

Our ability to continue to offer a vibrant programme of online events and content has been enabled by the work done in previous years to transform our website and IT platform - Project Optimus. A project which was delivered at the perfect time to enable us to meet the challenges of digital working. Through this we have been able to continue the highly successful membership workshops and deliver a more than 3% growth in our overall membership, a very significant achievement which helped to underpin better than expected financial performance.

We have also been able to host our latest Advisory Council and Annual General Meeting in Sheffield as hybrid events, enabling a wider attendance and representation than was possible through purely physical meetings, supporting our commitment to increase equality, diversity and inclusion across our governance and membership. Another significant milestone has been the launch of our Ably Different Member Group (ADM3), alongside the active Women in Materials, Minerals & Mining (WIM3), IOM3Pride, Ethnic Minorities in Materials, Minerals & Mining (EMM3) and Student & Early Career (SECC) Groups.

Finally, it was inspiring to be a judge at the 2021 Young Persons' World Lecture Competition (YPWLC) and to enjoy brilliant speakers from China, UK, South Africa, Hong Kong, Canada, Russia and Malaysia. The future of our profession is evidently in great hands.

Once again, I wish to thank all the staff and volunteers who have worked so hard to make the Institute a success through challenging times and I look forward very much to meeting more of you this year.

**IOM3 Presidential
Address...
Meet Neil Glover
FIMMM**

**WATCH
NOW**



During 2021, IOM3 continued to seek to fulfil its charitable objects and deliver its strategy to be the best professional membership body it can be, whilst supporting professionals in materials, minerals and mining to be heroes of the transition to a low-carbon, resource efficient society, not villains. In what turned out to be another year where forward planning had its limits, here are some of the highlights.

Like many other professional bodies, we started the year unsure of what would happen to our members and their involvement with IOM3. I am delighted therefore with the growth in numbers of members during 2021, especially at MIMMM level. This is a great endorsement of the efforts IOM3 has made to make itself more relevant and useful to professionals in materials, minerals and mining in the UK and beyond. It is also thanks to some sterling effort by active supporters and volunteers as assessors, and the IOM3 team in administering the demand.

IOM3 delivered a strong set of events in 2021. Alongside our now normal programme of webinars, it had very much been hoped that the big PVC conference could be run with an in-person element in 2021, but events conspired against this, so the switch to fully virtual was made. This ended up being very successful, with a strong technical programme that was extremely well-received. September saw the very positive Sustainable Future week, showcasing the role of professionals in materials, minerals, and mining in the transition to a low-carbon,

CEO'S REVIEW

'Like many other professional bodies, we started the year unsure of what would happen to our members and their involvement with IOM3. I am delighted therefore with the growth in numbers of members during 2021, especially at MIMMM level.'

resource-efficient society. It was also the month of the first ever properly hybrid IOM3 conference – the European Electric Steelmaking Conference (EESC) – held in Sheffield and online. The virtual element used the same platform as deployed for PVC, which has proven itself over the last eighteen months as capable and very user-friendly.

The Annual General Meeting was also held at EESC, again as a hybrid meeting. Alongside the regular agenda, members adopted the new, simpler membership structure proposals and some other modifications as part of the third phase of our governance modernisation. These changes – once approved by the Privy Council – will be brought into effect, hopefully during 2022. ►

Dr Colin Church CEnv FIMMM **IOM3 Chief Executive**



The IOM3 website offering has continued to develop, with the introduction of daily industry news stories, a weekly content alert, and an expansion of the material relating to affiliated local societies. The results of the 2021 reader survey for the member magazine *Materials World* (MW) informed the exciting changes we planned in 2022. Both *Materials World* and *Clay Technology* are also now available electronically to all members (via the MyIOM3 page when logged into the website).

In addition to the existing training and development offering, IOM3 introduced some new courses in 2021. Perhaps the most popular new one was looking at life cycle analysis (LCA). Held in the autumn, this was so popular more runs are scheduled in 2022. IOM3 also continued to deliver end-point assessment services for several materials, minerals, and mining apprenticeships.

Building on the work last year, IOM3 was also able to get involved in more policy discussions in 2021. This included input to the consultation on 'advanced materials' definitions relevant to the National Security and Investment Bill in January and continued with responses to the major packaging reform consultations in the early summer. Other highlights include joining forces with the National Engineering Policy Centre for a submission to the UK Government on its future investment plans, and with the Henry Royce Institute to set out how materials, minerals and mining are essential to all ten points of the Government's plan for a green industrial revolution. Finally, in October it was gratifying to see the Government in the UK's Net Zero Strategy commit to producing a national strategy on critical raw materials, something IOM3 has been calling for all year.

In 2021, IOM3 continued to develop its active supporter and volunteer cohort with the appointment of a new Vice-President, Mike Clinch, and five new Technical, Member and Professional Community Chairs. Two new members were also elected to join the Advisory Council, and IOM3 also established its Commercial Activities Board (CAB), which oversees our non-membership activities. Four new members joined the Awards Committee at its spring meeting, and later in the year, two new members were appointed to the Audit Committee.

Thank you to each of the new additions to leadership roles in the Institute for coming forward, and a corresponding heartfelt thanks to those who have moved on, especially Peter Haslehurst, who stepped down as the Chair of our Audit Committee after significant service in that and other roles over many decades, and Phil Bischler, who stepped down at the end of the year as a Trustee and Chair of the Members' Board, again after substantial service to IOM3 over many years.

2022 is shaping up to be another exciting and challenging year for IOM3 and its members. As economies around the world come to terms with living with COVID-19 and adapting to new ways of working, IOM3 will continue its journey to provide professionals in materials, minerals and mining with the best membership services, technical content, professional development, and networking opportunities it can. The simplification of IOM3 membership grades and the reform of its Technical Communities' structure will be important parts of this work. The Glasgow Climate Summit may well be over, but the urgency with which all need to act to address the transition to a low-carbon, resource efficient society remains,

'2022 is shaping up to be another exciting and challenging year for IOM3 and its members. As economies around the world come to terms with living with COVID-19 and adapting to new ways of working, IOM3 will continue its journey to provide professionals in materials, minerals and mining with the best membership services, technical content, professional development, and networking opportunities it can.'

and IOM3 will continue its role here. This will include actively participating in the policy debates, for example in the work to reform packaging recycling provisions and to develop a national strategy for critical raw materials. IOM3 will also continue to improve its own environmental performance in line with our sustainability policy and as a signatory to the Professional Bodies' Climate Action Plan and the Pledge to Net Zero.

Finally, some thanks. Thank you to the hundreds of active supporters and volunteers in different roles such as assessors, Technical Community leadership group members and Trustees, who enable IOM3 to carry out its work on behalf of its members. And thank you to the great team here at IOM3 for another year of amazing effort and excellent delivery, helping us to become the best professional membership body we can be and to deliver on our charitable objects.

Appointments during 2021

Community Chairs:

Martin Griffin (ADM3)
Paul Hogg (Composites)
Cheryll Pitt (Light Metals)
Ambrose Taylor (Adhesion and Adhesives)
Emma Wilcox (Sustainable Development)

Advisory Council:

Hannah Hilton-Tapp (Students)
Mike Scott (Affiliates)

Awards Committee:

Gemma Dixon
Jim Hannigan
Stephen Kukureka
Andrew Spowage

Commercial Activities Board (CAB):

Michael Agyeman
Maurizio Carano
Jim Hannigan
Kristina Lawson
Daniel Parvaz
Tina Rippon

Audit Committee:

Sarah Hinton
David Seath

The background features a vibrant orange field. On the left, a light purple triangle points towards the center. On the right, a large red circle overlaps the orange background. The text is positioned in the lower-left area, partially overlapping the purple triangle and the orange background.

HIGHLIGHTS
OF THE YEAR

This annual report reflects the work, aims and objectives of the Institute in 2021. The continuing uncertainty surrounding the global pandemic had an impact on our operations, including financial reports, events schedule and venue hire. This impact has been reflected throughout the report.

IOM3 showed no sign of slowing down in 2021 despite the pandemic. Our membership team saw a year-on-year growth of 3.8%, the development of our new website and CRM systems allowed better communication with our members, and our events and training schedule was busier than ever.

We launched our Sustainable Future theme in 2021 to build momentum towards the Glasgow climate summit (COP26) delivering activities including a series of events, podcasts, blogs and industry news as we move towards net-zero. The work on Project Optimus (our digital transformation project) continued with the introduction of a new email system and awards judging process as well as the launch of a live chat and digital advertising functionality.

IOM3 continued with delivery of its Business Plan (2021-2023), focused on membership, content, professional development and influence in public and policy debates. Highlights of 2021 from all IOM3 activities are described in the following pages. IOM3 is thankful to all our active supporters and volunteers contributing at all levels and across all sectors, both in the UK and overseas. The Trustees would also like to acknowledge the hard work and dedication of the team at IOM3.



- IOM3 commits to 'Sustainable Future' theme throughout 2021 to celebrate COP26
- Site-wide digital advertising enabled on IOM3 website

January



February

- IOM3 becomes Associate Member of On-Pack Recycling Label
- Live chat enabled
- 'Monthly member update' email launched on our new integrated email system
- Our weekly website content digest email went live



- IOM3 appoints Commercial Activities Board members
- Women in Materials, Minerals & Mining (WIM3) launches 'Inspiring women in materials, minerals and mining' podcast series theme

March

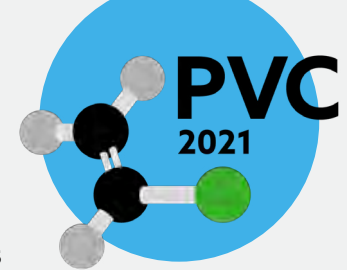


April

- New member network group - Aibly Different M3 launched
- Dr Michael Clinch FIMMM was appointed the Institute's new Vice-President.



- Launch of Business Partner Programme
- IOM3 supports TransFIRe consortium examining how the foundation industries can grow and develop while helping achieve the net zero 2050 environmental targets led by Cranfield University
- Our biggest online event, PVC 2021 takes place drawing in more than 400 delegates



May



June

- Launch of IOM3 Approved service
- IOM3 submits response to the Extended Producer Responsibility (EPR) for Packaging and Introducing a Deposit Return Scheme (DRS) consultations
- IOM3Pride celebrates Pride Month with a podcast discussing intersectionality





- *Materials World* goes naked, removing its plastic in a bid to reduce our carbon footprint

July



- IOM3 holds its first hybrid conference, 12th European Electric Steelmaking Conference, in Edinburgh and online as well as our IOM3 AGM
- IOM3 partners with T&F to launch Open Research publishing platform
- Sustainable Future Week takes place with more than 10 webinars across 5 days in the lead up to COP26.
- Governance changes approved at the Annual General Meeting



September



- Young Persons' World Lecture Competition takes place virtually
- COP26 bulletin launched
- IOM3 launches partnership with ASM-International

November



August

- IOM3 responds to government plans to boost hydrogen economy
- The major review of our Technical Communities completed and approved by Trustees

October

- IOM3 joins signatories for Professional Bodies Climate Action Charter
- The Henry Royce Institute and IOM3 launch materials UK ten point plan for a green industrial revolution

December

- 2021 Awards celebration takes place
- SECC hosts annual Future of Materials conference



Membership

The Membership team had a busy year and achieved a 3.8% growth in individual member numbers and an income derived from membership surpassing £1.4 million for the first time. This was despite there being no increase in membership fees in 2021 from 2020.

Another major achievement of the Membership Team in 2021 was managing and processing the number of individuals seeking and being awarded a professional grade of membership, which has reached a record high. A total of 816 individuals were awarded MIMMM, which brought the MIMMM community to more than 5,000 for the first time and a total of 154 members were awarded or reinstated as FIMMM reaching a record of 2,700. An additional 88 members were awarded AIMMM and TIMMM.

Likewise, the number of members seeking professional registration also continued to be high. IOM3 recorded 194 new Engineering Council Registrants (CEng, IEng & EngTech), 35 new Science Council Registrants (CSci, RSci & RSciTech) and 19 new Council for the Environment Registrants (CEnv & REnvP). The Institute's undergraduate student member recruitment has re-started after a hiatus caused by the pandemic.

The demand for membership workshops continued with 52 membership and registration 'Become a FIMMM', 'CEng in day' and other Science Council and Society for the Environment professional registration workshops held virtually across the year and more than 320 members attending. The programme will continue in 2022.

'IOM3 is a strong organisation and helps to promote the collective materials discipline both nationally and internationally. I am a great believer in synergy and being stronger by working together.'

Sarah Cartmell FIMMM

MIMMM

CEnv & REnvP

CSci, RSci & RSciTech

CEng, IEng & EngTech

AIMMM & TIMMM

FIMMM

The IOM3 member toolkit launched, providing members with a digital membership badge appropriate to their grade to promote their professional standing. Members can access a digital badge relating to their grade to use on email signatures or on printed correspondence, as well as social media posts/profiles.

In November 2021, IOM3 partnered with ASM International, a leading body for people involved with materials science and engineering in the USA, to offer mutual e-membership, a leading body for people involved with materials science and engineering in the USA. A joint webinar programme building on this partnership will run throughout 2022.

The third all-member survey was prepared in late 2021 focused on understanding the impacts of COVID-19 on members and gaining an idea of members' experience of inclusion, diversity and equality issues in their professional lives. The full details will be published in due course.



'Since joining IOM3 I have been astounded by the level of support, professionalism and resources this Institute offers.'

Patrick Plummer CSci FIMMM Chief Mining Geologist (Geoscientist), TradeTech LLC

'The membership workshops held by IOM3 were very helpful in understanding the importance of Continuing Professional Development and how it could be useful in career growth.'

Dr Santosh Kumar MIMMM



Student & Early Career Committee (SECC)

SECC held a series of online events throughout 2021 open to IOM3 members and non-members with more than 300 registrations.

Katie Best ACC, Founder & Director at Taylor Best delivered the very successful webinar 'Finding and using your power and influence' no matter how junior you are in March. While Sofie Boons (aka The Alchemical Jeweller) delivered this year's Art Lecture on finding solutions for the visualisation and containment of invisible substances, concepts and scents through the design of jewellery and objects. Other events included 'Life cycle assessment for early career researchers' and joint events with MAPP ('Road to Chartership') and IOM3 WIM3 ('Securing a new role in 2021').

'I had a fantastic time at the IOM3 Future Materials Conference. Having the opportunity to present some of my most exciting research, as well as meeting lots of interesting and passionate researchers, really made for a great day.'

Anna Tholen from Loughborough University, UK, winner of the Future of Materials Prize



Right: Anna Tholen at the Future Materials Conference

Committee members shared their views in the two opinion pieces 'Pressure to perform in student & work life' and 'Dear self from 5 years ago.' The group also produced our first student newsletter in April 2021 designed for those in their early careers or studying, to keep members up to date with SECC activity.

In December, we held the Future Materials Conference with the support of Rolls-Royce plc, Henry Royce Institute and MIDAS. At our first in-person event in two years, researchers from around the UK joined together to present their talks on topics ranging from bio-based plastics, metamaterials to organic metal frameworks and sustainable aluminium. During the year we welcomed Dr Alastair Houston and Liz Scoffins on the Committee.

Diversity & inclusion

IOM3 has made significant progress towards creating a more inclusive and diverse environment for all who interact with it, and is committed to continue supporting, promoting, and creating a dialogue for under-represented and minority groups in science and engineering in the future.

In 2021, IOM3 participated in the Royal Academy of Engineering/ Science Council Diversity and Inclusion Progression Framework self-assessment in 2021. The aim of the Framework is to help professional bodies in science and engineering to track and plan their progress on diversity and inclusion. IOM3 needs to establish an overall, planned and coherent approach to improving its performance on IDE and is seeking to improve its EDI data with the member survey in 2022.

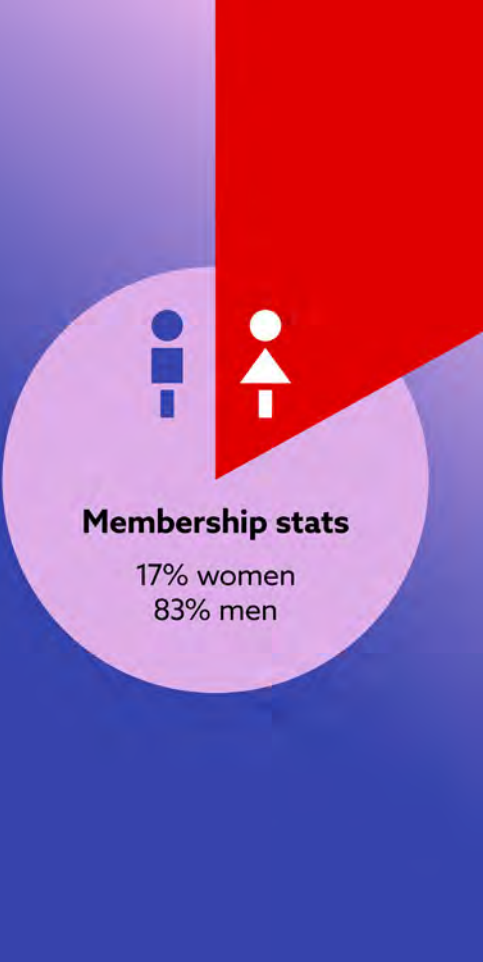
In line with National Inclusion Week in October 2021, IOM3 launched a progress report on diversity and inclusion celebrating some of the achievements over the last two years made in EDI as well as highlighting areas of improvement.

'The broad reach IOM3 has allows groups like ours to inform the members of issues they may not be aware of. Our industries are often not as diverse and inclusive as others and educating our members can help bring positive change to these sectors.'

Sam Grisa, former Chair of EMM3

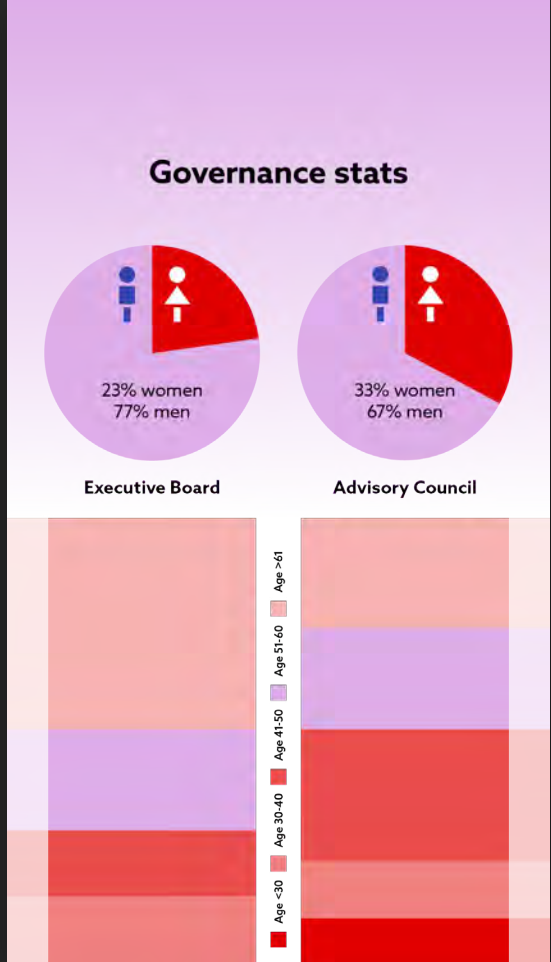
In 2021, IOM3:

- Committed to avoiding single-gender speaker panels at its conferences
- Materials World has featured conversations on neurodiversity, LGBTQ+ engineers, Women in STEM, Black Miners in the UK and more
- New award in 2022 to recognise someone who promotes IDE in materials, minerals, and mining
- IOM3 and UKRI set up a project to promote inclusion, diversity and equality in the foundation industries and their supply chains
- Celebrated several calendar awareness days throughout 2021, including Pride Month, UK Recycle Week and Women in Engineering Day.



IOM3 has five member network groups promoting diversity within the field of materials, minerals & mining

- I.M3 ADM3**
- I.M3 EMM3**
- I.M3 PRIDE**
- I.M3 SECC**
- I.M3 WIM3**



Areas for improvement

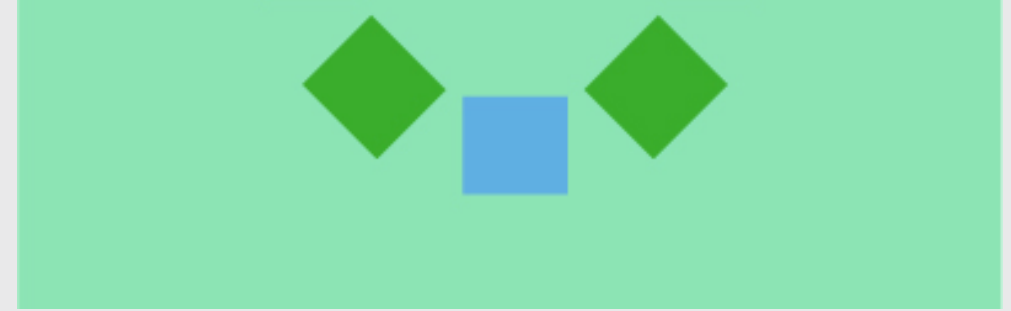
- A clear vision and strategy for EDI in the future
- Better understand under-represented groups in the industry
- Gather more data to help monitor and measure progress and target interventions

Technical communities

Covering the breadth of technical interests of IOM3 members, Technical Communities play an essential role in enabling delivery of the Institute's charitable activities by providing state of the art technical content and supporting the work of IOM3 in advising Ministers as well as offering networking and career support opportunities for members.

Virtual meetings continued within the Technical Communities throughout 2021. This has proven to be a success, allowing a greater mix of people to engage and increased the effective use of volunteer time. Our Technical Communities hosted a range of webinars with groups working together, the highlights of which included the Sustainable Future week in September, the ongoing NMA monthly webinar series, energy materials for the future and recycling linked to aluminium and packaging.

IOM3 continued with its review of the technical communities (Governance Modernisation: Phase 4) following the Governance changes in 2019 to modernise the Institute and further improve member services.

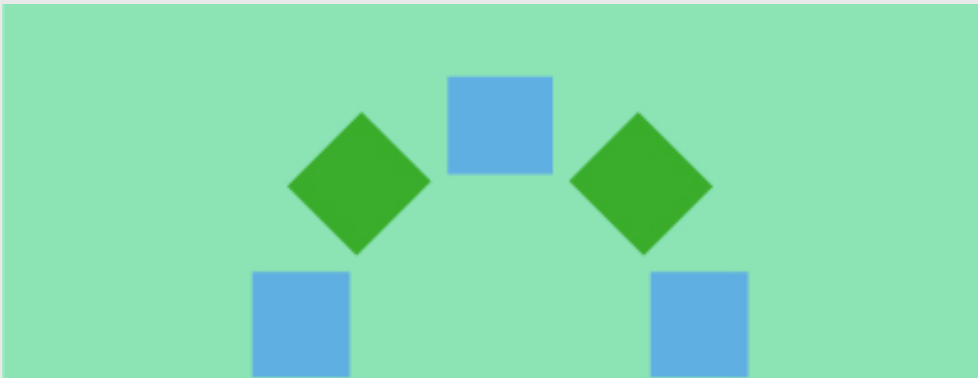


The Trustees approved the changes to Technical Communities in 2021, for rollout and launch in April 2022

These include the following changes:

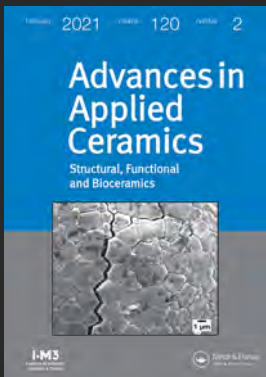
- A new structure with 22 Technical Community groups, including the formation of two new groups
- Group naming, logos and branding will be consistent and in line with the IOM3 visual identity
- Each Technical Community group will have a dedicated public web page in keeping with the IOM3 visual identity
- Each Technical Community group will have a leadership group comprising a chair and up to 15 IOM3 members who will steer activities against a range of agreed objectives to ensure delivery of benefits to members.

We would like to thank all our active supporters and volunteers for Institute dedicated time, bringing value to our members.





Right: New signage at the IOM3 Library in Grantham.



Library & journals

The new library signage was completed during 2021 and the team was able to welcome back visitors by appointment. Following on from the introduction of ICON in 2020, we continued to enhance our digital catalogue and began work to display heritage items in Grantham.



IOM3 continued its partnership with journal publisher Taylor & Francis (T&F) and launched a Materials Open Research platform, utilising T&F's open research publishing arm, F1000. This enables IOM3 and future affiliate partners in the materials science field to be the first adopters of a more open and transparent approach to publishing materials science research. Impact factors improved for many of our existing journals including *International Wood Products Journal* and *Ironmaking & Steelmaking*. Overall, IOM3 journal articles were downloaded more than a million times in 2021, another record.



'Thanks for your invaluable assistance. I never knew, for example, that there were such things as slag collections of such variety – it's amazing.'

Arthur Kay, IOM3 Library Enquiry

International

IOM3 continued to strengthen international presence and affiliations and to mark the launch of partnerships with The Bahamas and ASM International, held two online events in July and November 2021 respectively, with nearly 500 registrants. We continued to be an active participant in several international associations, including the European Ceramic Society (ECERS), the European Federation of Corrosion (EFC), Federation of European Materials Societies (FEMS), the Global Mineral Professionals Alliance (GMPA) and the World Packaging Organisation (WPO).

'ASM International is extremely excited to partner with IOM3. We look forward to expanding the value of each of the organisations to their respective memberships in what I feel will be a long-standing, valuable partner for ASM International.'

Ryan Milosh, Chief Sales and Marketing Officer at ASM International

Education & training

The IOM3 Business Partner Programme launched in May 2021. A subscription to the programme delivers the opportunity for organisations to visibly associate themselves with the Institute and access IOM3 resources and work programmes. Confirmed subscribers in 2021 included CBMM, Renishaw, Beta Technology and Lucideon.

I-M3 Business Partner Programme

Stand out from the competition.

JOIN TODAY

'I always jump on any course from Clayton. I think I may have taken all his courses now. Thanks to IOM3 for all the support and assistance. I will watch out for what's next.'

Fracture and Fatigue Failure Analysis course attendee

'Thanks to IOM3 for the certificate. I enjoyed the course and will look out for future courses that are of relevance to my CPD (at age nearly 67).'

*Dr Bernard P Rochard,
Joinedup Rail Limited*

I-M3

INFORM webinar series

INFORM webinar - the opportunity to deliver knowledge and solutions

FREE WEBINARS

bit.ly/IOM3-INFORM

The IOM3 training academy ran six INFORM webinars throughout 2021. This recently launched opportunity allows organisations to utilise the webinar format to deliver technical or educational content while also generating the opportunity to increase their profile and that of their product or service.

We welcomed the return of in-person teaching for some courses. 10 webinars took place within the IOM3 Training Academy with more than 1,000 registrations.

End point assessment for the Level 3 Composites standard continues and we have become the End Point Assessment Organisation for two further materials, minerals and mining apprenticeships at level 6 and level 7.

Content & magazines

2021 saw an increased effort to produce content in collaboration with technical communities. This resulted in a breadth of content in *Materials World* magazine across topics including, but not limited to packaging, mining, construction, energy transition, biomedical engineering, iron and steel, the circular economy, surface engineering, transport, materials science and technology, and geotechnical engineering.

Responses to *Materials World* reader survey

'Materials World is an excellent example of what a professional association's magazine should be like. It is both technical and highly readable. More of the same!'

The print content is supported by online daily news as well the ongoing 'IOM3 Investigates...' podcast series, with 24 episodes across the year focused on issues relevant to our members.

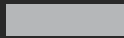
Materials World carried out a survey of its readers in 2021 to ensure we continue to produce content that best suits members' needs. This received responses across the breadth of the disciplines, with positive feedback and valuable pointers on where we can expand our offering while maintaining balance in coverage.

'Always a good balance of content between extraction, production and uses of materials.'

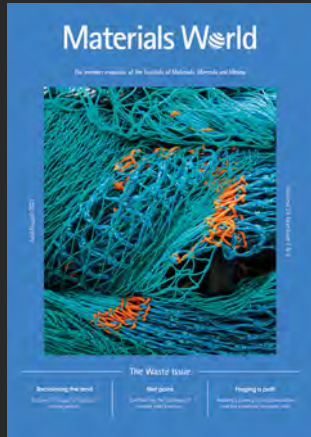
The magazine sees a fresh design developed in-house ready for launch in 2022, in line with the new IOM3 brand and to improve readability. Our new cover design gives us flexibility to showcase content beyond the feature theme to better meet diverse member interests.

We also improved our environmental credentials with the majority of UK copies now being delivered 'naked' (without any wrapper). All other copies are now delivered in a paper wrapper for recyclability at kerbside. The switch has saved around 285kg so far in single-use polywrap in the six months to January 2022.

'Covers a wide range of subjects, not just scientifically but also other things that benefit membership such as CPD.'



Materials World covers from 2021.



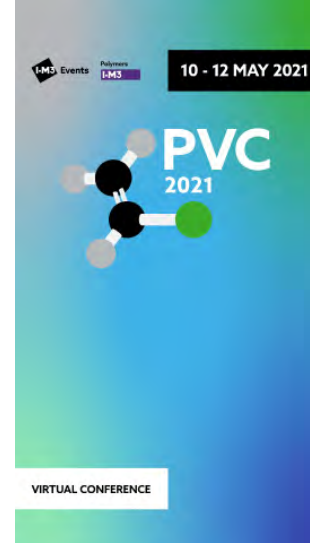
Events

Postponed from 2020, the Polymer Society's flagship PVC2021 took place virtually, welcoming more than 400 delegates and 60 high-quality presentations across 7 key topic themes. This was the first IOM3 Event of this scale to take place online and the team received some great feedback. The next PVC event will take place in 2024.

Due to the ongoing uncertainty regarding international travel, the European Electric Steelmaking Conference was held as a hybrid event. This was our first hybrid event, the live-stream and AV were delivered by O-Films into an online platform for virtual attendees. The in-person conference was hosted in Sheffield and attracted 110 delegates, with a further 90 joining online.

Following the postponement of the Rolls for Rolling Mills conference due to continued international travel restrictions, a successful series of webinars focusing on key themes facing the rolling mill/metal rolling industry took place across June and July 2021. The next Rolls6 conference will take place in 2024.

The IOM3 Natural Materials Association continued with its well-supported, monthly lunchtime webinars on various topics such as anthropology, mycelium, protein-based materials and more. While the Rubber in Engineering group celebrated more than 1,000 delegates signing up for its four online afternoon technical meetings.



The International Conference on Manufacturing of Advanced Composites (ICMAC 2021) was virtual event success with over 100 delegates tuning in for the three-day programme.

Following the success of the virtual conference on 9-12%Cr CSEF Steels in February, IOM3 were approached by the European Collaborative Creep Committee to run their first virtual conference.

SECC, IOM3Pride and WIM3 held a number of virtual events during 2021 and further plans are in place to build on this success with more events for our member groups in 2022.

The annual Starpack Competition continued with more than 160 entries in the students' competition and 120 schools' entries – there was no shortage of excellent work. For students, the judges awarded 64 highly commended, 32 bronze, 15 silver and 9 gold stars. The judges also awarded 58 highly commended, 20 bronze, 15 silver and 9 gold stars in our schools' competition.

'Packaging is essential to our modern day lives, but it is often misunderstood as a villain not a hero. I am really excited about the Starpack competition to encourage students to take up packaging design as a career. This is a great opportunity to showcase your ideas. We are so impressed with this year's entries, and we really appreciate the effort from everyone.'

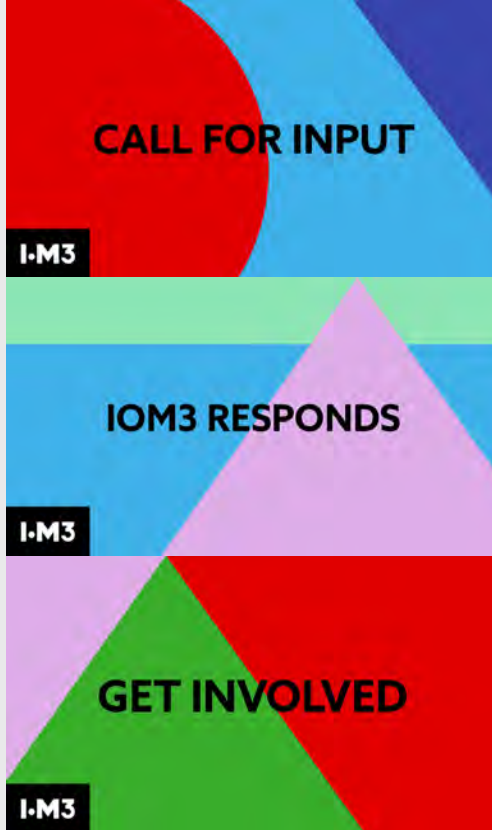
Jude Allan MIMMM, Chair of the Packaging Society

'The team in charge of the event were excellent. They were friendly, ensured that everyone had what they needed and went out of their way to help as they could. Timings were kept to and, in my opinion, the event was a success.'

Delegate attending EEC 2021

'The option of remote participating, even with on-demand recordings is a great idea. In a normal situation, I wouldn't have time to attend physically three days of a conference, in this way I had the opportunity to follow all the presentations interesting to my working field. I hope to have this option available even when conferences could be also in the traditional way.'

Delegate attending PVC 2021



Policy & influence

IOM3, through the expertise of its members, informs and responds to key policy debates across a range of important agendas. In 2021, IOM3 submitted several responses to Parliamentary and Governmental consultations, as well as producing contributions in collaboration with partners.

IOM3 members made a significant contribution to the definitions of advanced and critical raw materials as proposed under the National Security and Investment Bill mandatory notification sectors consultation.

Responses to the major packaging reform consultations on UK-wide Extended Producer Responsibility (EPR) and Introducing a Deposit Return Scheme (DRS) in England, Wales and Northern Ireland were submitted. The government responses to these consultations are due in 2022.

IOM3 also responded to further consultations and parliamentary inquiries – from the Science and Technology Committee inquiry into the role of batteries and fuels cells in achieving net zero, to the revised Waste Prevention Programme for England. IOM3 jointly submitted a response with CIWM to the draft policy statement on environmental principles and responded to the Spending Review through a joint National Engineering Policy Centre (NEPC) submission and a letter to the Chancellor from members of the Science Council.

The Chair of the IOM3 Packaging Society, Jude Allan MIMMM, represented IOM3 at The House of Commons Environment, Food and Rural Affairs (EFRA) Committee evidence session in its inquiry into plastic waste.

IOM3 also partnered with other organisations to deliver joint activities throughout the year such as the IOM3-Henry Royce Institute report highlighting the critical role of materials in delivering the Government's Ten Point Plan and the 'Decarbonising construction: building a new net zero industry' NEPC report.

IOM3 is involved in a number of activities or groups including, the UK Plastics Pact, Environmental Policy Forum and the National Engineering Policy Centre.



Communications & design

In 2021, IOM3 launched our new integrated emailing system (MessagePipes) producing monthly updates to our members as well as a new student and early career newsletter. The new email communications system allows us to send and track more targeted communications to bring in links to content directly from the website, saving much manual work. We also introduced a new monthly events update and advertising on this will begin in 2022.

IOM3 responded to UK Government announcements including UK Budget and Spending Review, Environment Bill, Build Back Greener report, Government Innovation Strategy and the Transport Decarbonisation Plan. IOM3 published its End of Year Review in December 2021.

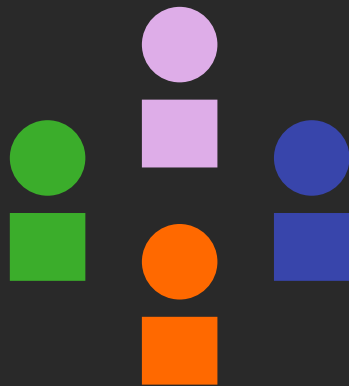
During the year, we increased our IOM3 news content (207 items/13 blogs) and continued to celebrate a number of calendars days throughout 2021 including Black History Month, Pride Month, Global Recycling Day, International Women in Engineering Day and more.

Our social media presence continues to grow with 12,000 Twitter followers, over 15,000 LinkedIn followers, 3,800 Facebook followers and 758 Instagram likes.

The IOM3 Design Team worked on the redesign of Materials World and Clay Technology for launch in 2022 in line with the new branding, as well as producing the design of new tote bags printed at the beginning of September 2021 to be used at all future events. This minimises waste as promotional items are not event specific in line with our new visual identity and have excellent environmental credentials. Grantham and London signage was completed at the end of 2021 to reflect the new visual identity.

IOM3 team

Early in 2022, IOM3 launched the use of an online learning platform for our team. The platform allows the team unlimited access to online training courses for both their professional and personal development. Hybrid working has been well received by the team, who are enjoying the opportunity to meet physically with their colleagues while having the ability to have some focused time remotely. The whole team will meet twice per year for training and team building events.



Digital transformation

IOM3 continued work on our Digital Transformation project (Project Optimus) throughout 2021. Visitor numbers to the website increased significantly over the course of the year. A month-on-month comparison for 2020 and 2021 showed as much as 90% improvement in site sessions over the same month in the previous year

2021 saw the introduction of a useful online chat facility for users to interact with the IOM3 team in real time, a new system for online judging of the 2021 Awards & Prizes, digital advertising functionality across the whole site, web pages on the newly launched Business Partner Programme and IOM3 Approved service, and a host of other improvements in functionality leading to more efficient processes and easier member data reporting and management.

'This was an exciting and challenging project for the integrated transformation team with our partner Bluelight CRM. Deep integration of Microsoft Dynamics with a new members' area and website is delivering great digital services for professionals and the public. We're delighted to see the success since launch and look forward to working with IOM3 on their continuing digital transformation journey.'

Alex Skinner, CEO of Pixl8

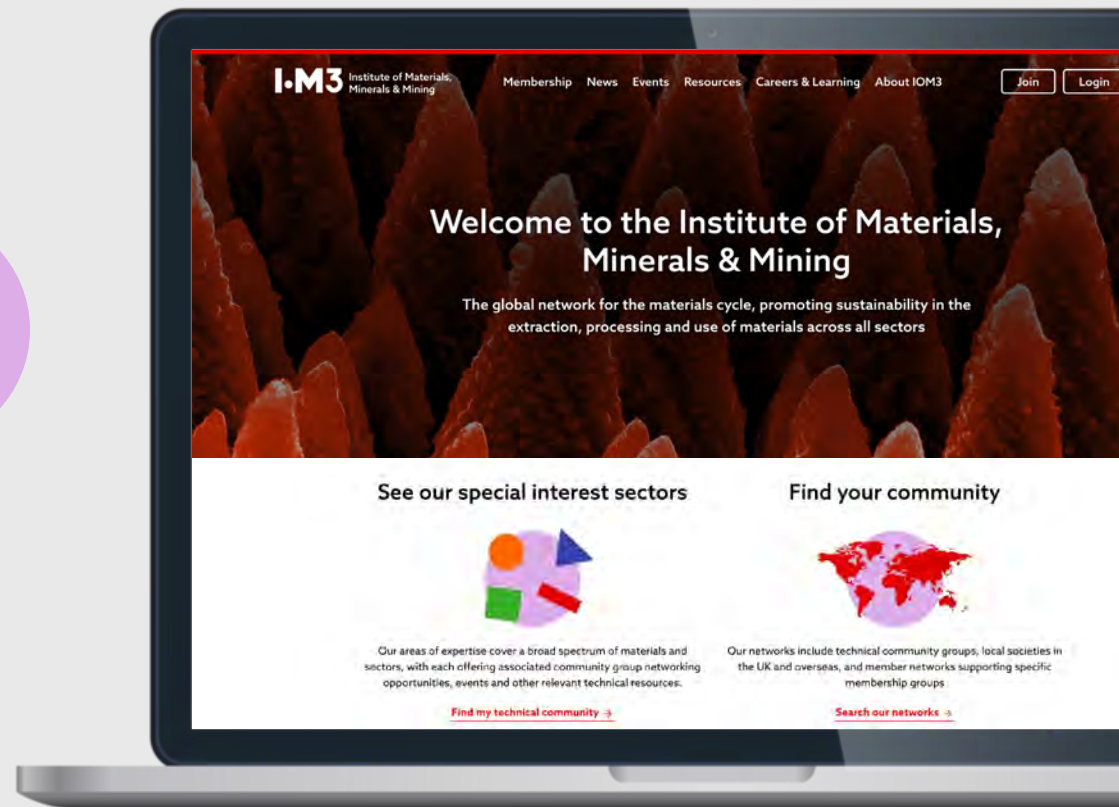
Comments from the 2021 website survey:

'Modern fresh look. Seems well organised when trying to navigate around the pages.'

'Colour balance, modern style, easy format for finding of any information.'

The new IOM3 website was shortlisted for the MemCom Excellence Awards 2021 in October and IOM3 was awarded Best Digital Transformation at the International & European Association Awards 2021 by the Association of Association Executives (AAE) in December.

Further digital enhancements are continuing during 2022, including the implementation of the membership grades and technical communities restructuring plans as well as work on member engagement and diversity data.



'I think the website is much improved and I really like the design overall. It is very easy to find information now. I really like everything that has been done.'

Sustainable Future

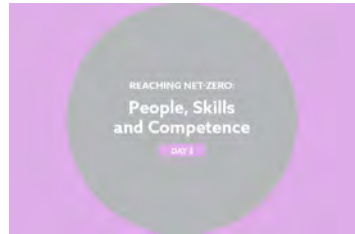
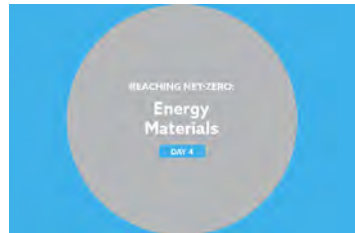
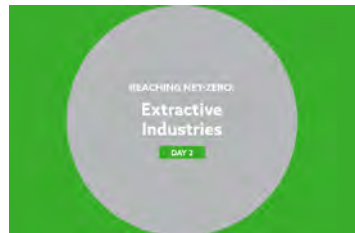
In 2021, IOM3 introduced the 'Sustainable Future' theme to help build momentum towards the Glasgow climate summit (COP26) by delivering a wide range of activities including events, podcasts and additional content as part of this theme. The theme will continue throughout 2022 following COP26 as we move towards net zero. IOM3 organised 33 events, produced 4 podcasts, 7 blogs and during the last 6 months of 2021 published 31 articles and 151 editorial items on the theme of Sustainable Future.

IOM3 committed to climate action through helping to develop and being a founding signatory of the Professional Bodies Climate Action Charter. The aim of this initiative is to help support members across all professions in addressing the challenge of implementing the Paris Agreement.



Sustainable Future week held in September 2021 was a success with more than 700 registrations over the course of the week with 10 webinars, covering all aspects of IOM3 activity with highlights linked to resource efficiency, critical raw materials, energy transition/carbon capture and storage/hydrogen, energy/battery materials and people.

The communications team also launched the COP26 bulletin to keep members updated on what was happening during the two weeks of COP26.



'As a founding member of the Professional Bodies Charter, IOM3 has taken a vital step in leveraging their unique expertise and experience to support professional bodies, large and small, to join in the ambition to create a green and prosperous economy for everyone.'

Geraint Northwood, E3G



'Professionals in materials, minerals and mining have crucial roles to play the changes and technologies required to enable the transition to a low-carbon, resource-efficient society. As the global network for the materials cycle, IOM3 is committed to helping this vital effort, both in our own actions (for example as a signatory of the Pledge to Net Zero) and in the support we offer members and wider society through sharing technical information, education and advice.'

IOM3 CEO Colin Church CEnv FIMMM

Venues

Following the change of work style during COVID-19, IOM3 redesigned our offices to support a new, hybrid style of work, with most members of the IOM3 team spending two days per week in either our Grantham or our London hub, and the rest remotely. Trustees also agreed to sell IOM3 Stoke office.

IOM3 has committed to reducing our scope 3 greenhouse gas emissions by changing suppliers for stationery who provide 'green deliveries,' removal of single use plastics from coffee machines, assessing our business and commuter travel emissions. We also increased our recycling rate to 48% with the aim to improve on this during 2022.

Plans for 2022 include developing/renovating the members' business centre and heritage library.

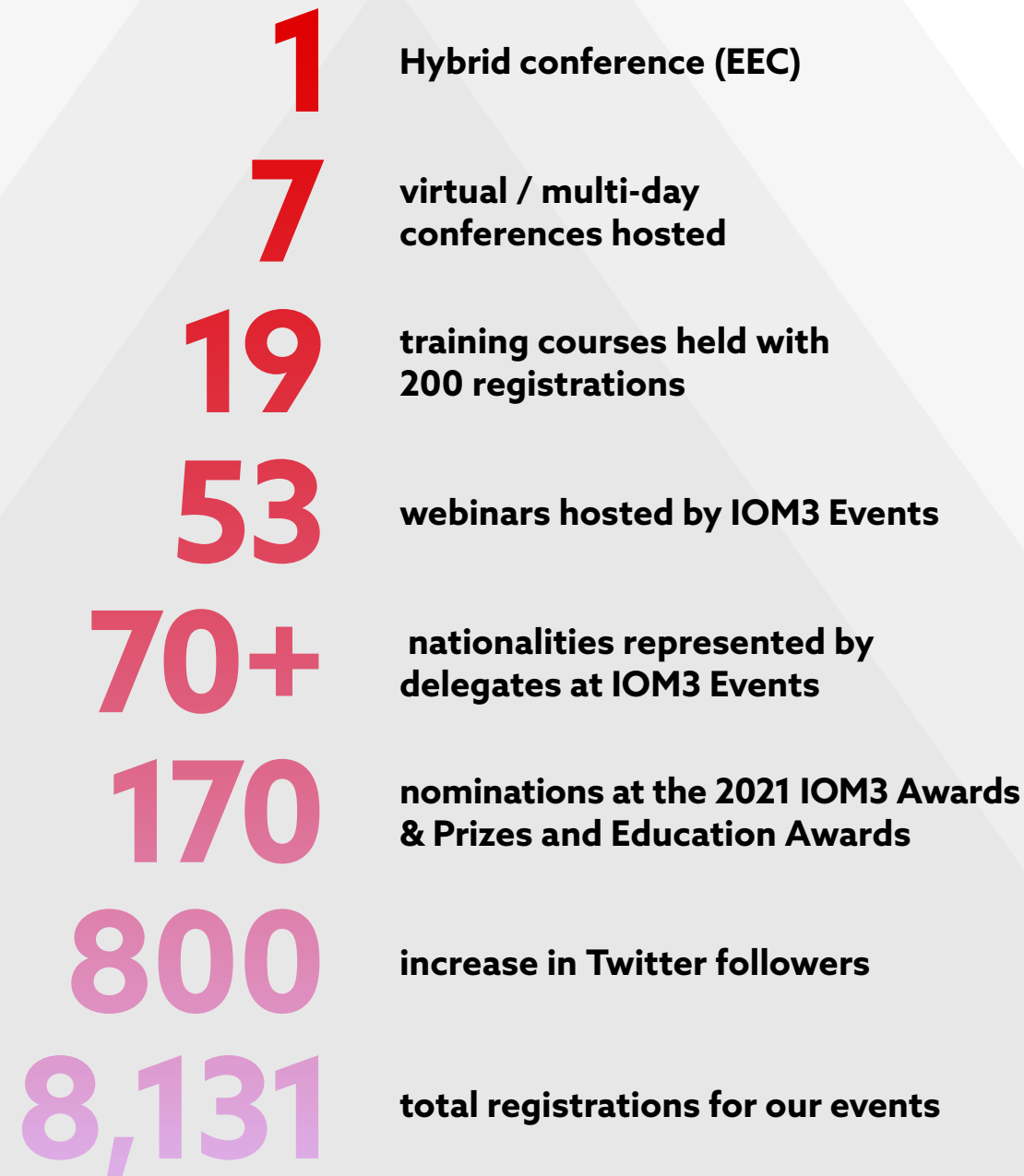


'Well located venue with professional staff and superb quality and choice of catering, at excellent value for money.'

Wells Plastic

'Just wanted to say a quick thank you to the whole team at IOM3. Any queries were dealt with promptly and efficiently. Would highly recommend this venue.'

Sapphire Financial Planning





**AWARDS, MEDALS
& PRIZES**

IOM3 awards numerous medals and prizes in recognition of outstanding contributions to science, technology and management across all disciplines in materials, minerals and mining.

Awards are presented for personal achievement and published work as well as for outstanding contributions to the Institute and its activities. Some awards are aimed specifically at earlier career stages, others recognise technological developments or contributions to education. Awards are presented at special occasions throughout the year, and some award winners deliver lectures to which all members are invited. In 2021, IOM3 has launched a new Equality, Diversity and Inclusion (EDI) award recognising outstanding contribution to promoting EDI within IOM3 and the wider materials, minerals and mining communities.

Prizes are also presented to the best students in specific disciplines and IOM3 runs competitions such as the Young Persons' Lecture Competition to recognise communication and presentation skills. Full details of IOM3 awards and prizes are published on the IOM3 website at www.iom3.org/iom3-awards.



'It is an honour to win this award, there are a lot of very well-known names on the list of previous award winners so it is nice to be included in this list.'

Dr Faye Smith OBE CEng FIMMM, Winner of Leslie Holliday Prize

'It's a huge honour to be winning this nationally and internationally recognised Early Career award and I feel very grateful and blessed to be working with such wonderful people who nominated me and to the Institute for making this fantastic opportunity available to me.'

Dr Stella Pedrazzini MIMMM Winner of Silver Medal

Personal achievement awards

Bessemer Gold Medal	John James Ferriola	Kroll Medal & Prize	Prof Osman M Bakr FIMMM
Griffith Medal & Prize	Prof Maria-Magdalena Titirici Prof GradIMMM	Leslie Holliday Prize	Dr Faye Smith CEng FIMMM
Medal for Excellence	Robin Hickson CEng CSci FIMMM	Outstanding Contribution Awards	George Lee CEng FIMMM
Silver Medal	Dr Stella Pedrazzini MIMMM	Platinum Medal	Prof William E Lee FEng
Sir Andrew Byran Medal	Stuart Patrick FIMMM	Robert Perrin Award	Dr Grant Gibson
Gold Medal	Dr Richard P Thackray MIMMM	Rosenhain Medal & Prize	Dr Robert Lianqi Zhao Hoye CEng CSci FIMMM
Colwyn Medal	Prof Liqun Zhang	Rowbotham Medal	John McQuilliam
Dowding Medal & Prize	Joseph Lee CEng MIMMM	Stokowiec Medal & Prize	Stephen Bastow
Frank Fitzgerald Medal & Travel Grant	Dr Nathan Cooze CEng CSci MIMMM	T B Marsden Professional Medal	Melvyn G Warrender CEng FIMMM
Futers Gold Medal	Prof Samuel Kingman CEng FIMMM	Thomas Medal & Prize	Gill Thornton
Grunfeld Memorial Award & Medal	Dr Edward J Pickering CEng CSci MIMMM	Thornton Medal	Prof Dave Worsley FIMMM
Hadfield Medal & Prize	Dr David Hanlon	Tom Colclough Medal & Prize	Matt Green CEng MIMMM
Harvey Flower Titanium Prize 2020 (retrospective)	Dr Thomas B Britton CEng CSci FIMMM	Verulam Medal & Prize	Prof Eduardo Saiz
Hume-Rothery Prize	Dr Bengt Hallstedt		
Institute's Technician Medal	Bernard Donnachie IEng FIMMM		
Ivor Jenkins Medal	Roger Lawcock CEng FIMMM		
John Hunt Medal	Prof Peter Lee FEng CEng CSci FIMMM		



Publication awards

Adrian Normanton Prize	Stephen Spooner, Claire Davis & Zushu Li
Billiton Gold Medal	Veeranjaneyulu Rayapudi & Nikhil Dhawan
Douglas Hay Medal	Martyn L Bloss, Geoff W Capes, Russell Seib, Liam V Alford, Jack L Light, Ilnur Minniakhmetov & Chris Nielsen
James S Walker Award	Mohammed Deera
Materials World Medal	Carina Joannidis
Pfeil Award	M Biesuz, G Taveri, A Duff, E Olevsky, D Zhu, C Hu & S Grasso
Vanadium Award 2020 (Retrospective)	J Klemm-Toole, M Burnett, A J Clarke, J G Speer & K O Findley
Williams Award	Dharm Jeet Gavel, Qingshi Song, Allert Adema, Jan van der Stel, Jilt Sietsma, Rob Boom & Yongxiang Yang

Awards from other bodies

Beilby Medal & Prize	Dr Pola Goldberg Oppenheimer
Charles Hatchett Award	Huajun Liu, Haijun Wu, Khuong Phuong Ong, Tiannan Yang, Ping Yang, Pranab Kumar Das, Xiao Chi, Yang Zhang, Caozheng Diao, Wai Kong Alaric Wong, Eh Piew Chew, Yi Fan Chen, Chee Kiang Ivan Tan, Andriwo Rusydi, Mark B H Breese, David J Singh, Long-Qing Chen, Stephen J Pennycook, Kui Yao



'The IOM3 awards are always a highlight of our calendar when we celebrate the amazing achievements and contributions of our members and the wider materials, minerals and mining community.'

Neil Glover FREng CEng FIMMM, President of IOM3

Education Awards

A T Green Award

Emily Milan

Zhuoqi Li (Special commendation)

R H Craven Award

Zexiang Han

Royal Charter Prize

Daniel George Mills

Technician of the Year Award (Cat A)

Maya Constable

Right:
Education Award winners





Above: Winners at the Special & Publication Awards Lunch held in December 2021

Below: Dr Philip Bischler CEng CSci FIMMM awarded for his contribution to the Institute for 25 years



Above: Winners at the 2021 Premier Awards Dinner

Below: Dr Stella Pedrazzini MIMMM, winner of the Silver Medal



Local Society Awards

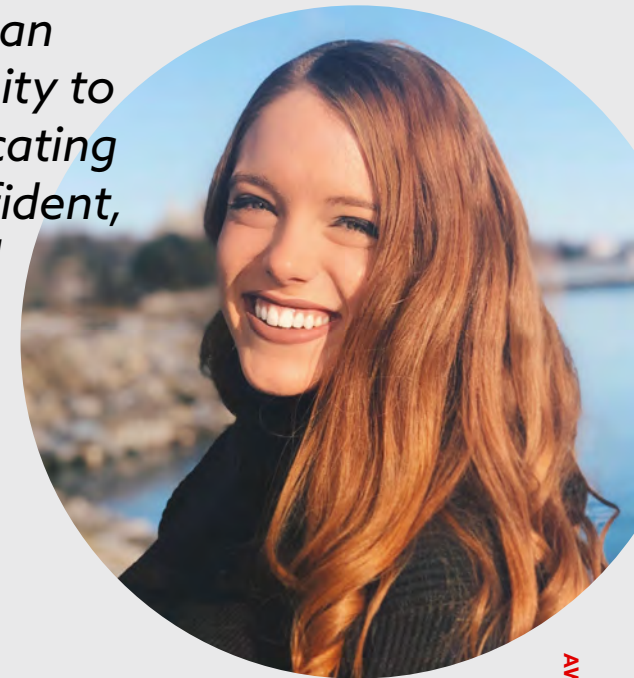
Local Society of the Year Award	The Midland Institute of Mining Engineers (MIMine)
Outstanding Service Awards	Dr Rod Stace CEng FIMMM (SMMMI) Dr Martin Tuffs CEng FIMMM (EMMS) Jeremy Plimmer FIMMM (EMPkgS) David Baker FIMMM (MPG) Alan Dickson FIMMM (IOM3 WA)

Grants & Bursaries

Mining Club Award / Tom Seaman Travelling Scholarship	Tessa Lee
G Vernon Hobson Bequest	Waheed Gbenga Akande
Centenary Scholarship / Mining Club Award / Tom Seaman Travelling Scholarship	Zachary Lang
Bosworth Smith Trust Fund	Belinda Hawes
Stanley Elmore Fellowship	Luis Salinas
Bosworth Smith Trust Fund	Matthew Alan Goodey

'If you are even considering participating in YPLC, then go for it! Win or lose, you will learn so much along the way, and it is such an excellent opportunity to practice communicating your work. Be confident, practice away, and have lots of fun.'

*Hannah Ramsay,
2021 YPWLC winner*



Competitions

Young Persons' Lecture Competition

Young Persons' World Lecture Competition

Mia Maric
(North West & North Wales)

Hannah Ramsay (Canada)

Financial review

Overview

Like elsewhere in the world, IOM3 operations were impacted by Covid19 pandemic in 2021. Despite this, a number of IOM3 activities picked up in the second half of the year and as a result overall IOM3 income increased by 11.5% compared to 2020 (from £3,459k in 2020 to £3,859k in 2021). The IOM3 team and trustees continued maintaining operating cost control throughout the year while ensuring high quality services continue being provided to members. As a result IOM3 finished the year with a combined operating deficit of £63k – a significant improvement on 2020 deficit of £342k. After taking into account unrealised gains on the market value of IOM3 investment portfolio and actuarial gains on the defined benefit pension scheme, IOM3 finished 2021 with an overall surplus of £2,070k (2020 – deficit of £1,127k).

As it can be seen from the graphs on page 59, membership subscriptions continue to represent majority of IOM3 income, closely followed by scientific journal royalties. Combined, these two income streams generate nearly two-thirds of IOM3 income. With a number of events postponed from 2020 taking place and restart of in-person events in the autumn of 2021, conference and events activity saw a return to normality with £356k income generated, compared to just £10k in 2020. IOM3 Training Academy continued to successfully operate its online programme and welcomed some students back into the classroom towards the end of the year, ensuring a return of pre-pandemic income generation (2021 - £257k, 2020 – £167k). On the other hand, having lost a number of tenants

in London and clients' reluctance to return to physical meetings, venue hire activity continued to struggle throughout the year with income decreasing from £126k in 2020 to just £38k in 2021.

Investments review

Most of IOM3 investments portfolio is managed by BlackRock Charities Growth & Income Fund, a sustainable investments fund which aims to provide a return on investment (net of fees) over a period of 5 or more consecutive years through an increase to the value of the assets held and/or income received from those assets whilst adhering to the Fund's environmental, social and governance criteria. IOM3 trustees adopted a policy of maximising total returns from investments commensurate with acceptable risk for a charitable organisation.

Although the fund delivered a positive return, it underperformed its composite benchmark by 3%. Absolute performance was driven by the Fund's global equity exposure with UK equities also contributing strongly. Relative to benchmark, the portfolio manager's asset allocation decisions and underlying stock decisions both detracted from returns. However, positive exposure to active European equity funds and clean energy thematic investments was offset by the underperformance of the UK equity portfolio and high-growth oriented positions.

Fund net performance (% net return)

	2021	2020
Fund	11.5%	10.1%
Benchmark	14.5%	4.1%

Benchmark: 30% FTSE All-Share ex investment trusts, tobacco, aerospace & defence and beverages (GBP), 30% MSCI World SRI

Index (GBP), 20% Bloomberg Barclays GBP Gilts Index (GBP), 10% IPD All Balanced Funds Property Index (GBP), 10% cash.

Heading into 2022, portfolio management added 'Internet of Things' thematic equity basket to reflect expected growth in this area and Low Carbon Transition Energy basket, which invests in those energy companies best aligned with the transition to a low carbon economy. Rising inflation and impact of the conflict in Ukraine on the global economy represent key concerns at the start of 2022

Reserves review

The trustees' 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 £10,680k at 31 December 2021.
 - 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 £57k as at 31 December 2021.
 - 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.
- IOM3 unrestricted investments portfolio was valued at £6,896k at 31 December 2021 and represents 161% of the budgeted operating expenditure for 2021. The trustees consider this level of reserves sufficient to achieve the long-term objectives of

the Institute. In addition, the trustees are also looking at ways of maximising the use of IOM3's fixed assets and broadening the use of restricted funds.

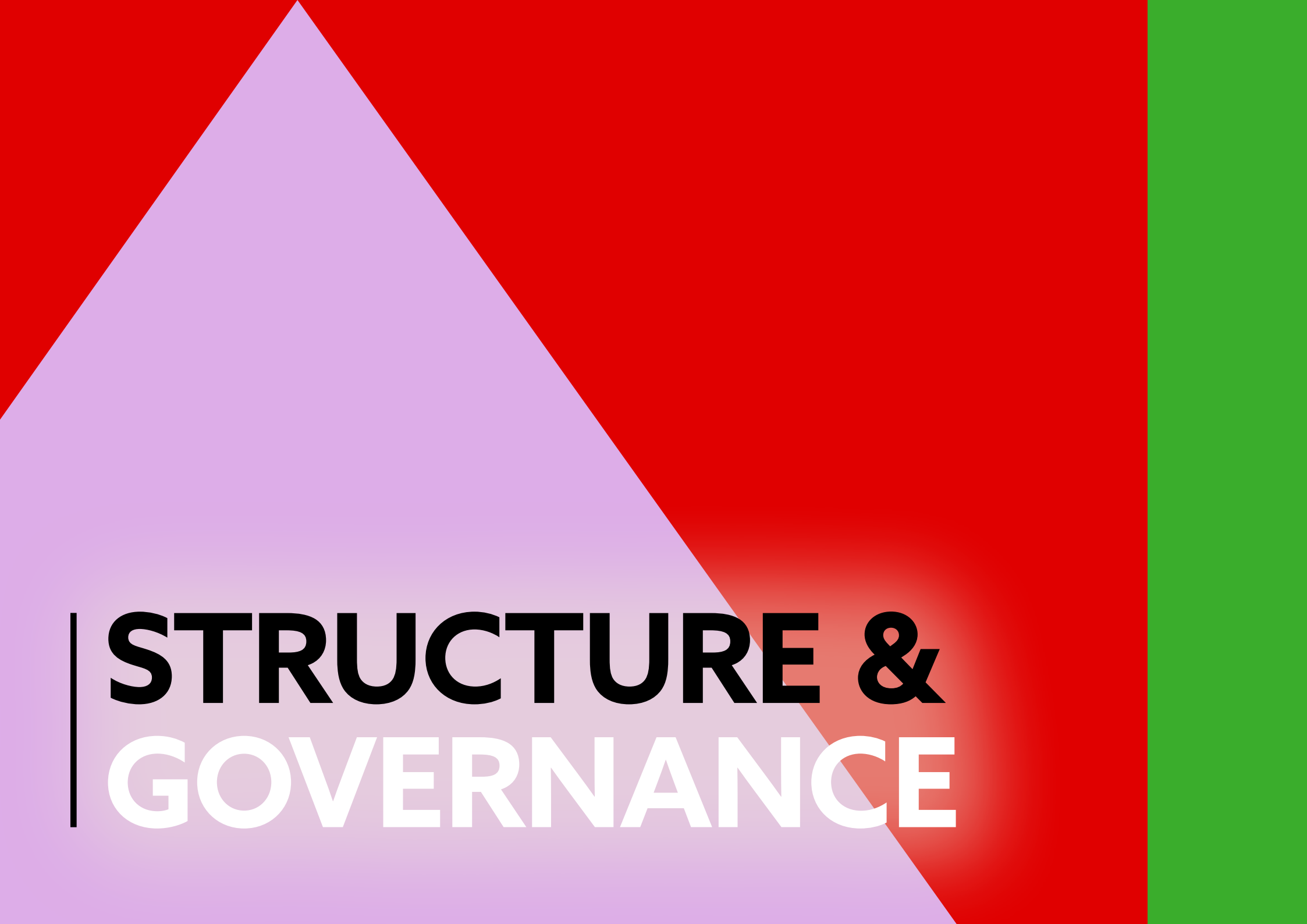
In light of the challenges presented by the continuing Covid19 pandemic trustees set a budget for net expenditure of £617k for 2022 to support ongoing initiatives for the development of membership, training and conference programmes.

Principal risks and uncertainties

Trustees have identified the following major risks facing the Institute:

- Loss of members through the ageing population and economic impact within the industry;
- Failure of IT systems and compromise to the use of the membership database as a result of cyber security breach;
- Difficulty in maintaining and growing current streams, in particular royalties generated from the scientific journal publishing;
- Financial impact of the deficit of the defined benefit pension scheme on the Institute's future strategy;
- Reputational and financial impact resulting from adverse volunteer actions;
- Major adverse change in investment values;
- Major adverse change in the UK and global economy.

The risk register is being reviewed and updated on a regular basis and the trustees, employees and professional advisors are taking steps to mitigate these risks and minimise their impact on the Institute's future performance.

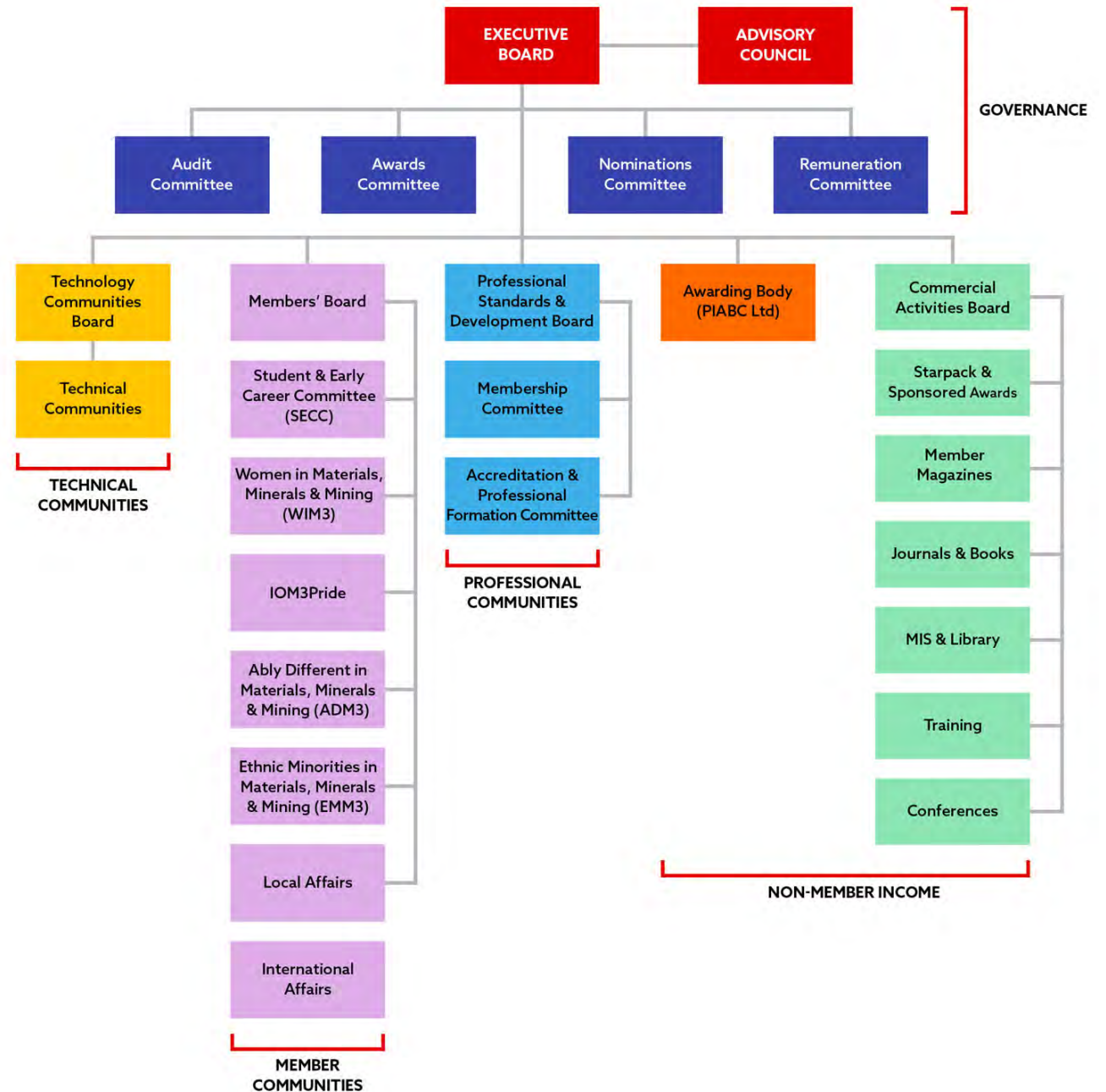


**STRUCTURE &
GOVERNANCE**

The oldest nation-wide constituent of this Institute was created in 1869. The Institute of Materials, Minerals and Mining is a body incorporated by Royal Charter (RC000267) dated 25 July 1975 and modified on 26 June 2002 and is a Registered Charity in England & Wales (269275) and in Scotland (SC050586).

Structure, governance & management

Details of the current Board and Committee members can be found at www.iom3.org/about-us/governance.html



Executive Board ●

IOM3 is managed by an Executive Board, most members of which are the trustees of the Institute. The trustees are drawn from senior members of the Institute and are responsible for the ongoing management of strategy and performance of the Institute. The members of the Board include those who are following the presidential succession, and members involved as chairs of other activity boards.

Advisory Council ●

The Advisory Council forms part of the Institute's new governance structure which was approved by Privy Council in August 2019 and implemented on 5 November 2019. The Advisory Council exists to advise the Executive Board on major strategic decisions and strategic planning and consists of the Officers of the Institute together with 21 members representing the Technical Communities, eight members representing Grades and seven members representing UK and overseas regions.

Governance committees ●

Audit Committee

The Audit Committee keeps 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.

Awards Committee

The Awards Committee oversees the operation of the Institute's Awards programme and is responsible for making recommendations to the Executive Board accordingly.

Nominations Committee

The Nominations Committee leads the process for appointment to the Executive Board, Institute Officers and Chairs of Primary Boards and other Boards which are not already prescribed by regulations or election.

Remuneration Committee

The Remuneration Committee aims to ensure that levels of remuneration are in line with the performance and needs of the Institute and the institutional sector.

Technology Communities Board ●

The Institute's structure is designed to provide enhanced networks for learned society activities in addition to regionally organised affiliated society events. In effect, members can become involved in any number of these communities that deal with their own interest areas, albeit that many of the activities developed by the communities will be on a national or an international scale.

Members' Board ●

The Members' Board is responsible for co-ordinating the Institute's activities in the regions and other member networks. The Institute has a network of affiliated societies throughout the UK, as well as overseas groups. Events and activities co-ordinated by local groups and societies are also supported through the technical community structure. The Members' Board also looks after the interests of the other member networks, including Women in Materials, Minerals & Mining, Student & Early Career, IOM3Pride, Ethnic Minorities in Materials, Minerals & Mining and Aply Different in Materials, Minerals & Mining.

Student & Early Career Committee (SECC) ●

The Younger Members' Committee (YMC) was established in 1967 to represent the views and interests of the Institute's younger members, and is one of the longest running committees in our history. The YMC officially changed its name to Student & Early Career Committee (SECC) in June 2020 following consultation with its membership. It organises various events and activities throughout the year.

Women in Materials, Minerals & Mining Committee ●

IOM3 Women in Materials, Minerals & Mining (WIM3) was established in 2012 to provide a focus for women members within the Institute and help support them in their careers. The WIM3 committee has organised several successful events around the UK which have attracted female members at all stages of their career and provided valuable networking opportunities for women.

IOM3Pride ●

IOM3Pride is a voluntary committee of IOM3 whose goal is to achieve equality of opportunity professionally for LGBTQ+ identifying IOM3 members. It aims to do this by highlighting issues related to LGBTQ+ individuals in materials, minerals and mining and supporting equality, diversity and inclusion within the wider STEM community.

International Affairs Committee ●

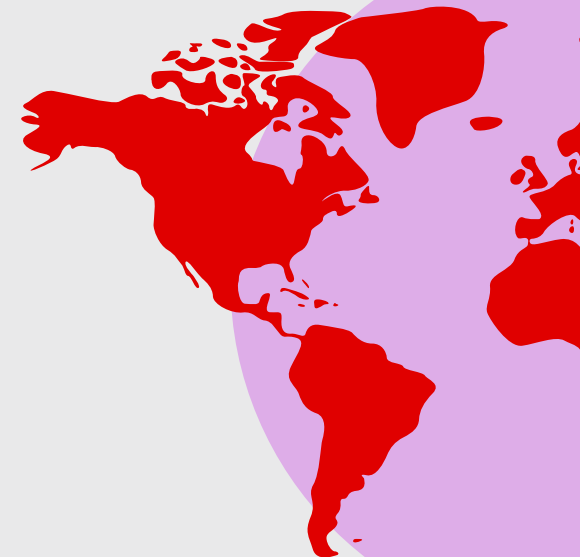
The IAC is responsible for communications between the Institute and its international communities. It also encourages the development of new activities and communities outside the UK.

Local Affairs Committee ●

IOM3 has a network of Affiliated Local Societies across the UK and abroad. These are independent organisations which run their own programmes of events and activities, but by affiliation with IOM3 receive funding and support. The Local Affairs Committee is responsible for communications between the Institute and its Affiliated Societies.

Ethnic Minorities in Materials, Minerals & Mining (EMM3) ●

The long-term goal of the group is to promote equality of ethnic minorities within the materials, minerals and mining industries. In the short term, the focus will be around gathering data from members belonging to minority groups to understand any issues they may face in the industry or in education and how IOM3 can help to address these. The group will also promote the creation of inclusive policies within the Institute, as well as raising awareness in regards to issues such as unconscious biases in the workplace.



Ably Different Member Group (ADM3) ●

Ably Different is a voluntary committee of IOM3 whose goal is to achieve equality of opportunity professionally for IOM3 members identifying as disabled and allies such as family members, carers and work colleagues. Together, we will do this by advancing the interests of disabled people, raising awareness and supporting equality of opportunity for IOM3 members in materials, minerals and mining and supporting equality, diversity and inclusion within the wider STEM community.

Professional Affairs ●

Professional affairs within the Institute are overseen by the Professional Standards & Development Board, which deals with membership, qualifications, accreditation and education.

Membership Committee ●

The membership committee is responsible for the evaluation of membership applications for both Institute grades and professional registration such as Chartered Engineer or Chartered Scientist.

Accreditation & Professional Formation Committee (APFC) ●

The APFC oversees the standards and processes for the accreditation of academic programmes, and company Initial Professional Development (IPD) schemes to meet the requirements for registration levels for which IOM3 has licences, in the UK and abroad.

Income generating activities ●●

In addition to its membership activities, IOM3 also provides public and member benefit and generates income from the provision of information on materials, minerals and mining through Institute publications, conferences, training and information services. A major benefit for all members is free access to the Institute's Technical Enquiry Service, which includes a telephone helpline and on-site specialist support.

Materials Institute Services Ltd is a wholly owned subsidiary of the Institute, responsible for IOM3 venue hire and other non-charitable trading activities.

Commercial Activities Board ●

The commercial activities board is responsible for trading strategy development and co-ordination of revenue generation activities.

Objectives & activities

The charitable objects of IOM3, as set out in the Royal Charter, are:

To advance and develop all aspects of science, engineering and technology as applied to the discovery, exploration, development, characterisation, exploitation, processing, application and re-cycling 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, provided that 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 complimentary to those of such organisations.

Our Corporate Strategy sets two objectives for IOM3:

To support professionals in materials, minerals and mining to become heroes of the transition to a low-carbon, resource efficient society, not villains; and

To be the best professional membership body we can be by providing modern, flexible services, quality technical content and value for money.

Through our activities we aim to:

- Raise the profile of our sector as a technology vital to the health and wealth of the nation
- Support people within the materials, minerals and mining sectors to address the societal challenges we face today such as climate change
- Provide a central resource of expertise and information through content
- Support and encourage education in materials, minerals and mining to attract young people to the profession
- Disseminate information through conferences, events, publications, online resources and social media
- Provide networking opportunities through technical, local and other activities to increase interaction between industry, academia and government
- Increase the visibility of new technology to industry
- Engage in public, policy and media debate to increase the visibility of materials, minerals, and mining
- Provide our members with benefits, services and opportunities to support their careers

The Technical Communities (special interest groups) act as a focus of expertise within the broad range of technical sectors embraced by IOM3. Each group holds regular meetings and, through its supporting network of committees and members, organises a programme of events to promote and develop its discipline. Each also has an online presence and communicates its activities to members and non-members alike through web content, newsletters and social media. Events organised by the technical groups are open to all and serve to inform about the latest developments within the discipline as well as providing networking opportunities for people from academia, industry and government, often in an international context. Networking events attract non-members from the UK and overseas, who can make up a significant proportion of the event audience.

A network of Affiliated Local Societies (ALS) in the UK and a number of national groups overseas provide activities at a local level, delivering a regular programme of lectures, site visits and seminars that are open to all. Some ALS also engage with local schools, universities and businesses to provide valuable support for teaching and learning.

IOM3 has an active education programme that enriches the teaching of materials, minerals and mining in the curriculum and promotes careers within our sphere of influence. We provide help, advice and teaching materials free of charge to teachers that have signed up to our School Affiliate service and to date over 1200 schools have registered. Our schools presentations have so far been delivered to more than 100,000 pupils throughout the UK. The team also organises study days for teachers and events to allow older pupils to interact with young people already working in the sector.

IOM3 accredits a number of university, college and industry courses in the UK and overseas, and provides a special low-cost membership package for undergraduates, which is often sponsored by local societies or by their university. A thriving Student & Early Career Committee organises regular events for students and early career members. The Women in Materials, Minerals and Mining group promotes networking for women in the materials profession and strives to provide support for women in STEM careers. New member network initiatives include IOM3 Pride, Ethnic Minorities in Materials, Minerals

and Mining as well as Aply Different in Materials, Minerals and Mining. IOM3 technical communities, boards and committees are all composed of active supporters and volunteers mostly drawn from the IOM3 membership, who freely give their time and expertise to further the Institute's professional activities, develop our communities and provide peer review processes where needed. IOM3 depends on the engagement of our members in the broad range of our activities and could not deliver our objectives effectively without their significant contribution.

IOM3 members play a prime role in promoting our objects and providing public benefit. Accordingly, a wide range of member services and benefits have been developed in pursuance of our objectives and to attract new members. Benefits of membership include professional recognition, networking opportunities to share knowledge and experience, free technical enquiry services, a choice of members' magazine, a members' business centre and use of facilities, discounted conference fees, training courses and publications, and additional online services. IOM3 provides support to our worldwide membership through our UK offices, our

technical communities and societies, and our network of affiliated local societies and national groups. Career progression is recognised through various grades of membership and IOM3 is licensed to deal with applications for Chartered Engineer, Incorporated Engineer, Engineering Technician, Chartered Environmentalist, Registered Environmental Practitioner, Chartered Scientist, Registered Scientist and Registered Science Technician status. IOM3 collaborates with many like-minded societies in the UK and overseas.

IOM3 has always worked closely with government in relation to the delivery of new technology to industry. We are also increasingly deploying the expertise of our members to influence the public, media and policy debates that have materials, minerals and mining aspects, though we are working to make this even more effective. IOM3 maintains an extensive resource of technical and historical publications that form the core of our information and library services, a source of expertise accessible to all. The IOM3 Technical Enquiries service provides consultancy and advice services to anyone who needs access to expertise in materials, both individuals and organisations. Of the 1,500 enquiries

routinely handled each year, 50% originate from the UK public. The Business Partner Programme enables organisations to visibly associate themselves with IOM3 and access its resources and work programmes. Confirmed subscribers to date include Lucideon, National Composites Centre and Lloyds Register.

IOM3 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 is outsourced to Taylor & Francis. Access to this material is available to both members and non-members. In-house teams publish the member magazines and organise the majority of conferences.

Stimulating innovation in the use and application of materials, IOM3 organises both UK and worldwide competitions to develop a broad understanding of the importance of materials, minerals and mining, and such events engage with schools, students and businesses from the UK and beyond. Separately IOM3 provides an extensive range of awards both to members and non-members who have provided outstanding contributions to our communities and professions. There is a regular programme to ensure that employees are involved in the direction and progress of IOM3. Employees are consulted and kept fully informed on issues of concern to them. Training and development appropriate to the goals of IOM3 are assessed on a regular basis and provided both internally and externally.

Statement of trustees' responsibilities

The Trustees are responsible for preparing the Trustees' Report and the financial statements in accordance with applicable law and United Kingdom Accounting Standards (United Kingdom Generally Accepted Accounting Practice).

The Law applicable to charities in England & Wales requires the Trustees to prepare financial statements for each financial year which give a true and fair view of the state of affairs of the group and charity and of the incoming resources and application of resources of the group and charity for that period. In preparing these financial statements, the Trustees are required to:

- select suitable accounting policies and then apply them consistently;
- observe the methods and principles in the applicable Charities SORP;
- make judgements and estimates that are reasonable and prudent;
- state whether applicable United Kingdom 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 charity will continue in business.

The Trustees are responsible for keeping proper accounting records that disclose with reasonable accuracy at any time the financial position of the group and charity and enable them to ensure that the financial statements comply with the Charities Act 2011, the Charity (Accounts and Reports) Regulations and the provisions of the Royal Charter and Bye-laws. They are also responsible for safeguarding the assets of the group and charity and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

The Trustees are responsible for the maintenance and integrity of the group and 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.

Trustees, senior boards & professional advisors (from 1 January 2021 to 20 May 2022)

Executive Board and Trustees

Prof S M Best, Chair and Immediate Past President (from Jan 2021)

Mr N E Glover, President (from Jan 2021)

Dr K Thornton, Senior Vice-President (from Jan 2021)

Ms C A Blackmore, Vice-President

Dr M R Clinch, Vice-President (from April 2021)

Mr V Mawkin, Honorary Treasurer

Dr P J E Bischler, Chair of Members' Board (until Dec 2021)

Dr C W Corti, Chair of Professional Standards and Development Board

Prof M R Jolly, Advisory Council representative (until March 2022)

Mr M A Jones, Chair of Student & Early Career Committee (until Feb 2022) Chair of Members' Board (from Feb 2022)

Mr J C H Lewis, Chair of Commercial Activities Board and of IOM Communications

Mr D Seath, Advisory Council representative

Mr R G Siddall, co-opted

Ms J Allan, Advisory Council representative (from April 2022)

Mr M C Cox, Chair of International Affairs Board (from Feb 2022)

Dr A L Goodall, Chair of Student and Early Career Committee (from Feb 2022)

Dr M Carano, Co-opted (from Feb 2022)

Board of Directors, IOM Communications Ltd.

The following served as directors during the year:

Chair	Mr J C H Lewis
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Directors/trustees	Dr C Church
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Company Secretary	Mrs J Bugajeva
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Board of Directors, Materials Institute Services Ltd.

The following served as directors during the year:

Directors	Dr C Church Mr N E Glover Ms K Harrison Mr J C H Lewis
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Company Secretary	Mrs J Bugajeva
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Board of Directors, PIABC Ltd.

The following served as directors during the year:

Directors	Dr C W Corti (from Mar 2021) Dr C Church Mr N E Glover (from Mar 2021)
Company Secretary	Mrs J Bugajeva

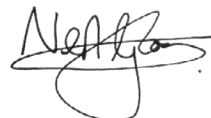
Key management personnel

Chief Executive	Dr C Church
Finance Director	Mrs J Bugajeva
Director of Communications	Dr I A N Staniaszek
Director of Operations and Professional Development	Ms K Harrison
Director of Membership and Professional Standards	EUR ING I J Bowbrick
Director of Business Support	Mrs C Marriott


Professional advisors

Bankers	Santander UK plc 4th Floor 100 Ludgate Hill London EC4M 7RE
Solicitors	Howes Percival LLP 3 The Osiers Business Centre Leicester LE19 1DX
Auditors	RSM UK AUDIT LLP 25 Farringdon Street London EC4A 4AB
Investment Managers	Blackrock Investment Management (UK) Ltd 12 Throgmorton Avenue London EC2N 2DL
Actuaries	First Actuarial LLP Second Floor, The Square Basing View, Basingstoke Hampshire RG21 4EB

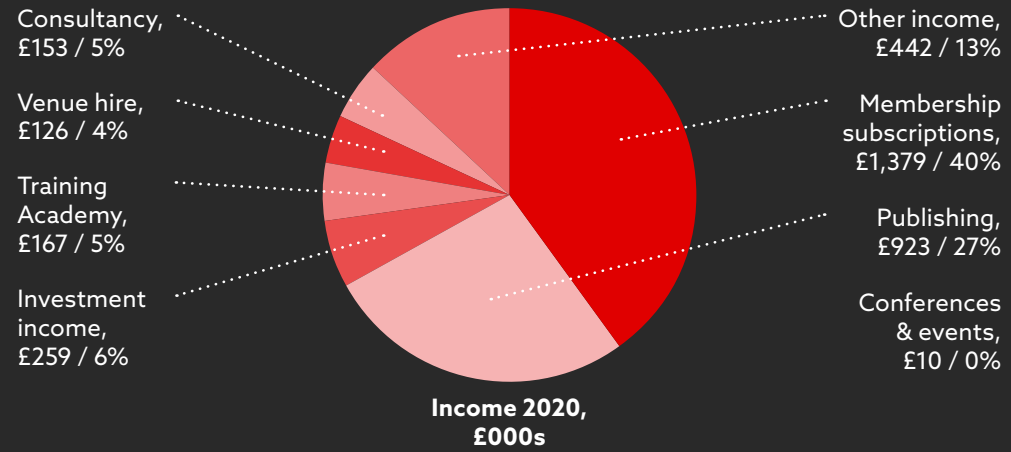
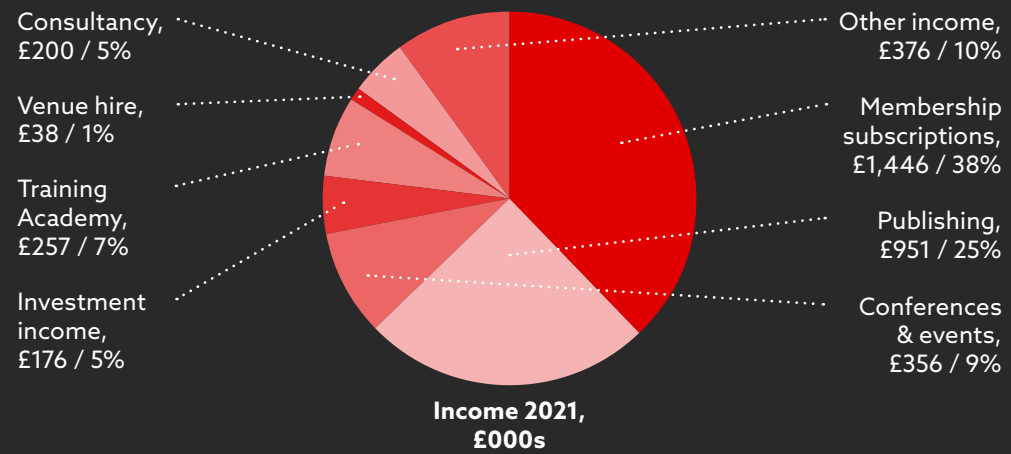
This report was approved by the trustees on 31 May 2022



Neil Glover

The background features a large red inverted triangle on the left, a large light blue circle on the right, and a dark blue area at the bottom. The text is positioned in the lower-left quadrant, overlapping the red triangle and dark blue area.

FINANCIAL **STATEMENTS**



The following pages detail financial activities for the year ended 31 December 2021, reflecting operating performance, assets and obligations. Income for the year 2021 are summarised in the chart above.

Independent auditor's report to the trustees of the Institute of Materials, Minerals & Mining

Opinion

We have audited the financial statements of The Institute of Materials, Minerals and Mining (the 'parent charity') and its subsidiaries (the 'group') for the year ended 31 December 2021 which comprise Consolidated Statement of Financial Activities, the Consolidated and parent charity Balance Sheets, the Consolidated and parent charity Statement of Cash Flows and notes to the financial statements, including significant accounting policies. The financial reporting framework that has been applied in their preparation is applicable law and United Kingdom Accounting Standards, including FRS 102 "The Financial Reporting Standard applicable in the UK and Republic of Ireland" (United Kingdom Generally Accepted Accounting Practice).

In our opinion the financial statements:

- give a true and fair view of the state of the group's and parent charity's affairs as at 31 December 2021 and of the group's and parent charity's incoming resources and application of resources for the year then ended;
- have been properly prepared in accordance with United Kingdom Generally Accepted Accounting Practice; and

- have been prepared in accordance with the requirements of the Charities and Trustee Investment (Scotland) Act 2005, regulations 6 and 8 of the Charities Accounts (Scotland) Regulations 2006 (as amended) and the Charities Act 2011.

Basis for opinion

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

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

Conclusions relating to going concern

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

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

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

Other information

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

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

We have nothing to report in this regard.

Matters on which we are required to report by exception

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

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

Responsibilities of trustees

As explained more fully in the statement of trustees' responsibilities set out on page 55 the trustees are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view, and for such internal control as the trustees determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the trustees are responsible for assessing the group and parent charity's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the trustees either intend to liquidate the group or parent charity or to cease operations, or have no realistic alternative but to do so.

Auditor's responsibilities for the audit of the financial statements

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

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

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

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

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

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

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

As a result of these procedures we consider the most significant laws and regulations that have a direct impact on the financial statements are FRS 102, Charities SORP (FRS 102), Charities and Trustee Investment (Scotland) Act 2005, regulations 6 and 8 of the Charities Accounts (Scotland) Regulations 2006 (as amended), the Charities Act 2011, the parent charity's governing document. We performed audit procedures to detect non-compliances which may have a material impact on the financial statements which included reviewing the financial statements including the Trustees' Report and remaining alert to new or unusual transactions which may not be in accordance with the governing documents.

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

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

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

Use of our report

This report is made solely to the charity's trustees, as a body, in accordance with section 44(1)(c) of the Charities and Trustee Investment (Scotland) Act 2005, and regulation 10 of the Charities Accounts (Scotland) Regulations 2006 (as amended) and the Charities Act 2011. Our audit work has been undertaken so that we might state to the charity's trustees those matters we are required to state to them in an auditor's report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the charity and its trustees as a body, for our audit work, for this report, or for the opinions we have formed.

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

RSM UK Audit LLP

RSM UK AUDIT LLP
Statutory Auditor
Chartered Accountants
25 Farringdon Street
London
EC4A 4AB

Date: 8 June 2022

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

Consolidated statement of financial activities for the year ended 31 December 2021

	Notes	Unrestricted funds General £'000	Designated £'000	Restricted funds £'000	Permanent endowment £'000	Total funds 2021 £'000	Total funds 2020 £'000
INCOME AND ENDOWMENTS FROM:							
Donations and legacies	4	52	-	5	-	57	90
Charitable activities							
Membership and related activities		1,641	-	-	-	1,641	1,535
Charitable trading activities	3	1,610	-	-	-	1,610	1,299
Other trading activities	13	321	-	-	-	321	276
Investments		176	2	52	-	230	259
Total income		3,800	2	57	-	3,859	3,459
EXPENDITURE ON:							
Raising funds	13	202	-	-	-	202	172
Charitable activities							
Membership and related activities		2,314	1	70	-	2,385	3,146
Charitable trading activities	3	1,335	-	-	-	1,335	483
Total expenditure		3,851	1	70	-	3,922	3,801
Operating (expenditure)/income		(51)	1	(13)	-	(63)	(342)
Net gains/(losses) on investments	12	597	7	155	-	759	(293)
Net income/(expenditure)		546	8	142	-	696	(635)
Other recognised gains/(losses)							
Gains on revaluation of fixed assets	10	-	84	-	-	84	84
Actuarial gains/(losses) on defined benefit pension schemes		1,290	-	-	-	1,290	(576)
NET MOVEMENT IN FUNDS		1,836	92	142	-	2,070	(1,127)
Reconciliation of funds							
Total funds brought forward		1,035	11,771	2,364	33	15,203	16,330
TOTAL FUNDS CARRIED FORWARD		2,871	11,863	2,506	33	17,273	15,203

Consolidated and charity balance sheets as at 31 December 2021

	Notes	Group		Institute	
		2021 £'000	2020 £'000	2021 £'000	2020 £'000
FIXED ASSETS					
Intangible assets	9	350	437	339	421
Tangible assets	10	11,334	11,380	11,334	11,380
Heritage assets	11	456	456	456	456
Investments	12	9,637	8,878	9,637	8,878
Total fixed assets		21,777	21,151	21,766	21,135
CURRENT ASSETS					
Stock and work in progress	14	54	261	13	3
Debtors	15	1,483	1,454	1,546	1,305
Cash at bank and in hand		99	75	1	-
Total current assets		1,636	1,790	1,560	1,308
CREDITORS: Amounts falling due within one year	16	(2,929)	(3,105)	(3,207)	(2,974)
NET CURRENT LIABILITIES		(1,293)	(1,315)	(1,647)	(1,666)
NET ASSETS BEFORE PENSION LIABILITY		20,484	19,836	20,119	19,469
Defined benefit pension scheme liability	22	(3,211)	(4,633)	(3,211)	(4,633)
NET ASSETS AFTER PENSION LIABILITY		17,273	15,203	16,908	14,836
THE FUNDS OF THE CHARITY					
ENDOWMENT FUNDS	18	33	33	33	33
RESTRICTED INCOME FUNDS					
Restricted funds	19	2,506	2,364	2,506	2,364
UNRESTRICTED FUNDS					
General funds		2,871	1,035	2,506	668
Designated funds	20	10,996	10,988	10,996	10,988
Revaluation reserve	20	867	783	867	783
TOTAL CHARITY FUNDS		17,273	15,203	16,908	14,836

The financial statements on pages 64 to 95 were approved and authorised for issue by the trustees and signed on their behalf by:

Mr N E Glover, Trustee and President 2021-22
on 31 May 2022



Mr V Mawkin, Honorary Treasurer
on 31 May 2022



Consolidated and charity statement
of cash flows for the year ended
31 December 2021

	Notes	Group		Institute	
		2021 £'000	2020 £'000	2021 £'000	2020 £'000
Cash flows from operating activities:					
Net cash used in operating activities	T1	(386)	(344)	(409)	(332)
Cash flows from investing activities:					
Dividends, interest and rents from investments		230	258	230	258
Purchase of intangibles		(47)	(325)	(47)	(325)
Purchase of property, plant and equipment		(36)	(99)	(36)	(99)
Proceeds from sale of investments		-	225	-	225
Purchase of investments		-	(225)	-	(225)
Net cash provided by/(used in) investing activities		147	(166)	147	(166)
Change in cash and cash equivalents in the reporting period		(239)	(510)	(262)	(498)
Cash and cash equivalents at the beginning of the reporting period		(474)	36	(549)	(51)
Cash and cash equivalents at the end of the reporting period	T2	(713)	(474)	(811)	(549)

T1 Reconciliation of net income/ (expenditure) to net cash flow from operating activities

	<i>Group</i>		<i>Institute</i>	
	<i>2021</i>	<i>2020</i>	<i>2021</i>	<i>2020</i>
	<i>£'000</i>	<i>£'000</i>	<i>£'000</i>	<i>£'000</i>
Net income/(expenditure) for the reporting period (as per the statement of financial activities)	696	(635)	698	(635)
Adjustments for:				
Depreciation and amortisation charges and impairment of fixed assets	300	263	295	258
Losses/(gains) on investments	(759)	293	(759)	293
Pension costs	(132)	(118)	(132)	(118)
Dividends, interest and rents from investments	(230)	(258)	(230)	(258)
Decrease/(increase) in stocks	207	(43)	(10)	-
(Increase)/decrease in debtors	(29)	(997)	(241)	(1,206)
(Decrease)/increase in creditors	(439)	1,151	(30)	1,334
Net cash used in operating activities	(386)	(344)	(409)	(332)

T2 Analysis of cash and cash equivalents

	<i>Group</i>		<i>Institute</i>	
	<i>2021</i>	<i>2020</i>	<i>2021</i>	<i>2020</i>
	<i>£'000</i>	<i>£'000</i>	<i>£'000</i>	<i>£'000</i>
Cash in hand	99	75	1	-
Bank overdraft	(812)	(549)	(812)	(549)
Total cash and cash equivalents	(713)	(474)	(811)	(549)

Accounting Policies

Basis of financial statements

The Institute of Materials, Minerals and Mining (“the Charity”) is an unincorporated charity domiciled in England. The address of the Charity’s registered office and principal place of business is 297 Euston Road, London NW1 3AD.

The Charity’s principal activities and the nature of the Charity’s operations are described in the Trustees’ Report on pages 52-54.

The financial statements have been prepared in accordance with Accounting and Reporting by Charities: Statement of Recommended Practice applicable to charities preparing their accounts in accordance with the Financial Reporting Standard applicable in the UK and Republic of Ireland (FRS 102) (effective 1 January 2019) – (Charities SORP (FRS 102)), the Financial Reporting Standard applicable in the UK and Republic of Ireland (FRS 102) and the Charities Act 2011.

The Institute of Materials, Minerals and Mining meets the definition of a public benefit entity under FRS 102. Assets and liabilities are initially recognised at historic cost or transaction value unless otherwise stated in the relevant accounting policy notes.

The financial statements are prepared in sterling, which is the functional currency of the Charity. Monetary amounts in these financial statements are rounded to the nearest £1,000.

Preparation of the accounts on a going concern basis

The Trustees confirm that at the time of approving these financial statements, there is a reasonable expectation that the Institute has adequate resources to continue for the foreseeable future. In arriving at this conclusion, the Trustees have taken into account the current and anticipated financial performance in the current economic conditions and the charity’s reserves position. The trustees have considered the forecasts for 2022 and 2023. The Trustees are however satisfied that the charity has adequate reserves and strategies in place

to deal with the economic impact as it develops and have therefore concluded that it remains appropriate to prepare the financial statements on the going concern basis.

Group financial statements

The financial statements consolidate the results of the wholly owned subsidiary companies and companies over which the Institute exercises dominant influence on a line-by-line basis. The members’ benevolent funds are not consolidated because they are under independent control.

Details of the Institute’s total incoming resources and net movement in funds are shown in the notes.

Income

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

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.

Income from Government and other grants is recognised when the charity has entitlement to the funds, any performance conditions attached to the grant are met, it is probable that the income will be received and the amount can be measured reliably.

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, probability of receipt and the amount can be measured with sufficient reliability.

Expenditure

Expenditure is recognised once there is a legal or constructive obligation to make a payment to a third party, it is probable that settlement will be required and the amount of the obligation can be measured reliably.

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.

Allocation of 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. The basis on which support costs are allocated is set out in note 7.

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.

Heritage Assets

A description of heritage assets held by the Charity is given in note 11. These assets were valued in February 2019 and details are given in note 11.

The heritage assets have been recognised in the Institute's balance sheet at 31 December 2018 at this valuation. The Trustees reviewed the value of the heritage assets and are on the agreement that there was no change in value as at 31 December 2021.

Tangible fixed assets 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:

Freehold Property (excluding land)	2% p.a.
Leasehold property	over the term of the lease
Furniture	15%-20% p.a.
Equipment	20%-33% 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.

Freehold property is accounted for using the revaluation method with the building element depreciated at a rate of 2% per annum and revalued to its market value at the end of the financial year. The net value of gains on revaluation are held in the revaluation reserve.

Both of the Institute's freehold properties are recognised in the financial statements at their market value as at 31 December 2021.

Intangible fixed assets

Intangible fixed assets, including patents and software, 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 reviewed where circumstances indicate that the carrying value of an asset may not be fully recoverable.

Investments and investment income

Listed investments are shown at market value at the balance sheet date. Realised and unrealised gains or losses are taken to the fund to which they relate via the Statement of Financial Activities in the year in which they arise. Unlisted investments are held at cost. 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.

Stocks and work in progress

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

Debtors

Trade and other debtors are recognised at the settlement amount due after any trade discount offered. Prepayments are valued at the amount prepaid net of any trade discounts due 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.

Cash at bank and in hand

Cash at bank and in hand includes cash and short term highly liquid investments with a short maturity of three months or less from the date of acquisition or opening of the deposit or similar account.

Creditors and provisions

Creditors and provisions are recognised where the charity has a present obligation resulting from a past event that will probably result in the transfer of funds to a third party and the amount due to settle the obligation can be measured or estimated reliably. Creditors and provisions are normally recognised at their settlement amount after allowing for any trade discounts due.

Financial instruments

The Institute only has financial assets and financial liabilities of a kind that qualify as basic financial instruments. Basic financial instruments are measured at their settlement value.

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 and was closed to accrual on 31 December 2021.

The assets of the scheme are held independently 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. Fair value is based on the market price information and in the case of quoted securities is the published bid price.

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 that has been rated at AA or equivalent basis 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.

The actuarial gain or loss arising in the year included under 'other recognised gains or losses'. Contributions are charged to expenditure so as to spread the regular cost of pensions over the expected working lives of the employees in the scheme. Any difference between the cumulative amounts charged and contributions paid is included as an asset or liability on the balance sheet.

The interest element of the defined benefit cost represents the change in present value of scheme obligations relating to the passage of time and is determined by applying a discount rate to the opening present value of the benefit obligation, valuing into account material changes in the obligation during the year. The expected return on plan assets is based on an assessment made at the beginning of the year of long-term market returns on scheme assets adjusted for the effect on the fair value of plan assets of the contributions received and benefits paid during the year. The difference between the expected return on plan assets and the interest costs is recognised in the consolidated SOFA (Statement of Financial Activities) as pension finance income or within resources expenses as appropriate.

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.

Critical accounting estimates and assumptions

The Institute makes estimates and assumptions concerning the future. The resulting estimates and assumptions will, by definition, seldom equal the related actual results. The estimates and assumptions that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year are those used by the scheme actuary in calculating the Institute's defined benefit scheme liability (see note 22 for details).

Revaluation of freehold property: the revaluation is based on the building element of freehold properties depreciated at a rate of 2% per annum and revalued to its market value at the end of the financial year.

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. The revaluation reserve within designated funds represents the value of gains on revaluation of freehold property.
- 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.
- Permanent endowment fund – 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.

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

Notes to financial statements

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

	Notes	Unrestricted funds General £'000	Unrestricted funds Designated £'000	Restricted funds £'000	Permanent endowment £'000	Total funds 2020 £'000	Total funds 2019 £'000
INCOME AND ENDOWMENTS FROM:							
Donations and legacies	4	90	-	-	-	90	13
Charitable activities							
Membership and related activities		1,535	-	-	-	1,535	1,595
Charitable trading activities	3	1,299	-	-	-	1,299	2,156
Other trading activities	13	276	-	-	-	276	249
Investments		200	2	57	-	259	295
Total income		3,400	2	57	-	3,459	4,308
EXPENDITURE ON:							
Raising funds	13	172	-	-	-	172	251
Charitable activities							
Membership and related activities		3,086	-	60	-	3,146	3,211
Charitable trading activities	3	483	-	-	-	483	1,440
Total expenditure		3,741	-	60	-	3,801	4,902
Operating (expenditure)/income		(341)	2	(3)	-	(342)	(594)
Net (losses)/gains on investments	12	(269)	9	(33)	-	(293)	1,208
Net (expenditure)/income		(610)	11	(36)	-	(635)	614
Other recognised gains/(losses)							
Gains on revaluation of fixed assets	10	-	84	-	-	84	84
Actuarial losses on defined benefit pension schemes		(576)	-	-	-	(576)	(1,172)
NET MOVEMENT IN FUNDS		(1,186)	95	(36)	-	(1,127)	(474)
Reconciliation of funds							
Total funds brought forward		2,221	11,676	2,400	33	16,330	16,804
TOTAL FUNDS CARRIED FORWARD		1,035	11,771	2,364	33	15,203	16,330

2. Charity only statement of financial activities for the year ended 31 December 2021

	Unrestricted funds General	Unrestricted funds Designated	Restricted funds	Permanent endowment	Total funds 2021	Total funds 2020
	£'000	£'000	£'000	£'000	£'000	£'000
INCOME AND ENDOWMENTS FROM:						
Donations and legacies	250	-	5	-	255	1,009
Charitable activities						
Membership and related activities	1,528	-	-	-	1,528	1,494
Charitable trading activities	1,275	-	-	-	1,275	-
Investments	176	2	52	-	230	259
Total income	3,229	2	57	-	3,288	2,762
EXPENDITURE ON:						
Charitable activities						
Membership and related activities	2,198	1	70	-	2,269	3,104
Charitable trading activities	1,080	-	-	-	1,080	-
Total expenditure	3,278	1	70	-	3,349	3,104
Net gains/(losses) on investments	597	7	155	-	759	(293)
Net income/(expenditure)	548	8	142	-	698	(635)
Other recognised (losses)/gains:						
Gains on revaluation of fixed assets	-	84	-	-	84	84
Actuarial gains/(losses) on defined benefit pension schemes	1,290	-	-	-	1,290	(576)
NET MOVEMENT IN FUNDS	1,838	92	142	-	2,072	(1,127)
Reconciliation of funds						
Total funds brought forward	668	11,771	2,364	33	14,836	15,963
TOTAL FUNDS CARRIED FORWARD	2,506	11,863	2,506	33	16,908	14,836

3. Charitable trading activities

	2021 £'000	2020 £'000
TURNOVER		
Publishing	970	1,534
Conferences and exhibitions	356	9
Information services	4	97
Training services	280	187
	<u>1,610</u>	<u>1,827</u>
Internal contribution for costs included in sales	-	(528)
Incoming resources	1,610	1,299
COST OF CHARITABLE TRADING ACTIVITIES		
Publishing	526	495
Conferences and exhibitions	484	244
Information services	6	38
Training services	319	234
	<u>1,335</u>	<u>1,011</u>
Internal contribution to sales	-	(528)
Expenditure	1,335	483
NET CONTRIBUTION FROM CHARITABLE TRADING ACTIVITIES		
Publishing	444	1,039
Conferences and exhibitions	(128)	(235)
Information services	(2)	59
Training services	(39)	(47)
Net income	<u>275</u>	<u>816</u>

4. Donations and legacies

During the year, the charity made a application under the government coronavirus job retention scheme to assist with the financial impact of the Covid-19 pandemic. The amount claimed for the year totalled £12k (2020 £45k) and has been recognised within donations and legacies.

	2021 £'000	2020 £'000
Other donations	45	45
Government grant	12	45
	57	90

5. Other trading activities

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. These activities are undertaken by Materials Institute Services Ltd (see note 13: Subsidiary undertakings).

6. Investment income

	2021		2020	
	Unrestricted £'000	Restricted £'000	Unrestricted £'000	Restricted £'000
Listed securities				
Growth & Income fund	174	31	86	15
Fixed interest	1	4	36	16
UK equities	3	17	72	25
Overseas equities	-	-	8	1
	178	52	202	57

7. Total resources expended

Summary

	2021 £'000	2021 £'000	2020 £'000	2020 £'000
Direct charitable costs		779		725
Employment costs				
Salaries	1,678		1,739	
Social security costs	177		182	
Pension costs	285		327	
Temporary and other staff costs	76		57	
Redundancy costs	1		-	
		2,217		2,305
Establishment costs				
Property costs	240		220	
Information technology	169		159	
Depreciation and amortisation	300		258	
		709		637
Administration costs				
Travel, meeting and committee expenses	16		19	
Postage and telecommunications	49		51	
Printing and stationery	16		13	
Finance costs	19		7	
Professional fees	111		40	
Office and other costs	6		4	
		217		134
		3,922		3,801

Breakdown of costs of activities

	<i>Direct costs</i> £'000	<i>Support costs</i> £'000	<i>2021 Total</i> £'000	<i>2020 Total</i> £'000
Charitable activities				
Membership and related services	329	2,056	2,385	2,618
Charitable trading activities	437	898	1,335	1,011
	766	2,954	3,720	3,629
Costs of raising funds				
Activities for raising funds	13	189	202	172
	779	3,143	3,922	3,801

Support cost breakdown by activity

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.

Admin costs include governance, finance, HR, IT and sales and marketing costs, which are apportioned to activities on the basis of employment costs.

	<i>Employment costs</i> £'000	<i>Establishment costs</i> £'000	<i>Admin costs</i> £'000	<i>2021 Total</i> £'000	<i>2020 Total</i> £'000
Membership and related services	1,460	452	144	2,056	2,165
Charitable trading activities	642	194	62	898	793
Activities for raising funds	115	63	11	189	118
	2,217	709	217	3,143	3,076

Employee information

	2021 No.	2020 No.
The average number/(full time equivalent) employees during the year was	44(42)	51 (47)
The number of employees who earned more than £60,000 per annum including benefits was:		
£60,001 - £70,000	2	1
£70,001 - £80,000	2	2
£110,001 - £120,000	1	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	-	-
Money purchase scheme	5	4

	2021 £'000	2020 £'000
Total remuneration of key management personnel, including benefits during the year was	495	459
Total employer National Insurance contributions paid on the key management personnel remuneration	55	49
Total amount of redundancy payments made during the year was	1	-
Contributions to the pension funds during the year were:		
Defined benefit scheme	251	246
Money purchase scheme	76	84

The key management personnel of the charity are detailed on page 57.

Total expenditure includes

2021
£'000

2020
£'000

Auditor's remuneration		
Audit fee – current year	47	37
Accountancy, taxation and other services	4	4
Travel expenses paid to 6 (2020: 0) Trustees for attending Executive board and other meetings	1	-
Travel expenses paid on behalf of 13 (2020: 0) Trustees for attending Executive board and other meetings	1	-
Operating lease charges	38	43

None of the Council members received any remuneration in either year.

2021
£'000

2020
£'000

The total future minimum lease payments under non-cancellable operating leases	Land and buildings	Other	Land and buildings	Other
Within one year	29	8	15	5
Within two to five years	115	20	107	18
After five years	129	-	120	-

Other transactions with trustees

No Trustees directly or indirectly received any remuneration during the years ended 31 December 2021 and 2020.

8. Transfers between funds

There were no transfers between funds during 2021 or 2020.

9. Intangible fixed assets

	<i>Group and parent Website and software £'000</i>	<i>Group only Patent costs £'000</i>	<i>Total £'000</i>
Cost			
1 January 2021	904	41	945
Additions in the year	47	-	47
Disposals in year	(148)	(16)	(164)
31 December 2021	803	25	828
Amortisation			
1 January 2021	483	25	508
Charge for the year	129	5	134
On disposals	(148)	(16)	(164)
31 December 2021	464	14	478
Net book value			
31 December 2021	339	11	350
31 December 2020	421	16	437

10. Tangible fixed assets

	<i>Freehold property held for sale £'000</i>	<i>Freehold property £'000</i>	<i>Short leasehold property £'000</i>	<i>Furniture, fittings & equipment £'000</i>	<i>Total £'000</i>
GROUP AND PARENT					
Cost or valuation					
1 January 2021	-	13,487	2,221	1,004	16,712
Additions in the year	-	-	-	36	36
Reclassification in year	270	(270)	-	-	-
31 December 2021	270	13,217	2,221	1,040	16,748
Depreciation					
1 January 2021	-	2,506	2,037	789	5,332
Charge for the year	-	84	25	57	166
Revaluation	-	(84)	-	-	(84)
31 December 2021	-	2,506	2,062	846	5,414
Net book value					
31 December 2021	270	10,711	159	194	11,334
31 December 2020	-	10,981	184	215	11,380

10. Tangible fixed assets (continued)

The Institute's freehold land and buildings are accounted for using the valuation method. Both of the Institute's freehold properties were revalued at their present market value at the end of 2018. The London property was revalued at its present market value of £10.7m by Neil Burch MRICS on 31 March 2019. The next formal valuation of freehold properties is due to take place in 2024.

Trustees have reviewed the value of freehold properties at 31 December 2021 by reference to CBRE index and to the open market, and are satisfied that there is no impairment to value of freehold properties.

The Stoke property was revalued at its present market value of £270k by Nick Deavall MRICS on 1 April 2019. In March 2021 the Trustees agreed to dispose of the Stoke property. An offer was accepted in December 2021 and the property was subsequently reclassified as freehold property held for sale.

11. Heritage assets

In addition to the assets outlined in note 10, the Institute owns a collection of paintings and artefacts of historic and scientific importance which is deemed to be heritage assets as defined under SORP (FRS 102). The collection comprises portraits, paintings, artefacts and sculptures, which the Institute has commissioned, acquired or received as a donation to either enhance the fabric of its building or to celebrate its history in science, engineering and technology.

The Institute maintains a comprehensive register of these assets. The Institute's heritage assets were valued in February 2019 by Penny Bingham (MRICS), an independent Fine Art Valuer, at a combined value of £287k. Separately, the Institute's Mining Lamp collection was valued in May 2016 by David Rimmer of the Miners Lamp Society at a combined value of £169k.

Both independent valuers consider that the resale value of individual heritage assets is very sensitive to the number of potential purchasers with the ability and willingness to pay.

The heritage assets were recognised in the Institute's balance sheet at 31 December 2018 at valuation and have been subsequently held at valuation subject to annual review for indications of any impairment.

Trustees have reviewed the assets at 31 December 2021 and do not consider there to be any impairment

12. Investments

	<i>Group and Institute</i>		<i>Institute</i>	
	<i>2021</i>	<i>2020</i>	<i>2021</i>	<i>2020</i>
	<i>£'000</i>	<i>£'000</i>	<i>£'000</i>	<i>£'000</i>
Analysis of movements in the year				
Opening market value	8,878	9,169	8,878	9,169
Additions at cost	-	225	-	225
Disposals at opening market value	-	(223)	-	(223)
Revaluations	759	(293)	759	(293)
Closing market value	9,637	8,878	9,637	8,878
Invested as follows				
<i>Listed investments</i>				
Black Rock Growth & Income fund	8,811	8,102	8,811	8,102
Fixed interest	160	169	160	169
UK equities	663	604	663	604
Overseas equities	-	-	-	-
<i>Unlisted investments</i>				
Cash and cash equivalents	3	3	3	3
Subsidiary undertakings	-	-	-	-
Closing market value	9,637	8,878	9,637	8,878
At the balance sheet date, the following investments represent more than 5% of the portfolio by market value				
Black Rock Growth & Income fund	8,811	8,102	8,811	8,102
Charishare (UK equities common investment fund)	588	503	588	503
Historical cost at 31 December	5,342	5,342	5,342	5,342

13. Subsidiary undertakings

The Institute has four subsidiary organisations:

- IOM Communications Ltd (company number 3285009, charity number 1059475), a charitable trading company limited by shares.
- The Institute of Packaging (company number 786826, charity number 295762), a company limited by guarantee.
- Materials Institute Services Ltd (company number 2882544), a company limited by shares.
- PIABC Ltd (company number 10371273) 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, Materials Institute Services Ltd and PIABC Ltd are audited. IOM Communications Ltd and Materials Institute Services Ltd and PIABC Ltd are wholly owned subsidiaries. The Institute holds 100 shares of £1 each in IOM Communications Ltd and one share of £1 in PIABC Ltd. IOM Communications Ltd holds 2 shares of £1 each in Materials Institute Services Ltd.

IOM Communications Ltd undertakes the charitable trading activities of the Institute of Materials, Minerals and Mining. Materials Institute Services Ltd undertakes income generating activities of the Institute of Materials, Minerals and Mining. PIABC Ltd undertakes membership related activities on behalf of the Institute of Materials, Minerals and Mining. The Institute of Packaging did not trade in 2021 or 2020.

IOM Communications Limited

2021
Total
£'000

2020
Total
£'000

Results		
Charitable trading activities	335	1,827
Total incoming resources	335	1,827
Charitable trading costs	255	1,011
Donation to the Institute	80	816
Total outgoing resources	335	1,827
Net incoming resources	-	-
Balances brought forward	342	342
Balances carried forward	342	342

Balance sheets at 31 December		
Fixed assets	11	16
Current assets	554	960
Creditors: amounts falling due within one year	(223)	(634)
Net current assets	342	342
Shareholders' funds	342	342

Summaries of the 2021 results and balance sheets for IOM Communications Ltd, Materials Institute Services Ltd and PIABC Ltd together with comparative figures for 2020, where applicable, are shown in this note. The net assets of The Institute of Packaging at 31 December 2021 and 31 December 2020 were £nil.

13. Subsidiary undertakings (continued)

Materials Institute Services Limited

	2021 <i>Total</i> £'000	2020 <i>Total</i> £'000
Results		
Turnover	321	276
Total incoming resources	321	276
Costs	202	172
Donation to the Institute	119	103
Total outgoing resources	321	275
Net incoming resources	-	1
Balances brought forward	23	22
Balances carried forward	23	23
Balance sheets at 31 December		
Current assets	143	111
Creditors: amounts falling due within one year	(120)	(88)
Net current assets	23	23
Shareholders' funds	23	23

13. Subsidiary undertakings (continued)

PIABC Limited

	2021 <i>Total £'000</i>	2020 <i>Total £'000</i>
Results		
Turnover	113	41
Total incoming resources	113	41
Costs	113	41
Total outgoing resources	113	41
Net incoming resources	-	-
Balances brought forward	1	1
Balances carried forward	1	1
Balance sheets at 31 December		
Current assets	16	1
Creditors: amounts falling due within one year	(15)	-
Net current assets	1	1
Shareholders' funds	1	1

14. Stock and work in progress

	<i>Consolidated</i>		<i>Institute</i>	
	2021 £'000	2020 £'000	2021 £'000	2020 £'000
Work in progress	53	258	12	-
Sundry stocks	1	3	1	3
	<u>54</u>	<u>261</u>	<u>13</u>	<u>3</u>

15. Debtors

Trade debtors	1,304	1,286	1,251	1,178
Other debtors	8	70	6	55
Prepayments and accrued income	171	98	169	72
Amount due from subsidiary companies	-	-	120	-
	<u>1,483</u>	<u>1,454</u>	<u>1,546</u>	<u>1,305</u>

16. Creditors: Amounts falling due within one year

Trade creditors	142	136	74	69
Taxes and social security costs	229	410	228	410
Subscriptions and orders paid in advance	1,525	1,646	1,447	1,348
Other creditors and accruals	221	364	214	163
Amounts due to subsidiary companies	-	-	432	435
Bank overdraft	812	549	812	549
	<u>2,929</u>	<u>3,105</u>	<u>3,207</u>	<u>2,974</u>

Subscriptions and orders paid in advance

At 1 January	1,646	738	1,348	351
Recognised in year	(1,580)	(464)	(1,340)	(341)
Provided for in year	1,459	1,372	1,439	1,338
At 31 December	<u>1,525</u>	<u>1,646</u>	<u>1,447</u>	<u>1,348</u>

17. Analysis of net assets between funds at 31 December 2021

Group	Unrestricted funds		Restricted	Permanent	Total
	General £'000	Designated £'000	funds £'000	Endowment fund £'000	
Intangible assets	350	-	-	-	350
Tangible fixed assets	243	11,091	-	-	11,334
Heritage assets	-	456	-	-	456
Investments	7,492	93	2,019	33	9,637
Current assets	926	223	487	-	1,636
Current liabilities	(2,929)	-	-	-	(2,929)
Net assets before pension liability	6,082	11,863	2,506	33	20,484
Pension liability	(3,211)	-	-	-	(3,211)
Total net assets	2,871	11,863	2,506	33	17,273

Institute	Unrestricted funds		Restricted	Permanent	Total
	General £'000	Designated £'000	funds £'000	Endowment fund £'000	
Intangible fixed assets	339	-	-	-	339
Tangible fixed assets	243	11,091	-	-	11,334
Heritage assets	-	456	-	-	456
Investments	7,492	93	2,019	33	9,637
Current assets	850	223	487	-	1,560
Current liabilities	(3,207)	-	-	-	(3,207)
Net assets before pension liability	5,717	11,863	2,506	33	20,119
Pension liability	(3,211)	-	-	-	(3,211)
Total net assets	2,506	11,863	2,506	33	16,908

17. Analysis of net assets between funds at 31 December 2020

Group	Unrestricted funds		Restricted	Permanent	Total
	General £'000	Designated £'000	funds £'000	Endowment fund £'000	
Intangible assets	437	-	-	-	437
Tangible fixed assets	373	11,007	-	-	11,380
Heritage assets	-	456	-	-	456
Investments	6,896	85	1,864	33	8,878
Current assets	1,067	223	500	-	1,790
Current liabilities	(3,105)	-	-	-	(3,105)
Net assets before pension liability	5,668	11,771	2,364	33	19,836
Pension liability	(4,633)	-	-	-	(4,633)
Total net assets	1,035	11,771	2,364	33	15,203

Institute	Unrestricted funds		Restricted	Permanent	Total
	General £'000	Designated £'000	funds £'000	Endowment fund £'000	
Intangible fixed assets	421	-	-	-	421
Tangible fixed assets	373	11,007	-	-	11,380
Heritage assets	-	456	-	-	456
Investments	6,896	85	1,864	33	8,878
Current assets	585	223	500	-	1,308
Current liabilities	(2,974)	-	-	-	(2,974)
Net assets before pension liability	5,301	11,771	2,364	33	19,469
Pension liability	(4,633)	-	-	-	(4,633)
Total net assets	668	11,771	2,364	33	14,836

18. Permanent endowment fund

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.

	Balance at 1 January 2021 £'000	Incoming resources £'000	Resources expended £'000	Investment gains/ (losses) £'000	Transfers between funds £'000	Balance at 31 December 2021 £'000
Group and Institute						
Mining Club	33	-	-	-	-	33

19. Restricted funds

The income of these restricted funds is 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.

	Balance at 1 January 2021 £'000	Incoming resources £'000	Resources expended £'000	Investment gains/ (losses) £'000	Balance at 31 December 2021 £'000
Group and Institute					
Stanley Elmore Fellowship	711	14	(50)	49	724
Andrew Carnegie Trust Fund	681	18	-	43	742
Bosworth Smith Trust	287	6	(3)	21	311
Tom Seaman Travelling Scholarship	282	6	(4)	21	305
Metals & Metallurgy Trust Fund	120	3	-	5	128
Edgar Pam Fellowship	112	2	(7)	8	115
G Vernon Hobson Bequest	69	2	(1)	5	75
Other funds	23	6	(1)	3	31
Prize funds	79	-	(4)	-	75
	2,364	57	(70)	155	2,506

- 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.

20. Designated funds

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

- Asset development fund – representing selected amounts (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 as deemed appropriate by the trustees.
- 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>Balance at</i> 1 January 2021 £'000	<i>Incoming</i> <i>resources</i> £'000	<i>Resources</i> <i>expended</i> £'000	<i>Gains/</i> <i>(losses)</i> £'000	<i>Balance</i> <i>at 31</i> <i>December</i> 2021 £'000
Asset development fund	10,680	-	-	-	10,680
Revaluation reserve	783	-	-	84	867
Services development fund	57	-	-	-	57
Sir Julius Wernher Memorial Fund	160	2	(1)	7	168
Packaging education fund	50	-	-	-	50
Materials education	24	-	-	-	24
Robert A Moore Fund	17	-	-	-	17
	11,771	2	(1)	91	11,863

21. Cumulative unrealised investment gains

	<i>Consolidated</i>		<i>Institute</i>	
	2021 £'000	2020 £'000	2021 £'000	2020 £'000
General fund	3,055	2,458	3,055	2,458
Designated funds	37	30	37	30
	3,092	2,488	3,092	2,488
Restricted funds	727	572	727	572
	3,819	3,060	3,819	3,060

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 Mobius Life Fund administered by Mobius Life 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 closed to accrual on 31 December 2021. New employees are given the opportunity to join the group personal pension arrangements with Royal London. The group personal pension plan is a defined contribution benefit scheme and complies with the stakeholder legislation.

At the year end, the scheme had 67 deferred members.

Results of the most recent triennial actuarial valuations, at 1 January 2013, 2016 and 2019 showed the following results.

	2013 £'000	2016 £'000	2019 £'000
Market value of the scheme's assets	7,361	13,970	13,641
Liability for projected accrued benefits	(9,201)	(15,593)	(17,330)
(Deficit)	(1,840)	(1,623)	(3,689)

Arrangements have been made for the deficit shown by the actuarial valuation at 1 January 2019 to be funded at the rate of:

- £200k p.a. payable in a lump sum during years ending 31 December 2020 - 2022.
- £73k p.a. increasing at 2.8% payable in equal monthly installments from 1 January 2023 to 31 December 2034.

22.2 Principal actuarial assumptions

A valuation of the defined benefit pension scheme assets and liabilities at 31 December 2021 under FRS102 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	2021 % p.a.	2020 % p.a.
Discount rate	1.90	1.30
Price inflation – pre-retirement (RPI)	3.00	2.50
Before 2030		-
After 2030		-
Consumer Prices Inflation – pre-retirement (CPI)	2.70	2.10
Future salary increases	N/A	0.50-2.10
Rate of increases of pensions in payment (RPI)	3.00	2.50
Rates of increases of pensions in payment – (CPI)	2.10	1.80
Revaluation of deferred pensions (non-GMP)	2.70	2.10

The following demographic assumptions were used in the valuation:

	Year ended 31/12/2021		Year ended 31/12/2020	
	As for post retirement		As for post retirement	
Mortality pre-retirement	S3PMA CMI 2020 1%		S3PMA CMI 2019 1%	
Mortality post-retirement	Males	Females	Males	Females
Life expectancy for a current 65 year old in 2021	86.2 years	88.6 years	86.1 years	88.5 years
Life expectancy at age 65 for an individual aged 45 in 2021	87.2 years	89.8 years	87.2 years	89.7 years

22.3 Amounts recognised in the balance sheet for defined benefit scheme

	2021 £'000	2020 £'000
Present value of defined benefit obligation	(17,251)	(18,295)
Fair value of scheme assets	14,310	13,662
Pension scheme liability recognised in the balance sheet	<u>(3,211)</u>	<u>(4,633)</u>

22.4 Changes in present value of defined benefit obligation

	2021 £'000	2020 £'000
Defined benefit obligation at 1 January	(18,295)	(17,115)
Service cost	(60)	(48)
Interest cost	(235)	(336)
Member contributions	(20)	(20)
Benefits paid	558	675
Actuarial gains/(losses)	531	(1,451)
Defined benefit obligation at 31 December	<u>(17,521)</u>	<u>(18,295)</u>

22.5 Changes in fair value of scheme assets

	2021 £'000	2020 £'000
Plan assets at 1 January	13,662	12,942
Return on plan assets (excluding net interest on defined benefit obligations)	759	875
Interest income	176	255
Employer contributions	251	245
Member contributions	20	20
Benefits paid	(558)	(675)
Plan assets at 31 December	<u>14,310</u>	<u>13,662</u>

22.6 Major categories of scheme assets

	%	%
Equities	19	20
Corporate bonds	9	9
LDIs	9	-
Properties	1	1
Cash	1	1
Annuities	24	27
Other assets	37	33
Total scheme assets	<u>100</u>	<u>100</u>

22.7 Amounts recognised in the statement of financial activities

The actual return on scheme assets was a gain of £935k (2020: £1,130k)

The Institute expects to contribute £200k to its defined benefit pension scheme in 2022.

The actuarial gains recognised in the statement financial activities were £531k and the total cumulative net losses recognised from 2002 to 2021 amounted to £4,074k

Amounts recognised in net incoming resources are as follows:

	2021 £'000	2020 £'000
Current service cost	60	48
Net interest cost	59	81
Net charge	119	129

22.8 Outstanding pension contributions at the year end

Contributions for the defined benefit scheme amounting to £5k (2020 - £6k) were outstanding at the year-end. Contributions for the defined contributions schemes amounting to £10k (2020 - £11k) were outstanding at the year-end.

23 Post Balance Sheet events

A decision was taken in January 2021 to transfer trade and assets of IOM Communications Limited to either the parent charity, The Institute of Materials, Minerals and Mining or a fellow subsidiary, Materials Institute Services Limited by the end of the next financial year, from which point IOM Communications Limited will cease to trade. Therefore IOM Communications Limited financial statements have been prepared on a non-going concern basis. No adjustments are necessary to amounts included in these financial statements as a result of the application of the non-going concern basis of accounting.

Principal office:
297 Euston Road, London NW1 3AD

Grantham centre:
The Boilerhouse, Springfield Business Park, Caunt Road, Grantham NG31 7FZ

t. 020 7451 7300 • www.iom3.org

The Institute of Materials Minerals and Mining (IOM3) is a body incorporated by Royal Charter (company no RC000267) and a charity registered in England & Wales (269275) and in Scotland (SC050586).

THE INSTITUTE OF MATERIALS, MINERALS & MINING

England & Wales - Charity number 269275

Accounts

The global network for
the materials cycle.

I.M3 Institute of Materials,
Minerals & Mining

2020 ANNUAL REPORT & FINANCIAL STATEMENTS

The annual report and financial statements have been prepared in accordance with the accounting policies set out on pages 70 to 73 and comply with the Charity's Royal Charter, the Charities Act 2011 and Accounting and Reporting by Charities: Statement of Recommended Practice applicable to charities preparing their financial statements in accordance with the financial reporting standard applicable in the UK and Republic of Ireland second edition - October 2019.

The Institute of Materials, Minerals & Mining (IOM3) supports professionals in materials, minerals, mining and associated technical disciplines to become heroes of the transition to a low-carbon, resource efficient society, not villains. We seek to be the best professional membership body we can be by providing modern, flexible services, quality technical content and value for money.

Our activities promote and develop all aspects of the Materials Cycle, from exploration and extraction, to characterisation, processing and application, to product recycling, repurposing and reuse.

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 all. The objectives and activities of the Institute (see page 53) 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.

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.

I·M3 Institute of Materials, Minerals & Mining

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As my Presidential term of office comes to an end, I look back on a year that would have been impossible to imagine 12 months ago. Like many others, my working world shrunk overnight in March 2020 and I found myself fighting with my family members for desk-space in the house (and bandwidth on the internet!). These have been strange times indeed and I recognise that they have been associated with tragedy and loss for some and extremely difficult conditions both at home and at work for nearly everyone worldwide.

When I wrote my Annual Review for 2019, I had plans to attend as many events as possible for the Institute, nationally and internationally during 2020. After a flurry of the activities in January and February, I was lucky enough to be invited to attend Scottish Plastic and Rubber Association Annual Dinner in Edinburgh in early March. I am so glad to have attended this – and what a fantastic evening of excellent food, talks (and dancing) it was. Little did I realise at the time, this would be my final memory of an in-person visit as President.

Like so many others, life for the Institute has moved 'online' and I would like to congratulate the whole IOM3 team for the huge amount of work and the very large number of successes they have achieved. Fortunately, IOM3 CEO Dr Colin Church had already had the foresight to oversee upgrades and modernisation of IT equipment and data storage and so the team were well-placed to continue to serve the community even at the start of the first UK Lockdown. Sadly, some of the major conferences and events planned for

PRESIDENT'S OVERVIEW

2020 have needed to be either cancelled or postponed, but there have also been some highly successful alternative format events. The Institute has been a hive of activity and the team has ensured that the profile of IOM3 has remained both relevant and visible. There has been a range of activities underpinning our COVID response and a number of public policy statements have been submitted and published. The Institute has also offered a large number of training courses, online meetings and podcasts and I encourage everyone to look at what is available and take advantage of the excellent resources.

The conditions during 2020 have also presented financial challenges for the Institute and where previously the Trustees had been optimistic that the activities planned would allow us to 'balance the books', through no fault of anyone, we have not been able to achieve our goal. The repercussions of this strange time will continue to be felt for several years to come, but with clear thinking and solid planning, the future for the Institute still looks bright.▶

Professor Serena Best CBE FREng CEng FIMMM IOM3 President

'Project Optimus has revolutionised the ability of the IOM3 team to deliver member services. This has come live relatively recently and was delivered with an outstanding degree of professionalism.'




As many of our members will have seen, we held our AGM 'online' for the first time in the history of the Institute. However, what occurred as a necessity in 2020, proved to be highly successful and I would like to thank everyone who took the time to participate in this. We had the largest attendance on record and it was wonderful that so many people were able to join the meeting from around the world. This certainly seems to be a platform that should be explored for future AGMs. The Advisory Board and Executive Board meetings have also been held 'virtually' for the past nine months and this has worked extremely effectively and efficiently. Costs (both in terms of time and travel) are reduced substantially – the only regret is missing the ability to chat together informally and catch up over a cup of coffee, but even now there are new platforms emerging to enable that type of interaction.


I would like to congratulate the IOM3 Team for delivering successfully the two planned major projects over recent months, under extremely difficult circumstances. The first, Project Optimus has revolutionised the ability of the IOM3 staff to deliver member services. This has come live relatively recently and was delivered with

an outstanding degree of professionalism. Rather oddly, this is characterised by a seamless (almost invisible) transition, for those of us who are member-users, but which will offer huge and powerful benefits to all of us as we move forward. Hopefully noticeable to everyone, has been the launch of our new Visual Identity and the new website. Once again this was developed by the in-house team and I have been extremely impressed by the impact that this has made.

Recently, the World Final of the Young Person's Lecture Competition took place. Originally, the plan was for the competition to be hosted by our friends in the Hong Kong local society, but like so many other activities this year, it became clear that any hope of a conventional, in-person event was impossible. However, I was delighted to be part of the 'virtual' event and by careful choice of timing, it was possible to welcome competitors from Australia, Brazil, Hong Kong, Malaysia, Russia, South Africa and the UK to present their talks live, to an international audience. I would like to congratulate those very talented competitors and, indeed, all who have taken part at every stage of the competition – the majority of which has taken place online



'I would like to congratulate the IOM3 Team for delivering successfully the two planned major projects over recent months, under extremely difficult circumstances.'



Moving forward, from January 2021 I have taken on the role of Chair of the Executive Board. It will be a significant challenge to match the outstanding contribution made by Martin Cox and I thank him warmly for everything that he has achieved. Martin has done far too good a job for us to let him escape completely – and we look forward to working with him in a new role in 2021. There have been a number of appointments as Chairs of Committees and Boards over the past few months. These have been advertised in *Materials World* and we have been delighted to see the level of interest from our communities. I have been very pleased to meet a number of people this way and am very grateful to everyone who has put themselves forward. One such process was involved in the appointment of a Vice President. We are very pleased that Christine Blackmore has taken the role. With Kate Thornton as Senior Vice President next year, it is interesting to see that women outnumber men in the Presidential train for the first time in our history.

I would like to thank, again, the many volunteers in the Institute for all of the work they do at many different levels, from Local

Societies, to Committees, Boards and Communities. People have continued to give their time for Accreditation work and Professional Review Interviews and our Technical Communities provide the essential link to the outward-facing activities of the Institute. I also offer my heartfelt gratitude to the IOM3 team for its commitment and hard work. As we move forward, I offer my very best wishes (and congratulations) to Neil Glover, who began his term of office as President in January 2021. I am sure that we will benefit greatly from his knowledge and experience. I wish him, and all of us, less 'interesting times' in 2021.

In my Inaugural Speech, and also in my Annual Review last year, I highlighted the importance of communication. I believe that 2020 has highlighted how fundamental that message is to our operation as a global Professional Engineering Institution. I have been pleasantly surprised by our ability to adapt our mode of operation in ways that may lead to us to never quite return to the previous normal. I believe that the reach of IOM3 has actually expanded globally and the skills that have been learnt with communication have proved to be key to this.

It is a real pleasure and a great honour to be the incoming President (2021-22.) This is clearly a highly unusual and challenging time to be taking on the Presidency, but one which I believe remains full of promise and opportunity.

As we look to the future in 2021 and beyond it is clear that we as a profession and an Institute are as relevant now as at any point in our long history.

I truly believe that scientists and engineers in materials, minerals and mining have a vital role to play in the future. The global challenges we all face, environmental, social and technological, can at times seem overwhelming but there are very many areas where IOM3 members have a vital role to play. This is especially the case in the critically important area of decarbonisation and wider sustainability throughout the materials cycle. Our Institute is committed to enabling its members to contribute to these challenges to their full potential. In this context a highlight of 2021 will be the programme of events and resources under our 'Sustainable Future' theme aligned to the Glasgow Climate Summit (COP26).

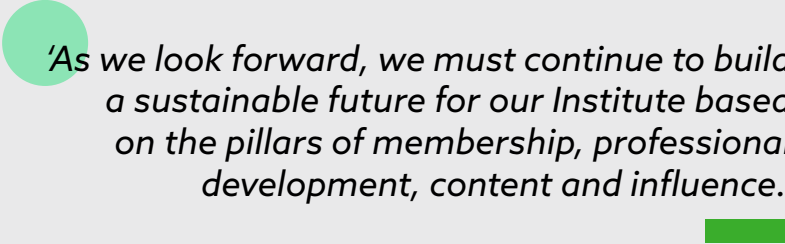
INCOMING PRESIDENT'S LOOK AHEAD

'The global challenges we all face, environmental, social and technological, can at times seem overwhelming but there are very many areas where IOM3 members have a vital role to play.'

Our priority as an Institute must be to meet the needs of all our current and future members, whatever their background or stage in career. We must continue to develop and deliver our strategic plan consistent with our vision to be recognised as the global leader for professionals involved with the materials cycle. Careers are changing faster than ever before and becoming more varied and changeable. Life-long learning is ever more important as our members adapt to new ways of working, technologies and business sectors. IOM3 is focused on meeting this need, providing networks and resources to enable its members to build and grow throughout their careers.▶

Neil Glover CEng FIMMM
IOM3 President
(2021-2022)





'As we look forward, we must continue to build a sustainable future for our Institute based on the pillars of membership, professional development, content and influence.'

The last year has been an extremely difficult time for many of us and IOM3 is no exception. But despite the many challenges, the Institute and its team have adapted well and have achieved much to celebrate. For this, I would like to thank Colin and the team at IOM3 for their ongoing commitment, my predecessor Serena Best for her leadership and all of our volunteers and members without whose hard work nothing would be possible.

2020 has seen an active programme of events from our Student and Early Careers (SECC) and Women in Materials, Minerals and Mining (WIM3) communities and the launch of the IOM3 Pride and Ethnic Minorities in Materials, Minerals and Mining (EMM3) groups. This is a hugely important step forward as we seek to make our Institute a diverse and inclusive home for all its members.

Our new digital platform, website and visual identity were successfully delivered at the beginning of the year. Together they were essential enablers to the continuity of IOM3 activity in our changed 'lockdown' world and provide a powerful platform to further develop our offering to members. We have been able to launch new content vehicles including our podcast series 'IOM3 Investigates' and webinar series transiting a large number of events, meetings and training courses to a virtual platform, including our AGM, the Young Persons' Lecture Competition and the highly successful membership workshops. This has in many cases allowed for greater inclusivity and participation and is something we should learn from and continue in the future, making best use of hybrid events.

As we look forward, we must continue to build a sustainable future for our Institute based on the pillars of membership, professional development, content and influence. We must seek to assure financial stability as we emerge from the 2020 pandemic and maintain and grow our membership base. In line with this, 2021 will see further development and simplification of IOM3 governance and structure, designed to enable more efficient and flexible decision making and provide greater transparency for members. We will continue the development of member focused services including a breadth and depth of content and events and to build partnership and grow our outreach and influence on public debate.

In all of this we must seek a balance, preserving the best of our heritage but shaping IOM3 for the needs of the future. In this way we can enable our members to make a positive contribution to the transition to a low-carbon, resource efficient society.

Finally, although virtual working has been shown to be practical and even beneficial in some cases, as President I still very much want to escape my home office and engage with a wide cross-section of our membership in person over my term in office. I truly hope that this will soon become possible and look forward to meeting you.

As our outgoing President sets out in her look back over 2020, it was a demanding year for everyone, and IOM3 is no exception.

We had anyway set ourselves some significant challenges for 2020 to follow on from our 150th anniversary, and then the pandemic hit. As it did for many others, this required a rapid change in working practices for volunteers and team members. Despite the external stresses of lockdowns – or indeed, in some cases, because of them – the volunteers and employees of the Institute have delivered some impressive things this year.

A planned major effort for 2020 was completion of our digital transformation project, Optimus. The first phase, replacement of our antiquated membership database, was delivered on time at the end of January. With effectively only four months to do it, this was an exceptionally intense period for the membership team, and our digital delivery partners tell us they have never seen more commitment, professionalism, or energy for such a project. This is now being complemented by the digitisation of tens of thousands of historic paper membership records. The following ten months saw almost everyone

in the wider IOM3 team involved in the next phases, demonstrating the same levels of dedication to bringing together our different databases and, as the most visible aspect to the outside world, our new website. The database mergers will mean that for the first time, we are able to offer members a holistic service more tailored to your needs (so long as you tell us what they are – so please update your online profile!). The new website will continue to develop over time as volunteers and team members add, refine and improve its content. However, with its simpler navigation and ability to be used on the full range of internet devices (smart phone, tablet, computer), it addresses one of the major complaints members expressed in the 2019 Member Survey and in follow up discussions. It is also gratifying to note that the team kept within the original budget for this whole project, which cannot always be said for major IT projects.

CEO'S REVIEW

The launch of the website has also brought with it the release of the Institute's new visual identity. The old visual identity of IOM3 was no longer fit for purpose and Trustees did not consider it adequately reflected Institute core values of being forward looking, dynamic, mindful, environmentally conscious, innovative, and global. As part of the development of the new website, therefore, they asked our talented in-house team to develop a new visual identity, which they have done based on widespread consultation, including of members via the 2020 Member Survey. So far, both website and visual identity have received a positive reception.

Another aspect of our planned digital work has been the introduction of an online catalogue for our library resources (ICON). This, combined with moving the physical library from the old warehouse into The Boilerhouse (the main building in Grantham), will make the wealth of material there much more accessible to members.▶

Dr Colin Church
FIMMM CEnv
IOM3 Chief Executive

'Despite the external stresses of lockdowns – or indeed, in some cases, because of them – the volunteers and employees of the Institute have delivered some impressive things this year.'



Of course, the pandemic and lockdown meant we had to develop several other digital offerings at a far faster pace than we had originally intended. Our education and training team was first out of the blocks, building on the Institute's existing online courses to add further offerings on technical and 'soft' skills, with over a hundred people viewing the webinar 'Presentation skills for online communication,' for example. The membership team's adoption of online mentoring workshops for upgrades and professional registration (CEng, CEnv, CSci, etc) came hot on their heels. This has seen over 400 people attend and has led to us breaking our all-time records for both registrations as Chartered Scientist and total registrations with the Engineering Council in 2020. The conference and events team also stepped up to the mark, with 30 webinars in 2020 with over five thousand registering, a highlight being almost 800 people attending live the energy materials webinar Making Better Batteries. The 'IOM3 Investigates...' podcast series is also doing well, already being listened to well over a thousand times since its launch in the early summer. Taking the Annual General Meeting online also resulted in unprecedented attendance levels, and the Young Persons' World Lecture Competition final, with an audience from ten countries, joined our growing array of events with international appeal - individuals from more than seventy countries joined one IOM3 event or another over the year, not counting local society events, which must also be a record!

In line with our Corporate Strategy, the Institute has also been growing its input into policy discussions. Over the course of the year, we have made six formal submissions to Parliamentary and Governmental consultations, produced contributions with CIWM and with the National Engineering Policy Centre to the Spending Review and kept up a drum beat of regular press comment.

Some aspects of the normal rhythm of Institute life have continued as we settled into our new governance arrangements: 2020 saw the appointment of a new Vice-President, Christine Blackmore; a new Honorary Treasurer, Vikas Mawkin and of twelve new Technical, Member and Professional Community Chairs:

- Jude Allan (Packaging)
- Mike Armitage (Applied Earth Science)
- Laura Baker (Iron and Steel)
- Dave Evetts (Local Affairs)
- Samuel Grisa (EMM3)
- Paul Hatton (Biomedical Applications)
- David Hughes (Polymers)
- Martyn Jones (Student & Early Career)
- Richard Oblath (Energy Transition)
- Emily Radley (IOM3Pride)
- Jim Shields (Membership)
- Ping Xiao (Surface Engineering)

Thank you to each of these new additions to leadership roles in the Institute for coming forward, and a corresponding heartfelt thanks to those who have moved on, especially Dr Mick May, who stepped down as our Honorary Treasurer after twelve years, and Mr Martin Cox, whose term as Chair of Executive Board and a Trustee has also ended.

With thanks to the many volunteers who have contributed, we have also made progress with the review of our Technical Communities and expect to be able to discuss the proposed changes with members during 2021 and then implement them. Regrettably, like everyone else, we have had to abandon the

'Looking forward to 2021, we should all be wary of making too many predictions, but the Institute will continue its journey to being the best professional membership body we can be, whether that is via online delivery or in person.'

physical meetings that I know are so valued by members. This has also affected the use of our buildings by members and customers alike, something we are keen to change when circumstances allow.

Looking forward to 2021, we should all be wary of making too many predictions, but the Institute will continue its journey to being the best professional membership body we can be, whether that is via online delivery or in person. As part of this journey, in 2021 we will consult members on the third phase of our governance modernisation programme, including proposals for a new and simpler membership grade structure. Our biggest event is likely to be PVC 2021, which will be, for the first time in history, held online.

Focusing on PVC in the circular economy, this will offer a comprehensive and varied programme of international speakers, high-quality papers, and exceptional networking opportunities in a new exciting online format. 2021 should also see the delayed COP26 meeting, where the leaders of the world will descend on Glasgow in the early winter to negotiate the next steps of our attempts to keep climate change below 2 degrees. IOM3 - working in partnership with other professional bodies and alone - will continue its contribution to these discussions as part of its work to support professionals in materials, minerals, and mining to be heroes of the transition to a low-carbon, resource-efficient future, not villains.

As always, the Institute relies on hundreds of volunteers in different roles, from assessors via board members to Trustees, to carry out its work on behalf of its members. On behalf of us all, thank you.

Finally, I'd like to express my pride in and gratitude to the fabulous team here at the Institute of Materials, Minerals & Mining for everything they have delivered for our members through all their hard work this year in trying circumstances.



HIGHLIGHTS
OF THE YEAR

This annual report reflects the work, aims and objectives of 2020. The global pandemic had a significant impact on the operations for IOM3 for 2020 including financial reports, events schedule and venue hire. The full impact of COVID-19 has been reflected throughout this report.

2020 marked a huge and challenging year for IOM3. The global pandemic meant that the IOM3 Team were remote working as we moved to an online way of working.

As well as some major Governance changes (see page 48), IOM3 continued its major digital transformation project, which started in the second half of 2019. This upgrade to our previous system provides a new member portal and website launching in 2020. IOM3 continued with delivery of its Corporate Strategy, focused on membership, content, professional development and influence in public and policy debates.

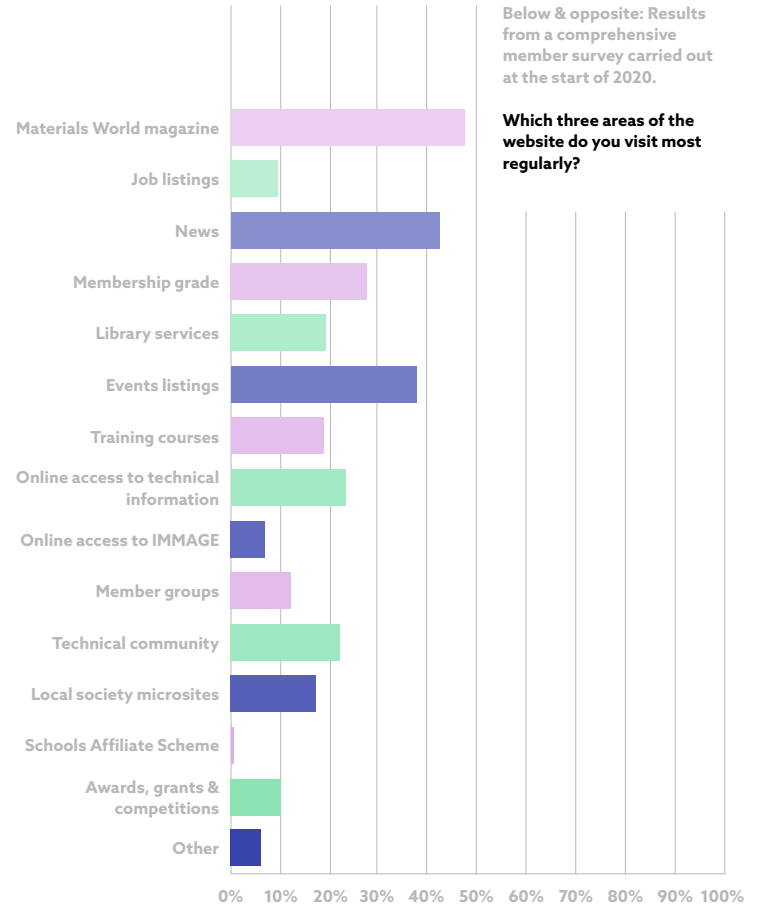
Highlights of 2020 from all IOM3 activities are described in the following pages. IOM3 is grateful to the large body of volunteers contributing at all levels and across all sectors, both in the UK and overseas. As previously, we are keen to encourage more younger members and members from under-represented groups to get involved in volunteer activities. Information about the many ways in which members can contribute to IOM3 as volunteers is available on the IOM3 website. The Trustees would also like to acknowledge the hard work and dedication of the team at IOM3, for what was an exceptionally challenging year.

Membership

The major achievement on Membership in 2020 was managing and processing the number of individuals seeking and being awarded a professional grade of membership, which significantly increased compared to previous years. This turn around was largely due to the introduction of an experience-based by which applications were assessed, which was approved by the trustees at the end of 2019. This model (which had been last used in the early 1990s) meant that individuals whom did not wish to apply for professional registration or for who was not relevant could be considered for the Institute's MIMMM and AIMMM professional grades of membership.

Whilst the pandemic brought challenges for everyone, many members took the opportunity of being in lockdown or on furlough to upgrade their professional accreditation with IOM3. This, combined with the reinstated experiential model had a profound impact on the number of individuals being awarded professional grades. A total of 1,036 individuals were awarded MIMMM, and 69 awarded AIMMM.

Likewise, the number of members seeking professional registration also rocketed in 2020. For the first time, IOM3 recorded more than 200 professional registrations to the Engineering Council, which included 182 at Chartered Engineer. In addition, there were 31 to the Science Council and 3 to the Society for the Environment. In total 236 members achieved professional registration during the year. ▶



What subjects are of interest to you in material published by IOM3, or events such as conferences and workshops organised by IOM3?

mining technology / sustainable construction / packaging / transport innovation / ceramics / timber technology / nanotechnology / iron & steel / geology / composites / wood / electrical engineering / minerals / circular economy / aerospace engineering / failure analysis / manufacturing / metals / forensic materials engineering / energy / corrosion / waste / rubber / clay processing / biomaterials / oil & gas / casting / corrosion

'Professional registration is critical for career progression. It helps keep you focussed on continual professional development by providing access to training courses and technical materials. It is also an opportunity for networking, which is beneficial for career development.'

Ms Fiona Cessford CEnv FIMMM

This increase in numbers was also supported by the programme of workshops offered during the year. The original plan of 12 face-to-face sessions was soon revised to an online delivery when the first lockdown began. The demand was such that by the end of year 42 'Become a FIMMM', 'CEng in day' and other Science Council and Society for the Environment professional registration workshops had been held and attended by a total of 415 members. This programme is continuing into 2021.

Our recruitment to the Fellowship grade was also heavily subscribed, and we just missed out on 200 awards during the year. A total of 197 members were awarded or reinstated as FIMMM during 2020.

The Institute's commitment to Continuing Professional Development and quality assuring the activity records of members continued during the year with a further 320 professional registrants being called up for assessment. All were approved and certificated.

'My membership with IOM3 demonstrates my commitment towards responsible use of science and engineering knowledge for the society and environment.'

Dr Davannendran Chandan CEnv CSci MIMMM

Our second all-member survey was held during the year. Building upon the information and data gleaned from the first held in 2020, IOM3 sought information on specific member benefits, in addition to views about our new visual identity. The different ways of working brought on by the lockdowns had a significant influence on the responses from a preference to online training courses, to events that could be accessed remotely by Zoom as opposed to face-to-face provision. Not only was this recorded as being more convenient, but also saved on financial and carbon footprints in travelling, as well as making these activities more accessible and inclusive to members having to balance professional and personal commitments. Whilst the total number responding to this survey just fell short of the target figure, the exercise was nonetheless worthwhile, and the information gathered will be used to further tune our activities and member benefit package.

'Being a member of IOM3 means career development and networking opportunities. It also pushes me out of my comfort zone, allowing me to develop on a personal level as well.'


Amy Jade Newell TIMMM

International & SECC

The Younger Members' Committee (YMC) reviewed its Terms of Reference and name to be fully inclusive and address the needs of those members no longer defined by age limits. Following an internal process, the shortlisted names were opened to the Institute's membership for consultation and the YMC was renamed to Student & Early Career Committee, a name that more adequately reflects the group of members we aim to represent.

Our first event under the new name took place in July. Materially Challenged, a materials, minerals and mining quiz was held online via Zoom. This will continue into 2021.

The COVID-19 crisis has affected the entire world. Our Committee members, from PhD students, to furloughed industrial workers, to those who have remained in work throughout, came together and published a feature in *Materials World* detailing their own experience. ▶



'The Lecture Competition is a great way to build confidence in presenting, learning from all of the different talks you see and really developing the story behind your research.'

Morgan Lowther,
2020 YPLC & YPWLC winner



2020 YPWL artwork
inspired by the universal
virtual competition
experience.

Below: New visual YPLC and YPWLC logos following the rebranding in line with the new IOM3 visual identity.

'Coming from a challenging year like 2020 being part of SECC has been an honour and a driving force in those difficult times. Not only have I found an inspiring and welcoming group of people in my fellow committee members but I have been able to be an active part of the IOM3 community and raise topics I am passionate about'

Maitheya Riva GradIMMM, SECC



The pandemic also meant that for the first time in history the Young Persons' Lecture Competition (YPLC) and Young Persons' World Lecture Competition (YPWLC) were held online, with more than 120 attendees joining the remaining online regional finals in July and the YPLC UK on 23 September 2020. Seven competitors gave a lecture of 15 minutes on a topic related to materials, minerals, mining, packaging, clay technology and wood science and engineering. More than 80 people from 10 countries joined the YPWLC final to see Morgan Lowther from the UK winning the first ever online final. Second place went to Bianca Gevers from South Africa and third to Anand Jyothi from Australia.

In November, we held our third Road to Chartership event, where 45 young and early career members and non-members enjoyed talks by Dr Chris Melvin CEng CSci MIMMM from Tata Steel Strip Products UK, Dr Ian Mabbett CEng FIMMM of Swansea University and Sarah Boad CEng CSci FIMMM, IOM3 Membership Development Manager on why they should aspire to becoming chartered and how to apply.

Diversity & inclusion

During 2020, changes were made to the IOM3 codes of conduct. These changes affect both the IOM3 team and IOM3 members and cover areas such as events and social media to provide a harassment-free environment for everyone.

IOM3 created a volunteer Inclusion, Diversity and Equality (IDE) group to assess the internal structure of IOM3, events, education, accreditation etc, using the Royal Academy of Engineering/Science Council progression framework. This helped us identify what we are already doing and what we need to focus on in the future to improve IDE. In doing this, we also developed two IOM3 Member Community groups - IOM3Pride and Ethnic Minorities in Materials Minerals and Mining (EMM3) with the aim of promoting and supporting diversity within IOM3.

IOM3 council to make anti-harassment and safeguarding policies for universities mandatory and developed a diversity monitoring form, which will be used to collect relevant diversity data. Currently, IOM3 only holds data collected from events and information on race, sexual orientation and detailed gender identity is not present. The monitoring form will be extended to everyone, and the data collected will be a great starting point for measuring where improvements need to be made.

In way of promotion, we supported global diversity days using social media including pride month held in June 2020 and posting blogs and events relating to Black History Month (for example our Black History Month podcast with EMM3 members) and responded to the Black Lives Matter movement - releasing statements in support, writing educational blogs regarding race in the workplace and sharing these on social media.



Content & magazines


This year, the IOM3 member magazines profiled the contributions of our members and the STEM community in general during the pandemic, including insights on the impacts on higher education and industry in *Materials World*.

We also enhanced the social media profile of *Materials World* content through more frequent posting on Twitter, re-launch of the Instagram feed and contribution to the IOM3 LinkedIn feed.

IOM3 also introduced a new member benefit – ICON (IOM3 Catalogue Online – incorporating IMAGE) with help from the library and content team. This contains information about our physical Library holdings, recently rehoused in the Boilerhouse, Grantham and is being added to all the time.


'I have just read through Materials World and would like to thank you and your team for what you produce. A good read, informative and varied. Thank you!'

Dr Peter Bonfield OBE FREng FIMMM



'Wow! Your rapid response is impressive. I looked online and didn't find anything useful!'

Barry Job



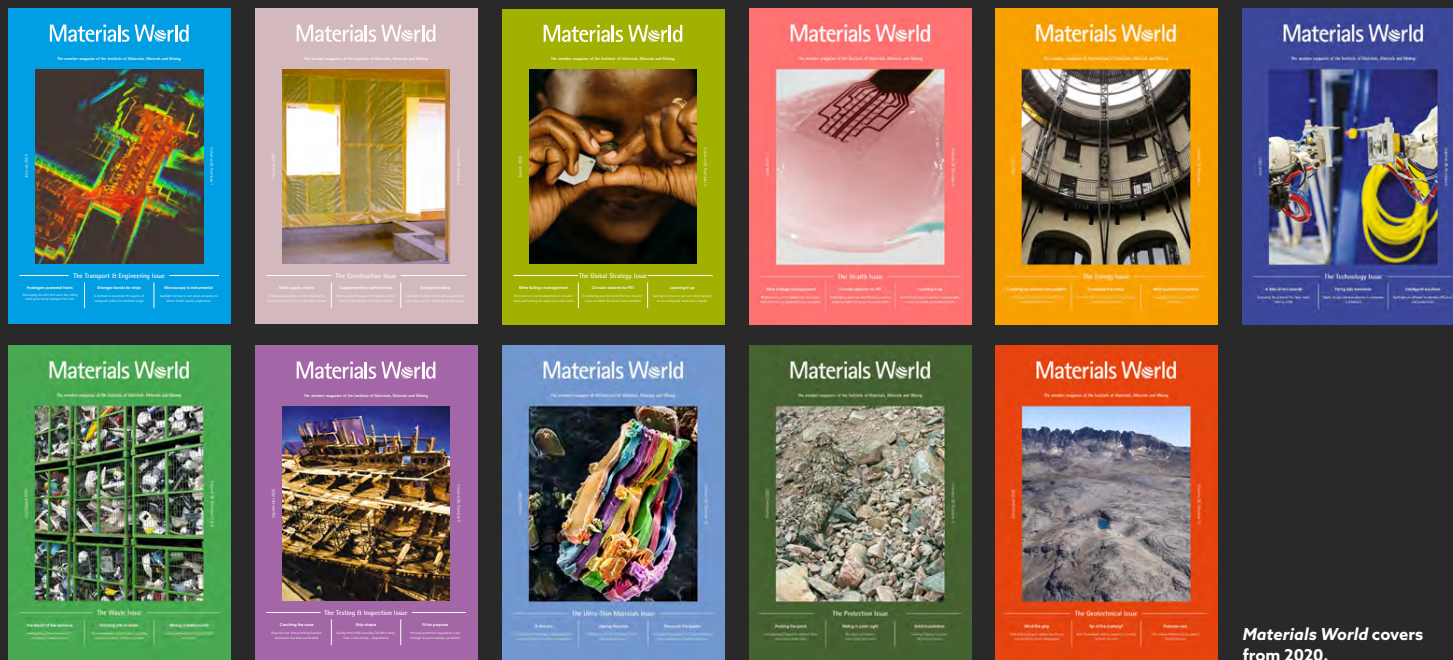
'Really appreciate the paper, such an excellent and fast response.'

Neil Holloway



'My favourite lunchtime reading. I can spend hours reading and re-reading content. The waste issue was very informative - some great topics and well written. I generally enjoy the themed issues, something I would like to see continue.'

Dave Cook, Affiliate member



**Materials World covers
from 2020.**

Composites

I-M3

Casting & Solidification

I-M3

Functional Materials

I-M3

Surface Engineering

I-M3

Iron & Steel

I-M3

Mining Technology

I-M3

Light Metals

I-M3

Automotive

I-M3

Energy Materials

I-M3

Polymers

I-M3

Energy Transition

I-M3

Packaging Group

I-M3

Mineral Processing & Extractive Metallurgy

I-M3

Ceramics

I-M3

Construction Materials

I-M3

Materials Science & Technology

I-M3

Biomedical Applications

I-M3

Natural Materials

I-M3

Applied Earth Science

I-M3

Sustainable Development

I-M3

Wood Technology

I-M3

Nanomaterials

I-M3

Smart Materials & Systems

I-M3

Adhesion & Adhesives

I-M3

Corrosion

I-M3

Vitreous Enamelling

I-M3

Coatings & Surface Treatments

I-M3

PVC

I-M3

Rubber in Engineering

I-M3

Polymer Processing & Engineering

I-M3

Cementitious Materials

I-M3

Ceramic Science

I-M3

Clay Technology

I-M3

Advanced Sheet Metal Forming

I-M3

Bulk Metal Forming

I-M3

Defence, Safety & Security

I-M3

High Temperature Materials

I-M3

Materials Chemistry

I-M3

Materials Failure Investigation

I-M3

Particulate Engineering

I-M3

Structure & Properties of Materials

I-M3

Technical communities

In 2020, IOM3 carried out a major review of our technical communities to ensure that their structure and operation reflect our members' interests now and for the future. Several new chairs were elected to their boards, which along with the review allows an opportunity for fresh thinking.

IOM3 also appointed Rachel Stonehouse at the start of the year to increase our policy influence and help with the running and day-to-day management of our technical communities.

All of the usual face-to-face meetings were moved to virtual meetings. This has proven to be a success, allowing a greater mix of people to take part and will be continued throughout 2021.

Our Technical Communities hosted a number of webinars including a new series of webinars from the Natural Materials Association and we had new web-based content linked to wood and the running of Timber 2020 as a virtual event.

This year, we also relaunched the former Oil and Gas Division to become the Energy Transition Group, reflecting the shift in activity away from traditional fossil fuels towards new technologies including carbon capture and storage, and renewable energy sources.

Education, events & training

In what was an unpredictable year, IOM3 had to move a lot of events online, hosting more than 30 online events across 8 months. This move was also reflected in our training courses as our activity went virtual and ran in excess of 30 technical and non-technical webinars to support the career development of members and non-members during a challenging time for UK industry. ▶

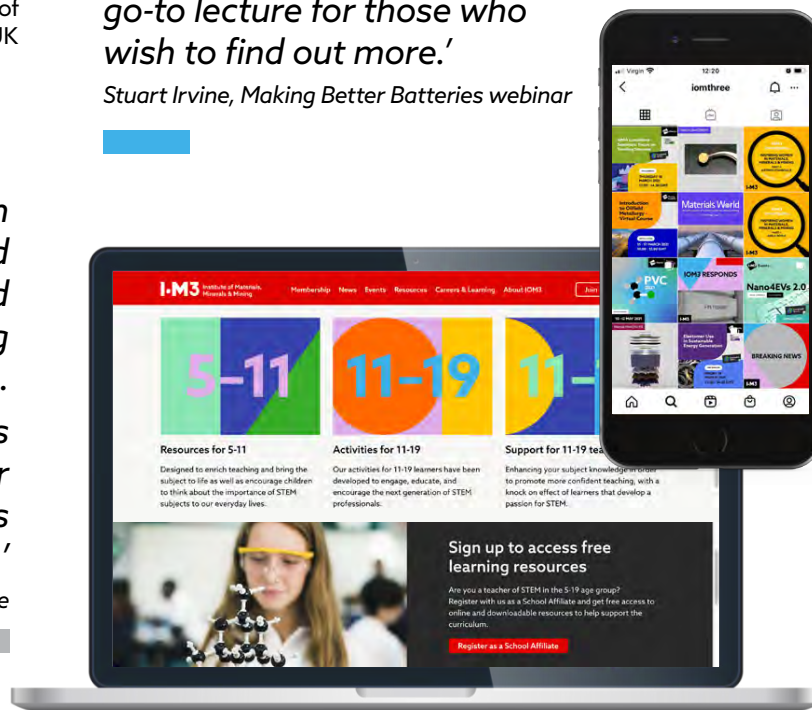
'Timber 2020 offered me an opportunity to see and listen to old acquaintances and colleagues and make new contacts. Overall going virtual was a good experience.

The quality of the presentations was good and I think part of the reason for this was the requirement for speakers to prepare a video beforehand.'

Mark Irle, Timber 2020 conference attendee

'Wow, that is fantastic! It is good to see that a high proportion of registrants actually logged-in. Clare gave such a clear insight to the challenge of the chemistry of Li-ion batteries that this might become a go-to lecture for those who wish to find out more.'

Stuart Irvine, Making Better Batteries webinar



Podcasts created in 2020.



IOM3 launched our first ever podcast series 'IOM3 investigates...' looking into issues of relevance to professionals working in materials, minerals and mining sectors.

With home-schooling becoming the normal, our school resources for 5-19-year-olds were made freely available to all to try and support home learning.

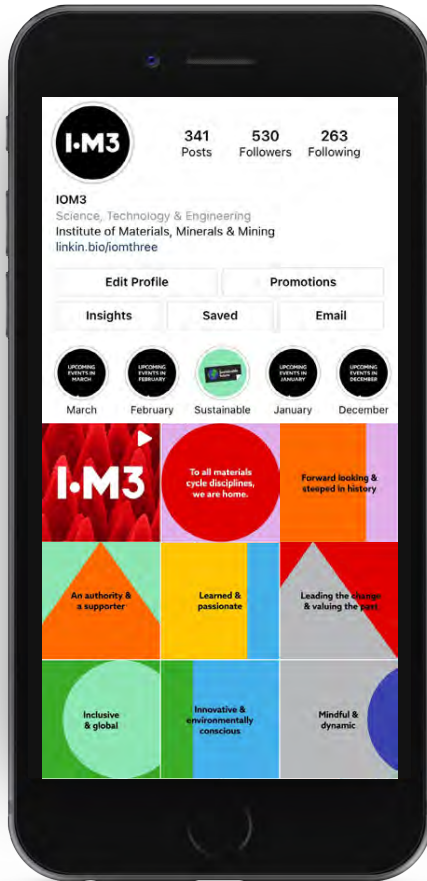
IOM3 has also continued to deliver End Point Assessment activity, having conducted our first four end point assessments and our pool of assessors is waiting for more submissions in 2021.

Policy & Influence

Over the past 12 months, IOM3 has submitted a number of responses to Parliamentary and Governmental consultations, as well as producing contributions in collaboration with other stakeholders. Consultations can vary from responding to HM Revenue and Customs (HMRC) on the design of the Plastic Packaging Tax to the Department for Business, Energy & Industrial Strategy (BEIS) on the proposed definition of advanced materials in relation to mandatory notification in the National Security and Investment Bill, to the Home Office on fire safety and the Environment Agency on pollution from abandoned mines. As well as submitting responses to consultations and inquiries, IOM3 has also welcomed and commented on announcements including the Spending Review, Prime Minister's Ten Point Plan, and, in more recent months, the Energy White Paper.

We are anticipating a busy and significant year in 2021, with the UN Climate Change Conference (COP26) in Glasgow in November, as well as a range of announcements, strategies and consultations expected throughout 2021. This includes a comprehensive Net Zero Strategy, Industrial Decarbonisation Strategy, the development of evidenced based targets under the Environment Bill and the second round of key resources and waste consultations including an Extended Producer Responsibility system for packaging.

IOM3 is also involved in a number of activities or groups including UK Plastics Pact, Environmental Policy Forum and The National Engineering Policy Centre which we sit on and will be continuing throughout 2021.



Communications

It was a big year for the IOM3 communications effort, with the forced cancellation of events and the move to online – it meant that IOM3 had to deal rapidly with its response to COVID. Introducing a dedicated ‘COVID-19 Content Hub’ meant that we could keep our members up to date with the latest announcements including event cancellations, recommendations for working at home, latest R&D developments etc. In July, we produced a report with help from Technical Communities on ‘The impact of COVID-19 on materials, minerals and mining communities’ considering the impact of the pandemic on several industries and examining what may lie ahead. IOM3 also produced its first student video which highlights to future students the importance of IOM3 membership and what benefits the Institute can bring to them.

We introduced a monthly member email newsletter in June 2020, giving members an update on Institute activities, content available, upcoming webinars and promotion of our podcast series and blogs. Alongside this, in December 2020, the Strategic Advisors also produced their second newsletter which focused on life in a virtual space and adapting to new ways of working following the pandemic.

In line with our student membership package, we introduced a monthly newsletter for students to promote *Materials World* E-zine and create customised content targeted at our student members and will continue to develop this throughout 2021.

Social media grew with the relaunch of our new Instagram account this year and our Twitter network continuing to grow with around 11.2K followers.

Venue hire

2020 started strong for our venue hire facilities with February bookings reaching an all-time high. However, following the COVID-19 pandemic and national lockdowns the face of our venues and venue hire will have changed for the foreseeable future.

Our Technical Community boards are working virtually and will remain that way for the future. The benefits of this include saving travel costs, providing environmental benefit with less travel and it is already helping to improve diversity of the boards as it allows individuals earlier in their career or from more geographically dispersed bases the freedom to join more easily without committing to attending physically.

With the forced closure of offices IOM3 has made significant developments in remote working across our organisation. During 2021, IOM3 will focus on how it can adapt to the needs of its employees and customers. Internally, we continue to improve our remote working capabilities and are upgrading our WiFi capacity at our Grantham and London premises. Recognising our team's desire for a hybrid style of working, we will work towards a redesign of our office to reflect this and create a more exciting and collaborative working environment.

Understanding our clients' needs will have changed, with office space and room hire requirements significantly reduced. IOM3 will look to create more flexible packages around room, desk hire and tenancy agreements to maximise the use of our buildings.▶



Specifically looking to support our members' needs during 2021, we will be upgrading the Members' Business Centre at our London office.

We had planned during 2020 to move to serviced offices in the Stoke area to minimise the risks around lone working and enable the sale of our Shelton House location but following the forced office closures and subsequent home working the individuals normally located at this site will transfer to permanent home working.

During 2020, our recycling rate increased to 42%. Given the offices were closed for the majority of the year we hope on returning we can continue to improve this rate. Greenhouse gas emissions produced by IOM3 during 2020 were for scope 1 & 2 = 66.3 tCO₂e. This compares to emissions of 134.14tCO₂e in 2019, a reduction of 50.5% (against our Pledge to Net Zero 2030 target of a reduction of 58.9%). Clearly, this also has been significantly impacted by the office closures but with the departure from two of our four buildings during 2021 we anticipate emissions this year to be between 2019 and 2020 levels.

Towards the end of 2020, we made changes to our energy suppliers providing us with a mix of carbon-neutralised natural gas, sustainable green gas and renewable energy, using biomass, wind, solar and hydro power. This will be reflected in our greenhouse emissions reporting going forward.



Digital transformation & visual identity

In November 2020, IOM3 launched its new logo, visual identity and website, devised to reinforce our Institute core values of being forward looking, dynamic, mindful, environmentally conscious, innovative and global.

IOM3 wanted a new visual identity that was strong, simple and striking, embodying the forward-looking nature of IOM3 but also using different shapes to represent our history, the mergers of diverse bodies, and the eclectic mix of people and ideas, which have come together to form the Institute we know today. The various shapes make reference to the fact that our differences can become our strengths when we work together towards a common goal.▶

Stills from IOM3 logo animation.

The launch of our visual identity and website was the culmination of a major digital transformation project within IOM3, delivered in record time. IOM3 worked with partners BlueLight, Pixl8 and Hart Square to deliver a new website, portal and CRM over the course of 15 months. Our visual identity was developed by our talented in-house design team. The new digital systems provide a flexible and modern new platform that has brought together all our administrative systems in one and will allow IOM3 to deliver better and more customised services to its members including the use of a new email marketing system.

Visual identity & digital transformation timeline.

WEEK 2
WEEK 3
WEEK 4
WEEK 5
WEEK 6
WEEK 7
WEEK 8
WEEK 9
WEEK 10
WEEK 11
WEEK 12
WEEK 13
WEEK 14
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WEEK 48



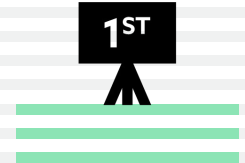
INITIAL CONSULTATION

- | 06 JAN: MVP UAT BEGINS
- | 28 JAN: MVP GO LIVE
- | 27 FEB: IOM3 TEAM SURVEY
- | 17 MAR: ADVISORY COUNCIL WORKSHOP
- | 19 MAR: PIXL8 WEBSITE IDEAS WORKSHOP
- | 24 MAR: IOM3 SENIOR TEAM WORKSHOP
- | 27 MAR: MEMBER SURVEY



INITIAL CONCEPTS

| RESEARCH & DISCOVERY



FIRST ROUND FEEDBACK

- | ANALYSE MEMBER SURVEY FEEDBACK
- | 20 APRIL: INITIAL CONCEPTS PRESENTED TO IOM3 SENIOR TEAM
- | 29 APRIL: INITIAL CONCEPTS PRESENTED TO EXECUTIVE BOARD



DEVELOP CONCEPTS

| REVIEW FEEDBACK



SECOND ROUND FEEDBACK

| 12 MAY: EVOLVED CONCEPTS TO SECC (STUDENT & EARLY CAREER COMMITTEE)
 | 13 MAY: EVOLVED CONCEPTS TO IOM3 TEAM
 | 15 MAY: EVOLVED CONCEPTS TO EXECUTIVE BOARD



REFINE CHOSEN CONCEPTS

| REVIEW FEEDBACK



GAIN APPROVAL

| 8 JUNE: EXECUTIVE BOARD VOTE ON FINAL CONCEPT
 | 10 JUNE: CHOSEN CONCEPT ANNOUNCED TO IOM3 TEAM

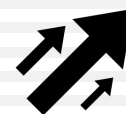
IMPLEMENT

| 17 JUNE: FIRST LOOK AT PIXL8 WEBSITE DESIGN
 | 03 AUG: WEBSITE TESTING BEGINS
 | 06 AUG: PAPERLESS DIRECT DEBIT WORKSHOP
 | 13 AUG: CORE DESIGN SIGNED OFF
 | 14 AUG: FIRST LOOK & FEEDBACK OF CRM & PORTAL
 | 01 SEPT: CORE CRM & PORTAL SOLUTION SIGNED OFF
 | 14 SEPT: PORTAL & CRM USER ACCEPTANCE TESTING
 | 23 OCT: WEBSITE USER ACCEPTANCE TESTING DEADLINE
 | 15 OCT: CRM GO LIVE



LAUNCH & REVIEW

| 3 NOV: LAUNCH WEBSITE & NEW VISUAL IDENTITY
 | 24 NOV: EXECUTIVE BOARD REVIEW PROJECT OUTCOME
 | 03 DEC: PAPERLESS DIRECT DEBITS LIVE



IOM3 team

As for everyone, 2020 was a strange year for our team at IOM3, but we have never been prouder of them and all that they have achieved. As an organisation most of our team were not accustomed to working from home on a regular basis and the forced closure of all our sites meant a real change for everyone. As our team balanced the new normal of working remotely, isolation and for many home schooling, the dedication and commitment they have shown to IOM3 has been remarkable. Despite all of these challenges the team delivered the finalisation of Project Optimus, the new integrated CRM and website system and many other projects.

Recognising the increased amount of screen time, we introduced some new measures to give the team some protected non screen time during the day and have encouraged everyone to get away from their desk, take a walk and get some fresh air where possible.

As we look forward to 2021, our team have told us that they would value the opportunity for a hybrid style of working where most of the team will have the opportunity to work from both an office site and remotely and we will be further improving our capability in this area. Similarly, in our office we plan to develop our working environment to a much more collaborative working space, with styles that are suited to everyone rather than the traditional desk space. We have launched a small Learning and Development programme for the team with a focus on safely returning to work, and a dedicated window of time once a month to focus on their personal development. More additions will come to the programme throughout 2021.

08

policy
contributions
& responses

71

countries attended
a virtual event

> 250

registered attendees for
the IOM3 softer skills webinars

> 1,000

promoted or reinstated
professional grades of membership

1,580

new members in 2020

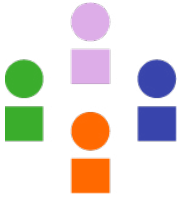
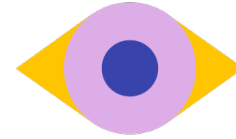
> 3,603

attendees at 25 IOM3-hosted virtual events

> 20,000

Materials World & IOM3 Twitter followers

110,458

total page views of the new website in the first
three weeks of launching



**| AWARDS, MEDALS
& PRIZES**

IOM3 awards numerous medals and prizes in recognition of outstanding contributions to science, technology and management across all disciplines in materials, minerals and mining.

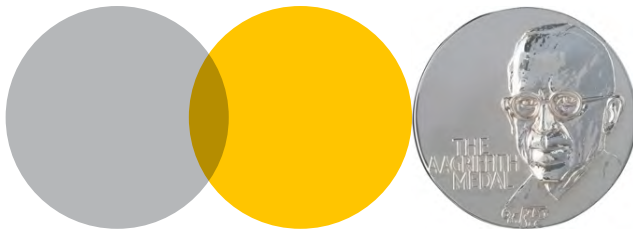
Awards are presented for personal achievement and published work as well as for outstanding contributions to the Institute and its activities. Some awards are aimed specifically at earlier career stages, others recognise technological developments or contributions to education. Awards are presented at special occasions throughout the year, and some award winners deliver lectures to which all members are invited. Prizes are also presented to the best students in specific disciplines and IOM3 runs competitions such as the Young Persons' Lecture Competition to recognise communication and presentation skills. Full details of IOM3 awards and prizes are published on the IOM3 website at www.iom3.org/iom3-awards.

Premier awards

Bessemer Gold Medal	Prof David Anthony Worsley
Chapman Medal	Prof Alicia El Haj
Griffith Medal & Prize	Prof Manish Chhowalla
Silver Medal	David Collins MIMMM
Sir Andrew Bryan Medal	Keith Harrison CSci FIMMM
Sir Colin Humphreys Education Award	John Luton
Medal for Excellence	Prof John Coggan CEng FIMMM
Swinburne Medal & Prize	Professor Stephen J Eichhorn CEng FIMMM
Institute's International Medal	Prof Vladimir Litvinenko FIMMM

Personal achievement awards

Hadfield Medal	Stephen Carey CEng FIMMM
Hancock Medal	William Mortel FIMMM
Harvey Flower Titanium Prize (2019)	Dr David Harvey ProfGradIMMM
Frank Fitzgerald Medal & Travel Grant	Dr Sarah Connolly MEng MIMMM
Hume Rothery Prize	Prof Klaus Hack
Ivor Jenkins Medal	Prof Herbert Danninger
Kroll Medal and Prize	Prof Kwang Leong Choy FIMMM
Leslie Holliday	Prof Andy Long CEng FIMMM
Local Society of the Year (Large)	Mining Institute of Scotland (MIS)
Local Society of the Year (Small)	Birmingham Metallurgical Association (BMetA)
Outstanding Contribution Awards	Prof Jonathan Tunnicliffe FEng CEng HonFIMMM
Robert Perrin Award	Rhys Archer
Rosenhain Medal & Prize	Prof Susan Bernal Lopez FIMMM
Roy T Holland Award	John Sandford



T B Marsden Professional Award

Mike Chapman CEnv FIMMM

Thomas Medal & Prize

Alan Scholes ProfGradIMMM

Thornton Medal (joint)

James Blake OBE CEng

The Frank Paine Packaging Award

Walter Stahel

Robert Opie

Tom Bell Surface Engineering Medal

Prof Michael Fitzpatrick
CEng CSci FIMMM

Verulam Medal & Prize

Prof Mark Rainforth FEng
CEng FIMMM

Other awards

Local Society of the Year (Large)

Awarded to Mining Institute of Scotland.

The judges were impressed with, amongst other things, the wide variety of events, venues and use of video conferencing, inclusivity with student and retiree events and the newsletters. The award is very much deserved.

Local Society of the Year (Small)

Awarded to Birmingham Metallurgical Association.

The judges thought that BMetA is making significant improvements by its efforts to reach out to a wider community by use of an accessible and up to date website and social media. We hope that BMetA will be encouraged by the award, and continue its efforts to broaden its membership.

Competition winners

UK Young Persons' Lecture Competition

Morgan Lowther

Young Persons' World Lecture Competition

Morgan Lowther



Publication awards

Adrian Normanton Award

*The structure of foaming
BOF-converter slag*

Du Sichen, Bjorn Glaser,
Johan Martinsson

Composite Award

*Methods for process-related resin
selection and optimisation in
high-pressure resin*

Mathew Rutt, Constantina (Tina)
Lekakou, Paul A Smith,
Alessandro Sordon, Ian Hamerton

Guy Bengough Award

*On the Volta potential measured
SKPFM-fundamental and practical
aspects with relevance to
corrosion science*

Cem Örneke, Cristofer Leygraf,
Jinshan Pan

James S Walker Award

*In-situ 3D observation of damage
development and healing in a
carbon-fibre/epoxy composite*

Yijun Lim

Materials World Medal

Biomaterials improve lives. Period.

Jaydeep Mandal (Aakar Innovations)

Mann Redmayne Medal C

*Litho-structural controls on
orogenic gold deposits within the
Sandstone greenstone belt,
Yilgarn Craton, Western Australia:
Implications for exploration
targeting.*

Rhys F Davies, David I Groves,
Jonathan G Standing, Allan Trench,
Michael Dentith & John P Sykes

Vanadium Award 2019 (Retrospective)

*Interaction of precipitation with
austenite-to-ferrite phase
transformation in vanadium
micro-alloyed steels*

Chrysoula Ioannidou, Zaloa
Arechabaleta, Alfonso Navarro-
López, Arjan Rijkenberg, Robert
M Dalglish, Sebastian Kölling,
Vitality Bliznuk, Catherine Pappas,
Jilt Sietsma, A A van Well & S Erik
Offerman



Awards from other bodies

Wardell Armstrong Prize

The treatment of missing 'not at random' geological data for ore grade modelling

Camilla Z da Silva & Joao Felipe C L Costa

Williams Award

Monitoring of less common residual elements in scrap feeds for EAF steelmaking

Augusta Martinelli Miranda, Paulo Santos Assis, Geoffrey Alan Brooks, Muhammad Akbar Rhamdhani, Andrea Fontana, Alister King, Gerald Sanders and Gabriela Paula da Costa Moreira

Beilby Medal & Prize

Charles Hatchett Award

Prof Jin Xuan

Ultrahigh-current-density Niobium Disulfide Catalysts for Hydrogen Evolution

Jieun Yang, Abdul Rahman Mohamad, Yan Wang, Raymond Fullon, Xiuju Song, Fang Zhao, Ibrahim Bozkurt, Mathias Augustin, Elton J G Santos, Hyeon Suk Shin, Wenjing Zhang, Damien Voiry, Hu Young Jeong, Manish Chhowalla

FRS 2020

FREng 2020

Molly Stevens

James Busfield





'I have met a succession of bright enthusiastic people with phenomenal intellects and a desire to use their newfound knowledge and skills to change the world for the better. The breadth and depth of the conversations we have in the judging process always reaffirms my pride in the capability of our profession to shape and improve all aspects of society... The timing of the application is one of pivotal transition for the candidate. They are moving from the taught world where information and knowledge are being poured into them, to one where that input needs to be processed to provide output for the wider world. As such, an application to the award provides an opportunity for reflection and celebration of their early career successes and a chance to vocalise their forward ambition. To the winner comes the accolade, but the reward is shared by all.'

Dr David Egnor CEng FIMMM, 2020 judge

Student & Technician awards

The Institute has a number of annual awards specifically for graduates of materials courses. Nominations for these awards are made by university materials departments.

The Royal Charter, A T Green and R H Craven awards are given to students graduating from UK accredited materials courses for their superior performance together with other qualities and achievements which suggest a promising professional career.

The Institute's Technician Awards are open to all those currently studying materials or minerals technology or related subjects and those who have completed such courses within the last two years. There is no age barrier.

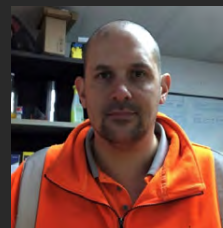
The 2020 awards took place for the first time in a virtual format on Wednesday 11 November. There were 4 judging panels who interviewed students from not only the UK but from all over the world.

Both IOM3 and our Accredited University departments felt it was important to continue to recognise the achievements of the students under what have been extraordinary circumstances. Although the format of the awards had to change it in no way diminishes the success they have attained.

Royal Charter Prize	Alizée Pace
AT Green Award	Edoardo Italia
RH Craven Award	Tasmin Boad
Technician of the Year Award - Cat A	Gary Ash
Technician of the Year Award - Cat B	Amy Elliott

Left to right:

Alizée Pace, Edoardo Italia,
Tasmin Boad, Gary Ash and
Amy Elliott.



Financial review

Overview

The COVID-19 pandemic has had a significant financial impact on IOM3 activities with overall income decreasing by nearly 20% to £3,459k (2019 - £4,308k). The IOM3 team and trustees aimed to minimise operating costs throughout the year while ensuring high quality services continued being provided to members. As a result, IOM3 finished the year with a combined operating deficit of £342k (2019 - £594k) and an overall deficit of £1,127k (2019 - £474k) after including losses on the market value of IOM3 investment portfolio and actuarial losses on the defined benefit pension scheme.

As it can be seen from the graphs on page 61, membership subscriptions continue to represent majority of IOM3 income, closely followed by scientific journal royalties. While these two income streams appear to have been largely unimpacted by Covid19, significant income reduction can be seen across IOM3 commercial activities. Significant adverse impact was felt by IOM3 Training Academy, venue hire and conferences and events activities in particular.

As with other organisations, the costs of running the defined benefit pension scheme and funding its deficit continue to have significant effect on the financial results and strategic development of IOM3. The 2019 triennial actuarial valuation was completed in March 2020 showing significant increase the deficit from £1,623k to £3,689k. In order to tackle the deficit IOM3 resumed the payment of scheme's running costs of approx. £100k pa, increased deficit funding contributions from £67k to £200k pa for 3 years, and increased a first charge against the London property to £5.5m (previously £610k).

Investments review

Most of the IOM3 investments portfolio is managed by BlackRock. IOM3 trustees adopted a policy of maximising total returns from investments commensurate with acceptable risk for a charitable organisation.

Up until July 2020 approximately 70% of IOM3 investments portfolio was held in Charishare Fund, equities investment fund developed for the not for profit sector. In July 2020 IOM3 completed transition of its investments portfolio to BlackRock Charities Growth & Income Fund, a sustainable investments fund which aims to provide a return on investment (net of fees) over a period of 5 or more consecutive years through an increase to the value of the assets held and/or income received from those assets while adhering to the Fund's environmental, social and governance criteria.

BlackRock Charities Growth & Income Fund is benchmarked against 30% FTCSXGBP / 30% MSCWRLDGG / 20% BSTRGILTS / 10% IPDABINX. Despite initial fall in value in March 2020, in 2020 overall fund performance was 10.12% compared to the benchmark performance of 4.11%.

BlackRock Charities Growth & Income Fund management is committed to overall portfolio resilience and given positive developments around global economic recovery, in Q1 2021 tilted portfolio into the more cyclical areas of the market including banks, energy and semi-conductors. The Fund continues to favour equities and higher yielding credit assets over government bonds with the latter recently coming under increasing pressure.

Reserves review

The trustees' 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 £10,680k at 31 December 2020.
- 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 £57k as at 31 December 2020.
- 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 IOM3 unrestricted investments portfolio was valued at £7,162k at 31 December 2020 and represents 166% of the budgeted operating expenditure for 2021. The trustees consider this level of reserves sufficient to achieve the long-term objectives of the Institute. In addition, the trustees are also looking at ways of maximising the use of IOM3 fixed assets and broadening the use of restricted funds.

In light of the challenges presented by the continuing COVID-19 pandemic, trustees set a budget for net expenditure of £641k for 2021 to support ongoing initiatives for the development of membership, training and conference programmes.

Principal risks and uncertainties

Trustees have identified the following major risks facing the Institute:

- Economic and political uncertainty surrounding the Covid19 pandemic and its continuing impact on IOM3 activities;
- Failure of IT systems and compromise to the use of the membership database as a result of cyber security breach;
- Loss of members through the ageing population and economic impact within the industry;
- Difficulty in maintaining the current income streams;
- Financial impact of the deficit of the defined benefit pension scheme on the Institute's future strategy;
- Major adverse change in investment values;
- Major adverse change in the UK and global economy.

The risk register is being reviewed and updated on a regular basis and the trustees, staff and professional advisors are taking steps to mitigate these risks and minimise their impact on the Institute's future performance.



STRUCTURE & GOVERNANCE

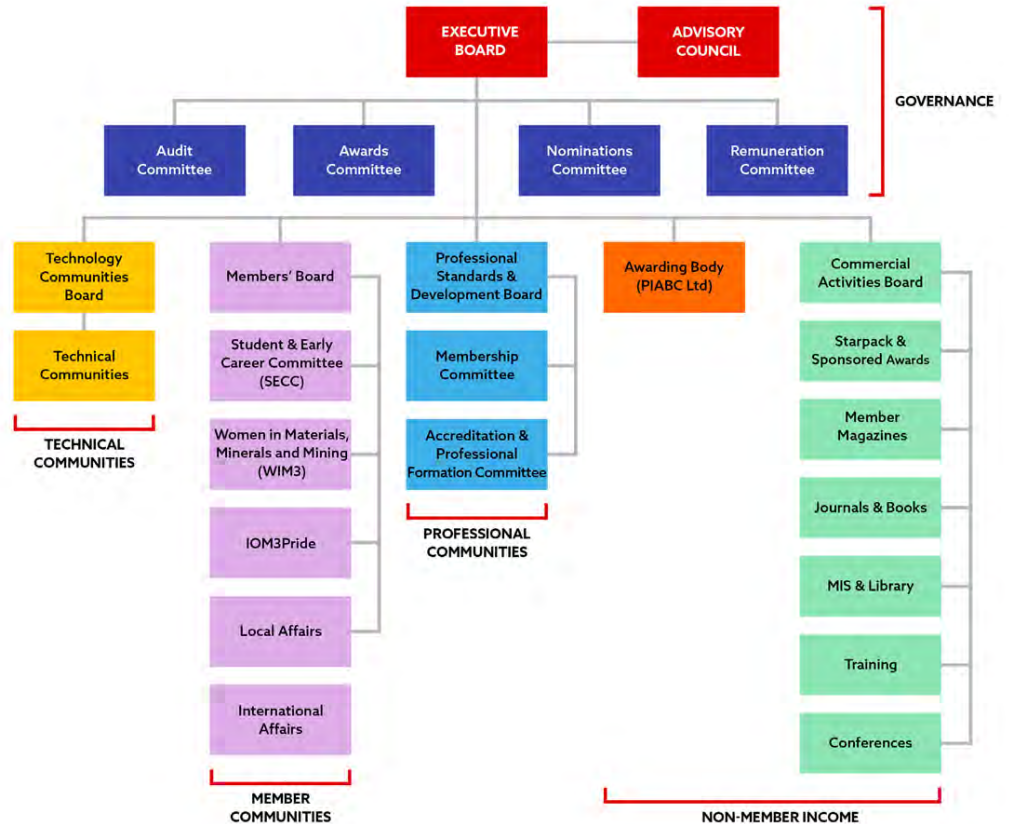
The oldest nation-wide constituent of this Institute was created in 1869. The Institute of Materials, Minerals and Mining is a body incorporated by Royal Charter (RC000267) dated 25 July 1975 and modified on 26 June 2002 and is a Registered Charity in England & Wales (269275) and in Scotland (SC050586).

Structure, governance & management

Changes to Governance

A new governance structure (right) has been in place since November 2019.

Details of the current Board and Committee members can be found at www.iom3.org/about-us/governance.html



Executive Board ●

IOM3 is managed by an Executive Board, most members of which are the trustees of the Institute. The trustees are drawn from senior members of the Institute and are responsible for the ongoing management of strategy and performance of the Institute. The members of the Board include those who are following the presidential succession, and members involved as chairs of other activity boards.

Advisory Council ●

The Advisory Council forms part of the Institute's new governance structure which was approved by Privy Council in August 2019 and implemented on 5 November 2019. The Advisory Council exists to advise the Executive Board on major strategic decisions and strategic planning and consists of the Officers of the Institute together with 21 members representing the Technical Communities, eight members representing Grades and seven members representing UK and overseas regions.

Governance committees ●

Audit Committee
Awards Committee
Nominations Committee
Remuneration Committee

Technology Communities Board ●

The Institute's structure is designed to provide enhanced networks for learned society activities in addition to regionally organised affiliated society events. In effect, members can become involved in any number of these communities that deal with their own interest areas, albeit that many of the activities developed by the communities will be on a national or an international scale.

Members' Board ●

The Members' Board is responsible for co-ordinating the Institute's activities in the regions and other member networks. The Institute has a network of affiliated societies throughout the UK, as well as overseas groups. Events and activities co-ordinated by local groups and societies are also supported through the technical community structure. The Members' Board also looks after the interests the other member networks, including Women in Materials, Minerals & Mining, Student & Early Career members and IOM3Pride.

Student & Early Career Committee (SECC) ●

The Younger Members' Committee (YMC) was established in 1967 to represent the views and interests of the Institute's younger members, and is one of the longest running committees in our history. The YMC officially changed its name to Student & Early Career Committee (SECC) in June 2020 following consultation with its membership. It organises various events and activities throughout the year.

Women in Materials, Minerals & Mining Committee ●

IOM3 Women in Materials, Minerals & Mining (WIM3) was established in 2012 to provide a focus for women members within the Institute and help support them in their careers. The WIM3 committee has organised several successful events around the UK which have attracted female members at all stages of their career and provided valuable networking opportunities for women.

IOM3Pride ●

IOM3Pride is a voluntary committee of IOM3 whose goal is to achieve equality of opportunity professionally for LGBTQ+ identifying IOM3 members. It aims to do this by highlighting issues related to LGBTQ+ individuals in materials, minerals and mining and supporting equality, diversity and inclusion within the wider STEM community.

Local Affairs Committee ●

IOM3 has a network of Affiliated Local Societies across the UK. These are independent organisations which run their own programmes of events and activities, but by affiliation with IOM3 receive funding

and support. The Local Affairs Committee is responsible for communications between the Institute and its Affiliated Societies.

Professional Affairs ●

Professional affairs within the Institute are overseen by the Professional Standards & Development Board, which deals with membership, qualifications, accreditation and education.

Membership Committee ●

The membership committee is responsible for the evaluation of membership applications for both Institute grades and professional registration such as Chartered Engineer or Chartered Scientist.

Accreditation & Professional Formation Committee (APFC) ●

The APFC oversees the standards and processes for the accreditation of academic programmes, and company Initial Professional Development (IPD) schemes to meet the requirements for registration levels for which IOM3 has licences, in the UK and abroad.

Income generating activities ●●

In addition to its membership activities, IOM3 also provides public and member benefit and generates income from the provision of information on materials, minerals and mining through Institute publications, conferences, training and information services. A major benefit for all members is free access to the Institute's Technical Enquiry Service, which includes a telephone helpline and on-site specialist support.

Materials Institute Services Ltd is a wholly owned subsidiary of the Institute, responsible for IOM3 venue hire and other non-charitable trading activities.

Commercial Activities Board ●

The commercial activities board is responsible for trading strategy development and co-ordination of revenue generation activities.

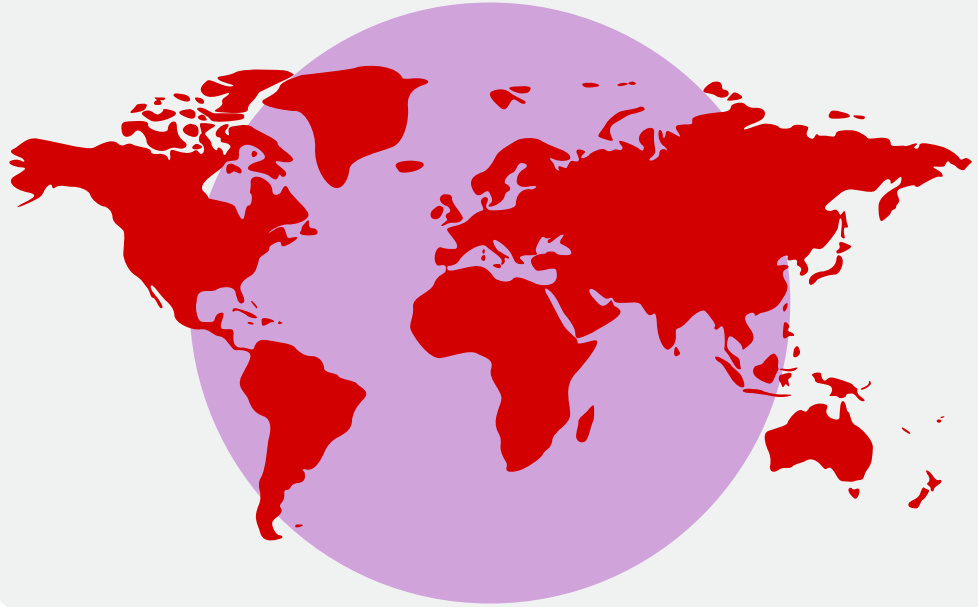
Objectives & activities

The objects of IOM3, as set out in the Royal Charter, are: 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 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. IOM3 supports professionals in materials, minerals, and mining to be heroes of the transition to a low-carbon, resource-efficient society, not villains. It seeks to be the best professional membership body it can be, by providing modern, flexible services, quality technical content and value for money.

Through our activities we aim to:

- Raise the profile of our sector as a technology vital to the wealth of the nation
- Support people within the materials, minerals and mining sector to tackle some of the societal challenges we face today such as climate change
- Provide a central resource of expertise and information through content
- Support and encourage education in materials, minerals and mining to attract young people to the profession
- Disseminate information through conferences, events, publications, online resources and social media
- Provide networking opportunities through technical, local and other activities to increase interaction between industry, academia and government
- Increase the visibility of new technology to industry
- Engage in public, policy and media debate to increase visibility of IOM3
- Provide our members with benefits, services and opportunities to support their careers.
- Deliver tailored online and digital services for members and non-members at different stages of their careers.

Twenty two special interest groups act as a focus of expertise within the broad range of technical sectors embraced by the Institute. Each group holds regular meetings and, through its supporting network of committees and members, organises a programme of events to promote and develop its discipline. Each communicates its activities to members and non-members alike through web content, newsletters and social media. Events organised by the technical groups are open to all and serve to inform about the latest developments within the discipline as well as providing networking opportunities for people from academia, industry and government, often in an international context. Networking events attract non-members from the UK and overseas, who often make up at least 75% of the event audience.



A network of affiliated societies in the UK and overseas provides activities at a local level, delivering a regular programme of evening lectures, site visits and seminars that are open to all. Some affiliated societies also engage with local schools, universities and businesses to provide valuable support for teaching and learning.

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. The Schools Affiliate Scheme (with over 1,200 registered schools) provides help, advice and teaching materials free of charge to schools and the education team regularly attends schools and careers fairs. Our schools presentations have so far been delivered to over 80,000 pupils throughout the UK. The Education team also organises study days for teachers and events to allow older pupils to interact with young people already working in the sector.

The Institute accredits a number of university, college and industry courses in the UK and overseas, and provides a special low cost membership package for undergraduates, which is often sponsored by local societies or by their university. A thriving Student & Early Career Committee organises regular events. The Women in Materials, Minerals & Mining group promotes networking for women in the materials profession and strives to provide support for women in STEM careers. A relatively new initiative in its early stages the Institute is in the process of setting up an LGBTQ+ group and allies support network, IOM3Pride. The Institute's divisions, boards and committees are all composed of volunteers mostly 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.

IOM3 members play a prime role in promoting our objects 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 conference fees, training courses and publications, and additional online services. The Institute provides support to its worldwide membership through its UK offices, its technical divisions and societies, and its network of affiliated local societies. Career progression is recognised through various grades of membership and the Institute is licensed to deal with applications for Chartered Engineer, Chartered Scientist, Chartered Environmentalist, Registered Environmental Practitioner, Incorporated Engineer, Engineering Technician, Registered Scientist and Registered Science Technician status. The Institute collaborates with many like-minded societies in the UK and overseas.▶

IOM3 has always worked closely with government in relation to the delivery of new technology to industry. This work has enhanced the reputation of the Institute and it is now seen as a first port of call in its area of expertise. We are also increasingly deploying the expertise of our members to influence the public, media and policy debates that have materials, minerals and mining aspects, though we are working to make this even more effective. IOM3 maintains an extensive resource of technical and historical publications that form the core of its information and library services, a source of expertise accessible to all. The Specialist Technical Support team provides consultancy and advice services to anyone who needs access to expertise in materials, both individuals and organisations. Of the 1,500 enquiries routinely handled each year, 50% originate from the UK public.

Through its charitable trading company, 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 is outsourced to Taylor & Francis. Access to this material is available to both members and non-members. 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.

Stimulating innovation in the use and application of materials, the Institute organises both UK and worldwide competitions to develop a broad understanding of the importance of materials and minerals. Non-members are encouraged to take part in competitions related to soft skills, the use of plastics and innovations in packaging, and such events engage with schools, students and businesses from the UK and beyond. Separately the Institute provides an extensive range of awards both to members and non-members who have provided outstanding contributions to the communities that the Institute supports. 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. Training and development appropriate to the Institute's goals is assessed on a regular basis and provided both internally and externally.

Statement of trustees' responsibilities

The trustees are responsible for preparing the trustees' report and the financial statements in accordance with applicable law and United Kingdom Accounting Standards (United Kingdom Generally Accepted Accounting Practice).

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

- select suitable accounting policies and then apply them consistently;
- observe the methods and principles in the applicable Charities SORP;
- make judgements and estimates that are reasonable and prudent;
- state whether applicable United Kingdom 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 charity will continue in business.

The trustees are responsible for keeping proper accounting records that disclose with reasonable accuracy at any time the financial position of the group and charity and enable them to ensure that the financial statements comply with the Charities Act 2011, the Charity (Accounts and Reports) Regulations and the provisions of the Royal Charter and Bye-laws. They are also responsible for safeguarding the assets of the group and charity and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

The trustees are responsible for the maintenance and integrity of the group and 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.

Trustees, senior boards & professional advisors (from 1 January 2020 to 10 June 2021)

Executive Board and Trustees

Mr M C Cox, Chair and Immediate Past President (to Dec 2020)

Prof S M Best, President (to Dec 2020), Chair and Immediate Past President (from Jan 2021)

Mr N E Glover, Senior Vice-President (to Dec 2020), President (from Jan 2021)

Dr K Thornton, Vice-President (to Dec 2020), Senior Vice-President (from Jan 2021)

Ms C A Blackmore, Vice-President (from Nov 2020)

Dr M R Clinch, Vice-President (from April 2021)

Dr M J May, Honorary Treasurer (to Dec 2020)

Mr V Mawkin, Honorary Treasurer (from Jan 2021)

Dr P J E Bischler, Chair of Members' Board

Dr C W Corti, Chair of Professional Standards and Development Board

Dr S Cruchley, Chair of Student & Early Career Committee (to Feb 2020)

Prof M R Jolly, Advisory Council representative

Mr M A Jones, Chair of Student & Early Career Committee (from Feb 2020)

Mr J C H Lewis, Chair of IOM Communications

Mr D Seath, Advisory Council representative

Mr R G Siddall, co-opted

Board of Directors, IOM Communications Ltd.

The following served as directors during the year:

Chair	Mr J C H Lewis
Directors/trustees	Dr C Church Dr A T Cole (to Oct 2020) Dr S Garwood (to May 2020) Prof A L Greer (to Oct 2020) Dr M J May (to Dec 2020) Dr A J Tinker (to Oct 2020)
Company Secretary	Mrs J Bugajeva

Board of Directors, Materials Institute Services Ltd.

The following served as directors during the year:

Directors	Dr C Church Mr N E Glover (from Mar 2020) Ms K Harrison (from Mar 2020) Mr J C H Lewis (from Mar 2020) Dr M J May (to Dec 2020)
Company Secretary	Mrs J Bugajeva

Board of Directors, PIABC Ltd.

The following served as directors during the year:

Directors	Dr C W Corti (from Mar 2021) Dr C Church Mr N E Glover (from Mar 2021) Dr M J May (to Dec 2020)
Company Secretary	Mrs J Bugajeva

Key management personnel

Chief Executive	Dr C Church
Finance Director	Mrs J Bugajeva
Director of Communications	Dr I A N Staniaszek
Director of Operations and Professional Development	Ms K Harrison
Director of Membership and Professional Standards	Mr I J Bowbrick
Director of Business Support	Mrs C Marriott

Professional advisors

Bankers	Santander UK plc 4th Floor 100 Ludgate Hill London EC4M 7RE
Solicitors	Howes Percival LLP 3 The Osiers Business Centre Leicester LE19 1DX
Auditors	RSM UK AUDIT LLP RSM UK Audit LLP has indicated its willingness to continue in office. 25 Farringdon Street London EC4A 4AB
Investment Managers	Blackrock Investment Management (UK) Ltd 12 Throgmorton Avenue London EC2N 2DL
Actuaries	First Actuarial LLP Second Floor, The Square Basing View, Basingstoke Hampshire RG21 4EB

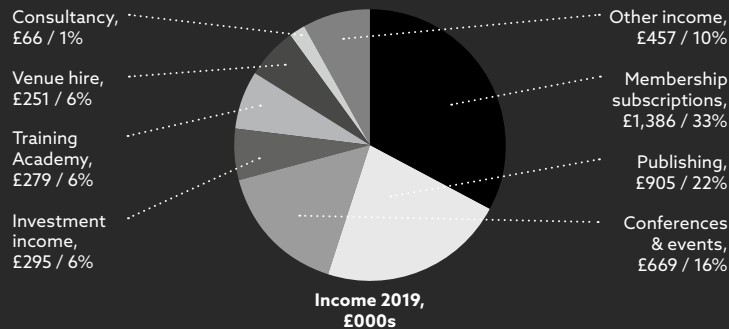
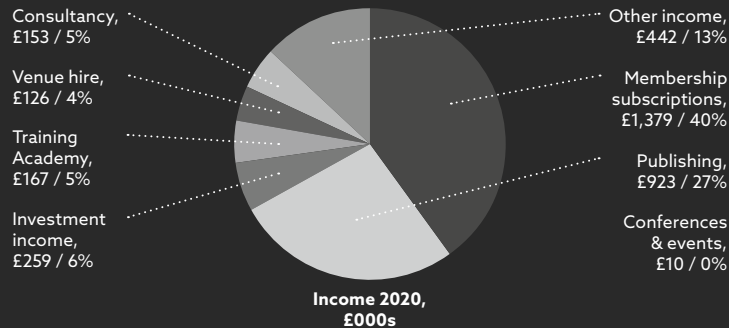
This report was approved by the trustees on 10 June 2021



Serena Best

The background features a light green field with a dark green triangle pointing downwards from the top left. A large red circle is positioned on the right side, partially overlapping the dark green triangle.

FINANCIAL **STATEMENTS**



The following pages detail financial activities for the year ended 31 December 2020, reflecting operating performance, assets and obligations. Income for the year 2020 are summarised in the chart above.

Independent auditor's report to the trustees of the Institute of Materials, Minerals & Mining

Opinion

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

In our opinion the financial statements:

- give a true and fair view of the state of the group's and parent charity's affairs as at 31 December 2020 and of the group's and parent charity's incoming resources and application of resources for the year then ended;
- have been properly prepared in accordance with United Kingdom Generally Accepted Accounting Practice; and

- have been prepared in accordance with the requirements of the Charities and Trustee Investment (Scotland) Act 2005, regulations 6 and 8 of the Charities Accounts (Scotland) Regulations 2006 (as amended) and the Charities Act 2011.

Basis for opinion

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

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

Conclusions relating to going concern

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

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

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

Other information

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

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

We have nothing to report in this regard.

Matters on which we are required to report by exception

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

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

Responsibilities of trustees

As explained more fully in the statement of trustees' responsibilities set out on page 57 the trustees are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view, and for such internal control as the trustees determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the trustees are responsible for assessing the group and parent charity's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the trustees either intend to liquidate the group or parent charity or to cease operations, or have no realistic alternative but to do so.

Auditor's responsibilities for the audit of the financial statements

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

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

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

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

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

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

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

As a result of these procedures we consider the most significant laws and regulations that have a direct impact on the financial statements are FRS 102, Charities SORP (FRS 102), Charities and Trustee Investment (Scotland) Act 2005, regulations 6 and 8 of the Charities Accounts (Scotland) Regulations 2006 (as amended), the Charities Act 2011, the parent charity's governing document. We performed audit procedures to detect non-compliances which may have a material impact on the financial statements which included reviewing the financial statements including the Trustees' Report and remaining alert to new or unusual transactions which may not be in accordance with the governing documents.

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

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

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

Use of our report

This report is made solely to the charity's trustees, as a body, in accordance with section 44(1)(c) of the Charities and Trustee Investment (Scotland) Act 2005, and regulation 10 of the Charities Accounts (Scotland) Regulations 2006 (as amended) and the Charities Act 2011. Our audit work has been undertaken so that we might state to the charity's trustees those matters we are required to state to them in an auditor's report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the charity and its trustees as a body, for our audit work, for this report, or for the opinions we have formed.

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

RSM UK Audit LLP

RSM UK AUDIT LLP
Statutory Auditor
Chartered Accountants
25 Farringdon Street
London
EC4A 4AB

Date: 11 June 2021

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

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

	Notes	Unrestricted funds General £'000	Designated £'000	Restricted funds £'000	Permanent endowment £'000	Total funds 2020 £'000	Total funds 2019 £'000
INCOME AND ENDOWMENTS FROM:							
Donations and legacies	4	90	-	-	-	90	13
Charitable activities							
Membership and related activities		1,535	-	-	-	1,535	1,595
Charitable trading activities	3	1,299	-	-	-	1,299	2,156
Other trading activities	13	276	-	-	-	276	249
Investments		200	2	57	-	259	295
Total income		3,400	2	57	-	3,459	4,308
EXPENDITURE ON:							
Raising funds	13	172	-	-	-	172	251
Charitable activities							
Membership and related activities		3,086	-	60	-	3,146	3,211
Charitable trading activities	3	483	-	-	-	483	1,440
Total expenditure		3,741	-	60	-	3,801	4,902
Operating (expenditure)/income		(341)	2	(3)	-	(342)	(594)
Net (losses)/gains on investments	12	(269)	9	(33)	-	(293)	1,208
Net (expenditure)/income		(610)	11	(36)	-	(635)	614
Other recognised gains/(losses)							
Gains on revaluation of fixed assets	10	-	84	-	-	84	84
Actuarial losses on defined benefit pension schemes		(576)	-	-	-	(576)	(1,172)
NET MOVEMENT IN FUNDS		(1,186)	95	(36)	-	(1,127)	(474)
Reconciliation of funds							
Total funds brought forward		2,221	11,676	2,400	33	16,330	16,804
TOTAL FUNDS CARRIED FORWARD		1,035	11,771	2,364	33	15,203	16,330

Consolidated and charity balance sheets as at 31 December 2020

	Notes	Group		Institute	
		2020 £'000	2019 £'000	2020 £'000	2019 £'000
FIXED ASSETS					
Intangible assets	9	437	210	421	189
Tangible assets	10	11,380	11,362	11,380	11,362
Heritage assets	11	456	456	456	456
Investments	12	8,878	9,169	8,878	9,169
Total fixed assets		21,151	21,197	21,135	21,176
CURRENT ASSETS					
Stock and work in progress	14	261	218	3	3
Debtors	15	1,454	457	1,305	99
Cash at bank and in hand		75	89	-	2
Total current assets		1,790	764	1,308	104
CREDITORS: Amounts falling due within one year	16	(3,105)	(1,458)	(2,974)	(1,144)
NET CURRENT LIABILITIES		(1,315)	(694)	(1,666)	(1,040)
NET ASSETS BEFORE PENSION LIABILITY		19,836	20,503	19,469	20,136
Defined benefit pension scheme liability	22	(4,633)	(4,173)	(4,633)	(4,173)
NET ASSETS AFTER PENSION LIABILITY		15,203	16,330	14,836	15,963
THE FUNDS OF THE CHARITY					
ENDOWMENT FUNDS	18	33	33	33	33
RESTRICTED INCOME FUNDS					
Restricted funds	19	2,364	2,400	2,364	2,400
UNRESTRICTED FUNDS					
General funds		1,035	2,221	668	1,854
Designated funds	20	10,988	10,977	10,988	10,977
Revaluation reserve		783	699	783	699
TOTAL CHARITY FUNDS		15,203	16,330	14,836	15,963

The financial statements on pages 66 to 97 were approved and authorised for issue by the trustees and signed on their behalf by:

Prof S M Best, Trustee and President 2019-20
on 10 June 2021



Mr V Mawkin, Honorary Treasurer
on 10 June 2021



Consolidated and charity statement
of cash flows for the year ended
31 December 2020

	Notes	Group		Institute	
		2020 £'000	2019 £'000	2020 £'000	2019 £'000
Cash flows from operating activities:					
Net cash used in operating activities	T1	(344)	(521)	(332)	(552)
Cash flows from investing activities:					
Dividends, interest and rents from investments		258	295	258	295
Purchase of intangibles		(325)	(158)	(325)	(147)
Purchase of property, plant and equipment		(99)	(49)	(99)	(49)
Proceeds from sale of investments		225	819	225	819
Purchase of investments		(225)	(269)	(225)	(269)
Net cash provided by/(used in) investing activities		(166)	638	(166)	649
Change in cash and cash equivalents in the reporting period		(510)	117	(498)	97
Cash and cash equivalents at the beginning of the reporting period		36	(81)	(51)	(148)
Cash and cash equivalents at the end of the reporting period	T2	(474)	36	(549)	(51)

T1 Reconciliation of net income/ (expenditure) to net cash flow from operating activities

	Group		Institute	
	2020 £'000	2019 £'000	2020 £'000	2019 £'000
Net (expenditure)/income for the reporting period (as per the statement of financial activities)	(635)	614	(635)	609
Adjustments for:				
Depreciation and amortisation charges and impairment of fixed assets	263	258	258	251
(Gains)/losses on investments	293	(1,208)	293	(1,208)
Pension costs	(118)	90	(118)	90
Dividends, interest and rents from investments	(258)	(295)	(258)	(295)
(Increase)/decrease in stocks	(43)	(59)	-	10
Decrease/(increase) in debtors	(997)	111	(1,206)	70
(Decrease)/increase in creditors	1,151	(32)	1,334	(79)
Net cash used in operating activities	(344)	(521)	(332)	(552)

T2 Analysis of cash and cash equivalents

	Group		Institute	
	2020 £'000	2019 £'000	2020 £'000	2019 £'000
Cash in hand	75	89	-	2
Bank overdraft	(549)	(53)	(549)	(53)
Total cash and cash equivalents	(474)	36	(549)	(51)

Accounting Policies

Basis of financial statements

The Institute of Materials, Minerals and Mining (“the Charity”) is an unincorporated charity domiciled in England. The address of the Charity’s registered office and principal place of business is 297 Euston Road, London NW1 3AD.

The Charity’s principal activities and the nature of the Charity’s operations are described in the Trustees’ Report on pages 53.

The financial statements have been prepared in accordance with Accounting and Reporting by Charities: Statement of Recommended Practice applicable to charities preparing their accounts in accordance with the Financial Reporting Standard applicable in the UK and Republic of Ireland (FRS 102) (effective 1 January 2019) – (Charities SORP (FRS 102)), the Financial Reporting Standard applicable in the UK and Republic of Ireland (FRS 102) and the Charities Act 2011.

The financial statements have been prepared to give a ‘true and fair’ view and have departed from the Charities (Accounts and Reports) Regulations 2008 only to the extent required to provide a ‘true and fair’ view. This departure has involved following Accounting and Reporting by Charities preparing these accounts in accordance with the Financial Reporting Standard applicable in the UK and Republic of Ireland (the Charities SORP (FRS 102) effective 1 January 2019) rather than the Accounting and Reporting by Charities: Statement of Recommended Practice effective from 1 April 2005, which has since been withdrawn.

The Institute of Materials, Minerals and Mining meets the definition of a public benefit entity under FRS 102. Assets and liabilities are initially recognised at historic cost or transaction value unless otherwise stated in the relevant accounting policy notes.

The financial statements are prepared in sterling, which is the functional currency of the Charity. Monetary amounts in these financial statements are rounded to the nearest £1,000.

Preparation of the accounts on a going concern basis

The Trustees confirm that at the time of approving these financial statements, there is a reasonable expectation that the Institute has adequate resources to continue for the foreseeable future. In arriving at this conclusion, the Trustees have taken into account the current and anticipated financial performance in the current economic conditions and the charity’s reserves position. Due to Covid-19 the Trustees consider there will be significant adverse impacts on many of the charities income streams and the trustees have accordingly considered the forecasts for 2021 and 2022 in light of this expected reduction in income and potential drop in the investment valuation. The Trustees are however satisfied that the charity has adequate reserves and strategies in place to deal with the impact as it develops and have therefore concluded that it remains appropriate to prepare the financial statements on the going concern basis.

Group financial statements

The financial statements consolidate the results of the wholly owned subsidiary companies and companies over which the Institute exercises dominant influence on a line-by-line basis. The members’ benevolent funds are not consolidated because they are under independent control.

Details of the Institute’s total incoming resources and net movement in funds are shown in the notes.

Income

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

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.

Income from Government and other grants is recognised when the charity has entitlement to the funds, any performance conditions attached to the grant are met, it is probable that the income will be received and the amount can be measured reliably

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, probability of receipt and the amount can be measured with sufficient reliability.

Expenditure

Expenditure is recognised once there is a legal or constructive obligation to make a payment to a third party, it is probable that settlement will be required and the amount of the obligation can be measured reliably.

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.

Allocation of 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. The basis on which support costs are allocated is set out in note 7.

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.

Heritage Assets

A description of heritage assets held by the Charity is given in note 11. These assets were valued in February 2019 and details are given in note 11.

The heritage assets have been recognised in the Institute's balance sheet at 31 December 2018 at this valuation. The Trustees reviewed value of the heritage assets and are on the agreement that there was no change in value as at 31 December 2020.

Tangible fixed assets 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:

Freehold Property (excluding land)	2% p.a.
Leasehold property	over the term of the lease
Furniture	15%-20% p.a.
Equipment	20%-33% 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.

Freehold property is accounted for using the revaluation method with the building element depreciated at a rate of 2% per annum and revalued to its market value at the end of the financial year. The net value of gains on revaluation are held in the revaluation reserve.

Both of the Institute's freehold properties were revalued at their present market value at the beginning of 2019 and are recognised in the financial statements at their market value as at 31 December 2020.

Intangible fixed assets

Intangible fixed assets, including patents and software, 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 reviewed where circumstances indicate that the carrying value of an asset may not be fully recoverable.

Investments and investment income

Listed investments are shown at market value at the balance sheet date. Realised and unrealised gains or losses are taken to the fund to which they relate via the Statement of Financial Activities in the year in which they arise. Unlisted investments are held at cost. 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.

Stocks and work in progress

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

Debtors

Trade and other debtors are recognised at the settlement amount due after any trade discount offered. Prepayments are valued at the amount prepaid net of any trade discounts due 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.

Cash at bank and in hand

Cash at bank and in hand includes cash and short term highly liquid investments with a short maturity of three months or less from the date of acquisition or opening of the deposit or similar account.

Creditors and provisions

Creditors and provisions are recognised where the charity has a present obligation resulting from a past event that will probably result in the transfer of funds to a third party and the amount due to settle the obligation can be measured or estimated reliably. Creditors and provisions are normally recognised at their settlement amount after allowing for any trade discounts due.

Financial instruments

The Institute only has financial assets and financial liabilities of a kind that qualify as basic financial instruments. Basic financial instruments are measured at their settlement value.

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.

The assets of the scheme are held independently 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. Fair value is based on the market price information and in the case of quoted securities is the published bid price. 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 that has been rated at AA or equivalent basis 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.

The actuarial gain or loss arising in the year included under 'other recognised gains or losses'. Contributions are charged to expenditure so as to spread the regular cost of pensions over the expected working lives of the employees in the scheme. Any difference between the cumulative amounts charged and contributions paid is included as an asset or liability on the balance sheet.

The interest element of the defined benefit cost represents the change in present value of scheme obligations relating to the passage of time and is determined by applying a discount rate to the opening present value of the benefit obligation, valuing into account material changes in the obligation during the year. The expected return on plan assets is based on an assessment made at the beginning of the year of long-term market returns on scheme assets adjusted for the effect on the fair value of plan assets of the contributions received and benefits paid during the year. The difference between the expected return on plan assets and the interest costs is recognised in the consolidated SOFA (Statement of Financial Activities) as pension finance income or within resources expenses as appropriate.

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.

Critical accounting estimates and assumptions

The Institute makes estimates and assumptions concerning the future. The resulting estimates and assumptions will, by definition, seldom equal the related actual results. The estimates and assumptions that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year are those used by the scheme actuary in calculating the Institute's defined benefit scheme liability (see note 22 for details).

Revaluation of freehold property: the revaluation is based on the building element of freehold properties depreciated at a rate of 2% per annum and revalued to its market value at the end of the financial year.

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. The revaluation reserve within designated funds represents the value of gains on revaluation of freehold property.
- 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.
- Permanent endowment fund – 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.

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

Notes to financial statements

1. Consolidated statement of financial activities for the year ended 31 December 2019

	Notes	Unrestricted funds General £'000	Designated £'000	Restricted funds £'000	Permanent endowment £'000	Total funds 2019 £'000	Total funds 2018 £'000
INCOME AND ENDOWMENTS FROM:							
Donations and legacies	4	-	-	13	-	13	-
Charitable activities							
Membership and related activities		1,595	-	-	-	1,595	1,491
Charitable trading activities	3	2,156	-	-	-	2,156	1,987
Other trading activities	13	249	-	-	-	249	227
Investments		234	2	59	-	295	302
Total income		4,234	2	72	-	4,308	4,007
EXPENDITURE ON:							
Raising funds	13	251	-	-	-	251	227
Charitable activities							
Membership and related activities		3,176	-	35	-	3,211	5,226
Charitable trading activities	3	1,440	-	-	-	1,440	1,422
Total expenditure		4,867	-	35	-	4,902	6,875
Net (losses)/gains on investments	12	989	12	207	-	1,208	(909)
Net (expenditure)/income		356	14	244	-	614	(3,777)
Other recognised gains/(losses):							
Gains/(Losses) on revaluation of fixed assets	10	-	84	-	-	84	258
Actuarial gains/(losses) on defined benefit pension scheme		(1,172)	-	-	-	(1,172)	252
NET MOVEMENT IN FUNDS		(816)	98	244	-	(474)	(3,267)
Reconciliation of funds							
Total funds brought forward		3,037	11,578	2,156	33	16,804	20,071
TOTAL FUNDS CARRIED FORWARD		2,221	11,676	2,400	33	16,330	16,804

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

	<i>Unrestricted funds General</i>	<i>Designated</i>	<i>Restricted funds</i>	<i>Permanent endowment</i>	<i>Total funds 2020</i>	<i>Total funds 2019</i>
	£'000	£'000	£'000	£'000	£'000	£'000
INCOME AND ENDOWMENTS FROM:						
Donations and legacies	1,009	-	-	-	1,009	729
Charitable activities						
Membership and related activities	1,494	-	-	-	1,494	1,551
Investments	200	2	57	-	259	295
Total income	2,703	2	57	-	2,762	2,575
EXPENDITURE ON:						
Charitable activities						
Membership and related activities	3,044	-	60	-	3,104	3,174
Total expenditure	3,044	-	60	-	3,104	3,174
Net (losses)/gains on investments	(269)	9	(33)	-	(293)	1,208
Net (expenditure)/income	(610)	11	(36)	-	(635)	609
Other recognised (losses)/gains:						
Gains on revaluation of fixed assets	-	84	-	-	84	84
Actuarial (losses)/gains on defined benefit pension schemes	(576)	-	-	-	(576)	(1,172)
NET MOVEMENT IN FUNDS	(1,186)	95	(36)	-	(1,127)	(479)
Reconciliation of funds						
Total funds brought forward	1,854	11,676	2,400	33	15,963	16,442
TOTAL FUNDS CARRIED FORWARD	668	11,771	2,364	33	14,836	15,963

3. Charitable trading activities

	2020 £'000	2019 £'000
TURNOVER		
Publishing	1,534	1,575
Conferences and exhibitions	9	671
Information services	97	115
Technology improvement awards	-	53
Training services	187	296
	<u>1,827</u>	<u>2,710</u>
Internal contribution for costs included in sales	(528)	(554)
Incoming resources	<u>1,299</u>	<u>2,156</u>
COST OF CHARITABLE TRADING ACTIVITIES		
Publishing	495	622
Conferences and exhibitions	244	645
Information services	38	350
Technology improvement awards	-	98
Training services	234	279
	<u>1,011</u>	<u>1,994</u>
Internal contribution to sales	(528)	(554)
Expenditure	<u>483</u>	<u>1,440</u>
NET CONTRIBUTION FROM CHARITABLE TRADING ACTIVITIES		
Publishing	1,039	953
Conferences and exhibitions	(235)	26
Information services	59	(235)
Technology improvement awards	-	(45)
Training services	(47)	17
Net income	<u>816</u>	<u>716</u>

4. Donations and legacies

During the year, the charity made a application under the government coronavirus job retention scheme to assist with the financial impact of the Covid-19 pandemic. The amount claimed for the year totalled £45k (2019 £nil) and has been recognised within donations and legacies.

	2020 £'000	2019 £'000
Donations for medal funds	-	13
Other donations	45	-
Government grant	45	-
	<u>90</u>	<u>13</u>

5. Other trading activities

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. These activities are undertaken by Materials Institute Services Ltd (see note 13: Subsidiary undertakings).

6. Investment income

	2020		2019	
	Unrestricted £'000	Restricted £'000	Unrestricted £'000	Restricted £'000
Listed securities				
Growth & Income fund	86	15	-	-
Fixed interest	36	16	74	26
UK equities	72	25	151	32
Overseas equities	8	1	10	-
Cash and cash equivalents			1	1
	<u>202</u>	<u>57</u>	<u>236</u>	<u>59</u>

7. Total resources expended

Summary

	2020 £'000	2020 £'000	2019 £'000	2019 £'000
Direct charitable costs		725		1,527
Employment costs				
Salaries	1,739		1,819	
Social security costs	182		194	
Pension costs	327		298	
Temporary and other staff costs	57		84	
Redundancy costs	-		17	
		2,305		2,412
Establishment costs				
Property costs	220		318	
Information technology	159		113	
Depreciation and amortisation	258		250	
		637		681
Administration costs				
Travel, meeting and committee expenses	19		106	
Postage and telecommunications	51		63	
Printing and stationery	13		30	
Finance costs	7		18	
Professional fees	40		57	
Office and other costs	4		8	
		134		282
		3,801		4,902

Breakdown of costs of activities

	<i>Direct costs</i> £'000	<i>Support costs</i> £'000	<i>2020 Total</i> £'000	<i>2019 Total</i> £'000
Charitable activities				
Membership and related services	453	2,165	2,618	2,657
Charitable trading activities	218	793	1,011	1,994
	671	2,958	3,629	4,651
Costs of raising funds				
Activities for raising funds	54	118	172	251
	725	3,076	3,801	4,902

Support cost breakdown by activity

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.

Admin costs include governance, finance, HR, IT and sales and marketing costs, which are apportioned to activities on the basis of employment costs.

	<i>Employment costs</i> £'000	<i>Establishment costs</i> £'000	<i>Admin costs</i> £'000	<i>2020 Total</i> £'000	<i>2019 Total</i> £'000
Membership and related services	1,629	436	100	2,165	2,011
Charitable trading activities	598	165	30	793	1,189
Activities for raising funds	78	36	4	118	175
	2,305	637	134	3,076	3,375

Employee information

	2020	2019
	No.	No.
The average number/(full time equivalent) employees during the year was	51 (47)	52 (49)
The number of employees who earned more than £60,000 per annum including benefits was:		
£60,001 - £70,000	1	3
£70,001 - £80,000	2	-
£100,001 - £110,000	-	1
£110,001 - £120,000	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	-	-
Money purchase scheme	4	4
	2020	2019
	£'000	£'000
Total remuneration of key management personnel, including benefits during the year was	459	504
Total employer National Insurance contributions paid on the key management personnel remuneration	49	55
Total amount of redundancy payments made during the year was	-	17
Contributions to the pension funds during the year were:		
Defined benefit scheme	246	32
Money purchase scheme	84	70

The key management personnel of the charity are detailed on page 59.

Total expenditure includes

2020
£'000

2019
£'000

Auditor's remuneration		
Audit fee – current year	37	35
Accountancy, taxation and other services	4	4
Travel expenses paid to (2019: 28) Council Members for attending Council and other meetings	-	29
Travel expenses paid on behalf of (2019:20) Council Members for attending Council and other meetings	-	6
Operating lease charges	43	43

None of the Council members received any remuneration in either year.

2020
£'000

2019
£'000

The total future minimum lease payments under non-cancellable operating leases	Land and buildings	Other	Land and buildings	Other
Within one year	15	5	30	6
Within two to five years	107	18	107	10
After five years	120	-	94	-

Other transactions with trustees

Mr I Davis (trustee until Nov 2019) provided training services during 2019 to the Institute's subsidiary, IOM Communications Ltd. The value of these services during the year was £nil (2019 - £4,823) including VAT. At 31 December balance due to Mr I Davis was £nil (2019 - £nil).

No other members of the Council directly or indirectly received any remuneration during the years ended 31 December 2020 and 2019.

8. Transfers between funds

There were no transfers between funds during 2020 or 2019.

9. Intangible fixed assets

	<i>Group and parent Website and software £'000</i>	<i>Group only Patent costs £'000</i>	<i>Total £'000</i>
Cost			
1 January 2020	579	41	620
Additions in the year	325	-	325
31 December 2020	904	41	945
Amortisation			
1 January 2020	390	20	410
Charge for the year	93	5	98
31 December 2020	483	25	508
Net book value			
31 December 2020	421	16	437
31 December 2019	189	21	210

10. Tangible fixed assets

	<i>Freehold property £'000</i>	<i>Short leasehold property £'000</i>	<i>Furniture, fittings & equipment £'000</i>	<i>Total £'000</i>
GROUP AND PARENT				
Cost or valuation				
1 January 2020	13,476	2,221	916	16,613
Additions in the year	11	-	88	99
31 December 2020	13,487	2,221	1,004	16,712
Depreciation				
1 January 2020	2,506	2,011	734	5,251
Charge for the year	84	26	55	165
Revaluation	(84)	-	-	(84)
31 December 2020	2,506	2,037	789	5,332
Net book value				
31 December 2020	10,981	184	215	11,380
31 December 2019	10,970	210	182	11,362

10. Tangible fixed assets (continued)

The Institute's freehold land and buildings are accounted for using the valuation method. Both of the Institute's freehold properties were revalued at their present market value at the end of 2018. The London property was revalued at its present market value of £10.7m by Neil Burch MRICS on 31 March 2019. The Stoke property was revalued at its present market value of £270k by Nick Deavall MRICS on 1 April 2019. The next formal valuation of freehold properties is due to take place in 2024.

Trustees have reviewed the value of freehold properties at 31 December 2020 by reference to CBRE index and to the open market, and are satisfied that there is no impairment to value of freehold properties.

11. Heritage assets

In addition to the assets outlined in note 10, the Institute owns a collection of paintings and artefacts of historic and scientific importance which is deemed to be heritage assets as defined under SORP (FRS 102). The collection comprises portraits, paintings, artefacts and sculptures, which the Institute has commissioned, acquired or received as a donation to either enhance the fabric of its building or to celebrate its history in science, engineering and technology.

The Institute maintains a comprehensive register of these assets. The Institute's heritage assets were valued in February 2019 by Penny Bingham (MRICS), an independent Fine Art Valuer, at a combined value of £287k. Separately, the Institute's Mining Lamp collection was valued in May 2016 by David Rimmer of the Miners Lamp Society at a combined value of £169k.

Both independent valuers consider that the resale value of individual heritage assets is very sensitive to the number of potential purchasers with the ability and willingness to pay.

The heritage assets were recognised in the Institute's balance sheet at 31 December 2018 at valuation and have been subsequently held at valuation subject to annual review for indications of any impairment.

Trustees have reviewed the assets at 31 December 2020 and do not consider there to be any impairment

12. Investments

	Group and Institute		Institute	
	2020	2019	2020	2019
	£'000	£'000	£'000	£'000
Analysis of movements in the year				
Opening market value	9,169	8,511	9,169	8,511
Additions at cost	225	269	225	269
Disposals at opening market value	(223)	(819)	(223)	(819)
Revaluations	(293)	1,208	(293)	1,208
Closing market value	8,878	9,169	8,878	9,169
Invested as follows				
<i>Listed investments</i>				
Black Rock Growth & Income fund	8,102	-	8,102	-
Fixed interest	169	2,346	169	2,346
UK equities	604	6,309	604	6,309
Overseas equities	-	355	-	355
<i>Unlisted investments</i>				
Cash and cash equivalents	3	159	3	159
Subsidiary undertakings	-	-	-	-
Closing market value	8,878	9,169	8,878	9,169
At the balance sheet date, the following investments represent more than 5% of the portfolio by market value				
Black Rock Growth & Income fund	8,102	-	8,102	-
Charinco (UK fixed interest common investment fund)	-	2,309	-	2,309
Charishare (UK equities common investment fund)	503	3,033	503	3,033
Historical cost at 31 December	5,342	5,342	5,342	5,342

13. Subsidiary undertakings

The Institute has four subsidiary organisations:

- IOM Communications Ltd (company number 3285009, charity number 1059475), a charitable trading company limited by shares.
- The Institute of Packaging (company number 786826, charity number 295762), a company limited by guarantee.
- Materials Institute Services Ltd (company number 2882544), a company limited by shares.
- PIABC Ltd (company number 10371273) 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, Materials Institute Services Ltd and PIABC Ltd are audited. IOM Communications Ltd and Materials Institute Services Ltd and PIABC Ltd are wholly owned subsidiaries. The Institute holds 100 shares of £1 each in IOM Communications Ltd and one share of £1 in PIABC Ltd. IOM Communications Ltd holds 2 shares of £1 each in Materials Institute Services Ltd.

IOM Communications Ltd undertakes the charitable trading activities of the Institute of Materials, Minerals and Mining. Materials Institute Services Ltd undertakes income generating activities of the Institute of Materials, Minerals and Mining. PIABC Ltd undertakes membership related activities on behalf of the Institute of Materials, Minerals and Mining. The Institute of Packaging did not trade in 2020 or 2019.

IOM Communications Limited

	2020	2019
	Total	Total
	£'000	£'000
Results		
Charitable trading activities	1,827	2,710
Total incoming resources	1,827	2,710
Charitable trading costs	1,011	1,994
Donation to the Institute	816	716
Total outgoing resources	1,827	2,710
Net incoming resources	-	-
Balances brought forward	342	342
Balances carried forward	342	342

Balance sheets at 31 December		
Fixed assets	16	21
Current assets	960	975
Creditors: amounts falling due within one year	(634)	(654)
Net current assets	342	342
Shareholders' funds	342	342

Summaries of the 2020 results and balance sheets for IOM Communications Ltd, Materials Institute Services Ltd and PIABC Ltd together with comparative figures for 2019, where applicable, are shown in this note. The net assets of The Institute of Packaging at 31 December 2020 and 31 December 2019 were £nil.

13. Subsidiary undertakings (continued)

Materials Institute Services Limited

	2020	2019
	<i>Total</i>	<i>Total</i>
	<i>£'000</i>	<i>£'000</i>
Results		
Turnover	276	249
Total incoming resources	276	249
Costs	172	251
Donation to the Institute	103	-
Total outgoing resources	275	251
Net incoming resources	1	(2)
Balances brought forward	22	24
Balances carried forward	23	22
Balance sheets at 31 December		
Current assets	111	104
Creditors: amounts falling due within one year	(88)	(82)
Net current assets	23	22
Shareholders' funds	23	22

13. Subsidiary undertakings (continued)

PIABC Limited

	2020 <i>Total £'000</i>	2019 <i>Total £'000</i>
Results		
Turnover	41	37
Total incoming resources	41	37
Costs	41	37
Total outgoing resources	41	37
Net incoming resources	-	-
Balances brought forward	1	1
Balances carried forward	1	1
Balance sheets at 31 December		
Current assets	1	1
Creditors: amounts falling due within one year	-	-
Net current assets	1	1
Shareholders' funds	1	1

14. Stock and work in progress

	<i>Consolidated</i>		<i>Institute</i>	
	2020 £'000	2019 £'000	2020 £'000	2019 £'000
Work in progress	258	215	-	-
Sundry stocks	3	3	3	3
	<u>261</u>	<u>218</u>	<u>3</u>	<u>3</u>

15. Debtors

Trade debtors	1,286	326	1,178	26
Other debtors	70	3	55	4
Prepayments and accrued income	98	128	72	69
	<u>1,454</u>	<u>457</u>	<u>1,305</u>	<u>99</u>

16. Creditors: Amounts falling due within one year

Trade creditors	136	348	69	237
Taxes and social security costs	410	27	410	37
Subscriptions and orders paid in advance	1,646	738	1,348	351
Other creditors and accruals	364	292	163	168
Amounts due to subsidiary companies	-	-	435	298
Bank overdraft	549	53	549	53
	<u>3,105</u>	<u>1,458</u>	<u>2,974</u>	<u>1,144</u>

Subscriptions and orders paid in advance

At 1 January	738	618	351	347
Recognised in year	(464)	(549)	(341)	(340)
Provided for in year	1,372	669	1,338	344
At 31 December	<u>1,646</u>	<u>738</u>	<u>1,348</u>	<u>351</u>

17. Analysis of net assets between funds
at 31 December 2020

Group	Unrestricted funds		Restricted funds	Permanent Endowment fund	Total funds
	General	Designated			
	£'000	£'000	£'000	£'000	£'000
Intangible assets	437	-	-	-	437
Tangible fixed assets	373	11,007	-	-	11,380
Heritage assets	-	456	-	-	456
Investments	6,896	85	1,864	33	8,878
Current assets	1,067	223	500	-	1,790
Current liabilities	(3,105)	-	-	-	(3,105)
Net assets before pension liability	5,668	11,771	2,364	33	19,836
Pension liability	(4,633)	-	-	-	(4,633)
Total net assets	1,035	11,771	2,364	33	15,203

Institute	Unrestricted funds		Restricted funds	Permanent Endowment fund	Total funds
	General	Designated			
	£'000	£'000	£'000	£'000	£'000
Intangible fixed assets	421	-	-	-	421
Tangible fixed assets	373	11,007	-	-	11,380
Heritage assets	-	456	-	-	456
Investments	6,896	85	1,864	33	8,878
Current assets	585	223	500	-	1,308
Current liabilities	(2,974)	-	-	-	(2,974)
Net assets before pension liability	5,301	11,771	2,364	33	19,469
Pension liability	(4,633)	-	-	-	(4,633)
Total net assets	668	11,771	2,364	33	14,836

17. Analysis of net assets between funds
at 31 December 2019

	Unrestricted funds		Restricted	Permanent	Total
	General	Designated	funds	Endowment	
	£'000	£'000	£'000	fund	funds
	£'000	£'000	£'000	£'000	£'000
Group					
Intangible assets	210	-	-	-	210
Tangible fixed assets	440	10,922	-	-	11,362
Heritage assets	-	456	-	-	456
Investments	7,162	77	1,897	33	9,169
Current assets	40	221	503	-	764
Current liabilities	(1,458)	-	-	-	(1,458)
Net assets before pension liability	6,394	11,676	2,400	33	20,503
Pension liability	(4,173)	-	-	-	(4,173)
Total net assets	2,221	11,676	2,400	33	16,330

	Unrestricted funds		Restricted	Permanent	Total
	General	Designated	funds	Endowment	
	£'000	£'000	£'000	fund	funds
	£'000	£'000	£'000	£'000	£'000
Institute					
Intangible fixed assets	189	-	-	-	189
Tangible fixed assets	440	10,922	-	-	11,362
Heritage assets	-	456	-	-	456
Investments	7,162	77	1,897	33	9,169
Current assets	(620)	221	503	-	104
Current liabilities	(1,144)	-	-	-	(1,144)
Net assets before pension liability	6,027	11,676	2,400	33	20,136
Pension liability	(4,173)	-	-	-	(4,173)
Total net assets	1,854	11,676	2,400	33	15,963

18. Permanent endowment fund

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.

Group and Institute	Balance at 1 January 2020 £'000	Incoming resources £'000	Resources expended £'000	Investment gains/ (losses) £'000	Transfers between funds £'000	Balance at 31 December 2020 £'000
Mining Club	33	-	-	-	-	33

19. Restricted funds

The income of these restricted funds is 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 of 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.

Group and Institute	Balance at 1 January 2020 £'000	Incoming resources £'000	Resources expended £'000	Investment gains/ (losses) £'000	Balance at 31 December 2020 £'000
Stanley Elmore Fellowship	705	16	(55)	45	711
Andrew Carnegie Trust Fund	692	19	-	(30)	681
Bosworth Smith Trust	298	7	-	(18)	287
Tom Seaman Travelling Scholarship	293	7	-	(18)	282
Metals & Metallurgy Trust Fund	121	3	-	(4)	120
Edgar Pam Fellowship	119	2	(3)	(6)	112
G Vernon Hobson Bequest	73	2	(2)	(4)	69
Other funds	20	1	-	2	23
Prize funds	79	-	-	-	79
	2,400	57	(60)	(33)	2,364

- 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.

20. Designated funds

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

- Asset development fund – representing selected amounts (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 as deemed appropriate by the trustees.
- 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.

	Balance at 1 January 2020 £'000	Incoming resources £'000	Resources expended £'000	Gains/ (losses) £'000	Balance at 31 December 2020 £'000
Asset development fund	10,680	-	-	-	10,680
Revaluation reserve	699	-	-	84	783
Services development fund	57	-	-	-	57
Sir Julius Wernher Memorial Fund	149	2	-	9	160
Packaging education fund	50	-	-	-	50
Materials education	24	-	-	-	24
Robert A Moore Fund	17	-	-	-	17
	11,676	2	-	93	11,771

21. Cumulative unrealised investment gains

	Consolidated		Institute	
	2020 £'000	2019 £'000	2020 £'000	2019 £'000
General fund	2,458	2,727	2,458	2,727
Designated funds	30	21	30	21
	2,488	2,748	2,488	2,748
Restricted funds	572	605	572	605
	3,060	3,353	3,060	3,353

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 Royal London. The group personal pension plan is a defined contribution benefit scheme and complies with the stakeholder legislation.

At the year end, the scheme had six current staff members and 68 deferred members.

Results of the most recent triennial actuarial valuations, at 1 January 2013, 2016 and 2019 showed the following results.

	2013 £'000	2016 £'000	2019 £'000
Market value of the scheme's assets	7,361	13,970	17,330
Liability for projected accrued benefits	(9,201)	(15,593)	(13,641)
(Deficit)	(1,840)	(1,623)	(3,689)

Arrangements have been made for the deficit shown by the actuarial valuation at 1 January 2019 to be funded at the rate of:

- £200k p.a. payable in a lump sum during years ending 31 December 2020 - 2022.
- £73k p.a. increasing at 2.8% payable in equal monthly installments from 1 January 2020 to 31 December 2034.

22.2 Principal actuarial assumptions

A valuation of the defined benefit pension scheme assets and liabilities at 31 December 2020 under FRS102 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	2020 % p.a.	2019 % p.a.
Discount rate	1.30	2.00
Price inflation – pre-retirement (RPI)	2.50	-
Before 2030	-	2.90
After 2030	-	2.40
Consumer Prices Inflation – pre-retirement (CPI)	2.10	1.90
Future salary increases	0.50-2.10	1.50
Rate of increases of pensions in payment (RPI)	2.50	2.70
Rates of increases of pensions in payment – (CPI)	1.80	1.70
Rate of increase for deferred pensioners	1.90	1.90

The following demographic assumptions were used in the valuation:

	Year ended 31/12/2020		Year ended 31/12/2019	
	As for post retirement		As for post retirement	
Mortality pre-retirement	S3PMA CMI 2019 1%		S3PMA CMI 2018 1%	
Mortality post-retirement	Males	Females	Males	Females
Life expectancy for a current 65 year old in 2019	86.1 years	88.5 years	86.5 years	88.2 years
Life expectancy at age 65 for an individual aged 45 in 2019	87.2 years	89.7 years	87.5 years	89.3 years

22.3 Amounts recognised in the balance sheet for defined benefit scheme

	2020 £'000	2019 £'000
Present value of defined benefit obligation	(18,295)	(17,115)
Fair value of scheme assets	13,662	12,942
Pension scheme liability recognised in the balance sheet	(4,633)	(4,173)

22.4 Changes in present value of defined benefit obligation

	2020 £'000	2019 £'000
Defined benefit obligation at 1 January	(17,115)	(16,099)
Service cost	(48)	(41)
Interest cost	(336)	(438)
Member contributions	(20)	(20)
Benefits paid	675	1,010
Actuarial gains/(losses)	(1,451)	(1,527)
Defined benefit obligation at 31 December	(18,295)	(17,115)

22.5 Changes in fair value of scheme assets

	2020 £'000	2019 £'000
Plan assets at 1 January	12,942	13,188
Return on plan assets (excluding net interest on defined benefit obligations)	875	355
Interest income	255	356
Employer contributions	245	68
Expenses (paid by the Fund)	-	(35)
Member contributions	20	20
Benefits paid	(675)	(1,010)
Plan assets at 31 December	13,662	12,942

22.6 Major categories of scheme assets

	%	%
Equities	20	19
Corporate bonds	9	9
LDIs	9	-
Properties	1	1
Cash	1	1
Annuities	27	29
Other assets	33	41
Total scheme assets	100	100

22.7 Amounts recognised in the statement of financial activities

The actual return on scheme assets was a gain of £1,130k (2019: £711k)

The Institute expects to contribute £250k to its defined benefit pension scheme in 2021.

The actuarial losses recognised in the statement financial activities were £576k and the total cumulative net losses recognised from 2002 to 2020 amounted to £4,605k

Amounts recognised in net incoming resources are as follows:

	2020 £'000	2019 £'000
Current service cost	48	41
Past service cost	-	-
Expenses paid by the scheme	-	35
Net interest cost	81	82
Net charge	129	158

22.8 Outstanding pension contributions at the year end

Contributions for the defined benefit scheme amounting to £6k (2019 - £5k) were outstanding at the year-end. Contributions for the defined contributions schemes amounting to £11k (2019 - £15k) were outstanding at the year-end.

23 Post Balance Sheet events

A decision was taken in January 2021 to transfer trade and assets of IOM Communications Limited to either the parent charity, The Institute of Materials, Minerals and Mining or a fellow subsidiary, Materials Institute Services Limited by the end of the next financial year, from which point IOM Communications Limited will cease to trade. Therefore IOM Communications Limited financial statements have been prepared on a non-going concern basis. No adjustments are necessary to amounts included in these financial statements as a result of the application of the non-going concern basis of accounting.

Principal office:
297 Euston Road, London NW1 3AD

Grantham centre:
The Boilerhouse, Springfield Business Park, Caunt Road, Grantham NG31 7FZ

t. **020 7451 7300** • www.iom3.org

The Institute of Materials Minerals and Mining (IOM3) is a body incorporated by Royal Charter (company no RC000267) and a charity registered in England & Wales (269275) and in Scotland (SC050586).