

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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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 Queen.

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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.

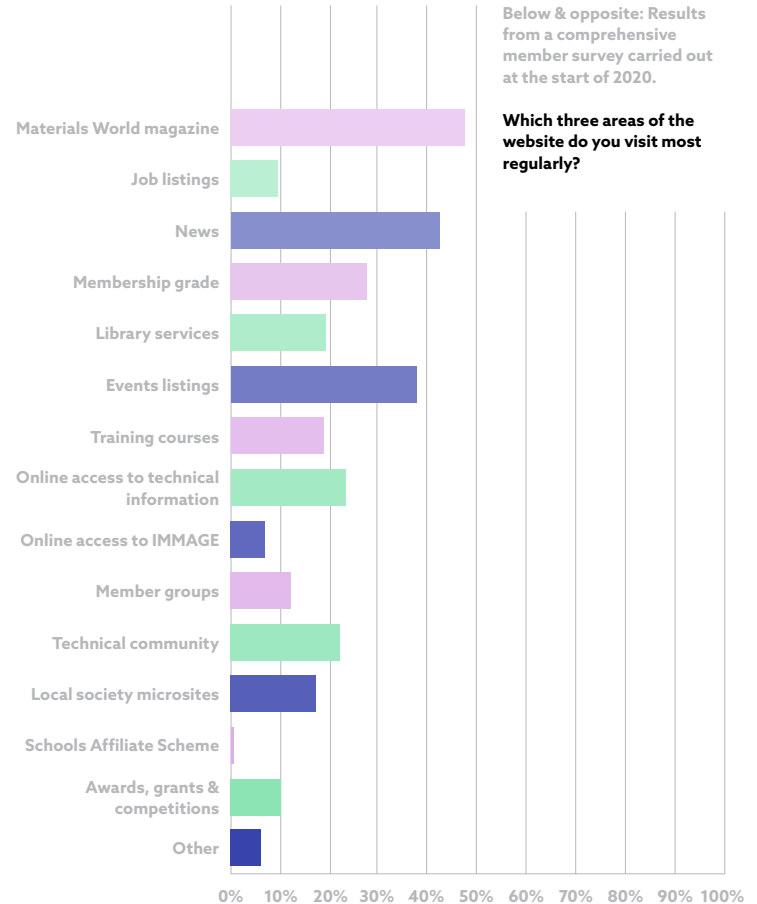
Highlights of 2020 from all IOM3 activities are described in the following pages. IOM3 is grateful to the large body of volunteers contributing at all levels and across all sectors, both in the UK and overseas. As previously, we are keen to encourage more younger members and members from under-represented 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 MIMMMM, 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!'

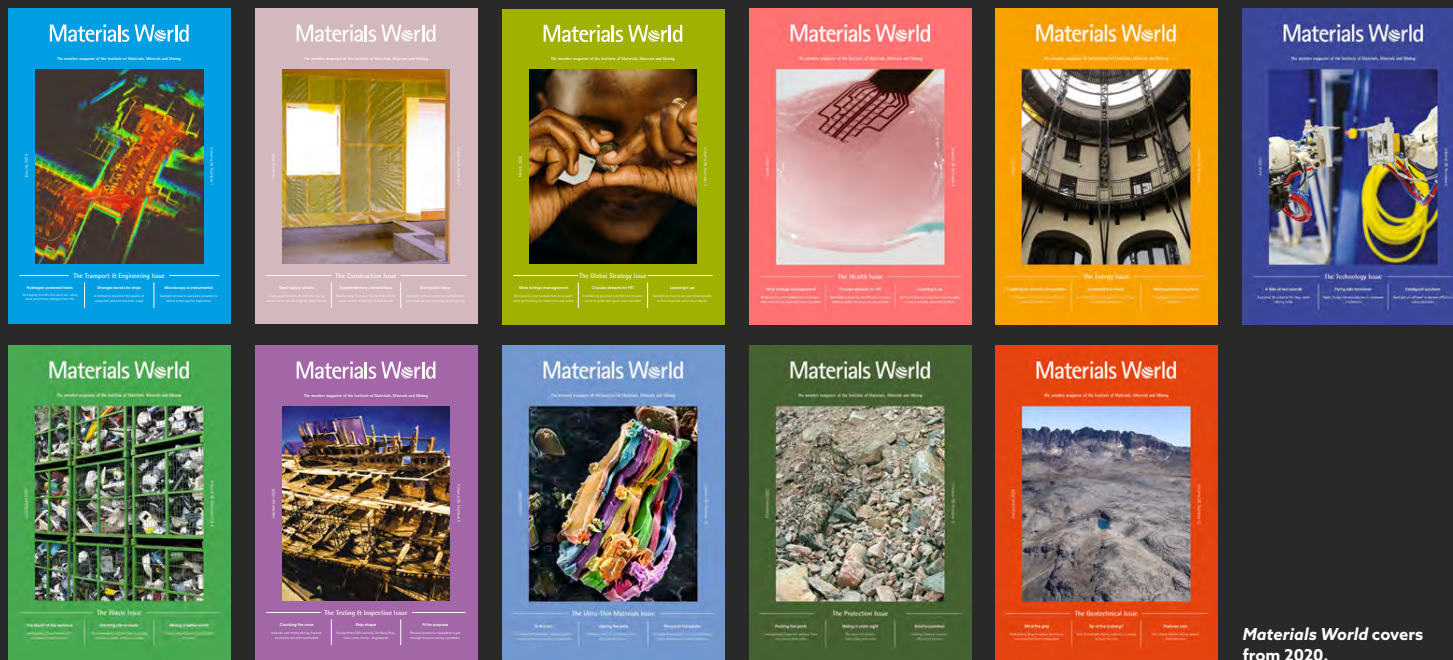
Barry Job

'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. ▶

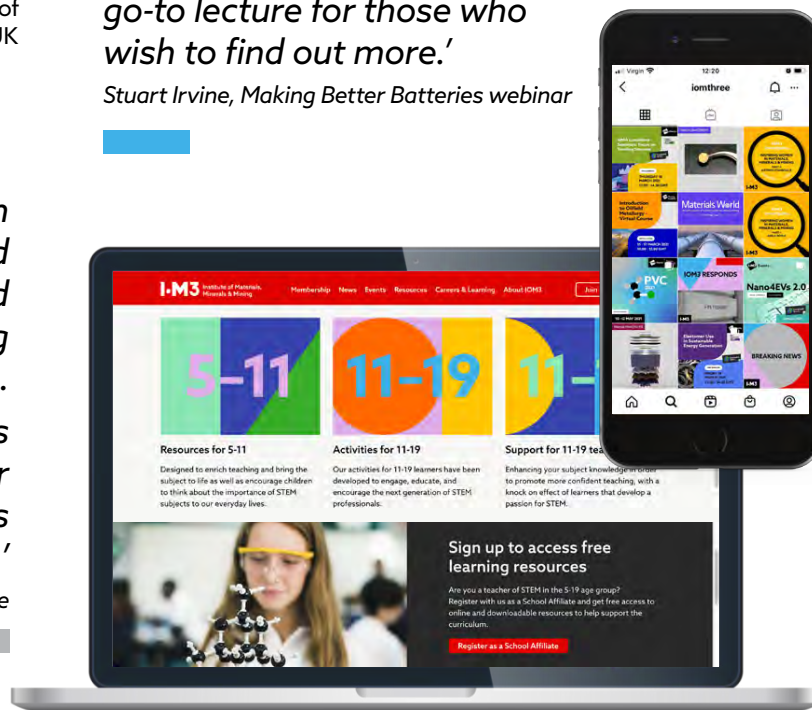
'Timber 2020 offered me an opportunity to see and listen to old acquaintances and colleagues and make new contacts. Overall going virtual was a good experience.

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.

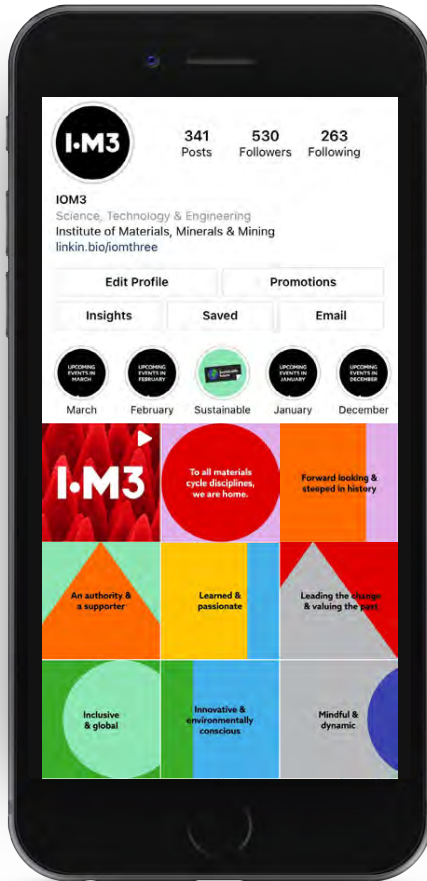
IOM3 has also continued to deliver End Point Assessment activity, having conducted our first four end point assessments and our pool of assessors is waiting for more submissions in 2021.

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.

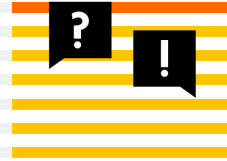
IOM3 wanted a new visual identity that was strong, simple and striking, embodying the forward-looking nature of IOM3 but also using different shapes to represent our history, the mergers of diverse bodies, and the eclectic mix of people and ideas, which have come together to form the Institute we know 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
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WEEK 12
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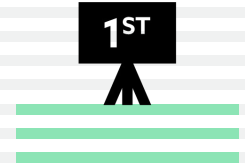


INITIAL CONSULTATION

- | 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

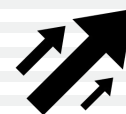
IMPLEMENT

| 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

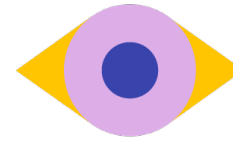
attendees at 25 IOM3-hosted virtual events

> 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.

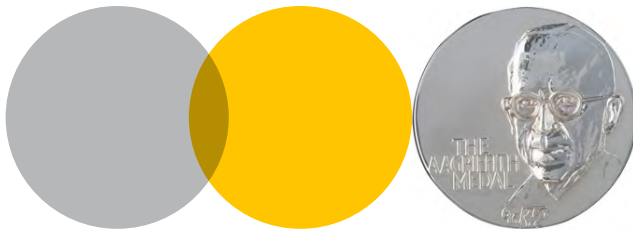
Awards are presented for personal achievement and published work as well as for outstanding contributions to the Institute and its activities. Some awards are aimed specifically at earlier career stages, others recognise technological developments or contributions to education. Awards are presented at 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 Mohmad, 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.

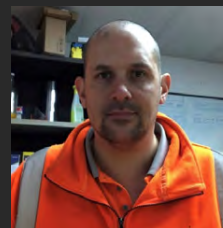
The 2020 awards took place for the first time in a virtual format on Wednesday 11 November. There were 4 judging panels who interviewed students from not only the UK but from all over the world.

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**

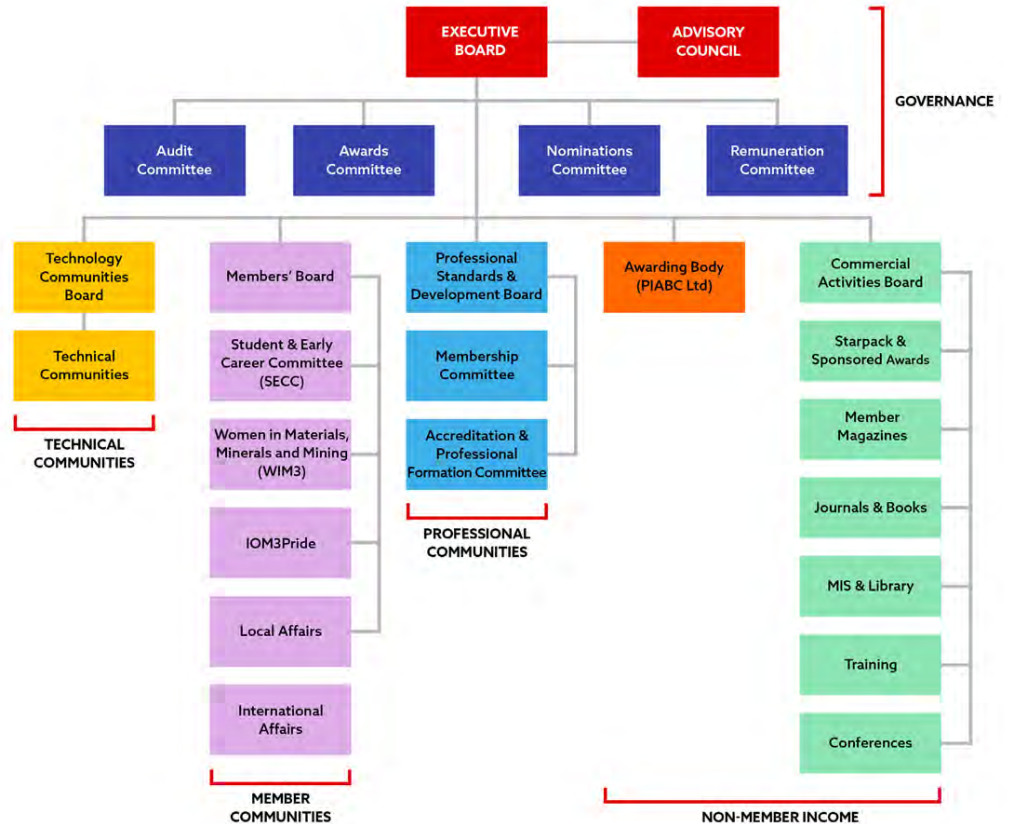
The oldest nation-wide constituent of this Institute was created in 1869. The Institute of Materials, Minerals and Mining is a body incorporated by Royal Charter (RC000267) dated 25 July 1975 and modified on 26 June 2002 and is a Registered Charity in England & Wales (269275) and in Scotland (SC050586).

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 of 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.

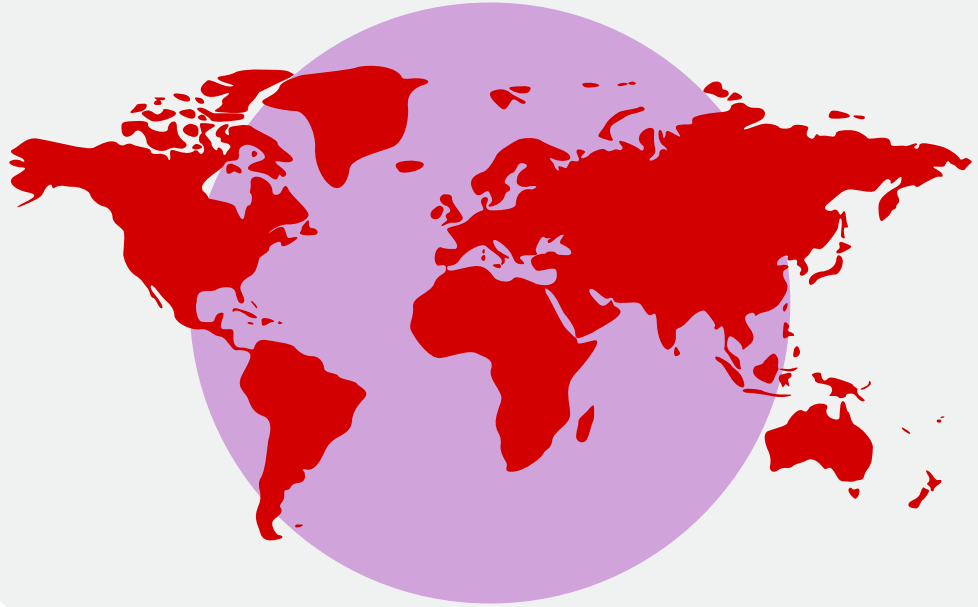
Objectives & activities

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

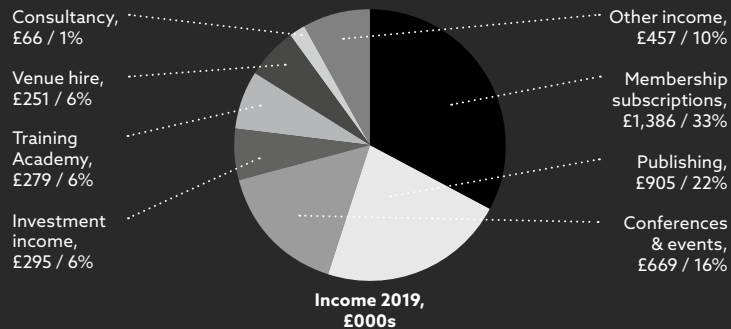
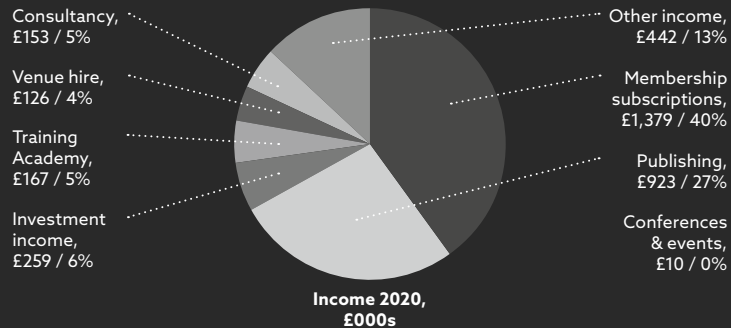
This report was approved by the trustees on 10 June 2021



Serena Best

The background features a light green triangle on the left and a large red circle on the right, both overlapping a darker green area.

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	-
	90	13

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
	202	57	236	59

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 No.	2019 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 £'000	2019 £'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	funds
	£'000	£'000	£'000	fund	£'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	funds
	£'000	£'000	£'000	fund	£'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.

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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).