M3P3 - 11 November 2025

22/10/2025 15:25:53

M3P3

Start Time	End time	Auditorium
08:00	09:00	**Registration**
09:00	09:05	**Introduction** • **Colin Church**, CEO, IOM3
09:05	09:10	**Welcome Address** • **Christine Blackmore**, President, IOM3
09:10	09:25	**Keynote A – Industrial Strategy** • **Chris McDonald MP FREng CEng FIMMM**, Minister for Industry
09:25	10:10	**Panel A – Industrial Strategy** • **Rt Hon Charles Hendry HonFIMMM**, Visiting Professor, Business School & Academy of Government, University of Edinburgh • **Dr Cathryn Hickey**, Chief Executive, AMRICC • **Dr Bruce Adderley**, Director Make & Use, Innovate UK
10:10	10:50	**Networking Break** Atrium
10:50	10:59	**Changeover Time (Please make your way swiftly to your next session for a smooth transition to a 2-minute Armistice Day Silence)**
11:00	11:02	**2-minute Armistice Day Silence (In your respective sessions)**

Satellite Conferences @ M3P3

Start Time	End time	Satellite Conference Stream 1 **Timber 2025** Curzon 1	Satellite Conference Stream 2 **N/A** Cuzon Suite
09:00	09:10	**Welcome Address** Morwenna Spear Chair of IOM3 Wood Technology Group	
09:10	09:30	**Trees for what? The future role of UK sawmilling in an import dominated sector** Rob MacKenna, James Jones & Sons	
09:30	09:50	**Growing Tomorrow's Timber: Trends, Challenges, and the Role of the Professional Forester** Caroline Harrison, ICF	
09:50	10:10	**Summary on recent research supporting the use of birch timber in construction** Marlene Cramer, Edinburgh Napier University	
10:10	10:50	**Networking Break** Atrium	
10:50	10:59	**Changeover Time (Please make your way swiftly to your next session for a smooth transition to a 2-minute Armistice Day Silence)**	
11:00	11:02	**2-minute Armistice Day Silence (In your respective sessions)**	

IOM3 Training Academy @ M3P3

Start Time	End time	Breakout Room 1
10:45	11:00	**Introduction to design for sustainability**

10:10 – 10:50

Roundtables
(Refreshments served at the table)

A framework for modelling critical material sustainability, resilience and risk
Decision Analysis Services (DAS)
This round table will look at how digital twin models can be used to explore the future of critical minerals. Discussion will cover approaches to modelling the circular economy, assessing risks and using AI tools to monitor supply and demand.

Emerging materials technologies for a net-zero future
Lucideon
Innovation in materials is essential to reaching net zero. Richard Goodhead will lead a discussion on how testing, modelling and sustainable processes are helping industry to overcome challenges. The session will highlight real-world examples showing how these approaches unlock practical solutions.

The role of metrology in supporting circularity of sustainable materials
NPL
From recycling to biodegradable materials, sustainable solutions rely on trusted measurement and standards. This session will look at the challenges and opportunities for advanced materials and manufacturing in achieving a more circular economy. Exploring how metrology can bridge gaps and support adoption at scale.

Policy & Influence
IOM3
Delve into the latest policy developments shaping the future of materials, minerals, and mining and share your perspectives.

11:00 – 11:02

Stream 1 **AI/Digital/Data/i4.0** Conference Room 1	Stream 2 **Circular Economy & Supply Chains** Conference Room 2	Stream 3 **Infrastructure & Transport** Conference Room 3	Stream 4 **Society** Conference Room 4

2-minute Armistice Day Silence (In your respective sessions)

		Overview of AI & Digital Tools in MMM: Discover how cutting-edge AI and digital solutions are being integrated into materials, minerals, and mining, transforming traditional practices and opening new frontiers	**Supply Chain Management:** Explore innovative practices in supply chain management, including Carbon Border Adjustment Mechanism (CBAM), Life Cycle Assessment (LCA), packaging, critical imports, and product design. Learn how these strategies enhance efficiency, reduce waste, and improve sustainability across the materials, minerals, and mining sectors	**Sustainable Built Environment:** Dive into the latest innovations in creating sustainable buildings, tunnels, roads, and other infrastructure. Learn how these advancements are reducing environmental impact and promoting long-term sustainability **This session will be delivered in 2 parts related to different aspects of circular economy.**	**Encouraging Innovation in Materials, Minerals & Mining:** Learn about the strategies and sources of funding that are essential for fostering innovation in our field. Discover how to create an environment that nurtures new ideas and drives progress	11:05	11:25	**Thermo-Hydrodynamics of Hygroscopic Materials - Applications in Wood Drying and Climate Change** **Cameron Belden** Swansea University	N/A			
		Chris Pilgrim Knowledge Transfer Network	**Tim Barbary** **Benchmarking Consulting**	**Part 1) Focus on low carbon solutions, recycling, upcycling or concrete and minerals** **Chaired by Dr Flavie Lowres FIMMM** Green Thinking Limited, Chair of IOM3 Construction Materials Group	**Confirmed presenter from UKDI DASA**	11:25	11:45	**CLT moisture content measurement with textile distributed sensors** **Riccardo Marchesi** Knitronix				
		AI for High-Power Laser Based Manufacturing, Present and Future **Dr Priyanka Ghosh** Manufacturing Technology Centre	**Prof Peter Hopkinson** **Exeter University**	**Low carbon cements and concretes:- an overview** **Dr Andrew Dunster FIMMM** BRE **Developments and innovations on calcined clay for sustainable infrastructure** **Dr Fragkoulis Kanavaris CEng CSci CEnv FIMMM MICT CAPM** ARUP	**Predictive AI for Screening Next-Generation Bone Implant Coatings** **David Elson** InnovateUK	11:45	12:05	**TBC**				
11:05	13:05	**Dominic Wadkin-Snaith** Lucideon	**Securing critical materials in the supply chain: A lifecycle perspective** **Prof Lenny Koh** University of Sheffield	**Zero-Waste Strength: Upcycling Industrial Mineral Byproducts for Sustainable Built Environment** **Dr Antonios Kanellopoulos CEng CSci MIMMM, MICT, FHEA** University of Hertfordshire **Followed by 15 minute panel discussion**	**Lucy Smith** **Fiventures**	12:05	12:25	**Super-black wood veneer: Manufacture, properties and applications** **Phil Evans** University of British Columbia, Canada		11:05	12:45	**Introduction to design for sustainability (cont.)**
		Practical AI: From Innovation to Policy Influence **Natasha McCarthy** Royal Academy of Engineering	**Reinventing Conveyor Belts: Powering the Future of Industry** **Craig Spencer-Smith FIMMM** EcoBelt	**Part 2: Focus on reuse** **Chaired by Dr Antonios Kanellopoulos CEng CSci MIMMM, MICT, FHEA** University of Hertfordshire **Circular economy in construction – examples of reuse** **Dr Flavie Lowres FIMMM** Green Thinking Limited, Chair of IOM3 Construction Materials Group	**Stuart Maclachlan** **Lucideon**	12:25	12:45	**A review of the manufacture, properties and performance of charred wood cladding** **Andy Pitman** Filros				
		Prof Bernd Stahl FBCS BCS, The Chartered Institute for IT	**Tim Young & Tom Andrews** NCCUK	**Reuse in fitout and furniture** **Dr Greg Lavery** Rype Office **Followed by panel discussion**	**James Baker** GEIC Manchester	12:45	13:05	**Novel Nanotechnology Surface Treatments to protect the appearance of Outdoor Timber** **Mike Attfield** Exergenics				
13:05	**14:00**	**Networking Lunch** **Round Tables 13:30-14:00** **Increasing the use of secondary raw materials in industry** Glass Technology Services Using more secondary raw materials is vital to creating a circular economy. Chris Holcroft will lead a discussion on opportunities for upcycling waste into new resources, and the barriers that stand in the way, from availability and logistics to regulation and customer perception. **Reinventing conveyor belts: powering the future of industry** Ecobelt Conveyor belts move billions of tonnes of goods across mining, logistics, manufacturing and e-commerce. Yet many still rely on outdated, inefficient technology. Ecobelt's AnnStuMax system transforms conveyors into intelligent, reliable and sustainable tools. Join Craig Spencer-Smith FIMMM (Chief Technology Officer and inventor of AnnStuMax) to explore how rethinking a familiar technology can have a huge impact on efficiency and the world economy. **Materials 4.0 in practice** Frazer-Nash This roundtable offers a joint academic-industry perspective on Materials 4.0, exploring realistic short-term wins, research priorities and what they mean in practice with David Jesson (Senior Consultant) leading the session. **Membership Benefits & Professional Growth** IOM3 Discover the advantages of being part of a leading professional body. Explore how our membership services can support your career development and industry impact.											
14:00	14:15	**Keynote B – Circular Economy** • **Mary Creagh CBE MP**, Minister for Nature. Labour MP for Coventry East				14:00	15:00	**Timber 2025 delegates to join the Circular Economy Keynote & Panel in the Auditorium.**	N/A				
14:15	15:00	**Panel B – Circular Economy** • **Mary Creagh CBE MP**, Minister for Nature. Labour MP for Coventry East • **Libby Peake**, Senior Fellow & Head of Resource Policy, Green Alliance • **Professor Mark Miodownik MBE FREng CEng HonFIMMM**, Professor of Materials & Society, University College London • **Iain Gulland**, Chief Executive, Zero Waste Scotland											
		Networking Break Atrium											

15:00 – 15:45

Roundtables
(Refreshments served at the table)

Materials for the next generation energy supply chain: from fusion to function
Goodfellow
Hosted by Thomas Greaves (Regional Manager), this roundtable explores the materials challenges and innovations driving clean energy, with a focus on emerging supply chains for fusion and next-generation energy sources. Delegates will discuss how advances materials support scientific and commercial progress, from containment and conductivity to sustainability and scalability.

Building on the 2025 strategic defence review: securing future supply chains
AWE
Following the 2025 strategic defence review, the UK faces a changing landscape for defence materials and national production. This session will explore how government, industry and academia can work together to strengthen resilience in critical infrastructure.

Replicating the real world for a more value-added test programme
SMaRT
Standard test programmes rarely reflect the full demands of service environments. This session, led by Professor Mark Whittaker FIMMM, will explore how designing tests around real conditions can provide greater value, reduce uncertainty and deliver more reliable results.

Industry 4.0 & Digital Innovation
IOM3
Discuss the revolutionary impact of Industry 4.0 technologies and AI on the materials and mining sectors. Exchange ideas on adopting digital solutions for safer, more efficient operations.

15:45 – 17:45

AI & Digital in Exploration & Mining: Learn about the latest innovations in exploration and mining, where AI and digital technologies are optimizing operations, improving safety, and increasing efficiency	Energy & Critical Materials Recovery: Discover cutting-edge techniques for recovering energy and critical materials from composites, batteries, wind turbines, and more. These methods ensure resource efficiency and support the transition to a circular economy	Aerospace & Defence: Discover how cutting-edge materials and technologies are revolutionising the aerospace and defence sectors, enhancing performance, and sustainability	Materials, Minerals & Mining in Health: Discover how advancements in materials and minerals are contributing to health and well-being, from medical devices to sustainable healthcare solutions
Seeing Safety: The AI Journey from Concept to Mine Site **Rory Grunerud** ABD Solutions	**Prof Allan Walton** University of Birmingham	**AWE Keynote* TBC**	**Prof David Jones** Queen's Belfast University - School of Pharmacy
Ewan McMillan New Gradient	**Soraia Pimenta** Imperial College London		**Dr Ben Almquist FIMMM** Imperial College London
Lucy Crane* Women in Mining	**Recyclus Group: The UK's First Industrial-Scale Lithium-Ion Battery Recycler** **Robin Brundle** Recylus Group	**Innovative Metal Alloy Production for Aerospace and Defence Applications** **Ian Mellor** Technology & Materials Discovery Centre	**Dr Jennifer Shepherd** University of Leicester
	Deri Galvin ORE Catapult	**David Homfray** Space Solar	**Dr Jiin Woei Lee** University of Westminster
	Bahare Tamaddondar Watercycle Technologies	**Andrew Strudwick** Graphene Engineering Innovation Centre, The University of Manchester	**Prof Liam Grover** University of Birmingham
Auditorium			

17:45 – 18:00

Closing Keynote C
• **Sarah Mukherjee MBE**, CEO, IEMA

15:45 – 17:45

Timber 2025
Curzon 1

15:45 – 16:15	**Keynote** **Commercial Timber Guidebook and recent architectural case studies** Andrew Skinner, Elliott Wood
16:15 – 16:35	**Advancing sustainable construction through engineered timber in mid-rise housing** Davina Wang, University of Cambridge
16:35 – 16:55	**Building sustainable cities: the perceived influence of mass timber on SDG 11 in South Africa** Emma Ayesu-Koranteng, Nelson Mandela University, South Africa
16:55 – 17:15	**Climate conscious quality assured timber construction: Could the Passivhaus standard be a Golden Thread for the timber industry?** Tabitha Binding, Coaction Training CIC / Passivhaus Trust
17:15 – 17:35	**Experimental Study of Structural Performance of Timber-Concrete Composites Using Sustainable Concrete** Aamir Khokhar, Edinburgh Napier University
17:35 – 17:45	**Closing Address** Morwenna Spear, IOM3 Wood Technology Group Chair & Bangor University

N/A

15:45 – 17:45

Introduction to leadership and management

18:00 – 21:00

Informal Supper & Networking Games
Atrium

M3P3 - 12 November 2025

M3P3

Millennium Point

Start Time	End time	Auditorium
08:00	09:00	Registration
09:00	09:15	**Keynote D – UK Skills Landscape** • **Jonathan Mitchell**, Deputy Director for Advanced Manufacturing, Defence and Construction, Skills England
09:15	10:00	**Panel D – UK Skills Landscape** • **Jonathan Mitchell**, Deputy Director for Advanced Manufacturing, Defence and Construction, Skills England • **Prof Patrick Foster CEng FIMMM**, Head of Camborne School of Mines & Professor in Mine Safety, University of Exeter • **Beatrice Barleon**, Head of Policy and Public Affairs, EngineeringUK • **Rachel Timmins**, Policy Manager, Ceramics UK
10:00	10:45	**Networking Break** Atrium **Roundtables** **Skills to 2050 and beyond** Decision Analysis Services (DAS) This session will focus on future workforce needs for net zero and beyond. It will explore long-term demand for skills, how to identify gaps early, and ways to attract and retain the next generation of professionals. **Innovation and intellectual property in materials science** HLK Patents can both track innovation trends and protect valuable breakthroughs. Dr Michael Ford will share practical insights on navigating the challenges of patenting materials inventions and using IP strategically to support research and commercial success. **Characterisation of materials in the lab, glovebox and hot cell** NETZSCH Group Material characterisation looks very different in a standard lab compared to a glovebox or hot cell. In this roundtable, Melinda Tucker will discuss how to adapt methods to meet the unique demands of nuclear and defence applications. **Professional Registration & Accreditation** IOM3 Find out how to achieve and maintain professional registration. Gain insights into the pathway to recognition, standards, and continuing professional development.
10:45	12:45	**Stream 1** **AI/Digital/Data/i4.0** **Conference Room 1** **AI & Digital in Materials Discovery & Manufacturing:** Explore how AI is accelerating the discovery of new materials and revolutionising manufacturing processes, leading to more sustainable and efficient production **Prof Alejandro Frangi** University of Manchester **Prof Jacqueline Cole** University of Cambridge
		Stream 2 **Circular Economy & Supply Chains** **Conference Room 2** **Industrial Decarbonisation:** Learn about the latest advancements in industrial decarbonisation, including strategies to reduce greenhouse gas emissions and promote cleaner production processes **Sarah Harrold** Glass Futures **Andrew McDermott** Ceramics UK
		Stream 3 **Infrastructure & Transport** **Conference Room 3** **Low Carbon Transport** Explore the future of transport with a focus on low carbon solutions such as batteries, hydrogen fuel cells, and lightweighting technologies. Understand how these innovations are driving the transition to cleaner, more efficient transportation systems **Julian Hetherington** Advanced Propulsion Centre **Manufacturing Clean Transport: The Role of Materials and Process Innovation** **Matt Thomas** MTC
		Stream 4 **Society** **Conference Room 4** **Skills in Materials, Minerals & Mining:** Learn about the importance of developing the skills required for the industries of tomorrow and discover the initiatives to address the skills gap. Understand how fostering a diverse and inclusive workforce can drive innovation and success **Jo Stansfield** **Inclusioneering Ltd** **Andrew Fulton** Gatesbridge/ Brownlee Cale Mining/ The Mining Assoication of the UK

Satellite Conferences @ M3P3

Start Time	End time	Satellite Conference Stream 1 **Bio-based Polymers for Sustainable Future** Conference Room 5
09:00	10:00	**Bio-based Polymers delegates to join the UK Skills Landscape Keynote & Panel in the Auditorium.**
10:00	10:40	**Networking Break** Atrium
10:40	10:45	**Bio-based Polymers for Sustainable Future** Conference Room 5 **Welcome Address**
10:45	11:05	**Prof Biqiong Chen** Queen's University Belfast
11:05	11:25	**Tony Breton** BBIA
11:25	11:45	**Mike Swain** Pack IDS

Start Time	End time	Satellite Conference Stream 2 **Manufacture & Materials for Fission & Fusion Net-zero 2025** Curzon Suite
08:50	09:00	**Welcome Address** Toby Lant, Conference Chair
09:00	09:20	**Daniel Mathers, NIRO** Overview of UK R+D for Fission
09:20	09:40	**Eleanor Crossley, ONR** UK Regulatory Expectations for Manufacturing Components Important for Nuclear Safety –
09:40	10:00	**Edward Williamson, Rolls-Royce SMR** Materials challenges with SMRs
10:00	10:20	**Prof Chris Trueman, University of Bristol** Reflections on Peter Flewitt's career in the nuclear Industry
10:20	10:45	**Networking Break** Atrium
10:45	11:05	**Martin Marples, Arabelle Solutions** Materials challenges outside the nuclear island – ST's
11:05	11:25	**Michael Martin, Rolls-Royce** Probabilistic assessments for Light Water Reactors
11:25	11:45	**Jonathan Duff, University of Manchester, The Henry Royce Institute** Stress Corrosion Cracking of Additively Manufactured stainless steel and nickel alloys used for Light Water Reactors

Teachers Conference

Start Time	End time	Breakout Room 1
10:30	12:45	**Teachers Conference**

Ben Saunders Rolls-Royce	**Mike Clinch** Innoval	**Catherine Caton** Rolls-Royce	**Jude Allan** OPRL
	Daniel Paterson Electrify Industry	**Alan Patridge** University of Manchester	**Sadie Clough** AMRICC Academy
		Richard Taylor* Battery Britain	**Steve Kingston** Cornish Metals

Start	End	Session
12:45	14:00	**Networking Lunch** Atrium

Roundtables (13:30-14:00)

Closing the skills gap: building skills for the mines of tomorrow
Cornish Metals
Cornish Metals is advancing the South Crofty tin project and supporting STEM learning, workplace experience and research opportunities for young people. This roundtable will explore the skills mining companies need in Cornwall, how industry and education can build a talent pipeline and best practice for upskilling and attracting a diverse workforce.

Combining real-time imaging with thermal analysis
Hitachi
Hosted by Hitachi High-Tech Analytical Science, this roundtable explores how real-time imagining adds new insight into thermal analysis. Discussing examples including tracking polymorphism, polymer stability, colour changes and troubleshooting in R&D and production.

Coatings built for the future
Indestructible Paint Ltd
Indestructible Paint Ltd develops advanced coatings for demanding environments, from aerospace and defence to rail and automotive. This roundtable will explore engineered coatings are evolving to improve efficiency, support sustainability and drive innovation across critical industries.

Expanding Your Network & Collaboration Opportunities
IOM3
Connect with like-minded professionals, industry leaders, and potential collaborators. Learn how expanding your network can open new pathways for growth and innovation.z

Auditorium

Start	End	Session
14:00	14:15	**Keynote E - Materials Strategy** • **David Knowles FREng CEng CSci FIMMM**, CEO, Henry Royce Institute
14:15	15:00	**Panel E - Materials & Critical Minerals Strategy** • **David Knowles FREng CEng CSci FIMMM**, CEO, Henry Royce Institute • **Gavin Mudd BEnv Eng (Hons), PhD**, Director, Critical Minerals Intelligence Centre, British Geological Survey • **Philippa Glover**, Managing Director, The Rakem Group
15:00	15:30	**Closing Keynote** • **Ed Conway HonFIMMM**, Economics Editor, Sky News
15:30		**Close of M3P3**

Start	End	Session
11:45	12:05	**James Nelson** 2M
12:05	12:25	**Mike Swain** Pack IDS
12:25	12:45	**Prof Steve Eichhorn** University of Bristol
12:45	13:30	**Networking Lunch** Atrium
13:30	13:50	**Hoa Doan** Notpla
13:50	14:10	**Stephen Rundle** Solinatra
14:10	14:30	**Marjan van Urk** Arlanxeo
14:30	14:55	**Networking Break** Atrium
		Satellite Conference Stream 1 **Bio-based Polymers for Sustainable Future** Conference Room 5
14:55	15:15	**Hiral Pisavadia*** TARRC
15:15	15:35	**Ashlee Espinoza*** Weir
15:35	15:45	Closing Address

Start	End	Session
11:45	12:05	**Mike Spindler, EDF** Are Current High Temperature Design Codes Adequate for new High Temperature Gas Reactors?
12:05	12:25	**Nassia Tzelepi, UKNNL/ JAEA** Materials Research for the UKJ-HTR
12:25	12:45	**Amy Gandy, UKAEA** A fusion overview of the material challenges to achieve commercial plant
13:30	13:50	**Prof Moataz Attallah, Loughborough University** Challenges of fabrication of tungsten for nuclear fusion components
13:50	14:10	**Sam Holdsworth, TWI** Development of copper CoreFlow® friction stir channelling for fusion reactor thermal management
14:10	14:30	**Luke Howard, University of Birmingham** Development of novel alloys, including silicide-strengthened and ferritic superalloys for nuclear
		Satellite Conference Stream 2 **Manufacture & Materials for Fission & Fusion Net-zero 2025** Curzon Suite
14:55	15:15	**Liberato Volpe, UKAEA & Lucideon** Oxidation and environmentally-assisted cracking behaviour of Eurofer-97 under water-cooled breeder blanket conditions
15:15	15:35	**Sophie Jones, Amentum** Corrosion of structural materials in liquid lithium
15:35	15:45	**Toby Lant, Conference Chair** Closing Summary

Start	End	Session
12:45	14:00	
14:00	17:00	**Teachers Conference**
		Close of M3P3