CRITICAL MINERALS ASSOCIATION (UK)

FEBRUARY 2024

CMA (UK) & UK GOVERNMENT HOST BREAKFAST RECEPTION & PANEL AT PDAC 2024

INTERNATIONAL ENERGY AGENCY PROPOSES CRITICAL MINERALS SECURITY PROGRAM

UK-AFRICAN INVESTMENT SUMMIT POSTPONED
Welcome to the CMA (UK) Monthly Newsletter, featuring updates on the critical minerals space. Read on for:

- Canada Announces $5M Development Fund for REE Separation
- CMA (UK) and UK Government Host ESG Panel at PDAC 2024
- CMA (UK) Welcome Minister Champagne at PDAC 2024 Reception
- Australia Opens $40M Fund for International Critical Mineral Partners
- Leeds SEG Student Chapter Hosts Symposium on Critical Minerals
- CMA (UK) Attends 2024 Energy Summits in London
- Camborne School of Mines Launches Mining Engineering Degrees
- UK Universities Open AlChemy, New AI Research Hub in the UK
- UK-African Investment Summit 2024 Postponed
- IEA Proposes Critical Minerals Security Program for Member States
- Innovate UK Partners with Less Common Metals and Xplore!
- Register for Johnson Matthey’s Webinar Series on PGMs
- Giyani Metals Receives $10M Investment to Progress K.Hill Project
- Dalradian Achieves Planning Milestone for Polymetallic Tyrone Mine
- British Geological Survey Builds Five New ‘Minecraft Worlds’
- Register for E-Waste World Conferences & Expos 2024
- Register for Innovation & Infrastructure Zero Conference 2024
- Venue Hire at the Geological Society of London
- News Round Up
- Events Calendar

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This month’s newsletter has been put together by Eileen Maes, CMA (UK).

Would you like to feature in a future edition?  
Contact our editor Eileen at eileen@criticalmineral.org
At the Canada-UK Industrial Decarbonisation Forum on 15 February, the Honourable Jonathan Wilkinson, Canada’s Minister of Energy and Natural Resources, was joined by Mike Crabtree, President and CEO of the Saskatchewan Research Council (SRC), to announce an investment of $5 million to the SRC through the Critical Minerals Research, Development and Demonstration (CMRDD) program.

The CMRDD program supports the development of Canadian critical minerals value chains. With this funding, the SRC will be able to develop an advanced and innovative process to separate rare earth elements (REEs), which will progress the commercial readiness of Canada’s emerging operations and technologies to support the development of a zero-emission vehicle value chain.

Thank you to Canada House for inviting the Critical Minerals Association (UK) to the Forum.

READ ON HERE
In collaboration with UK Government, the CMA (UK) hosted a panel discussion on 4 March at PDAC 2024 exploring 'UK Opportunities: The UK Hub for ESG Providers'.

We were pleased to welcome expert speakers Fearghal Kearney (Circulor), Lydia Bridges (Minviro), Sarah Gordon (Satarla) and Irene Bopp (ERM), who dove into detail about the global trends in ESG, the UK's opportunities and advantages in ESG, and how companies can best prove and report their ESG credentials.

The annual award-winning PDAC Convention in Toronto, Canada brings together up to 30,000 mining stakeholders from over 130+ countries for its informative programming, networking events, and business opportunities.

LEARN MORE ABOUT PDAC HERE
The CMA (UK) was delighted to welcome the Rt Hon François-Philippe Champagne, Canada’s Minister for Innovation, Science and Industry, to our joint breakfast reception with the British High Commission & Department for Business and Trade, on ‘UK Opportunities’ at PDAC 2024 on 4 March.

The event followed our successful inaugural reception in 2023, which emphasised the importance of UK-Canada collaboration on critical minerals and highlighted the UK’s critical minerals investment opportunities. The 2023 breakfast reception also coincided with the UK-Canada Critical Minerals Agreement signed by UK Minister Nusrat Ghani and Canadian Minister Jonathan Wilkinson.

LEARN MORE ABOUT PDAC HERE
Applications have opened for a A$40 million program supporting early to mid-stage critical minerals projects that contribute to building end-to-end supply chains with Australia’s international partners.

Activities to be funded include pilot plants, feasibility studies, capacity expansions, scoping work for infrastructure upgrades and R&D collaboration.

“Secure supply chains for our critical minerals are essential if we want to build the wind farms, solar panels and batteries we need to reach Net Zero,” Minister for Resources and Northern Australia Madeleine King said. “These grants support our Critical Minerals Strategy, which will build Australia’s sovereign capability in critical minerals processing, diversify global supply chains and help Australia become a clean energy superpower.”

READ ON HERE
On 24 February, the Society of Economic Geologists (SEG) Student Chapter at the University of Leeds hosted a symposium on critical minerals.

Keynote speakers included Richard Taylor, co-founder of Green Lithium; Eileen Maes, Communications Manager at CMA (UK); Alex Marshall, Senior Geologist at British Lithium; and Sean Jefferson and Robert Selwyn, geologists from Plethora Private Equity Fund.

Speakers shared their career journeys as well as the various opportunities for critical minerals here in the UK, delving into topics such as geological mapping and supply geopolitics.

Thank you to Lily Dickson and Rob Chapman for organising the event. The CMA (UK) was delighted to attend, and inspired by the passion for geology and sustainability demonstrated by the students and faculty that attended.

READ ON HERE
On 20 February, founder and CEO of the Critical Minerals Association (UK) moderated a panel discussion at the Energy Storage Summit in London.

The following week, on 27 February, Kirsty attended and chaired a panel discussion at International Energy Week 2024 in London. Alongside Magnus Heimburg (Preem AB), Sean Sargent (Green Lithium), and Bahrin Asmawi (PETRONAS), the panel explored the relationship between Earth's resources and the race to Net Zero.

Some of the questions posed included the following: How do we minimise emissions? How do we responsibly produce natural resources like critical minerals? Are markets and consumers ready to pay more for the 'Green Premium'?

READ ON HERE
The Camborne School of Mines (CSM) has reshaped the opportunities for students wishing to study Mining Engineering with the launch of two new 4-year BEng programmes, one part-time and one Degree Apprenticeship.

Both programmes follow an apprenticeship learning model of working part-time and learning approximately 6 hours per week. Applications are now open for September 2024 entry.

These new programmes have been developed to help upskill those already holding roles within the mining industry, who want to develop their career. Students will study a broad range of topics, including the underlying maths, digital, geology and physics skills that inform engineering, mine design, automation, and economics.

All students must be sponsored by their employer who will pay the fees on behalf of the student directly to the University. To discuss the programmes, or the eligibility of prospective candidates, please contact Anna Dickinson (Partnership Development Officer) a.dickinson@exeter.ac.uk.
The University of Liverpool and Imperial College London will lead a £12 million research hub to develop state-of-the-art Artificial Intelligence (AI) for Chemistry and accelerate its adoption, thanks to a combined investment from the Engineering & Physical Sciences Research Council (EPSRC) and consortium partners.

The AI for Chemistry Hub, AlChemy, will bring together leading academic researchers, industry, and other stakeholders to promote a collaborative community, offer training, and create new approaches at the rapidly evolving AI-chemistry interface to position the UK as the global leader in Digital Chemistry.

The new hub funded by the Engineering and Physical Sciences Research Council will support collaboration with chemistry and AI researchers to build a new cohesive UK research community.
The 2024 UK-African Investment Summit (UK-AIS) has been postponed, with new dates to be announced in due course.

The annual event builds on the success of the 2020 UK-AIS, which laid the foundations for new partnerships between the UK and African nations based on trade & investment, shared values and mutual interest. The Summit aims to strengthen bilateral partnerships for job and wealth creation, support British and African talent in sectors such as finance and technology, and promote female entrepreneurs.

The next UK-AIS aims to signpost the UK’s ambitions to be Africa’s investment partner of choice.
On 13 February, the Director of the International Energy Agency (IEA), Fatih Birol, announced that the IEA is launching a critical minerals security program “inspired by its oil security mechanism”, which requires member states to stockpile 90 days’ of oil to be readily deployed in the event of a global supply disruption.

The feasibility of a ‘critical minerals security program’ remains to be seen, since global exchange stocks for even the more readily available critical minerals typically sit at less than couple of weeks of demand. That, coupled with the sheer scale of minerals required for the energy transition and the opaque nature of its markets, makes stockpiling critical minerals an immense task. For many nations, it's an impossible one.

But the IEA’s announcement signals the proliferation of an emerging mission across various sectors and jurisdictions—the development of alternative critical mineral supply chains.

READ ON HERE
INNOVATE UK PARTNERS WITH LCM AND XPLORE!

Innovate UK has partnered with Less Common Metals (LCM) and Xplore! Science Discovery Centre to deliver educational workshops on rare earth metals for green technology.

The ‘Mine to Magnet’ school workshop, the first of its kind, has received funding from Innovate UK to enhance education surrounding critical materials. The workshop is aimed at primary school-aged learners, and explores 6 key steps of the supply chain for neodymium iron boron permanent magnets required for electric vehicles.

Martyn Cherrington, Programme Lead for circular critical materials supply chains at Innovate UK, said: “This is a fantastic initiative that will inspire the next generation about the importance of rare earth metals for the energy transition.”

READ ON HERE
Platinum group metals (PGMs) are a group of remarkable elements that play a vital role across multiple industries, enabling the production of countless components for everyday products.

Johnson Matthey has been working with PGMs for over 200 years, giving them unique expertise in PGM chemistry and catalysis. They use their world-leading knowledge to create specialist products, and as the world’s largest recycler of secondary PGMs (by volume), they play an important role in recovering these valuable metals so they can be reused.

Join Margery (Marge) Ryan, one of Johnson Matthey’s foremost PGM experts, on 26 March, to discuss the fundamentals of the market, how they operate in a global network, and why they’re so important for our green future.

Understanding more about the PGM markets
JM online webinar on 26th March

Join Marge Ryan, one of JM’s PGM experts, where she’ll be presenting and answering questions on these unique metals, covering:

- the fundamentals of PGM market supply and demand
- how these markets operate in a global network
- why PGMs are so important for our future

Tuesday, March 26th

Session 1: 8am – 9am GMT
Session 2: 3pm – 4pm GMT

Register on matthey.com/pgm-markets
On 20 February, Giyani Metals announced the completion of a US$10 million investment by ARCH Sustainable Resources Fund LP.

ARCH’s funding forms part of a larger aggregate US$26 million funding package to progress Giyani’s K.Hill battery-grade manganese project in Botswana to Final Investment Decision. Giyani intends to use the proceeds to progress K.Hill with an Optimized Feasibility Study, as well as completion of construction, commissioning, and operation of the Company’s demonstration plant.

Giyani’s mission is to become a sustainable, low-carbon producer of battery materials for the electric vehicle (EV) industry. The Company has developed a hydrometallurgical process to produce HPMSM, a lithium-ion battery cathode precursor material critical for EVs, directly from ore from its manganese oxide deposits in Botswana.
The Planning Appeals Commission (PAC) has released its schedule for the public inquiry process on Dalradian’s planning application for a modern, underground, polymetallic mine in Tyrone. This is one of the final steps in Dalradian’s planning process, which started in 2016.

Public inquiry is standard procedure and a critical milestone for regionally significant applications. It will provide another opportunity for the project and its associated social, economic and environmental considerations to be reviewed and scrutinised by independent experts.

Approval of the project will initiate one of the largest-ever US investments in Northern Ireland-- over $1 billion to develop and operate the project, creating a host of new opportunities for Tyrone, including jobs and community development.

**READ ON HERE**

**PUBLIC INQUIRY SCHEDULE**

20th March – Pre-Inquiry Meeting

17th May – Deadline for Statements of Case

14th June – Deadline for Rebuttals

10th September – Inquiry Hearing Begins
In an outreach initiative to make geology more accessible, the British Geological Survey (BGS) has built 5 worlds to explore the UK underground, using real geological data to show what it’s like under the surface.

The five Minecraft worlds are Glasgow, Ingleborough, York, West Thurrock, and Great Britain. To build each of these worlds, the BGS used a number of datasets including 3D geology, elevation models, and topography.

This initiative builds on initial partnerships launched in 2021, for example with the Geological Survey of Sweden (SGU) to launch Minecraft Add-Ons (see here), as well as BGS partnering with students to build a Minecraft world with an active volcano.

Anyone can access and play in these Minecraft worlds, whether you’re teaching geology to students or just want to explore the world yourself!

READ ON HERE
E-Waste World, Europe's leading conference and exposition dedicated to electronics recycling, is returning to Messe Frankfurt in Germany from 26 - 27 June 2024.

Co-located and composed of three separate events (E-Waste World Conference & Expo, Battery Recycling Conference & Expo, and Metal Recycling Conference & Expo), this series allows for valuable multidisciplinary and cross-sector discussion on supply chain security, the e-waste challenge, and advancing towards sustainability and circularity.

The event will provide access to 200+ Exhibitors from around the world at the free-to-attend Expo, 3,000+ attendees, and a 4-stream Conference hosted by 100+ industry experts.

READ ON HERE
Innovation Zero is the UK’s largest Net Zero congress, taking place on 30 April - 1 May 2024 at Olympia, London.

Supported by the UK Government, this free-to-attend event connects more than 12,000 innovators, investors, funders, policymakers, and businesses across multiple sectors and 14 specialised forums-- on energy, finance, transport, infrastructure, technology and more-- to accelerate the transition towards a low carbon economy.

Founder of the Critical Minerals International Alliance (CMIA) Jeff Townsend will be moderating a panel on ‘Delivering Critical Minerals Resilience’ alongside the Rt Hon Baroness Northover, Rt Hon Alexander Stafford MP and Simon Pople.

Register for free before 1 April [here](#)
The Geological Society has resided in Burlington House in central London since it was founded in 1874, and represents melting pot of ideas sharing around earth sciences. Burlington House itself is a prestigious venue in the heart of Mayfair, and is open to event hire.

Operating as a flexible venue that accommodates a wide range of events, from small in-person meetings to larger hybrid conferences, the Geological Society is a beautiful, Grade II* listed venue with elegant interiors and iconic views over London’s Piccadilly.

The Geological Society offers 7 versatile spaces within their venue, including 2 libraries. Each space can be hired individually or as a breakout space for larger events.
The following news articles from Argus Media, Mining Weekly, Mining Magazine, Financial Times, and others, provide an overview of critical mineral mining for:

- Cobalt
- Copper
- Graphite
- Lithium
- Nickel
- Manganese
- Rare Earth Elements
- Tin
- Tungsten
- Vanadium

The Critical Minerals Association (UK) takes no credit for any articles and makes no endorsement of any of the content.
Cobalt

**Africa**
- **DRC: Gecamines [14.02.24]**
  - Gecamines bids for Eurasian Resources Group’s (ERG) copper and cobalt assets in the Congo
  - [Read the article here.](#)
- **DRC: Gecamines [20.02.24]**
  - State miner seeking to overhaul joint ventures, negotiate for higher stakes, and leverage existing shareholdings in mines to secure off-take deals.
  - [Read the article here.](#)
- **Zambia: Kobaloni Energy [15.02.24]**
  - African Finance Corporation to provide $100m in financing for Kobaloni’s planned cobalt sulphate refinery facility, the first on the continent.
  - [Read the article here.](#)

**Asia**
- **Indonesia [23.02.24]**
  - Increased investment into and output from DRC & Indonesia predicted to support global cobalt supply growth by 6.5% in 2024.
  - [Read the article here.](#)

**Oceania**
- **Australia: Cobalt Blue Holdings Ltd. [26.02.24]**
  - CBH ponders potential partnership with leading Japanese multinational company Iwatani Corporation to develop Broken Hill Cobalt Project.
  - [Read the article here.](#)
Copper

• Asia
  ○ India: Adani Enterprises [05.02.24]
    ▪ Adani subsidiary Kutch Copper advances with $1.2b refinery in Mundra, Gujurat, poised to be the world’s largest single-location copper manufacturing plant.
      ▪ Read the article here.

• Africa
  ○ Zambia: KoBold Metals [06.02.24]
    ▪ California-based exploration company supported by investors Bill Gates and Jeff Bezos seeks to catalyse development of $2bn high-grade copper mine.
      ▪ Read the article here.

• North America
  ○ USA: American Pacific Mining [06.02.24]
    ▪ APM announces termination of earn-in deal with Rio Tinto for Madison Mine project in Montana.
      ▪ Read the article here.

• Oceania
  ○ Australia: Hillgrove Resources [13.02.24]
    ▪ First batch of copper concentrate is produced at Kanmantoo mine in Adelaide, South Australia.
      ▪ Read the article here.

• South America
  ○ Peru: Antamina [19.02.24]
    ▪ Largest copper-zine mine in the country granted green light for $2b expansion that will extend operation’s production from 2028 to 2036.
      ▪ Read the article here.
Graphite

• Asia
  ○ Kazakhstan: Sarytogan Graphite [26.02.24]
    ▪ Sarytogan eyes Kazakhstan mining pit after more high-grade graphite results at its namesake project
    ▪ [Read the article here.]
  ○ South Korea: Posco [23.02.24]
    ▪ Posco to import graphite from Africa following China's tightening of export rules for graphite in December.
    ▪ [Read the article here.]

• North America
  ○ Canada: Nouveau Monde Graphite [16.02.24]
    ▪ Panasonic signs offtake deal for 18k tonnes of active anode material, aiding in development of NMG’s Matawinie Mine & Bécancour Battery Material Plant.
    ▪ [Read the article here.]

• Oceania
  ○ Australia: International Graphite [12.02.24]
    ▪ Wet commissioning of new 200 tpa graphite micronising plant in Western Australia commences, marking a milestone for domestic graphite industry.
    ▪ [Read the article here.]
Lithium

• Asia
  ○ India [05.02.24]
    ▪ Indian Government announces discovery of 5.9m tonnes of inferred lithium ore in the Salal-Haimna areas of Reasi district, Jammu & Kashmir.
    ▪ [Read the article here.]

• North America
  ○ Canada: Forza Lithium [01.02.24]
    ▪ Forza enters definitive share purchase deal of C$1.22m to buy Planet Green Metals, marking significant expansion of its lithium asset portfolio.
    ▪ [Read the article here.]

  ○ Canada: Midas Minerals [05.02.23]
    ▪ Midas expands lithium portfolio with acquisition of Greenbush and Barbara Lake projects in Ontario.
    ▪ [Read the article here.]

  ○ United States: Piedmont Lithium [06.02.24]
    ▪ Piedmont makes 27% of its workforce redundant as falling lithium prices force mining companies to cut production and save costs.
    ▪ [Read the article here.]

• South America
  ○ Brazil: Sigma Lithium [14.02.24]
    ▪ Brazilian Development Bank (BNDES) to invest $100m in plant owned by Canada-based global lithium producer.
    ▪ [Read the article here.]
Manganese

• Africa
  ◦ Cote d’Ivoire: Mako Gold [13.02.24]
    ▪ Mako identifies several new multi-kilometre manganese-rich zones following geological mapping and rock chip sampling program at Korhogo Project.
    ▪ Read the article here.

• Europe
  ◦ Belgium: Vibrantz Technologies [26.02.24]
    ▪ Vibrantz’s demonstrates ultra-low carbon footprint with life cycle assessment for its battery-grade manganese sulfate monohydrate.
    ▪ Read the article here.

• North America
  ◦ USA: South32 X [15.02.24]
    ▪ Company secures approval to spend $2.16bn to develop manganese-zinc-lead-silver deposit at the Hermosa project, located in a mining district in the Patagonia Mountains of southern Arizona.
    ▪ Read the article here.

• Oceania
  ◦ Australia: Element 25 Ltd. [31.01.24]
    ▪ Element 25 to begin detailed design, planning and procurement to expand manganese ore production at its Butcherbird Mine.
    ▪ Read the article here.
Nickel

• North America
  ○ Canada: Canada Nickel [09.02.24]
    ▪ Subsidiary NetZero Metals seeks $1bn to construct nickel processing facility in Timmins Nickel District, set to be largest in North America with 80,000tpa.
      ▪ Read the article here.

• Oceania
  ○ Australia [16.02.24]
    ▪ Government adds nickel to critical minerals list, allowing industry to access $3.9bn stimulus fund.
      ▪ Read the article here.

  ○ Australia: BHP Group [16.02.24]
    ▪ BHP to shut down Nickel West operations in Western Australia due to falling nickel prices.
      ▪ Read the article here.

  ○ France: Glencore [12.02.24]
    ▪ Glencore plans to close and sell stake in Koniambo Nickel project in New Caledonia, having failed to turn a profit for the past decade.
      ▪ Read the article here.

• South America
  ○ Brazil: BHP Group [15.02.24]
    ▪ BHP to pay $3.2b in impairment costs for Samarco dam failure following federal ruling, as well as $2.5b in impairment charge for its nickel assets.
      ▪ Read the article here.
Rare Earth Elements

• North America
  ○ USA: American Rare Earths [26.02.24]
    ▪ ARE secures firm commitments to raise A$13.5m through placement of 45 million new shares to support Halleck Creek Rare Earths Project.
    ▪ Read the article here.

  ○ USA: Department of Energy [16.02.24]
    ▪ $17m fund allocated for 3 projects aimed at establishing facilities to produce REEs and other critical minerals from coal-based resources.
    ▪ Read the article here.

• Oceania
  ○ Australia: BMG Resources [08.02.24]
    ▪ BMG acquires 90% stake in 3 exploration licences in West Arunta region of Western Australia, known for its niobium-REE potential.
    ▪ Read the article here.

  ○ Australia: Hasting Technology Metals [16.02.24]
    ▪ Hastings collaborates with Baotou Sky Rock Rare Earth New Material to improve financial financial of Yangibana Rare Earths Project
    ▪ Read the article here.

  ○ Australia: Lynas Rare Earths [05.02.24]
    ▪ Largest rare earths producer outside China ends confidential talks on potential merger with MP Materials, largest US-based rare earths company.
    ▪ Read the article here.
Tin

• Asia
  ○ Indonesia [21.02.24]
    ▪ Indonesia's exports of refined tin 'all but evaporate' in January with just 400 metric tons shipped abroad by world's largest exporter, all in the form of solder.
    ▪ Read the article here.

• Europe
  ○ UK: Cornish Metals Inc [05.02.24]
    ▪ CEO Richard Williams outlines upcoming milestones following completion of dewatering, including reaching 195-fathom level pump station by March and installing new pump station.
    ▪ Read the article here.

Tungsten

• Africa
  ○ Namibia: TotalEnergies [06.02.24]
    ▪ TotalEnergies signs binding agreement and creates joint venture with Vantage Drilling International to acquire 75% stake in Tungsten Explorer drillship.
    ▪ Read the article here.

• Europe
  ○ Spain: Saloro [26.02.24]
    ▪ Introduction of X-ray transmission sorting at Saloro’s tungsten mine sets bold precedent, achieving high-grade feed and stock savings.
    ▪ Read the article here.
Vanadium

• North America
  ◦ Canada: Great Republic Mining [15.02.24]
    ▪ Historic gold mine site drawing attention for its potential vanadium resources, with Canadian junior GRM poised to test its potential.
    ▪ Read the article here.

  ◦ USA: Oregon State University [12.02.24]
    ▪ Research demonstrates ability of vanadium peroxide to react with and bind with carbon dioxide, posing as a potential new carbon capture technology.
    ▪ Read the article here.

• Oceania
  ◦ Australia: Australian Vanadium [20.02.24]
    ▪ Merger between Australian Vanadium and Technology Metals Australia to enable strategic advancement of combined vanadium assets.
    ▪ Read the article here.

  ◦ Australia: Idemitsu Australia [22.02.24]
    ▪ Townsville set to become hub for vanadium flow battery production with a recent agreement between Idemitsu Australia, Sumitomo Electric Industries and Vecco Group.
    ▪ Read the article here.
EVENTS CALENDAR

MARCH

- Prospectors & Developers Association of Canada (PDAC) | PDAC 2024 | MTCC, Toronto, Canada | 3 - 6 March
  - Register here

- Society of Motor Manufacturers and Traders (SMMT) | SMMT Connected 2024 | QEII Centre, London, UK | 14 March
  - Register here

- Wood Mackenzie | Facing Future Commodities Forum 2024 | Virtual | 27 March
  - Register here

APRIL

- IOM3 | PVC 2024 | Edinburgh International Conference Centre, UK | 15 - 18 April
  - Register here

- Clean Tech Events Ltd | Innovation Zero 2024 | Olympia London, UK | 30 April - 1 March
  - Register here

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Interested in upcoming events?
Contact eileen@criticalmineral.org