CMA ESG PAPER LAUNCH - 12 JULY AT 14:00 BST
PARLIAMENT ENVIRONMENTAL AUDIT SELECT COMMITTEE: CMA GIVES ORAL EVIDENCE
MKANGO TO CREATE EUROPEAN RARE EARTHS HUB
CORNISH METALS UPDATED MINERAL RESOURCE
ROSKILL NEW OWNER - WOOD MACKENZIE
WELCOMING OUR NEWEST MEMBER CIRCULOR
Welcome to our June Critical Minerals Association monthly newsletter & updates on the critical minerals space.

Read on for:

- CMA ESG Paper Launch: A Blueprint for Responsible Sourcing of Critical Minerals
- Press Release: CMA Gives Oral Evidence for Parliament Environmental Audit Select Committee
- CMA G7 Event Highlights: The Importance of Mining to Society
- Welcoming our Newest Member - Circulor!
- The Briefcase of Mineral Applications - Interview with Dr Miho Taka
- Industry Insight - Sustainability Analyst, Interview with Oliver Heathman, Roskill
- Mkango to Create European Rare Earths Hub in Poland with Grupa Azoty Pulawy
- Latest Updates from Minviro
- Cornish Metals Releases Updated Mineral Resource Estimate for South Crofty Tin Mine
- Cornish Lithium Raises £6M in New Crowdfunding Raise
- Circulor Secures $14M in Series A Funding
- Wood Mackenzie Expands Energy Transition Expertise with Acquisition of Roskill
- CMA - This is Us: Olimpia Pilch & James Blight
- Critical Mineral News
- NatGeo: In Cornwall, Ruinous Tin and Copper Mines are Yielding Battery-grade Lithium.
- SRK: Rethinking Mine Waste Will Bring Unexpected Benefits
- Lucy Crane - The Geologist Prospecting for a Greener Future
- Met4Tech Event: Regulatory Challenges in Creating Circular Economy for Techmetals

This month's newsletter has been put together by Olimpia Pilch, CMA's Business Development & Communications Associate!

Kirsty & Jeff

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Got a suggestion? Want to feature in next month's newsletter? Contact olimpia@criticalmineral.org

Want to learn more? Check out our website: https://www.criticalmineral.org/ & follow us on twitter @CMA_Minerals
CMA is proud to announce the launch of our Environmental, Social & Governance (ESG) paper ‘Enabling UK’s Green Energy Transition: A Blueprint for Responsible Sourcing of Critical Minerals’.

Join us at the virtual launch on Monday 12th July at 14:00 BST as our panel of experts will discuss the proposed blueprint and how the UK Government can collaborate with industry to deliver the green energy transition in a just way.

REGISTER HERE
CMA's Jeff Townsend gave oral evidence for the Environmental Audit Committee on **Wednesday 16 June 2021**.

Speaking to the Committee’s Parliamentary members, Jeff outlined the challenges faced by the UK in relation to current global market trends and proposed a number of actions the UK and its government needs to take to ensure the UK is viewed as competitive regionally, in the global race to the new green economy.

Speaking during the inquiry Jeff said:

“[ESG compliant] extraction of minerals is the foundation of the solution to the environmental crisis.”

**READ PRESS RELEASE HERE**

**WE ARE QUESTIONING**

**Industry experts**

**on actions needed to establish and support a battery electric vehicles UK supply chain**

Watch live on Wednesday 16 June at 2.30pm
CMA G7 Event Highlights: Importance of Mining to Society

The Critical Minerals Association is delighted to have hosted the G7 Event, "Importance of Mining to Society', on 11th June. The in-person event took place at Cornwall House in Falmouth. The event was moderated by Jeff Townsend, Co-founder of CMA. Our speakers were:

- Lucy Crane, Chair of CMA Perception of Mining Group, Senior Geologist at Cornish Lithium
- John Murray, Founding Principal of Swann Group

The event highlighted mining's key role in delivering the green energy transition and presented the challenges that lie ahead.

HIGHLIGHTS & RECORDING HERE

Join the Critical Minerals Association in Falmouth at the G7 Event:

- Jeff Townsend, Co-founder of CMA
- Lucy Crane, Senior Geologist, Cornish Lithium
- John Murray, Founding Principal of Swann Group

FRI, 11 JUNE @ 10AM BST
Cornwall House, Falmouth & LIVESTREAM
The Critical Minerals Association is delighted to welcome our newest member – Circulor!

Circulor’s platform tracks raw materials from source, into components and finally to finished products, helping manufacturers and their suppliers build a sustainable future. It can also ensure closed loop recycling of electronics and prove the recycling or disposal process is conducted responsibly. Circulor recently raised $14m in Series A funding to accelerate the company’s rapid growth.

Congratulations & welcome to the Group!

Q&A Session with Veera Johnson, Co-founder of Circulor

We recently caught up with Veera Johnson, Co-founder of Circulor, a traceability-as-a-service provider for the extractive, recycling, agriculture and forestry industries.

Within supply chains, Circulor’s technologies verify claims of responsible sourcing and sustainable production.

READ Q&A HERE
Chairs of the CMA’s Perception of Mining Group Lucy Crane & Ben Lepley interviewed Dr Miho Taka, Assistant Professor in Peacebuilding at the Coventry University Centre for Trust, Peace and Social Relations. Her particular subject of interest is the governance of minerals and mining in relation to both sustainability and social conflicts. Supported by EIT RawMaterials Academy, The Briefcase of Mineral Applications game tests your knowledge of the minerals needed in everyday objects.

HIGHLIGHTS & RECORDING HERE

TRY OUT THE BRIEFCASE HERE
Mkango Resources Ltd announced that Mkango and Grupa Azoty Zakłady Azotowe “Pulawy” S.A. have agreed to work together towards development of a rare earth separation plant in Poland.

Development of the Plant is expected to bring significant benefits to the Mkango group:

- Higher value-added products with increased margins – targeting 2,000 tonnes per year of separated neodymium (Nd) / praseodymium (Pr) oxides, and 50 tonnes per year dysprosium (Dy) and terbium (Tb) oxides in a heavy rare earth enriched carbonate.
- Greater integration – plant development fully underpinned by sustainably sourced, purified mixed rare earth carbonate from Mkango’s Songwe Hill operations, with other synergies being evaluated.
- Increased marketing flexibility with a broader range of potential customers – future opportunities to produce and market separated heavy rare earths.
- Catalyst for regional growth and the green transition – potential for further downstream developments and related businesses, including renewables, creating additional jobs in the region.
Co-chairs of the CMA’s Perception of Mining Group Lucy Crane & Ben Lepley interviewed Oliver Heathman, Sustainability and Cost Analysis Manager at Roskill.

The interview examines the current demand context for critical raw materials and electric vehicle trends, how the industry is responding to the challenges in meeting this demand, and what this means for jobs in the critical resources industry. Oliver Heathman discusses his role at Roskill, a commodity consultancy which evaluates critical mineral supply chains from the resource discovery, through to the mining, refining and eventually to the consumption of those materials.
Minviro have been hard at work providing Life Cycle Assessments (LCAs) to international projects. Here are some recent highlights:

**European Metals selected Minviro as LCA practitioner for Cinovec lithium project in the Czech Republic.** Minviro will provide an ISO-compliant LCA for the entire Cinovec lithium/tin project. [READ ON HERE.](#)

**American Lithium provides update on its Plan of Operations for Tonopah Lithium Claims Project in Nevada.** American Lithium Corp has used and is retaining Minviro to provide life cycle impact insights for different flowsheet configurations to minimise environmental impact. [READ ON HERE.](#)

**Leading Edge Materials Announces Preliminary Life Cycle Assessment Results on Woxna Graphite Project** Leading Edge Materials published results of Minviro's LCA work on their Woxna graphite anode material project and two Chinese natural and synthetic graphite anode production routes. [READ ON HERE.](#)
Richard Williams, CEO of Cornish Metals, stated, “We are very pleased with the outcome of this new Mineral Resource Estimate, which shows a material increase in both tonnage and contained tin in the ground at South Crofty. Following on from our successful surface drilling campaign in 2020, where we intersected high-grade tin mineralisation below the historical workings, this new Mineral Resource Estimate confirms our belief in the resource expansion potential at South Crofty.

“Coming at a time when governments around the world are increasingly focussed on reducing carbon emissions, enhancing security of supply of critical minerals, investing in technology and developing the green economy, this is a further demonstration that Cornwall has the potential to become a significant tin producer once again and make a valuable contribution to providing the responsibly sourced technology metals that we need to meet our climate change goals.”

<table>
<thead>
<tr>
<th>Area</th>
<th>Classification</th>
<th>Mass (000’ tonnes)</th>
<th>Grade</th>
<th>Contained Tin / Tin Equivalent (000’ tonnes)</th>
<th>Increase in contained Tin / Tin equivalent from 2016 MRE</th>
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<tbody>
<tr>
<td>Lower</td>
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<tr>
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<td>3</td>
<td>9.5%</td>
</tr>
<tr>
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<td>Inferred</td>
<td>493</td>
<td>0.93% SnEq</td>
<td>5</td>
<td>8.0%</td>
</tr>
</tbody>
</table>
Cornish Lithium has successfully completed a crowdfunding campaign on Crowdcube raising £6 million to progress its geothermal and hard rock projects in Cornwall and to create additional value for shareholders. The Company opened up the opportunity to pre-registered investors and raised its £6 million target within 20 minutes.

Jeremy Wrathall, CEO & Founder of Cornish Lithium, said: “We are delighted with the support we have received to date for our latest crowdfunding round. The additional funding will be used to continue the progress towards our goal of creating a battery metals hub for the UK. We have made significant advances since our last fundraising on Crowdcube, on both our geothermal and hard rock workstreams. We have also continued to attract Government support with additional funding grants being made as well as receiving our offshore exploration licences from the Crown Estate.”
Circulor, the leading provider of supply chain traceability and dynamic CO2 tracking closed $14m in Series A funding to accelerate the company’s rapid growth.

Circulor will use the investment to drive ongoing innovation and extend its presence in North America and Asia. The investment highlights Circulor’s success in enabling global businesses, including Volvo Cars, Polestar, BHP, and LG Energy Solutions, to track and manage their supply chains, support responsible sourcing, analyse supply chain emissions, and improve sustainability.

Douglas Johnson-Poenzgen, CEO of Circulor, said: “We are on a mission to make the world’s most complex industrial supply chains more transparent, and help prevent the exploitation of people and our planet. Traceability-as-a-Service is fast becoming a requirement for the world’s leading brands and this funding will help us accelerate our impact and revenue growth.”

Veera Johnson, Co-Founder of Circulor, who will chair Circulor’s Advisory Board, said: “We are looking forward to working even more strategically with our investors and industry leaders to extend our capabilities and market presence in order to consolidate and enhance our position as the leader in sustainable supply chain traceability.”
Neal Anderson, President of Wood Mackenzie, commented: “Combining Roskill’s capabilities with Wood Mackenzie reinforces our ability to provide comprehensive, integrated analysis across the energy, and metals and mining value chain. In particular, Roskill adds market-leading analysis, data, and insight on battery raw materials metals, which are an integral component of the energy transition.”

Wood Mackenzie, a Verisk business, also announced that Valerie Purvis has expanded her leadership remit and will be assuming the role of Global Head of Metals & Mining, including Roskill. This appointment is in addition to Valerie’s current responsibility as Global Head of the Chemicals business, which she has successfully led for the last three years.

Valerie joined Wood Mackenzie as a research analyst in 1999 and, following an eight-year career outside of the business, returned in 2014 where she held a variety of roles before taking on the leadership of the Chemicals business. She is also a member of Verisk’s Inclusion, Diversity & Belonging Leadership Council.
There are many fantastic people, working hard behind the scenes, involved in all aspects of CMA. Each month, we will be bringing new faces into the spotlight!

This month's spotlight goes to Olimpia Pilch, Business Development & Communications Associate at CMA and James Blight, Senior Geologist at Cornwall Resources.

Olimpia Pilch

Business Development & Communications Associate, Critical Minerals Association

BSc (Hons) Geology from Durham University & MSc Exploration Geology from Camborne School of Mines

James Blight

Perception of Mining Working Group, Critical Minerals Association

MSc in Applied Geology & PhD in Geology from University of Leicester

Senior Geologist at Cornwall Resources
Critical Minerals News

The following May news articles from Argus Media, Mining Weekly, Mining.com, Proactive Investors, Roskill and others, provide an overview of critical mineral mining for:

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

*The Critical Minerals Association takes no credit for any articles and makes no endorsement of any of the content.*
**Critical Minerals**

- **Global [29.6.21]**
  - The Australian government has partnered with the US and Canada to develop a new critical minerals dataset in and around ore deposits, with more than 7000 mineral samples from over 60 countries.

- **Europe [27.6.21]**
  - Whether it’s cobalt, lithium, nickel, zinc, copper or tin, European mining companies now wonder whether, it makes sense to start digging up Europe’s own backyard, rather than relying so heavily on minerals and metals from the world beyond.

- **North America**
  - **Canada: Rio Tinto [17.6.21]**
    - UK-Australian mining firm Rio Tinto has started operations at the newly constructed scandium oxide commercial demonstration plant at its Fer et Titane metallurgical complex in Quebec.

- **USA [16.6.21]**
  - The Biden administration is moving rapidly to make up for lost time after Donald Trump’s lack of action relegated Washington to following the EU’s initiatives on mining supply chain transparency for tin, tantalum, tungsten and gold.
Electric Vehicles

• Asia
  ○ China: Sinopec [11.6.21]
    - Chinese state-controlled refiner Sinopec has signed a strategic cooperation framework agreement with domestic property developer Evergrande Group to develop infrastructure for new energy vehicles.

• Europe
  ○ Sweden: Northvolt [9.6.21]
    - Swedish battery producer Northvolt is expanding its plans for a gigafactory in Sweden because of increased demand for offtake agreements from European carmakers and extra investment from a consortium of Swedish pension funds.

  ○ UK: Nissan [28.6.21]
    - Nissan is to announce a major expansion of battery production in Sunderland creating thousands of new jobs both directly and in the supply chain.
Environmental, Social & Governance (ESG)

• **Global [8.6.21]**
  - Mining companies with higher environmental, social and governance (ESG) ratings outperformed the broader market during the peak of the Covid-19 crisis, delivering 34% average total shareholder return over the past three years — ten percentage points higher than the general market index, PwC Africa mining leader Andries Rossouw said on Tuesday.

• **Africa**
  - **DRC [24.6.21]**
    - The issues of child labour, hazardous working conditions and unfair remuneration within the Democratic Republic of Congo’s artisanal and small scale mining sector will not be solved by simply avoiding the DRC and choosing not to buy cobalt that originates from the country.
  - **South Africa [30.6.21]**
    - Impact Catalyst in the Northern Cape, launched virtually on June 30, saw organisations from across the private and public sectors join hands to catalyse socioeconomic impact in both the province and across South Africa.
Cobalt

- **Global [18.6.21]**
  - Cobalt is critical for worldwide electric mobility.
  - [https://www.whyafrica.co.za/cobalt-is-critical-for-worldwide-electric-mobility/](https://www.whyafrica.co.za/cobalt-is-critical-for-worldwide-electric-mobility/)

- **Asia**
  - **China: GEM [18.6.21]**
    - Major Chinese cobalt producer GEM Jiangsu has resumed its metal production after suspending output for two months.

- **North America**
  - **USA: Jervois Mining [21.6.21]**
    - Development of the first significant cobalt producing mine in the US is 37pc complete with initial mining expected in the second quarter of 2022 as part of a vertically integrated cobalt supply chain.

  - **USA: First Cobalt [24.6.21]**
    - First Cobalt (TSX-V: FCC) has commenced a $2.5 million exploration program at its Iron Creek cobalt-copper project in the United States.
Copper

• Global
  ○ Finch Solutions [28.6.21]
    ▪ Copper will experience a surge in demand over 2021-2030, earning a spot on market analyst Fitch Solutions’ list of commodities of the future.

• Asia
  ○ Uzbekistan [30.6.21]
    ▪ On Tuesday, Jun. 29 Uzbek president’s press service stated that Uzbekistan plans to raise yearly copper output from the actual 148,000 tons to 400,000 tons in five years to fulfill increasing worldwide demand.
    ▪ https://menafn.com/1102367504/Uzbekistan-to-increase-copper-output&amp;source=30

• Europe
  ○ UK: LME [17.6.21]
    ▪ Copper: LME cash prices plunge as China curbs inflationary pressures.

• Oceania
  ○ Australia: Thor Mining [29.6.21]
    ▪ The directors of Thor Mining Plc have advised of positive preliminary internal copper results from early stages of diamond drilling at Alford East Copper-Gold Project, South Australia.
Graphite

• Africa
  ○ Madagascar: Tirupati Graphite [29.6.21]
    ▪ Fully integrated, natural and specialty graphite and graphene company Tirupati Graphite is progressing work to increase its overall capacity to 84,000 t/y by 2024.

• Asia
  ○ India: BlackEarth [21.6.21]
    ▪ Under the terms of the agreement, BlackEarth would sell up to 2,500 t/y of expandable graphite valued at around $7.5-million a year, from a proposed new expandable graphite plant in India.
    ▪ [https://www.miningweekly.com/article/blackearth-signs-first-offtake-for-indian-project-2021-06-21](https://www.miningweekly.com/article/blackearth-signs-first-offtake-for-indian-project-2021-06-21)

• Europe
  ○ Norway: Skaland Graphite [11.6.21]
    ▪ Mineral Commodities has started mining operations at the Trælen graphite mine, in Norway, through its 90%-held subsidiary Skaland Graphite.

• Oceania
  ○ Australia: [4.6.21]
    ▪ Australia-based developers are seeking to plug the growing supply gap in the global graphite market.
• Europe
  ○ Spain: Infinity Lithium [28.6.21]
    ▪ Australian developer Infinity Lithium has agreed an initial deal with South Korean battery producer LG Energy Solution for future lithium hydroxide supplies from its San Jose project in Spain.

  ○ UK [16.6.21]
    ▪ Cornwall China clay could offer a new source of the lithium vital to the United Kingdom's transition to a zero-carbon economy.

• Asia
  ○ China: Minmetals [3.6.21]
    ▪ Minmetals Salt Lake, subsidiary of Minmetals Group, announced a technological breakthrough in direct lithium extraction on Tuesday, 1 June.

• Middle East
  ○ Saudia Arabia [7.6.21]
    ▪ Research investigating the extraction of lithium from seawater, reported by the King Abdullah University of Science and Technology in Saudi Arabia, in the Royal Society of Chemistry 2021 Journal, has indicated that the process could be an economic source of lithium.
Manganese

• Africa

○ Botswana: Giyani Metals [17.6.21]
  - Giyani Metals reports that the preliminary results from metallurgical test work, undertaken by Mintek, carried out at its Botswana-based K.Hill manganese project shows a high-purity manganese sulphate monohydrate (HPMSM) with less than 1% total impurity and manganese content of more than 31.5%.
  - [https://www.miningweekly.com/article/khill-metallurgical-results-point-to-high-purity-manganese-2021-06-17](https://www.miningweekly.com/article/khill-metallurgical-results-point-to-high-purity-manganese-2021-06-17)

○ Botswana: Bezant Resources [24.6.21]
  - Bezant Resources PLC said Thursday that it has located and sampled up to four historic manganese occurrences at its Kanye project in Botswana.
  - [https://www.marketwatch.com/story/bezant-resources-says-sampling-at-botswana-project-suggests-high-grade-manganese-deposits-271624521972](https://www.marketwatch.com/story/bezant-resources-says-sampling-at-botswana-project-suggests-high-grade-manganese-deposits-271624521972)

• Europe

○ Czech Republic: Euro Manganese [18.6.21]
  - Euro Manganese, a Vancouver-based battery materials company, has announced plans to restart its pilot plant for the production of high-purity manganese samples for prospective customers, primarily in Europe.

• USA [14.6.21]
  - White House highlights manganese as potential preferred battery element contender.
Nickel

• Global [3.6.21]
  - Nickel-rich cathodes expected to dominate EV batteries by end of the decade.

• Asia
  - Indonesia: Tsingshan [25.6.21]
    - Nickel Sulphate, Sustainability: The carbon cost of Tsingshan’s NPI to nickel matte refining route.

• Oceania
  - Australia: Queensland Pacific [11.6.21]
    - Nickel, cobalt: Australian Queensland Pacific Metals secures investment and offtake for Ni-Co project.

• North America
  - Canada: Vale [17.6.21]
    - Vale has announced that it has mined the first ore from its Reid Brook deposit as part of the Voisey’s Bay Expansion Project in Northern Labrador, Canada.
**Tin**

- **Global [29.6.21]**
  - Tin price at close to ten year highs, on back of electronics and renewables demand.

- **Asia**
  - **Malaysia [16.6.21]**
    - The Kuala Lumpur Tin Market (KLTM) halted trading indefinitely on 9th June 2021, following the suspension of Malaysia Smelting Corporation Berhad’s (MSC) operations during the Malaysian Government’s movement control order (MCO). MSC issued a notice of force majeure on the 7th June 2021 as a result of the MCO, with production expected to return once the MCO ceases, initially expected on the 14th June 2021.
Tungsten

• Europe
  ○ Germany: BMW [18.6.21]
    ■ BMW unveiled a new plan to deal with tungsten better in the future, aiming to cut CO2 emissions from using it by 60% and the energy consumption by 70%. Starting this month, BMW will start collecting scrap tungsten from its plants and recycle it.
    ■ [https://www.bmwblog.com/2021/06/18/bmw-unveils-new-tungsten-recycling-program-60-co2-emissions-cut/](https://www.bmwblog.com/2021/06/18/bmw-unveils-new-tungsten-recycling-program-60-co2-emissions-cut/)

  ○ UK: Tungsten West [19.6.21]
    ■ Tungsten West Ltd, which bought the mine out of receivership for £2.8m in 2019, is confident of raising the cash and ramping up production at what is the western hemisphere’s second largest tungsten reserve.

• Oceania
  ○ Australia: Thor Mining [3.6.21]
    ■ Thor Mining said it was awarded a A$110,000 (£60,000) grant for its Molyhil tungsten-molybdenum project from the Northern Territory Government of Australia.
    ■ [https://www.proactiveinvestors.co.uk/companies/news/951275/thor-mining-gets-a110000grant-for-its-molyhil-tungsten-molybdenum-project-951275.html](https://www.proactiveinvestors.co.uk/companies/news/951275/thor-mining-gets-a110000grant-for-its-molyhil-tungsten-molybdenum-project-951275.html)
Rare Earth Elements

• Africa
  ○ South Africa: Rainbow Rare Earths [30.6.21]
    ▪ The gypsum dumps – built up from half a century of hard rock phosphate mining near Phalaborwa, in Limpopo – contain rare earths needed by a fast greening world.

• Europe
  ○ UK: Pensana [29.6.21]
    ▪ The Foreign Policy Research Institute (FPRI), a US headquartered think tank, has named Pensana among the companies and developments critical to creating a sustainable global rare earth supply chain independent of China.

• North America
  ○ USA [15.6.21]
    ▪ The US Department of Commerce is set to evaluate whether or not the imports of rare earth permanent magnets, largely derived from China, poses a national security threat that would warrant the imposition of trade tariffs under section 232 of a 1962 trade law.
As one of the largest contributors of the country’s waste, South African mines should be re-thinking their usual linear approach in managing residues. Beyond improving their environmental and social impact, they may be surprised by the economic benefits.

The potential environmental impacts of mining residues have long been recognised by mine operators and regulators. South African legislation now guides and assists mines in managing impacts through the mine life cycle. Indeed, there are not just environmental impacts to consider; real health and safety risks exist – as demonstrated by the 270 fatalities from the 2019 failure of the Brumadinho tailings storage facility in Brazil.
Why the lust for lithium, though? What does this metal have that makes it so crucial in battery production? Lucy Crane is senior geologist at Cornish Lithium. “It is the lightest weight metal, and it has a really high charge density,” she tells National Geographic UK. “In cars, laptops and mobile phones, you need batteries to be lightweight and portable. So lithium-based batteries are key. At the moment, all the battery mega-factories around the world are geared to lithium.”

A highly reactive metal, lithium doesn’t occur freely in the natural world. Although it’s widely distributed in the Earth’s crust and in seawater, it’s only in certain pegmatitic rocks (such as Cornwall’s granite), or in salt brines, that it’s found in a concentrated form. Even then, there are very few deposits where that concentration is high enough to merit commercial extraction.

READ ON HERE
Lucy Crane - The Geologist Prospecting for a Greener Future

As a senior geologist for Cornish Lithium, Crane is on a mission to develop a modern, responsible mining industry that could transform how electric car batteries are produced. The company is developing sustainable ways to extract the sought-after metal – drilling boreholes up to a mile deep, pumping water to the surface where the lithium will be extracted, then returning the water to the geothermals below.

“A lot of people might be surprised to hear that I care about the environment and work in the mining industry,” says Crane. “But to combat the climate crisis we need low-carbon technologies, which means we’ll need to mine more raw materials than we ever have done in the past. I want to be part of the solution, and that starts with thinking much more carefully about the supply chains that produce the stuff that we own and the energy we use.”

READ ON HERE
The UKRI-funded Met4Tech project aims to explore how to create a circular economy for technology metals, such as lithium, cobalt, rare earth elements, and others essential in decarbonisation and digital technologies.

The project will establish an interdisciplinary research centre in order to conduct new interdisciplinary research on key interventions to improve each stage in the cycle and join the different stages of the value chain together such that raw materials can be newly mined and recycled, and manufacturing technology can be linked directly to re-use and recycling.

Confirmed speakers:

- Professor Frances Wall, University of Exeter
- Dr Ana Bastida, University of Dundee
- Andrew Bloodworth, British Geological Survey
- Professor Robert Lee, University of Birmingham
- Taylor Curtis, the National Renewable Energy Laboratory (NREL)
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