

NET ZERO 2023 AMBASSADORS' DAY

Strategic Elements & Critical Materials

19 January 2024 | Birmingham Centre for Strategic Elements and Critical Materials, University of Birmingham
<https://ambassadorsday.org>

Chair of the Day: Sebastian Munden, Chair, WRAP

08.30 – 09.00 Registration and Morning Refreshments

09.00 Opening/ Organiser and Host Welcome

09.00 – 10.30 **Critical Materials for the energy transition - Birmingham Centre for Strategic Elements and Critical Materials:**

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09.10 Why are Materials Critical to the Net Zero transition by **Dr. Gavin Harper**, Critical Materials Research Fellow, UKRI Interdisciplinary Centre for a Circular Economy in Technology Metals & Faraday Institution ReLIB Project & EPSRC TReFCo Project

09.25 Rare Earth Permanent Magnets: From Off-Shore Wind to Electric Motors, Driving the Electric Revolution by **Prof. Allan Walton BSc**, PhD, Professor of Critical and Magnetic Materials, Co-Director of the Birmingham Centre for Strategic Elements and Critical Materials

09.40 What does it take to deliver Zero Emissions Personal Transport by **Prof. Paul Anderson**, Professor of Strategic Elements and Materials Sustainability in the School of Chemistry at the University of Birmingham, and Director and founder of the Birmingham Centre for Strategic Elements and Critical Materials

09.55 Solving the Criticality Challenge through alternative Future Battery Chemistries by **Prof. Emma Kendrick BSc**, MSc, PhD, CChem, FIMMM, FRSC, Professor of Energy Materials, School of Metallurgy and Materials, group lead for the Energy Materials Group, University of Birmingham

10.10 Market Failure: Policy and Legislation Challenges by **Prof. Aleks Cavoski**, Professor of Environmental Law, College Director of Global Engagement, Birmingham Law School, editor-in-chief of the journal Environmental Law Review

10.30 – 11.20 **Panel Discussion: Net Zero Supply Chain**

- Making critical materials value chain sustainable: from mining to production
- Creating sustainable future supply of commodities
- Capacity building in environmental protection
- Climate solutions
- Holistic integration of Net Zero into supply chain
- Mitigating salient risks in supply chain
- Incentivising action among suppliers
- Collaborating with competitors on Net Zero transition: defining the scope, creating supply chain, ensuring adequate supply and demand of greener products and services and ensuring fair standards
- Role of regulations in managing behaviours along the supply chain
- Effective ways of tracking the data along value chain
- Developing comprehensive circular economy for mining and waste

Panelists:

Jeremy Wrathall, Founder & CEO, **Cornish Lithium**

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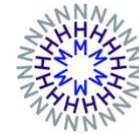
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11.20 - 11.40 *Networking refreshment break (20 mins)*

11.40 – 12.30 **Critical Materials in consumer products, corporate environment and everyday life and impact on environment – Natural History Museum and British Geological Survey**



Natural
History
Museum

Expert presentations and talks from:

Prof. Richard Herrington, Head of Earth Sciences, Natural History Museum

Andrew Bloodworth, Honorary Research Associate, British Geological Survey



British
Geological
Survey

12.30 – 13.20 **Panel Discussion: Net Zero in Manufacturing**

- Green production
- Manufacturing for circularity
- Sustainable innovation and the most promising new manufacturing approaches
- From targets to action
- Using responsibly sourced and easily recyclable materials
- Technology innovations and Environmental solutions
- Lifecycle extensions (Electric Assisted Vehicles Ltd)

Panelists:

Cathy Davis, Technology & Innovation Sustainability Director, BAE Systems

13.20 – 14.10 *Networking Lunch (50 mins)*

14.10 – 15.00 **Improving circularity and sustainability in Critical Materials industry – WRAP**



Expert presentation and talk from:

Keith James, Head of Policy & Insights at WRAP

15.00 – 15.45 **Panel Discussion: Improving Circularity in corporate environment**

- Regulations for Waste Electrical and Electronic Equipment
- Maximising the value and use of resources whilst minimising waste and moving towards a more circular economy
- Identifying pathways for technology circularity

15.45 – 16.30 **Net Zero lessons from other business sectors**

- Effective lessons for reducing scopes 1, 2, 3

Panelists:

Greg Slater, Head of Design, Decarbonisation & Environment, Treveth Holdings LLP

Oscar Benjamin, Head of Sustainability, Brompton Bikes

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Becky Gordon, Regional Sustainability Manager UK, Ireland & The Middle East, Interface

16.30 - 17.00 *Networking refreshment break (20 mins)*

17.00 End of Day

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