

Overview of the UK- Australia Global Expert Mission

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Australia Global Expert Mission

Australia is a leading producer of critical minerals such as lithium, cobalt, and rare earth elements, which are essential for advanced technologies like electric vehicles, renewable energy systems, and consumer electronics.

With abundant reserves and advanced mining capabilities, Australia plays a vital role in the global supply chain for key industries.

Date: 20th to 24th March 2023

Perth, Australia



Our Delegation

- EV Metals UK Limited (part of EV Metals Group)
- Green Lithium
- Less Common Metals Ltd.
- Pensana Plc
- Tees Valley Lithium Ltd.
- WAE Technologies (part of Fortescue Metals Group)
- WMG International Manufacturing Centre, University of Warwick, Coventry, UK
- Critical Minerals Association UK



Australian Stakeholder Organisation

- Altilium Group Ltd.
- ANSTO Minerals
- Ardea Resources Ltd.
- Australia National University
- IGO Ltd.
- International Lithium Association
- Fortescue Future Industries (part of Fortescue Metals Group)
- Future Battery Industries Cooperative Research Centre
- Source Certain
- Queensland Government - Department of Resources
- Government of South Australia – Resources Department
- New South Wales State - Mining Exploration and Geoscience, Department of Resources & Department of Industry, Tourism and Trade,
- The Government of Western Australia
- Western Australia State Critical Minerals Team DJTSI & Department of Mines, Industry Regulation, and Safety
- Sustainable Minerals Institute – The University of Queensland



Commonwealth Scientific and Industrial Research Organisation (CSIRO)

CSIRO works with industry, government, and the research community to turn science into solutions to address Australia's greatest challenges, including food security and quality; sustainable energy and resources; health and wellbeing; resilient and valuable environments; future industries; and a secure Australia and region.

CSIRO is working across the critical minerals' supply/value chain, from exploration to processing and beyond, to maximise Australia's position as a trusted global supplier of critical minerals and ensure success on the path to Net Zero.



PAYDIRT Conference

The conference aims to connect stakeholders from the critical minerals industry worldwide.

It offers in-depth discussions on market outlooks, project development, and the future of the global battery industry.

The event has a strong influence on government and international organisations, has a high-impact and a targeted audience.



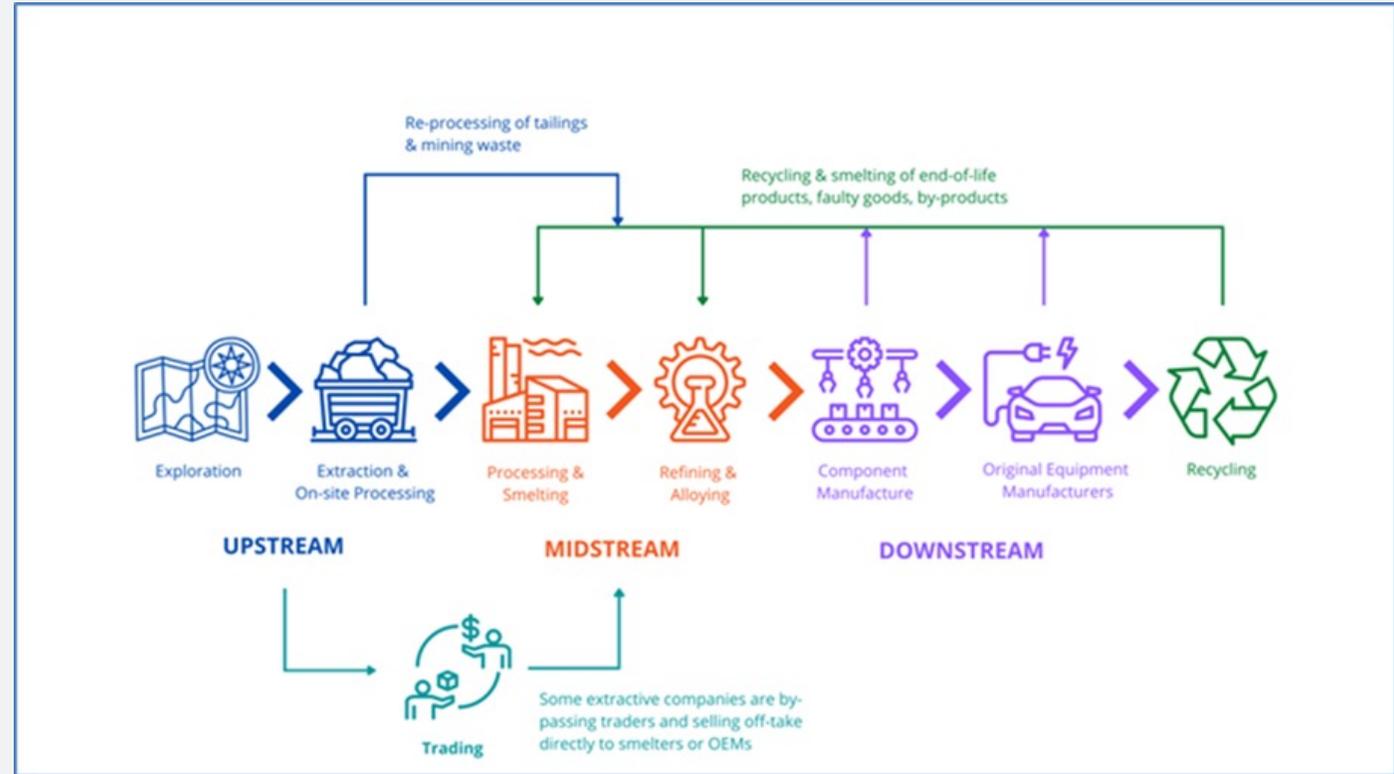
Up stream – Mid stream - Downstream

Critical Mineral Supply/ Value Chain Definitions

Upstream - Activities in the critical minerals sector focused on the exploration and extraction of raw materials.

Midstream - The processing and smelting of raw materials, and the refining and alloying of processed materials.

Downstream - The assembling of refined and alloyed materials in component and original equipment manufacturing.



Key Opportunities for Collaboration



Innovate
UK



**Complementary
upstream to
downstream
expertise**

The UK's strengths and capabilities are chemical processing, alloying and metal refining, component production and OEM finished goods, recycling, clean energy, automation, Industry 4.0, digitisation, AI, and big data/ digital mapping.

Australia's strengths and capabilities are natural ore deposit exploration, ore extraction mining and on-site ore processing, shipping of bulk ore and ESG.

Opportunities to share early-stage research and scale-up facilities

Australian R&D initiatives in battery technology, such as the Future Battery Industries Cooperative Research Centre FBC, can access UK facilities and expertise not available in Australia through collaboration or subcontracting



UK Battery Innovation Centre (UKBIC)



Achieving Supply chain transparency

The application of 'big data' digital mapping, artificial intelligence (AI) and ESG principles can contribute to achieving EV battery supply chain transparency between the UK and AUS by enhancing data collection and analysis, traceability and certification, stakeholder engagement, and collaborative efforts.

The UK has a clear lead in ESG consultancy services and seeks targeted support to build ESG-focused relationships with the Australian mining sector.

Bilateral R&D programme

Critical mineral ore processing.

Development of new battery and magnet technologies.

Support to share complimentary expertise, particularly in upstream and downstream processing.

Support to share early-stage research and scale-up facilities.

Support for supply chain by enhancing data collection and analysis, traceability and certification.

Key Challenges to Collaboration Opportunities



**Intense
Global
competition**



**Awareness of
the UK
capabilities
need to
improve**



**Restrictive
Trade Act is
diverting
focus towards
the USA**

