

The Scramble for Critical Minerals

International conference – 26th to 27th November 2025, Clermont-Ferrand, France

Organized by FERDI, CERDI (UCA, CNRS, IRD) and the University of Oxford

📍 [FERDI, 63 Boulevard François Mitterrand, 63000 Clermont-Ferrand](#)

Background and context

The world is experiencing a renewed global scramble for critical minerals—strategic resources such as lithium, cobalt, nickel, and rare earth elements that are indispensable to both the energy and digital transitions. These minerals power batteries, semiconductors, and clean-energy technologies fundamental to low-carbon development. As demand accelerates, major economic powers are competing to secure access to deposits that are heavily concentrated in developing economies.

This competition is reshaping the global political economy in ways reminiscent of the nineteenth-century race for raw materials, but it is unfolding amid sharper geopolitical tensions, technological uncertainties, and mounting environmental pressures. China currently dominates large segments of the critical-minerals value chain, from extraction to processing, accounting for between 60 and 80 percent of global supply. The United States and the European Union are responding by seeking to diversify supply chains and expand strategic partnerships—particularly in Africa, Latin America, and Central Asia. The Democratic Republic of Congo (DRC), often described as the “Saudi Arabia of critical minerals,” epitomizes both the opportunities and the vulnerabilities generated by this new resource rush.

For mineral-rich countries in the Global South, the stakes are considerable. Rising demand could create unprecedented opportunities for growth, industrialization, and economic diversification. Yet it also risks reproducing long-standing asymmetries between resource-exporting economies and industrialized consumers. Historically, weak institutions, opaque contracts, and exposure to volatile commodity markets have constrained the developmental impact of natural-resource booms. Ensuring that critical-mineral extraction translates into sustainable prosperity requires stronger governance and fiscal frameworks, transparent negotiations, sound revenue management, and deeper local value addition.

Successful experiences offer important lessons. Botswana’s transformation of its diamond sector—anchored in equity participation in De Beers and the development of domestic cutting and polishing industries—demonstrates the potential of local participation in global value chains. Comparable strategies could help other resource-rich economies move beyond raw-material exports.

However, the accelerating scramble for minerals also entails significant environmental and social risks. In areas such as eastern DRC, competition for resource-rich territories continues to fuel violence and instability. Extraction is frequently associated with deforestation, biodiversity loss, water pollution, and labor abuses, including child labor. These challenges highlight the urgency of robust environmental and social safeguards, as well as international cooperation to promote responsible sourcing, traceability, and accountability across supply chains.

As these dynamics intensify, the governance of critical-mineral supply chains will increasingly influence not only the pace and equity of the global energy transition but also the long-term development trajectories of many countries in the Global South. Whether this new race becomes a driver of sustainable progress or a source of renewed dependency will depend on the quality of global cooperation, transparency, and domestic policymaking.

It is within this context that FERDI and CERDI (UCA, CNRS, IRD), in partnership with the University of Oxford, are convening a two-day international conference in Clermont-Ferrand on 26–27 November 2025, bringing together academics, policymakers, and institutional actors to examine the economic, political, and social dimensions of the global competition for critical minerals.

Objectives of the Conference

The conference aims to provide a multidisciplinary platform for dialogue, reflection, and policy engagement on the global race for critical minerals. Specifically, it seeks to:

- **Advance understanding** of the economic, geopolitical, and technological drivers of critical-mineral demand and their implications for global trade, energy transitions, and international relations.
- **Identify policy strategies** enabling mineral-rich economies—particularly in the Global South—to capture a fair and sustainable share of the benefits through stronger governance, improved fiscal design, local value creation, and institutional capacity building.
- **Foster cross-sector dialogue** among academics, policymakers, industry practitioners, and international organizations to explore pathways for responsible sourcing, supply-chain transparency, and balanced global cooperation.
- **Generate evidence-based insights** to inform ongoing research and public policy, including contributions to the forthcoming *Oxford Review of Economic Policy* Special Issue on “**The Scramble for Critical Minerals.**”

CONFERENCE PROGRAM

Day 1 – Wednesday, 26 November 2025

09:00 – 09:30 Opening Remarks – **Patrick Guillaumont** (FERDI) **Simone Bertoli** (CERDI-UCA, CNRS, IRD), **Christopher Adam & Rick van der Ploeg** (University of Oxford)

09:30 – 11:00 Special Addresses:

1. **Sir Paul Collier** (*University of Oxford*) “From Resource Curse to Resource Opportunity: Governing the Critical Minerals Boom”
2. **Jon Blundy** (*University of Oxford*) “The Geology of Critical Minerals” via Zoom
3. **Dominic Rohner** (*Geneva Graduate Institute*) and **Mathieu Couttenier** (*ENS Lyon*) “Critical Mineral and Conflicts” via Zoom

Session Chair: Patrick Guillaumont (FERDI)

11:00 – 11:30: Coffee break

11:30 – 13:00 Supply and Demand for Critical Minerals

1. **Roderick Eggert** (*Colorado School of Mines*) with **Ilenia Gaia Romani** (*MIT*) “From Ores to Outcomes: Lessons for Economists from STEM Disciplines in the Critical Minerals Scramble”
2. **Per Magnus Nysveen** (*Rystad Energy*) “Demand for Minerals and Energy Transition”
3. **Samira Barzin** (*University of Oxford*) “Critical Minerals: Perspective from the Sky”
4. **Andrieu Baptiste and Benjamin Adams** (*University of Cambridge*) “Mismeasured raw-material criticality, misdirected policy: a cross-country review of methods and impacts”

Followed by a discussion

Session Chair: Rabah Arezki (FERDI; CERDI, UCA, CNRS, IRD)

13:00 – 14:00: Lunch (for registered participants)

14:00 – 15:15 Geoeconomics of Critical Minerals

1. **Aude Pommeret** (*University of Savoie Mont-Blanc*), **Mouez Fodha** (*Paris School of Economics*), and **Francesco Ricci** (*University of Montpellier*) “Opening Critical Raw Material Mines under Geopolitical Risk”
2. **Jamel Saadaoui** (*Paris 8 University*) with **Russell Smyth** (*Monash University*), **Joaquin Vespignani** (*Australian National University*) and **Yitian Wang** (*Monash University*) “Critical Minerals in an Age of Geopolitical Rivalry: Optimal Strategies for the U.S. and China”
3. **Kevin Thow** (*Australian National University*) “From Dependence to Diversification? Assessing the Impact of China’s Gallium, Germanium, and Antimony Export Ban”

Followed by a discussion

Session Chair: Rick van der Ploeg (University of Oxford)

15:15 – 15:45: Coffee break

15:45–16:30 Economic Policy for Critical Minerals

1. **Thiemo Fetzer** (*University of Warwick*) “Industrial Policy and Critical Materials”
2. **Gabriel Felbermayr** (*Austrian Institute for Economic Research*) “The Economics of Diversification Tariffs: The Case of Critical Minerals” via Zoom
3. **Gregoire Rota-Graziosi** (*FERDI, CERDI, UCA, CNRS, IRD*) “Getting Tax Right on Critical Minerals”

Session Chair: Christopher Adam (University of Oxford)

16:30 – 17:45 Policy Panel on Taxation and Industrial Policy for Critical Minerals

Traduction simultanée en français sur la visio (Zoom)

1. **Ibrahima Sarr** (former Budget Minister of Senegal, Somiva)
2. **Amanda van Dyke** (Critical Minerals Hub)
3. **Thomas Melonio** (Agence française de développement) via Zoom
4. **Carlo Rossotto** (International Finance Corporation, World Bank Group)
5. **Gisela Granado** (Extractive industries transparency initiative) via Zoom

Moderator : **Grégoire Rota-Graziosi** (FERDI; CERDI, UCA, CNRS, IRD)

19:30 – 21:00: Conference Dinner (by invitation only)

Day 2 – Thursday, 27 November 2025

09:00 – 10:30 Special Addresses:

1. **Amanda van Dyke** (Critical Minerals Hub) Role of Artisanal Mining in the Mineral Economic Development of Africa
2. **Bin Hu** (Tsinghua University) From Industrial Development to Systemic Stewardship: China's Critical Minerals Policy as Developmental Geoeconomics in the Green Transition.
3. **Michael Ross** (UCLA) “Shift from Oil to Critical Mineral Rents”

Session Chair : Simone Bertoli (CERDI, UCA, CNRS, IRD)

10:30 – 11:00: Coffee break

11:00 – 12:30 Socio-Economic and Environmental Aspects of Critical Minerals

1. **Osmel Manzano and Daniela Valdivia** (*Inter-American Development Bank*) “Mining, revenues, and education in Peru”
2. **Jonah Rexer** (*World Bank*) and **Erik Katovich** (*University of Connecticut*) “The global distribution of critical mining impacts”
3. **Cahya Danu Rahman** (*Gadjah Mada University*) “Nickel Downstream: The Impact of Nickel Smelter Development on Household Welfare in Indonesia” via zoom
4. **Fawzi Banao** (*Université Libre de Bruxelles*) “Where is my mine? The effects of mining on conflicts in Africa”

Followed by a discussion

Session Chair: Vianney Dequiedt (FERDI, CERDI, UCA, CNRS, IRD)

12:30 – 13:30: Lunch (for registered participants)

13:30 – 14:45 Macro-Development Aspects of Critical Minerals

1. **Christopher Knittel, Adrien Concorde, and Phuong Ho** (*MIT*) “Comparing the Economy Impacts of Critical Mineral and Oil Prices: A Neoclassical Growth Perspective” via Zoom

2. **Metehan Ciftci** (*University of Oxford*) “Financing the responsible supply of energy transition minerals for Sustainable Development”
3. **James Cust** (*World Bank*) “The Macroeconomics of Critical Minerals”

Followed by a discussion

Session Chair: Rick van der Ploeg (University of Oxford)

14:45 – 15:15: Coffee break

15:15 – 16:30 Policy Session on Economic Security and Critical Minerals

Traduction simultanée en français sur la visio (Zoom)

1. **Vahinala Raharinirina** (former Minister of Environment and Sustainable Development of Madagascar, University of Fianarantsoa) via zoom
2. **Grégoire Jean** (Imerys)
3. **Bin Hu** (Tsinghua University)
4. **Per Magnus Nysveen** (Rystad Energy)

Moderator: **Martial Foucault** (Institut de Recherche Stratégique de l'Ecole Militaire)

16:30 – 16:45 Closing remarks

Traduction simultanée en français sur la visio (Zoom)