

### Empowering Sustainable Resource Management: Updates, Transformations, and Potentials

### Securing Minerals for the Energy Transition

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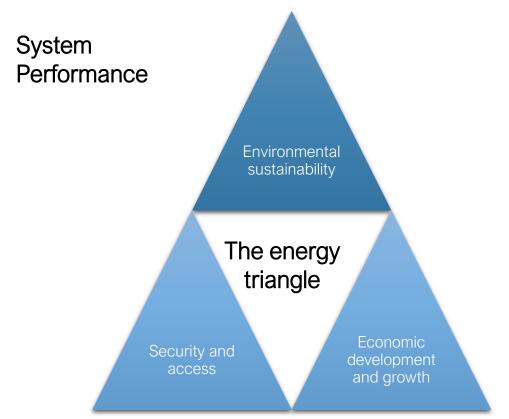


Yes, we need minerals for the Energy Transition

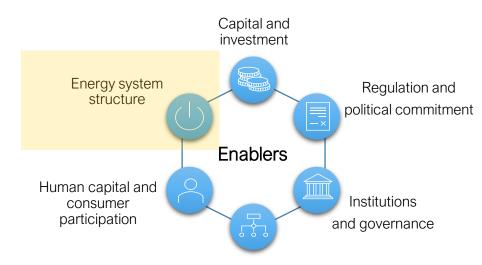


# Securing Minerals for the Energy Transition

#### What do we mean by Energy Transition



"a timely transition towards a more inclusive, sustainable, affordable, and secure energy system that provides solutions to global energy-related challenges, while creating value for business and society"



Infrastructure and innovative business environment



### What if the needed resources to ensure the transition are not available?



#### We see that the gap has been established



Now, an opportunity to:

- Consolidate and prioritize
- Give attention to implications (so what?)
- Raise multistakeholder awareness
- Focus on the risks
- Shift to collaborative risk management
- Galvanize cross-sectoral collaboration
- Seed a unique entity



#### Securing Minerals for the Energy Transition - SMET

We have two objectives

Identify and characterize the risks derived from the increasing supplydemand gap in minerals for the energy transition and propose **strategies for their collective management**.

Design and assemble a global multistakeholder platform for monitoring, informing, managing risks and coordinating action.

# Securing Minerals for the Energy Transition

#### We've secured support for this year

#### Definition

Oct 22-Nov 22

- Consolidate information on the supply-demand gap of critical minerals
- Refine assumptions

#### Risk mapping

Dec 22 – Jan 23

Map risks derived from the gap

#### Convergence

Feb-Apr 23

 Identify possible actions for shared risk management

#### Coalition building

Apr 23- Jun 23

Support the creation of collaborative structures

#### **Definition**

Nov 22-Apr 23

- Validate opportunity
- Identify potential partnerships
- Early model formulation of a global collaboration platform

#### Mobilization

Apr 23-Jan 24

Develop a viable structure for a global collaboration platform

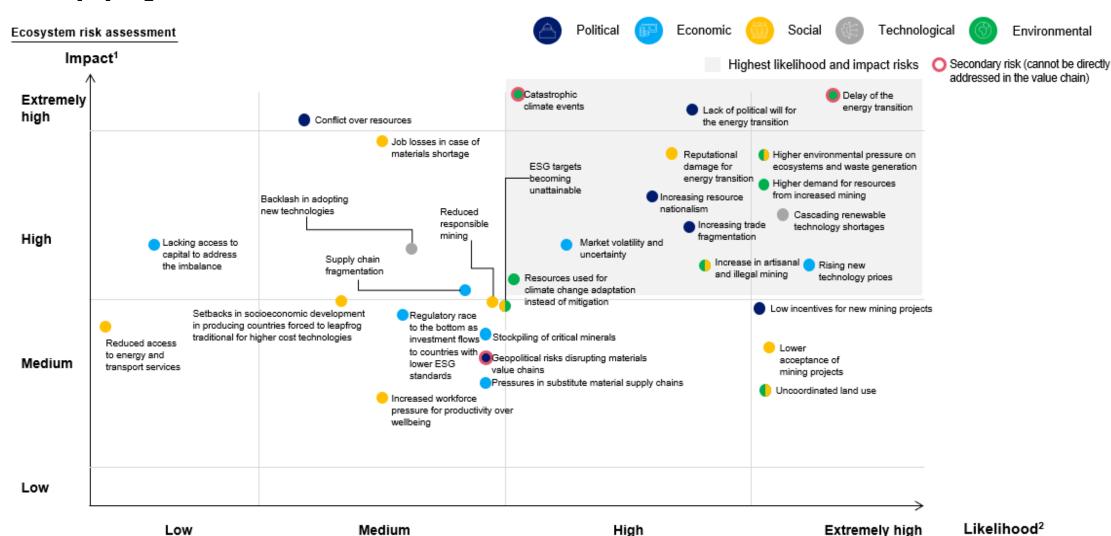
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#### Supply-demand imbalance risk matrix





<sup>1:</sup> Impact on the ecosystem: 'Low' represents minor impact and 'Extremely high' represents catastrophic impact on human lives, societies, and the planet

Source: Risk identification based on insights from Risk characterization workshop 'Securing Minerals for the Energy Transition' and McKinsey analysis; Assessment structure from WEF Global Risks Report 2017. The risks identified in the workshop are renamed and placed in the matrix based on the assessment.

<sup>2:</sup> Likelihood to happen: 'Low' represents a risk that is not likely to happen' and 'Extremely high' a risk that is very likely to occur



#### The 5 categories of risks that we have defined



- Conflict over resources
- Geopolitical risks disrupting materials value chains
- Increasing resource nationalism
- Increasing trade fragmentation
- Lack of political will for the energy transition
- Low incentives for new mining projects



#### Economic

- Market volatility and uncertainty
- Pressures in substitute material supply chains
- Regulatory race to the bottom as investment flows to countries with lower ESG standards
- Rising new technology prices
- Stockpiling of critical minerals
- Supply chain fragmentation
- Lacking access to capital to address the imbalance



#### Social

- ESG targets becoming unattainable
- Increased workforce pressure for productivity over wellbeing
- Job losses in case of materials shortage
- Lower acceptance of mining projects
- Reduced access to energy and transport services
- Reduced responsible mining
- Reputational damage for energy transition
- Setbacks in socioeconomic development in producing countries forced to leapfrog traditional for higher cost technologies



#### **Technological**

- Backlash in adopting new technologies
- Cascading renewable technology shortages



#### **Environmental**

Catastrophic climate events

Indirect risk (cannot be directly addressed in the value chain)

- Delay of the energy transition
- Higher demand for resources from increased mining
- Higher environmental pressure on ecosystems and waste generation
- Increase in artisanal and illegal mining
- Resources used for climate change adaptation instead of mitigation
- Uncoordinated land use

# Securing Minerals for the Energy Transition

#### Are these risks foreseen? Are they being addressed already?

#### Industrial policy is back, but Europe needs new thinking to secure minerals

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By Julia Poliscanova | Transport & Environment @ 5:55

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EU acts to secure access to critical raw materials

#### The Inflation Reduction Act Is the Start of Reclaiming Critical **Mineral Chains**

Green technologies depend on the supply of a few key resources.

By Morgan D. Bazilian, the director of the Payne Institute and a professor of public policy at the Colorado School of Mines, and Gregory Brew, a postdoctoral fellow at the Jackson Institute for Global Affairs at Yale University



An excavator transfers imported iron ore at a port in Rizhao, China, on May 15, 2019, STR/AFP VIA GETTY IMAGES

#### Zimbabwe joins the wave of resource nationalism

Zimbabwe banned the exports of raw lithium ores in 2022, and then banned the exports of all raw mineral ores this year. Isabeau Van Halm explores the latest example of a wave of critical mineral resource nationalism.





Features January 19 2023





Miners in Zimbabwe will see more of their produce processed in the country, but may not see the benefits of this wave of resource

#### Mineral-rich countries want to form an **OPEC for battery minerals**

Indonesia is considering a cartel for nickel and cobalt, while Argentina, Bolivia, and Chile are in "advanced talks" about a "lithium OPEC"



#### Why are we doing this?

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Our mission is to improve the state of the world.



### What's next?



## scuring Minerals for the Energy Transition

#### A Global Collaboration Approach

- Call to action: engaging the Public and Private sectors and Civil Society to manage the identified risks
- **Joint efforts:** different actors provide different capabilities and expertise
- A sustained Global Collaboration
  Platform to secure sustainable and affordable critical minerals for the Energy Transition

There are many go to places, what if we try to have just one **GO TO PLACE**?





### Thank you

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