

Africa's potential for strategic minerals required for the low carbon future

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German Development Cooperation project

“Extractives and Development“

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Outline

Present situation

Relevant raw materials for low carbon technologies

Africa's potential - Opportunities and threats

Final remarks

Present situation

Key issues

Growing demand for strategic minerals and metals for technologies that sustain a transition to low carbon energy (renewable energy and E-vehicles).

- Where does the new raw materials supply come from?

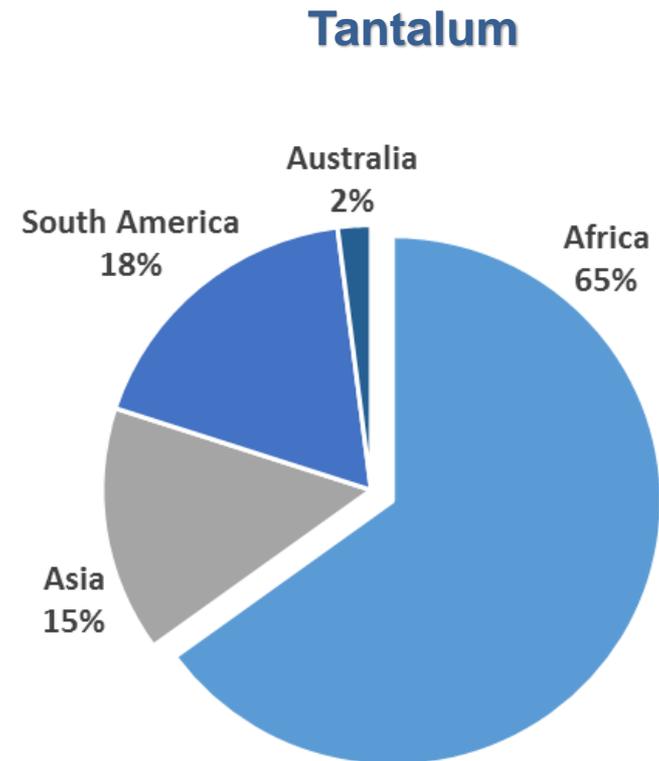
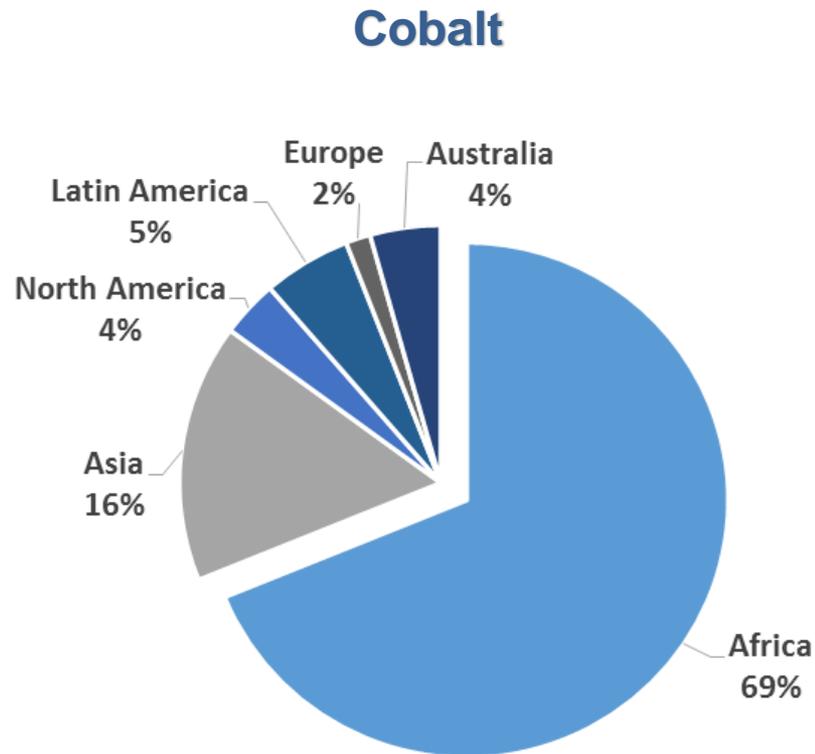
Many deposits and resources of these raw materials can be found in developing countries, especially in Africa.

- Have African countries the potential to benefit from the technology transition through primary mineral production?
- How can African countries position themselves in order to take advantage in terms of economic development and wealth?



Relevant raw materials for low carbon technologies

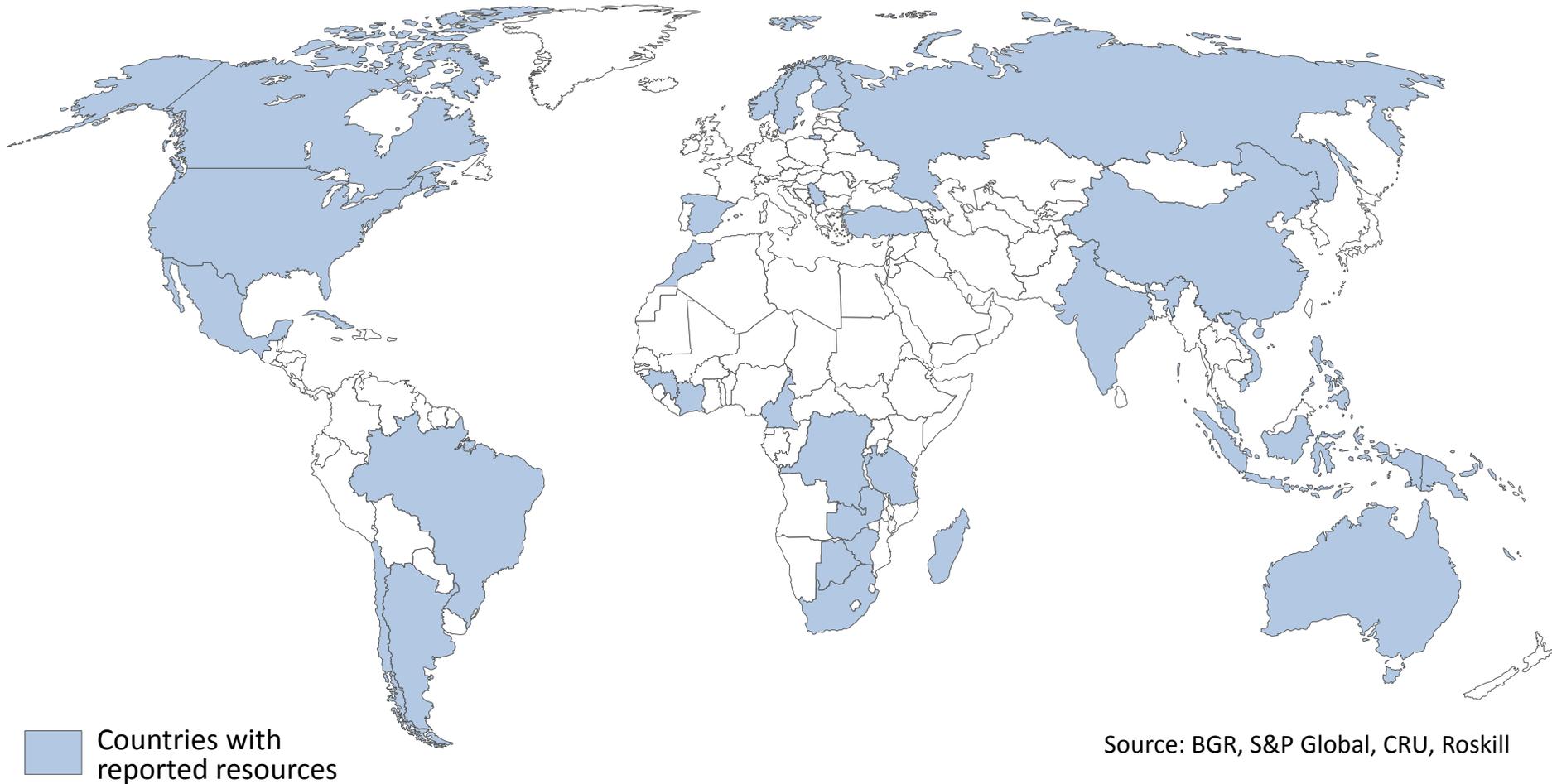
Africa's share of mine production (2015)



Source: BGR data base

Relevant raw materials - Cobalt

Global distribution of deposits and origin of mine production



Source: BGR, S&P Global, CRU, Roskill

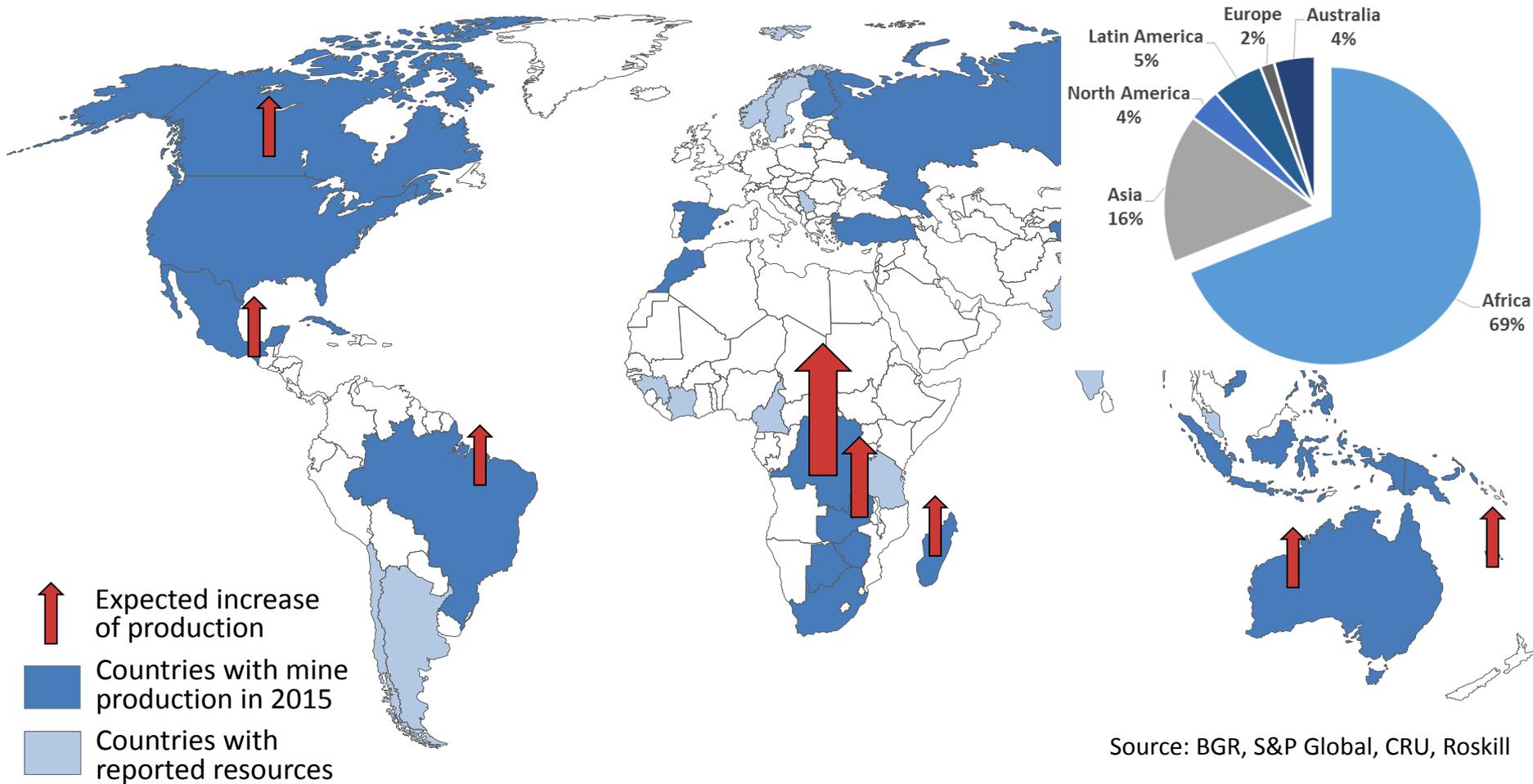


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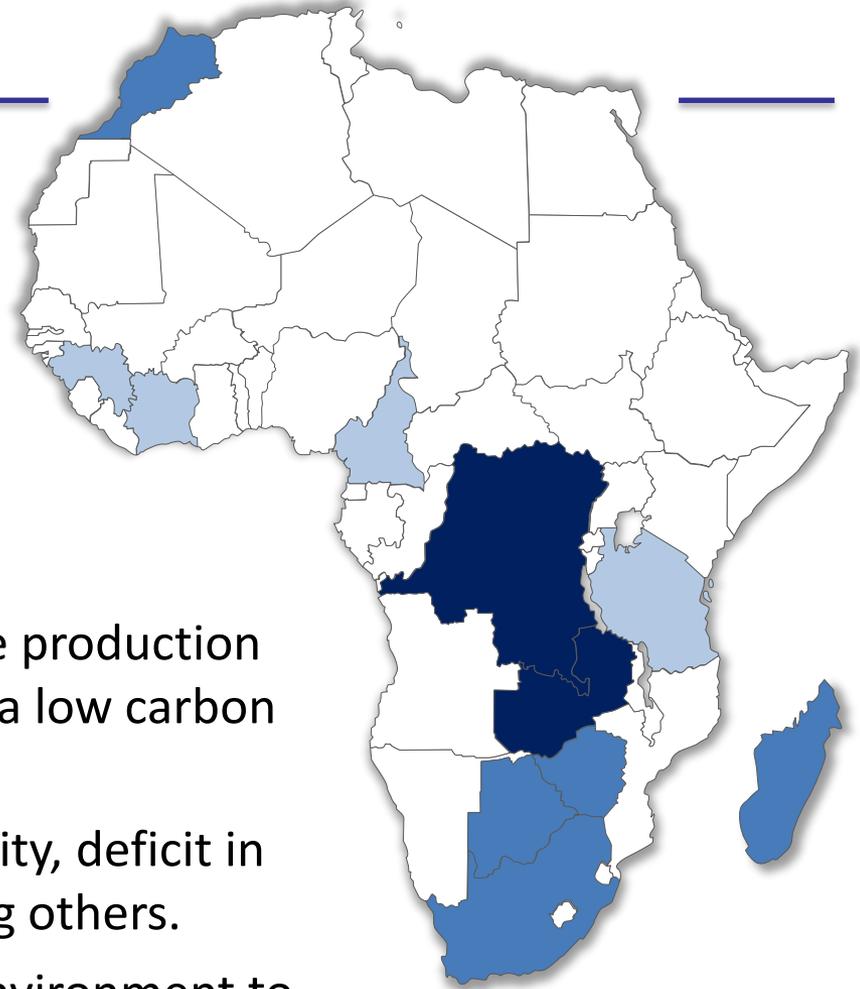
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Relevant raw materials - Cobalt

Potential for new supply in Africa

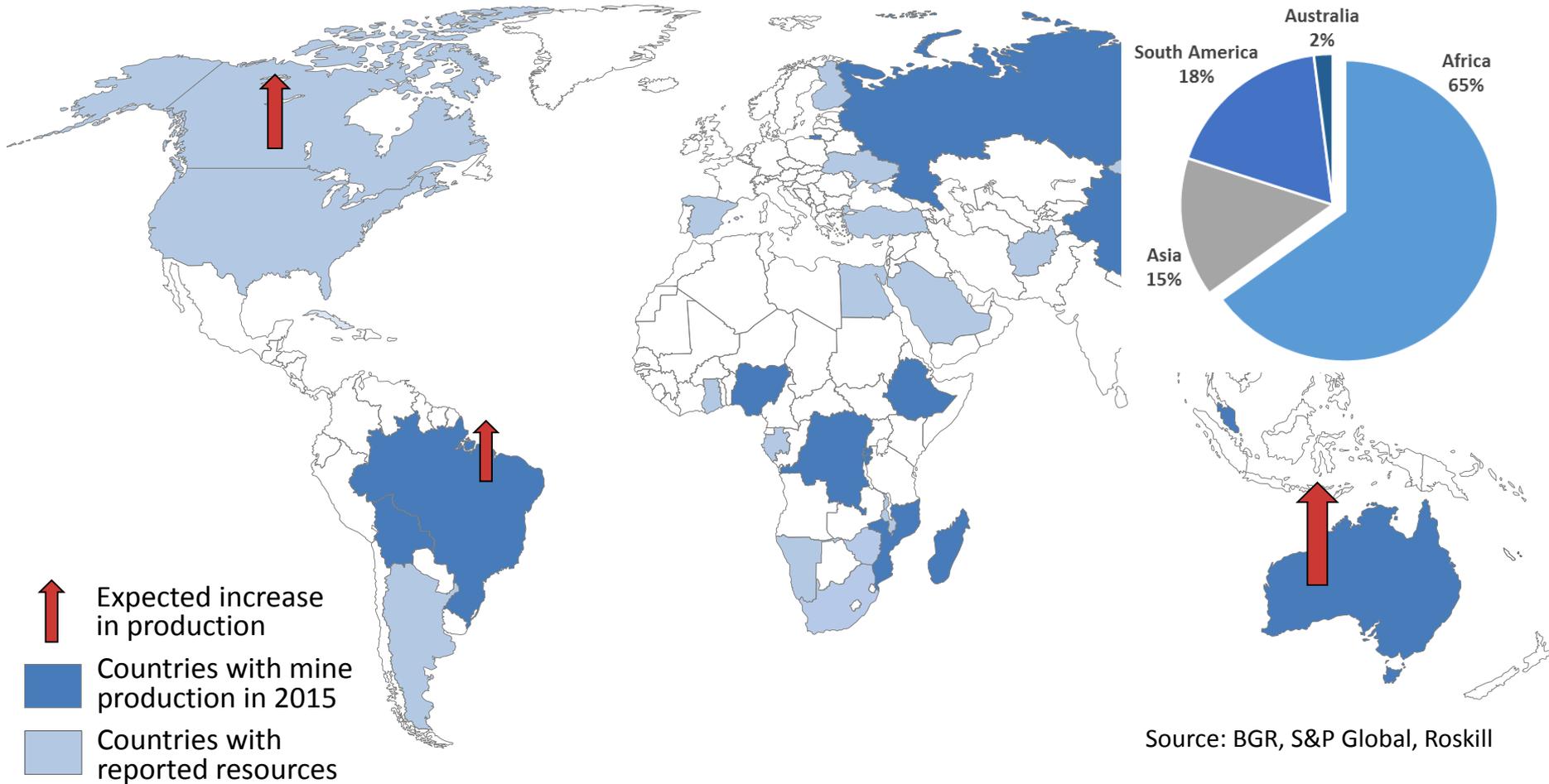
- African Copper belt hosts Cu-Co deposits and half of global Co reserves
- Alone in the DRC and Zambia 12 Cu-Co projects could come online within the next decade; expansions as well as new projects.
- **Opportunity:** Growth of combined mine production of two metals that are both needed for a low carbon technologies: Copper and cobalt.
- **Threats:** Political and regulatory instability, deficit in infrastructure and energy supply, among others.
- **Challenges:** Create stable investment environment to foster development of mine projects



Source: BGR, CRU Group Roskill

Relevant raw materials - Tantalum

Global distribution of deposits and origin of mine production



Source: BGR, S&P Global, Roskill

Africa's potential

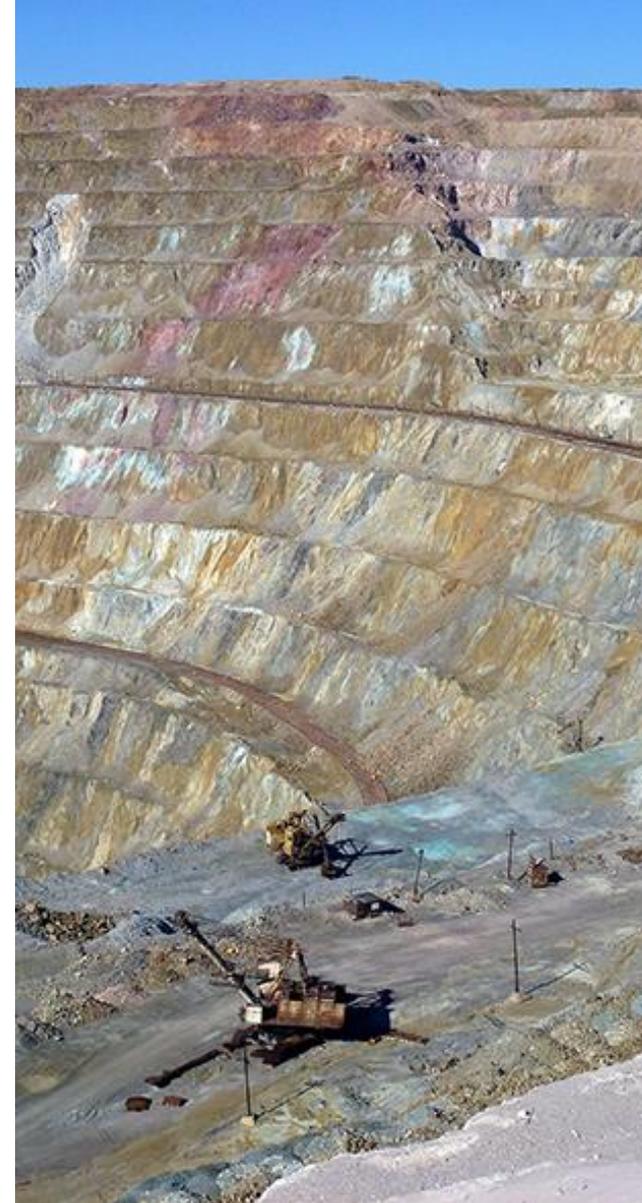
Opportunities and threats

Countries can benefit from their mineral wealth through e.g.

- ↘ Employment
- ↘ Local development
- ↘ Public revenue

Certain conditions must be met such as

- ↘ Stable regulatory environment considering social, environmental, fiscal and economic issues
- ↘ Political stability that facilitate the establishment of industry
- ↘ Infrastructure (transport, energy etc.)



Africa's potential

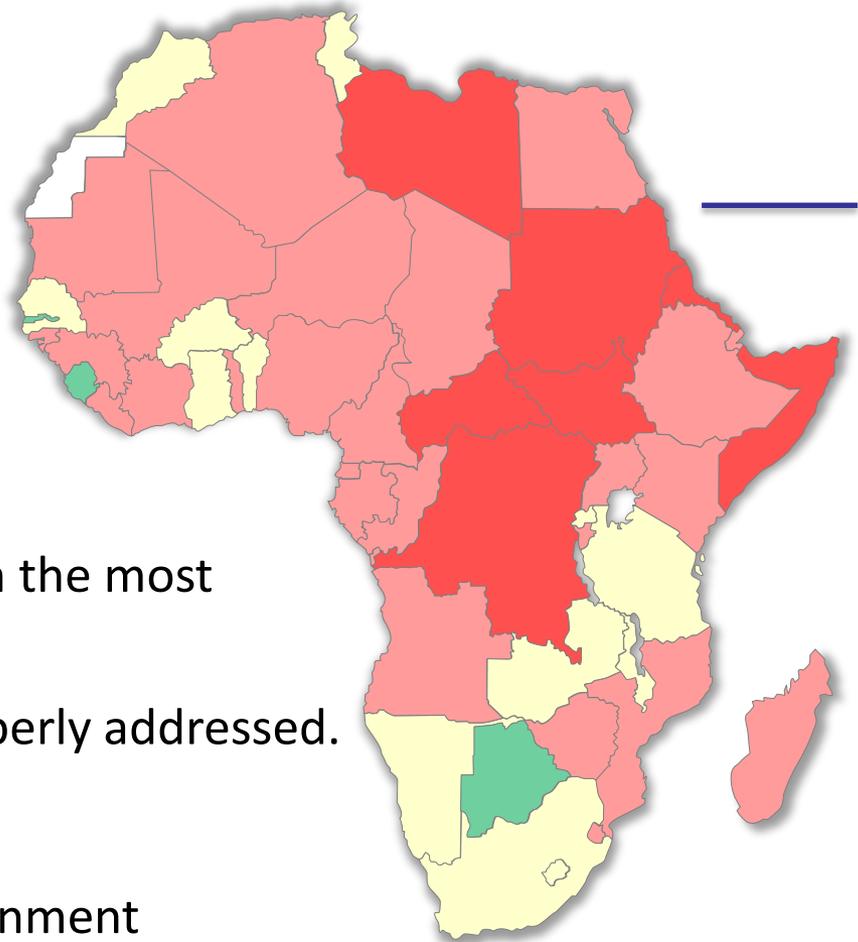
Opportunities and threats

Raw materials for low carbon technologies represent an **opportunity** for African countries if:

- Mine projects are developed.
- Extraction is planned and carried out in the most sustainable way.
- Social and environmental risks are properly addressed.

Threats:

- Instable political and regulatory environment
- Lack of infrastructure and energy supply
- Conflicts, HR violations and environmental risks
- Lack of investment



World Governance Indicators 2016



German Development Cooperation in Africa

BGR cooperation projects related to the Extractives Sector

Mauritania:

Diversification of the mining sector

DR Congo:

Strengthening of control in the mining sector

ICGLR (light blue plus DRC):

Support for a Regional Certification Mechanism of the ICGLR

Namibia:

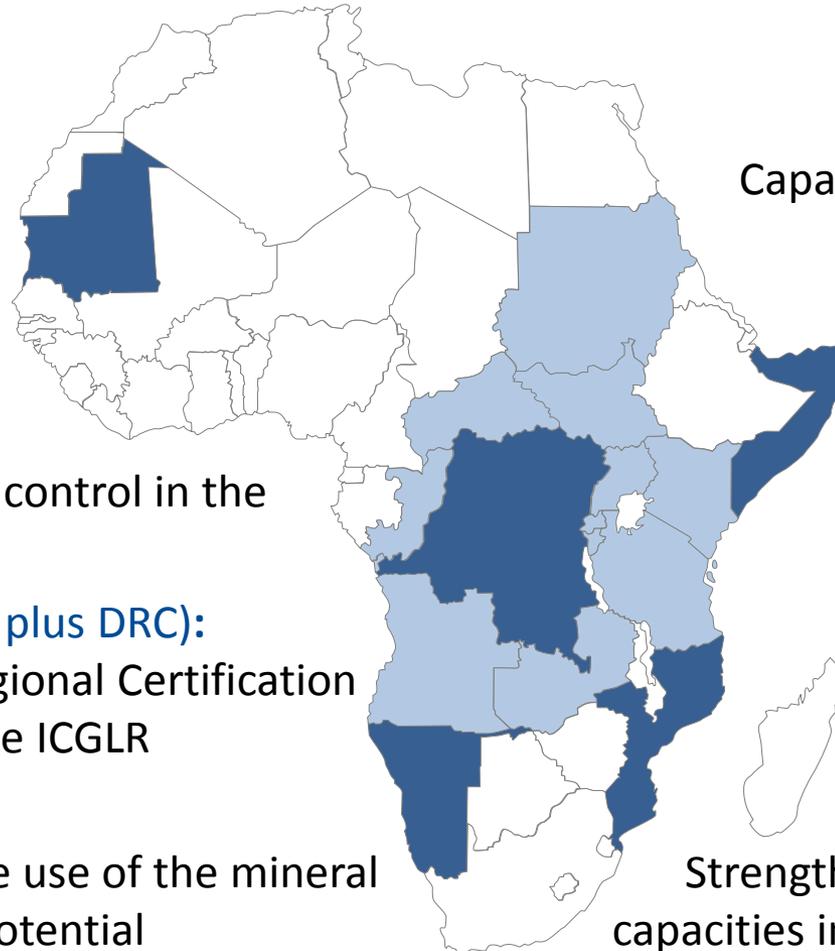
Sustainable use of the mineral resource potential

Somalia:

Capacity development to strengthen the extractives sector

Mozambique:

Strengthening institutional capacities in the mining sector



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Final remarks

- ↘ Africa has resources for mineral commodities, that are required for low carbon technologies.
 - Cobalt: New mine production expected in DRC and Zambia
 - Tantal: New input will come mainly from Australia and Brasil

- ↘ Countries can benefit from their mineral wealth if national general conditions as well as social and environmental risks are properly adressed.

- ↘ In order to benefit, mineral-rich countries should create actively political and regulatory environment to foster investment in mining and facilitate the sustainable development of projects.

THANK YOUR FOR YOUR ATTENTION

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