McKinsey & Company

White paper

From potential to production

Key plays to ensure Africa translates its mineral wealth into global mining leadership

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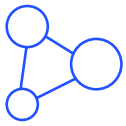
Key messages

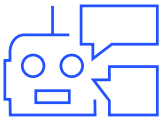
Africa is well positioned to play a pivotal role in the global trade of critical minerals, with high-quality reserves across multiple raw materials. The continent holds 28 percent of the world's critical mineral reserves, including the majority of the world's cobalt (63 percent), tantalum (70 percent), and platinum group minerals (79 percent)—all key to the energy and digital transitions.

Persistent barriers to infrastructure development, high country-level risks, and low investment limit Africa's ability to fully leverage its mineral wealth. Despite holding almost a third of the world's critical mineral reserves, Africa contributes just 12 percent of global production.

Industrial clusters anchored in mining could drive scale, investment, and competitiveness in Africa's critical minerals industry. With demonstrated success in various countries, clusters can lower risk and costs by sharing infrastructure, supply chains, technologies, and skills.



Where a solid business case exists, midstream and downstream investments could enable Africa to retain a greater share of the value created by its critical minerals. For example, developing the continent's metal processing capabilities could bolster Africa's role in global supply chains, particularly as high-demand regions seek to diversify their sourcing.



By investing in operational efficiencies, including leveraging gen AI and other technologies, African mines can become more competitive. Currently African mines are less competitive than global peers indicating that high input costs (such as energy, labor, and consumables), infrastructure and logistics constraints, and the regulatory and fiscal environment are diluting African mines' potential.

Global partners can help drive growth in African mining and benefit from the continent's increased output of critical minerals. Opportunities for collaboration exist in technology transfer, financing, and offtake agreements to unlock Africa's mining potential while securing resilient and diversified supply chains.

Introduction

Critical minerals—a subset of minerals considered crucial for manufacturing and technology, especially for the green and digital transitions—are the fuel of the modern economy. Cobalt, lithium, platinum, and copper are essential to green technologies, including solar panels, batteries, and wind turbines, while rare earth elements (REEs) such as cerium and neodymium are crucial to digital and defense technologies, including AI systems. Demand for these minerals is therefore robust—and rising.[1] However, supply remains highly concentrated, and several key commodities, such as REEs, face persistent constraints.

Mining of critical minerals is a globally concentrated and strategically exposed sector, both in the physical extraction of ores from the earth and their subsequent refinement. Processing and refining are even more concentrated than extraction. The top three downstream processors of lithium, nickel, and cobalt, for example, account for over 70 percent, 80 percent, and 90 percent of production, respectively, while China has 70 percent of lithium refining production capacity.[2]

As geopolitical tensions rise and competition for technological development intensifies, countries are increasingly seeking to diversify or protect their sources of critical minerals. This was reflected in recent G20 and B20 meetings, where world leaders endorsed the voluntary G20 Critical Minerals Framework, a six-pillar blueprint designed to secure supply chains against geopolitical risks and shift developing nations from raw exports to local value addition.[3]

Africa is well-placed to play a central role in green industrialization and global supply security. The continent is already a significant player in the global mining industry and holds more than a quarter of the world's proven reserves of critical minerals, many of which are of high quality.[4] However, persistent barriers, including limited infrastructure and skills, low investment, and volatile regulatory and political environments, mean that many of its reserves remain untapped. As a result, Africa contributes just 12 percent of the global supply of critical minerals, well below its potential.[5]

This white paper examines the barriers preventing the continent from scaling up and optimizing its mining activities across the value chain and proposes strategic and collaborative approaches that could lower the risk profile, broaden investment, and unlock the full value of Africa's critical mineral reserves.

With the world in transition, the continent has an opportunity to strategically leverage its vast reserves of critical minerals to position itself as a key player in global supply chains. By making strategic plays now, Africa can build resilient, diversified, value-adding, and globally competitive industries that meet global demand and benefit its people and economies for a long time to come.

"Mining of critical minerals is a globally concentrated and strategically exposed sector, both in the physical extraction of ores from the earth and their subsequent refinement."

1 *Global materials perspective 2025*, McKinsey, October 7, 2025.
2 "A new trade paradigm: How shifts in trade corridors could affect business," McKinsey, June 18, 2025.
3 "G20 leaders push solidarity, equality, sustainability for inclusive growth," SDG knowledge hub, November 26, 2025.
4 Includes copper, zinc, nickel, lithium, silver, platinum, uranium, and rare earth elements.
5 McKinsey analysis.

Africa's undeveloped riches: Potential versus reality

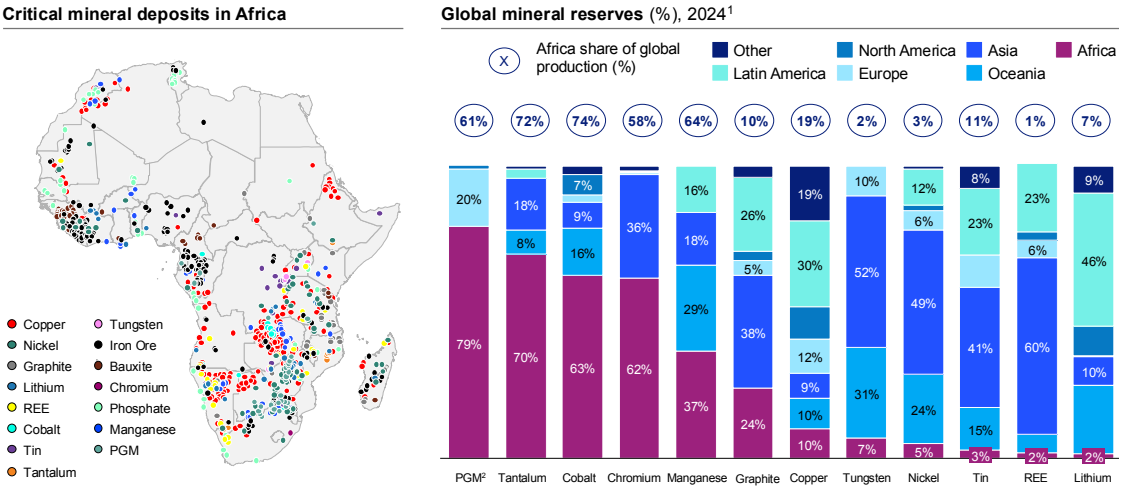
Mining is a key driver of Africa's economic landscape, substantially influencing the GDP and trade balance of nations across the continent, yet it remains an untapped source of wealth and prosperity for nations and their citizens.

This paradox is evident in the fact that while the continent possesses about 28 percent of global critical mineral reserves, including the majority of the world's cobalt (63 percent), tantalum (70 percent), and platinum group minerals (79 percent)—minerals that are all key to the energy transition and global technological competitiveness—it contributes just 12 percent on average of global production on average (Exhibit 1).

Africa's critical mineral resources are diverse and widespread. Southern and East Africa contain substantial deposits of lithium, nickel, and REE.[6] Guinea possesses roughly a quarter of the world's bauxite reserves, South Africa is the world's largest manganese producer, Zimbabwe ranks among the top six globally in lithium production, and the Democratic Republic of Congo accounts for approximately 70 percent of the world's cobalt mining.[7]

Exhibit 1:

Africa holds a significant portion of reserves of critical minerals needed for energy and digital transitions.



1. Reserves in Africa are underestimated due to underexploration in Africa 2. Platinum group metals.

Source: Mineral commodity summaries 2025, USGS [or US Geological Survey]; World Mining Data; McKinsey analysis

6 Mineral commodity summaries 2025, USGS [or US Geological Survey]; World Mining Data; McKinsey analysis.

7 "Africa's critical minerals: Africa at the heart of a low-carbon future," Mo Ibrahim Foundation, October 2022; Zimbabwe Environmental Law Association (ZELA) , "Chinese dominance in Zimbabwe's lithium mines: Potential risks, vulnerabilities and opportunities in the critical minerals sector," IPIS, September 20, 2023; David Manley, Patrick Heller, and William Davis, "No time to waste: Governing cobalt amid the energy transition," Natural Resource Governance Institute, March 25, 2022.

For some minerals, ore quality in Africa also significantly outperforms global averages. The continent has the highest-grade chromium, cobalt, copper, iron ore, manganese, tin, and tantalum in the world, and potentially competitive medium-quality bauxite, lithium, nickel, platinum-group metals, and graphite. For example, copper ore grades in the Democratic Republic of Congo (DRC) and Zambia's Copperbelt region average around 2.5 percent Cu, compared to about 1.2 percent Cu in other key producing countries and significantly higher than the global average of 0.5–0.7 percent Cu.[8] Mozambique hosts high-grade natural graphite deposits, useful in a wide range of industrial and commercial applications due to its unique properties, such as high electrical conductivity, thermal resistance, lubricity, and chemical stability. These reserves have an average carbon content of 12.9 percent, significantly higher than China's 7.7 percent average.[9]

Based on the quality and quantity of its reserves, Africa could be an investment hotspot. However, investment in mining projects on the continent is lagging behind the rest of the world, especially in early project development stages (exploration and pre-feasibility stages). Just 8 percent of global exploration investment and 6 percent of pre-feasibility investment were allocated to Africa in 2024.[10]

Furthermore, significant reserves of key minerals, like graphite, remain completely untapped.

McKinsey's MineSpans analysis highlights that, across the board, production of critical minerals in Africa is not keeping pace with potential.[11] Over $9 billion in critical mineral projects are in the pipeline, yet less than 10 percent have secured financing and progressed to construction or feasibility stages. Out of over 60 identified projects spanning copper, graphite, lithium, and manganese, less than a quarter are considered "certain" or "probable", reflecting investor caution and regulatory uncertainty.[12]

What investment there is, tends to be focused on the top 25 percent highest-quality assets, with higher yields and lower risks, leaving significant medium potential untapped.[13] Even in these projects, exploitation of mines starts on average 30 or more years after the initial deposit discovery, and capital expenditure overrun is typically 20 to 40 percent above initial outlay.[14]

Further down the value chain, midstream processing (for example, smelting and refining) is also a neglected area due to global oversupply, driven by large Chinese producers, suggesting significant untapped potential for development.[15]

[8] *Building the next generation of sustainable copper mines in safe jurisdictions,* World Copper Ltd., December 1, 2023.
[9] McKinsey Minespans.
[10] Project numbers represent copper, graphite and manganese projects in 2024 only. Source: McKinsey MineSpans.
[11] Built by McKinsey's commodities experts and covering more than 14,000 global assets across more than 15 commodity value chains, MineSpans provides a detailed bottom-up supply and demand forecasts, granular cost models, and ESG data to empower decision makers.
[12] "Why investing in Southern Africa's critical minerals is key for the global energy transition," World Economic Forum, August 6, 2025.
[13] McKinsey MineSpans.
[14] McKinsey analysis based on data from the US Geological Survey, African Mining Vision, African Union, World Bank, and McKinsey MineSpans.
[15] McKinsey analysis based on data from the US Geological Survey, African Mining Vision, African Union, World Bank, and McKinsey MineSpans.

Addressing key barriers could lower risks and build investor trust

Africa's vast critical mineral reserves offer a transformative opportunity to drive economic growth and could play a prominent role in the global clean energy transition, while also bringing investment in resilience and social development on the continent. However, significant efforts targeting both up and downstream developments may be required to build investor trust and reduce barriers that heighten risk and deter investors from all but the most lucrative projects. Key barriers include regulatory instability, high costs and risks, logistics and infrastructure deficits, a shortage of specialized skills, low local demand for finished metals, and limited alignment with global environmental, social, and governance (ESG) standards. These factors have hindered many mining developments. For example, development of the Democratic Republic of Congo's Tenke Fungurume copper deposit was delayed due to decades of political instability and conflict, while poor infrastructure has kept Mozambique's graphite belt from advancing beyond early exploration. In Tanzania, the production of Mahenge and Nachu graphite stalled after a 2017 law change prompted revisions to the study and deterred investors.[16]

A coordinated and strategic focus across five key areas could help address these challenges and unlock economic and development opportunities in the industry:

- **Streamlining regulatory processes and harmonizing policies:** Investors seek stability and clarity in the regulatory environment, and inconsistent policy frameworks can deter long-term commitments; however, many African nations are beset by political tensions and regulatory complexity. In addition, mineral governance institutions are often under-resourced, and current compartmentalisation within government departments often leads to duplicated reviews, which delay license permitting, slowing down project development.[17] Establishing cross-government task forces and one-stop-shop licensing authorities could reduce time and complexity involved in obtaining necessary permits for mining and infrastructure projects. Additionally, by harmonising policies, African countries could create unified regulatory frameworks that simplify compliance for companies operating across multiple jurisdictions. For example, continental initiatives such as the African Continental Free Trade Area, demonstrate how regulatory convergence and shared reporting standards can increase speed to market.[18]
- **Financial and investment derisking***:* Mining operations in many African nations can be expensive as a result of high capital costs, high energy and processing costs, and skilled labour shortages. Limited access to advanced technologies further complicates investment in processing, with facilities often costing hundreds of millions of dollars.[19] This means mining companies often choose to pursue only the highest-return assets to remain viable. Costs are further driven up by severe logistics and infrastructure deficits, which can turn the transportation of material from remote mine sites to global export markets into a costly and complex bottleneck. Africa faces an annual infrastructure financing gap of $130-170 billion.[20]

[16] "Mineral concessions: Avoiding conflict in DR Congo's mining heartland," International Crisis Group, June 30, 2020; "Mozambique's graphite production falls drastically amid operational challenges," Battery Metals Africa, November 2024; "ASX release: Tanzania update," Black Rock Mining Limited, July 12, 2017.
[17] "Improving mining permits in Africa: Transparency and reform," Investing in African Mining Indaba, February 17, 2025.
[18] Manfred Kouty, "Boosting the intra-African digital trade in the AfCFTA context: does regulatory framework matter?" Digital Economy and Sustainable Development, April 7, 2024.
[19] McKinsey analysis.
[20] *The missing connection: Unlocking sustainable infrastructure financing in Afric*a, Africa-Europe Foundation & AUDA-NEPAD, 2025.

Bridging this financing gap will likely require innovative financing mechanisms and partnerships to de-risk investments and attract global capital. Public-private partnerships (PPPs), for example, could provide the necessary capital and expertise to develop large-scale mining projects that might otherwise have been unfeasible. Mobilising long-term and patient domestic financing through deeper capital markets and stronger local institutions is also likely to be essential.

- **Building work-ready skills:** An acute skills and talent gap further challenges operations and drives up costs due to a lack of specialized mining and engineering expertise in key operational areas.[21] To address this challenge, countries and companies can partner with academic institutions to ensure training reflects operational needs, while vocational programs in mining engineering, geology, and mineral processing could better align capabilities with industry needs.
- **Boosting low local demand for finished metals**: Africa's mining industry relies predominantly on global markets as a source of demand, which increases exposure to international market volatility. To address this, governments are increasingly implementing export barriers or enforcing local downstream integration in an effort to maintain their position in global supply chains or boost domestic value creation. Several nations, including Gabon, Zambia, and Zimbabwe, are restricting the export of raw ore and concentrates specifically to compel the establishment of local processing facilities.[22] If projects can be derisked (for example, with the right technology, competitive infrastructure and consistent and stable raw mineral supply), localized beneficiation has the potential to create much-needed jobs and generate valuable government revenues.
- **Aligning with ESG standards:** Better alignment with ESG standards could boost the long-term sustainability of mining and other industries, while also ensuring better access to developed markets with high compliance requirements, including the EU's CBAM, which could raise up to €80 billion in annual carbon-intensive imports.[23] As Africa has abundant renewable energy resources, including geothermal, hydro, solar, and wind, these can be used to power its mining operations sustainably and reduce current reliance on carbon-intensive power.

> "Significant efforts targeting both up and downstream developments may be required to build investor trust and reduce barriers that heighten risk and deter investors from all but the most lucrative projects."

[21] Mining sector skills shortage could jeopardise continued recovery," Engineering and Mining Africa Magazine, November 27, 2024.
[22] *Global Materials Perspective* 2025, McKinsey, October 7, 2025; "Eramet's shares slide as Gabon plans manganese ore export ban," Times Live, June 3, 2025; Sarah Logan and Theophilus Acheampong, *From ore to more: Mineral partnerships for African industrialisation* European Council on Foreign Relations, August 28, 2025; "Zambia wants to introduce law to ban export of unfinished mineral products," Mining Technology, June 21, 2015.
[23] "EU Carbon Border Adjustment Mechanism to raise $80B per year by 2040," S&P Global, February 24, 2023.

Opportunities to unlock Africa's critical minerals wealth

Successfully harnessing the potential of Africa's critical minerals industry will likely depend on overcoming challenges in infrastructure, skills, investment, governance, and market fragmentation. McKinsey analysis suggests that three key plays could offer the fastest near-term gains while securing long-term competitive advantage: clustering, selective downstream investment, and a focus on cost competitiveness.

1. Powering African mining through integrated value chain clustering

Where high-value commodities are geographically concentrated, there is an opportunity to unlock value by creating clusters. A clustering approach, which sees all stakeholders—including industry players, government, downstream consumers, logistics firms, and suppliers—working together, is designed to achieve greater scale and drive down overall costs by integrating investments and sharing infrastructure (such as ports or processing facilities). Because clustering reduces costs and spreads risk, these projects are also highly attractive to global and European investors, compared to investing in isolated ventures.

There is significant evidence that clusters can drive success. Although circumstances differ from those in Africa, McKinsey analysis based on MineSpans data shows that Chile's Antofagasta cluster saw production costs per tonne reduced by about 9 percent, and the cost of capital fell by 1.5 percent. In Saudi Arabia, by leveraging cross-industry synergies to lower costs in the Ras Al-Khair Mining Corridor, production was boosted by up to 300 percent. And in Western Australia, clusters boosted full-time employment by 600 percent and grew GDP by 20 percent between 2003 and 2024.

Several locations in Africa could benefit from clustering (Exhibit 2). For example, in the DRC-Zambia copper belt, cluster implementation could improve energy cost savings by 40 to 50 percent (see Box 1), while a PGM cluster between South Africa and Zimbabwe could boost refined PGM output by 5 to 10 percent.[24] Further potential clusters include tin, tungsten, and tantalum (known collectively as 3T) between the DRC, Rwanda, and Burundi, copper in Namibia and Botswana, and iron ore and bauxite in West Africa.

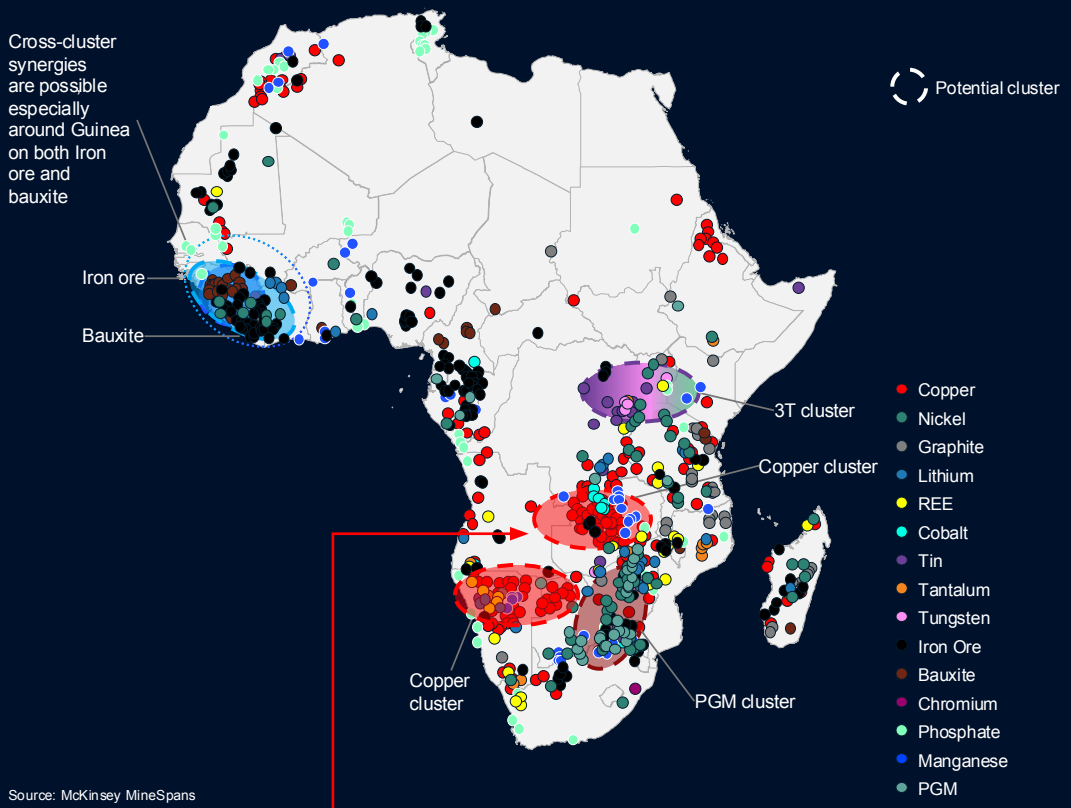
For clusters to succeed, they require several deposits in close proximity, as well as complementary ore bodies (such as iron ore and bauxite), and shared plants and services. Additionally, stable regulation and security in host countries are key, as are community consent, local skills, and the presence of original equipment manufacturers (OEMs). An anchor offtake, such as an agreement to export ore to China, also needs to be in place. Finally, bold early investment is needed in rail, renewable power, and water systems, and other logistical necessities to support the cluster and enhance ESG performance. Input costs can be reduced if investment is spread across players.

The Simandou mine project in Guinea—a partnership between Rio Tinto, Chalco Iron Ore Holdings (CIOH), and a Chinalco-led consortium, Winning Consortium Simandou (WCS), Baowu, and the Guinea government—is a good example of how this approach can work. The project, which saw its first shipment in mid-November, is set to reshape global supplies and pricing of high-grade iron ore. Comprising three core elements: a mine, railway, and port, as well as associated infrastructure, which will become State property upon completion, Simandou will be the biggest integrated mine-and-infrastructure project ever developed in Africa and could create up to 10,000 direct jobs and boost Guinea's GDP by 26 percent by 2030, according to the International Monetary Fund.[25]

[24] McKinsey analysis

[25] Sheila Barradas, "Simandou iron-ore project, Guinea – update," Mining Weekly, July 18, 2025; Maxwell Akalaare Adombila, "Rio Tinto ramps up Simandou stockpiles to 2 million tons for first shipment," Reuters, October 17, 2025.

Exhibit 2:
Africa can leverage copper, PGM, 3T, Iron ore, and Bauxite clusters.



Source: McKinsey MineSpans

Case study: DRC-Zambia copper belt cluster

The African Copper belt is a mineral-rich region spanning Zambia and the southern DRC, with world-class deposits of high-grade copper and cobalt, alongside sizable lithium and manganese. Copper is central to the ongoing dual energy and digital transition, in addition to its traditional applications. African copper production is currently experiencing robust growth, with the DRC and Zambia driving the continent toward an annualized output of 4.2 Mt in 2025, despite a temporary output disruption from seismic activity at the Kamoa-Kakula mine.[26] This expansion is supported by multi-billion-dollar investments in key projects, notably the Kamoa-Kakula and Kipushi expansions spearheaded by Ivanhoe Mines in the DRC. Despite the strong mining activity, two significant bottlenecks—logistics and power—impede the Copperbelt's full potential. Stakeholders face challenges from port congestion, transport shortages, and strikes, which delay shipments. Solutions proposed include implementing one-stop border posts (like Kasumbalesa), upgrading critical trade routes via PPPs (such as the Lobito and TAZARA railways), and adopting digital systems for tracking and documentation. The region's heavy reliance on hydropower (around 86 percent) also makes it highly vulnerable to drought-related disruptions.[27] To ensure a reliable electricity supply, the strategy involves expanding grid-connected renewable sources including solar and wind, and strengthening high-capacity cross-border transmission infrastructure, such as the new Kalumbila–Kolwezi Interconnection Project (KKIP) between Zambia and the DRC.

[26] "Africa at the core of critical minerals," B20 South Africa 2025, November 2025.
[27] Reuters, "Zambia seeks power imports for key mining sector," Creamer Media's Engineering News, April 23, 2024.

To build effective clusters in Africa, our analysis has identified a four-step model covering shared infrastructure, procurement targets, skills development, and co-location of manufacturing plants to boost value addition.

First, stakeholders can share infrastructure, and in so doing, reduce costs and unlock synergies. Prioritizing sustainable energy and water systems strengthens ESG compliance. Second, by setting up procurement targets and trading hubs early in a cluster's journey, downstream plants and local suppliers can be enabled to capture more value in-country. Third, establishing training programs and partnerships with universities can help build a skilled workforce, reduce reliance on imported skills, and close future skills gaps. Alongside reducing costs, this also contributes to the creation of an enabling ecosystem. Finally, stakeholders can enhance value addition by co-locating manufacturing plants to ensure that raw materials extracted from the mine are processed and turned into finished, higher-value products or necessary equipment and parts, rather than being shipped offshore as lower-value raw commodities. This can also shorten the supply chain, helping to cut down on transport and logistics costs, keeping the entire operation more efficient and profitable.

Ultimately, clustering partnerships can reduce supply risk, secure long-term offtake, lower lifecycle costs, advance ESG outcomes, and accelerate project delivery.

2. Building out the value chain with selective midstream and downstream integration

Where mines—or clusters—succeed and there is sufficient upstream capacity, there is also an opportunity to capture the next stage of the value chain (for example, metal processing). In this way, stakeholders can position the continent as a global partner and supplier of intermediate, processed products, fueling the energy and digital transition for select minerals.

To ensure that the business case for midstream development makes sense, our analysis suggests seven factors can be considered.

First, the feedstock supply from the regional mines needs to be of sufficient quantity and quality. For example, the DRC and Zambia's copper concentrates, and South Africa and Gabon's large volumes of manganese, show promise, while graphite capacity in Madagascar and Mozambique, and lithium in Namibia and Zimbabwe, could improve.

A second consideration is the existing market structure and the level of demand from high-demand regions for intermediate or downstream products. In this regard, copper, graphite, and lithium could prove viable options, with demand expected to grow at 2 percent, 4 percent, and 14 percent CAGR by 2035, respectively.

Third, supply chain risks and bottlenecks due to the high concentration of refining capabilities need to be identified that may create an opening for diversification. For example, China dominates the processing of manganese, graphite, and lithium, strengthening the business case for diversifying the processing of these elements.

Fourth, there needs to be adequate access to technology for mineral processing to justify an investment. Africa can already access top-quality technologies for processing key minerals like iron, copper, manganese, and lithium. However, processing minerals such as tungsten and graphite would require more enablement and support because technology is not readily available, and processing methods involve hazardous materials like hydrofluoric acid.

Fifth, to be economically viable, midstream mineral processing must be cost-competitive. In Africa, under current conditions, only manganese and graphite emerge as viable options for midstream processing on this metric, as the global price collapse, scale, and energy costs make iron, copper, 3T, and lithium challenging plays.

A sixth consideration is the policy and governance in a target country. Context differs country-to-country, but Ghana, South Africa, Zambia, Rwanda, and Namibia offer stable conditions, while transparency is low in other key cluster locations such as the DRC, Burundi, Gabon, Mozambique, Madagascar, and Zimbabwe.

Finally, the potential for cross-border collaboration to ensure interconnections and material flow needs to be considered. For example, copper clusters can leverage the Lobito Corridor, while Namibia and Zimbabwe have active lithium production corridors. Sierra Leone, Guinea, and the DRC currently display low collaboration and strained borders, limiting opportunity.

Based on these seven criteria, lithium, graphite, copper, and manganese emerge as strong contenders for advancing midstream opportunities in Africa.

3. Enhancing competitiveness through skills development and infrastructure investment

African mines are less competitive than developing country peers, indicating that operational efficiencies, high input costs (such as energy, labor, and consumables), infrastructure and logistics, and the regulatory and fiscal environment—all key drivers of cost competitiveness—could be diluting African mines' potential (Exhibit 3).

Industry stakeholders can target these inefficiencies by investing strategically to build skills and reduce costs. For example, input costs could be lowered by developing skills to build local production capacity, while operational efficiency could be boosted by using technology, notably gen AI, to optimize operations and integrating ESG standards from inception. The adoption of sustainability standards and the application of future-focused sustainable technologies and digitalization are essential to ensure transparency, long-term efficiency, and responsible growth.

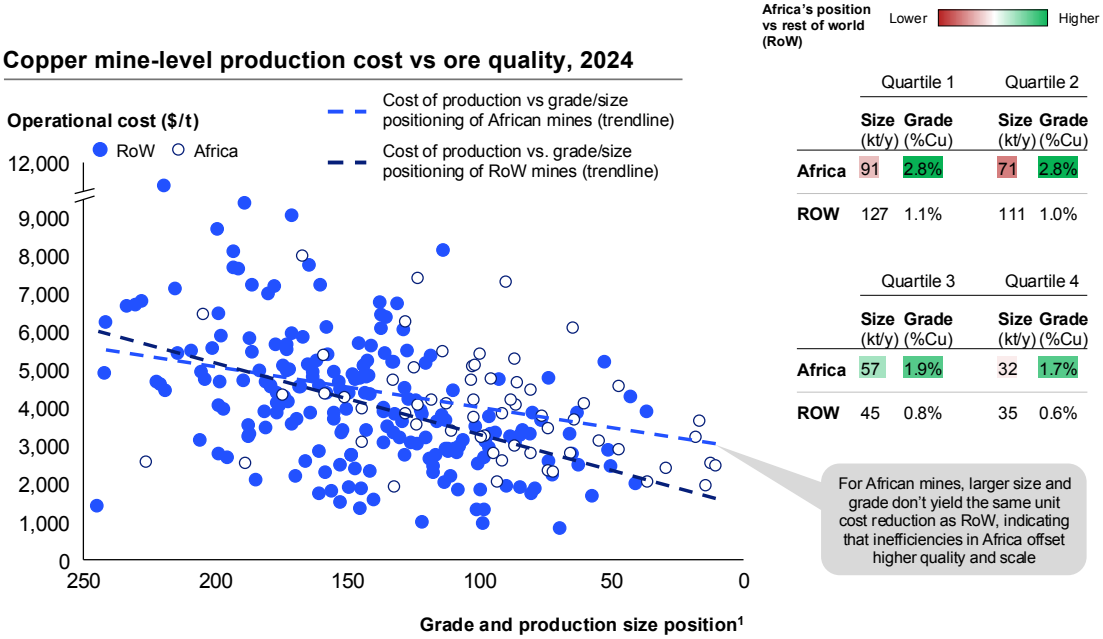
Additionally, improving infrastructure to reduce logistics costs is also likely to be critical. The Lobito Corridor in Southern Africa, which links the Atlantic port of Port of Lobito to the mining heartlands of the DRC and Zambia and enables shipments of copper and other minerals via rail rather than long road routes, serves as a compelling case study of how regional collaboration and phased infrastructure development can unlock economic potential. Targeted investments in infrastructure and logistics in this region have helped catalyze industrial growth.[28]

Africa's critical mining industry can also work smarter by aligning project development with global demand. This can help to mitigate risks of supply shortages and price volatility, geopolitical dependencies, and long lead times in mine development.

Exhibit 3:

Despite high quality and scale, African mines' cost competitiveness is low, indicating inefficiencies.

Comparison of copper ore quality and production capacity across different cost quartiles



1. Simple average positioning of mine (out of 265 copper mines worldwide with >10 kt/y production in 2024) across size and grade (%Cu).

Source: McKinsey MineSpans

[28] Derrick Silimina, "Trade Infrastructure: How the Lobito Corridor is paving the way for economic growth," Development and Cooperation, March 17, 2025.

Conclusion and questions

Africa can leverage clusters and midstream integration, as well as drive greater efficiencies across mining operations to translate mineral wealth into global mining leadership. To move from strategy to action across each of the three dimensions identified in this white paper, coordinated efforts among governments, industry, and development partners globally could be a key unlock.

For example, partnerships could help to reduce supply risk and avoid single-source exposure across key materials. In addition, by securing long-term offtake agreements, partners ensure a reliable supply of minerals essential for electric vehicles (EVs), the wider energy transition, and advanced industries. Furthermore, collaboration can lead to lower life cycle costs through the co-development of midstream processing capacity located closer to the raw ore bodies. A partnership model is also key to harmonizing cross-border regulatory frameworks, ensuring project development timelines align with rapidly evolving global demand, and advancing crucial ESG outcomes, ensuring supply chains have enhanced traceability, lower carbon intensity, and significant positive community impact.

By pursuing these measures, Africa has the opportunity to not only supply raw materials but to capture greater economic value through processing, manufacturing, and innovation—transforming its resource endowment into long-term economic value, regional integration, and sustainable development, securing a central role in the global critical minerals ecosystem.

Ultimately, these kinds of collaborative approaches can create a blueprint for growth. Global and local partnerships can help accelerate project delivery by leveraging blended finance solutions and guaranteeing consistent market access for these vital materials.

Converting Africa's raw mineral wealth into a stable, diversified, and sustainable global supply requires consistent joint action and the mutual accountability of multiple stakeholders across the private and public sectors. Here are some additional questions to consider around how to build the ideal future of this critical sector of Africa's economy:

1. How can clustering provide the optimal formula for unlocking Africa's critical minerals wealth? What effort and commitment would be required from stakeholders?
2. How can clusters integrate with local economies—from SMEs to larger businesses?
3. What local and global partners could be critical to secure the success of mining clusters in Africa?
4. How can communities in participating countries be represented and compensated?
5. How can mining stakeholders better leverage regional initiatives, such as the African Continental Free Trade Area (AfCFTA)?
6. Would strategies to develop critical minerals used in green technologies be environmentally compliant themselves?
7. What needs to change to attract the level of investment needed to unlock Africa's critical minerals reserves—and boost the continent in the process?

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