

# **MATERIAL WORLD: HOW EUROPE CAN COMPETE WITH CHINA IN THE RACE FOR AFRICA'S CRITICAL MINERALS**

**Sarah Logan**

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## **SUMMARY**

- In the last two decades, China has come to dominate global supply chains for critical raw materials and the green energy and other technologies they enable. This increases competition and economic risks for Europe.
- In an effort to build CRM supply chains insulated from China, the EU has signed strategic partnerships with several politically friendly countries around the world, including in Africa.
- However, the EU will only realise its de-risking ambitions if the European private sector invests in CRM supply chains in partner countries in Africa and elsewhere. Yet the incentives for European companies to enter mining and processing operations in these markets are too weak.
- The example of Namibia shows that the EU's strategic partnership with the country has borne little fruit – and may even be benefitting Chinese firms at European expense.
- To address this, the EU must enhance support to European companies to invest in securing access to critical raw materials. This should include new financial incentives and measures to protect against China manipulating prices on international markets.

# Critical juncture

Despite heightened focus in the West about dependence on China – and high-level efforts to recalibrate these relations at the strategic level – Europeans’ economic reliance on China has continued to grow in recent years. EU imports from China reached €515.9 billion in 2023, across a wide array of products, many of which are vital to advanced economies.

At the heart of these entangled relations is European states’ and economies’ dependence on China for the critical raw materials (CRMs) needed to produce green energy technologies, including solar modules, electric vehicle (EV) batteries, and permanent magnets for wind turbines. The central importance of these technologies today risks leaving Europe heavily reliant on other countries for their supply – an acute challenge when production is highly concentrated in China as strategic competition intensifies between China and the West.

To respond to this situation, the European Union has vowed to diversify its energy sources and build out CRM supply chains and processing capabilities that are unconnected with China (ex-China). The bloc has introduced an array of policies aimed at achieving this. “De-risking” supply chains is the way the EU terms its efforts to reduce its economic reliance on China. This de-risking approach encompasses the green energy technologies critical for the EU’s decarbonisation and energy security, as well as a range of other technologies, including in the military field. Managing European exposure to China in different domains is vital not only for Europe’s energy security, but also for the EU to retain and enhance its geopolitical and geoeconomic strength in a rapidly changing world.

In its quest to access ex-China CRMs, the EU has turned to resource-rich African countries it regards as politically friendly. In the last two years, it has signed strategic partnerships to develop sustainable CRM value chains with several African countries, and it is supporting the development of an economic corridor in southern Africa. The EU hopes such agreements will unlock opportunities for European participation in CRM supply chains in these African countries.

Despite these ambitious policies and the strategic partnerships signed to date, Europeans are struggling to overcome market forces to break their dependence on China. Other players, including Saudi Arabia, Turkey, and the United Arab Emirates, are also entering CRM mining and processing and are focusing on Africa in particular. Time is fast running out for Europe to win access to the CRMs it needs. The sluggish progress indicates a wide gap between ambitions and reality, especially regarding CRM projects in Africa. It is essential that Europeans understand this disconnect and consider how to address it.

This policy brief aims to support this understanding and propose solutions. It begins by situating EU efforts within the evolving global CRM landscape. The paper examines the EU-Namibia strategic partnership on sustainable CRM value chains in order to show what it will take to increase European participation in ex-China CRM supply chains in African countries. This agreement illustrates the ways in which political factors may have influenced the EU's selection of third country partners more than the commercial reality of a country's CRM opportunities. At the same time, market dynamics and commercial viability challenges continue to deter European private sector involvement in CRMs in Africa.

The paper suggests ways Europeans can begin to turn this state of affairs around. Most urgent is the need to innovate with new financial mechanisms offered by the EU and member state governments, which have so far failed to motivate European companies to enter CRM supply chains in African countries. If the EU is to succeed in its stated mission, it will need to provide greater financial support to better align European private sector interests with the bloc's own energy security and de-risking objectives. This will come at a cost. But it is the price it must pay if the EU is to reduce its dependence on China and others.

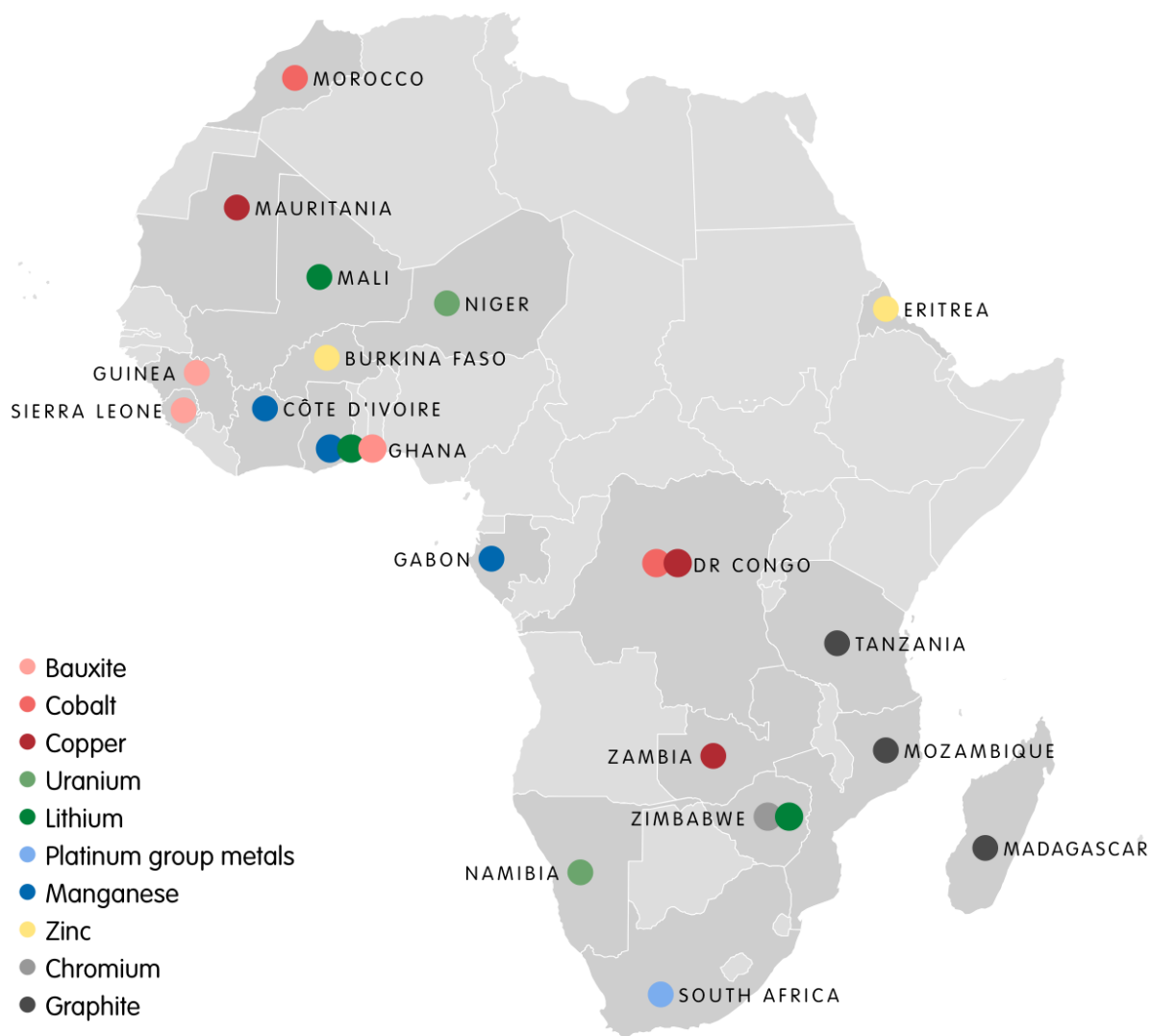
## The global race for CRMs

The EU has introduced a number of key policies to reduce its supply chain dependence on China. These include the Critical Raw Materials Act (CRMA), which aims to secure a sustainable supply of CRMs for European industry and remove import dependencies on any single country. The Net-Zero Industry Act seeks to enhance the capabilities and competitiveness of European manufacturing of net zero technologies. The EU has also joined the Minerals Security Partnership, a group of countries (excluding China) that seeks to develop diverse and sustainable CRM supply chains. Additionally, the EU launched the Global Gateway initiative, which aims to mobilise €300 billion between 2021 and 2027 to boost European investments in energy, transport, and digital infrastructure in countries across the world. The Global Gateway is of particular importance to the EU's engagement with African countries, given its explicit focus on external partners. The EU hopes the initiative will enhance the relationship between the two continents.

Africa has emerged as a key battleground in the scramble for access to CRMs. The continent possesses around one-third of the world's mineral resources, including significant deposits of cobalt, copper, lithium, graphite, and a range of rare earth elements. CRMs are vital for the production of a wide range of technologies, including green energy technologies such as solar modules, EV batteries, and permanent magnets. Military uses include beryllium needed for fighter jets and targeting and surveillance systems, and semi-conductors, which are critical to

missile guidance systems and encryption technology. As the world decarbonises and increasingly switches to green energy, demand for these minerals is set to soar. The production of some of these minerals, such as cobalt, lithium, and graphite, will need to rise by up to 500 per cent by 2050. This feat cannot be achieved without the supply of Africa's CRMs.

### Selected low carbon minerals in African countries



Source: Mo Ibrahim Foundation, United States Geological Survey, ECFR.  
ECFR · ecf.eu

In pursuit of its goals, the EU signed strategic partnerships with Namibia in November 2022, the DRC and Zambia in October 2023, and Rwanda in February 2024. It is also party to the multi-stakeholder agreement for developing the Lobito Corridor, a railway and economic corridor joining Zambia, the DRC, and Angola, which is a logistics route enabling access to the

CRMs of these African countries.

Despite the EU's ambitious policies and strategic partnerships, European companies have been hesitant to venture into CRM supply chains in these African countries. In fact, since the advent of de-risking as an approach, little has actually materialised by way of projects. This points to a major disconnect between the EU's geopolitical and geo-economic agenda and the interests of the European private sector. This is a key challenge given that the EU is extremely dependent on European companies to deliver on its de-risking goals.

As EU efforts falter, other geopolitical powers are working to obtain African mineral resources in pursuit of their economic and energy security. For example, Emirati companies have recently purchased stakes in a number of mines in Zambia and the DRC. Turkey is making inroads into African mining, including in Sudan and Niger. Recently, India has also initiated discussions with some African countries around CRM mining opportunities, with exploration activities planned in Zambia.

Even like-minded allies are geo-economic competitors for Europe in this area, also aiming to build out their own CRM supply chains. Notably, the United States is drawing some investment away from European manufacturing in solar and EV supply chains, for example, through the attractive subsidies offered under its Inflation Reduction Act, which comprise an estimated 20 to 40 per cent of unsubsidised costs for solar modules and a \$7,500 tax credit for EV batteries. This financial support has persuaded manufacturers to locate themselves in the US rather than in Europe, taking production capacity, job opportunities, and CRM supply chains with them.

## How China's dominance grew

To work out what Europeans need to do to get ahead of their geo-economic competitors, a deeper understanding is required of how China in particular got to where it is today. In short, China appears to have spotted the strategic importance of CRMs at least 20 years ago. It has succeeded in gradually expanding both its mining operations in Africa and processing capacity back in China. Over time, China has moved up the value chain to manufacture more sophisticated technologies.

## Moving in as Europeans retreat

For many decades, European mining companies were leading players in African mining. However, European operations in Africa declined steeply over the last 10 to 15 years, coinciding with the end of the commodity super cycle, an extended period during which

prices had remained above their long-run trend. The high commodity prices of the super cycle period were driven by demand outstripping supply – these high prices encouraged greater mining investments which, in turn, led to higher supply and eventual collapse in prices as supply overtook demand. Mining companies and their financial backers, who had extended themselves when commodity prices were high, found themselves unable to fully recoup their investments once prices dropped.

Around this time, international environmental, social, and governance (ESG) standards also grew in importance, driven by a range of governmental, business, and civil society initiatives. European countries became signatories to many of these efforts, placing new expectations on European companies to adhere to ESG standards, including those encapsulated in the OECD Guidelines for Multinational Enterprises on Responsible Business Conduct.

Bringing mining operations into quick compliance with ESG standards in more undeveloped environments was not straightforward, as mining is a relatively ‘dirty’ industry and is costly to pursue in a responsible manner. To illustrate: complying with ESG standards involves safeguarding biodiversity, lowering carbon footprints, rehabilitating land after mine closure, implementing community engagement activities (such as providing clean water and health services), and committing to responsible resource use, transparent reporting, and good governance practices, among other things. ESG compliance often increases operational costs in the short term, requiring additional resources for these efforts. This new state of affairs initially rendered European companies uncompetitive compared to others that were not similarly expected to comply with ESG standards. European public and private finance for mining also waned, with banks having little interest in the sector amid challenges around ESG compliance and after the losses occasioned by the end of the commodity super cycle.

As European mining operations in Africa declined, Chinese companies were aggressively increasing their mining interests on the continent. This was facilitated in part by minerals-for-infrastructure deals under China’s Belt and Road Initiative. Unconstrained by ESG standards, Chinese mining companies enjoyed greater freedom to strike deals with African governments on accessing mineral resources.

China has since grown its control in the African mining sector, particularly in valuable CRMs such as cobalt, copper, and lithium in the DRC, Zambia, and Zimbabwe. Like Europe before it, China exported Africa’s resources in raw form for processing back home. This allowed it to use its cheaper electricity and labour, as well as notable state support and more relaxed approach to ESG standards within China, to build out CRM processing capabilities at home. Within a matter of years, China began to develop economies of scale that further reduced processing costs and allowed it to refine CRMs more cheaply than anyone else. Even metals

and minerals mined in the EU, such as lithium, are commonly processed in China, at a lower price, and with the risk of environmental damage removed from Europe.

For a number of years, the mining and initial processing of CRMs in China suited European firms well enough – after all, these were often hazardous activities with low profit margins. European companies seized the opportunity to concentrate on higher value phases of processing and manufacture. Over time, however, China came to control 60 per cent of global CRM production and 85 per cent of processing capacity. Chinese manufacturers also started working their way up the value chain, leveraging their greater access to CRMs and lower manufacturing costs to establish a system that now poses both a supply chain risk and competition risk for Europe. China appears to have had a comprehensive strategy in the CRM sector long before others recognised the crucial importance of these products.

China has decisively strengthened its hold on the manufacture of the green energy technologies that are now in high demand globally. Europe today sources 90 per cent of its solar modules from China, and European-manufactured solar modules are heavily reliant on imported components and materials from China. China achieved this through its lower production costs, as well as creating a supply glut of cheaper products that have depressed prices and undercut production elsewhere. European solar producers are unable to compete on price with Chinese manufacturers. As a result, around half of the EU's solar production capacity is at risk of being shuttered. This is not only bad for European industry, it also threatens to further entrench Europe's dependence on China.

China similarly controls 80 per cent of the global market for battery cell production, in which it leads on cost by a substantial margin. Overcapacity in battery manufacturing in China was already three times that of domestic demand in 2023 and may rise to more than six times by 2025; oversupply has collapsed prices and severely impacted on European producers. With batteries comprising around a third of the cost of EVs, and with labour and electricity costs markedly higher in Europe, European car manufacturers cannot compete with their Chinese equivalents on cost, particularly when some Chinese firms also benefit from unfair subsidisation.

## Consolidation in China

European efforts to reduce this reliance on Chinese CRMs and green energy technology supply chains are made more challenging by the particular market dynamics of CRMs. Understanding these market dynamics is necessary for considering Europe's de-risking options.



Importantly, the markets for CRMs are smaller than those for industrial metals, both in terms of volume and value of commodities, with some CRM markets amounting to only a few billion dollars annually. The pricing of CRM products can be opaque, with prices often agreed through confidential bilateral agreements or by vertically integrated Chinese companies that both mine and process CRMs. In some instances they may also be the buyer of the refined CRMs, while receiving some form of state support. A further complication is that a number of CRMs are by-products in the processing of other primary products, so their supply may be tied to the price of the primary product. This can increase price volatility and means that increased demand for CRMs does not necessarily lead to increased supply in the short term.

Refining encompasses a complexity of different processes required for different CRMs, producing a range of refined products with varying specifications depending on potential uses and users. Many refining processes are highly carbon-intensive and can be very environmentally damaging. Crucially, processing requires a certain scale to be economically viable and not all mines – or, indeed, countries – produce CRMs in sufficient volume and of sufficient quality to make local processing economically viable. The smaller volumes of raw minerals, as well as the complexity and low profitability of refining, mean that processing often needs to be consolidated to be more viable. These dynamics helped facilitate China’s domination of CRM processing.

Further processing beyond the initial refining stage is more advanced and includes the manufacture of precursor cells and other components from intermediary inputs. It requires easy access to a variety of intermediary inputs, as well as scale to be economically viable. The co-location in China of different CRM supply chains has undoubtedly facilitated the lower-cost manufacture of technologies such as solar equipment and EV batteries, enabling China to gain considerable market share. Additionally, manufacturing activities taking place in other countries still rely on China for at least some necessary components.

Establishing their own access to CRMs and building out processing capabilities will be a monumental task for Europeans. Imposing duties on Chinese EV imports into Europe will help protect some European manufacturing. But achieving further gains will require Europeans to either directly participate or otherwise invest in every step of the CRM supply chain – mining, refining, and further processing. Understanding what this would involve can help inform the design of the financial and other mechanisms needed to shift European private sector actors to (re-)enter CRM supply chains in Africa.



## Partnering with Namibia

The EU sees Namibia as a partner with a shared commitment to enabling the global green transition. The EU and Namibia signed a strategic partnership on sustainable CRM value chains and green hydrogen two years ago. Enough time has now elapsed to assess the agreement's impact on European participation in Namibia's CRM sector – and, therefore, its contribution to Europe's de-risking objectives. The conclusion is that there is some way to go. Despite the strategic partnership and some new activities, there is still no presence of EU companies in Namibia's CRM value chains.

### An attractive partner

Compared to other sub-Saharan African countries, Namibia offers remarkable political stability and an investment environment that is increasingly conducive to foreign investment. It has abundant land, a very small population of around 2.5 million people, and a population density of only 3.7 people per km<sup>2</sup>. Export infrastructure and skilled labour exist, although they need further development if CRM mining and processing activities in the country are to be scaled up. Additionally, it has a notably long coastline and easy access to global shipping routes.

High electricity costs and scarcity of freshwater pose notable obstacles to expanding CRM mining and processing in Namibia. In 2020, electricity imports were needed to meet around 60 per cent of demand in Namibia. This high dependency on imports, together with cost-reflective tariffs and margins for regional electricity suppliers, meant that Namibia had the most expensive grid-provided electricity prices in southern Africa for commercial electricity consumers, at around 2.40 NAD (around €0.14) per kWh in 2022 (although commercial consumers using off-grid options such as diesel generators in other southern African countries undoubtedly face substantially higher electricity costs).

However, Namibia has world-class solar and wind resources and, leveraging its abundant land, numerous renewable energy power projects are under way. More capacity expansion is planned and is projected to reach 230 MW of solar and 149 MW of wind by 2035. Deployment of solar plants is already lowering the cost of electricity in Namibia and will make desalination of seawater cheaper in instances where this is needed. This will help overcome the country's current electricity and freshwater constraints. The government also intends to leverage these renewable energy resources to establish a burgeoning green hydrogen sector, which could power CRM mining and processing in the country. At a time when many other

southern African countries are struggling with limited and unreliable electricity supply, Namibia is on a trajectory of making electricity both more plentiful and cheaper.

Namibia is thus set to become an attractive location for green processing and manufacturing activities – including potentially in ex-China CRM value chains.

## Critical raw materials in Namibia

While Namibia's broader investment environment is attractive, its CRM potential is more muted, although this is evolving as more mineral exploration takes place. Namibia has a history of mining, particularly in diamonds and uranium, and produces a number of CRMs, including lithium, graphite, copper, and rare earth elements. It has some local processing capacity in copper smelting and zinc processing.

Uranium is currently the only CRM for which Namibia is a notable global supplier – it is the world's third largest producer of uranium. The country's two most productive operational uranium mines, Rössing and Husab, are majority-owned by Chinese companies. Uranium mining in Namibia has not always been profitable, but its strategic importance for nuclear power reactors in China and China's long-term investment policy have enabled its continued production. China's ability to prioritise access to critical minerals over project profitability is a key factor, highlighting the limitations of Europe's market-based approach to CRM access to date.

Namibia has several existing lithium mines but, to date, the country has been a relatively small global supplier of lithium. The quality of currently mined lithium is far below the global 6 per cent standard needed for production of battery-grade lithium carbonate or lithium hydroxide, thereby earning a lower price per tonne. Low lithium prices in recent years have led to the temporary closure of some of Namibia's lithium mines. However, recent exploration activities appear to have uncovered new lithium finds of a higher ore grade, raising the likelihood of more profitable lithium mining in the country, should lithium prices recover.

Namibia also has deposits of heavy rare earth metals such as dysprosium and terbium, which are used in the manufacture of permanent magnets. Namibia's Lofdal deposit is considered to be one of the largest heavy rare earth deposits outside China. The country's rare earth projects are largely still in the exploration or feasibility phases.

In addition to Chinese mining companies, Australian and Canadian mining companies are also active in lithium and rare earth element mining in Namibia, especially in exploration activities. But once they have identified commercially viable mineral deposits, they have

often sold mining projects on to Chinese firms for development. [1]

In an effort to force greater local beneficiation, in June 2023 the Namibian government banned the export of unprocessed lithium ore, rare earth elements, and other CRMs. This move follows similar measures elsewhere, including in [Zimbabwe](#) and Tanzania. Mining licences now require mining companies to undertake at least initial processing of these raw minerals locally – but it is unclear whether local processing of these minerals is either commercially viable or technically feasible.

The new requirement to undertake local processing comes amid a sharp slump in prices. By September 2024, lithium carbonate and lithium hydroxide prices had lost almost 90 per cent of their value since late 2022. This makes the proposition for local beneficiation of lithium particularly challenging at this time. The sharp decline in lithium prices has prompted Zimbabwe, for example, to soften its stance against requiring local processing of lithium in the current climate. It may be necessary for Namibia, too, to rethink this requirement in the short term.

Similarly, prices for [dysprosium](#) and [terbium](#) have collapsed since their five-year high in early 2022 and mid-2022, respectively, with the price slump driven by oversupply within China and reduced demand for magnets amid an effort to lower production costs.

Despite the current unfavourable market, a Chinese company is reportedly currently constructing a lithium refinery in the country. [2] This is a notable step for local processing in Namibia. Rather than confirming the commercial viability of local processing, however, this may merely indicate how much China is willing to pay for access to lithium. China's ability to undertake local processing, potentially in the absence of commercial viability, furthers its own strategic goals. It also demonstrates goodwill towards the Namibian government, likely raising its political and economic leverage with them.

China taking the first initiative with local lithium refining in Namibia unfortunately may also deter European companies from establishing local processing activities, as it is far from clear whether the country's lithium production could support more than one refinery, at least in the short and medium term. Subsequent market entrants would struggle to secure lithium ore supply if the first-moving Chinese refinery has locked in supply through long-term agreements.

The processing of rare earths is even more challenging. These elements are found in very low concentrations, and extraction and separation can pose serious environmental risks as radioactive residues are released, which can contaminate the air, water, and soil. Around 2,000 tonnes of toxic waste are produced for every one tonne of rare earths, necessitating

extensive waste management. Specialist expertise is also needed for processing rare earths but this is relatively scarce outside China. These difficult dynamics need to be borne in mind as Namibian policymakers seek to enforce local beneficiation of rare earth elements – and must also be considered by European stakeholders as the EU pushes for greater de-risking from China.

In an effort to comply with the mandate for local processing, an alliance of three rare earth mining companies from Canada and Namibia is undertaking a feasibility study to explore the viability of developing a joint separation plant in Namibia. This plant would separate rare earth elements from concentrates of mixed rare earth oxides. A collaborative effort is necessary to try to meet the significant upfront cost of plant construction and minimum critical mass of ore needed for processing operations, which exceed what each developer would be able to deliver individually. Processing rare earths in Namibia will be very challenging, and the viability of this ex-China local processing will undoubtedly also be undermined by China's ban on the export of technologies needed for the extraction and separation of rare earth elements. The ban aims to hamstring ex-China processing and retain China's near-total dominance of rare earth element processing.

It will be a costly proposition for European companies to enter projects for local processing of lithium and rare earth elements. This reality is not sufficiently reflected in the EU's commitments to support local value addition in CRM value chains in African countries.

## The unintended outcomes of European policy in Namibia

The EU's strategic partnership with Namibia was the first that the bloc signed with an African country. It was motivated by the need for Europe to diversify its energy sources, including towards renewable energy, and Europe perceiving Africa as a close neighbour with common values and interests.

Regarding Namibia specifically, the EU hopes to collaborate on green hydrogen development and to gain access to CRMs in Namibia, with the view to building out European CRM supply chains. This would boost Europe's industrial capacity and de-risk its energy system from China. In turn, Namibia aims to use its CRM resources to increase local value addition, job creation, skills development, and technology transfer, and to support industrialisation and higher domestic revenue mobilisation and foreign currency earnings. Namibia is also keen to diversify its investors and dilute its reliance on China. [3] European interest in its CRM sector would present Namibia with an opportunity to leverage competition for better deals.

The scene is thus set to translate the strategic partnership into gains for both Namibia and the

EU. However, while European mining companies have the capabilities to mine CRMs, none are currently active in Namibia. Nor have they shown any appetite to participate in mining operations in the country since the signing of the strategic partnership. Several factors may be dissuading them.

The cost and difficulty of ESG compliance in mining activities is a barrier. [4] European finance shies away from these projects with concerns around the challenges of local processing predominating among investors amid calls for increased local beneficiation of minerals in African countries. As noted, Namibia's ban on the export of unprocessed lithium and rare earth elements means that mining licences now require at least initial local processing of minerals. In terms of whether local processing leads to improved outcomes for the host country, evidence from previous export bans, including in Tanzania and Zambia, is not encouraging. There, the result appears to have been decreased local production of both processed and raw materials. This suggests foreign investors' coolness towards mining operations in countries where local processing is required.

If European participation in Namibia's CRM sector is to be established in this landscape, two key elements are needed: first, the European private sector must be sufficiently commercially interested in available opportunities. The EU and its member state governments cannot themselves participate in CRM supply chains – in mining or processing or even as significant buyers of ex-China CRM products. Rather, they need the European private sector to drive these participation efforts. Second, European mining companies would need to outmanoeuvre others to secure these opportunities, notably through making a superior 'offer' to African governments than competitors'. The European offer would need to exceed that of China in particular.

Whether European companies can be persuaded to participate in Namibia's CRM supply chains depends on the economic attractiveness of projects. CRM supply chain opportunities are deeply location-specific in terms of their viability, which can vary depending on the size and quality of mineral deposits and the presence of enabling infrastructure, including transport infrastructure, reliable and affordable electricity, and sufficient water for mining and processing activities. A predictable and enabling regulatory environment, a workforce with the necessary skills, and easy access to global shipping routes are also key factors. Namibia is appealing across several of these factors, but the lack of extensive mineral exploration in the country and limited knowledge around the commercial viability of local processing remain barriers. They also bring into question the basis for the EU's selection of external partners and the realism of commitments made to partner countries under the strategic partnerships.

Europe's 'offer' to Namibia is encapsulated in the strategic partnership itself; two commitments made in the agreement have particular relevance. First, the EU has undertaken to adhere to international ESG standards in projects in Namibia. Second, it has promised to support the establishment of local processing of CRMs. These commitments are attractive to Namibia, with the latter commitment now also reinforced by the Namibian government's ban on the export of unprocessed lithium ore, rare earth elements, and other CRMs. The EU's commitment to Namibia reflects its interest in the sustainable development of Namibia's CRM supply chains – but, as noted, only companies can actually do the work that makes these commitments a reality.

The EU and Namibia agreed a roadmap for implementing the strategic partnership in November 2023; it outlines an ambitious list of activities for the 2023 to 2025 period. The roadmap includes activities such as capacity building for geological surveying and undertaking a pre-feasibility study for lithium processing in Namibia. These activities are currently ongoing.[5] Most roadmap activities, including these examples, are aimed at improving the local environment for developing CRM value chains in general – which benefits all actors active in Namibia's CRM supply chains. Given that European companies are not present in the CRM sector in Namibia, the EU's contributions are currently improving the environment only for other actors, including China. Nevertheless, by enabling the operations of more actors, these efforts may indirectly contribute to diluting China's control in some value chains.

This may be acceptable from the EU's perspective if supporting Namibia's sustainable development was the purpose of the partnership. But Europe's de-risking from China was an important objective for the EU. It is therefore a point of concern that not only are European companies not benefitting from such activities, but the EU's efforts may in fact be indirectly undermining its own de-risking objectives by helping Chinese companies and others to strengthen their access to CRMs.[6] At the same time, the EU needs to be seen to be delivering on commitments made under the implementation roadmap in order to maintain its relationship with Namibia and preserve its credibility with other African countries. Europeans are therefore stuck in a lose-lose situation with roadmap implementation unless they can cultivate European private sector participation in Namibia's CRM supply chain, and quickly.

To address this, they must renew efforts to achieve European participation in Namibia's CRM sector. This would ensure the strategic partnership contributes to Europe's de-risking efforts. Namibia is an easier prospect in many ways than Zambia or the DRC, given its enabling environment and existence of ex-China CRM supply chain opportunities, such as the



operation of Australian and Canadian mining companies. It is vital that the EU is able to make its strategic partnership work for European interests, or it will not bode well for efforts in other countries.

The difficulty in getting traction on European investments in Namibia highlights the limits of what EU efforts can achieve without European private sector participation. It also raises the need for the EU to reconsider how it deploys its resources in furtherance of its own de-risking objectives. Specifically, resources could make more of an impact if they were targeted directly at incentivising European companies to enter CRM supply chains – rather than providing all-sector support. More focus on market economics and less traditional development policy is needed.

## Lining up buyers for ex-China CRMs

For European participation in mining or local processing in Namibia to contribute to de-risking, it will also be necessary to keep all further processing of these CRM products outside of Chinese value chains. If products enter Chinese processing or manufacturing supply chains later, it will negate European de-risking efforts in mining and local processing phases. Achieving this starts with finding ex-China buyers for these refined CRMs. Buyers will need to satisfy at least three key criteria to ensure that supply chains remain ex-China and contribute to Europe's de-risking objectives. Like-minded allies that the EU wishes to work with on CRM access would likely have a shared view on these criteria, potentially creating scope for cooperation.

First, buyers will need to be European or from a friendly third country that will later sell components or final products manufactured with ex-China CRMs to Europe, thereby enabling Europe to diversify its supply chains. This would need to be stipulated in contracts, with necessary conditions passed on to every actor in the supply chain until products reach Europe – although this is a complex and difficult arrangement to enforce in practice. Second, buyers will need to be willing to pay a premium for the ESG-compliant, ex-China CRMs refined in Namibia. These products will be more expensive than their Chinese equivalents, due to smaller economies of scale and higher production costs, at least in the short term. Third, buyers must be willing to purchase refined CRMs and undertake further processing of these products into intermediary inputs and components themselves, rather than sourcing already-processed components and final products from China. This requires European companies to build out CRM processing capacity along the supply chain.

Finding buyers that meet these criteria will be very challenging. For example, there is currently only one facility in the EU capable of separating rare earths for magnet production,



with a second plant potentially being operational by 2025. European buyers are also not yet willing to pay a premium for ESG-compliant, ex-China CRMs, as much as they may like the idea of responsible sourcing. [7] Price still matters more to European buyers than where CRM products come from, although many European customers are increasingly concerned about the vulnerabilities created by their high reliance on China and are actively looking for alternative suppliers. Policy instruments can be used to help shift European procurement away from China's supply chains to an extent, such as application of import charges under the carbon border adjustment mechanism or duties on EVs imported from China. Nevertheless, there are limits to what costs European buyers can be expected to absorb where price differentials between Chinese and ex-China products are high.

Additionally, European companies have situated themselves at the higher end of the value chain. They need to buy components rather than lithium carbonate, for example, for their manufacturing operations. Little incentive exists for European companies to move to lower rungs of the value chain when cheaper, already-manufactured components and products from China are available. For European companies to build out processing capacity in parallel to China will be costly and will take time – posing a challenge to urgent decarbonisation demands.

Underlying these challenges is the further threat that, in an effort to reinforce its CRM supply chain dominance and strengthen its geoeconomic position, China may use its supply chain domination as a tool of retaliation. It could ban the export of CRM products to certain countries, or it could intentionally trigger a supply glut of any CRM product at any time in order to depress global prices and collapse the profitability of ex-China operations. The global impact of a supply glut is already seen with the ongoing collapse in lithium and rare earth prices. Western geoeconomic measures towards China may be met with retaliation that could send European companies active in ex-China CRM supply chains into financial distress or bankruptcy.

Given these challenges, it is evident that financial mechanisms are needed to improve the commercial viability of ex-China CRM opportunities and to persuade European companies to participate in ex-China CRM supply chains.

## What Europeans should do

### Improve support mechanisms for European companies

The EU has introduced various policies and initiatives with the goal of supporting European

companies operating in CRM supply chains, including in projects located outside the EU in friendly third countries. To access benefits, projects generally need to be attributed with Strategic Project status. Under the CRMA, for example, applicants for Strategic Project status must submit to the European Commission a range of supporting evidence to demonstrate that the project will strengthen the EU's supply of CRMs, is technically feasible, will comply with ESG standards, and will undertake local value addition if in a third country. They must share a business plan that shows, among other things, the financial viability of the project, including secured funding and offtake agreements. Applications must be submitted for consideration ahead of board meetings, which may be held quarterly or biannually.

Projects given Strategic Project status can receive assistance from the CRM Board to identify potential funding sources, including private investors, the European Investment Bank, European Bank for Reconstruction and Development, international finance institutions, and programmes and initiatives of member states and the EU (including the Global Gateway). The CRMA does not itself make new funding sources available, so financing options are limited to what other sources of funding can offer. The act also promises to facilitate offtake agreements, with the European Commission undertaking to establish a bidding process that could match buyers and sellers of CRM products based on the volume and quality of CRMs being sought or sold, intended price at which to buy or sell, and desired duration of the offtake agreement.

Most of these mechanisms are very recent and their impact on incentivising European participation in CRM supply chains in Africa is yet to be seen. Indeed, the first application round for Strategic Project status under the CRMA closed in August 2024, with 170 applications submitted. It is not yet known whether any of these applications pertain to possible CRM projects in Namibia or the other African countries with which the EU has signed strategic partnerships.

Some challenges are, however, apparent. For example, CRMA Strategic Projects can only receive advice on potential funding sources and the proposed bidding process for CRM offtake can only attempt to match buyers and sellers. This makes receiving financing and offtake facilitation potentially both uncertain and not very time sensitive. This will be a challenge for European companies looking to take quick advantage of an emerging opportunity, particularly when competitors are able to move faster. Projects must also be at a sufficiently mature stage, requiring them to have progressed to that point in the absence of Strategic Project benefits. This excludes projects that could have reached viability if financial support from the EU had been available at an earlier stage. Additionally, the European Commission's efforts to match buyers and sellers of CRM products will be complicated by the non-standardisation of these products, as CRMs must be refined to particular buyer

specifications and few companies purchase the same kinds of raw materials. CRM products do not lend themselves to bulk procurement, creating a very different scenario to, for example, development of joint procurement platforms for green hydrogen or natural gas, which are homogeneous products.

The EU pinned much hope on its strategic partnerships with African countries increasing its access to CRMs. Yet the lack of European private sector participation means this access is failing to materialise. Will the CRMA Strategic Projects approach be more effective? This will depend on whether the benefits extended to these projects succeed in aligning private sector interests with the EU's ambitions. This seems unlikely in the current market circumstances.

## Incentivise the private sector

The level of financing required for European companies to get in front of competitors in CRM mining and processing in Africa far exceeds the funding the EU and other European partners have made available to date. While other powers are speeding ahead, leveraging significant available resources to aggressively pursue opportunities, the cost of catching up is growing for Europe.

In addition to those already adopted, the EU will need to devise the following forms of support.

First, European companies participating in either mining or local processing need some form of price protection. This could be provided by European public financial institutions extending guarantees to producers to establish a minimum price (floor) and maximum price (ceiling) for ex-China products. This would remove some price volatility – on the upside as well as the downside – protecting producers against price drops by China while facilitating more long-term offtake agreements made possible by greater price certainty.

Second, greater deployment of political risk insurance is needed to support European companies entering more difficult contexts. This would protect companies against the risks arising from arbitrary actions by the host government, including expropriation, confiscation, and selective discrimination. Such risks are comparatively high in the mining sector. The European Investment Bank and the European Bank for Reconstruction and Development are able to provide political risk insurance, as are several European development finance institutions. More extensive use of these facilities is needed, with the institutions providing these products scaling up resources dedicated to them.

Third, measures to reduce Europe's electricity costs will be vital to enable greater processing capacity to be developed in Europe. European electricity costs are currently two to three times higher

than those in the US and China, which poses a significant barrier to expanding processing capabilities in Europe. Reducing electricity costs in Europe will take concerted efforts from a number of actors, including private sector investments in renewable energy supported by incentives from the EU and member state governments.

Finally, the EU and member state institutions will need to develop better consultation platforms with the European private sector to understand their concerns about entering CRM supply chains in Africa, what they could be incentivised to do, and what support it would take. This understanding should inform the nature of the support extended to European companies active in CRM supply chains in Africa, thereby ensuring that de-risking initiatives are more effective.

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Geopolitical and geoeconomic ambitions cannot wish away market dynamics and the need for the commercial viability of projects. However, well designed policies that target clear interventions can help overcome these factors. Turning the needle on CRM project viability in Africa is essential if European companies are to pursue these opportunities. This will come down to the nature and scale of support extended to European companies. It will undoubtedly be costly to develop incentives that can motivate European companies to enter CRM supply chains in Africa and deploy them at some degree of scale. But Europeans cannot afford not to act if they are to address this vital aspect of de-risking. Not only is their energy security at stake, but so is the EU's future political, economic, and military strength.

## About the author

*Sarah Logan* is a visiting fellow in the Africa programme at the European Council on Foreign Relations. Her main research interests are in energy and investment in Africa, with a focus on more fragile settings. She is an economist and lawyer with significant experience working with governments of countries experiencing fragility and conflict.

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editing of this policy brief. All errors are those of the author.

[1] Interview with Namibia Investment Promotion and Development Board, 22 August 2024.

[2] Interview with Namibia Investment Promotion and Development Board, 22 August 2024.

[3] Interview with Namibia Investment Promotion and Development Board, 22 August 2024.

[4] Interview with Euromines, 9 July 2024.

[5] Interview with EU officials, 25 July 2024.

[6] Interview with EU officials, 25 July 2024.

[7] Interview with Euromines, 9 July 2024, as well as references in numerous other discussions.

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