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Critical Minerals and Europe's Open Strategic Autonomy

The Case of the Democratic Republic of the Congo

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Abstract

This policy brief examines how recent EU initiatives, most notably the Critical Raw Materials Act (2023) and the broader framework of Open Strategic Autonomy, shape the Union's engagement with the Democratic Republic of the Congo (DRC), one of its most strategic yet fragile partners in the supply of critical minerals. While the European Union sets ambitious targets to reduce external vulnerabilities and strengthen resilience, its limited reserves and social opposition to mining make international partnerships indispensable. In this sense, the DRC emerges as both an opportunity and a test case for the EU's ability to combine regulatory ambitions with credible strategic action.

The analysis highlights the tension between Europe's ethical standards and the geopolitical pragmatism of global competitors, China above all. The brief argues that the EU's success will depend on whether it can translate its normative power into tangible influence, transforming an asymmetric relationship into a sustainable partnership that reconciles ethics with strategic interests.

Key Takeaways

- The EU's dependence on critical raw materials poses a structural vulnerability for its green and digital transitions.
- The Critical Raw Materials Act (2023) sets ambitious self-sufficiency targets, but European reserves and capacities remain limited.
- The Democratic Republic of the Congo is a crucial partner, yet governance fragility, corruption, and security risks challenge sustainable engagement.
- China's presence highlights the urgency for Europe to combine ethics with strategic pragmatism.
- Building resilient and fair supply chains requires a coherent EU approach that integrates regulation, diplomacy, industrial policy, and local development.

Introduction: Europe's Strategic Dependence on Critical Minerals

Europe's growing dependence on external suppliers for critical raw materials has become one of the most pressing challenges to its economic security and industrial resilience. Minerals such as cobalt, coltan, tantalum, tungsten, and gold are essential for technologies that support the green and digital transitions, yet the European Union remains heavily reliant on imports from other countries.[1]

This structural vulnerability exposes Europe to geopolitical pressures and market disruptions that threaten its capacity to act autonomously in strategic sectors. This policy brief argues that the Democratic Republic of the Congo (DRC) lies at the core of this dilemma. Understanding how the EU can reconcile its regulatory principles with the realities of resource governance in the DRC is therefore key to shaping a truly resilient and sustainable European strategy.[2]

For the European Union, the DRC represents both a strategic opportunity, as a primary source of cobalt and other critical minerals, and a systemic risk, due to chronic governance fragility, corruption, and recurrent instability in the eastern provinces.[3]

For decades, the EU has maintained relations with Kinshasa, based on development cooperation and post-colonial relations in a first phase, later framed by more complex legal instruments such as the Lomé Conventions and the Cotonou Agreement. Today, however, those frameworks are no longer sufficient. It is not just about development or cooperation. This concerns Europe's ability to assert true strategic autonomy in a multipolar world.[4]

This policy brief analyzes the evolution of EU-DRC relations and the strategic issues related to critical minerals, demonstrating how the challenge is not just economic or regulatory, but profoundly geopolitical. Then it discusses the limits of the European regulatory approach in competition with China, and the DRC's internal contradictions. The Congolese case is not a peripheral issue. It represents a test to see whether the EU is capable of combining principles and interests, ethics and realism, in view of a future in which economic security becomes an integral part of national and continental security.

In the years following the 2008 financial crisis, the European Union gradually became aware of its structural vulnerabilities. While the Single Market has been the heart of economic growth and integration for decades, the new historical phase highlighted how global value chains, which had fueled prosperity and competitiveness, could also become a source of fragility. Brexit, American protectionism, the pandemic, and international conflicts helped dismantle the illusion of a linear and increasingly integrated globalization, opening the gates for a new period characterized by fragmentation, geopolitical shocks, and strategic competition.[5] In this context, concepts of resilience, sovereignty, and open strategic autonomy have become very common in the EU lexicon.

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[1] Pitron, G., 2020, *The Rare Metals War: The Hidden Face of the Energy and Digital Transition*, Scribe Publications, pp. 26 e ss.

[2] Scholvin, S., & Wigell, M., 2018, *Geo-economics as Concept and Practice in International Relations*, FIIA Working Paper 102, Finnish Institute of International Affairs, pp. 6 e ss.

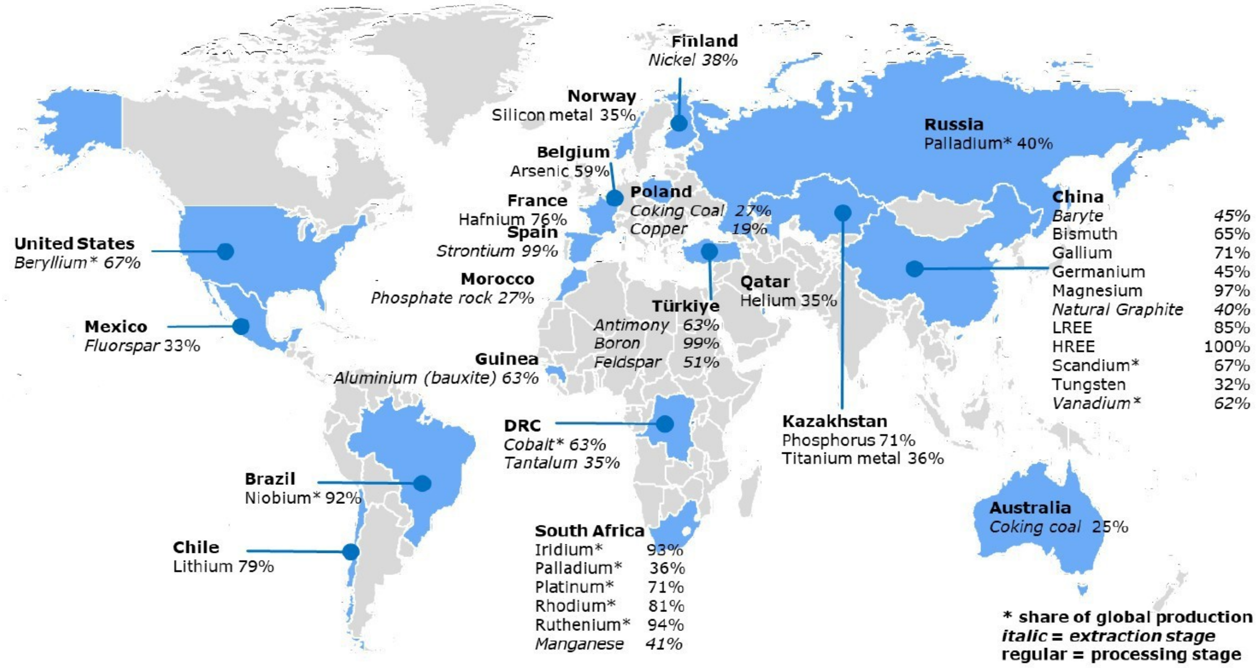
[3] Van Reybrouck D., 2016, *Congo*, Feltrinelli, Universale Economica, pp. 85 e ss.

[4] Guerrieri P., Padoan P.C., 2024, *"European competitiveness and strategic autonomy", The European Union and the double challenge: strengthening competitiveness and enhancing economic security*, Luiss Institute for European Analysis and Policy, Jean Monnet Centre of Excellence on EU Inclusive Open Strategic Autonomy, Working Paper 5/2024, pp. 6 e ss.

[5] Massolo G., 2024, *Realpolitik, How to face the global disorder*, Solferino, pp. 35 e ss.

All of a sudden, the European Union realized the importance of being able to defend its vital interests without overly depending on external actors. This is particularly true for critical minerals, essential for the production of batteries, semiconductors, wind turbines, solar panels, and advanced digital technologies.[6]

Figure 1 - Worldmap of the main CRM suppliers to the EU (2023)



Source: European Commission, 2023.

Europe imports the vast majority of these raw materials from third countries, and in many cases, refining and processing are concentrated in the hands of a few global players, with China in a dominant position.[7] The Democratic Republic of the Congo, with its immense reserves, represents one of the most significant but also most problematic actors. The extraction process is often linked to corruption, exploitation, human rights violations, and the financing of armed groups.[8] At the same time, the country remains a strategic partner if the EU wants to reduce its vulnerabilities and ensure access to essential resources. The issue of critical minerals therefore not only concerns trade or industrial policy, but also touches the roots of European security, like energy, technology, and geopolitics.[9]

For this reason, relations between the EU and the DRC become emblematic of a broader challenge. Will Europe be able to reconcile its role as a regulatory power, based on the promotion of values and rules, with the need to compete in a world where other actors pursue their own interests without ethical constraints?

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[6] European Commission, *Critical Raw Materials for Strategic Technologies and Sectors in the EU*, 2020, COM(2020).

[7] Power, M., Mohan, G. & Tan-Mullins, M., 2012, *China's Resource Diplomacy in Africa, Powering Development?* International Political Economy Series, Palgrave Macmillan, pp. 329 e ss.

[8] Kibingila D. & Pronczuk M., 2025, *Congo's coltan miners dig for world's tech – and struggle regardless of who is in charge,* AP News, (https://apnews.com/article/rubaya-congo-mining-coltan-trump-deal- 8bc0b36cc1def4be7e583e658b0bb444).

[9] European Commission, 2020, *A New Industrial Strategy for Europe*, COM(2020), 102 Final, pp. 1 e ss.

The Evolution of EU-DRC Relations: From the Lomé Convention to the Cotonou Convention

The relations between the European Union and the African, Caribbean, and Pacific (ACP) countries, of which the DRC is a part, have origin dating back to the decolonization process.

During the 1960s, with the Yaoundé Conventions, the aim was to maintain a privileged relationship between the then European Economic Community and its former African colonies.

With the Lomé Convention, signed starting in 1975, this relationship was further consolidated, taking on an innovative form compared to traditional trade agreements.[10]

Lomé Convention introduced a new system, characterized by non-reciprocal preferences.

The ACP countries could export a wide range of products to the EEC at zero duty, without being obliged to guarantee the same treatment to European imports.[11] The main objective was to sustain the economic development of Europe's partners, promoting their industrialization and the integration in the global economy. Actually, this structure reflected also the European will of maintaining a privileged influence on its ex colonies, securing preferential access to resources and markets in a rapidly changing world.[12]

The DRC, despite being plagued by chronic instability, represented a strategic partner for Europe, especially because of its mineral resources.[13] The Lomé framework, however, remained anchored to an essentially welfare-based paradigm. The EU provided trade access and development aid, while ACP countries remained subordinate, with little margin for autonomy.

With the end of the Cold War and the evolution of global trade, this paradigm entered into crisis. In 2000, the Cotonou Agreement was signed, marking a major turning point.[14] On the one hand, it introduced elements of trade reciprocity with the prospect of negotiating more balanced Economic Partnership Agreements; on the other, it tied the provision of aid to respect for democratic principles, human rights, and good governance.

The Cotonou Agreement thus reflected the EU's new ambition: no longer simply an economic partner, but a player capable of exporting rules, values, and institutions.[15] However, even within this more sophisticated framework, natural resource issues remained secondary, often relegated to a technical or sectoral level. The idea that access to critical minerals could become a European security issue was not yet mature, and European policies continued to be primarily oriented towards development and governance. With the growing global demand for strategic resources and, above all, the rise of China in the African scenario, the EU-DRC relationship began to assume a new meaning, shifting from the language of development cooperation to that of geopolitical competition.

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[10] ACP-EEC, 1975, *ACP-EEC Convention of Lomé* (Lomé I), (https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A21975A0228(01).

[11] Ibidem.

[12] Nugent P., 2012, *Africa since Independence*, London, Palgrave Macmillan, pp. 29 e ss.

[13] Van Reybrouck D., 2016, *Congo*, Feltrinelli, Universale Economica, pp. 85 e ss.

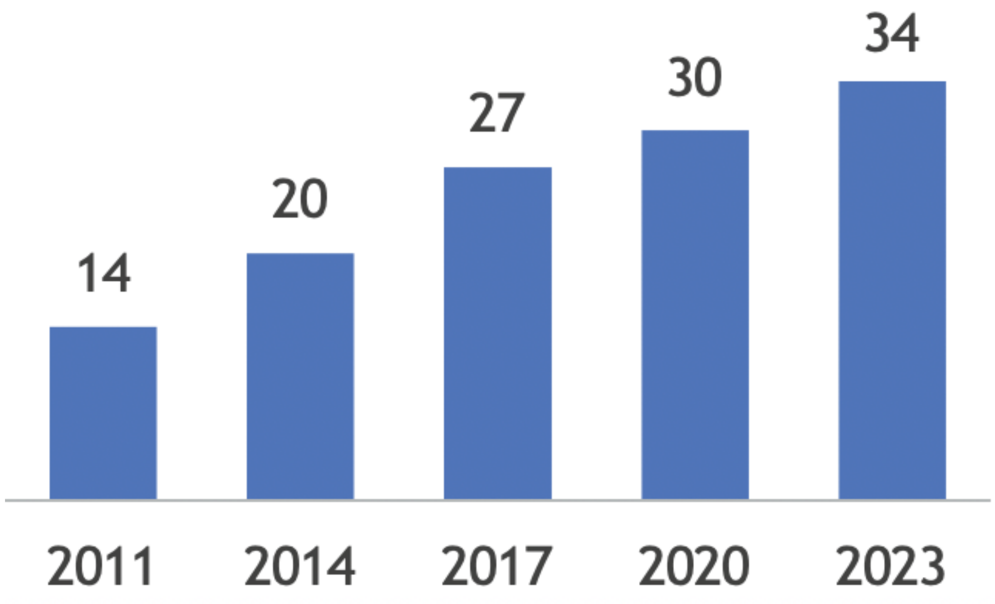
[14] Hurt, S. R., 2003, *Co-operation and coercion? The Cotonou Agreement between the European Union and ACP States and the end of the Lomé Convention*, Third World Quarterly, 24(1), (https://doi.org/10.1080/713701373), pp. 161 e ss.

[15] European Union & ACP Countries, 2000, *Partnership Agreement between the Members of the African, Caribbean and Pacific Group of States and the European Community and its Member States* (Cotonou Agreement), (https://eur- lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A22000A1215%2801%29).

Challenges on the Ground: China, security, and the ethical paradox

The geopolitical shift of the 2000s radically changed the landscape. With China's economic rise and its growing influence in Africa, relations between the European Union and the Democratic Republic of the Congo have become increasingly competitive. Beijing, through a combination of loans, infrastructure investments, and long-term contracts, has secured privileged access to mines and strategic resources, building the foundations for a deep-rooted presence that today translates into political, economic, and even cultural influence.[16] China has built roads, railways, and power plants in the DRC in exchange for mining concessions and supply contracts. Its strategy, less constrained by regulatory considerations and conditionality clauses has proven particularly effective in a fragile context, where the speed and concreteness of agreements often matter more than transparency or long-term sustainability.[17] For many African governments, including the Congolese, the Chinese approach represents an immediate path to development, even at the cost of accumulating debt and reducing space for sovereignty.

Figure 2 - Number of CRMs for the EU



Source: EPRS, 2023.

The European Union finds itself faced with a fundamental contradiction. On the one hand, its international identity is built on the idea of being a normative power, an actor capable of disseminating rules, standards, and values through the weight of its market and regulatory capacity. Regulation 2017/821 on conflict minerals is the most emblematic example.[18] It represents an innovative due diligence tool, aimed at holding European companies accountable and preventing the profits of raw materials from financing wars or human rights violations.[19]

[16] Sellari P., 2020, *Scenari eurasiatici, Le vie della seta e la proiezione imperiale cinese*, Edizioni Nuova Cultura, Roma, pp. 26 e ss.

[17] Power, M., Mohan, G. & Tan-Mullins, M., 2012, *China's Resource Diplomacy in Africa, Powering Development*, pp. 329 e ss.

[18] European Union, 2017, *Regulation (EU) 2017/821 of the European Parliament and of the Council of 17 May 2017*, (https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32017R0821).

[19] Ibidem.

On the other hand, however, this regulatory ambition clashes with the reality of global competition. While the EU introduces stringent regulations, its competitors often operate with greater flexibility, accepting compromises that allow them to secure rapid and consistent supplies. This creates a paradox. Europe risks being disadvantaged precisely because of its ethical commitment, losing ground in terms of access to resources and therefore economic security.[20]

The dilemma becomes even more evident when considering the growing domestic demand for raw materials to support the green and digital transitions.[21] It has been estimated that, by 2030, Europe's demand for lithium, cobalt, and rare earths could increase four or five times. Without secure and diversified access, the EU risks compromising its industrial competitiveness and being exposed to supply chain disruptions.[22] This is where the case of the DRC becomes emblematic: it is a country that is a primary source of resources but is also one of the most unstable regions on the planet.

Figure 3 - EU material demand forecast examples, high demand scenario

	EU demandin2030 comparedwith2020	EUforecast demand in 2050 compared with 2020
Lithium	x 12	x 21
Graphite	x 14	x 26
Nickel	x 10	x 16
Dysprosium	x 6	x 7
Neodymium	x 5	x 6
Platinum	x 30	x 200
[illegible]	x 4	x 6

Source: European Commission, Joint Research Centre, 2023.

Europe therefore faces a difficult choice. It can continue to pursue an approach based primarily on regulation and the promotion of values, but at the risk of being marginalized in global competition. Alternatively, it could complement its regulatory ambitions with a more explicitly geopolitical strategy, including bilateral partnerships, infrastructure investments, security measures, and greater coordination with member states.[23]

[20] European Union, 2017, *Regulation (EU) 2017/821 of the European Parliament and of the Council of 17 May 2017 establishing supply chain due diligence obligations for Union importers of tin, tantalum and tungsten, their ores, and gold originating from conflict-affected and high-risk areas*, Official Journal of the European Union, L 130, 1–20.

[21] European Commission, *Critical Raw Materials for Strategic Technologies and Sectors in the EU*, 2020, COM(2020). [22]Meunier S., Nicolaidis K., 2006, *The European Union as a Trade Power*, Journal of the European Public Policy 13:6, Routhledge, Taylor and Francis Group, pp. 906 e ss.

[23]European External Action Service, 2016, *Shared vision, common action: A stronger Europe – A global strategy for the European Union's foreign and security policy*, (https://www.eeas.europa.eu/sites/default/files/eugs_review_web_0.pdf).

In other words, the EU must shift from a policy of merely regulating supply chains to one of investment and strategic presence on the ground. This does not mean abandoning its principles, but rather equipping itself with the tools to ensure that they will have a real impact.

Without the ability to have a concrete impact on partner countries, the risk is that European regulations will remain on paper, while other players consolidate their influence.

The global competition for critical minerals is therefore also a competition of models. On one side there is the Chinese model, pragmatic and fast-paced, offering infrastructure and credit in exchange for resources; on the other, the European one, slower and more conditional, but oriented towards standards of sustainability and responsibility. To be successful, the European model will have to become more credible, more incisive, and more capable of reconciling ethics and self-interest.[24]

While global competition sets the stage, the internal situation of the Democratic Republic of the Congo largely determines the sustainability and reliability of any European strategy.

The DRC is indeed a paradox. It is a potentially extremely rich country, with many natural resources, yet marked by a chronic fragility that undermines its development and makes international cooperation extremely difficult.[25]

Politically, the DRC has weak institutions. Elections, while formally regular, are often accompanied by protests, accusations of fraud, and internal tensions. The fragmentation of power between the center and the periphery is accentuated by the country's enormous territorial extension, which makes it difficult to exercise widespread control. In many provinces, especially in the east, the state is virtually absent, leaving room for a multiplicity of local actors, militias, and armed groups that finance themselves through control of mines and mineral smuggling.

It is widely recognized that the conflict with the March 23 Movement (M23) represents one of the most significant threats to stability. This rebel group, active primarily in the provinces of North Kivu, has been accused of receiving support from neighboring Rwanda, which is interested in maintaining direct influence over the eastern region of the DRC.[26] Regional dynamics further complicate the situation. Rwanda, despite being small and lacking significant natural resources, has managed to establish a significant role in mineral export chains, serving as a hub for the illegal trade in coltan and other materials mined in Congo.[27] The link between internal conflicts and external interests means that minerals have become not only an economic resource but also a veritable stake in political and military power. Without any state control, extraction becomes a source of funding for armed groups, perpetuating a vicious cycle of violence, instability, and exploitation.

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[24] European Commission, 2021, *Trade Policy Review – An Open, Sustainable and Assertive Trade Policy*, Brussels, European Commission, (https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:52021DC0066).

[25] Van Reybrouck D., 2016, *Congo*, pp. 85 e ss.

[26] European Parliament, 2025, *European Parliament resolution on the occupation of Goma and call for suspension of the EU-Rwanda MoU on sustainable raw materials value chains*, European Parliament Plenary Press Release, (https://www.europarl.europa.eu/news/en/press-room/20250206IPR26752/meps-want-to-suspend-eu-rwanda-deal-on- critical-raw-materials).

[27] European Parliament, 2025, Texts adopted – Thursday, 13 February 2025: *RESOLUTION on increasing pressure over Rwanda's support for M23 and related measures* (EU-Rwanda MoU suspension, reinforcement of traceability, etc.), European Parliament Documents, (https://www.europarl.europa.eu/doceo/document/TA-10-2025-02- 13_EN.html).

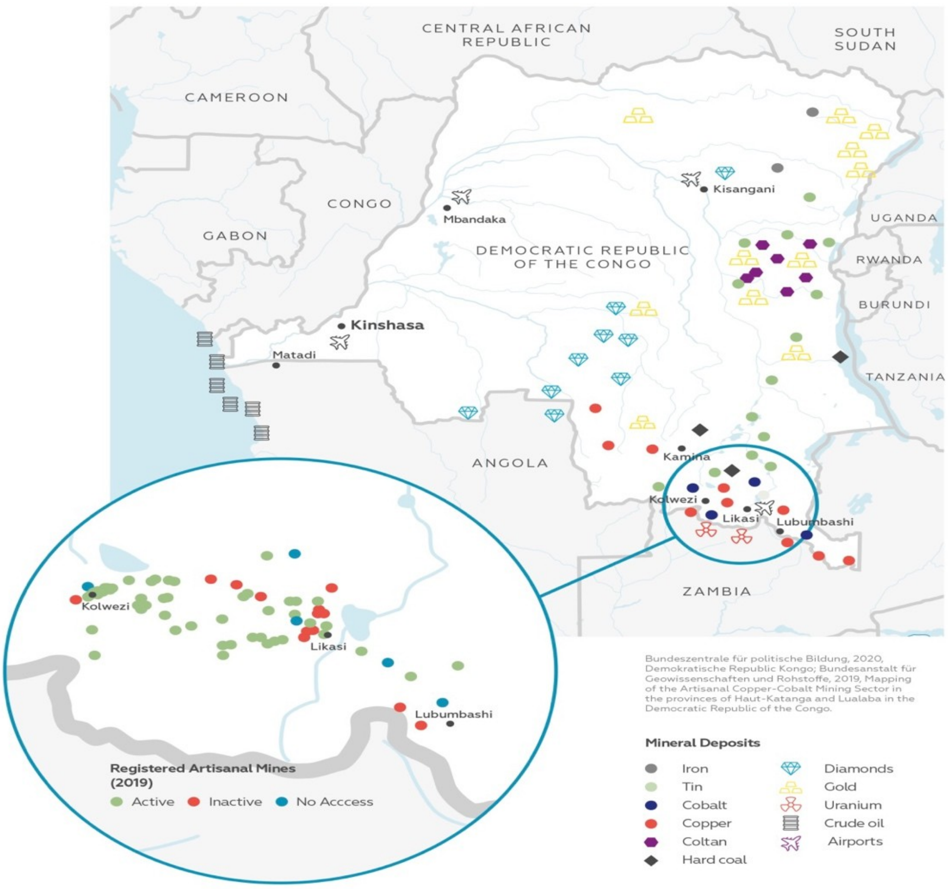
The DRC Case: Opportunity and Risk in Europe's Supply Chain

Alongside security concerns, the country's economic and institutional governance suffers from serious issues. Corruption is widespread at all levels, from mining concessions to customs controls. This kind of "resource curse" is particularly evident in Congo. Minerals wealth and extreme poverty coexist, generating social frustration and delegitimizing the state.[28]

The social impacts of mining are equally problematic. Much of the production comes from artisanal and informal mines, where working conditions are precarious and often dangerous.

Child labor is still widespread, with children employed in mining activities that expose them to serious health risks.[29] Local communities, despite living near the mines, benefit minimally from the profits while suffering devastating environmental and social consequences: water pollution, soil degradation, loss of agricultural land, and forced displacement.

Figure 4 - Mineral wealth and Artisanal Mining in the DRC



Source: DGAP, 2023.

[28] World Bank. (2025). *Democratic Republic of the Congo – country overview (poverty & dependence on extractives),* (https://www.worldbank.org/en/country/drc/overview).

[29] Human Rights Watch. (2022, July 14). *Child labor and human rights violations in the mining industry, Democratic Republic of Congo.* Human Rights Watch, (https://www.hrw.org/news/2022/07/14/child-labor-and-human-rights- violations-mining-industry-democratic-republic-congo).

The fundamental point is this: the issue of critical minerals in the DRC cannot be addressed just as a trade or industrial policy issue. It requires integrated approach, considering political, security, governance and human protection dimensions. Without improvement in Congo's internal environment, any European regulation risks remaining ineffective.[30]

For the EU, therefore, the challenge is twofold: on the one hand, ensuring the supplies necessary for its own economic security, and on the other, contributing to the stabilization and institutional strengthening of the DRC. Only in this way will it be possible to transform an asymmetric and problematic relationship into a strategic partnership capable of producing mutual and sustainable benefits.

In recent years, the European Union has defined a new conceptual framework for addressing growing global competition to the Open Strategic Autonomy (OSA).[31] This concept captures the tension between keeping Europe fully integrated into the dynamics of international trade and strengthening the ability to protect its vital interests while avoiding excessive dependence on external suppliers.[32] Within this framework, critical raw materials play a central role, as they represent the material basis for industrial competitiveness, the ecological transition, and European technological security.

From Regulation to Strategy: The EU Response

The Critical Raw Materials Act, adopted in 2023, has already been mentioned. It is the most significant legislative implementation of this strategy.[33] It establishes clear objectives: by 2030, at least 10% of the extraction, 40% of the processing, and 15% of the recycling of critical minerals must take place within the EU, while no third country must meet more than 65% of Europe's demand for a single material. These are ambitious goals, demonstrating the desire to strengthen domestic production capacity and reduce the risks associated with concentrated supplies. However, the reality is far more complex. Europe lacks, although to a limited extent, the resources necessary to achieve self-sufficiency.

It can therefore be argued that the CRMA cannot be interpreted as a strategy of self-sufficiency, but rather as a project to rebalance interdependencies. From this perspective, strategic partnerships with third countries become crucial. Among them, the Democratic Republic of the Congo occupies an emblematic position. It offers Europe access to essential resources such as cobalt and it represents a test of the EU's ability to reconcile economic needs with regulatory principles in a fragile and competitive environment.

[30] Carbone, M., 2023, *The European Union and International Development: Evolving Tensions and Contested Transformations,* in C. Hill, M. Smith, and S. Vanhoonacker (eds.), International Relations and the European Union (4th edn), Oxford: Oxford University Press, (www.oxfordpoliticstrove.com/display/10.1093/hepl/9780192897343.001.0001/hepl- 9780192897343), pp. 248 e ss. [31] European Commission, 2022, *Open Strategic Autonomy for Europe – Now and in the Future*, COM(2022) 283 final, (https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM%3A2022%3A283%3AFIN).

[32] Guerrieri P., Padoan P.C., 2024, *"European competitiveness and strategic autonomy", The European Union and the double challenge: strengthening competitiveness and enhancing economic security,* Luiss Institute for European Analysis and Policy, Jean Monnet Centre of Excellence on EU Inclusive Open Strategic Autonomy, Working Paper 5/2024, pp. 6 e ss.

[33] European Commission, 2023, *European Critical Raw Materials Act,* (https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal/green-deal-industrial- plan/european-critical-raw-materials-act_en).

The European vision is to transcend the purely transactional logic typical of other global players, to build long-term relationships based on mutual benefits, technology transfer, high standards of sustainability, and inclusive governance. This approach faces structural challenges: the institutional fragility of the partners, competition from players like China, the fragmentation of the EU's internal policies, and the difficulty of attracting private investment in a high-risk sector.

Open Strategic Autonomy thus remains a project under construction, marked by a persistent gap between ambition and reality. The EU continues to rely significantly on external suppliers, while internal initiatives are insufficient to bridge the gap in the short term. At the same time, the credibility of the European model depends on the ability to demonstrate that it is possible to build resilient and sustainable value chains even in contexts of instability. In this sense, the relationship with the DRC can become a political and strategic test: if Europe succeeds in translating the OSA principles into concrete and coherent instruments, it will be able to strengthen its global position and substantiate its aspirations of normative power; if, however, slowness, divisions, and inconsistencies prevail, it risks losing ground to competitors and seeing its ability to act as a geopolitical actor eroded.

Conclusions: the DRC case as a test case for Europe

The critical minerals issue, centered in the Democratic Republic of the Congo, exposes one of the central tensions of the new century: the need to reconcile principles, norms, and values with the concrete needs of economic security and industrial survival. The European Union has advanced regulatory tools and a regulatory tradition that are unique in the international landscape. However, these tools, without a tangible political and strategic presence on the ground, risk remaining mere stylistic exercises, lacking the effectiveness needed to impact complex and competitive environments.

The Chinese model demonstrates that speed of action and concrete investments can change global balances in just a few years. The European model, founded on the market, norms, and standards, must now demonstrate that ethical credibility is not incompatible with the capacity for strategic action. To achieve this, the EU will need to adopt a coherent and integrated package: more effective rules, binding and mutually beneficial bilateral partnerships, targeted public and private investments and stabilization tools in extractive areas. The success of this strategy cannot be measured just in tons of imported minerals or macroeconomic indicators, but above all in the Union's ability to transform a historically asymmetrical relationship into an equal partnership. A partnership capable of generating local development, consolidating political stability, and simultaneously ensuring new industrial opportunities in Europe. If the Union is able to move in this direction, the Democratic Republic of the Congo will no longer be a problem to be managed, but a political and strategic laboratory in which to demonstrate the possibility of building resilient, sustainable, and fair value chains.

In doing so, Europe would not only strengthen its Open Strategic Autonomy but also redefine its global role as a credible and responsible power, capable of aligning values with interests and translating regulation into strategy. Yet, the crucial question remains: can the European Union truly transform its principles into political power, its normative tradition into strategic leverage, and its ethical rhetoric into tangible outcomes on the ground? The answer to this question will determine not only the future of the partnership with the Democratic Republic of the Congo, but also the very credibility of the Union as a global actor in an increasingly multipolar world.