



# Sourcing critical raw materials through trade and cooperation frameworks

How the EU plans to secure an external supply of critical raw materials for the green transition

In the context of the green and digital transitions, this briefing reviews how the EU could leverage the European Critical Raw Materials Act (ECRMA) and its trade policy to source critical raw materials (CRMs) from third countries. This briefing examines existing frameworks for trade and cooperation on Critical Raw Materials with key partners such as Chile, Canada, Kazakhstan, Namibia and the US. The briefing highlights the role of Strategic Partnerships and Projects to secure an external supply of CRMs and recommends how the EU could enhance its trade and cooperation approach to achieve a global just transition.

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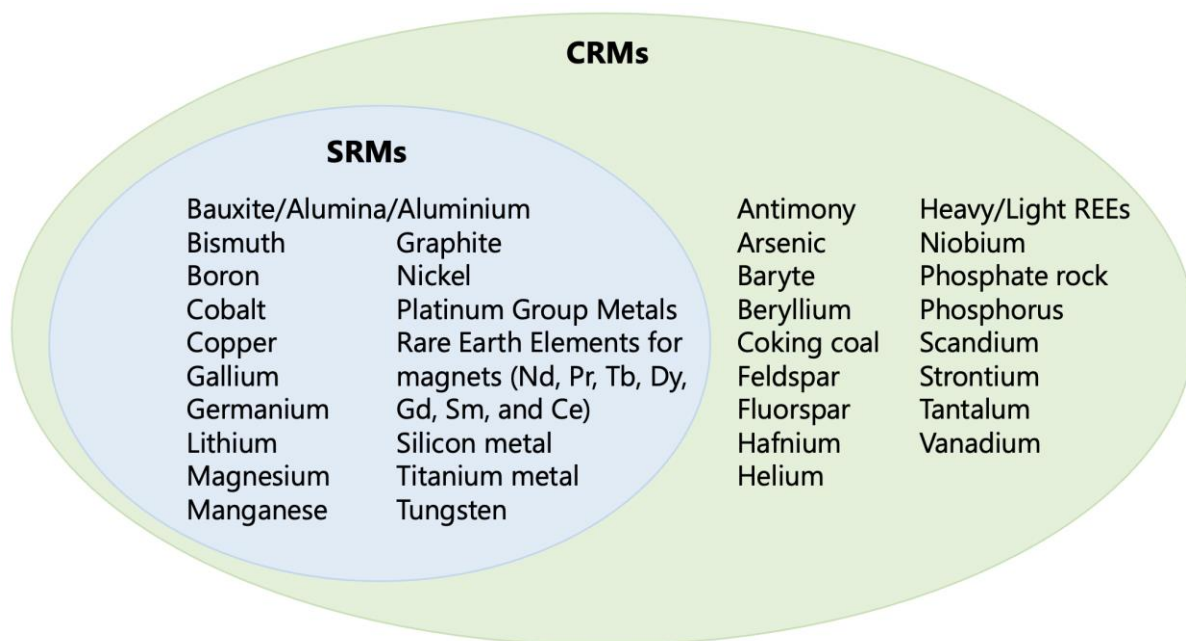
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The Green Deal Industrial Plan aims to transform the EU into the global frontrunner of clean technologies and contribute to a climate-neutral EU by 2050. One element of the Industrial Plan, the Net-Zero Industry Act, aspires to bolster the regulatory framework and accelerate the deployment and permitting of domestic projects to build up the EU's capacity for clean technologies. The EU's success in re-shoring and establishing a leading net-zero industry hinges on the availability of certain materials and the predictability of their respective supply chains. Accordingly, the European Commission published its proposal for a European Critical Raw Materials Act (ECRMA) in March 2023 to secure a stable supply of critical raw materials (CRMs) to deliver the clean industrial transition. Following a record-quick policy process, the EU Institutions agreed on the text in November 2023, and the legislation is expected to be formally adopted soon.

The European Critical Raw Materials Act aims to boost the availability of CRMs for domestic industries by facilitating domestic extraction, processing, and recycling of CRMs and diversifying the EU's external supply. The EU has already adopted several legislations to improve the circularity (collection, reuse and recycling) of products containing CRMs (Mayrhofer & Bolger, 2024)<sup>1</sup>. However, as IEEP's previous briefing on the ECRMA explores, there are still gaps between the EU's ambitions regarding increased CRM circularity and the current state of play (Watkins, Bergeling, & Blot, 2023). Due to these circularity gaps, sourcing CRMs within the EU – including domestic extraction<sup>2</sup> – remains insufficient for the EU to become self-reliant. Therefore, the external supply of CRMs continues to be necessary to deliver the net-zero transition.

The Critical Raw Materials Act defines which materials are considered "critical" based on their importance for the European market and the risk of supply chain disruption. Anticipating the race for specific CRMs, the European Commission also establishes a list of strategic raw materials (SRMs), which are those materials which are considered both highly strategic and at risk of future supply and demand imbalances. Figure 1 below provides an overview of the CRM and SRM lists<sup>3</sup>.

**Figure 1: List of CRMs and SRMs in the ECRMA adopted by the European Parliament.**



Several CRMs are particularly important for the green transition to produce electric vehicles (EVs) and battery storage, the expansion of electricity networks and the production of wind and solar photovoltaic (PV) panels. Accordingly, global demand for materials such as

<sup>1</sup> E.g. the new Batteries Regulation (EU 2023/1542) which entered into force in August 2023.

<sup>2</sup> Some Member States have identified reserves of specific CRMs, however the resources are either untapped or insufficient to source from for the EU's net-zero transition.

<sup>3</sup> The author utilises the term CRMs throughout this briefing to limit potential confusion for the reader, unless referencing text in the ECRMA.

aluminium, cobalt, copper, lithium, manganese, nickel and rare earth oxides (REOs) is expected to soar by 2040 (IEA, 2021).

Aluminium is also a highly strategic raw material, mainly to produce EVs, solar PVs, and to expand electricity networks (Gregoir & van Acker, 2022). As such, the European Parliament added aluminium to the SRM list in the final text adopted of the Regulation. Yet, bauxite, a primary source of aluminium and gallium, is only considered a CRM, although the EU is highly reliant on the import of bauxite. Nevertheless, the recycling capacity of aluminium within the EU is anticipated to expand, hopefully reducing the need for bauxite to refine primary aluminium (Blot & Stainforth, 2022).

In the EU alone, the material demand for clean technologies could increase substantially by 2050, especially for technologies in which the EU is not a market leader but plans to ramp up domestic production, such as batteries and solar PVs. Table 1 provides an overview of several critical clean technologies, their estimated total material demand increase by 2050 compared to 2020 and their required CRMs, which have a concentrated global supply and are at risk of future market instability (Gregoir & van Acker, 2022).

**Table 1: Clean technologies, their expected total EU material demand increase by 2050 compared to 2020 demand and their required CRMs with concentrated global supply.**

Clean technologies	Material demand increase by 2050 (kt)	Critical raw material
EVs	1011%	Bauxite (Al), copper, REOs
Batteries	3685%	Cobalt, lithium, manganese, nickel
Electricity networks	72%	Bauxite (Al), copper
Wind	175%	Bauxite (Al), copper, manganese, nickel, REOs
Solar PVs	13840%	Bauxite (Al), copper

Source for material demand increase from (Gregoir & van Acker, 2022)

## Distribution of CRM reserves among trade partners

Indeed, the availability of these CRMs from the EU's trade partners is subject to factors such as the location of natural reserves and extraction capabilities, political/economic stability and global market supply/demand fluctuations, with some CRMs concentrated in a handful of countries. Specifically, EU import reliance on the above CRMs includes 68% of cobalt imports from the DR of Congo (European Commission, 2020), 63% of bauxite imports from Guinea, 79% of lithium from Chile, 41% of manganese from South Africa, and between 85-100% for all REOs from China (European Commission, 2023h).

Table 2 provides an overview of countries holding significant global reserves of specific CRMs for the green transition. This table was constructed using US Geological Survey data, which estimates the reserves per CRM per country. However, unexplored reserves are not taken up in the data. Moreover, the levels of CRM extraction and total reserves are not always proportional, e.g., the country with the largest bauxite reserves (Guinea) is not the largest producer of bauxite (Australia). The same holds for the extraction versus processing of CRMs; China has a significant global market share regarding the processing of CRMs such as copper, cobalt, lithium and REOs, either domestically or through Chinese-owned enterprises in countries such as Australia, Chile and DR of Congo (IEA, 2023).

**Table 2: Significant presence of CRMs reserves in countries required to produce clean technologies.**

CRM	Country	Reserves (tons)	CRM	Country	Reserves (tons)
Bauxite	Guinea	7.400.000	Manganese	South Africa	640.000
	Vietnam	5.800.000		China	280.000
	Australia	5.100.000		Australia	270.000
	Brazil	2.700.000		Brazil	270.000
	Indonesia	1.000.000		Ukraine	140.000
	China	710.000		India	34.000
	India	660.000		Nickel	Australia
	Russia	500.000	Indonesia		21.000.000
Cobalt	DR Congo	4.000.000	Brazil		16.000.000
	Australia	1.500.000	Russia		7.500.000
	Indonesia	600.000	Philippines		4.800.000
	Cuba	500.000	Canada		2.200.000
	Philippines	260.000	China		2.100.000
	Russia	250.000	REOs	China	44.000.000
	Canada	220.000		Vietnam	22.000.000
	China	140.000		Brazil	21.000.000
Copper	Chile	190.000		Russia	21.000.000
	Australia	97.000		India	6.900.000
	Russia	62.000		Australia	4.200.000
	Mexico	53.000		USA	2.300.000
	DR Congo	31.000	Canada	830.000	
	China	27.000	South Africa	790.000	
	Indonesia	240.000	Lithium	Chile	9.300.000
	Lithium	Australia		6.200.000	Australia
Argentina		2.700.000		China	2.000.000
China		2.000.000		USA	1.000.000
USA		1.000.000		Canada	930.000
Canada		930.000		Brazil	250.000
Brazil		250.000			

Source of CRM reserves from USGS.

China, Australia, Brazil, and Russia house a diverse and substantial share of CRMs, including REOs, nickel, lithium, and manganese. At the same time, other countries such as Vietnam, Chile, Guinea, and the DR of Congo possess a less diverse but still noteworthy share of CRMs such as bauxite, lithium, cobalt and REOs. The BRICS countries house a significant share of global reserves of CRMs, including an array of the CRMs required for the green transition, especially REOs. Though the EU seeks to conclude and finalise FTAs with Brazil and India, a dedicated and up-to-date framework for trade in goods with China and Russia is unlikely to materialise in the coming years.

Therefore, the EU could turn towards its trade partners with FTAs in force, such as Vietnam, Chile, and Canada. However, these trade partners do not possess as diverse a share of CRMs as the BRICS, going against the ECRMA objective to diversify the supply of CRMs from trade partners. In this context, the EU's ongoing FTA negotiations with Australia, Mercosur, India, and Indonesia as additional suppliers of CRMs are crucial. Yet, trade negotiations often don't go as smoothly and quickly as the EU would anticipate.

For example, Indonesia has stalled ongoing FTA negotiations in protest to the EU's Deforestation Regulation proposal, and both Parties are in dispute at the WTO regarding Indonesia's restrictions on nickel ore exports (European Commission, 2023b). Also, the recent round of elections, which point to former Minister of Defense Prabowo Subianto as the favourite to win<sup>4</sup>, do not predict improved future relations between the trade partners. With Prabowo's likely election victory, Indonesia looks set to continue its existing policies to industrialise its CRM processing potential and become a significant producer of nickel-manganese-cobalt batteries. Indonesia has experienced a boom in its nickel-processing sector, made possible by substantial foreign direct investment (FDI), most of which originates from China. Moreover, the country has blocked the export of not only nickel ore but also bauxite and coal, with plans to block exports of copper ore as of May 2024 (Lu, 2024).

## Trade and cooperation frameworks for raw materials

The EU's approach to securing a strategic raw material stock abroad is unsurprising. The global market for CRMs faces several insecurities, such as export restrictions, resource nationalism, mineral cartels, market manipulation, political instability, social unrest and external shocks (IRENA, 2023). As a result, the reason for the EU's demand to formalise trade and investment relationships to smooth over any potential shocks down the road becomes clear.

Over the past decades, the EU has ramped up its bilateral engagements with trade partners and concluded several FTAs, including those with Canada, Chile and Vietnam. Other FTAs are either under negotiation (Australia, Indonesia, India) or are being finalised but are not yet in force (Brazil and Argentina through Mercosur). Other relevant trade partners such as China, Russia, Guinea and DR Congo have different or no trade frameworks. Table 3 below provides an overview of existing trade frameworks with each country.

Most of these existing trade frameworks are not specially catered to (critical) raw materials. For example, the EU and Canada's Comprehensive Economic and Trade Agreement (CETA) includes a Chapter on "Bilateral Dialogues and Cooperation" with a dedicated Bilateral Dialogue on Critical Materials. This framework for cooperation would eventually lead to the Parties launching the EU-Canada Strategic Partnership on Raw Materials to advance the value, security and sustainability of trade and investment of CRMs (see Tables 3 and 4 below for more information) (Blot, 2022; Government of Canada, 2021).

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<sup>4</sup> Final votes for the first round of elections are expected to be tallied by 20 March. If no one candidate cinches over 50% of the vote, a run-off election will take place in June 2024.

**Table 3: Existing trade frameworks for countries with significant reserves of CRMs.**

Country	Trade framework	Notes
China	Trade under WTO framework. The EU-China investment agreement (CAI) is awaiting ratification.	There is no specific article on raw materials, but CAI protects against forced technology transfers.
Australia	FTA negotiations stalled over agri-food quotas	It is highly likely to include a dedicated Chapter on Energy and Raw Materials.
Brazil	FTA concluded but stalled	There is no dedicated Raw Materials Chapter, but FTA would eliminate Mercosur's export duties on raw materials (such as soybeans). If the EU-Mercosur FTA is not ratified, the existing EU-Mercosur Association Agreement applies.
Russia	PCA and WTO rules with sanctions since Russia's invasion of Ukraine in 2022	<a href="#">Sanctions</a> include banned oil, coal, steel, iron, and gold imports and new Russian energy and mining investments.
Vietnam	FTA has been in force since August 2020	No dedicated Chapter, but public procurement?
Indonesia	PCA and GSP with ongoing FTA negotiations	Indonesia may also benefit from the EU's Standard GSP regime, where it can export certain goods at preferential tariff lines until the FTA negotiations are complete. Moreover, there is an ongoing dispute at the WTO regarding Indonesian export restrictions on nickel ore.
Chile	Modernised FTA concluded December 2022, awaiting signature	Dedicated Chapter on Energy and Raw Materials. See Box 1 below for more information.
India	WTO and GSP with ongoing FTA negotiations	India may export select goods to the EU with preferential tariff rates under the EU's Standard GSP.
Guinea	West Africa EPA and EBA beneficiary	Guinea can export goods to the EU under the GSP's Everything But Arms (EBA) regime.
Canada	FTA has been in force provisionally since 2017	The FTA has no Chapter on Raw Materials but establishes a Bilateral Dialogue on Critical Materials, facilitating the launch of the EU-Canada Strategic Partnership on Raw Materials. See Table 4 for more information on the Strategic Partnership.
DR Congo	EPA awaiting signature	The DR of Congo can export goods to the EU under the GSP's Everything But Arms (EBA) regime, as the EPA has not been ratified.
Argentina	FTA concluded but stalled	There is no dedicated Raw Materials Chapter, but FTA would eliminate Mercosur's export duties on raw materials (such as soybeans). If the EU-Mercosur FTA is not ratified, the existing EU-Mercosur Association Agreement applies.

Yet, chapters on Energy and Raw Materials are increasingly present in EU trade agreements aiming to establish market principles, de-risk access to energy transport infrastructure, and

harmonise standards and regulatory practices, all while putting the EU in a more advantageous position than without the trade agreement in place (Müller, Ghiotto, & Bárcena, 2024). Recent agreements include those with New Zealand, Chile, and Mexico and those negotiated with Indonesia and Tunisia.

Notably, the provisions establishing market principles are considered among the most problematic regarding a country's ability to ensure domestic value addition in the raw materials sector. Such provisions eliminate the possibility of import and export restrictions, monopolies and export prices, distorting market price signals and the free trade of CRMs (Müller et al., 2024). At the same time, sustainability provisions in the Energy and Raw Materials Chapter are limited to environmental impact assessments and cooperation, with little incentive for the Parties to tackle sustainability issues linked to the extraction, processing and recycling of CRMs (Blot, 2023).

### **Box 1: Raw Materials Chapter in the EU-Chile Advanced Framework Agreement.**

#### **Chile's case of carving out value addition for raw materials**

Chile has a peculiar history regarding the nationalisation of raw materials production. Notably, its state-owned company, Codelco, nationalised its copper production in 1971. Now, President Boric plans a similar strategy for the responsible production of lithium. In December 2023, Codelco reached an agreement with the American mining company SQM to form a partnership and acquire a majority stake in this new initiative aimed at advancing lithium projects in Chile (Nugent, 2023).

This historic approach to managing its raw material reserves led to a rather particular case when it comes to the negotiation of the Energy and Raw Materials Chapter in the EU-Chile Advanced Framework Agreement. Specifically, although the trade deal text prohibits the dual pricing of raw materials, it includes a carve-out so that raw materials could be sold at a more advantageous rate on the domestic market (Müller et al., 2024). In particular, Chile may introduce or maintain measures to foster value addition in Chile (European Commission, 2022a).

However, the EU-Chile trade agreement has been criticised by over 100 civil society organisations (CSOs), stating that the provisions concerning Energy and Raw Materials do not stand to support value addition in Chile's raw materials sector but rather both limit its industrial development and increase incentives for irresponsible mining practices, thus exacerbating environmental pressures (European Trade Justice Coalition, Raw Materials Coalition, Fair Trade Advocacy Office (BE), & et al., 2024).

Despite the carve-out in the Raw Materials Chapter, the possibility of introducing measures to foster value addition in Chile's raw materials sector is subject to certain conditions, in addition to a lack of enforceability due to the nature of the provisions. As a result, Chile's policy space to introduce such measures is rather limited, and it is unlikely that the FTA will contribute to green industrialisation in Chile (Müller et al., 2024).

Upcoming FTAs with strategic partners, such as Australia, India, and Indonesia, will likely feature Chapters on Raw Materials. However, considering the shortcomings of existing Raw Materials Chapters in FTAs (i.e., poorly enforceable provisions with limited prospects to spur industrialisation) and the problematic progression of negotiations with these agreements, it is unlikely that future FTA will spur ground-breaking advancement in responsible mining and the sustainable use of CRMs.

*Considering that up to 92% of EU imported CRM volumes occur duty-free due to the Most Favoured Nation tariff rate, there is little additional incentive EU FTAs can offer for further tariff reduction (European Commission, 2023g). Nevertheless, FTAs provide more added value than tariff elimination, as they are one of the EU's main tools to acquire binding commitments from its trade partners on labour rights and environmental protection.*

Parallel to FTAs, the EU is also pursuing more targeted raw materials Strategic Partnerships outside its typical trade frameworks to deepen cooperation with resource-rich countries. The final agreed-upon version of the ECRMA adopted by the European Parliament on 12 December 2023 outlines the concept of Strategic Partnerships in Article 37 as partnerships that contribute to the EU's secure supply of CRMs through diversification of EU imports of CRMs and improve cooperation along the CRM value chain fostering economic and social development in the partner country through capacity building, technology transfer programs, promoting sustainable and circular practices, decent working conditions, and human rights (European Parliament, 2023).

Partnerships to be prioritised would take into account a country's potential reserves, extraction, processing and recycling capacities; the potential to improve a third country's regulatory framework for monitoring, prevention and minimisation of environmental impacts, socially responsible practices, in addition to transparent business practices and robustness of public administration and the rule of law; existing cooperation agreements with the EU with potential utilisation of Global Gateway investment projects; and if and how a partnership adds value to the partner country. Recent examples include the Strategic Partnerships with Kazakhstan and Namibia on sustainable raw materials value chains, of which Memorandums of Understanding (MoU) were signed in November 2022 (European Commission, 2022b, 2022c).

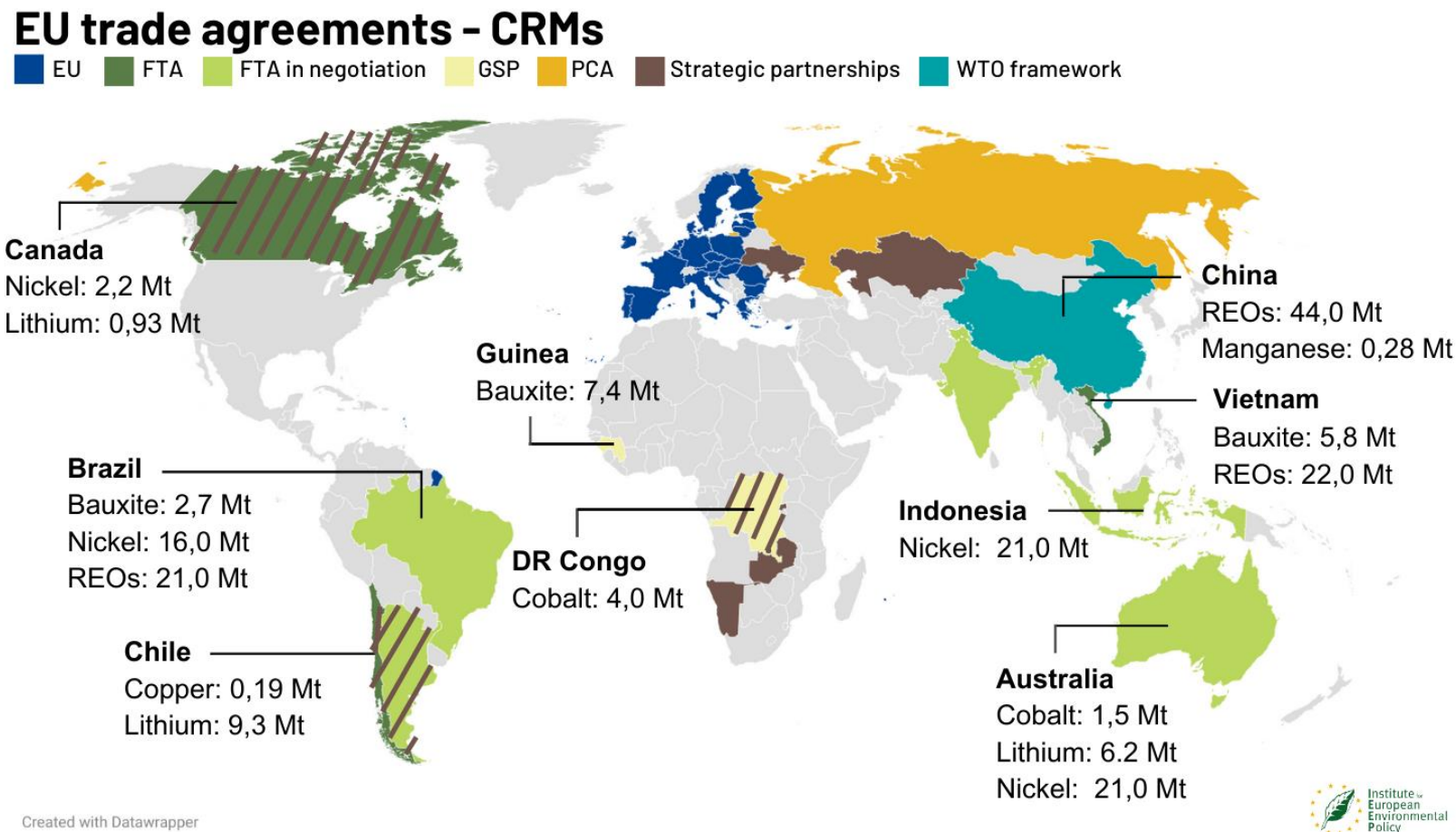
Table 4 below provides an overview of Strategic Partnerships, including raw materials where a Memorandum of Understanding (MoU) have been signed or the Partnership is in discussion. Note that other potential partnerships are in the pipeline, including with Greenland and Australia (Transport & Environment, 2023); however, there is little information on the status of these discussions.



**Table 4: List of Strategic Partnerships covering raw materials.**

Country	Status	Notes
Canada	Signed in 2021	Spurred under the CETA's Bilateral Dialogue on Critical Materials to enhance trade and investment in resilient raw materials value chains, this <a href="#">Partnership</a> focuses on cooperation on science, technology and innovation and advancing ESG criteria and standards. In its ECRMA communication, the Commission confirms that this Partnership has already resulted in bilateral investments in cathode active materials and offtakes for lithium, nickel and cobalt for batteries.
Ukraine	Signed in 2021	Activities supported by this <a href="#">Partnership</a> cover the development of primary and secondary raw materials and battery value chains. The Commission has published the first <a href="#">roadmap</a> to operationalise this Partnership and launched cooperation on the EU technical assistance support.
Kazakhstan	Signed in 2022	See above for more information on the EU-Kazakhstan Strategic Partnership.
Namibia	Signed in 2022	See below for more information on the EU-Namibia Strategic Partnership.
Argentina	Signed in 2023	Facilitated by the EU-Latin America Partnership on Raw Materials, Strategic Partnerships were signed with <a href="#">Argentina</a> and <a href="#">Chile</a> in June and July 2023. Both Partnerships aim to integrate sustainable raw materials value chains further, promoting investment and cooperation on R&I, minimising environmental footprints, promoting circularity and elevating standards to meet international ESG criteria. Investment projects would include "hard and soft" infrastructure projects to encourage development and capacity building to bolster education, training and skills development. While both MoUs state that the Parties have six months to develop a roadmap, no roadmaps are publicly available for either Partnership.
Chile	Signed in 2023	
Zambia	Signed in 2023	During the Global Gateway Forum in October 2023, the Commission signed MoUs for a <a href="#">Strategic Partnership on raw materials with Zambia and the DR of Congo</a> . The main areas of cooperation include integrating sustainable CRM value chains, facilitating investments for development and infrastructure, achieving sustainable and responsible production, and collaboration on R&I and capacity building. The expected joint roadmaps are still being developed.
DR of Congo	Signed in 2023	
Rwanda	Signed in 2024	In the EU's broader partnership with <a href="#">Rwanda</a> , cooperation and investments on CRMs, public health, agro-food industry, climate resilience and education and highlighted. Notably, in December 2023, the European Investment Bank and Rwanda signed a <a href="#">Joint Declaration</a> to enhance investment in CRM value chains. On 19 February 2024, the EU and Rwanda signed an <a href="#">MoU on Sustainable Raw Materials Value chains</a> and will now develop a roadmap with concrete actions within the next six months.

**Figure 1: Snapshot of some key CRM countries and their respective trade and/or partnership frameworks.**



Note: This figure was created by the Institute for European Environmental Policy (IEEP) using the information in this briefing’s Tables 2, 3 and 4. Countries indicated with brown strips have both an EU trade and cooperation framework. This figure does not depict all the information in these tables but aims to provide the reader with a visualisation of CRM availability in countries and their existing trade and cooperation frameworks with the EU.

On 19 May 2023, the EU and **Kazakhstan** announced a list of actions to implement this MoU to further integrate their strategic raw materials value chains, including batteries and renewable hydrogen (European Commission, 2023d). Kazakhstan produces and processes 19 CRMs, including tungsten, lithium, tantalum, niobium, and beryllium. The country hopes to increase this diversified production to 30 CRMs by leveraging its untapped reserves (Nakispekova, 2024). This closer cooperation between the EU and Kazakhstan would facilitate CRM deposit exploration, modernisation of extraction and refining processes, improved transparency, information-sharing, technology transfers, capacity-building, and research and innovation (R&I). As a result of this Partnership, a German company, HMS Bergbau AG, plans to invest in developing lithium deposits in Kazakhstan, a project dubbed “raw materials in exchange for technology” by the Kazakh Minister of Industry and Infrastructure Development (Sakenova, 2023). Such an investment project involves the exchange of EU companies’ technologies and promoting sustained development for raw materials extracted in Kazakhstan (Transport & Environment, 2023).

Concerning the EU-**Namibia** Strategic Partnership, following the signature of the MoU, Namibia banned the export of unprocessed critical minerals such as lithium, cobalt and REOs such as dysprosium and terbium in June 2023 (Lazarus, 2023). A few months later, the Partnership roadmap for 2023-2025 was endorsed on 24 October 2023, mobilising €1 billion in investments via the Global Gateway. While cooperation on R&I, capacity-building and regulatory alignment – ensuring Namibia’s industry is compatible with international standards and certifications – remains a priority, the importance of developing “soft and hard infrastructure” is highlighted, including the modernisation of main transport corridors (European Commission, 2023e). It is clear from Namibian President Geingob’s stance that the country will hold firm on developing its green industries rather than exporting its CRMs and hydrogen to the EU (Lazarus, 2023).

Though the Strategic Partnership roadmaps with Kazakhstan and Namibia are not publicly available, the associated press releases and MoUs indicate that at the core of these Strategic Partnerships rely on mobilising the Global Gateway through a “Team Europe” approach, i.e., the EU and its Member States’ financial and development institutions.

*Considering the poor reception of the Raw Materials Chapter in the EU-Chile trade agreement country and the limited proof of concept of more recent Strategic Partnerships on Raw Materials regarding value creation in the trade partner, it is still unclear whether these trade and cooperation frameworks will deliver long-lasting, mutually beneficial scenarios.*

A final component of the external supply puzzle is the ambition to establish a CRMs Club for like-minded countries to strengthen global supply chains and abide by WTO rules (European Commission, 2023a), i.e. enhancing the EU’s strategic raw material supply chain resilience while skirting past China. Since the exact substance of the CRMs Club is not public yet, there is little content to judge its potential effectiveness in delivering strategic stocks of CRMs. However, the idea of a raw materials “buyers club” faces its potential challenges, such as the risk of free-riders, distributive skirmishes between EU Member States, and putting pressure on developing countries’ just transitions (Hendrix, 2023).

**Box 2: The rush for CRMs by the Global North****An EU-US agreement on CRMs as a response to the Inflation Reduction Act**

In March 2023, the European Commission announced its plan to negotiate a critical mineral agreement (CMA) with the US, focusing on strengthening supply chains of raw materials central to the production of EV batteries (European Commission, 2023f). In fact, the pursuance of such an agreement would ensure that “the EU is granted a status equivalent to US free trade agreement partners pursuant to the US Inflation Reduction Act (IRA)” (European Commission, 2023c). The negotiations come as a response to the IRA, which provides tax credits to households when purchasing an EV. However, EVs eligible for the tax credit are subject to certain conditions, including that the EV must be assembled in North America and meet sourcing requirements for CRMs and battery components (Szczepanski, 2023).

However, depending on the final form of the EU-US CMA, there could be issues regarding WTO conformity. Specifically, if the CMA aims to liberalise trade in CRMs and CRM products such as EVs and batteries, this would be incompatible with GATT Article XXIV, which requires all trade to be covered by an agreement, such as with FTAs. It will be crucial to evaluate how the EU and US aim to implement an agreement like the CMA while adhering to WTO law.

The plans for an EU-US CMA are not the only form of cooperation on raw materials between these two major economies. In June 2021, the two powerhouses established the EU-US Trade and Technology Council to “coordinate approaches to key global trade, economic, and technology issues and to deepen transatlantic trade and economic relations based on these shared values” (European Commission, 2024). Since then, five ministerial-level meetings have occurred, the latest in January 2024. Two streams of discussion exist alongside the political discussions surrounding the CMA, including the Global Arrangement on Sustainable Steel Aluminium (GASSA) and the Clean Energy Incentives Dialogue (CEID). The former initiative intends to back EU and US industries while encouraging low-carbon steel and aluminium production and trade and restoring market conditions globally. The latter addresses the need for investments in clean energy and industrial economies through closer coordination on incentive programs and minimising distortions in transatlantic trade (European Commission, 2023f).

## The expansion of Strategic Projects through Partnerships

Chapter 3 of the ECRMA houses sections on the benchmarks, criteria for recognising Strategic Projects (SPs), the permit granting process, enabling conditions (e.g., facilitating implementation and funding), and CRM exploration in the Member States. Considering the scope of this briefing, the discussion is limited to Articles relevant to SPs located outside the EU. The Regulation sets out benchmarks for the SPs to strengthen the resilience of the EU's SRM value chain by:

- a. Improving the EU's capacity for extraction to produce at least 10% of the EU's annual consumption of SRMs;
- b. Improving the EU's processing capacity so it can produce at least 40% of the EU's yearly consumption of SRMs;
- c. Improving the EU's recycling capacity so it can produce at least 25% of the EU's annual consumption of SRMs and can recycle significantly increasing amounts of each SRM in waste;
- d. Diversifying the EU's imports of SRMs to ensure that, by 2030, the EU's annual consumption of each SRM at any relevant stage of processing can rely on imports from several third countries, none of which provide more than 65% of the EU's annual consumption.

For projects located outside of the EU, specifically in developing countries and emerging economies, these projects must meet the following criteria to be recognised as and receive priority status of an SP:

- a. Meaningfully contributes to the security of the EU's supply for SRMs;
- b. Is, within a reasonable timeframe, technically feasible and can report an expected production volume with a sufficient level of confidence;
- c. Is implemented sustainably and meeting the adequate ESG criteria;
- d. It is mutually beneficial, including adding value to the third country.

Further assessment of these recognition criteria is outlined in Annex III of the ECRMA; for example, regarding point (c), references are made to EU legislation (Corporate Sustainable Due Diligence Directive and Corporate Sustainability Reporting Directive), ILO Tripartite Declaration of Principles concerning Multinational Enterprises and Social Policy, several OECD Guidance and Principles, including the principles set out in the United Nations Declaration on the Rights of Indigenous Peoples, and the UN Guiding Principles on Business and Human Rights. In this context, project promoters may also prove their project's compliance through recognised certification schemes.

Applications for SP outside the EU will be sent to the Commission, which shall then share the application with the third country. The Commission's approval of the SP succeeds the third country's approval. The Parliament adopted the text of the Regulation, which includes additional provisions for projects in third countries that may affect Indigenous Peoples. The SP

application shall consist of a plan to meaningfully consult with them on preventing adverse impacts on their rights, providing fair compensation where appropriate, and addressing consultation outcomes. For extractive projects abroad, the application shall include a plan to improve the environmental state of the affected sites after the end of exploitation, to restore the prior environmental state while considering technical and economic feasibility.

Permits shall be granted by a national competent authority – set up within nine months of entry into force of the Regulation – with the MS ensuring adequate resources, including qualified staff and the necessary financial, technical, and technological resources, to enable effective implementation of tasks under this Regulation. The permit granting process duration for SPs outside the Union is not specified as the approval process is subject to both the third countries and the European Commission's approval. However, for SPs in the Union involving extraction, the duration shall not surpass 27 months, and 15 months for SPs involving processing or recycling.

The SPs could be financed by additional private funding through existing MS instruments and programmes, relevant EU funding and financing programmes, the European Investment Bank, the European Bank for Reconstruction and Development, and particularly for SP abroad, the Global Gateway Initiative. The Global Gateway Initiative aims to narrow the global investment gap while fully aligning with the UN SDG Agenda for 2030 and the Paris Agreement (European Commission, n.d.). As previously discussed, strategic partnerships with Kazakhstan and Namibia have already seen a roll-out of funding for projects to further develop and integrate CRM infrastructure and value chains outside the EU.

### **Box 3: Response from civil society to the strategic projects.**

#### **Inadequate environmental and human rights safeguards**

Concerns from civil society organisations (CSOs) arose regarding the lack of environmental and social safeguards relating to the expansion of raw materials projects in and outside the EU. In a Joint Statement with over 40 signees, CSOs highlight that the ECRMA's reliance on certification schemes is insufficient to ensure a proposed project complies with mandatory human rights and environmental regulations. Instead, certification schemes should exist as one tool of many in the EU's due diligence toolbox. They suggest systematic and broader due diligence checks for human rights and environmental performance and resources for independent assessment on whether an SP meets the sustainability standards set by law (EEB, Ecologistas en Acción, Broederlijk Delen, France Nature Environnement, & et al., 2023).

Another issue brought forward by the CSOs is of particular concern to the rights of Indigenous Peoples. Though the final text adopted by Parliament incorporates compliance of a third country with the United Nations Declaration on the Rights of Indigenous Peoples, it does not explicitly recognise the Indigenous Peoples' right to Free, Prior, and Informed Consent (FPIC). Acknowledging the right to FPIC allows Indigenous Peoples to participate in decisions concerning their lands and livelihoods, particularly regarding extractive projects (EEB, 2023).

## Gaps on the external supply front

This section discusses gaps and missed opportunities in the ECRMA from the perspective of sourcing CRMs outside the EU, focusing on sustainability and fostering a global circular economy.

### **Lack of commitment to ensure the highest level of ESG standards**

Generally, the lack of compliance with human rights and environmental best practices, especially in extractive projects, is exacerbated by the fact that SPs launched outside of the EU fall outside the EU's policy space and fall under a third country's national legislation. Neither the criteria for SPs nor Strategic Partnerships themselves guarantee that projects and third countries' regulatory frameworks are aligned with international agreements, including ILO conventions and recent MEAs such as the CBD and the Kunming-Montreal Global Biodiversity Framework.

The Responsible Mining Index (RMI) Report (2022) finds that there is still a gap between companies' formal ESG commitments and their effectiveness indicators to monitor their progress. Though companies' ESG pledges have been slowly improving, these requirements have only been implemented in a minority of mining sites. Across the assessed companies, it is evident that their performance levels on ESG indicators can significantly vary across thematic areas, with environmental responsibility and community wellbeing scoring poorer than economic development and business conduct. As a result, the terms responsible or sustainable mining are much more complex than presented in the ECRMA. Out of the 250 mine sites evaluated in 53 countries, most failed to show evidence of informing and involving local communities and workers regarding fundamental risk factors such as environmental impacts, safety concerns, or grievances.

However, the RMI report finds limited evidence to suggest that voluntary measures, such as non-binding expectations, influence company practices. In fact, over recent years, there have been significant improvements in company practices, notably in areas like anti-bribery and corruption, human rights, responsible sourcing, and disclosure of payments to governments, which can be partially attributed to external factors, such as the integration of these issues into legislation, requirements, and reporting frameworks.

In this context, the lack of binding commitments in the ECRMA to ensure high ESG standards and implementation at the project level is a severely missed opportunity, especially considering the availability of several certification schemes. For instance, the Standards for Responsible Mining (2018) set by the Initiative for Responsible Mining Assurance (IRMA) upholds a multi-stakeholder governance approach with high social and environmental responsibility standards, including FPIC. The IRMA is considered a robust scheme that meets nearly all of the minimum governance, auditing, and accreditation criteria. However, it has limited shortcomings, including a (not yet) independent complaints mechanism and a longer-than-average auditing process (Lead the Charge, 2024). Moreover, IRMA certification occurs at the mine site rather than at a company level, which addresses the gap between formal and effective compliance discussed above (IRMA, 2018).

### **No concrete initiatives to foster value addition in partner countries**

Although the provisions relevant to the Strategic Partnerships and Projects recognise the need to add value for both partners, the Regulation lacks concrete definitions or initiatives to materialise this added value. Rather than approaching resource-rich countries with the primary objective of securing the EU's supply of CRMs, the overall aim of the Strategic Partnerships – and, by extension, the SPs – should be to create an environment to advance the green and digital transitions in the EU and the third country while maintaining alignment with the SDGs (with particular focus on SDG 3 Good Health and 6 Access to Water for All). Such an environment can be encouraged by:

- Aiding in the green industrialisation efforts of resource-rich countries whose economies rely on exporting primary raw materials by transforming their industrial capacities to produce inputs or final products for the global green transition (Medinilla & Byiers, 2023).
- Supporting technological developments by investing in R&D, encouraging technology transfers through joint venture partnerships or licensing, capacity building and knowledge sharing (Foresight Intelligence, 2023) to share best practices along the CRM value chain and advance circular business practices.
- Promoting value addition in the third country by prioritising processing and recycling SPs above extractive projects, which, in comparison, generate little added value for local communities.

### **No prioritisation of initiatives to advance the global circular economy**

The ECRMA's objectives and avenues to achieve them are not sufficiently aligned with SDG 12 Sustainable Consumption and Production. As discussed in IEEP's previous briefing on the circularity aspects of the ECRMA, on the one hand, the Regulation fails to effectively address the EU's high levels of resource consumption regarding CRM-embedded products. On the other hand, the production of sustainable CRM products is still significantly hampered due to low levels of collection and recycling, insufficient recycling facilities, technologies, and economic viability, lack of information on product composition and materials, and inadequate product design for circularity (Watkins et al., 2023). Unfortunately, with the text of the Regulation, as it stands today, there is no clear incentive to opt for recycling projects or processing projects employing circular best practices.

*The Strategic Partnerships and Projects could be seen as an opportunity to accelerate not only the green and digital transitions on a global scale but also to accelerate the transition to a more global circular economy for CRMs.*

Despite the ambition to increase the share of secondary raw material inputs, the ECRMA does not acknowledge the barriers that secondary raw materials face compared to primary materials. The market for secondary raw materials, mainly for CRMs, is not yet fully developed and ready to be scaled up.



For example, compared to the recycling and utilisation rate of secondary aluminium, the recycling of lithium is almost negligible due to issues with the low availability of lithium-ion batteries for collection and the scale at which recycling is done to ensure profitability. One explanation for the difficulties in collecting CRM-embedded products is that no price signal or value is placed on the waste material (Blot & Stainforth, 2022; Watkins et al., 2023). However, as End-of-Life EVs become more prevalent alongside the requirements for a minimum recycled content for lithium-ion batteries, as per the EU Batteries Directive, the recycling rates and efficiencies for lithium will likely improve by the early 2030s.

#### **Box 4: Launching circular business models globally.**

##### **E-waste compensation as an International Financing Mechanism in Nigeria**

Nigeria has been dealing with a mounting pressure of electronic waste (or e-waste) due to diverted waste exports following China's ban on waste imports in 2019 and its rapid ICT transformation (Oger & Blot, 2022). Yet, the responsible recycling of e-waste remains an acute problem as the collection and recycling can still occur informally with risks to the safety of workers and the local environment. Moreover, sustainable e-waste management is not a guaranteed successful economic model (GIZ & PREVENT Waste Alliance, 2023), thus providing little incentive to expand the practice.

Acknowledging this gap, the Öko-Institut, Closing the Loop, SRADev Nigeria, Verde Impacto and Hinckley Recycling launched a pilot project in 2021 to develop and implement an international financing mechanism for the sustainable collection and treatment of e-waste, specifically lithium-ion batteries, and flat panel monitors. The chosen mechanism was a 'waste compensation' program, which allows international tech-related brands (and their consumers) to voluntarily contribute a sum per new electronic device they add to the market. This sum was subsequently used for the responsible collection and management of an equal amount of e-waste on a 'one for one' basis<sup>5</sup>. This project successfully linked informal actors (e.g. waste collectors) and formal actors (e.g. tech brands, certified recyclers) together. It facilitated the collection of 21.7 tonnes of flat panel monitors and 11.4 tonnes of lithium-ion batteries. By mobilising local actors, the project added value and knowledge to the communities involved, mainly through the preliminary formalisation of the informal collection networks (GIZ & PREVENT Waste Alliance, 2023; Manhart et al., 2023).

What started as a pilot project has evolved into a flourishing small-scale business driven by the efforts of the local community. Today, the success of this project stands as a testament to the potential for circular solutions to create positive social and environmental impact.

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<sup>5</sup> Closing the Loop has found success with their [One for One](#) program which links a consumer's purchase of a smartphone or tablet to the collection and treatment of the equivalent amount of e-waste in a developing country.

## Conclusions

Despite the EU's ambitions to scale up its domestic capacity to source CRMs, it remains reliant on the imports of third countries, especially if European resource use, rather than resource efficiency, continues to expand. Accordingly, the EU has sought like-minded countries such as Australia, Canada, Chile, and the US to cooperate more closely on integrating CRM supply chains. Yet, the EU will still be required to navigate the BRICS countries as they house many raw materials reserves, particularly those essential for the green and digital transitions.

To secure its need for imported CRMs, the EU has embarked on a mission to formalise trade and cooperation relationships with resource-rich countries. On the one hand, the EU has begun leveraging its trade agreements by introducing chapters on raw materials to establish market principles and harmonise standards and regulatory practices. However, it is unlikely that these Chapters will spur a wave of green industrialisation in third countries.

On the other hand, the EU's ECRMA endeavours to leverage the roll-out of Strategic Projects – through private investments and the Global Gateway Initiative – using the Strategic Partnerships as a loose framework to set the terms of cooperation on CRMs with a third country. Yet, this strategy is by no means a recipe for success as the Strategic Projects and Partnerships:

- **Do not uphold a sufficiently high level of ESG standards** to ensure that projects and third countries' regulatory frameworks are aligned with international agreements and standards.
- **Lack concrete definitions or initiatives to foster value addition** in the trade partner country, missing the opportunity to contribute to long-lasting benefits through green industrialisation.
- **Fail to prioritise the roll-out of circular projects and business models**, such as recycling or processing projects employing circular best practices.

As a result, this briefing concludes that no existing trade or cooperation agreement for raw materials incorporates strong language or meaningful incentives to add value in a trade partner country. This finding is a serious missed opportunity for the EU in the context of the green and just transition. It highlights the need to re-evaluate priorities vis-à-vis EU strategic autonomy versus global cooperation for a clean transition. Especially in the current context with rising trade barriers (i.e., export bans on unprocessed CRMs seen in Indonesia and Namibia as a means to foster developing countries' green industries), it is unlikely that trade in CRMs will become smoother in the future without mutually beneficial cooperation outcomes.

Yet, both existing EU trade and cooperation frameworks consist of solid elements to build a new type of partnership which prioritises a clean and just global transition. Such a partnership agreement could incorporate the binding nature of labour and environmental commitments, regulatory cooperation from FTAs with the MoUs, and financing capacity of the raw materials Strategic Partnerships.

Leveraging these building blocks, this new type of sustainable trade and investment agreement for the clean transition should set a new gold standard, while adhering to WTO law. This should

include the most recent environmental agreements, such as the Kunming-Montreal Global Biodiversity Framework and provisions relevant to the raw materials sector, which cover concerns such as water scarcity, the rights of Indigenous Peoples, labour rights and governance issues. It should also foresee concrete language and incentives to spur green industrialisation, adding economic and environmental value for both partners. To explore WTO compatibility, the objective of the sustainable trade and investment agreement should be linked to the responsible use of CRMs for the clean transition, and the agreement should allow for the progressive inclusion of other countries to broaden the scope of coverage.

## Recommendations

The following section provides recommendations to pursue mutually beneficial CRM agreement aligned to accelerate a transition to a more circular global economy by facilitating the trade of secondary CRMs. A sustainable CRM trade and investment agreement should prioritise:

- Binding commitments for the Parties to effectively implement multilateral environmental agreements, tackle ESG concerns linked with the mining of CRMs and adhere to responsible mining standards such as the IRMA.
- The uptake of financing opportunities to promote circular business practices along the CRM value chain, including extended producer responsibility for the recovery and responsible treatment of end-of-life goods.
- Value addition in third countries to support green industrialisation efforts by:
  - Supporting technological developments by investing in R&D, encouraging technology transfers through joint venture partnerships or licensing, capacity building and knowledge sharing share best practices along the CRM value chain and advancing circular business practices.
  - Prioritising processing and recycling projects above extractive projects, which, in comparison, generate little added value for local communities.
  - Providing financing incentives for projects in third countries that aim to purchase domestically mined CRMs and processing them locally.
- Ensure WTO compatibility, for example by emphasising that the objective of the sustainable trade and investment agreement should be linked to the responsible use of CRMs for the clean transition, and the agreement should allow for the progressive inclusion of other countries to broaden the scope of coverage.
- Facilitate the trade and use of secondary raw materials by promoting international cooperation to establish a global market for secondary raw materials and avoid market fragmentation caused by divergent standards for secondary raw materials. Such international dialogues should discuss:

- The role that primary raw materials inputs still play as a source of secondary raw materials and how a profitable market for secondary raw materials could benefit from mixing primary and secondary materials to create economies of scale.
- How to ensure existing trade rules do not disincentivise or hinder the trade of secondary raw materials, for example by revising the Harmonised System (HS) codes to facilitate extra-EU trade of secondary materials. In particular, the EU should consider the revision of the following Directives:
  - The Waste Framework Directive to account for new streams of waste and facilitate intra-EU flows of secondary raw materials. For example, the ECRMA communication states the planned announcement of a proposal in Spring 2024 for the inclusion of waste codes for lithium-ion batteries and intermediate waste streams (“black masses”) under the European List of Waste to ensure their proper recycling within the EU.
  - The Waste Shipments Directive to set rules for the handling and treatment of end-of-life products of secondary raw materials abroad. The revision should not necessarily include a ban on the export of end-of-life CRM products to third countries as it could stifle innovations in circular business practices (see Box 4). However, proper supply chain due diligence is paramount to ensure that exported end-of-life products are treated and disposed of with high levels of labour and environmental protection.

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The logo for SITRA, consisting of the word "SITRA" in a bold, black, sans-serif font.

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