VIEW PAPER

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Cefic Asks on Raw Material Access

The European chemical industry is dependent on imports of raw materials, many of which are highly concentrated in a few supplier countries. The need to increase the EU's raw material security is one of the ten asks of the Antwerp Declaration and was acknowledged by the Draghi Report, the Competitiveness Compass and the Clean Industrial Deal. As global demand for different materials rises both due to the green transition and a reinforced focus on defense, Europe faces increasing challenges in securing stable, competitive, and diversified supply. A comprehensive EU raw material policy is necessary to support industrial competitiveness and ensure security of affordable supply.

1. **Strengthening Trade Agreements & Raw Material Partnerships**
    - Include robust Energy and Raw Material chapters in Free Trade Agreements (FTAs) to tackle harmful export restrictions, open markets and strengthen cooperation.
    - Secure new and improved agreements with resource-rich countries, to ensure non-discriminatory access and diversify reliable and affordable supply sources.
    - Negotiate meaningful Clean Trade and Investment Partnerships, complementary to FTAs, with additional supplier nations. Go beyond previous raw material partnerships by including the necessary level of binding clauses to achieve tangible benefits for EU industries while creating attractive win-win offers and using a broad definition of raw materials.
2. **Diversification & Investment in Global Supply Chains**
    - Reduce reliance on single suppliers by supporting EU investments in alternative sourcing countries, in addition to increased support for domestic sourcing, refining and recycling. Upgrade funding tools such as Global Gateway and create synergies with export credits and other external financial tools, building up a "Fund of Funds".
    - Improve investment protection frameworks and enhance political and regulatory support for EU companies.
    - Strengthen coordination between different EU and Member State raw material initiatives while teaming up with like-minded third countries.
3. **Expanding Beyond Critical Raw Materials (CRMs): Biomass as a Strategic Resource**
    - Ensure trade and raw material policies support access to sustainable sourced biomass-based raw materials, including sugar, bioethanol, and palm (kernel) oil.
    - Adress barriers to the imports of such materials by reducing import duties e.g. via FTAs. Increase regulatory cooperation and use Global Gateway to facilitate the implementation of EU requirements, alleviating new barriers.

Cefic calls for a holistic EU strategy that aligns trade, industrial, and foreign policy tools with regulatory and financial support to secure a resilient and competitive raw material supply. Increased international partnerships, stronger EU investment incentives, and a comprehensive approach not limited to Critical Raw Materials are key to strengthening Europe's position in the global raw materials race. This paper outlines key policies contributing to these goals, extending on Cefic's comprehensive EU Trade Policy Paper.

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Introduction

The EU is dependent on imports of raw material inputs that are of critical importance for the chemical industry. Point 5 of the Antwerp Declaration emphasises the need to increase the EU's raw material security, calling for new global partnership and trade agreements. Demand for raw materials will increase massively in the coming years, driven by the implementation of new technologies for the green transition. The Competitiveness Compass notes presented by the European Commission on 29 January 2025 states that is "vital for EU competitiveness to ensure a reliable, diversified supply of raw materials". For many materials, European supply is concentrated on individual or very few countries. Both an increase and a diversification of secure and affordable sources of supply is highly important for the chemical industry to be competitive and master the ongoing transitions.

The need for a more robust EU policy approach is underlined in the Draghi report where it is noted that EU diversification efforts have been ineffective, while export restrictions rise, threatening supply security and price stability needed for the twin transition. At the same time, other countries are implementing far-reaching raw material strategies and China continues to dominate the market in many areas, creating a context where EU users of raw materials are at a critical disadvantage. This does not only relate to supply security but crucially also to price competitiveness of the raw material sources.

Due to the sparse availability of many raw materials in Europe, we will continue to heavily rely on third countries for the supply of many of them- The battery and electric vehicles value chain is a case in this point. The most valuable components of lithium-ion batteries are chemicals compounds, known as battery active materials. These compounds are made from lithium, nickel, cobalt, manganese, and graphite. To support the growth of these domestic value chains, international trade remains essential for the reliable and affordable supply of the raw materials.

A reinforced approach to raw materials is not only important for production relying on CRMs, but also for a diverse range of other key inputs. An effective EU raw materials strategy must have an holistic approach and focus on concrete industry needs for all types of raw materials, not limited to existing classifications. In particular, biomass should be part of the EU's raw material policy.

The current geopolitical context aggravates challenges

The trend of increasing export restrictions from the side of China reinforces this need for a more effective EU raw materials strategy. The dominance China has in the processing and supply of diverse CRMs creates risky dependencies that may get increasingly exploited in a more conflictive geopolitical environment. Control over supply by dominant players can have severe impacts on the competitiveness of both industries using the materials and companies building up competing processing plants. This relates to dependencies on China, as e.g. in the case of magnesium or rare earth, but also on other countries for different materials, as highlighted by a 2022 European Parliament analysis. From 2023 onwards, China implemented or reinforced an increasing number of new export restrictions on different CRMs, e.g. on germanium, gallium, antimony and tungsten. This adds to existing export restrictions on various materials, such as export taxes on rare earth or taxes/licensing requirements on phosphates/phosphorus. The export restrictions on antimony implemented from September 2024 were associated to a significant increase in world market prices (outside China) also affecting Cefic members. This highlights the economic risks that European companies exposed to supply dependencies face. Furthermore, all rare earth metals in China were declared property of the state in June 2024, connected to the introductions of a new rare earth traceability

database. Restrictions on the export of production technologies for lithium and battery materials are the most recent measure under consideration.

The issue is also connected to current tensions with the United States as various US initiatives may have consequences on the access to certain critical raw materials for EU players. The new Trump administration is promoting a wider definition of national security interests with an important role for raw material security. This became visible in the discussions around Greenland as well as regarding a minerals agreement giving the US far-reaching rights to Ukrainian raw material reserves as a condition for continued security guarantees. In addition, President Trump signed an executive order on 26 February 2025 authorising his Secretary of Commerce to determine whether customs duties may be necessary on copper imports, arguing a risk to national security. Greenland is one of the few untapped regions of the planet and has vast reserves of e.g. iron, nickel, gold and, above all, rare earths. Ukraine's mineral reserves include lithium, titanium, uranium and rare earths.

Furthermore, the reinforced focus on defence in Europe and worldwide, and the resulting security challenges give new strategic importance to securing sufficient supply of raw materials. NATO's July 2024 Defence-Critical Supply Chain Security Roadmap highlights the supply risks for various raw materials that are essential for key military applications. The roadmap further emphasises the "fragile and vulnerable nature of defence-critical supply chains". Later in 2024, NATO published their list of Defence-Critical Raw Materials. Security requirements amplify the need for an impactful EU raw materials strategy. This is needed to satisfy the direct demand for critical defence applications and to address the overall rising demand due to increased production in the defence sector, which can reinforce existing scarcities, supply insecurities and cost pressures. As "industry of industries" the chemical sector is an important part of supply chains critical for the defence sector.

Key Critical Raw Materials

Cefic conducted a survey amongst its members to identify which of Critical Raw Materials identified by the Commission are used and are considered as priorities, and which challenges they face in accessing them. In addition to these responses, Cefic used public data on import reliance, supply concentration, share of use in the chemical and related industries within the EU consumption of the materials, EU import values and anticipated demand increases to create a priority list of CRMs. Members' and public information was used to identify key uses within the chemical industry and alternative suppliers with whom engagement should be increased. Cefic full priority list, which includes examples of uses in the chemical industry, key trade policy asks, partner countries, as well identified obstacles can be found in Annex I. Annex II provides more details on the current supply structure, import values and share of chemicals and related industries in the EU consumption.

The list of priority critical raw materials of the EU Chemical industry includes:

1. Phosphorus, and phosphate rock as primary material.
2. Cobalt
3. Platinum Group Metals
4. Light Rare Earth Elements
5. Copper
6. Lithium
7. Magnesium

8. Silicon Metal
9. Nickel
10. Fluorspar.

Next the top 10 for which details are spelled out in the Annex, Vanadium, Titanium Metal, Antimony, Helium and Manganese are part of our top 15 list.

Pillars to improve access to raw materials

The following sections list priority asks to improve raw material access from third countries. Cefic consider access to raw material as one of the key pillars of an improved EU raw material strategy, together with reinforced support for EU mining, refining and recycling. The latter should include improved funding driven by techno-economical competence with up-to-date market understanding, predictable permitting, not only for strategic raw materials, and administrative support in the form an appointed official to assist companies in navigating the relevant admirative requirements for raw material projects. To facilitate recycling, the following points play a particular role:

- Improving the waste shipment regulations to facilitate imports of waste streams containing CRMs, such as e-waste, spent catalysts, End-of-Life vehicles.
- Developing ways to retain a higher share of key waste streams such as black mass in Europe, especially in the light of the still emerging battery value chain.
- Providing additional OPEX and CAPEX funding for the recovery of critical metals in new and existing recycling plants.

These points align with the significance of scaling up the circular economy in Europe as an important factor for securing stable, competitive, and diversified supply while reducing dependencies.

It further should be noted that the chemical producers relying on the mentioned materials currently face other critical challenges, in particular high energy costs.

Better raw material agreements

For short-term support, Cefic calls for the increased negotiation and implementation of meaningful agreements with (potential) suppliers of key raw materials to tackle export restrictions and secure competitive supply arrangements for EU companies. Various restrictive policies implemented around the world are un-levelling the playing field, distorting trade flows and providing a competitive disadvantage for EU industries, which highlights the need for EU trade policy to become more effective in securing the needs of European industries.

Energy and Raw Material (ERM) chapters in FTAs

Comprehensive Free Trade Agreements remain the gold standard of trade tools. Cefic continues to call for the inclusion of Energy and Raw Material (ERM) chapters in all new and updated agreements. Particular points of importance for us are:

- Prevention of any export restrictions including export bans, taxes/duties/surtaxes, export licensing and permitting requirements, qualified exporters list, exports quotas, domestic market obligations,

VAT rebate reductions/withdrawals, restrictions on customs clearance points for exports, captive mining, special rights and privileges for State Owned Enterprises, preferential supply arrangements. Annex II extends on the different types of harmful restrictions that need to be prioritised.

- Adequate provisions preventing the designation of import or export monopolies for energy and raw materials.
- Dual pricing clauses that prohibit such policies as they adversely affect importing countries and have a questionable effect on domestic industries risking to create inefficiencies. If they are deemed unavoidable we ask to minimise adverse effects for EU producers. In particular, dual pricing should (1) not lead to preferential prices below the lowest price for exports realised in the preceding 12 months, (2) only be considered for countries whose level of development is significantly lower than the EU average (e.g. Annex II of the generalised system of preferences GSP), (3) be product-specific and limited in terms and volume, scope and time (by sunset clauses) so that it is targeted to initial support for infant industries, (4) be clearly linked to a stated economic development goal with annual progress reporting and transparency on beneficiaries, (5) not discriminate against EU producers: If more beneficial terms are offered to other third countries, they should also be offered to the EU, any de jure or de facto restrictions on exporting to the EU should be excluded and the capacity of the EU to source the material in the partner country should not be substantially affected.
- Non-discriminatory access to energy infrastructure for transport and storage.
- Cooperation on standards, technical regulations and conformity assessment procedures in the area of energy and raw materials.
- Liberalisation of investments and service provisions for raw material exploitation, manufacturing, processing and transportation, production and processing of (renewable) energy and energy carriers, energy services and refining.
- Finding a common ground on when exemptions to WTO rules (e.g. on national security grounds) are legitimate, to prevent misuse of those clauses and increase transparency and predictability.

In this spirit, Cefic calls on the Commission to advance the ongoing negotiations of FTAs with resource-rich countries, such as Indonesia or Thailand, and achieve a full ratification, initiate new negotiations, and ensure the implementation of concluded agreements, in particular the CETA agreement with Canada. A particular focus should further lie on respective modernisation of agreements with resource-rich partner countries that lack comprehensive ERM chapters, e.g. the Southern African Development Community, the Andean Community, Morrocco, Japan and Vietnam.

Raw Material Partnerships

Cefic welcomes the Commission's work in concluding Strategic Partnerships / Memoranda of Understanding on Raw Materials with different partner countries, including Kazakhstan, Australia, Ukraine and Chile. At the same, it is critical that such agreements lead to concrete results and benefits for the European industry. For this end, robust and binding frameworks are crucial. Mandatory ex-ante and ex-post impact assessment studies connected to such agreements should be conducted to evaluate their effectiveness and potential for improvements.

Europe needs to be able to make attractive win-win offers to resource-rich countries to achieve tangible results in terms of market access and compete with jurisdictions that have a privileged position in their raw material relationships with resource-rich partners. In the context of FTAs, market access can represent such

an attractive offer. For other forms of agreements, linking them to financial tools and technological support to create an attractive package as an incentive for partner countries to grant favourable terms on raw material access can be a way forward. The focus should lie on both creating concrete cooperation on the project level and agreeing on the reduction of market distortions, as listed in the previous paragraph.

Clean Trade and Investment Partnerships

In this context, the new Clean Trade and Investment Partnerships are a valuable opportunity to create agreements with meaningful provisions on raw materials that are adopted faster than full FTAs but yet, and crucially, include the necessary level of bindingness to produce tangible results for EU industry. In this context, we support the messages from the BusinessEurope paper on CTIPs. A particular focus could lie on countries with which a FTA is not yet in place or under negotiations. Where an FTA is in place, a modernisation to include Energy and Raw Materials (ERM) chapters should be prioritised, however, CTIPs can serve to complement the FTA when this is not feasible. Possible priority partner countries can include South Africa, Zambia, Zimbabwe, Brazil, Bolivia, Peru, the USA, Australia, Indonesia, countries in the Central Asian region, and the Oversea Territories Greenland and New Caledonia. We therefore welcome the announcement that negotiations with South Africa are about to start and hope for impactful results.

Increasing capacities

For medium-term structural improvement of the situation, the build-up of additional production raw material sourcing and refining is pivotal to satisfy rising demand, improve cost competitiveness for EU companies and reduce supply dependencies and concentration. In addition to meaningful reinforced support for domestic mining, refining and recycling, the EU must become more effective in supporting EU investments in resource-rich third countries. This should be an integral part of raw material partnerships, combined with impactful improved funding conditions.

Global Gateway

An improved Global Gateway programme can be one of the elements of such an approach. We support initiatives to streamline development finance and coordinate it under the umbrella of strategic goals. We currently observe elements impeding the realisation of the full potential of Global Gateway. Catalysing private sector investments is one of the principles of Global Gateway. For this to succeed, private sector engagement needs to be adequately facilitated. Draghi calls for an upgrading of Global Gateway to ensure greater involvement of the private sector. We therefore support the BusinessEurope Position Paper outlining suggestions for improving Global Gateway. In particular, we call for the involvement of a broad range of stakeholders from different sectors already in the phase of project selection and definition to ensure that private and public expectations and needs are aligned, thereby enabling private sector engagement in later stages. In this context, we believe in the importance of results- and outcome driven technology neutral project selection criteria. A project-driven approach with a designated responsible officer coordinating institutions will further help to reduce barriers to participation.

Companies that are interested in applying for Global Gateway funding should be presented with a streamlined process to submit their application. It is important to ensure that financing partners of the Commission apply this process and are supportive to information-seeking businesses. A regular review and

evaluation of these partners from the side of the Commission, taking into account private sector feedback would be beneficial.

Investment protection, political and regulatory support

Even with public support, investing in countries with a less developed overall legal framework can remain a too risky undertaking for many companies, in particular smaller ones. Robust investment promotion and protection treaties e.g. based on model Bilaterial Investment Treaties from EU member states can represent an adequate and proven tool to effectively reduce this barrier. Furthermore, increased political and diplomatic support for EU companies planning to conduct respective investments in third countries, including by high level missions to key partner countries would be welcome. To enable European companies to fulfil regulatory requirements in partner countries, which can often be complex and hard to understand for foreign actors, we call upon the Commission to furthermore train specific EU contact personnel that assist companies planning to invest in strategic projects abroad in navigating the respective bureaucracies.

Coordination of external financial tools

An additional pillar can be an improved de-risking private investments in cooperation with development banks and multilateral financial institutions, Member State raw material funds, as well export credit agencies The raw material financing policy of the US EXIM Bank offers examples of the role such institutions can play. In this context, we support Draghi's idea of creating a new "Fund of Funds" bringing together fragmented funding opportunities, with selection driven by techno-economical competence with up-to-date market understanding. Unilateral dependencies on individual countries, in particular China, are often not primarily caused by a concentration of raw material reserves, but a concentration of refining/processing of these materials. Supporting the build-up of such capacities, in addition to exploration, can help the EU to compete with different global players by making sufficiently attractive offers to partner countries. If the EU can present financial, institutional and technical support for the build-up of the next step in the value chain after mining, rather than only importing crude material for domestic processing, this can represent a superior offer from both an economic and a development perspective. This should happen in complementarity, not in conflict with the development of capacities in the EU. Moreover, the incorporation of certain Environmental, Social and Governance (ESG) standards in the development of raw material capacities and development tenders can play a role to help European companies in their ambitions for sustainable sourcing and create a better level playing field with recycled raw materials, another key pillar of resilient CRM availability.

Additional win-win situations can be created by specifically supporting EU exports of products that can support sustainable mining activities in partner countries, such as machinery equipment and mining chemicals. This can be done by agreeing on tariff and Non-Tariff Barrier liberalisation, dedicated funding and export support.

International coordination

Given the massive financial needs for investments in raw materials and related infrastructure, EU efforts alone may not be able to turn the tide. International cooperation with like-minded partners is

indispensable. We support an all-hands-on deck approach including government as well as private actors. Plurilateral partnerships such as the Mineral Security Partnership Forum, potentially complemented by a new "Critical Raw Materials Club", e.g. at the G7+ level, as proposed by Draghi, can represent an important step forward. Opportunities to maintain and strengthen mutually beneficial transatlantic cooperation in the raw materials field should be reinforced. Identifying common interests and providing concrete support for strategic projects with close involvement and the affected value chains will help to promote joined interests.

A particular opportunity lies in the coordination of national raw material funds. Given the much greater fiscal capacities at national level, they can play a key role for promoting raw material investments, within the Union and beyond. Regarding Member State funds, support for them should be granted from the European level, e.g. in the form of promoting best practices. Currently, we observe a lack of mutual coordination on such funds, criteria, e.g. on ESG, diverge. This can create inefficiencies and confusion for private sector operators. An increased collaboration in Europe and beyond and an approximation of definitions is needed to ensure maximum effectiveness and efficiency in attaining raw material access.

Demand creation

In order to support the business case enabling investments by EU companies, favourable demand conditions should furthermore be facilitated not only for domestically produced material, but also for EU investments in third countries with which partnerships are in place. Apart from implementing positive incentives, it is important to avoid creating disincentives and inconsistencies with other policies whenever possible, for example having regulatory actions under REACH or CLP for a substance that is a CRM.

Demand aggregation

We believe that the demand aggregation mechanism under the CRMA comes with both opportunities and risks. From a purchasing point of view, its effect will depend both on the functioning of markets and the required level of processing. In areas where e.g. supply concentration, market access restrictions or unfair trading practices would otherwise bring European actors in a disadvantageous competitive situation, demand aggregation may in principle improve the situation for European companies. However, without increasing diversified availability of supply for the respective raw material and or/addressing underlying distortions, it is unclear how concretely it could improve supply arrangements or lower prices. Dependent on the material, individual agreements between economic operators can even create better mutually beneficial terms. Therefore, demand aggregation would not be appropriate for materials for which market mechanisms are working well, as it only risks creating distortions. Furthermore, for many chemical applications of CRMs, e.g. battery materials, highly specialised materials are needed. This level of specifications required can make joined purchasing practically unfeasible. The required specifications of the materials are often connected to individual products and production processes and therefore highly sensitive Confidential Business Information. For primary materials, in return, demand aggregation only makes sense if respective (specialised) refining capacities in Europe exist (or are being build up).

For producers, demand aggregation could help support the necessary demand creation for raw material projects. Demand aggregation may hence be used as a tool to facilitate long-term offtake agreements for operations and projects in the EU, or also in countries with which robust partnership agreements are in place, focusing on raw materials where supply concentration on individual countries persist. In these areas,

the mechanism could explicitly include secondary raw materials. However, demand aggregation as a soft, coordinating tool alone will generally not be enough to bridge the cost differences to supply offered by the dominant countries. Therefore, we ask the Commission to evaluate how to connect the mechanism to public funding instruments (e.g. subsidies similar to the hydrogen bank auctions) and other demand pull incentives. To avoid adverse effect, it must be prevented that demand aggregation channels more purchasers to countries on which supply is already concentrated.

In general, joined purchasing may hence be beneficial for materials where (1) market mechanisms are not working (e.g. high supply concentrations, market distortions by restrictive measures, instability in sourcing countries); (2) joined purchasing of primary materials can be beneficial because respective refining capacities exist / are being established in the EU; or joined purchasing of refined materials is feasible because the requirements by industries using them are rather generic, (3) joined purchasing can provide an added value in the market for the concerned material by improving purchase reliability or prices for off taking EU producers, or/and creating offtake security for investments by supplying EU companies. It should further be evaluated how demand aggregation could be used to antagonise collusion risks between producing countries, which are noted as source of future concern in the Draghi report.

Lastly, the current exclusive focus on strategic raw materials can be counterproductive. We believe that the targeting of materials should be done on the basis of where demand aggregation can provide a concrete added value for EU users and producers (which will not be the case for all raw materials) rather than on the basis of the critical/strategic classification.

Beyond CRMs: Access to biomass

Cefic further underlines the importance of a holistic approach to raw material outreach efforts. Different essential chemical applications require different raw materials. While for some, CRMs are essential, others are purely based on energy carriers or require biomass inputs. For some of these biomass inputs (in particular sugars, vegetable oils and bioethanol), trade policy can play an important role in supporting the competitiveness of related industries e.g. by securing more favourable import conditions or facilitating the compliance with EU policy requirements by third countries.

Sugar

An example of biomass used for biomaterials production is sugar, which includes raw, semi-refined, and refined sugar, molasses, and glucose used in fermentation industries. These sugar sources are crucial for manufacturing essential products such as vitamins, animal feed amino acids, organic acids like lactic and citric acid, biodegradable plastics like polylactic acid (PLA), biodegradable wastewater treatment agents, detergents, and antibiotics like penicillin. However, high import costs on biomass inputs currently impact the sector's competitiveness. According to DG AGRI data, EU sugar prices are significantly higher than world market prices, leading to lower production costs in competing regions.

Given Europe's already strained sugar supply, the EU's July 2024 reintroduction of sugar import quotas from Ukraine is concerning. This could worsen the challenges faced by EU sugar users already dealing with high costs. We urge the continuation of Autonomous Trade Measures to suspend quotas for Ukrainian sugar imports used in the chemical industry as feedstock.

To secure the long-term viability of the production of the aforementioned products in Europe, raw material import conditions need to be facilitated. If a unilateral liberalisation of the duties on listed products is considered not feasible, we call for the liberalisation to be pursued in the context of FTA negotiations with partner countries that are able to provide the materials at competitive prices (e,g. including respective provisions in the currently negotiated FTAs with countries such as Thailand). Annex IV provides an overview of key raw materials for the EU fermentation industry, duty rates, and third country suppliers.

Bio-ethanol

Ethanol has become a notable component in the global energy and biochemicals sector. Countries such as the United States, Brazil, and Pakistan, which have strong agricultural resources and infrastructure, provide a solid foundation for ethanol production. However, its usage faces challenges, including limitations in infrastructure for blending and distribution, trade barriers, and regional disparities in policy support and adoption. Trade barriers, including import tariffs, for ethanol to be used by the chemical industry should be reduced to secure a sufficient supply capacity. We strongly welcome the respective provisions in the EU-Mercosur FTA while regretting that raw and semi-refined sugar for chemical use was not included at the same time. To increase the sustainability of biomass sourcing, we further see the need to clearly define and harmonize sustainability criteria and include technical and financial assistance to promote sustainable sourcing practices across the value chain.

Palm oil

A further key biomass input for our industry are sustainable palm and palm kernel oils. They are crucial ingredients for the European oleochemical and surfactant sectors, indispensable for the sectors' contribution to the green transition of the chemical industry. Under the scope of the EU Deforestation Regulation, regulatory cooperation can play a key role to facilitate implementation for trading partners and support supply for EU users by aligning the necessary definitions with partner countries and facilitating the recognition of well-established and recognised certification schemes. Global Gateway may further present an opportunity to engage with partner countries and assist them in fulfilling the respective requirements with technical and financial assistance, thereby reducing both fallout on development objectives, as well as on EU trade relations and raw material access. The currently ongoing FTA negotiations with Malaysia, Indonesia and Thailand should further include provisions improving stable and diversified supply.

Agricultural residues and bio-waste feedstock

Finally, demand for agricultural residues and bio-waste feedstock for the green transformation of the chemical industry is increasing more and more. Global Gateway can play a role in helping to build up necessary collection infrastructure in selected partner countries, in particular in the European neighbourhood, and facilitate access to this group of feedstocks, thereby supporting the development of the emerging EU biochemical industry.

Biomass as part of the EUs raw material strategy

The use of biomass as a feedstock for manufacturing biomass-derived products is a key enabler of the transformation of the chemical industry toward climate neutrality for meeting the EU's climate and circularity targets. At the same time, supply is limited and considering the high and increasing demand for biofuels, competitive availability of necessary raw materials for producing biomass-derived chemicals is often not secured. We therefore believe that different initiatives with a raw material focus (e.g. CTIPs / raw material partnerships, raw material sections in key strategic undertakings such as the Clean Industrial Deal) should go beyond CRMs and also include biomass inputs.

Other raw materials

A comprehensive approach to raw materials further includes access to waste as a resource as well as to energy and feedstock carriers (i.e. ammonia methanol), elements which are outside the scope of this paper. In particular, we would like to highlight that access to key energy carriers are an important criterium that should guide the selection of priority countries for CTIP negotiations.

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About Cefic

Cefic, the European Chemical Industry Council, is the forum of large, medium and small chemical companies across Europe, accounting for 1.2 million jobs and 13% of world chemicals production.
On behalf of its members, Cefic's experts share industry insights and trends, and offer views and input to the EU agenda. Cefic also provides members with services, like guidance and trainings on regulatory and technical matters, while also contributing to the advancement of scientific knowledge.

Annex I: Priority CRMs

Priority CRM	Examples for chemical applications	Supply issues faced	Identified trade policy focus[1] & key partners
1. Phosphorus, and Phosphate Rock as primary material.	Fertilisers, flame retardants, batteries, lubricants, pharmaceuticals, agrochemicals, catalysts, resins for water treatment, phosphates, including food phosphates, and phosphoric acid (*e.g. for soaps & detergents, fertilisers, livestock feeds, water treatment*), phosphoric ester (*e.g. for dyes, lubricants anti-wear additives*), synthesis, PCl3 for LiPF6 in batteries and for the production of fatty acids chlorides (*with diverse applications including in pharmaceuticals, agrochemicals, plastics, food & beverages…),* antioxidants in chemical plants.	Supply shortages caused by the Russian invasion in Ukraine, in particular for high-purity and igneous phosphate. Igneous phosphate is essential for fertilisers as well as food- and technical grade phosphoric acid (e.g. for LFP batters in EVs) and suppliers are very limited (mainly South Africa). Elemental phosphorus supply is concentrated on Kazakhstan and Vietnam. China implements export restrictions (duties and licenses).	Diversification of primary (connected to build-up of refining capacities in Europe) and secondary sourcing for the required purity grades. For sedimentary phosphate: Jordan, Morocco, Algeria, Tunisia, Egypt, Senegal, Peru. For igneous phosphate: South Africa (current producer), Canada, Norway (projects). For elemental Phosphorus (refined): Kazakhstan, Vietnam.
2. Cobalt	Battery materials, catalysts, APIs, dyes. Cobalt oxides and cobalt metal bond powders, additional market applications	Limited sources, with DRC being politically unstable.	Diversification of (primary) sourcing.

[1] *This focuses on the external trade dimension, one pillar of supply diversification next to a meaningful reinforced support for domestic sourcing and recycling. For several materials, e.g. igneous phosphorus, fluorspar, relevant projects within the EU are ongoing.*

	e.g. in animal feed, fertilisers, water treatment, plastics.		Democratic Republic of the Congo, Indonesia, Cuba, Canada, Norway, Japan, Australia, Zambia
3. Platinum Group Metals	Catalysts, equipment (*such as Oxygen Depolarized Cathodes & coating in electrolysers, heat exchangers, valves, coated cathodes*).	Sales in hand of limited suppliers, dependency from individual countries	Diversification of primary and refined sourcing- Secondary raw materials (e.g. spent automative and industrial catalysts, electronic waste) play a particular role. South Africa, Zimbabwe, USA, Canada
4. Light Rare Earth Elements	Catalysts, Fuel additives.	Heavy concentration of processing and refining capacity in China. State owned companies using legislation (quotas, VATs, Export Controls) to influence (sometimes limit) supply and price. Insufficient support for European refining and imports of non-separated raw materials.	Diversification of primary and refined sourcing. Increased support and access to primary materials for EU refiners. Australia, Thailand, USA, Madagascar, Japan.
5. Copper	CuSO4 (*e.g. for fungicides, algaecides, molluscicides & herbicides, water treatment, drying agents, food & fertiliser additive, industrial applications*), CuCO3 (e*.g. for pigments and colorants,*	High prices.	Diversification of competitive and sustainable sources. Chile, Peru, Japan, USA, Mexico.

	algaecides, antifouling agents, catalysts), biocides, cathode materials, catalysts for methanol synthesis, equipment (*cables, electrification, electronics*).		
6. Lithium	Battery materials, lubricants, pharmaceuticals, chemical processing	Lack of EU refining/recycling capacities for high purity Li derivates necessary for batteries value chain. Price volatility (uncompetitive prices from China), CLP classification.	Diversification of sourcing, especially of high purity derivates and increased support for EU industry. Improved primary sourcing conditions. Chile, Bolivia, Australia, Brazil, Argentina
7. Magnesium	Magnesiumsulphate *(e.g. for medical applications, agriculture, desiccant, construction*), Magnesiumsalts (*e.g. for pigments/paints*), magnesiumoxide (e.*g. for medical applications, refractory industry, insulation, fertilisers*), silicates, chemical processing (e.g. gringard reagents)	Dependency on China.	Diversification of primary and refined sourcing. USA, Kazakhstan, Turkey, Brazil, Israel.
8. Silicon Metal	Silicone industry (*for construction, care, textiles…),* polysilicon for PVs and semiconductors	Uncompetitive prices, unfair competitive practices from China.	Diversification of supply. Brazil, Norway (key suppliers so far), Iceland, Malaysia, Australia, Angola.
9. Nickel	CRMA focus is on battery grade – battery materials. Other applications include e.g. nickel salts, catalysts, pigments.	Dominance by Chinese players.	Diversification of primary and refined sourcing

			Indonesia, Japan, Canada, Philippines, New Caledonia, Australia
10. Fluorspar	Via HF: fluorinated products for downstream EV battery value chain, automotive sector, pharma and agricultural applications; equipment (gaskets in chlor-alkali electrolysers, membranes, inliners…)	Risk of supply from sanctioned countries (via third countries).	Diversification of primary and refined sourcing of acid grade fluorspar. South Africa, Zambia, Mexico, Mongolia, Vietnam

Annex II: Supply data on key CRMs

P=primary, R=refined

Critical Raw Material	Use structure (relevant sectors)	Import Reliance	EU Import values	Supply structure	Alternatives suppliers (examples)
Cobalt*	70% Batteries, 3% catalysts	R: 1% P: 81%	R: $1020 mn. P: $13 mn.	R: 71% FI,29% BE, 2% DRC P (world): 69% DRC	RP: 4% CA, 2% NO, 2% JP PP: 5% AU, 3% CA WR: 11% AU
Copper*	20% industrial	R: 17% P: 48%	R: $6230 mn. P: $ 6240 mn.	R: 17% DE, 14% PL, 11% ES P: 19% PL, 14% CL, 10% PE	RP: 6% JP PP: 6% US WR: 9% MX
Fluorspar	~25% Fluorochemicals ~10% Fluropolymers	P: 60%	P: $200 mn.	Global PP: 64% CN, 11% MX, 8% MN, 5% ZA, 3% VN, 2.4% EU 60% IR	
Light Rare Earth Elements* *(lanthanum, cerium, praseodymium, neodymium, samarium, europium)*	27% Catalysts, 3% Polishing Powders LA - 79% Catalysts, 3% Polishing Powders CE - 34% Catalysts, 10% Polishing powders PR - 2% Pigments NE - 1% Catalysts EU - 40% Phosphors	R: 100% P: 100%	Eurostat: €124 mn in 2023 LA - ? CE - R: $30 mn. PR - ? NE - ? SA - ? EU - ?	Global PP: 62% CN, 18% US, 7% MM, 6% AU, 3% TH LA - R: 80% CN, 3% UK, 2% US CE - R: 69% CN, 8% RU, 6% UK PR - R: 80% CN, 3% UK, 2% US NE - R: 80% CN, 3% UK, 2% US EU - R: 64%	LA - PP: 20% US, 5% AU, 3% TH CE - PP: 7% AU, 3% TH, 1% MG PR - PP: 12% US, 6% AU, 3% TH NE - PP: 11% US, 6% AU, 3% TH SA - PP: 10% AU, 8% US, 3%TH EU - PP: 13% AU, 7% US, 3% TH

				CN, 17% JP, 8% UK SA - R: 80% CN, 3% UK, 2% US	
Lithium*	32% Batteries, 9% Lubricants & Greases	R: 100% P: 81%	R: $210 mn.	R: 79% CL, 7% CH, 6% AR	PP: 49% AU, 3% BZ WR: 24% AU, 18% AR
Magnesium*	36% Automotive, 27% Packaging/construction Al alloys, 9% MG powder	R: 100%	R: $440 mn.	R: 97% CN, 1% IL, 1% UK	RP: 3% US, 1% KZ
Nickel – battery grade*		R: 75% P: 31%	R: $3420 P: $1150	R: 29% RU, 17% FI, 10% NO P: 38% FI, 24% CA, 19% GR	RP: 33% ID, 7% JP, 5% CA PP: 42% ID, 14% PH, 7% NC, 5% AU WR: 12% PH, 10% AU
Phosphate rock	87% Fertilizers ~7% Animal feed & food additives 4% Detergents	P: 82%	R: $3250 P: $640	P: 27% MA, 24% RU, 17% FI	RP: 10% US, 10% IN, 9% BZ PP: 8% US, 5% PE WR: 4% EG
Phosphorus	30% Plastics 21% Food 17% Water treatment 15% Metal treatment 7% Pharmaceuticals	R: 100%	R: $220 mn.	R: 62% KZ, 22% VN, 13% CN	RP: 10% US
Platinum Group Metals* *(ruthenium, rhodium, palladium, osmium, iridium, platinum)*	61% Calalysts 9% Chemical RU - 32% Chemical, 13% Electrochemical RH - 91% Catalysts, 5% Chemical PA - 88% Catalysts, 3% Chemical, 2% dental & biomedical	RU - P: 100% RH - P: 100% IR - P: 100%	R: $3890 mn RU - $60 mn. RH - $610 mn. PA - $2410 mn. IR - $ 60	Global PP - 68% ZA, 23% RU, 6% ZW, 5% CA, 4% US RU - P: 93% ZA, 5% ZW RH - P: 81% ZA, 10% RU,	RH - PP: 2% CA; WR: 18% ZW PA - PP: 7% US, 6% ZW; WR: 6% ZW PL - P: 4% CA, 2% US; WR: 7% US

	IR - 26% Electrochemical, 9% Chemical, 9% Medical PL - 50% Catalysts, 9% Chemical, 5% Medical & Biomedical		mn. PL - $800 mn.	6% ZW PA - P: 40% RU, 32% ZA, 10% CN IR - P: 93% ZA, 5% ZW PL - P: 71% ZA, 12% RU, 8% ZW	
Silicon metal*	50% Chemicals, 15% Electronics & PV	R: 64%	R: $820 mn.	R: 34% NO, 29% FR, 9% BZ	RP: 5% US
Source:	*https://rmis.jrc.ec.europa.eu/, reference years vary, see https://rmis.jrc.ec.europa.eu/uploads/rmp/info-dashboard.pdf*				

Annex III: List of harmful export restrictions

- **Export tax/duty** – a tax collected on exported goods or commodities by the Government of the exporting country at the time they leave a customs territory (either per unit or *ad valorem*):
    - e.g. Republic of Indonesia's export duty on the export of crude palm oil (as per Minister of Trade Regulation No.922/2023)[2]

- **Export surtax** – a tax collected on exported goods or commodities by the Government of the exporting country at the time they leave a customs territory, and which is applied in addition to the normal export tax rate:
    - e.g. Democratic Republic of Congo's surtaxes on copper, cobalt, tin ores and concentrates[3] and "Port tax" surtax on all exports from DRC (as per Governmental Decree n°028/CAB/VPM/MIN/TC/2017 of the Ministry of Transport)[4]

- **Fiscal tax on exports** – a tax not paid at the border, but which applies only or discriminates against goods or commodities intended for export:
    - e.g. Republic of Sierra Leone's fiscal tax on exports of titanium ore (as per MINES AND MINERALS ACT, 2009)[5]

- **Export licensing/permit requirements** – requirements by the Government of the exporting country to obtain a license or permit (or other forms of authorisation) before exporting products:
    - e.g. Argentinan Republic's licensing requirements for exporting copper ores (as per Resoluciones Generales 2108 y su modificatoria Nº 3065: Exportación de Minerales y sus Concentrados)[6]
    - e.g. People's Republic of China's licensing requirements for exporting gallium and germanium (as per Announcement No. 23 of 2023 on the Implementation of Export Control on Gallium and Germanium Related Items) [7]

[2] Salinan Kepmendag Penetapan Harga Referensi CPO 16-30 April 2023 (kemendag.go.id) and Indonesia: Temporary changes in export duties of crude palm oil (13 April 2023) (globaltradealert.org)
[3] Arrêté interministériel n° 0495/CAB.MIN/MINES/O1/2008 et n°195/ CAB/ MIN/FINANCES/2008 du 22 août 2008 (leganet.cd)
[4] Arrêté ministériel n° 028/CAB/VPM/MIN/TC/2017 du 07 août 2017 (leganet.cd)
[5] Mines and Minerals Act, 2009 A.p65 (sierra-leone.org)
[6] Resoluciones Generales 2108 y su modificatoria Nº 3065: Exportación de Minerales y sus Concentrados (infoleg.gob.ar)
[7] 商务部 海关总署公告2023年第23号 关于对镓、锗相关物项实施出口管制的公告 (mofcom.gov.cn). See also China approves export licences for chip materials gallium, germanium (nasdaq.com) and China exports zero germanium, gallium in August amid national security curbs (cnbc.com)

- **Qualified exporters list** – the allocation of the right to export a certain commodity to specific companies by the Government, through a process of application and registration:
    - e.g. Republic of India qualified exporters list for iron, manganese, chromium, titanium, zirconium ores (as per ITC(HS) Schedule 2 Export Policy 2018)[8]

- **Export quota** – a prescribed maximum volume or value of permitted exports:
    - e.g. Republic of Guatemala's export quotas on waste and scrap of iron, steel, tin, nickel, zinc, tungsten, etc. (as per Acuerdo Gubernativo 32-2012: Disposiciones para regular las exportaciones de desperdicios y desechos de metal)[9]

- **Export prohibition** – an absolute restriction on the export of certain goods or commodities:
    - e.g. Republic of Indonesia's export prohibition on nickel ores and bauxite (as per Regulation n°96/2019 of the Ministry of Trade on export provisions for processed and purified mining products of 30 December 2019)[10]

- **Domestic market obligation** – the requirement for producers to allocate a proportion of their annual production output for sale to the domestic market:
    - e.g. Russian Federation's domestic market obligation for diamonds, silver, gold, platinum, palladium, rhodium, iridium (as per Decree of the President of the Russian Federation No. 1137 of 20 September 2010)[11]

- **VAT rebate reduction/withdrawal** – the practice of denying (in part or whole) VAT reimbursements on exports, to make it relatively less advantageous to export a product than to sell it domestically:

[8] Directorate General of Foreign Trade | Ministry of Commerce and Industry | Government of India (dgft.gov.in)

[9] Acuerdo Gubernativo 32-2012: Disposiciones para regular las exportaciones de desperdicios y desechos de metal (faolex.org)

[10] INDONESIA – MEASURES RELATING TO RAW MATERIALS of 30/11/2022 (wto.org). See also Indonesia: Government simplifies the regulations on goods prohibited for export and import (bakermckenzie.com)

[11] Decree of the President of the Russian Federation No. 1137 of 20 September 2010: "On the approval of the regulations on import into the Russian Federation from countries outside the Customs Union within the EurAsEC, and export from the Russian Federation to these countries of precious metals, precious stones and raw materials containing precious metals." See also Export restrictions on Industrial Raw Materials (oecd.org) and EXPORT OF PRECIOUS METALS FROM RUSSIA. A LEGAL OVERVIEW BY MID-2022 (dejalex.com)

- e.g. People's Republic of China's policy on VAT rebates (as per Gazette No.57. of 2010 of Ministry of Finance and State Administration of Taxation)[12]

- **Restriction on customs clearance points for exports** – the designation of a limited number of ports, customs offices, or other exit points through which exports of certain goods or commodities can be channelled:
  - e.g. Russian Federation's restriction on customs clearance points for exports of silver and precious metal ores (as per Decree of the President of the Russian Federation No. 1137 of 20 September 2010)[13]

- **Captive mining** – the requirement for processing firms to own the mine that produces their raw material inputs, or the practice of making the award of mining rights conditional on the domestic use of the mineral:
  - e.g. Republic of India's captive mining on aluminium ores (as per Indian Minerals Yearbook 2019 - Part II Metals and Alloys: Aluminium and Alumina)[14]

- **State-trading enterprises** – enterprises (whether or not State-owned or -controlled) with special rights and privileges not available to other entities, which influence through their purchases, sales, and practices (*inter alia* export monopoly) the level or direction of exports of certain goods or commodities:
  - e.g. Petróleos de Venezuela S.A. (PDVSA) and its subsidiaries (as per Republic of Venezuela's Notification to the WTO Working Party on State Trading Enterprises of December 2001, where it is stated that "domestic prices are established by the Government [while] export prices are determined by market forces")[15]

- **Dual pricing regimes** - an economic policy instrument that impact the level playing field between competing economic actors. In a nutshell, they afford preferential access at a lower price to the local producers in the exporting country in comparison to the price that importers will have to pay. This directly improves their competitiveness. This policy

[12] Gazette No.57. 2010 of Ministry of Finance and State Administration of Taxation. See also Export restrictions on Industrial Raw Materials (oecd.org) and Sourcing from China: Export VAT (deloitte.com)

[13] Decree of the President of the Russian Federation No. 1137 of 20 September 2010: "On the approval of the regulations on import into the Russian Federation from countries outside the Customs Union within the EurAsEC, and export from the Russian Federation to these countries of precious metals, precious stones and raw materials containing precious metals." See also Export restrictions on Industrial Raw Materials (oecd.org) and EXPORT OF PRECIOUS METALS FROM RUSSIA. A LEGAL OVERVIEW BY MID-2022 (dejalex.com)

[14] Indian Minerals Yearbook 2019 - Part II Metals and Allows: Aluminium and Alumina (ibm.gov.in)

[15] Republic of Venezuela's Notification to the WTO Working Party on State Trading Enterprises of December 2001 (wto.org). See also Petróleos de Venezuela, S.A. (pdvsa.com)

instrument acts as an implicit subsidy adversely affecting the terms-of-trade effect of the importing country. As such, dual pricing provisions can be considered as a “beggar-thy-neighbour” policy. The economic effects are similar to a wide array of other policy options – some of which are directly prohibited under WTO rules (see above).

- e.g. Chile’s dual pricing regime for Lithium.

Annex IV: Key raw materials for the fermentation industry

CN code	Description	Conventional rate of duty (%)	Countries
1005 90 00	Maize (corn), other	94 €/t	US, Brazil, Argentina
1108 11 00	Wheat starch	224 €/t	
1108 12 00	Maize (corn) starch	166 €/t	US
1108 13 00	Potato starch	166 €/t	
1108 14 00	Manioc (cassava) starch	166 €/t	Thailand
1108 19 10	Rice starch	216 €/t	
1108 19 90	Other starches	166 €/t	
1701 12 90	Beet sugar	419 €/t	
1701 13 90	Cane sugar	419 €/t	Brazil
1701 14 90	Other cane sugar	419 €/t	Brazil
1701 99 10	White sugar	419 €/t	
1701 99 90	Other sugar	419 €/t	
1702 30 50	Glucose and glucose syrup, not containing fructose or containing in the dry state less than 20% by weight of fructose and in the form of white crystalline powder, whether or not agglomerated	268 €/t	US, China
1702 30 90	Other glucose and glucose syrup, not containing fructose or containing in the	200 €/t	US, China

	dry state less than 20% by weight of fructose		
1702 40 90	Other glucose and glucose syrup containing in the dry state at least 20% but less than 50% by weight of fructose, excluding invert sugar	200 €/t	US, China
1702 50 00	Chemically pure fructose	16% + 507 €/t	
1702 60 80	Inulin syrup	40 €/t	
1702 60 95	Other fructose and fructose syrup, containing in the dry state more than 50% by weight of fructose, excluding invert sugar	40 €/t	
1702 90 10	Chemically pure maltose	12,80%	
1702 90 50	Maltodextrine and maltodextrine syrup	200 €/t	
1703	Molasses	3,5 €/t	Brazil, Thailand,