

Our position

Critical Raw Materials



AmCham EU speaks for American companies committed to Europe on trade, investment and competitiveness issues. It aims to ensure a growth-orientated business and investment climate in Europe. AmCham EU facilitates the resolution of transatlantic issues that impact business and plays a role in creating better understanding of EU and US positions on business matters. Aggregate US investment in Europe totalled more than €3.4 trillion in 2021, directly supports more than 4.9 million jobs in Europe, and generates billions of euros annually in income, trade and research and development.

Executive summary

The European Commission's proposal for the Critical Raw Materials (CRM) Act will be essential for the functioning of the EU's Green Deal Industrial Plan and the green and digital transitions. CRMs are critical components of the transportation, energy and digital economy sectors, among others, but they are often in short supply and/or regionally concentrated in third countries. To increase and diversify the supply of CRMs in the EU, policymakers should not only bolster domestic supply by streamlining permitting procedures and increasing access to project financing but should also pursue international cooperation with like-minded partners and multiple resource-rich countries that share the EU's values. EU CRM sourcing should be in line with applicable circular economy, product design and environmental, social and governance standards. The CRM Act should also look to the future by ensuring regulatory certainty and creating a process for the identification and notification of new CRMs.

Introduction

The Critical Raw Materials (CRM) Act will be of strategic importance for the future of the European economy. In order to stay competitive the EU must secure easy access to the CRMs that form the building blocks of the green and digital transitions.

Today, the EU is confronted with a number of challenges when it comes to CRMs, including limited sources in Europe and rising global demand. Regulation will have to address diversification to avoid dependencies while simultaneously supporting domestic supply. To do so, the CRM Act should foster strategic partnerships and support projects along the value chain that secure sufficient supply. The CRM Act should also be in line with environmental, social and governance (ESG) standards and the circular economy principles that promote recycling and reuse.

EU policymakers should consider the following recommendations to ensure that the CRM Act's ambitions match the EU's digital and sustainability goals.

Domestic sourcing

The EU must facilitate mining operations to extract CRMs efficiently within its own borders, including through the use of the important projects of common European interest (IPCEIs) mechanism. It should also streamline EU legislation that affects mining by improving coherence between CRM-related laws and reducing the legal burden on businesses.

Streamlined permitting process

The European Commission should incentivise and support CRM mining, refining and recycling projects with improved permitting processes. Current permitting processes are slow, and outcomes can be unpredictable. This uncertainty is driving investment away from European projects and is a significant impediment to the success of the EU's CRMs policy.

The EU's overall strategic objectives would benefit from fast-tracked procedures, which could include provisions to allow companies to conduct several steps in parallel and to compel permitting authorities to prioritise strategic projects. These authorities may require additional funding to achieve this goal.

High ESG standards

Accelerated permitting procedures should not compromise social and environmental standards. Ambitious multi-stakeholder schemes, such as the Initiative for Responsible Mining Assurance (IRMA), should improve accountability and transparency in the permitting process. Projects can only be successful if they secure buy-in from all relevant stakeholders, not least from local communities. In this respect, the IRMA's multi-stakeholder governance model offers a potential conflict resolution mechanism.

Policymakers should work collaboratively to align global standards for sourcing and reporting. Reporting standards for CRM production and sourcing should be in line with existing EU legislation, such as the framework and scope of the Corporate Sustainability Reporting Directive, to avoid placing additional and undue burdens on industry. Similarly, it is important that supply chain resilience and security programs for CRMs are consistent with other supply chain-related provisions to avoid regulatory uncertainty. In the EU, for instance, examples of relevant measures covering supply chain issues are the Conflict Minerals Regulation, which led to the creation of the European Partnership for Responsible Minerals, and draft legislation such as that on corporate sustainability due diligence, forced labour product ban and batteries.

Improving access to funding

A lack of access to EU and national financing tools is a further barrier to mining, refining and recycling projects within the bloc. To address this, the EU should introduce a dedicated raw materials public/private investment fund that combines equity, loans and guarantees. In view of the high costs of operating mining, refining and recycling facilities, this support should also cover operating costs in order to appropriately de-risk the investments in the long run and ensure they continue supporting security of supply in the EU.

International cooperation

The EU is highly dependent on imports for raw materials. The pandemic and associated supply chain challenges made clear the critical need for cooperation with international partners to address supply chain vulnerabilities and promote resilience. The war in Ukraine further highlighted Europe's vulnerability and dependencies – when many industries did not have access to CRMs for months, their productivity slowed. Today, China is the main supplier for many strategically important raw materials. To avoid moving from one dependency to another, Europe must diversify its raw materials supply.

It is clear that the EU will not be able to satisfy its demand through domestic primary or secondary production, especially not in the short to medium term. According to a study by KU Leuven,¹ the EU could fulfil only 55% of its 2030 lithium demand through domestic resources, even if all projects currently in the pipeline come online. It will remain critical that the EU secure a reliable supply of strategic raw materials from multiple third countries.

Trade policy

Because trade agreements can meaningfully reduce the risk of government policies leading to excessive raw material stockpiling, the EU should continue leveraging its trade policy to secure supply of strategic raw materials. The Canada-EU Trade Agreement as well as the recently agreed modernisation of the EU-Chile Association Agreement are excellent examples of how access to raw materials can be integrated in trade agreements while pursuing high sustainability standards. These agreements must be ratified as swiftly as possible to ensure EU industry benefits quickly.

Furthermore, trade agreements with other resource-rich countries and regions such as Australia and Mercosur should be speedily concluded, as they could help ensure access to raw materials. An important feature of these agreements is that rules of origin facilitate access to primary and secondary raw materials and do not create trade barriers.

Strategic partnerships

Considering the scarcity of raw materials, the high costs of extraction and processing, and their environmental impact, industrialised countries risk racing each other for resources, potentially leading to a duplication of efforts and wasted resources. To prevent this, the EU should work with like-minded partners to develop resources together, in alignment with existing strategic raw materials partnerships the EU has with third countries like Canada, Ukraine, Kazakhstan and Namibia. The Minerals Security Partnership is the best approach and should be strengthened – the EU should pursue the creation of its proposed Critical Raw Materials Club with this approach in mind.

The EU-US Trade and Technology Council should also focus more discussion on access to raw materials and facilitate more regular and structured mechanisms for transatlantic cooperation on this issue. Furthermore, joint sourcing consortia for raw materials could help address some of the concerns created by the US Inflation Reduction Act. Transatlantic leadership will be critical to ensuring sufficient CRM supply for industry on both sides of the Atlantic.

¹ bit.ly/EMpolicy

Supporting projects abroad

Because many raw materials are scarce within its borders, the EU should strengthen its partnerships with multiple resource-rich countries that share the EU's values and allow for the financing of mining and processing projects in third countries if they help secure a supply of strategic materials. For example, the IPCEI mechanism could be extended to third countries to finance parts of an integrated project that is located outside the EU. The EU's high ESG ambitions may require supporting countries financially and on the ground to ensure that they can meet its standards.

Diversifying sources of supply

Because CRMs are essential for highly specialised applications that power the digital and green transition, the CRM Act should encourage efforts to identify and develop diverse supplies of CRMs. Natural scarcity has led to third countries controlling the global market for rare earth materials, which creates a significant supply chain risk. The EU can promote supply chain resiliency by adopting a risk-based approach and avoiding efforts that seek to redirect and artificially concentrate supply chains. Whenever possible, initiatives to diversify CRM sources should involve holistic assessments across value chains – including production, refining, processing and recycling.

Circular economy and recycling

The CRMs' use and production cycle should follow relevant circular economy principles that minimise the loss of primary CRMs and maximise the production and use of secondary CRMs. The smart and economical use of raw materials – through product design, cascading use, resource efficiency, recycling, substitution and more – must be a key pillar in the EU's CRM strategy.

Just as the extraction of primary CRMs in Europe helps to ensure the security of raw materials supply for European industry, so too does their resource-efficient management through the recycling of waste into secondary CRMs. The longer the lifetime of a product, the less need to mine raw materials. Accordingly, the EU should utilise the potential of the circular economy as much as possible.

Unfortunately, the recycling of many raw materials is still not feasible or cost efficient. The EU must address barriers to recycling and encourage further investments in recycling technology via regulatory measures and financial incentives. Concretely, the EU's raw materials strategy should:

- Analyse the flow of individual materials and identify effective measures for reducing existing barriers to using recycled raw materials, considering legal hurdles, norms, standards, and approval and planning procedures for the largely closed raw material cycles.
- Implement economic incentive systems, regulatory minimum requirements and financing instruments to stimulate innovation in CRMs resource efficiency, sorting, collecting and recycling, and establish a competitive market for secondary raw materials.
- Continue and expand research and development in CRM management to accelerate the creation of new technologies.

Product design regulation

The European Commission should carefully consider product design and its role in ensuring the resource-efficient use of CRMs. In particular, these issues include the impact of decisions on product durability under other policy frameworks like the European Sustainable Product Regulation and the Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation, and the resulting increasing demand for and need to replace CRMs.

Coherence

A predictable and coherent regulatory environment is critical to attract investments that have a time horizon of up to 20 years, such as those for raw materials extraction. The production, use and recycling of raw materials are subject to many evolving health, safety and environmental regulations, creating uncertainty for industry. Restrictions and risk management measures in general need to be based on strong scientific evidence and analysis of their impact on the supply of raw materials.

Horizon scanning

Given the speed of innovation and changes to the macro policy environment, the EU should establish an open and predictable process that facilitates the timely identification and notification of new strategic materials that are either critical in their own right or help to conserve CRMs.

Conclusion

The CRM Act will be critical to address the growing risks of CRMs dependencies and supply disruptions. This initiative is both important and urgent.

The EU will always depend on raw materials from outside the bloc. Therefore, the proposal is right to not only bolster domestic sourcing of CRMs but to increase and diversify the sourcing of CRMs from abroad by extending financing to strategic projects outside the EU and through partnerships with multiple resource-rich countries that share the EU's values and like-minded partners, including the US.

Sustainable and responsible sourcing of CRMs needs to be a priority. Without speedy action from EU policymakers, raw materials projects will be blocked or delayed. The CRM Act can help improve public trust in the raw materials industry by setting a framework that ensures high sustainability standards, transparency and public engagement.

The American business community stands ready to share its broad industry perspective on these issues to help ensure the creation of an effective framework that benefits all stakeholders and the sectors that rely on CRMs.

Annex

Key sectors

Transport sector

Since 1990, transport emissions in the EU have grown by 33%, and in 2018, domestic and international transport were responsible for 29% of total economy-wide greenhouse gas emissions in the EU. Light-duty vehicles (passenger cars and vans) are the greatest contributor to EU transport greenhouse gas emissions, followed by heavy-duty vehicles (HDVs, including trucks and buses), marine navigation and aviation.

To reduce road transport emissions, the European Commission has set very ambitious goals for passenger cars, including scheduling an end to cars manufactured with internal combustion engines by 2035. The revised fleet targets for HDVs set equally ambitious targets of -45% in 2030, -65% in 2035 and -90% in 2040, which will require a massive ramp-up in electric trucks and buses.

To meet these targets, automotive original equipment manufacturers have been focusing on electrification, either through battery electric or hydrogen. In the coming years all manufacturers will invest significantly in zero-emissions vehicles, leading to the sector's complete transformation.

Today, most key CRMs necessary for batteries or hydrogen are of non-EU origin. This makes electrification an even bigger challenge as many global economies outside the EU have announced plans to invest in electrification or have secured access to raw materials through early and strategic investments into the value-chain of zero-emissions vehicles.

Key materials needed for these technologies are:

- Lithium, nickel, manganese, cobalt and graphite for **lithium-ion batteries**.
- Iridium, platinum, tantalum, cobalt and nickel for **hydrogen**.
- Rare-earth elements such as dysprosium, neodymium and praseodymium for **permanent magnets electric vehicles**.

The automobile industry must have significantly greater access to these materials to ensure the sector's successful green transition.

Energy sector

The European Green Deal and its climate goals will require increased sourcing of renewable energy. Raw materials needed for the energy transition include:

- Lithium, nickel, cobalt, manganese and graphite for **energy storage technology**. These elements are considered strategic since their demand is expected to be high and their supply uncertain in the coming years. Demand is estimated to increase by 500% by 2050 compared to current levels.
- Silver, copper and aluminium for **solar photovoltaic technology**. Aluminium, for example, is used in photovoltaic module frames and solar tracker components. It is estimated that 87% of the increase in total aluminium demand in the coming years will be due to this technology.
- Rare-earth elements such as neodymium, scandium and yttrium, among others, for **specific magnets in wind turbines**. Their demand is estimated to increase more than 11-fold compared to levels from three years ago.

Digital economy

Along with the green transition, CRMs are essential to the digital transition. Studies show the CRM demand for 5G network equipment, photonics, edge computing applications and quantum technologies could grow 15-fold in a fast-rollout scenario. Reliable access to CRMs is therefore fundamental to maintaining supply chain resilience and enabling the digital economy. Raw materials needed to support the digital economy include:

- Metals such as tin, copper, gold, palladium, platinum, nickel and silver, which are used in the manufacture of **printed circuit assemblies**.
- Lithium and cobalt for **energy storage technologies** that are increasingly used in the technology sector.
- Rare-earth elements such as neodymium and samarium, which are used in magnets and required for the development of **hard drives, display technologies and many electronic components**.
- Indium, which is used in **photonics and display technologies**.
- Silicon, germanium and gallium, which are widely used to produce the **chips needed for cloud computing**.