SPECIAL REPORT 04/2026 **EN**

Critical raw materials for the energy transition

Not a rock-solid policy

EUROPEAN
COURT
OF AUDITORS

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Main messages

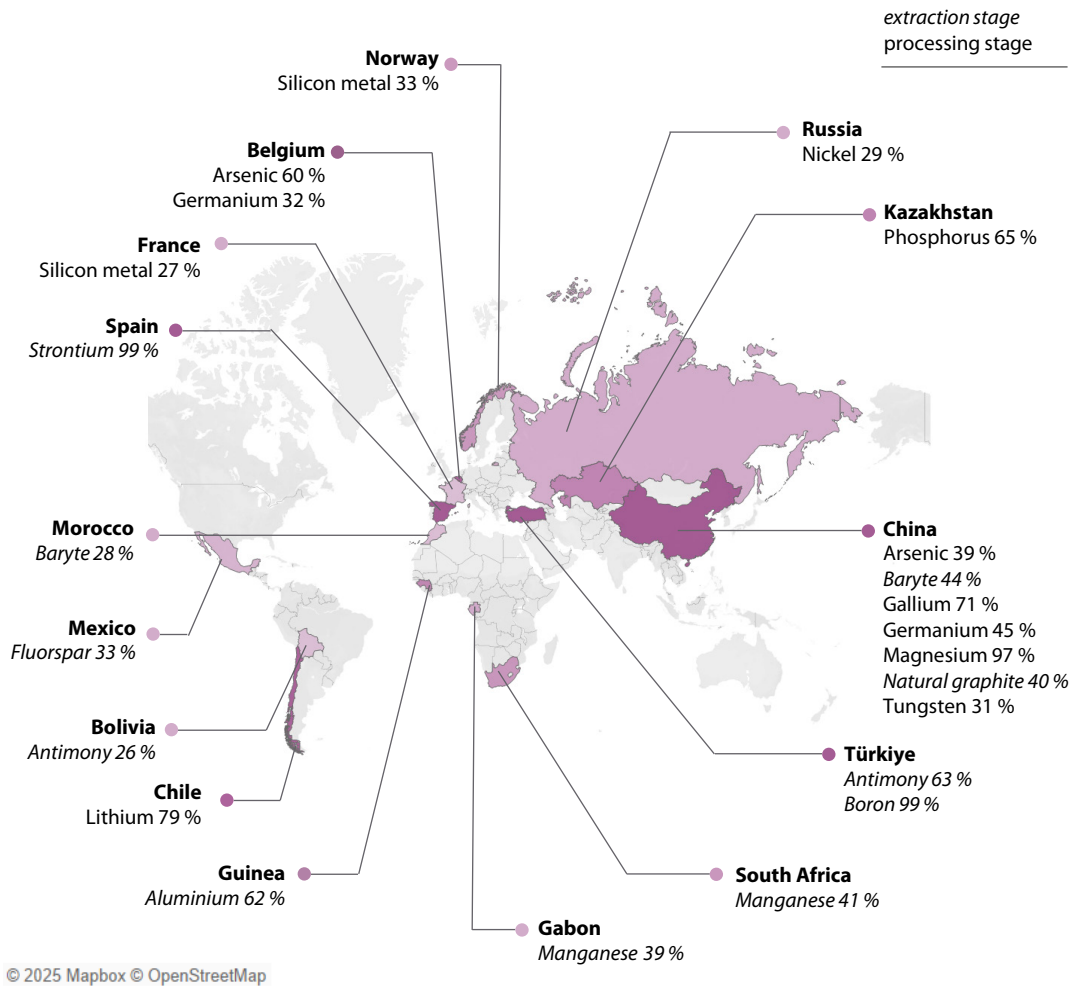
Why this area is important

01 The EU has set ambitious energy and climate targets, committing to net-zero emissions by 2050 and producing at least 42.5 % of its energy from renewable sources by 2030. This green transition calls for large-scale deployment of renewable energy technologies like wind turbines, batteries and solar panels.

02 All these technologies require critical raw materials such as lithium, nickel, cobalt, copper and rare earth elements; the consumption of these materials is therefore expected to increase dramatically. As a result, ensuring the secure supply of critical materials has become a key objective for the EU's energy and industrial policy.

03 Demand for critical raw materials can be met through imports, domestic production and more sustainable resource management. Most of the necessary minerals are mined and processed outside the EU, and supply is often concentrated in either one or a handful of non-EU countries (***Figure 1***). For example, China provides 97 % of the EU's magnesium (used in hydrogen-generating electrolysers) and Türkiye provides 99 % of the EU's boron (used in solar panels). This poses a challenge for the EU's strategic autonomy and highlights the need to increase domestic production and use resources more efficiently.

Figure 1 | Main EU suppliers of selected critical raw materials



Note: The figure shows the main EU suppliers for 18 out of 26 critical raw materials that are important for the energy transition, for which more than 25 % of EU supply (2016-2020) is concentrated in one country.

Source: ECA, based on Commission information.

04 In recent years, the EU has taken a number of steps to increase the security of supply of critical materials, including the adoption of the Action Plan on Critical Raw Materials and Critical Raw Materials Act. This report examines the results of these efforts, provides input to the policy debates ahead of the 2030 milestone, and contributes to the ongoing implementation of the Act at member state and Commission levels.

05 The aim of our audit was to assess whether EU-level actions ensure a long-term secure supply of critical raw materials for the EU's energy transition. We examined whether:

- EU policy for raw materials sets a clear course and is based on a robust foundation;
- diversification of imports is starting to show tangible results;
- bottlenecks hampering domestic production progress have been removed;

- the significant potential of sustainable resource management is being fully used; and
- EU strategic projects have the potential to increase the security of supply of critical materials in the EU.

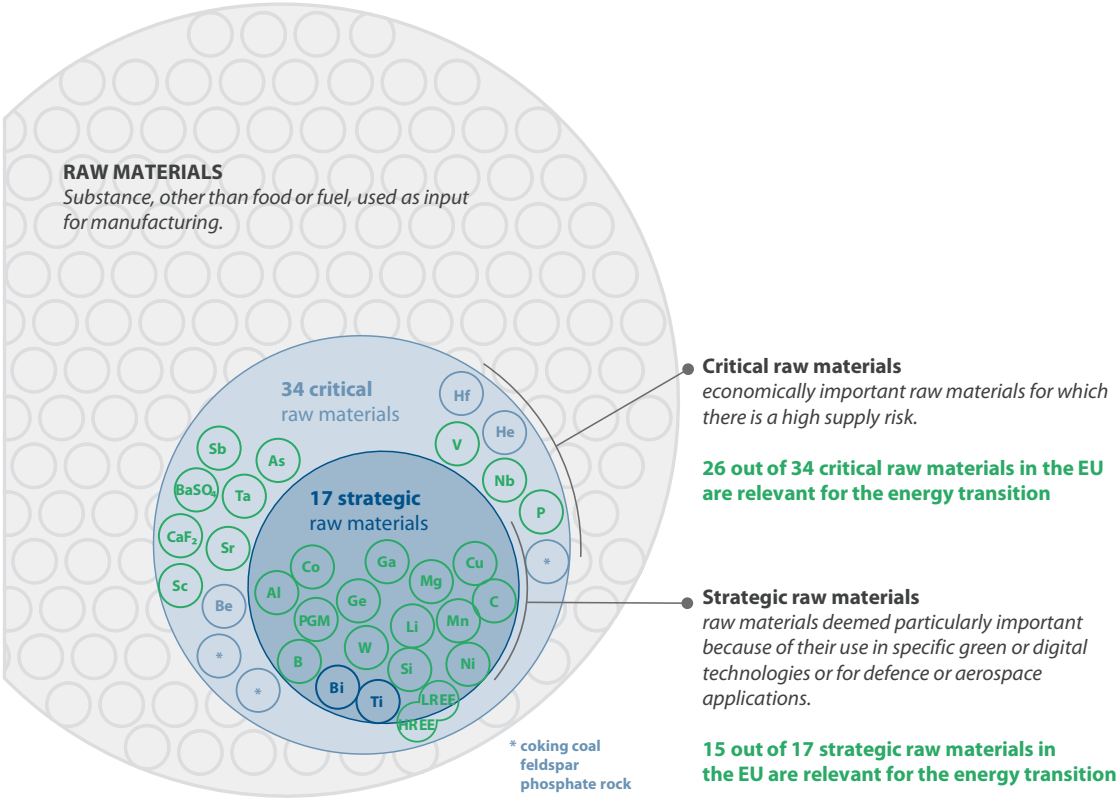
What we found and recommend

06 To ensure the secure supply of critical raw materials, the EU aims to diversify imports, increase domestic production, and manage resources more sustainably, but finds it difficult to overcome challenges in reaching these objectives. While the Critical Raw Materials Act sets a strategic course, its targets lack justification and underlying data is not robust. Efforts to diversify imports have yet to produce tangible results and bottlenecks hamper progress in domestic production and recycling. While strategic projects can benefit from faster permitting and more visibility, many projects will struggle to secure supply for the EU by 2030.

EU's raw materials policy sets a strategic course, but rests on incomplete foundations

07 The EU uses lists to identify key raw materials. The first list of critical raw materials – defined as economically important and subject to significant supply risks – was published in 2011 and was followed by five subsequent lists. In addition, in 2024 the Critical Raw Materials Act introduced a list of 17 strategic raw materials. These are a subset of critical raw materials (***Figure 2***) that are particularly relevant for future demand in strategic sectors, including the renewable energy sector. We found that these lists are useful tools for prioritisation and that supply and demand information underpinning them has improved over the years. However, there are blind spots in the trade data used for critical and strategic materials lists as well as issues with methodology and demand projections for the strategic materials. These weaknesses reduce the reliability of both lists (paragraphs ***25***-***30***).

Figure 2 | Raw materials cascade



Note: There are two types of rare earth element classified as separate critical raw materials: light rare earth elements and heavy rare earth elements. Some elements from both groups are combined into one single strategic raw material called "rare earth elements for permanent magnets".

Source: ECA.

08 The targets established in the Act set the course for member states and for industry, but are non-binding, only cover strategic raw materials and lack justification. In addition, there is no methodology for weighting the contribution of each material towards achieving the targets. It is also unclear how they contribute to achieving the EU's renewable energy and Net-Zero Industry Act targets (paragraphs ***31***-***34***).

09 EU funding is available for initiatives related to critical raw materials but it is scattered across different programmes, instruments and different Commission directorates-general. The Commission does not track the results of this funding and has not assessed its effects on the EU's supply. So far, the use of EU funding to support projects in non-EU countries has been limited (paragraphs ***35***-***38***).

Recommendation 1

Strengthen the foundations of the EU's raw materials policy

The Commission should:

(a) improve the reliability of critical and strategic raw material lists, by improving the granularity of trade data, as well as refining the methodology and demand projections for strategic raw materials;

(b) ensure that future raw material targets are well justified, and clarify how they contribute to the EU's renewable energy and Net-Zero Industry Act targets;

(c) ensure that there is a clear methodology for weighting the contribution of each raw material to achieving raw material targets;

(d) track EU funding for projects and initiatives related to critical raw materials and assess the effects on the EU's supply.

Target implementation date: 2027

Efforts to diversify imports have yet to produce tangible results

10 The EU is currently highly dependent on imports of raw materials from non-EU countries. The Critical Raw Materials Act requires member states to ensure, by 2030, that no more than 65 % of each 17 strategic raw material originates from a single non-EU country. At the processing stage, four strategic raw materials, which are relevant for the energy transition (lithium, magnesium, gallium and rare earth elements) currently exceed this threshold. In case of extraction, more than 65 % of EU's boron supply comes from one non-EU country (paragraphs ***39***-***40***).

11 The EU has stepped up its external activities related to critical raw materials in recent years, including through free trade agreements. However, the extent to which they led to a strengthened supply is unclear as no quantified information is available at present. At the same time, trade distortions and geopolitical crises jeopardise the EU's security of supply (paragraphs ***42***-***48***).

12 We found that other efforts to diversify imports, such as strategic partnerships and roadmaps with non-EU countries, improve cooperation but contribute little to the secure supply of critical raw materials. While the Commission monitors implementation progress in general, it does not monitor the effect of these initiatives on supply. The lack of tangible

results is partly due to missing or delayed roadmaps and the absence of related specific projects to supply raw materials to the EU (paragraphs *49*-*53*).

Recommendation 2

Ensure that efforts to diversify imports lead to more secure supply of critical raw materials

The Commission should:

(a) analyse the impact of EU trade agreements with critical raw materials-relevant provisions, to determine whether these agreements lead to a more secure supply of critical raw materials to the EU and, based on this, improve future agreements;

(b) regularly assess strategic partnerships to determine the contribution they make to supply of critical raw materials to the EU and identify successful initiatives that can be replicated to better support the implementation of all such partnerships.

Target implementation date: 2026

Financial, legal and administrative bottlenecks hamper progress in domestic production

13 The production of critical raw materials requires exploration, extraction, and processing, which only take place on limited scale in the EU. The Critical Raw Materials Act sets a non-binding target to boost domestic extraction of strategic materials to 10 % and processing to 40 %. We found that financial, legal and administrative bottlenecks hamper progress in this area.

14 Exploration of deposits in the EU remains underdeveloped. Efforts to improve "general exploration", i.e. to determine whether exploitable resources exist, have just begun, in particular through EuroGeoSurveys and national exploration programmes. The more focused and advanced "targeted mineral exploration" is a high-risk endeavour with a low success rate (paragraphs *57*-*60*).

15 Critical raw materials are mostly processed outside the EU. Within the EU, processing is affected by a lack of technology and a shrinking number of facilities. In 2025, the Commission launched a series of activities to strengthen the competitiveness of a wide range of sectors and address high energy costs. It is too early to assess how or to what

extent these initiatives will help to improve the situation for processing critical raw materials in the EU (paragraphs *61*-*64*).

16 Member state governments and European public banks plan to invest more in the sector. However, exploration, mining and processing activities in the EU currently face significant difficulties in securing financing. To facilitate investments, the Commission committed to including sustainable financing criteria for the mining and processing in the EU taxonomy by the end of 2021 but has not put forward a proposal thus far (paragraphs *65*-*69*).

17 Lengthy and complex permitting is still a significant bottleneck, which delays the start of EU mining projects. In addition to administrative obstacles, environmental and social considerations also affect the amount of time required for permitting procedures. The Commission has clarified the conditions for extraction in Natura 2000 areas, but it has not done so in relation to the Water Framework Directive. It has also started to address the permitting bottleneck in the Critical Raw Materials Act, mainly through one-stop shop solutions (paragraphs *70*-*75*).

Recommendation 3

Address the financing bottlenecks which hamper the progress of critical raw materials production in the EU

The Commission should carry out a consultation to develop evidence-based recommendations to facilitate investments in exploration, extraction and processing of critical raw materials, and consider relevant policy action.

Target implementation date: 2027

The potential of sustainable resource management is not fully used

18 The sustainable resource management can reduce EU demand for critical raw materials through circularity, substitution and resource efficiency. The Critical Raw Materials Act is a key step in improving the circularity of these materials, and complements the existing legislation. It sets a non-binding target that at least 25 % of the EU's strategic raw materials should originate from recycled sources by 2030, and introduces national circularity plans.

19 However, the potential of resource management to reduce the EU's needs for primary critical raw materials (resources extracted directly from nature) is not fully used. For example, the Net-Zero Industry Act, which focuses on scaling up the EU's manufacturing

capacity for net-zero technology, does not cover the substitution of materials. The delayed adoption of the Commission's implementing acts is likely to postpone the preparation and implementation of national circularity plans. Moreover, most EU recycling targets neither incentivise the recycling of individual materials nor encourage the uptake of recycled materials (paragraphs ***78-86***).

20 In addition, market barriers such as high processing costs, limited availability of materials, and technological issues continue to hinder the competitiveness of the EU's recycling sector. While recycling is already economically viable for some critical raw materials, it is still underdeveloped where smaller quantities are used. Recent legislation is intended to further improve the recyclability of critical raw materials through labelling requirements and by promoting circularity already at the product design stage. However, regulatory obstacles (e.g. those affecting the waste trade) and market barriers still persist, limiting the commercial viability of the recycling operations (paragraphs ***87-90***).

Recommendation 4

Make better use of the sustainable resource management to reduce dependence on primary critical raw materials

The Commission should:

(a) when reviewing the Net-Zero Industry Act, consider including critical raw materials substitution in the scope, notably by fostering innovation in product design;

(b) in the relevant legislation, consider, where technically feasible, introducing binding recycling targets for individual critical raw materials, and realistic collection and recovery targets for waste containing critical raw materials;

(c) enhance the commercial viability of critical raw materials recycling operations both by further facilitating imports to the EU and movements of waste containing critical raw materials within the EU.

Target implementation date: 2029

EU strategic project label can bring benefits, but many projects will struggle to secure supply for the EU by 2030

21 The new strategic projects introduced by the Critical Raw Materials Act could potentially improve the EU's domestic extraction, processing and recycling. Projects designated as strategic can benefit from faster permitting and greater visibility. However, several factors

reduce the added value of the EU strategic project instrument. First, appeals against granting permits might still cause delays. Second, the Act does not provide for any EU funding for strategic projects. Third, as of November 2025, the Commission has only launched two calls for these projects – one in May 2024 and the other in September 2025 – even though the Act requires at least four open calls every year, starting in 2025. Furthermore, strategic projects only focus on strategic raw materials, and not on all critical raw materials. This means that projects involving other materials that are vital for the energy transition cannot be recognised as strategic (paragraphs ***91***-***99***).

22 Many selected projects will struggle to secure supply for the EU by 2030, in particular the ones in early stages of development or lacking offtake agreements with EU-based customers. As we approach 2030, contributing to the 2030 targets will become more and more difficult for future projects. (paragraphs ***100***-***104***).

Recommendation 5

Increase the added value of EU strategic projects

The Commission should, as part of the Critical Raw Materials Act evaluation in 2029, consider extending the eligibility for strategic projects to more critical raw materials that are relevant for the energy transition, while prioritising projects that have offtake agreements with EU-based customers and allowing the selection of projects with a longer timeframe.

Target implementation date: 2029

02

A closer look at our observations

EU's raw materials policy sets a strategic course, but rests on incomplete foundations

23 In this part of the report, we assess whether the EU's critical raw materials policy is built on solid foundations. In line with the EU's Better Regulation principles, policymaking should be built on robust data and justification.

24 To help ensure a secure supply of critical raw materials (CRMs), we assessed:

- how the Commission chose the raw materials on which to focus,
- whether targets set are adequate, and
- whether the Commission can demonstrate the effects of EU funding on the CRM supply.

EU lists identify key raw materials, but underlying data, projections and methodology have shortcomings

25 In response to growing concerns over supply disruption, the Commission launched its first criticality assessment in 2011 to identify critical raw materials which are economically important and which face significant supply risks[1]. The most recent list from 2023 is

[1] https://rmis.jrc.ec.europa.eu/uploads/crm-report-on-critical-raw-materials_en.pdf.

embedded in the Critical Raw Materials Act (CRMA). Of the 34 critical materials identified by the Commission, 26 are needed for the key renewable energy technologies (*Figure 3*).

Figure 3 | Critical raw materials are necessary for renewable energy technologies

	Electrolysers	Wind turbines	Lithium-ion batteries for renewables	Heat pumps	Solar photovoltaics
Aluminium/bauxite	●	●	●	●	●
Copper	●	●	●	●	●
Nickel	●	●	●	●	●
Silicon	●	●	●	●	●
Manganese	●	●	●		
Boron	●	●		●	●
Heavy rare earth elements	●	●		●	
Light rare earth elements	●	●		●	
Cobalt	●		●		
Natural graphite	●		●		
Platinum group metals	●			●	
Baryte	●				
Magnesium	●				
Scandium	●				
Strontium	●				
Tantalum	●				
Tungsten	●				
Vanadium	●				
Niobium		●	●		
Antimony		●			
Arsenic		●			
Lithium			●		
Phosphorus			●		
Fluorspar				●	
Gallium					●
Germanium					●

Source: JRC, Supply chain analysis and material demand forecast in strategic technologies and sectors in the EU – A foresight study, 2023.

26 The Act also introduced 17 strategic raw materials (SRMs), which are a subset of CRMs. These materials are considered essential for strategic technologies used by the EU's green,

digital, defence and aerospace sectors. The EU uses both lists to focus attention on key materials needed for the European economy. We found that these lists are useful tools for prioritisation and help guide strategic planning for the energy transition.

27 We analysed the Commission's methodology for selecting critical and strategic raw materials, and examined whether this relies on robust data. The results of our work, presented in ***Table 1*** show the main differences between the critical and strategic materials lists, while also revealing blind spots in identifying these materials.

Table 1 | Critical raw materials versus strategic raw materials: key differences and blind spots

	CRMs	SRMs
Definition	Raw materials economically important to the EU with a high supply risk	A subset of CRMs, essential for strategic technologies and sectors.
Policy implications	Lower political priority (e.g. standard permitting).	Higher political priority with specific rules (e.g. faster permitting, strategic project designation, targeted supply chain measures).
Temporal orientation and coverage	Backward-looking concept, based on historical supply risks, current economic importance and existing market data.	Forward-looking concept, based on relevance for strategic technologies and projected demand growth.
Methodology	Robust and transparent methodology, which has improved since 2011.	No properly established methodology; the CRMA outlines a general approach for selecting SRMs but does not define how the different selection criteria are to be weighted and prioritised.
Transparency	Extensive, regular analysis supported by external experts, with the results published in a comprehensive study	Commission's assessment is not transparent as its results (apart from the SRM list) have not been published.
Completeness of data sources and projections	More materials used in each analysis since 2011 (***Annex II***). Overall quality of data has improved, in particular the granularity of production data, but data gaps remain, notably for recycled raw materials (***Annex III***) and trade (***Annex IV***).	Current demand projections do not allow a distinction between EU demand for raw materials and CRMs already incorporated into components which are imported to the EU. Demand for some renewable energy technologies (such as geothermal, hydropower) and electricity grids was not projected. The Commission uses proxies instead of real-time data for SRM criteria under the CRMA.
Timeliness of data	Outdated data (e.g. 2023 assessment covering 2016-2020).	Outdated data (e.g. 2023 assessment covering 2016-2020)
positive	mixed picture	significant weaknesses identified

Source: ECA analysis.

28 We also compared the EU's lists with similar lists published by Australia, India, Japan, South Korea, the United Kingdom and the United States. All materials identified by the EU as relevant for renewable energy technologies appeared on at least one of these lists (***Annex V***). However, tellurium and indium, deemed highly critical for the energy transition[2], are notably absent from current EU lists, despite appearing on the lists of five and six of the analysed countries, respectively.

29 As acknowledged in the criticality assessment study[3] and confirmed by our analysis in ***Table 1***, problems with data reduce the reliability of the selection process of critical raw materials. In case of strategic raw materials, issues with data and projections, combined with methodological shortcomings, compound the same problem. Overall, the identified weaknesses undermine the reliability of both lists.

30 We also assessed the new monitoring provisions in the Critical Raw Materials Act (***Annex VI***). We found that they have the potential to improve data availability. However, these provisions do not tackle trade data problems or address existing demand projection limitations, which means that not all renewable technologies and manufacturing needs are covered.

Strategic raw material targets provide direction, but lack justification

31 The Critical Raw Materials Act sets non-binding 2030 targets (referred to as "benchmarks" in the Act) for extraction, processing, recycling and import diversification of strategic raw materials (***Figure 4***). There are no targets for those critical materials that are not classified as strategic. Our interviews with industry stakeholders and our survey, which we sent to all member states, show that these targets are broadly welcomed as long as they remain non-binding.

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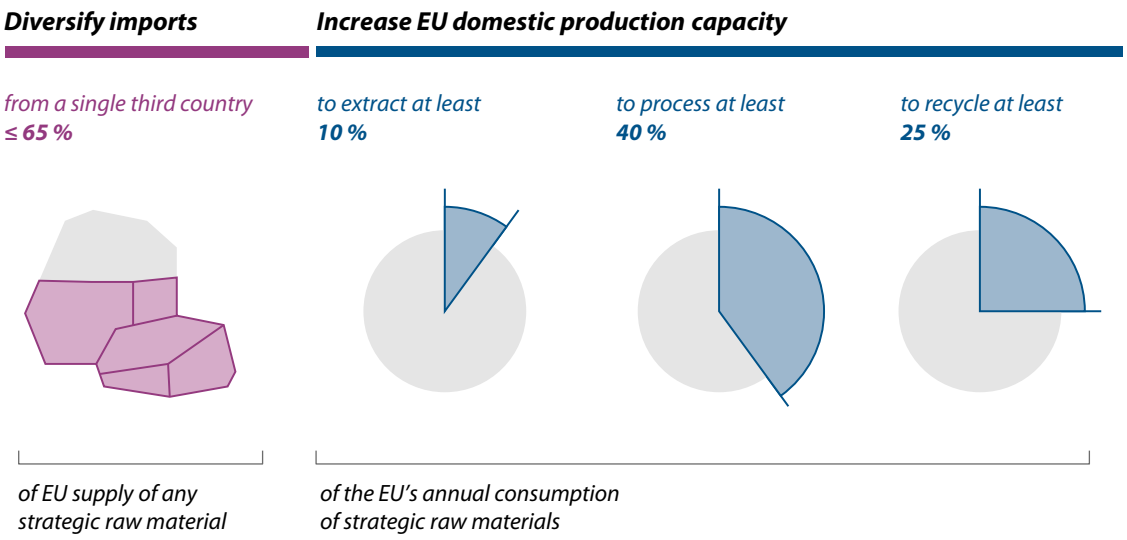
[2] Constructing a ranking of critical materials for the global energy transition, IRENA.

[3] Study on the critical raw materials for the EU 2023 – Publications Office of the EU, chapter 3.4 Limitations of the criticality assessments.

Figure 4 | Targets are non-binding and are only established for strategic raw materials



Source: ECA.

32 We assessed how the targets were determined and found that:

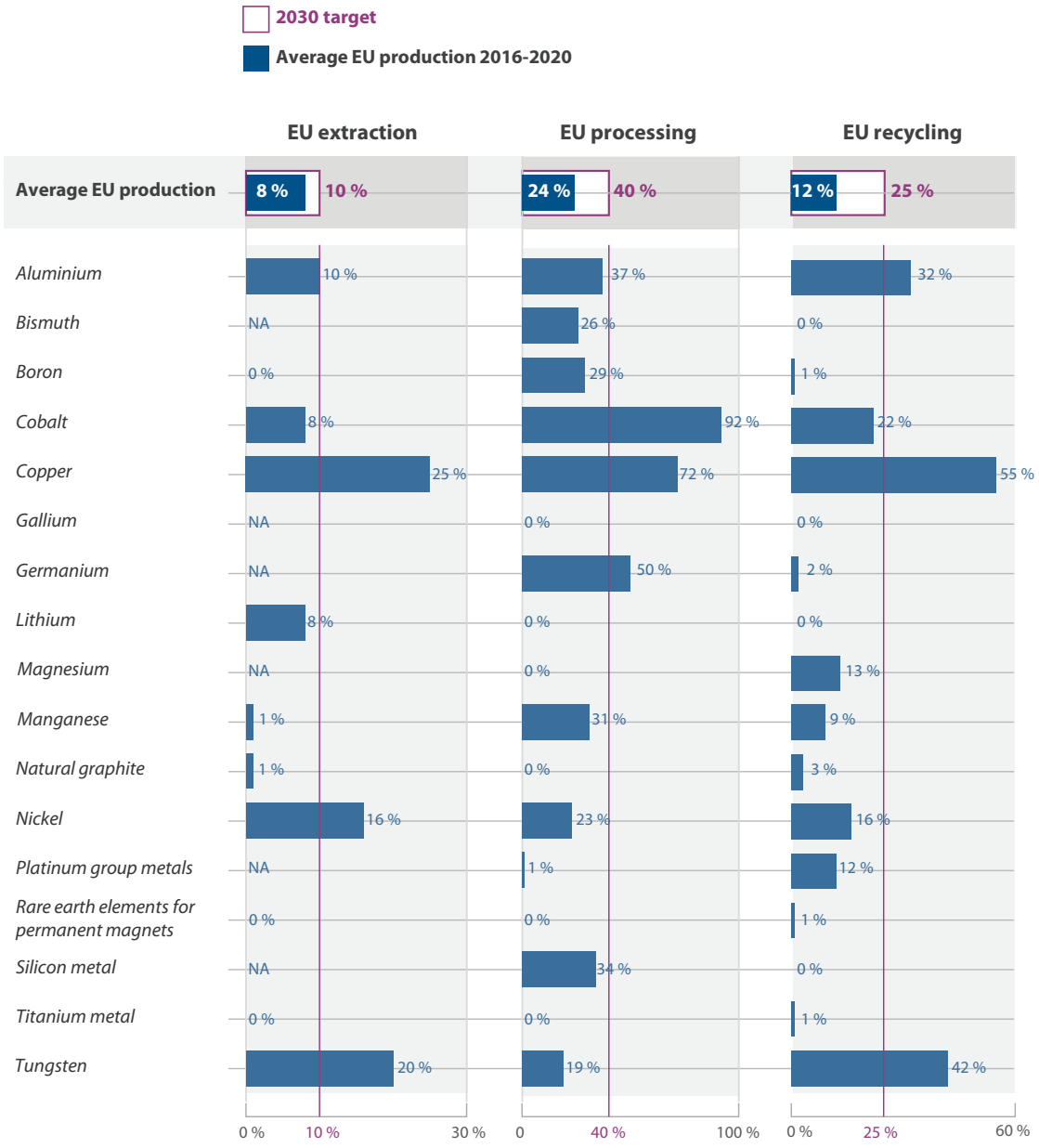
- there is no justification in terms of how the diversification, extraction, processing and recycling targets as proposed by the Commission were determined, either in the CRMA, in the 2023 impact assessment, or in any other public or internal Commission document;
- there is no indication as to how or to what extent achieving the targets contributes to the EU renewable energy targets, or how they relate to the Net-Zero Industry Act targets;
- the information available when establishing the targets was limited by data gaps and outdated data (***Table 1***).

33 In addition, each of the 2030 targets for extraction, processing and recycling is an aggregated target for all of the strategic raw materials covered. This reduces their overall meaningfulness as they can be achieved without necessarily delivering improvements for individual materials. Furthermore, there is no methodology for weighting each strategic raw material's contribution to achieving the targets.

34 Our analysis shows that the reasoning behind these targets is not clear. We found that one of these targets was not much higher than the baseline value. We estimated that when the targets were set, the EU's domestic mining capacity for all strategic raw materials already accounted for about 8 % of the EU's annual consumption, which is close to the 10 % target. However, for many individual materials such as natural graphite or rare earth elements, the

EU was far from reaching the target level. For recycling, we estimated that capacity was around 12 % when the target was set, which is around halfway towards the 25 % target. For processing, we estimated the capacity to account for about 24 %, which is also far from the 40 % target (*Figure 5*).

Figure 5 | Average EU production capacity and progress towards 2030 targets



"NA" means that either there is no such stage, or the assessment at that stage would not be meaningful, according to the Commission. The respective materials have therefore been excluded from our calculation.

Note: The average EU production capacity is the typical amount of a specific raw material that the EU can produce annually, on average, using its existing industrial facilities and resources.

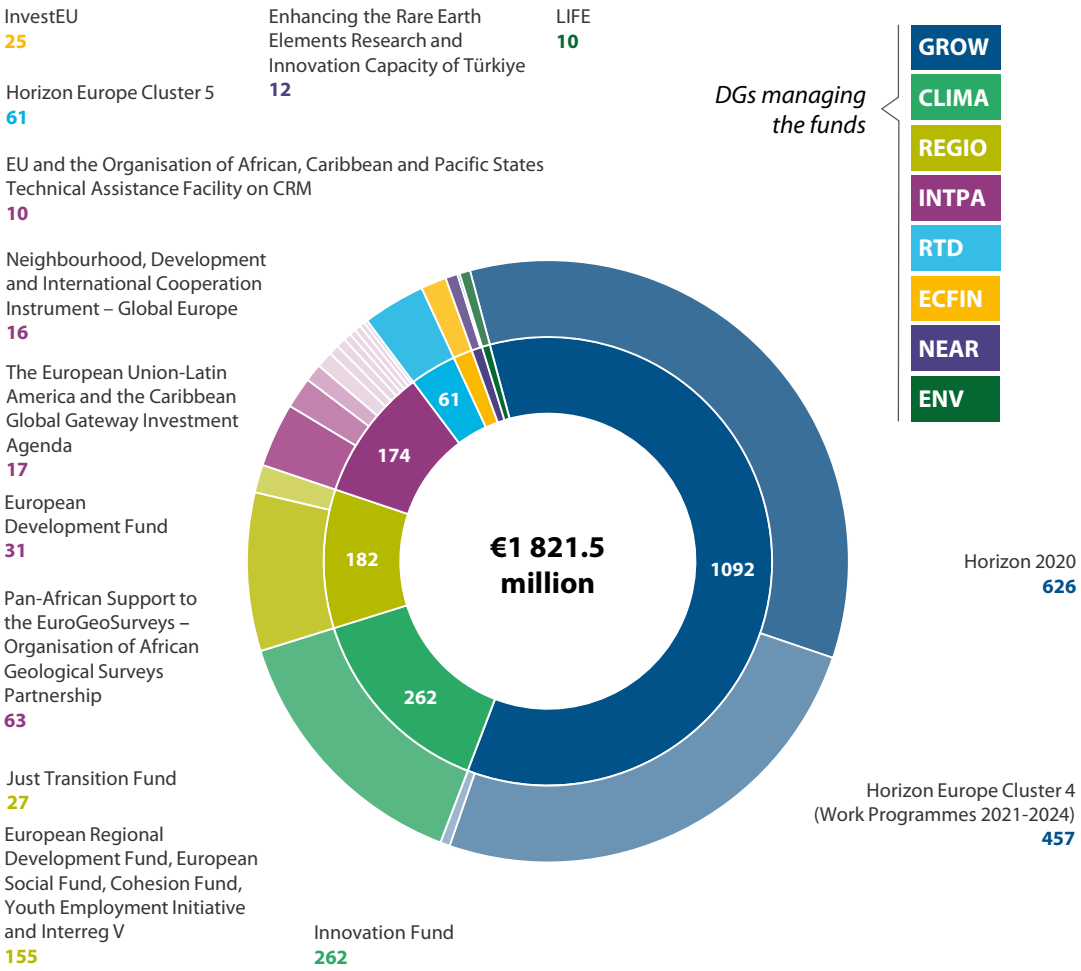
Source: ECA analysis, based on Commission information.

The effect of EU funding on critical raw materials' supply is unclear

35 Actions related to the implementation of the EU's raw materials policy are funded by various EU programmes that notably support import diversification, enhance recycling and promote research and innovation. According to Commission data, more than €1.8 billion was allocated for CRM initiatives across the 2014-2020 and 2021-2027 periods. The most significant contributions come from Horizon 2020 and Horizon Europe, followed by innovation, cohesion and development funds (*Figure 6*).

Figure 6 | EU funding for critical raw materials and its management is fragmented (2014-2027)

(million euros)



Note: The table reflects commitments or payments and excludes loans and guarantees. Related higher amounts were taken in case both figures were available.

Source: ECA, based on Commission information.

36 The information about the EU-financed CRM initiatives and projects is scattered across multiple Commission directorates-general. We found that there is no proper tracking of results and that the Commission did not analyse the initiatives' effects on EU supply, as the multiannual financial framework 2021-2027 does not define critical raw materials as a priority. For example, EU funding has been used for projects covering the sustainable use of raw materials – including waste processing, advanced materials and substitution. The Commission cannot, however, demonstrate the effects of this funding.

37 Furthermore, the 2020 action plan specifically mentions the sources to be used for its implementation, namely Horizon Europe and European Regional Development Fund. The Commission can show that it used these funds to support projects under the action plan. However, it cannot demonstrate the effects of this funding on the supply of critical raw materials.

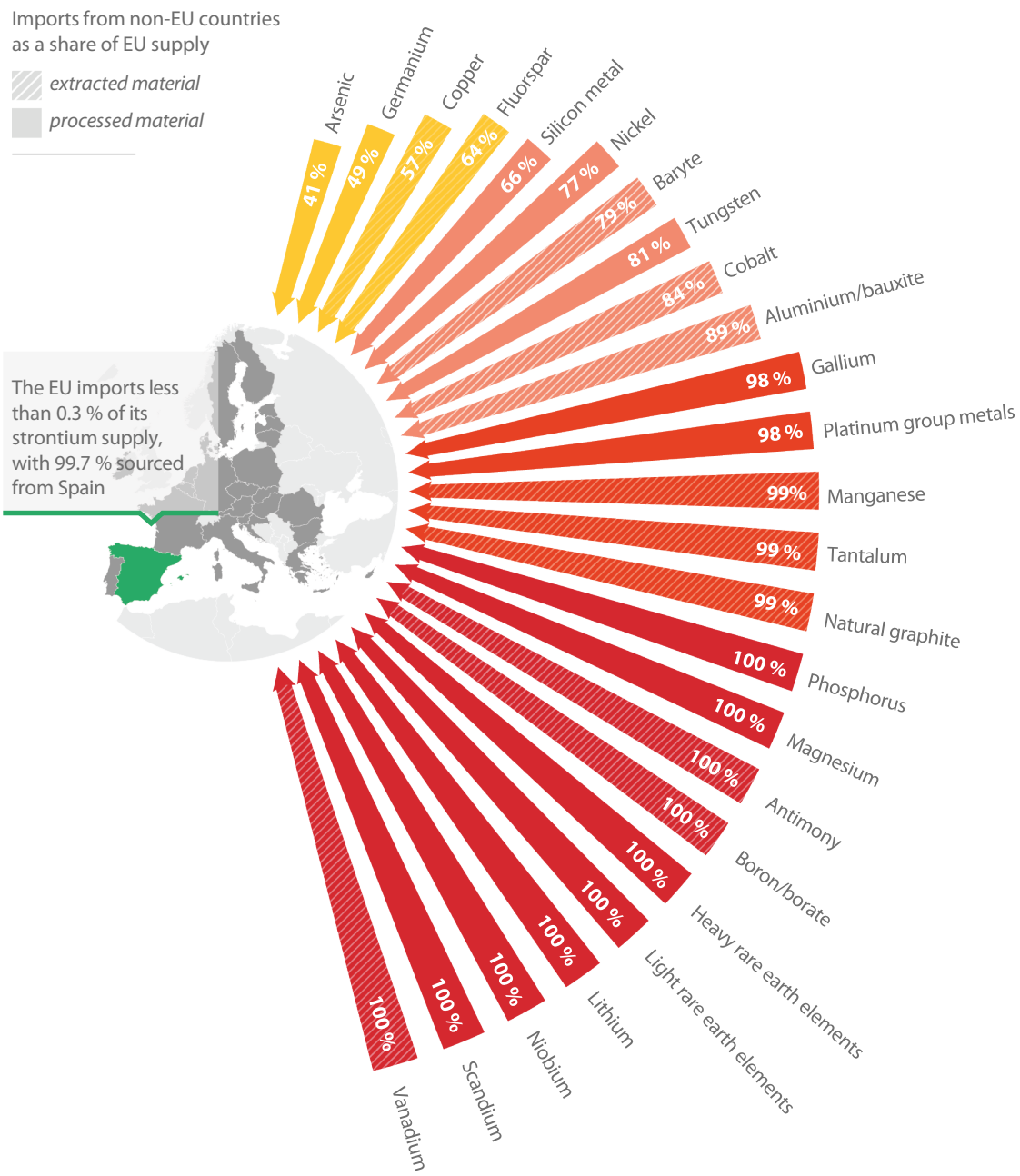
38 In addition, the 2020 action plan recommended that the Commission, member states and other stakeholders develop a funding mechanism for critical raw material projects outside the EU. However, in June 2025, the Commission acknowledged that the use of EU funding to support such projects remains "relatively limited", and does not know the extent to which these sources will effectively mobilise private investment[4].

Efforts to diversify imports have yet to produce tangible results

39 For most critical raw materials – including the 26 that are relevant for the energy transition – the EU is dependent on imports from non-EU countries. For 10 such materials, the EU is fully dependent on imports (***Figure 7***).

[4] DG INTPA reply to an ECA questionnaire, dated 2 June 2025.

Figure 7 | The EU is highly dependent on imports of critical raw materials



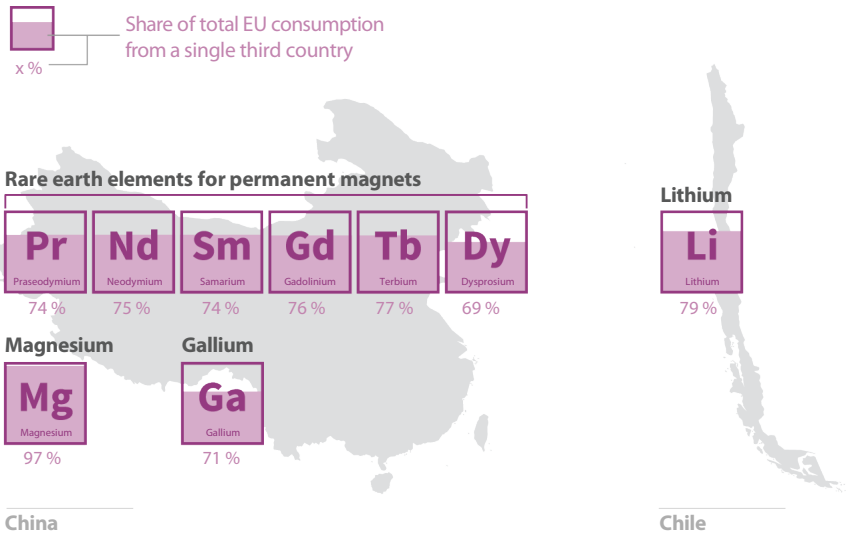
Note: Import dependency is the percentage of CRMs supplied from outside the EU, indicating the EU's reliance on imports to meet demand. Higher values reflect greater vulnerability to external supply disruptions.

Source: ECA, based on Commission information (2016-2020).

40 In order to reduce the risks linked to this dependency, the Critical Raw Materials Act sets a non-binding target that by 2030, no more than 65 % of each strategic raw material can originate from a single non-EU country, whether unprocessed or at any processing stage. At the extraction stage (i.e. unprocessed strategic raw materials), there is currently one EU

dependency of above 65 % for boron (Türkiye, at 99 %). At the processing stage, this is the case for four strategic materials relevant for the energy transition: lithium (Chile), magnesium, gallium and rare earth elements (all China) (*Figure 8*).

Figure 8 | EU processed strategic raw materials dependency from single countries above 65 %



Source: ECA, based on DG GROW data from January 2025.

41 Significant efforts are needed to address the EU's dependency, which requires cooperation with non-EU countries. We therefore assessed whether the main types of EU cooperation mechanisms with non-EU countries showed tangible results and led to more diversified imports of CRMs. We looked at:

- free trade-related and other EU external activities; and
- strategic partnerships with non-EU countries.

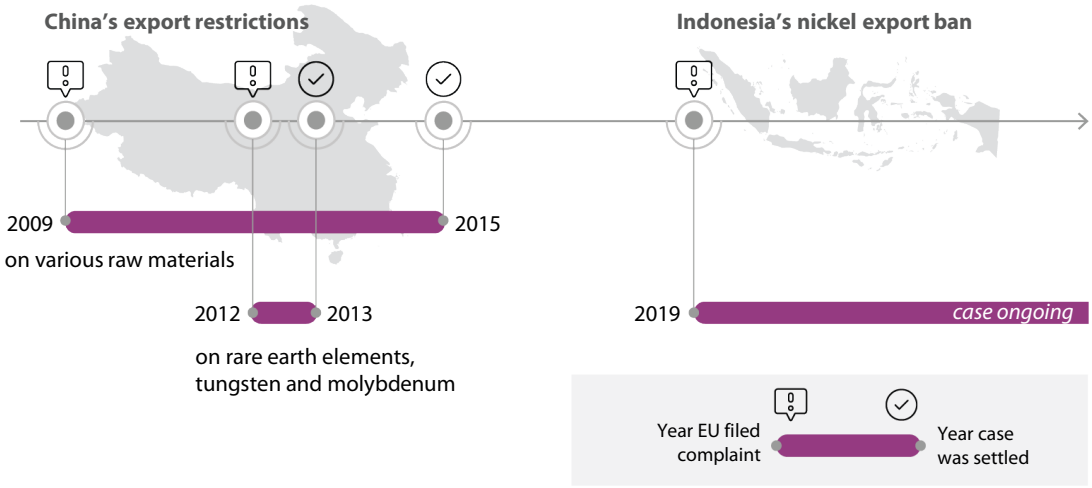
Trade distortions restrict access to critical raw materials, while the effect of EU external activities on supply cannot be determined

42 The EU's demand for critical raw materials will continue to be largely met by imports in the short, medium and long term. Free trade agreements and other EU external activities, which allow access to these materials from resource-rich countries outside the EU, are hence key for the EU's supply. The 2020 action plan noted that the EU should strengthen trade policy tools and work with global partners to ensure undistorted trade.

Trade distortions and geopolitical challenges reduce the EU's access to critical raw materials

43 The EU's efforts with regard to free trade agreements and other external activities are especially relevant in the context where the global trade landscape has become increasingly challenging and geopolitical tensions affect the EU's access to critical raw materials. The free trade in these materials has been distorted on a number of occasions by export restrictions (e.g. export bans), thereby putting the EU's security of supply at risk. The EU has challenged these restrictions at bilateral level and has filed complaints with the World Trade Organization (WTO), see ***Figure 9***.

Figure 9 | Export restrictions and EU responses



Source: ECA, based on WTO and DG TRADE information.

44 In April 2025, China placed seven rare earth elements on an export control list, making them subject to export licenses and therefore slowing exports. These materials play a key role in the manufacture of permanent magnets (i.e. magnets that do not rely on any external field or current), which are used in wind turbines and many other industrial sectors. The Commission engaged in bilateral contact with the Chinese authorities from the outset. In June 2025, the Commission created a portal to allow the manufacturing industry to submit information on the status of the export licence application process. If cases are urgent, the Commission then passes on this information to the Chinese authorities for fast-track treatment. However, the European Chamber of Commerce in China reported that, based on the information from 22 European companies between August and early September 2025, Chinese authorities had only approved 19 out of 141 licence applications, with 121 "urgent" applications still pending. By December 2025, the EU had not filed a complaint at the WTO.

45 Geopolitical crises can also restrict the EU's supply. For example, Commission trade data shows that imports of critical raw materials relevant for renewable energy technologies

and sourced from Ukraine decreased from around 345 000 tonnes in 2021 to around 60 000 tonnes in 2024, as a result of Russia's invasion of Ukraine.

The EU has stepped up critical raw materials-related external activities, but its effect on strengthening the EU's supply is unclear

46 Over the last few years, the EU has stepped up its efforts in negotiating free trade agreements with a number of non-EU countries that have significant raw material reserves or processing capacities. Recent agreements between the EU and countries such as Chile, Mexico, New Zealand and the United Kingdom contain specific chapters on energy and raw materials as well as other relevant provisions. The purpose of these chapters is to ensure cooperation and create a level playing field for traders and investors, e.g. by limiting monopolies' unfair control over exports. However, the Commission cannot at present demonstrate that these free trade agreements helped to increase the supply of critical raw materials to the EU.

47 Apart from these agreements, the Commission has also implemented other external activities which were intended to facilitate access to critical raw materials from resource-rich countries. It included this topic in national multiannual indicative plans with non-EU countries (e.g. Brazil, South Africa) and regional plans with other countries from Africa, Central Asia and Latin America. These are non-binding planning documents intended to guide EU cooperation and funding with specific countries outside the EU. Other activities in non-EU countries include one sustainable investment facilitation agreement concluded with Angola in March 2024 and negotiations (which started in March 2025) to conclude a clean trade and investment partnership with South Africa. Most of these activities are either in the planning or early phase, with little specific output related to critical raw materials so far.

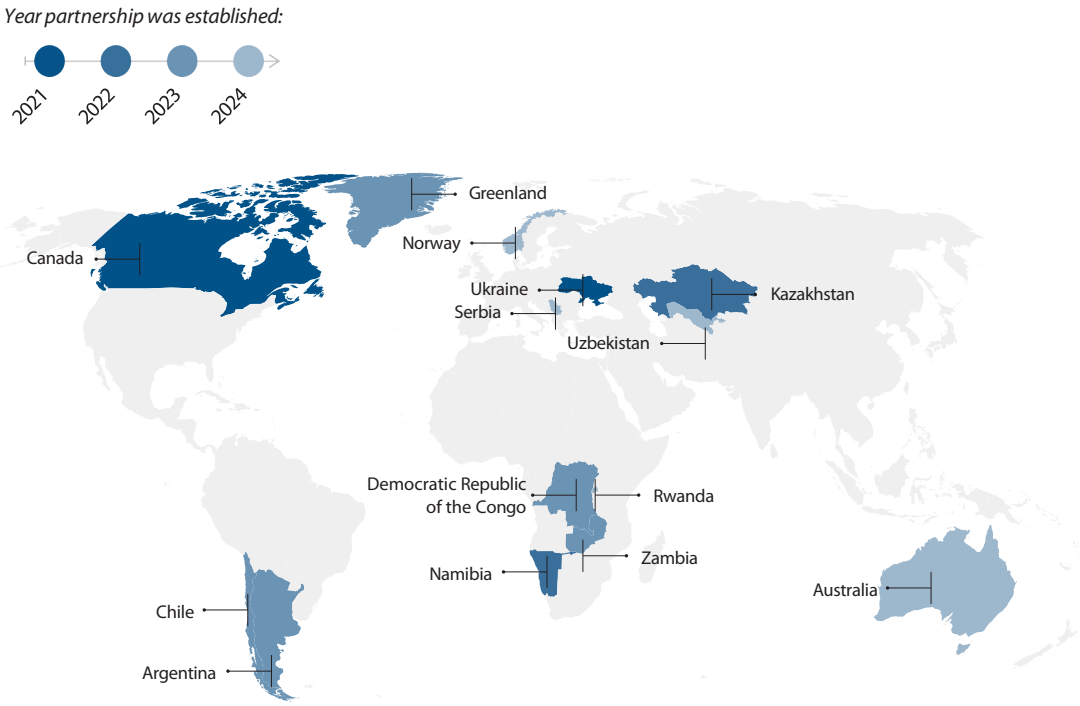
48 In 2023, the EU and the US also committed to a future EU-US critical minerals agreement to support relevant supply chains. The negotiations were paused in 2024. On 6 December 2024, the EU reached a political agreement, with CRM-rich Argentina, Brazil, Paraguay and Uruguay, regarding the EU-Mercosur partnership agreement. It includes measures to lower EU tariffs on both critical raw materials and products made from them, as well as measures to provide more predictability for supply chains. By November 2025, however, the agreement had not yet come into force, as it had still not yet been ratified by Mercosur countries or EU member states.

Strategic partnerships improve cooperation, but contribute little to the secure supply of materials

49 The Critical Raw Materials Act defines a strategic partnership as a "commitment between the Union and a third country to increase cooperation related to the raw materials value chain that is established through a non-binding instrument setting out actions of mutual interest"[5]. In 2021, the 2020 action plan had already called for strategic international partnerships starting with Canada, interested countries in Africa, and the EU's neighbourhood.

50 Between January 2021 and June 2025, the EU concluded 14 strategic partnerships on raw materials (including critical and strategic materials) with non-EU countries (***Figure 10***), including those in the action plan (paragraph ***49***).

Figure 10 | Strategic raw material partnerships between EU and non-EU countries as of June 2025



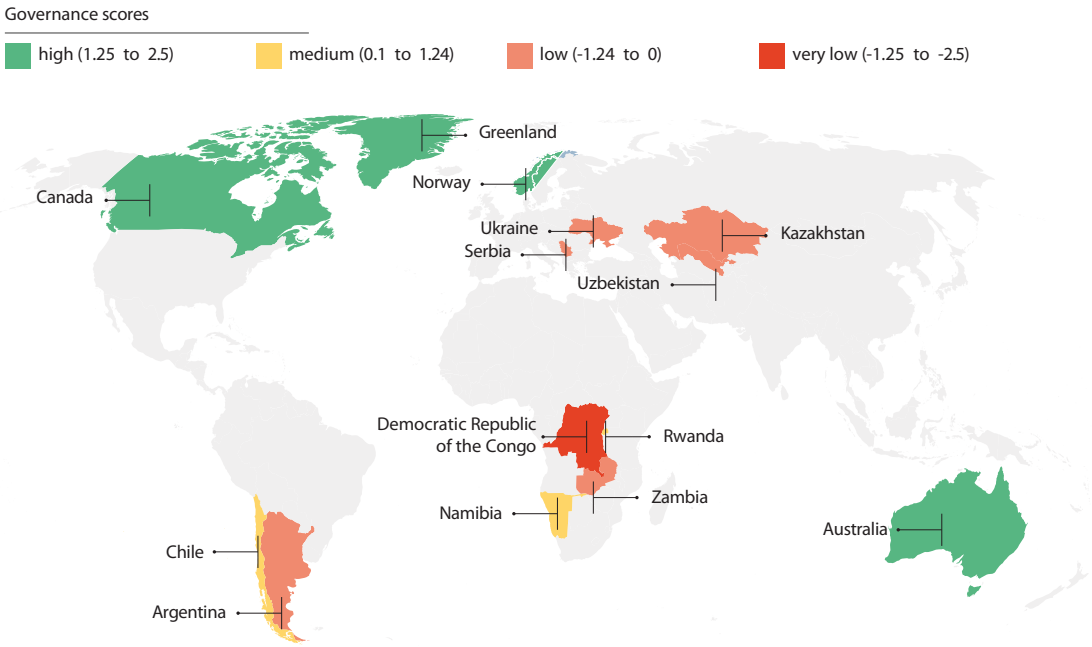
Source: ECA, based on Commission data.

51 These partnerships are intended to develop integrated value chains rather than just extracting raw materials. Seven out of the fourteen partnerships are located in countries with low governance scores, according to the World Bank's 2023 world governance indicators (***Figure 11***). The partnerships include arrangements to address certain

[5] Article 2 of Regulation (EU) 2024/1252.

governance challenges which affect companies operating in these countries. However, risks remain in terms of the stability of supply to the EU.

Figure 11 | Half of partnership countries have low governance scores



Note: The ECA analysis shows an average of "voice and accountability", "political stability and absence of violence/terrorism", "government effectiveness", "rule of law" and "control of corruption" dimensions.

Source: ECA, based on world governance indicators, 2023.

52 Based on the 14 strategic partnerships, 12 roadmaps have been established (***Box 1*** provides an example) and two are still pending, despite the partnership agreements' commitment to conclude them within six months of signing. Roadmaps include actions to implement the partnership, such as enhanced cooperation in geological exploration, research and innovation along the value chain, skills and training, and promoting best practices.

Box 1

EU-Ukraine strategic partnership on raw materials

According to the Raw Materials Information System, Ukraine is the third-ranked global producer of gallium, the fourth-ranked global producer of silicon metal and the fifth-ranked global producer of titanium. Ukraine also has large lithium deposits and significant quantities of graphite, magnesium and tantalum, which all feature on the EU critical or strategic raw materials lists and are key for the energy transition.

In 2021, the EU and Ukraine signed a memorandum of understanding to start a strategic partnership, with the aim of diversifying, strengthening and securing both parties' supply of critical raw materials. Since then, two roadmaps have been adopted (one for 2021-2022 and the other for 2023-2024), which include actions such as developing the National Geological Portal, including digitalisation of valuable geological reports, technical assistance to prepare necessary legislation and promote investment opportunities in the Ukrainian CRM sector.

Despite Russia's war against Ukraine, both partners have continued to implement the strategic partnership. They prepared and agreed on the list of common activities for third roadmap 2025–2026, which was endorsed via an exchange of letters between EU and Ukrainian authorities. At the same time, the EU has selected the Balakhivka graphite deposit project as a strategic project in 2025.

Source: ECA, based on Commission information and EU geological services.

53 Our analysis of the roadmaps shows that only six include implementation deadlines. While the Commission monitors whether the actions in the roadmaps are being carried out, it does not assess their effect on the supply of critical raw materials or on achieving the EU strategic raw materials target. Furthermore, the actions contribute little to the secure supply of materials. Available trade data for raw materials relevant for the energy transition from all 14 strategic partnership countries demonstrates that imports from these countries actually decreased between 2020 and 2024 for 13 raw materials examined, while increasing for another 13 raw materials and remaining stable for one (***Figure 12***).

Figure 12 | Evolution of raw material imports from strategic partnership countries

Material	**2020 imports** (tonnes)	**2024 imports** (tonnes)	**Change** (%)
Fluorspar	26 932.6	5.3	-100 %
Strontium	0.2	0.0	-98 %
Cerium	4.8	0.1	-97 %
Magnesium	64.5	1.9	-97 %
Barytes	12 807.0	3 007.7	-77 %
Rhodium	0.009	0.003	-67 %
Cobalt	16 172.3	5 572.5	-66 %
Graphite	24 576.8	16 326.0	-34 %
Lithium	15 315.3	12 527.8	-18 %
Silicon metal	189 247.2	167 008.2	-12 %
Borate	2 795.3	2 652.4	-5 %
Vanadium	100.5	95.6	-5 %
Nickel	209 353.8	206 424.3	-1 %
Iridium	0.001	0.001	0 %
Copper	1 563 407.7	1 680 231.3	7 %
Manganese	563 543.3	609 375.8	8 %
Germanium	1 057.9	1 390.0	31 %
Niobium	2 577.2	4 134.6	60 %
Tungsten	123.3	313.7	154 %
Gallium	1.2	3.5	192 %
Antimony	15.4	52.0	237 %
Platinum	0.1	0.5	529 %
Palladium	0.1	0.8	715 %
Aluminium	29 300.5	416 727.2	1 322 %
Dysprosium	0.03	33.8	124 941 %
Phosphate Rock	6.1	7 743.4	127 321 %
Phosphorous	0.02	53 008.8	252 422 948 %

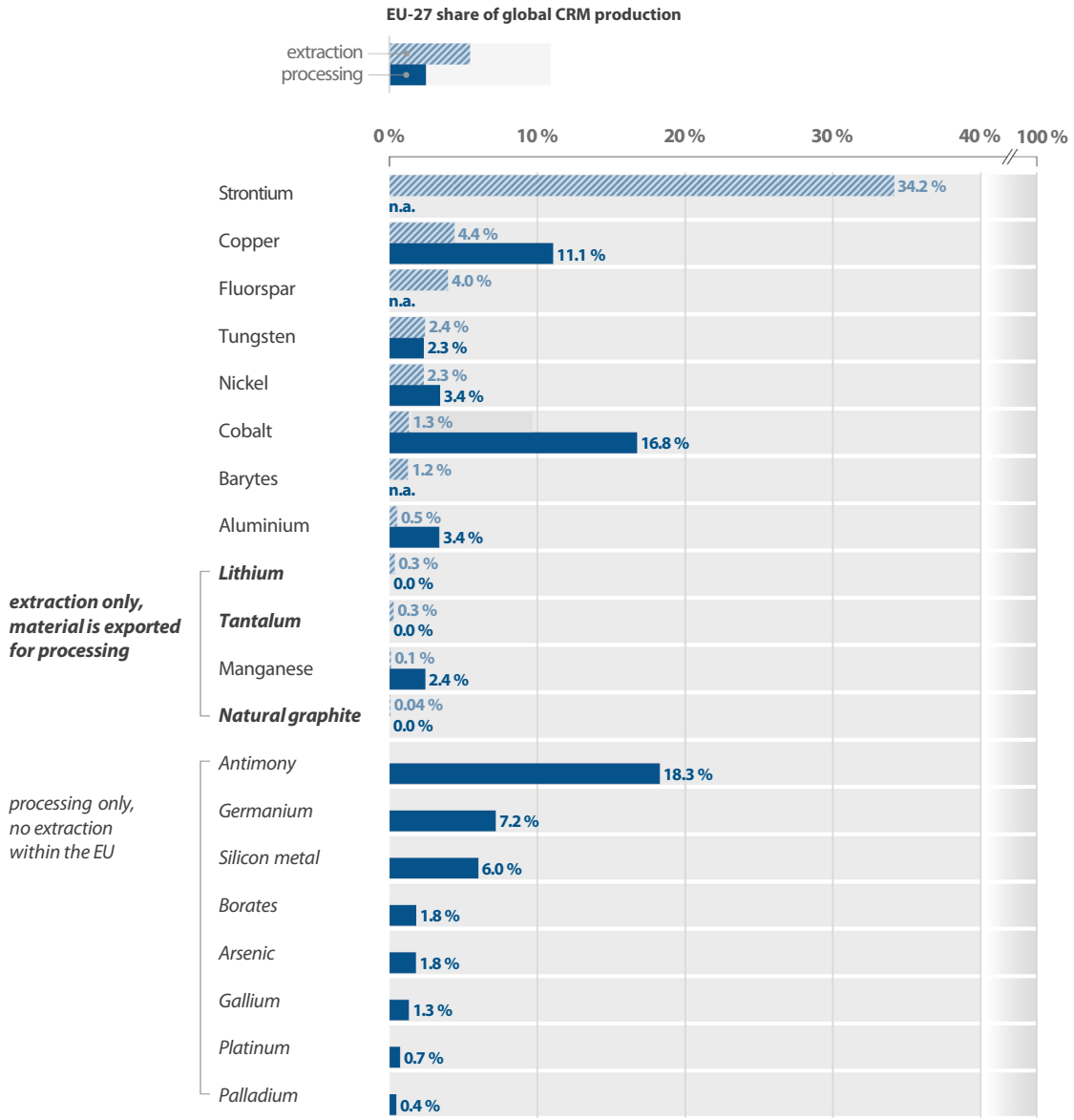
Note: No imports of arsenic, praseodymium, or scandium from partner countries were recorded in 2020, so they were excluded from further analysis.

Source: ECA analysis, based on COMEXT data.

Financial, legal and administrative bottlenecks hamper progress in domestic production

54 Critical raw material production includes extracting and processing materials, as most of them cannot be used in their natural form. The EU only produces certain raw minerals and metals, and the volume is small compared to global output (***Figure 13***).

Figure 13 | The EU only produces certain raw minerals and metals



Note: The figure shows the share of EU extraction and processing of CRMs compared to global production – 2016 to 2020 average (> 0 %).

Source: ECA analysis, based on DG GROW data, January 2025.

55 To improve the EU production situation, the Critical Raw Materials Act sets non-binding targets for domestic extraction and processing. By 2030, at least 10 % (for extraction) and at least 40 % (for processing) of the EU's consumption of strategic raw materials should come from domestic sources.

56 We assessed whether EU initiatives had successfully promoted the domestic production of critical raw materials in Europe. In particular, we looked at whether they effectively

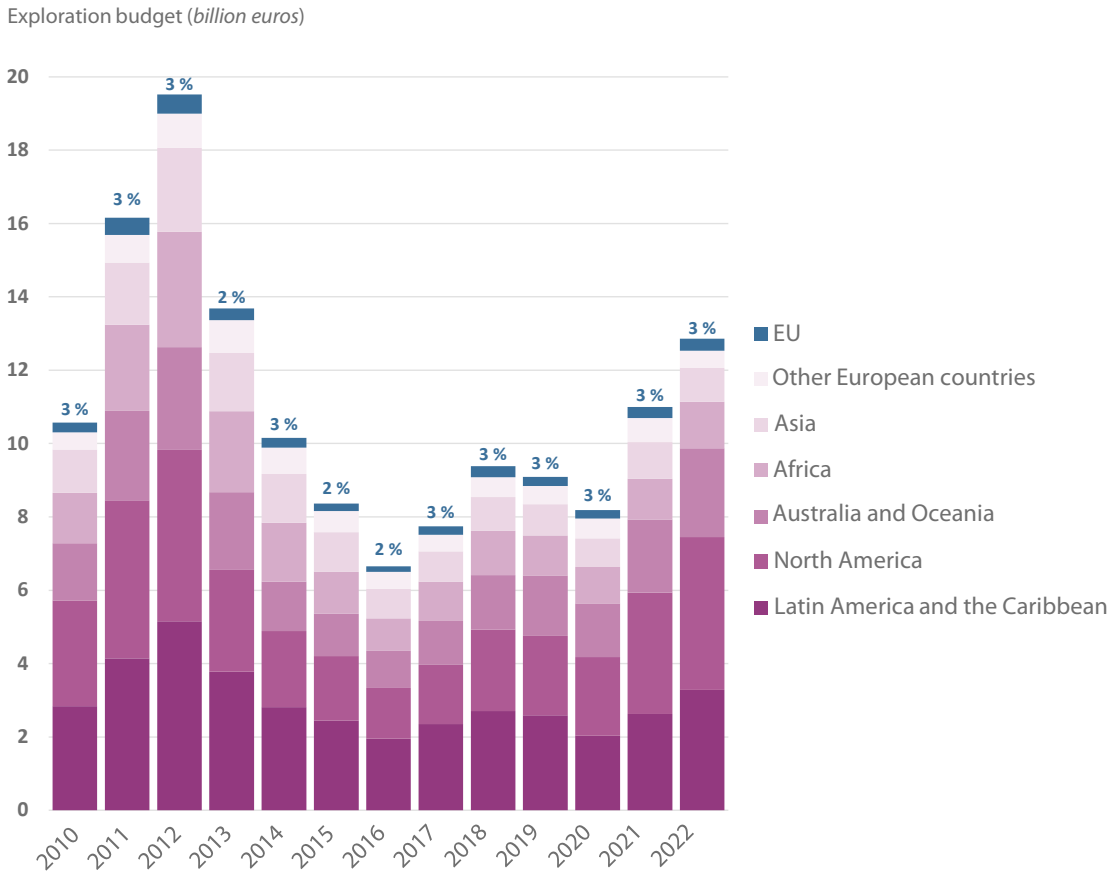
addressed the key bottlenecks that are widely acknowledged to hamper progress, namely the:

- lack of exploration;
- lack of technologies and facilities;
- lack of financing;
- lengthy permitting procedures.

Exploration activities are underdeveloped and risky

57 A clear understanding of the geological situation is essential to determine if and where critical raw materials can be mined. In many EU regions, "general exploration" is underdeveloped, and further efforts are needed to properly assess the presence, quality, and quantity of potential deposits. The 2023 CRMA impact assessment noted that member states' lack of investment in general exploration over the past decades (about 2 % to 3 % of global exploration expenditure) has resulted in a lack of knowledge about the EU's true CRM potential, see ***Figure 14***.

Figure 14 | Global exploration expenditure 2010-2022*



* Data includes spending for gold, silver, base metals (copper, nickel, zinc and lead), cobalt, lithium, molybdenum, platinum group metals, diamonds, triuranium octoxide, rare earths, potash and phosphate.

Source: ECA, based on Commission information.

58 The EU has made efforts to improve and harmonise pan-European geological data. For example, EuroGeoSurveys – an umbrella association of 37 European geological survey organisations – works on pan-European open access to data infrastructure, geological data and maps. Geological Service for Europe, coordinated by EuroGeoSurveys, is a project which received EU Horizon funding support of almost €20 million.

59 The Critical Raw Materials Act required member states to establish national exploration programmes by 24 May 2025 and communicate them to the Commission. These programmes are intended to help member states detect new deposits of critical raw material, improve their mapping and consolidate the data in a shared EU-level database. This has the potential to improve geological exploration across the EU. However, six months after the deadline, six member states still had not communicated their national programmes to the Commission.

60 Once potential resources have been identified, specialised firms undertake "targeted exploration" to assess mining project feasibility. This requires prior experience and involves high costs and high risks, as only a fraction of targeted exploration ventures lead to successful mining projects[6]. It is frequently suggested that this ratio is approximately 1 in 1 000.

Processing is affected by a lack of technology and by a shrinking number of facilities in the EU

61 Transforming a raw material from an ore, mineral, plant product or waste requires specialised technologies and skills. For example, processing rare earth elements is one of the most complex challenges in modern metallurgy and, over the last few decades, China has become a technology leader in this sector[7]. Currently, 100 % of rare-earth processing is done outside the EU (***Figure 7***), mostly in China.

62 The Critical Raw Materials Act includes a high ambition of processing 40 % of strategic raw materials in the EU by 2030. The EU seems to be a long way from reaching this level (***Figure 5***) and most critical raw materials are largely processed outside the EU. In fact, at present, the EU's processing capacity is shutting down. It is uncertain whether it will be able to recover, as noted in the 2023 CRMA impact assessment. Our analysis of world mining data shows, for example, that the EU-27 lost around half of its primary aluminium processing capacity in the 2019-2023 period.

63 High energy costs are among the main determinants affecting the competitiveness for energy-intensive operations[8] such as smelting and processing. For example, electricity costs are on average higher in the EU than in other regions of the world.

64 In the spring of 2025 the Commission issued a European steel and metals action plan, the Clean Industrial Deal and the action plan for affordable energy. These initiatives announced a range of measures to strengthen the EU's competitiveness in a wide range of sectors (including CRMs), and also addressed high energy costs. It is too early to assess how or to

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[6] Commission impact assessment for the CRMA Regulation, SWD(2023) 161 final, Textbox 4: Stages of the critical raw materials value chain.

[7] Ismail, N.A., Said, S.N.A. Patent landscape analysis of rare-earth extraction: innovations, challenges, and geopolitical implications. Chemical Monthly 156, pp. 811–835 (2025).

[8] Draghi, M. (2024). The Future of European Competitiveness – Part B, In-depth analysis and recommendations, p. 92.

what extent these initiatives will help to improve the situation for critical raw materials processing in the EU.

Financing the exploration, mining and processing of critical raw materials in the EU is just beginning

65 In the EU, there is little investment in early-stage exploration activities (paragraph ***60***). The 2020 action plan already highlighted that the lack of incentives and financing for exploration was a major bottleneck in getting new critical raw materials' projects off the ground. The 2023 CRMA impact assessment found that most exploration companies in Europe are non-EU-based, and most financial institutions avoid financing exploration projects, due to the high risks involved (paragraph ***60***).

66 Financing mining and integrated (both mining and processing) projects were also considered high risk by the financing sector. Stakeholders identified a number of factors that affect bankability: the heterogeneity of critical raw material, environmental and social concerns, energy prices, price volatility, and long project timelines. Furthermore, to finance processing projects, a stable and secure supply of critical raw materials would be required – something which is not currently the case for a number of them[9]. The EU's efforts therefore risk becoming trapped in a vicious circle as a lack of supply hinders the development of processing projects, which in turn reduces the impetus to secure supply.

67 Investment is essential to finance activities related to critical raw materials. Recently, European public banks such as the EIB and the EBRD have increased their support for investments in critical raw material exploration, mining and processing. As part of the EU co-funded JUMP project, the EBRD and the EU launched a €50 million joint facility to provide equity investments for exploration. With the new EIB Group CRM strategic initiative launched in March 2025, the EIB aims – with an annual budget of €2 billion – to finance projects across the entire critical raw material value chain and contribute to the CRMA objectives.

68 To facilitate investment in critical raw materials, the Commission committed to developing sustainable financing criteria for the mining, extractive and processing sectors through delegated acts on taxonomy by the end of 2021. Four years later, this has still not been done. In April 2025, the Commission received a proposal from the relevant working group to update the EU taxonomy to include the mining and refining of some critical raw materials: lithium, nickel and copper. On the other hand, according to the EIB, highly

[9] Commission impact assessment for the CRMA Regulation, COM(2023) 160 final, pp. 184-185.

restrictive sustainable financing criteria could have an adverse impact on CRM projects' eligibility and hamper the financing of such projects.

69 Apart from these efforts to leverage private investment, several national initiatives to use public funding to support exploration, mining and processing have also recently begun, see ***Box 2***.

Box 2

National efforts to support activities related to critical raw materials

In 2024, the state-owned German promotional bank KfW established a €1 billion critical raw materials fund on behalf of the government to support the sustainable supply of critical raw materials to the German economy. Each project was to receive between €50 million and €150 million. The due-diligence review of the first projects started in July 2025.

Other member states, such as France and Italy have also planned or already started to set up national raw material funds.

Source: ECA.

Lengthy and complex permitting creates a bottleneck for mining in the EU

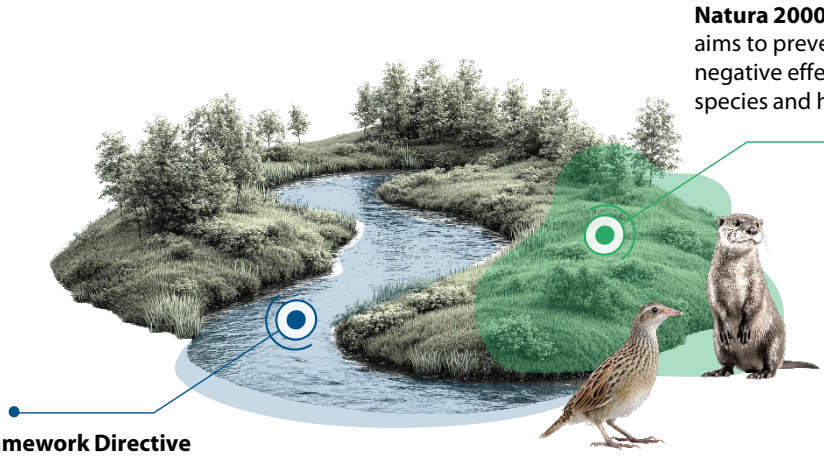
70 Already in 2008, the raw materials initiative noted that it was very difficult to move new critical raw material projects to the operational stage quickly, mainly due to the length of national permitting procedures. More recently, the 2023 CRMA impact assessment concluded that permitting procedures were unpredictable and fragmented. The time taken to obtain a mining permit varied between three months and three years. Some outliers in Finland and Portugal were found to last up to four years. Delays caused by appeals against granted permits were also identified as a significant bottleneck.

71 Our survey shows that almost half of the member states identified environmental and social considerations (such as pollution and the "not in my backyard" effect) as the primary obstacle to increasing domestic extraction. Six member states have indicated that bottlenecks arise from both insufficient administrative capacities in the public sector (for example to grant mining and exploitation licences) and nature protection – particularly in the context of the Water Framework Directive and the Natura 2000 Directives.

72 In 2011, the Commission issued guidance about non-energy mineral extraction and Natura 2000 to ease the situation, and complemented it with case studies in 2019. Such specific Commission guidance does not exist in relation to the Water Framework Directive.

73 The CRMA impact assessment conceded that both the Water Framework and Natura 2000 Directives extended the duration of most raw material-related mining projects, in particular since the legislation generally requires an environmental impact assessment before project permits can be granted, (***Figure 15***). The average duration of this assessment (for all projects in its scope, including CRM projects) was one year, but with a range spanning 5 to 27 months.

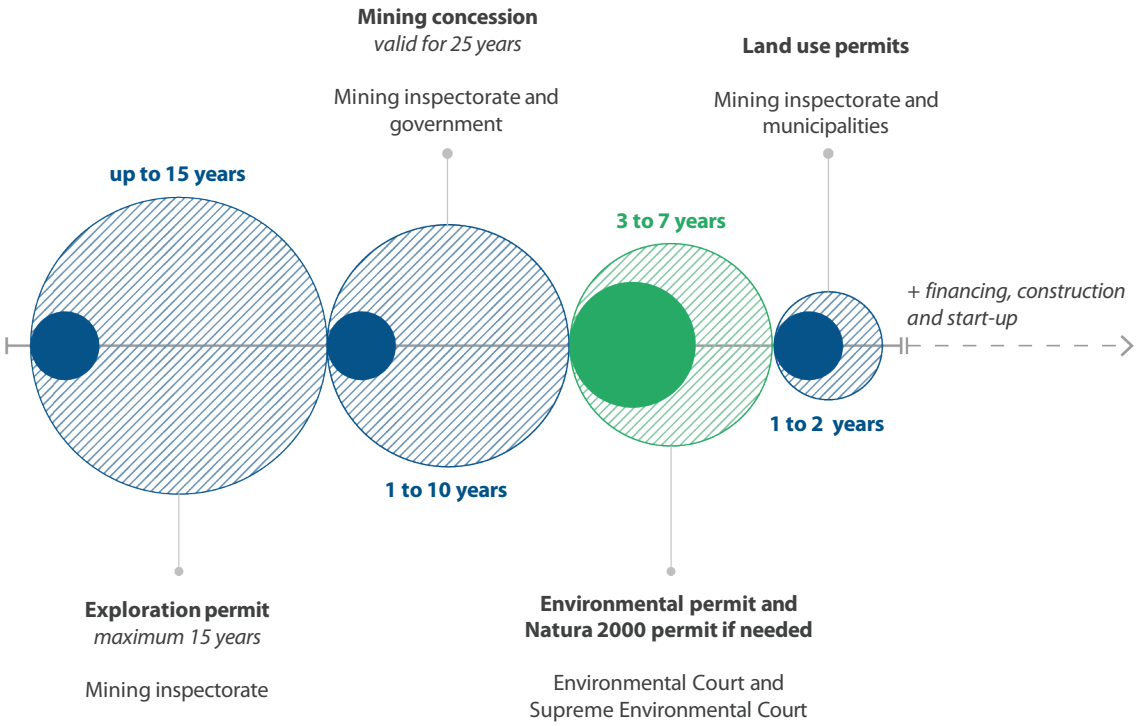
Figure 15 | An environmental impact assessment is required to receive a permit



Source: ECA.

74 A 2023 study found that from discovery to production, the average mine's lead time was 15.7 years (for 127 mines assessed worldwide during the years from 2002 to 2023). Spain was the only EU country covered in the study, with an average of 15 years. Overall, it is estimated that the time horizon for a mining project to become operational in the EU is typically between 10 and 15 years, but can be up to 20 years. The example in ***Figure 16*** shows the complex process to open a mine in Sweden, from exploration to the production stage, demonstrating that this process could take even longer.

Figure 16 | It can take over 30 years to open a mine in Sweden



Source: ECA, based on SVEMIN, 2025.

75 To streamline the process, the Critical Raw Materials Act required member states to establish national one-stop shops (single contact points) by February 2025. One-stop shops were to be responsible for both mining project applications and permits. However, as of November 2025, only 16 of the 27 member states had created these one-stop shops.

The potential of sustainable resource management is not fully used

76 The sustainable use of resources plays a key role in reducing dependence on primary critical raw materials, as well as addressing persistent barriers to the competitiveness of the EU's recycling industry.

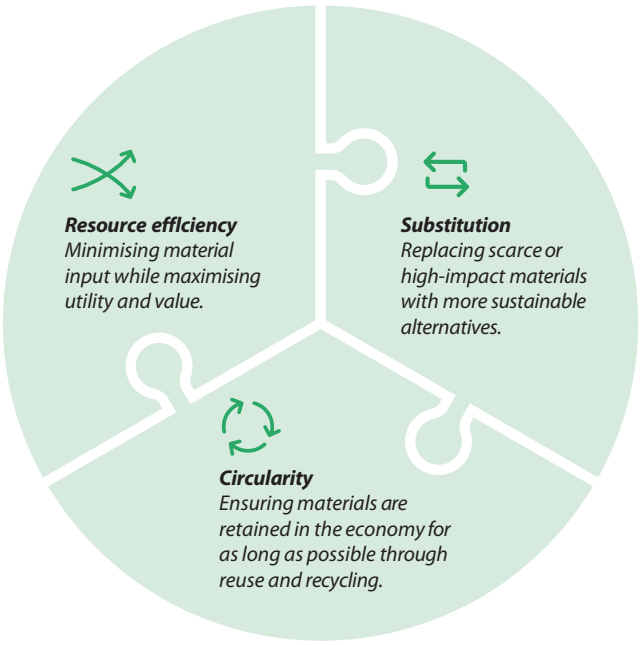
77 We assessed whether:

- EU policy covers all aspects of CRM resource management;
- EU recycling targets incentivise the recycling of CRMs;
- EU initiatives effectively tackle market barriers to the competitiveness of CRM recycling.

Substitution of critical raw materials is not sufficiently covered by the EU legislation and national circularity plans are likely to be delayed

78 Sustainable resource management can reduce the European manufacturing industry's demand for critical raw materials by optimising how they are used throughout their life cycle. ***Figure 17*** illustrates the key aspects of this concept including resource efficiency, substitution and circularity.

Figure 17 | Key aspects of sustainable resource management



Source: ECA.

79 One of the Critical Raw Materials Act's key objectives is to improve the circularity of CRMs and complement existing legislation on the treatment of raw materials, such as the Waste Framework Directive, the Waste Electrical and Electronic Equipment Directive, the Waste Shipment Regulation and the EU Batteries Regulation.

80 By introducing a non-binding recycling target of 25 % and a series of measures to improve recycling practices, substitution and resource efficiency in the Act, the Commission established a framework to cover the different aspects of sustainable resource management. The key measure requires member states to create national circularity plans. The two-year deadline for these plans comes into effect once the Commission has adopted implementing acts, which are intended to specify a list of products, components, and waste streams with significant potential for critical raw material recovery. These acts were originally due to be adopted by 24 May 2025. However, due to delays these acts had still

not been adopted by November 2025, potentially postponing the preparation and implementation of the plans.

81 While the Net-Zero Industry Act, along with the CRMA, aims to stabilise the renewable energy supply chain by strengthening EU manufacturing (***Annex I***), it does not address the substitution of critical raw materials. This omission is noteworthy because it affects the supply chain segment where the substitution of critical raw materials is most needed, and where the manufacturing industry is exploring solutions (***Box 3***).

Box 3

Examples of critical raw material substitution

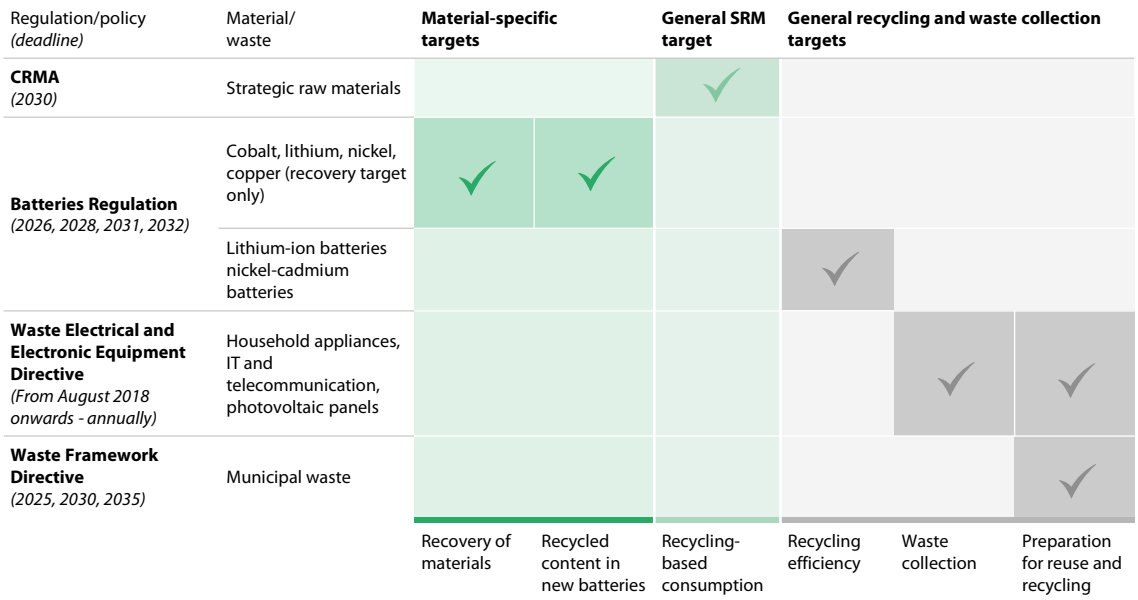
EU industry is exploring substitution options at critical raw material-level. For example, bauxite used in solar panels can be substituted with non-critical raw materials such as steel, carbon fibre and polymers. If critical raw material-level substitution is not technically or economically feasible, changing the technology itself is also an option: for example, wind turbines could switch from using permanent magnet generators to designs that use fewer or no magnets.

Source: Taylor, N., Kuzov, T., Chatzipanagi, A., Carrara, S., Jakimow, M. et al., Deep dive on critical raw materials for solar photovoltaics in the EU, 2025; Edoardo Righetti, Vasileios Rizos, CEPS in-depth analysis: Reducing supply risks for critical raw materials, 2024.

No EU targets exist to incentivise the recycling of all critical raw materials

82 Recycling targets for critical raw materials are included in a number of different EU legislative acts (***Figure 18***).

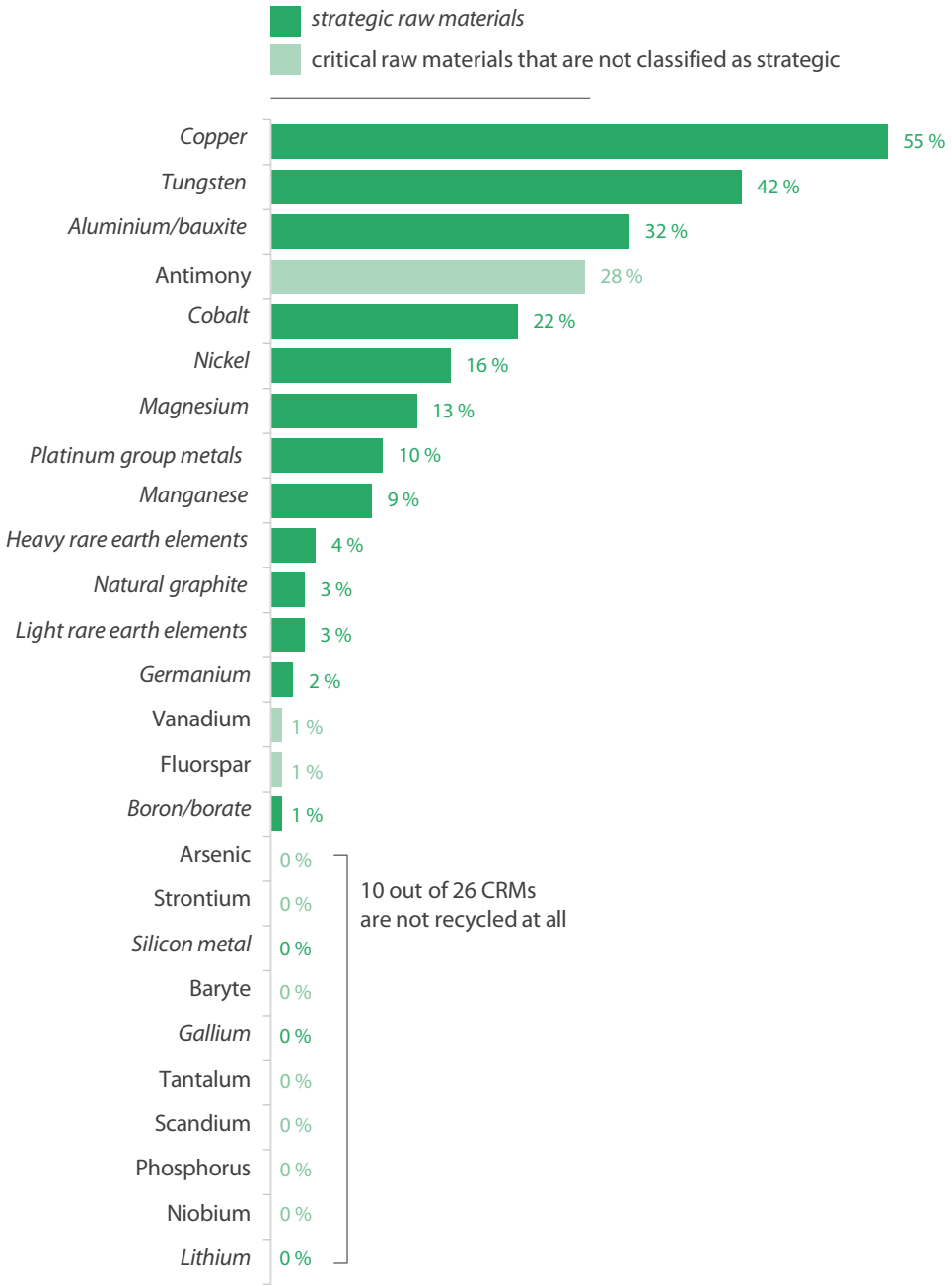
Figure 18 | The patchwork of EU recycling, recovery and waste collection targets



Source: ECA, based on EU legislation.

83 The Critical Raw Materials Act set a non-binding target that at least 25 % of the EU's consumption of strategic raw materials should come from recycled sources by 2030. The most recent available data shows that the average end-of-life recycling input rate for many critical raw materials remains below that level. Out of 26 materials needed for the energy transition (***Figure 3***), 7 have a recycling rate of between 1 % and 5 % and 10 (including lithium, gallium and silicon metal) are not recycled at all (***Figure 19***).

Figure 19 | EU: Low recycling rates for critical and strategic raw materials

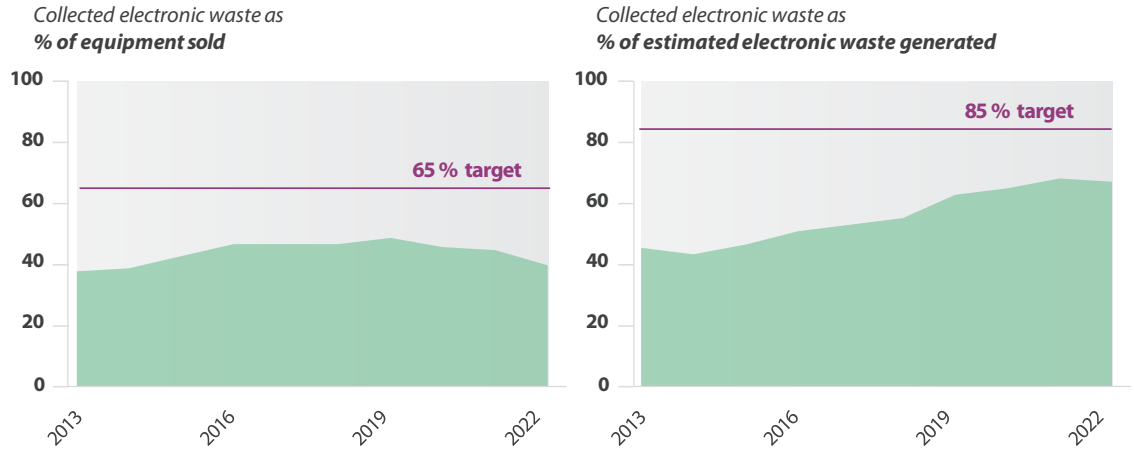


Source: ECA, based on DG GROW, Study on the critical raw materials for the EU 2023 (Annex 11).

84 The Batteries Regulation introduced binding and material-specific targets for recycling certain critical raw materials (for example cobalt, copper, lithium, nickel). It also established recycled content targets for different types of battery containing these materials. These targets must be met between 2026 and 2032. Our special report on the EU's industrial policy on batteries noted that secondary sources of raw materials for batteries, in particular recycling end-of-life batteries, are still limited.

85 In a previous review on EU actions and existing challenges, we noted that electronic waste contains high quantities of critical raw materials. Although more of this waste is produced now than ever before, collection rates remain well below the targets set by the Waste Electrical and Electronic Equipment Directive (***Figure 20***). As a result, the critical raw materials in such waste are lost to the EU economy. To increase the collection rate, the Commission made recommendations to the member states. In 2024, it also opened infringement procedures against 24 member states for failing to meet the collection and recycling targets under the directive.

Figure 20 | The EU is failing to meet collection targets



Source: ECA, based on the WEEE forum report – figure 3.3, 2025.

86 The EU targets referred to above (paragraphs ***82***-***85***) do not effectively promote the recycling of specific critical raw materials.

- The absence of binding targets for each critical raw material means that demand for secondary raw materials (recovered from waste products) remains uncertain and market uptake is largely voluntary.

- The target in the Critical Raw Materials Act and most other recycling targets are primarily input-based, focusing on the overall amount of waste collected or processed for recycling, without differentiating between specific materials, such as common base metals and small quantities of individual critical raw materials. Consequently, there is no incentive for recyclers to recover specific critical raw materials, especially those that are harder to extract. For example, rare earth elements in electric drive

motors or palladium in embedded electronics are generally not recovered after shredding[10].

- The current Waste Electrical and Electronic Equipment Directive framework does not ensure that critical raw materials present in electronic equipment are collected and recycled to benefit the EU economy.

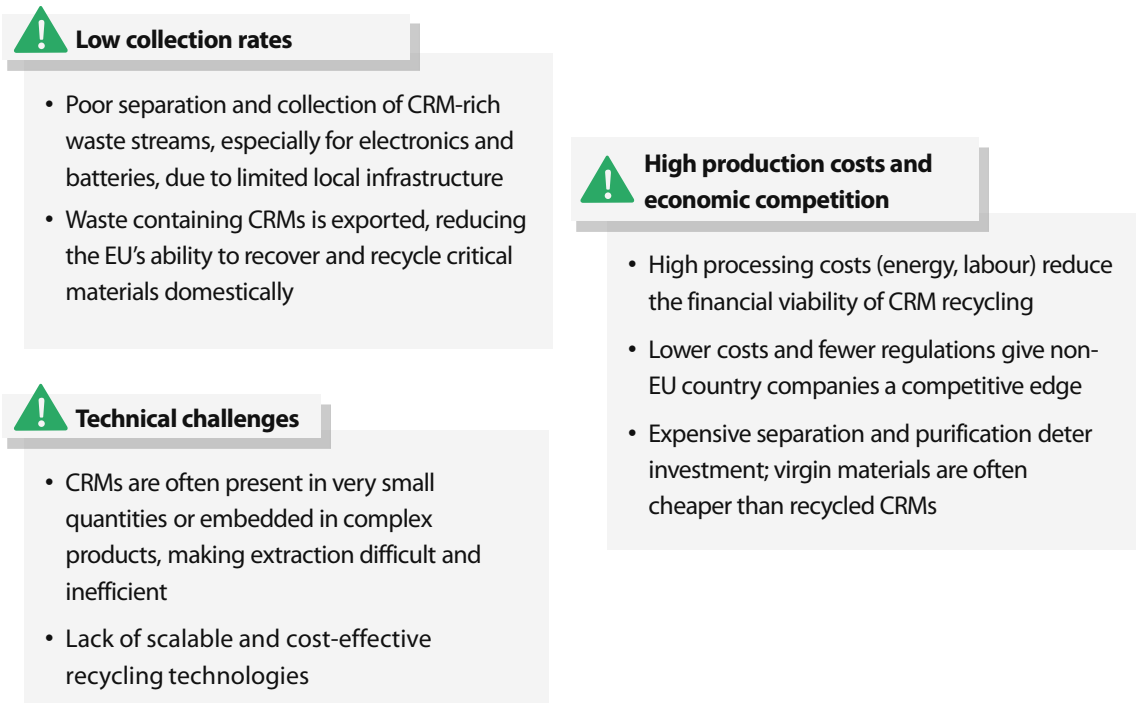
Market barriers to recycling critical raw materials and regulatory obstacles hinder industry competitiveness

87 While recycling systems for critical raw materials work well for materials used in large volumes such as aluminium and copper, they are still underdeveloped for those used in small quantities or which are embedded in complex products, because recycling is often not economically justifiable.

88 According to the International Energy Agency, the lack of economies of scale is a bottleneck for efficient recycling and global market conditions make it difficult for European recyclers to compete with Chinese recyclers on cost. This is because of China's vertical integration, scale advantages and low labour costs. Our discussions with stakeholders and our documentary review suggest that high processing costs, lack of availability of critical raw materials, and technology barriers are the main elements that hinder the competitiveness of the EU's recycling industry, as shown in ***Figure 21***.

[10] Innovative requirements could boost circular economy of plastics and critical raw materials in vehicles – European Commission.

Figure 21 | Market barriers hindering the competitiveness of critical raw materials recycling



Source: ECA.

89 In addition, the revised Waste Shipment Regulation did not remove barriers to the import of electronic waste into the EU. A 2024 study[11] further notes that the regulation makes it difficult for waste to cross borders within the EU, resulting in about 90 % of waste being treated in the country in which it was generated. Industry representatives told us that the application of existing waste legislation also varies across member states. Such obstacles are problematic for recycling facilities which would need greater economies of scale to generate sufficient quantities of recovered materials to be profitable[12].

90 The Commission has already introduced measures to tackle the challenges faced by the recycling industry, such as EU-wide end-of-waste criteria for aluminium and copper. The Critical Raw Materials Act introduces national measures on circularity to spur on innovation. These measures should enable faster permitting and facilitate access to financing for strategic recycling projects. Furthermore, it makes labelling for critical raw materials mandatory for products like wind turbines to facilitate recycling. Similarly, the 2024 ecodesign for sustainable products Regulation means that material composition

[11] Grabbe, H. and Léry Moffat, L. (2024) 'A European circular single market for economic security and competitiveness', Policy Brief 20/2024, Bruegel, p. 14.

[12] Lander et al. (2023), iScience 24, Financial viability of electric vehicle lithium-ion battery recycling.

details must be included to improve disassembly, repairability and recycling. It will also regulate many energy-related products, such as solar panels, and promote circularity from the design phase onwards. Nevertheless, market barriers still persist and limit the commercial viability of recycling operations that focus on critical raw materials.

EU strategic project label can bring benefits but many projects will struggle to secure supply for the EU by 2030

91 The Critical Raw Materials Act features a strategic project instrument to boost the EU's ability to extract, process and recycle strategic raw materials and diversify imports. To qualify as strategic, projects must align with the Commission's information for applicants[13] and experts[14] by contributing to EU supply security by 2030, proving technical feasibility, ensuring sustainability and social responsibility, providing cross-border benefits, and generating spill-over effects in the value chain.

92 The Commission launched the first call for projects in May 2024. Out of 170 submitted applications, 77 focused on extraction, 58 on processing, 30 on recycling and 5 on substitution. The Commission selected 61 EU-based projects (grouped into 47 integrated projects), and 14 non-EU projects (grouped into 13 integrated projects). In 2025, the Commission launched one call in September, despite the fact that the Act requires at least four open calls per year, starting in 2025.

93 We assessed the benefits of designating projects as strategic and whether these projects have the potential to improve the EU's security of CRM supply.

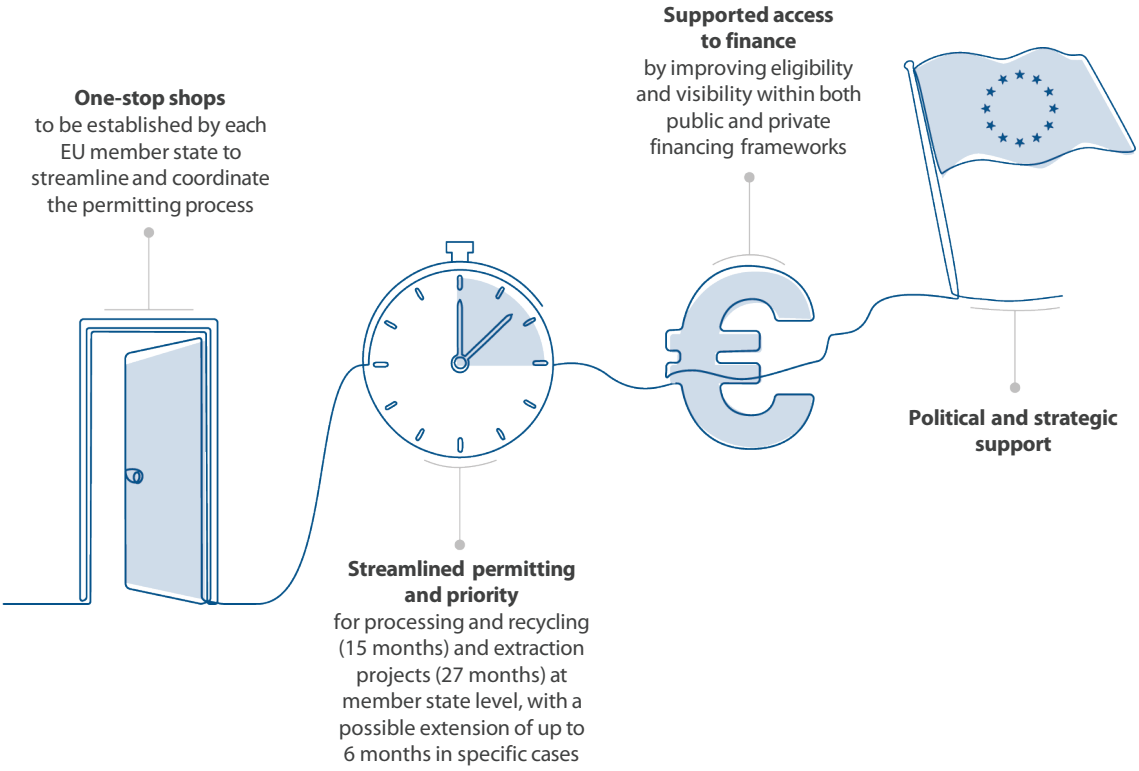
[13] DG GROW: Strategic projects under the Critical Raw Materials Act Guide for Applicants, Version 1.0, 23 May 2024.

[14] DG GROW: Call for applications for Strategic Projects under the Critical Raw Materials Act. Assessment of applications – briefing of experts, 10 October 2024.

The strategic project label can bring benefits, but challenges in permitting and financing persist

94 The designation of a project as strategic under the Critical Raw Materials Act is expected to benefit its implementation (*Figure 22*).

Figure 22 | Expected benefits of the "strategic project" label



Source: ECA, based on the CRMA.

95 Our survey shows that most member states consider that strategic projects have the potential to significantly increase the domestic extraction, processing and recycling of raw materials. However, strategic projects focus on strategic raw materials, and not on all critical raw materials. This means that for example projects involving niobium or vanadium, which are vital to drive clean energy technologies, cannot be recognised as strategic.

96 The Act accelerates permitting for approved strategic projects, but not for rejected projects, or projects focused on other critical materials. While streamlined permitting facilitates faster implementation, final timelines depend on appeals, which are not included in the limited permitting periods. We analysed the Commission's assessment of 19 selected strategic project applications and found that despite the foreseen accelerated permitting, it still indicated permitting as one of the key risks in 9 of them (*Annex VII*). In addition, as non-EU countries are not bound by the Act's rules, faster permitting for projects in those countries is not ensured.

97 Net-Zero Industry Act applications benefit from streamlined recognition if they are already funded through other EU means such as the Innovation Fund, or if they are designated as significant European projects. This is not the case for strategic projects applications under the Critical Raw Materials Act. In addition, the Act does not provide for any EU funding for strategic projects. In July 2025, the Commission proposed a regulation to establish a European competitiveness fund which would include funding opportunities specifically for strategic projects.

98 Public financial institutions have recently become more active in this area. Meetings of the CRM Board subgroup on coordinating the financing for strategic projects were held in 2024 and 2025, with the EIB and the EBRD as observers. Sixty percent of the selected strategic projects were applying for EIB financing and advisory assistance.

99 Financial viability is not a condition to be selected as a strategic project under the CRMA[15]. Our analysis of 19 strategic project applications shows one case where the project promoter filed for bankruptcy after the project had been included on the list of strategic projects. We identified another project which had a positive evaluation assessment, but was not selected as its promoter had gone bankrupt before the Commission published its list of strategic projects.

Many strategic projects will struggle to secure supply for the EU by 2030

100 The Critical Raw Materials Act highlighted the fact that project applications should include evidence of meaningfully contributing to the EU's supply security and the 2030 targets. We found that the decision to select "early stage of development" projects without requiring offtake agreements may limit their actual contribution to reaching the 2030 targets.

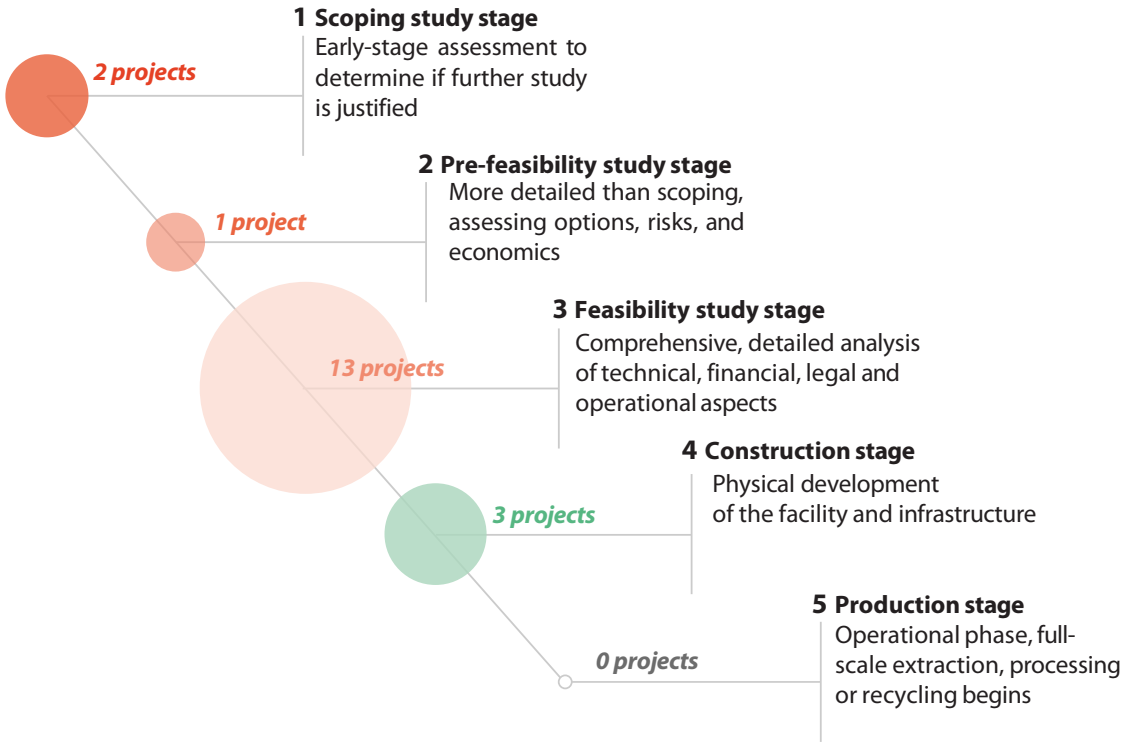
101 The Commission's final decision whether to select a project as strategic was based on an expert assessment. Our analysis of the experts' assessment of 19 successful project applications showed that in 10 cases the estimated full production capacity (based on the applicant's self-declarations) was planned for 2026 to 2029, in 3 cases for 2030, and in 6 cases beyond 2030 – in one case it was even planned for 2039 (***Annex VII***).

102 However, in 2025 when the projects were selected by the Commission, most of them were in fact only at an early stage of development, making it highly unlikely that they meaningfully contribute to the 2030 targets. On the other hand, we identified three mature projects which have a high chance of contributing to the 2030 targets and

[15] Article 6 of the CRMA.

are very likely to proceed, regardless of any EU endorsement as a strategic project, because they were already at the construction stage (*Figure 23*). As we approach 2030, contributing to the targets will become more and more difficult for future projects (paragraph *92*).

Figure 23 | Most strategic projects are still in the early stages of development



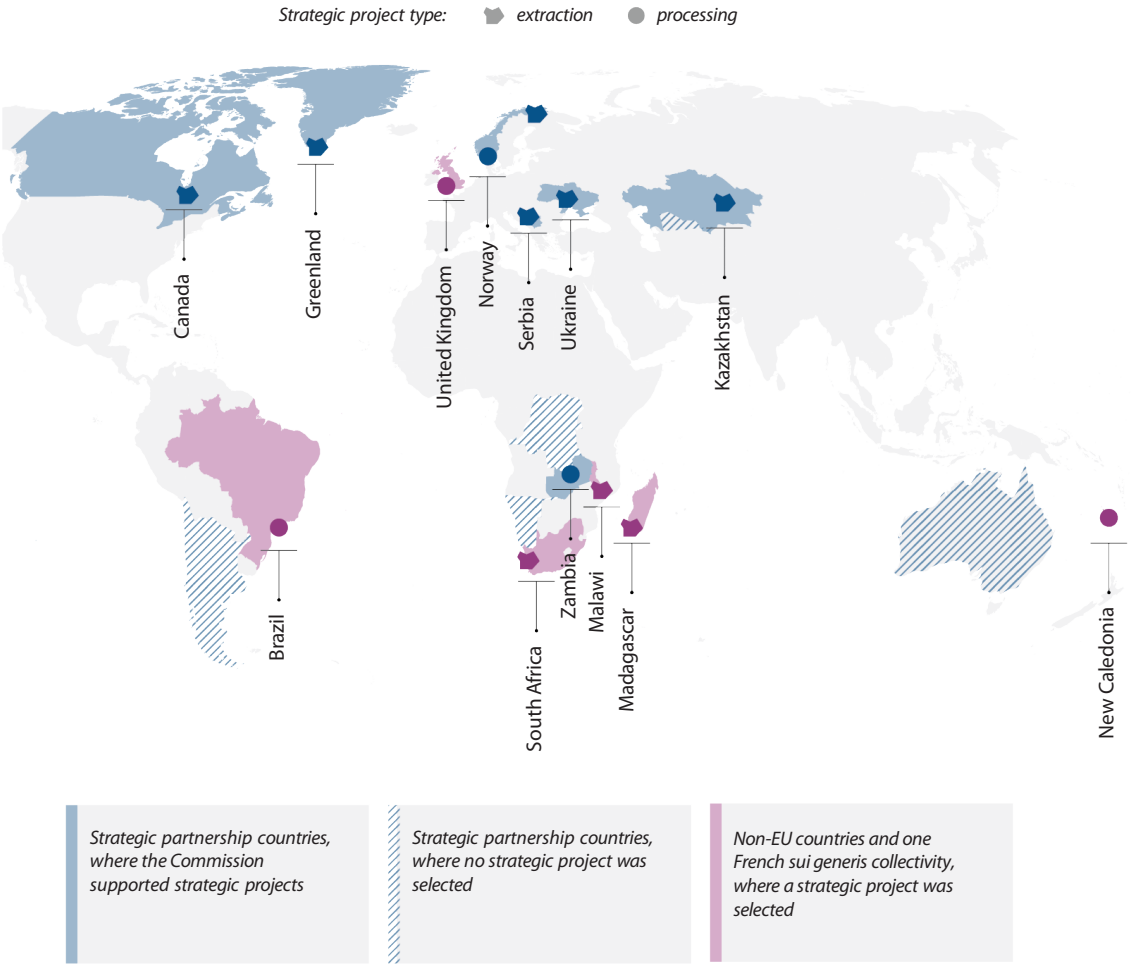
Source: ECA, based on applicants' self-declarations.

103 Our analysis indicated that in our sample of 19 project applications, for 12 of them offtake agreements had either been secured or, in some cases, were not needed since the main offtakers were the same (or related) companies. In the remaining seven cases, including four cases with non-EU-country projects, this was not the case. The evaluation experts warned that for those four non-EU projects, the lack of an agreement with a European offtaker was a serious risk in terms of the contribution to the security of supply for the EU. However, the experts gave a positive assessment despite the warning.

104 The Critical Raw Materials Act emphasises the importance of considering non-EU countries, which have EU cooperation mechanisms such as strategic partnerships, to mitigate supply risks. While the existence of such a partnership played a role in the selection process, we could not establish a clear link between these partnerships and the 19 strategic projects that the Commission decided to support. This link between the two elements would have been required to help mitigate supply risks. The Commission supports non-EU strategic projects in just 7 of the 14 partnership countries. Six of these countries have a raw material roadmap with the Commission, but we were unable to

identify a clear link between the strategic project supported in these countries and the roadmaps. The Commission also decided to support strategic projects in five non-EU countries, which are not covered by a strategic partnership (*Figure 24*), while in three partner countries, no such projects were proposed.

Figure 24 | Non-EU strategic projects – countries covered



Source: ECA, based on own analysis.

This report was adopted by Chamber I, headed by Mrs Joëlle Elvinger, Member of the Court of Auditors, in Luxembourg at its meeting of 10 December 2025.

For the Court of Auditors

Tony Murphy
President

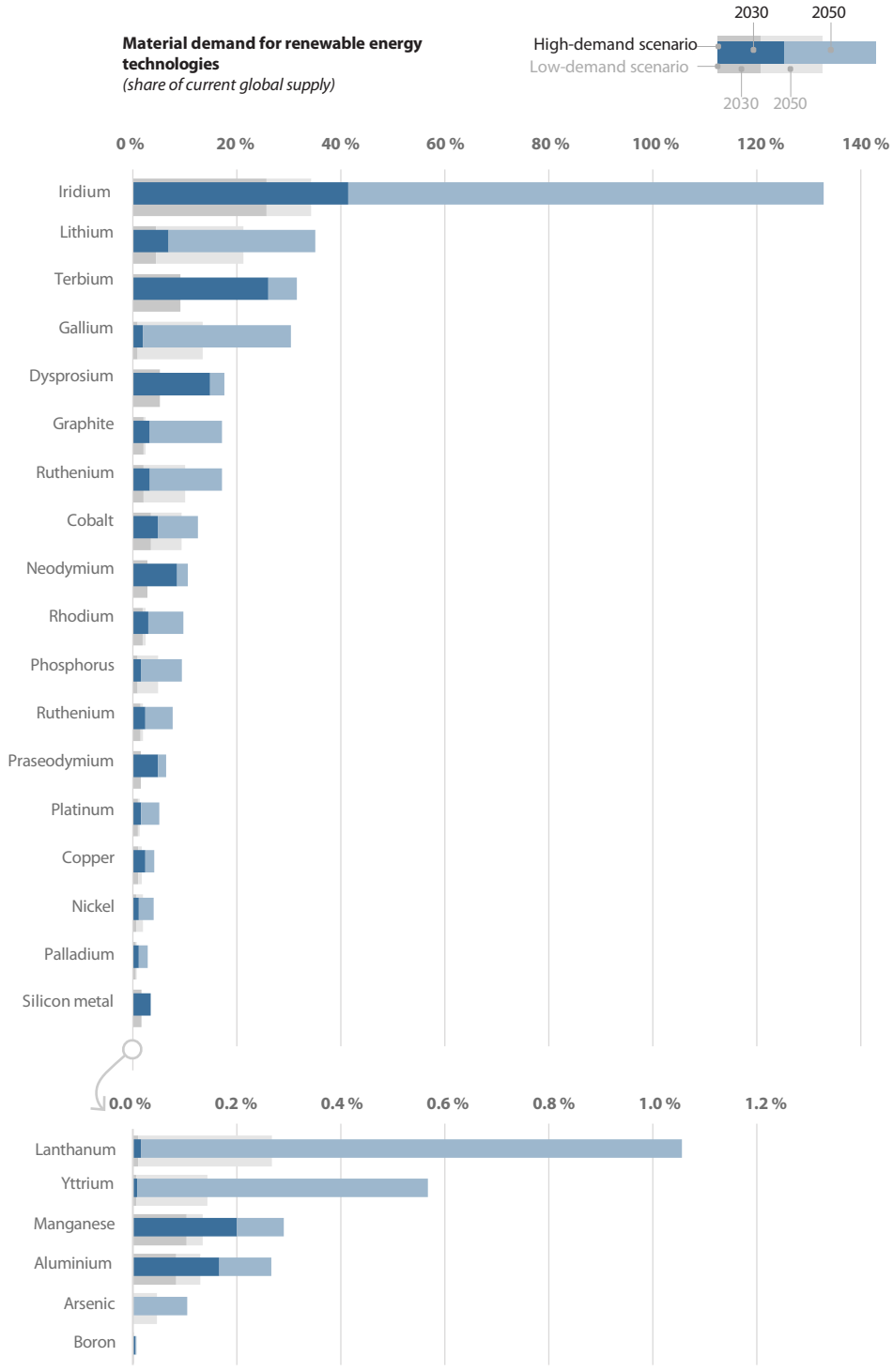
Annexes

Annex I – About the audit

The importance of critical raw materials for the EU's energy transition

01 In light of the EU's commitment to reducing net greenhouse gas emissions by at least 55 % by 2030 and achieving net zero by 2050, the role of CRMs is pivotal to successfully decarbonise the energy system. Since over 75 % of the EU's emissions stem from energy production and use, a comprehensive transition to renewable energy sources is key. CRMs are raw materials that the Commission considers crucial to the EU's economy, and which entail a high supply risk. With the planned EU-wide deployment of renewable energy technologies, the required quantities of these materials are expected to substantially increase (***Figure 1***). The EU's annual demand for rare earth elements used in wind turbine engines may increase sixfold by 2030. It has therefore become essential to ensure that they are available. CRM demand can be met through diversified imports, domestic sourcing and more sustainable resource management.

Figure 1 | Projected EU demand for critical raw materials



Source: ECA, based on JRC, Supply chain analysis and material demand forecast in strategic technologies and sectors in the EU – A foresight study, 2023.

02 Developments over the past two decades have highlighted the EU's strategic vulnerability to disruptions in the supply of critical raw materials. In 2010, when China supplied over 90 % of the world's rare earth elements, it imposed export restrictions[1] resulting in severe global price increases and supply shortages[2].

03 This exposed the EU's heavy dependence on one single external supplier for materials essential for the clean energy transition. At the same time, accelerating global demand driven by the green and digital transitions, political instability in several resource-rich countries, and the concentrated nature of supply chains further increased the risk of supply interruptions[3].

EU policy framework

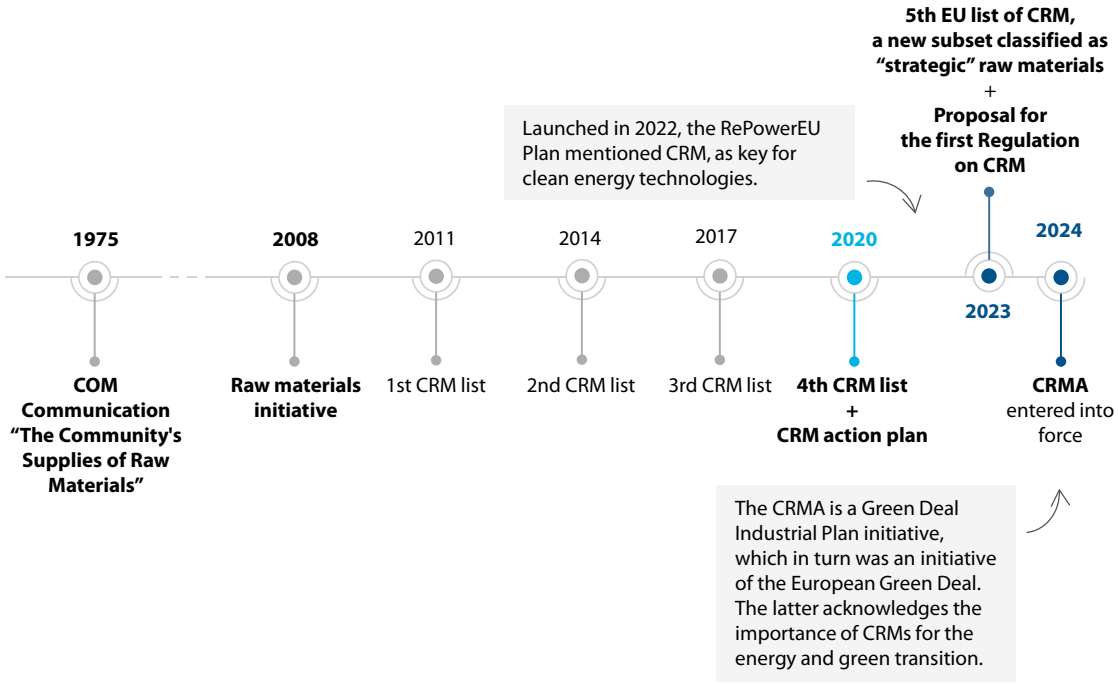
04 In response to growing concerns over the EU's dependence on non-EU countries for CRMs, the European Commission took action to ensure the long-term secure supply thereof. High supply risks relating to raw materials had already been covered in the 1975 Commission communication, The Community's Supplies Of Raw Materials, followed by the EU raw materials initiative in 2008, which introduced 10 mitigating activities, including one to define critical raw materials. The first such list was published in 2011 and was followed by five other lists. ***Figure 2*** shows the EU's main CRM initiatives.

[1] WTO dispute settlement; The disputes; DS395.

[2] Rohstoffinformationen 61 (2025). Seltene Erden, Projekte-Förderung-Weiterverarbeitung.

[3] Global Material Resources Outlook to 2060; OECD.

Figure 2 | Main critical raw material initiatives



Source: ECA.

05 The key initiatives for critical raw materials – essential both for the EU energy transition and for maintaining technological and industrial competitiveness – started in 2020. In September 2020, the Commission adopted the CRM action plan, a policy document that proposed 10 actions to address supply risks. It set the course for a more coordinated EU approach and placed new emphasis on domestic sourcing, resource efficiency and strategic partnerships with non-EU countries.

06 The purpose of the Critical Raw Materials Act is to create secure and resilient supply chains while ensuring social and environmental protection, diversifying the imports of raw materials, and improving sustainability and circularity of CRMs on the EU market. A key feature of the Act is the recognition and support of "strategic projects" along the strategic raw materials value chain, which are selected by the Commission.

07 With the Act, a new subset of CRMs was introduced – the strategic raw materials (SRMs). This new concept refers to the raw materials that are the most crucial for the strategic technologies used for green, digital, defence and aerospace applications. The Act also introduced non-binding quantifiable SRM targets to strengthen the EU's autonomy in the supply of raw materials, with a view to ensuring that by 2030:

- at least 10 % of the EU's annual consumption of strategic raw materials is extracted domestically;
- at least 40 % of SRMs are processed within the EU;

- at least 25 % of SRMs come from recycled materials; and
- no more than 65 % of the EU's annual consumption of any SRM comes from one single non-EU country.

08 While the CRMA strengthens the supply of CRMs, the 2024 Net-Zero Industry Act focuses on scaling up the EU's manufacturing capacity for clean technologies. Together, these acts are intended to provide a comprehensive approach to ensuring supply chain stability for the renewable energy sector in 2030 and beyond.

Roles and responsibilities

09 The Commission proposes EU CRM-related legislation to the European Parliament and the Council. It updates the EU list and implements the CRM action plan together with the member states. The Commission also oversees relevant funding programmes and provides funding (with the member states). The CRMA requires the Commission to monitor CRM-related supply risks, to alert stakeholders in the case of a supply disruption risk, and to assess and approve applications for strategic projects.

10 Implementing critical raw materials policy involves multiple bodies in the member states and in the Commission. The Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs (DG GROW) is the body in charge of the overall policy. Other DGs are involved in specific aspects (DGs ENER, ENV, INTPA, TRADE, JRC) or in managing funding (DGs ECFIN, NEAR, REGIO, RTD and SG REFORM).

Audit scope and approach

11 The aim of our audit was to assess whether EU-level actions ensure a long-term secure supply of CRMs for the EU's energy transition. We focused on the role of the Commission. Our audit covered CRM-related funding in the 2014-2020 and 2021-2027 programming periods.

12 We examined the work of the Commission up to October 2025. Our analysis concentrated on three key elements essential for achieving CRMA objectives: diversifying imports to reduce dependencies, enhancing domestic production, and ensuring a sustainable use of resources. We examined how the main types of EU cooperation mechanisms with non-EU countries (e.g. strategic partnerships) led to more diversified imports of CRMs. We also assessed the EU efforts to develop the extraction and processing of critical raw materials in Europe, aiming to reduce reliance on external suppliers. Additionally, we analysed the initiatives to enhance circularity, resource efficiency and substitution. We have also had a

closer look how the EU's raw materials lists and targets have been established and whether the Commission can demonstrate the effects of the EU funding on critical raw materials' supply. Finally, we assessed whether EU strategic projects have the potential to increase the security of supply of critical materials in the EU, by analysing a sample of 19 projects selected by the Commission.

13 We also consulted many stakeholders, including international organisations (e.g. the IEA), NGOs, industry representatives, research institutes and the authorities in two member states. ***Figure 3*** shows how we obtained evidence for our observations.

Figure 3 | Audit work carried out

We reviewed	• Commission work and internal documentation from Commission directorates-general (DGs ENER, ENV, GROW, INTPA, JRC, TRADE) and the European Environment Agency • Documentary review of studies and other reports in the area of CRM
We analysed	• Key data • The Commission's assessment of strategic project applications. The sample of 19 selected projects was taken to cover different project types (extraction, processing, recycling, and substitution) and included both EU-based and third-country projects • Commission work on CRM-related strategic partnerships and relevant trade agreements with third countries
We interviewed	• Different Commission directorates-general (DGs ENER, ENV, GROW, INTPA, JRC, TRADE) and the European Environment Agency • Representatives from a sample of two member states (Germany and Sweden), selected due their experience in managing CRM and energy usage from renewable sources
We consulted	• EIB, IEA, IRENA and OECD • Scientists, industry representatives and NGOs in a stakeholder consultation meeting
Our survey covered	• All member states

Source: ECA.

Annex II – Number of screened materials increased since 2011

Individual materials		
Aggregates	Helium	Rhenium
Aluminium/bauxite	Hydrogen	Scandium
Antimony	Indium	Selenium
Arsenic	Iron ore	Sulphur
Baryte	Krypton	Potash
Bentonite	Lead	Silica sand
Beryllium	Limestone	Silicon metal
Bismuth	Gold	Silver
Boron	Gypsum	Strontium
Cadmium	Lithium	Talc
Chromium	Magnesite	Tantalum
Kaolin clay	Magnesium	Tellurium
Cobalt	Manganese	Tin
Coking coal	Molybdenum	Titanium
Copper	Natural graphite	Tungsten
Diatomite	Neon	Vanadium
Feldspar	Nickel	Xenon
Fluorspar	Niobium	Zinc
Gallium	Perlite	Zirconium
Germanium	Phosphorus	Titanium metal
Hafnium	Phosphate rock	
Platinum group metals (PGMs)		
Iridium	Platinum	Ruthenium
Palladium	Rhodium	
Rare earth elements (REEs)		
LREEs	HREEs	
Cerium	Dysprosium	Lutetium
Lanthanum	Erbium	Terbium
Neodymium	Europium	Thulium
Praseodymium	Gadolinium	Ytterbium
Samarium	Holmium	Yttrium
Biotic materials		
Natural rubber	Natural cork	Roundwood
Sapele wood	Natural teak wood	

Materials covered in 2014 assessment, but not in 2011

Materials covered in 2017 assessment, but not in 2014

Materials covered in 2020 assessment, but not in 2017

Materials covered in 2023 assessment, but not in 2020

Source: ECA, based on DG GROW, Study on the critical raw materials for the EU 2023 (Annex 11).

Annex III – Recycling data – outdated and with gaps

There are multiple sources of recycling data used for the criticality assessment. The quality of data has improved, particularly due to the Commission's Materials Systems Analyses. However, for 15 out of 45 raw materials only global data was used. For 11 materials the reference year for determining the value dates back before 2020.

Material	Value	Scope	Publication	Reference years	Source
Aluminium	32 %	Global	2018	2018	International Aluminium Institute
Antimony	28 %	EU	2023	2016-2020	Commission
Arsenic	0 %	EU	2013		United Nations Environment Programme
Barytes	0 %	EU-27	2021	2012–2016	Commission
Borates	1 %	EU-27	2023	2016-2020	Commission
Cerium	1 %	Global	2023	2016-2020	Commission
Cobalt	22 %	EU-28	2020	2012–2016	Commission
Copper	55 %	EU-27	2023		International Copper Association
Dysprosium	0 %	EU-28	2023	2016-2020	Commission
Erbium	1 %	Global	2023	2016-2020	Commission
Europium	1 %	EU-28	2023	2016-2020	Commission
Fluorspar	1 %	EU-27	2023	2016-2020	Commission
Gadolinium	1 %	Global	2023	2016-2020	Commission
Gallium	0 %	EU	2023	2016-2020	Commission
Germanium	2 %	EU-28	2023	2016-2020	Commission
Holmium	1 %	Global	2023	2016-2020	Commission
Iridium	2 %	Global	2023	2016-2020	Commission
Lanthanum	1 %	Global	2023	2016-2020	Commission
Lithium	0 %	EU-28	2023	2016-2020	Commission
Lutetium	1 %	Global	2023	2016-2020	Commission
Magnesium	13 %	EU-27	2023	2016-2020	Commission
Manganese	9 %	EU-27	2020	2012–2016	Commission
Natural graphite	3 %	EU-27	2020	2012–2016	Commission
Neodymium	1 %	EU-28	2023	2016-2020	Commission
Nickel	16 %	EU-27	2020	2012–2016	Commission
Niobium	0 %	Global	2023	2016-2020	Commission
Palladium	10 %	EU-27	2023	2016-2020	Commission
Phosphorus	0 %	EU	2021	2012-2018	Commission
Platinum	11 %	EU-27	2023	2016-2020	Commission
Praseodymium	10 %	Global	2023	2016-2020	Commission
Rhodium	24 %	EU-27	2023	2016-2020	Commission
Ruthenium	2 %	Global	2022	2022	Expert assessment
Samarium	1 %	Global	2023	2016-2020	Commission
Scandium	0 %	EU-28	2021	2012-2016	Commission
Silicon metal	0 %	EU-27	2023	2016-2020	Commission
Strontium	0 %	Global	2022	2022	United States Geological Survey
Tantalum	13 %	EU-27	2021	2012-2016	Commission
Terbium	6 %	EU-28	2023	2016-2020	Commission
Thulium	1 %	Global	2023	2016-2020	Commission
Vanadium	1 %	EU-27	2021	2012-2016	Commission
Ytterbium	1 %	Global	2023	2016-2020	Commission
Yttrium	31 %	EU-28	2023	2016-2020	Commission
Tungsten	42 %	EU-28	2023	2016-2020	Commission
Bismuth	0 %	EU-27	2021	2012-2018	Commission
Titanium	1 %	EU-27	2023	2016-2020	Commission

Annex IV – Limited coverage and granularity in trade data

Available trade data indicates that current trade codes do not always allow to distinguish between individual raw materials as well as their production stages, for example, for rare earth elements (LREE and HREE). Trade data can also include CRM from both primary and secondary sources, for example platinum group metals. For some CRM either the extraction or processing stage is not covered.

	Number of trade codes	
CRM	**Extraction**	**Processing**
Magnesium	0	2
Silicon metal	0	2
Scandium	0	2
Niobium	(1)	1
Strontium	1	0
Coking coal	1	1
Lithium	1	2
Antimony	1	2
Beryllium	1	2
Titanium	1	2
Copper	1	4
Aluminium	1	5
Tungsten	1	5
Borate	1	9
Cobalt	2	3
Manganese	2	3
Graphite	2	4
Phosphate rock/phosphorous	2	7
Nickel	2	7
HREE*	3	2
LREE*	3	4
Barytes	2	*not processed*
Feldspar	2	*not processed*
Fluorspar	2	*out of scope*
Tantalum	*by-product*	1
Gallium	*by-product*	1
Arsenic	*by-product*	2
Hafnium	*by-product*	2
Vanadium	*by-product*	3
Bismuth	*by-product*	4
Germanium	*by-product*	2+(2)
Platinum group metals	*by-product*	7

For four CRMs: either the extraction or processing stage is not covered

Three trade codes cannot be used for the Commission's assessment due to their high level of aggregation

In three trade codes used for the Commission's assessment, different CRMs are grouped together

** There are no separate trade codes for:*
LREE: Neodymium, Samarium
HREE: Gadolinium, Holmium, Lutetium, Terbium, Thulium, Ytterbium, Yttrium

For 27 CRMs the extraction and processing stage (where relevant) are covered by at least one trade code

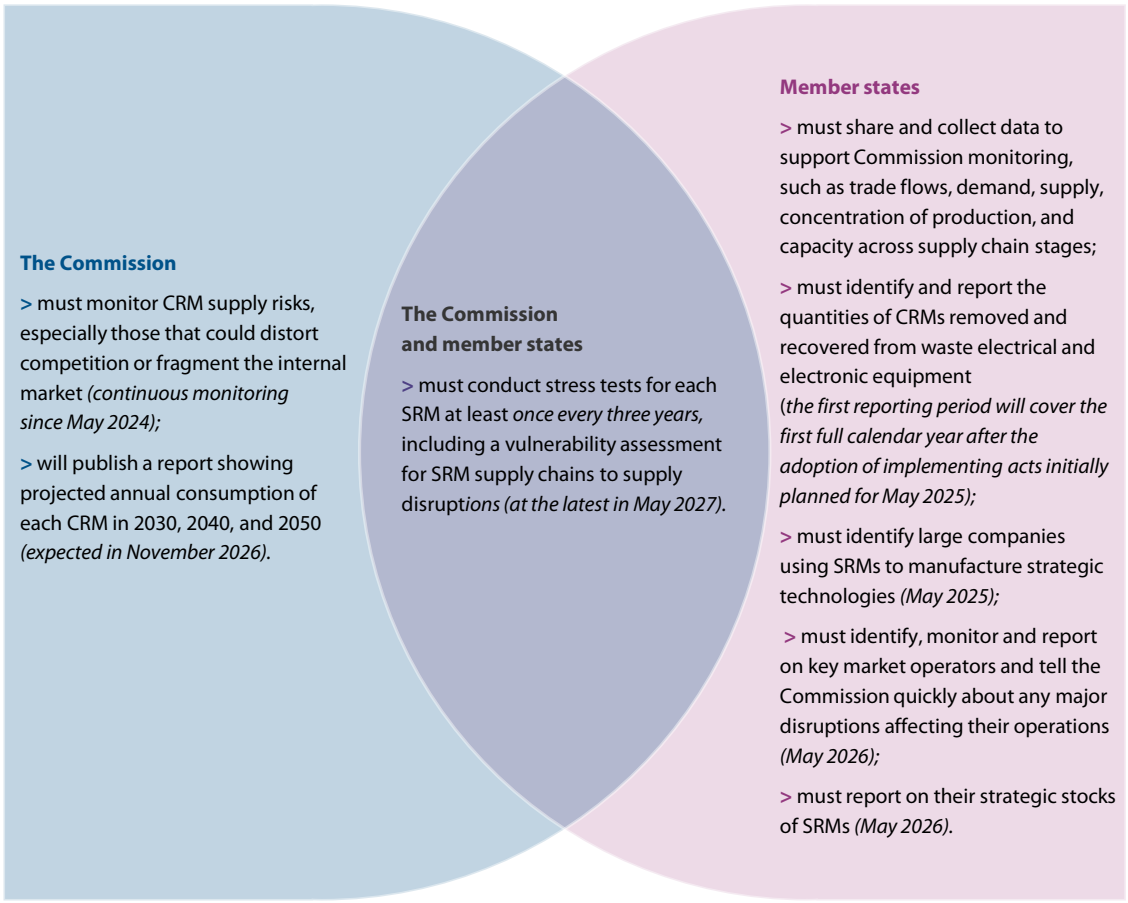
Source: ECA analysis, based on Commission information.

Annex V – Comparison of critical raw material and strategic raw material lists

CRMs	EU list	Australia list	US list	India list	Japan list	South Korea list	UK list
Antimony	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Arsenic	Yes	Yes	Yes	No	No	No	No
Baryte/barium	Yes	No	Yes	No	Yes	No	No
Bauxite/aluminium	Yes	Yes	Yes	No	No	Yes	No
Boron	Yes	No	No	No	Yes	No	No
Cobalt	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Copper	Yes	Yes	No	Yes	No	Yes	No
Fluorine, fluorspar	Yes	Yes	Yes	No	Yes	No	No
Gallium	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Germanium	Yes	Yes	Yes	Yes	Yes	No	No
Graphite, natural graphite	Yes	Yes	Yes	Yes	No	Yes	Yes
Lithium	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Magnesium	Yes	Yes	Yes	No	Yes	Yes	Yes
Manganese	Yes	Yes	Yes	No	Yes	Yes	No
Nickel	Yes	Yes	Yes	Yes	Yes	Yes	No
Niobium	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Phosphorus	Yes	Yes	No	Yes	No	No	No
Platinum group metals	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Rare earth elements (LREE and HREE)	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Scandium	Yes	Yes	Yes	Yes	No	No	No
Silicon	Yes	Yes	No	Yes	Yes	Yes	Yes
Strontium	Yes	No	No	Yes	Yes	Yes	No
Tantalum	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Tungsten	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vanadium	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Indium	No	Yes	Yes	Yes	Yes	Yes	Yes
Tellurium	No	Yes	Yes	Yes	Yes	No	Yes

Source: ECA, based on information from Australian Department of Industry, Science and Resources (2024).

Annex VI – CRMA monitoring requirements



Source: ECA, based on the CRMA.

Annex VII – Analysis of the sample of 19 selected projects

Project type	Project stage	Estimated production start date*	Estimated full capacity date*	Experts' assessment of permitting risks
Recycling	Feasibility	1.9.2026	1.1.2029	Permitting presents a greater risk for the targeted deadline
Extraction	Feasibility	30.11.2026	31.3.2027	-
Extraction	Feasibility	1.11.2028	1.5.2029	Very high-risk factor: the lack of permits (all relevant permits are yet to be applied for)
Extraction	Feasibility	1.9.2029	1.1.2031	Factors and risks that could make it difficult to reach the projected target production by 2030
Processing	Feasibility	1.12.2029	1.1.2031	Projection underestimates the actual length of time for permitting
Processing	Feasibility	19.5.2024	28.11.2030	-
Extraction	Scoping study	1.6.2028	1.6.2030	Permits not yet requested, project pre-approved
Processing	Pre-feasibility	1.6.2028	1.6.2030	Pre-feasibility, permits requested
Extraction	Feasibility	1.1.2028	1.1.2029	-
Extraction	Feasibility	1.6.2030	1.6.2033	Concerns related to the permitting process
Processing	Feasibility	1.9.2026	1.9.2026	Information on permitting status of the project not provided
Processing	Construction	30.10.2027	30.5.2029	-
Processing	Feasibility	17.8.2026	1.10.2029	-
Extraction	Feasibility	1.4.2026	1.10.2029	-
Recycling	Feasibility	1.1.2029	1.1.2032	-
Extraction	Scoping study	1.1.2037	1.1.2039	-
Substitution	Construction	1.1.2026	1.7.2028	-
Extraction	Feasibility	18.6.2027	16.12.2027	-
Extraction	Production	1.3.2026	1.3.2036	Permits for construction and processing are not yet secured

** project promoter's estimate*

Source: ECA analysis, based on the experts' evaluation of the strategic project applications.

Abbreviations

Abbreviation	Definition/Explanation
CINEA	European Climate, Infrastructure and Environment Executive Agency
CRMA	Critical Raw Materials Act
CRMs	Critical raw materials
DG CLIMA	Directorate-General for Climate Action
DG ECFIN	Directorate-General for Economic and Financial Affairs
DG ENV	Directorate-General for Environment
DG GROW	Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs
DG INTPA	Directorate-General for International Partnerships
DG NEAR	Directorate-General for Neighbourhood and Enlargement Negotiations
DG REGIO	Directorate-General for Regional and Urban Policy
DG RTD	Directorate-General for Research and Innovation
EBRD	European Bank for Reconstruction and Development
EIB	European Investment Bank
JRC	Joint Research Centre (European Commission's science and knowledge service)
SG REFORM	Reform and Investment Task Force
SRMs	Strategic raw materials
WTO	World Trade Organization

Glossary

Term	Definition/Explanation
Circularity	Policy or practice of reusing or regenerating products and resources throughout the value chain to reduce waste.
Critical raw material	Economically important raw material for which there is a high supply risk.
EU taxonomy	EU classification system which identifies the extent to which economic activities are environmentally sustainable.
Extraction	In the context of this report, removing ores, minerals and plant products from their original sources.
Offtake agreement	Contractual arrangement under which a buyer agrees, or has the option, to purchase a specific amount of a producer's future output.
Raw material	Substance, other than food or fuel, used as input for manufacturing.
Strategic project	In the context of this report, a measure intended to make supply chains for strategic raw materials in the EU more resilient.
Strategic raw material	Raw material deemed particularly important because of its use in specific green or digital technologies or for defence or aerospace applications.
Targeted exploration	Detailed investigation after initial discovery of a mineral deposit, with a view to allocating resources to areas with the highest potential for successful extraction.
Value chain	All activities involved in the supply of products to end consumers, including all steps in the supply chain but also activities such as sales and marketing. In the case of raw materials, this encompasses all stages from extraction and processing, to sale and use in manufacturing, to end-of-life activities such as recovery and recycling.

Replies of the Commission

https://www.eca.europa.eu/en/publications/SR-2026-04

Timeline

https://www.eca.europa.eu/en/publications/SR-2026-04

Audit team

The ECA's special reports set out the results of its audits of EU policies and programmes, or of management-related topics from specific budgetary areas. The ECA selects and designs these audit tasks to be of maximum impact by considering the risks to performance or compliance, the level of income or spending involved, forthcoming developments and political and public interest.

This performance audit was carried out by Audit Chamber I – Sustainable use of natural resources, headed by ECA Member Joëlle Elvinger. The audit was led by ECA Member Keit Pentus-Rosimannus, supported by Annikky Lamp, Head of Private Office and Daria Bochnar, Private Office Attaché; Florence Fornaroli, Principal Manager; Jan Huth, Head of Task; Jolita Korzuniene and Marika Meisenzahl, Deputy Heads of Task, Blerta Hima and Anna Kozlova, Auditors. Laura McMillan provided linguistic support.

From left to right: Laura McMillan, Jolita Korzuniene, Florence Fornaroli, Annikky Lamp, Daria Bochnar, Keit Pentus-Rosimannus, Jan Huth, Marika Meisenzahl.

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For a successful energy transition, the EU requires increasing amounts of critical raw materials. We assessed measures to secure their supply, such as diversifying imports, increasing domestic production and improving resource management. We found that the EU faces an array of challenges. While the legislation sets a strategic course, its targets lack justification. Import diversification has not produced tangible results and bottlenecks hinder production and recycling. Despite faster permitting, many strategic projects will struggle to secure supply by 2030. We recommend that the Commission strengthen the foundations of the EU's raw materials policy, ensure that diversification efforts lead to more secure supply, address financing bottlenecks, make better use of sustainable resource management and increase the added value of strategic projects.

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