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# Placing the EU on a Warfare Footing

## Energy and Raw Materials Priorities for 2026

Center for Energy
and Climate

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# Executive summary

The year 2025 has confirmed that one must prepare for much worse in the field of geopolitics and geoeconomics as the intensity and frequency of shocks increase, and as the European Union (EU) has no more stable flanks now that crises with the United States (US) become so frequent and reveal a systemic rift. In the world, barriers to trade multiply and dependencies are weaponized. The EU must continue to step up its game and move to strategic action and planning with adjusted and reinforced policy instruments, new approaches and methods, as peace-time objectives and policies cannot deliver for warfare times.

In the energy and raw materials field, the European Commission (EC) has been very active in 2025, with several key legislative proposals and plans, notably the Clean Industrial Deal, the Affordable Energy Action Plan, the Grids package, RESourceEU, more flexibility for the 2035 automotive targets, accelerated permitting, Carbon Border Adjustment Mechanism (CBAM) adjustments, nuclear energy no more entirely sidelined, and specific proposals as part of the next Multi-annual financial framework (MFF).

Several priorities in the field of energy and economic security are singled out in this note, as follows.

- First, for all sensitive energy and economic sectors, Member States need fully operational, capable and competent sectoral points of contact in place that can rapidly meet and prepare policy responses to crises. To make the upcoming Economic Security Information Hub efficient, for each economic security topic, clear mechanisms need to be in place for sourcing information (from governments, experts, the private sector, organizations such as French Ofremi pool on metals), for building analyses, testing decisions, in order to guarantee secure and timely decision-making. Stress tests must apply to large companies and critical sectors, but also to the EU's institutions and how they interact with Member States.
- Moreover, the EU's short and long-term planning should now decisively include severely degraded scenarios that test resilience and policies in situations that no one would have thought likely, a few years or months ago, but which are now entirely possible. National Energy and Climate Plans or cross-border infrastructure priorities need to be tested against them. The EU should pursue its efforts to develop powerful crisis management instruments, such as the Crisis Mechanism proposed under the next MFF.

- As the energy security framework is being revised and a Grids package proposed, action should focus on diversifying gas supplies and contract/pricing types, reinforcing network codes and various standards to avoid cyber-attacks on electricity systems and support "Made in Europe" power electronics, not least also by streamlining efforts on standardization. Lessons from the Spanish blackout must be learnt and implemented as a priority. A central planning approach realized by the EC for interconnections may not bring the expected step-change in terms of cross-border grids expansion and cost-efficient delivery, and could fuel a political backlash with electoral consequences. Yet ways must be found to reinforce accuracy and allow effective updates of EU infrastructure development scenarios.
- The EU urgently needs to lay the conditions for an electrification breakthrough in 2026. Urgent actions are needed, such as on taxation policy, funding in the next MFF, European Investment Bank (EIB) involvement, deployment of individual and industrial heat pumps and priority grid connections/expansions. In addition, flexibility must be further addressed: adapting peak and off-peak hours to match renewables production and proposing incentivizing tariffs for consumption accordingly, ensuring electricity battery storage is not subject to double taxation, proposing tax credits or grid tariffs adaptation for companies that electrify their processes and offer flexibility to the grid. The reform of the electricity market design already requires governments to boost flexibility, and the Clean Industrial Deal State Aid Framework (CISAF) framework gives leeway to governments to increase support for private sector actors that provide flexibility. Member States must implement these measures at speed. The existing energy-intensive industries must be supported, as EU production in those sectors has been decreasing, especially for aluminum, steel, and glass, yet support schemes should incentivize electrification of operations, energy efficiency measures and the signing of long-term electricity contracts to stabilize electricity costs (be it with renewable energy sources or nuclear power plants).
- The EU must gradually expand the scope of the CBAM to include more downstream products. Announcements have been made by the EC to this effect and are a welcome step forward. As the CBAM mechanism is broad and necessarily complex, its implementation is likely to reveal "loopholes" affecting the competitiveness of certain specific sectors. In this regard, part of the revenue generated by the CBAM could be used to support sectors affected by these "loopholes", once they have been identified by industries and the EC. Such funds could act as a complement to the €600 million fund envisaged by the EC to compensate European exporters for their losses. It remains important

that CBAM funds are also used to foster decarbonization or adaptation abroad.

- There is a risk of circumvention with regard to recycled materials imported into Europe, which are considered zero-emission under the CBAM: it is possible for an external exporter to label primary steel or aluminum as secondary in order to reduce its $CO_2$ level. In view of this risk of circumvention, a default emissions level could be introduced for secondary materials – those imports that can provide accurate data on the recycling process used would be exempt. It might also be appropriate to extend the import quota system for steel to aluminum in the event of oversupply of the European market from outside.
- "Made in Europe" requirements should be based on environmental and resilience criteria and be progressive to give sufficient time to value chains to adapt and avoid a significant rise of prices. They should take into account gaps across the value chain and the need for investment in strategic capacities beforehand, with the support of the EIB. "Made in Europe" should be complemented by a "Made with Europe" in a ring of partner countries. Efforts on facilitating permitting are to be reinforced further, and the EU Competitiveness Fund needs more resources for the transition. Competition policy and state aid oversight need to match the strategic efforts of building EU value chains, resilience and autonomy.
- The EU's strategy to secure critical raw material value chains has been progressing, but needs to be further stepped up strategically. The US financial mobilization is between 1 and 5, and up to 1 and 8, compared with the EU one. The CRM Center can be instrumental if targets, means and instruments are well articulated. A focus on the processing segment and recycling industries, as well as companion metals, beyond rare earths, is paramount, alongside a greater ability to invest in low-return, higher-risk projects using various types of instruments. Despite some patchy action (such as the consultation on aluminum waste exports), the EU is still missing a comprehensive framework to limit metal waste leakage, which should be a priority for 2026.

# Résumé

L'année 2025 a confirmé qu'il était nécessaire de se préparer à un environnement géoéconomique et géopolitique plus difficile, car l'intensité et la fréquence des chocs augmentent, tandis que l'Union européenne (UE) n'a plus de flancs stables, dans un contexte de fréquentes crises avec les États-Unis, révélatrices d'une fracture systémique. À travers le monde, les barrières commerciales se multiplient et les dépendances sont utilisées comme des armes. L'UE doit continuer à intensifier ses efforts et passer à l'action et à la planification stratégiques, via des instruments politiques adaptés et renforcés ainsi que de nouvelles approches et méthodes, car les objectifs et les politiques en temps de paix ne peuvent pas répondre aux besoins du temps de guerre.

Dans le domaine de l'énergie et des matières premières, la Commission européenne (CE) s'est montrée très active en 2025, avec plusieurs propositions législatives et plans clés, notamment le pacte pour une industrie propre, le plan d'action pour une énergie abordable, le « paquet Réseaux », RESourceEU, une plus grande flexibilité pour les objectifs automobiles de 2035, l'accélération des autorisations, les ajustements du Mécanisme d'ajustement carbone aux frontières (MACF), la fin de la mise à l'écart totale de l'énergie nucléaire et les propositions pour le prochain Cadre financier pluriannuel (CFP).

La présente *Note* identifie plusieurs priorités dans le domaine de la sécurité énergétique et économique qui devraient être mises en œuvre en priorité au cours de l'année 2026 dans les domaines de la gouvernance et de la préparation aux crises, de l'électrification, de la résilience industrielle et des chaînes de valeur minérales.

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# Introduction

The year 2025 has confirmed that one must prepare for much worse in the field of geopolitics and geoeconomics as the intensity and frequency of shocks increase, and as the European Union (EU) has no more stable flanks now that crises with the United States (US) become so frequent and reveal a systemic rift. In the world, barriers to trade multiply and dependencies are weaponized. Facing Russia's war and hybrid actions, alongside a €308 billion trade deficit with an assertive China, and a regulatory and policy schism with the US, the risk for the EU is to be overwhelmed, pushed into surrender, and, in the process, see domestic divisions resurface and weaken its resolve and capacity to act.

The European Commission (EC) and the co-legislators have been highly mobilized in 2025 on all fronts and have navigated the storms, either:

- Convincingly with SAFE, RePowerEU roadmap to end imports of Russian oil and gas, Russia sanctions and Ukraine support (with increasing Member States opting out though), joint statement on trade with the United States (US), which is the least bad among the Organisation for Economic Co-operation and Development (OECD) peers, despite many uncertainties remaining regarding its actual implementation.

  Strategically, for instance, by making economic security and resilience central concepts in EU policy making, the launch of the RESourceEU plan and the automotive package, as well as the action on steel tariffs (although responses typically take too much time). The finalization of the Mercosur trade agreement is also remarkable, as with India.

- Pragmatically, with the Clean Industrial Deal State Aid Framework (CISAF) adjustment, simplification omnibuses and Carbon Border Adjustment Mechanism (CBAM) operationalization and fine-tuning.

- But also patchy on fundamental issues such as China's fast-expanding trade surplus and its raw materials weaponization, or the upholding of the EU energy transition and digital framework faced with transatlantic pressures. The EU remained shy on some key topics like energy taxation, the offshore wind crisis and institutional reforms.

In the energy and raw materials field, the EC has been very active in 2025, with several key legislative proposals and plans, notably the Clean Industrial Deal, the Affordable Energy Action Plan, the Grids package, RESourceEU, more flexibility for the 2035 automotive targets, accelerated permitting, CBAM adjustments, nuclear energy no more entirely sidelined,

as well as proposals for the next Multi-annual financial framework (MFF). The Draghi report is often seen as not sufficiently implemented, energy-intensive industries continue to struggle, yet some of these criticisms overlook the decision-making process in the EU based on negotiation and compromise-making, and the obstruction capacity of some Member States. The EC itself is also subject to internal divisions on how to deal with sensitive files.

While several important policy responses have been proposed or made public, fundamental challenges remain: the insufficient electrification of energy usages while in parallel there are growing disbalances in the electricity systems, with a surplus of solar PV, lower dispatchable capacities and the perspective of potentially growing subsidy costs for governments if they are to avoid a generation investment crisis; China's strategic grip and weaponization of raw materials, and its increasing weight in sectors such as batteries for stationary storage, power electronics equipment, hydrogen equipment, wind equipment or low carbon fuel supplies, as well as the skills & training availability and workforce challenge[1]. EU's vulnerabilities in the field of fossil fuels imports also tend to be overlooked due to a context of well-supplied international markets. Finally, challenges are building up in the EU's recycling industries, and the deindustrialization crisis remains (steel, aluminum, glass, cement, fertilizers, etc.), albeit slowed as the energy price competitiveness gap has reduced – energy prices increase in the US and decrease in Europe.

This paper outlines a number of priorities for European policy action in 2026 in the field of energy and economic security and transformation.

1. D.-P. Gherasim, "The Strategic Dimension of Skills in the Clean Industrial Deal", *Ifri Studies*, Ifri, September 2025, available at: www.ifri.org.

# Fostering security and the ability to cope with crises in a warfare environment

## Institutions and instruments

The EU is not empowered to be a geopolitical actor reading from treaties, but it is growing into that position, even if with clear inherent limits. The EC and the Parliament have pushed for that, Member States have increasingly allowed this, given their own weaknesses and the view that, facing these external shocks, unity makes strength. Article 122 TFEU (Treaty on the Functioning of the European Union), trade tools, sanction measures, the internal market regulation, CBAM and joint borrowing are among the key tools. While a Treaty reform is ultimately necessary and needs to be continuously discussed, not least to accommodate enlargements, several immediate steps could foster the EU's ability to cope with multiple shocks and polycrises.

First, for all sensitive energy and economic sectors, Member States needs fully operational, capable and competent sectoral points of contact in place that can rapidly meet and prepare policy responses to crises. These must participate in regular stress tests to challenge their own ability to operate and act collectively because the EU needs fit and high-performing institutional mechanisms. As such, the EU should follow up rapidly on the proposal to create National Economic Security Advisers acting as single points of contact and responsible for cross-government coordination of economic security risks assessment and mitigation. To make the upcoming Economic Security Information Hub efficient, for each economic security topic, clear mechanisms need to be in place for sourcing information (from governments, experts, the private sector, groupings such as French Ofremi on metals), building analyses, and testing decisions, in order to guarantee secure and timely decision-making.

Moreover, the EU's short and long-term planning should now decisively include severely degraded scenarios that test resilience and policies in situations that no one would have thought likely, a few years or months ago, but which are now entirely possible. This implies that the EU should be assessing impacts and preparing contingency plans for several plausible scenarios: a total halt in raw materials, equipment and medicine supplies from China; a forced closure of the Baltic sea to Russian vessels and its consequences; 50% US tariffs on Europe (with exceptions to further

divide EU countries among themselves and encourage selfish behaviors) and the need to rapidly and more directly, without any US backing anymore, ensure total deterrence and support to Ukraine; a 50% decline in liquefied natural gas (LNG) supplies to Europe following a suppliers' cartel-type decision or extreme weather events; unprecedented US sanctions on China's banking and energy industries; US seeking to force Europe to ban any imports of Chinese clean technology equipment or Europe taking such action following a Taiwan escalation; major diesel supply and jet fuel disruptions following geopolitical and climate events accompanied by a need to place entire European armies in full combat mode; a sharp shortage of semi-conductors imported from Taiwan, China and South East Asia. Member States should build coalitions of interested parties, as not all sectors can be scrutinized and planned for. National Energy and Climate Plans (NECPs) need to be challenged by peers under such constrained scenarios, and relevant vulnerabilities discussed and addressed.

The EU should pursue its efforts to develop powerful crisis management instruments, such as the Crisis Mechanism (i.e., up to €395 billion of borrowing capacity for the EU in case of crisis) foreseen under the next MFF, because crises are and will increasingly be the new normal and fast responses will be needed. The EU also needs to credibly build out its economic security instruments and make better use of the massive weight of its 450 million + market, as well as of other players' dependency on Europe (on ASML machines, for example, or medicine/vaccines, for example, or certain power electronic equipment such as transformers).

## Energy and climate security frameworks

As the energy security framework is being revised (with elements focusing on the gas and electricity supply regulations), immediate implications are to foster the diversification of gas supplies at importer/company level, to maintain appropriate stock levels and gas storage capacities (including Ukraine), to continue drawing lessons from the 2022-2023 crises when too many public guarantees and purchases were engaged at the same time leading to increased prices. Demand management policies should be in place for price tensions/crises. EU's security of gas supplies would need to be reinforced through encouraging buyers to have a wide mix of pricing and supply contracts in place (Brent, TTF, HH) in order also to reduce volatility. The EU should explore opportunities for gas supply booster insurance plans with several external suppliers (such as Algeria or Norway) or consumers in the world (such as Japan for LNG) to build additional flexibility in times of market tensions. At a minimum, the EU should engage in a dialogue with Qatar on LNG trade and pricing, as too small amounts of Qatar molecules come to Europe. It should support the stabilization of Libya and energy

sector investment there. Biomethane would also need a strategic reassessment and support, as it can grow from its current niche.

The methane regulation (EU/2024/1787) is under fire by the US and Qatar while there are also concerns in the European industry about its operationalization and the best way to define and implement certification. The challenge is that, ultimately, European importers face the risks and burden. The EU should continue its active dialogue with producers to ensure an effective implementation and understanding of the benefits of the regulation, based on case studies, but also support actively the deployment of these monitoring, reporting and verification systems, notably via the private initiatives already ongoing, in least developed producing countries. The essence must be to convince this is a win-win, low-hanging fruit endeavor, not a severe extra-territorial penalty that will ultimately fall on EU buyers.

In the field of electricity, several steps are needed. The expert group on the Spanish blackout will come up with recommendations that will need to be urgently implemented. The EU needs to address the inverters security challenge – based on industry data, more than 200 gigawatts (GW) of solar capacity in Europe is linked to inverters coming from China, with a majority (168 GW) coming from two suppliers, SunGrow and Huawei (on its way to being bannedin the 5G sector), which may expose the EU electricity grid to foreign interference and disruptions. Giving the strategic role of inverters (the “brains” of the solar system) and the technical complexity of limiting the access of inverters to the grid, an outright ban of Chinese players in this sector on national security bases should be envisaged for future deployments, based on a comprehensive risk assessment at the EU level, and very strict standards must be effectively implemented for existing systems using Chinese inverters, such as the NIS 2 regulation. Network codes for generators must also be upgraded fast at the EU level: this is not a technical matter that can be postponed; it is vital for the coherence of the EU electricity market, which could be eroded if each country proceeds with its own updates in isolation. Efforts to foster greater standardization of grid equipment and stocks are key and should capitalize on the work already done by several Transport System Operators (TSOs). The goal is to have stronger demand for fewer items and monitor, incentivize and accompany the EU manufacturing capacities ramp up, while making sure that European TSOs always have as a priority to purchase the grid components produced in Europe.

The Grid package proposals are a recognition of how strategic and still underinvested the European grid is, that massive investments are and will need to be even more flowing into grids, and a stronger Connecting Europe Facility (CEF-E) financial power is welcome in the next MFF. The EU hosts major manufacturing capacities for most grid equipment, and this buildout can also be an industrial success. While deeper and more effective

coordination is needed, a central planning approach realized by the EC may not be the most likely to bring the expected step-change in terms of grid updates and cost-efficient delivery and could fuel a political backlash with electoral consequences. The assumption that investments into cross-border capacity are leading to much larger energy system cost savings must be tested, depending on cases and the evolution of energy systems, which should underpin a logic of prioritization of support under CEF-E. The most critical part for grid development in Europe is addressing and anticipating concrete issues on the ground, such as rising copper costs, shortages of equipment and rising power electronic costs, lower labor availability and productivity, and overall, demand and supply changes due to economic factors or shocks, and efficient local system planning. Hence, a priority should be to have local, national and regional efforts to better map and address these concrete concerns and deliver dedicated proposals for action at the EU level and several cross-sectoral scenarios. Another should be to manage current and future electricity demand, notably in aligning industrial and electrification projects with grids and generation opportunities or reinforcements. An EU priority should also be to have more robust and credible NECPs for better planning of grid development, and the EC can reinforce its oversight over the coherence between decarbonization targets and infrastructure investments in the NECPs. The energy corridors approach proposed by the EC is a promising step forward as it allows taking into account not only interconnections, but also the adjacent grids updates and buildout needed to boost the benefits and mitigate the negative consequences of an interconnection, which would also help with increasing public acceptability and Member States' willingness to participate in interconnection projects.

# Building further energy transition and value chain resilience in a hurry

## Electrification Action Plan

Electrification has been lagging behind in Europe, despite more than 70% of the electricity mix now being decarbonized. Moving from the current average of 23% of final demand to 32% in 2030 will not be straightforward. There is a looming electricity supply investment crisis in several Member States due to low or negative prices, flat demand or insufficient energy system integration. Market signals deliver fewer and fewer incentives to invest as capex costs are increasing. The EU urgently needs to lay the conditions for an electrification breakthrough in 2026 or will fail to deliver not only on its energy transition, but also on energy security and affordability. Priority actions include:

- **Taxation policy:** Given the stalemate at the EU level on the Energy Taxation Directive (that requires unanimity), this is largely an issue that can be fixed more rapidly at the national level in the short term. The EC could ultimately also consider introducing a dedicated proposal focusing only on electricity taxation and levies to separate this issue from that of aviation and maritime fuels taxation, as well as more broadly the issue of fossil fuels, given the divergent interests of Member States on these issues and the insufficient maturity reached in the debates at the national policy level on these topics. This would, of course, not be as ambitious as the current Energy Taxation Directive (ETD) revision, as it will largely leave out the discussion on fossil fuels taxation, but it could be a step that may be easier to swallow in the current geopolitical context. In the eventuality of a breakthrough in the reform of energy taxation, the combined effects of applying an ETS2 price and a new taxation of energy vectors should be taken into account and remedied in the case of captive and vulnerable households. The role of the Social Climate Fund, which is endowed with large resources, should be maximized.
- **Steady push on electrification of transport, heating and industry:** The debate on the 2035 target amendment must not lead to a further dilution of the European ambition to electrify the transport sector. A 90% tail-pipe emissions-reduction coupled with the compensation of the remaining 10% of emissions through purchasing of

decarbonized steel or the use of e-fuels or biofuels keeps the strong signal in favor of the electrification of the European cars fleets, but further dilution during the trilogues will endanger EU's capacity to build a full-fledged electric vehicles (EV) value chain in Europe, to revive its industrial and economic tissues and acquire new markets. Beyond the 2035 target, in the next MFF, the EU should include specific obligations for MS to allocate 15% of their NRPP (around €130 billion) to direct support for electrification schemes in road transport, heating and industry (knowing that the Social Climate Fund, which would be merged in the NRPPs, already provides €86 billion for this purpose). Other initiatives, such as the Small Cars Initiative and the electrification of corporate fleets, play an important role and should be deployed as smoothly and quickly as possible. France's EV purchase scheme based on environmental criteria is a good model to support "Made in the EU" production.

- In the heating sector, after the 2022 boom in heat pump sales, the market has dramatically slowed down, and the EU is far from reaching its target of doubling the deployment of heat pumps. Support schemes for heat pumps "Made in the EU" are needed especially for the middle class and vulnerable consumers, to avoid this industry being delocalized following foreign takeovers, and EU funding should also be directed towards reskilling the workforce to ensure a sufficient supply of heat pump installers, which is a key bottleneck. Industrial electrification projects should be given priority for connecting to the grid and benefit from tax credits based on the emissions reductions and energy efficiency performance achieved thanks to the electrification of their processes, notably via industrial heat pumps. Member States should all develop mandatory plans to deploy industrial heat pumps for industrial heat below 300°C, and these should be discussed with European industries, the EIB and Member States to accompany the manufacturing and deployment ramp-up, which is very capex-intensive. The EIB support program will need to be ambitious and work hand in hand with local regional banks that have local customer knowledge.
- The $CO_2$ price under the EU Emissions Trading System (ETS) must continue its upward trajectory in a predictable manner, and further revision of the EU ETS should not put into question its credibility.

In addition, the system flexibility challenge must be addressed too: adapting peak and off-peak hours to match renewables production and propose incentivizing tariffs for consumption accordingly, ensuring electricity storage is not subject to double taxation, proposing tax credits or grid tariffs adaptation for companies that electrify their processes and offer flexibility to the grid, etc. The reform of the electricity market design already requires governments to boost flexibility (flexibility support schemes, national flexibility objectives, etc.) and the CISAF framework

gives leeway to governments to increase support for private sector actors that provide flexibility (i.e., in case of electricity price reduction, possibility to grant additional 10% of aid if 80% of the investments is spend on increasing the flexibility of demand) and to penalize those that increase the need for flexibility in the network (i.e., consumers contributing to creating the flexibility needs should participate to the cost of the state aid measure on the basis of their consumption during at least 1% and at most 5% of the highest price hours each year). Member States must implement these measures at speed.

The existing energy-intensive industries must be supported, as EU production in those sectors has been decreasing, especially for aluminum, steel, and glass, yet support schemes should incentivize electrification of operations, energy efficiency measures and the signing of long-term electricity contracts to stabilize electricity costs (be it with RES or nuclear power plants).

## Strengthening CBAM

To protect its industries and in light of the gradual reduction in free ETS allowances, the EU needs to safeguard its companies by implementing the CBAM as comprehensively as possible. The CBAM currently entails a number of flaws: insufficient inclusion of products processed downstream in the value chain, the risk of circumvention (via resource shuffling – i.e., by sending to the EU market the products made with recycled inputs or those with the lowest carbon footprint; but also by modifying goods to fall outside of the CBAM scope – slightly higher degree of processing, etc.)

In response to this, the EU would need to gradually expand the scope of the CBAM to include more downstream products – announcements have been made by the EC to this effect and are a welcome step forward. In that respect, particular attention should be given to finished products where the price of the CBAM represents a significant share of the final price of the product.

As the CBAM mechanism is broad and necessarily complex, its implementation is likely to reveal "loopholes" affecting the competitiveness of certain specific sectors. In this regard, part of the revenue generated by the CBAM could be used to support sectors affected by these "loopholes", once the respective industries and EC. have identified them. This mechanism would provide temporary support, pending legislative adaptation of the scheme, and could be based on a model similar to the €600 million fund envisaged for European exporters. It is important that at least some of the CBAM revenues be used for decarbonization and adaptation projects in vulnerable countries. Further support mechanisms for exporting sectors, if proved needed, could be based on the model and

serve as a complement to the €600 million fund envisaged by the EC to compensate European exporters for their losses.

Under the CBAM, recycled materials, particularly aluminum and steel, are considered to have a zero-carbon footprint. Incorporating recycled aluminum into a material therefore reduces its carbon footprint and, consequently, its obligations under the CBAM. However, this also gives exporters the opportunity to artificially increase the level of recycled aluminum in the information provided to European importers in order to reduce the amount of carbon tax they will have to pay. This is a real risk that is difficult to counter, as it is not possible to distinguish between recycled aluminum and primary aluminum. Yet, various approaches could be considered:

- Setting a default value for recycled aluminum and steel. Exports to the EU, accompanied by accurate information on the characteristics of the recycling process used, would then be exempt from this default price.
- In the event of a loss of competitiveness in the aluminum sector due to oversupply in the EU market, whether in primary or recycled aluminum, a system of import quotas and tariffs could be put in place for aluminum imports. It would operate on a similar model to the one that exists for steel: once the quarterly import quota set by the EU has been reached, a 25% customs duty is imposed on additional steel imports. At the end of 2025, the EC proposed increasing the level of these tariffs to 50% and halving import quotas in order to prevent circumvention of the system.

## Industrial Accelerator Act: focus on operational "Made in Europe" requirements and strategic financing

The Industrial Accelerator Act (IAA) is much needed, and "Made in Europe" requirements in public tenders should be based on environmental and resilience criteria and be progressive to give sufficient time to value chains to adapt and avoid a significant rise of prices and an undue economic rent build-up. They should take into account gaps across the value chain and the need for investment in strategic capacities beforehand (i.e., ingot/wafer in the EU solar value chain – capacities are missing despite the EU having the right competences to develop those, but companies are cash-strapped), which cannot be immediately filled, hence creating the risk of bottlenecks. Hence, a phase-in principle should be included to account for the necessary scale-up of capacities across different parts of the value chain. The EIB should accompany the ramp-up of related domestic manufacturing capacity.

"Made in Europe" coupled with "Made with Europe" criteria should be designed as a tool to make clean industrial & Critical Raw Materials (CRM) partnerships with third countries more concrete by recognizing their contribution (at least to a certain extent) to the EU value chains and hence reinforcing diversification and resilience. For third producers, Europe represents a key demand hub and could turn into a manufacturing partner over the broader supply chain with benefits in terms of knowledge and technology transfer as well as job creation. This could embrace investment in countries outside Europe that form a ring of partners and friends, as they meet certain minimum climate, energy transition and security criteria, with mirror legislation in place and implemented. This ring would also be further developed by the geopolitical opportunity stemming from international carbon markets and credits to contribute to meeting the EU's decarbonization targets. Chinese investment into Europe should be envisaged with the objective for the EU not to be just an assembly hub for components produced outside Europe, through the lenses of guaranteeing genuine technology transfer, local value added and securing reciprocity for EU companies on the Chinese market. Chinese investors, in return, deserve predictability of regulation and reciprocal market access conditions.

The IAA also needs to provide financial mechanisms to crowd in private investment in order to scale up manufacturing facilities in Europe, including through public guarantees, first-loss schemes, etc. While the EU has a range of R&D&I (research, development & innovation) funds, it lacks a sufficiently profound and diverse toolbox for the industrialization of technologies, which requires more access to long-term capital. CRM value chain projects typically also have a low rate of return and require long-term financial partnerships, including tools to avoid becoming cash trapped.

Last but not least, the IAA should further address issues of streamlining permitting: require Member States to identify "ready-to-build" industrial land with one stop shop procedures in place and have a joint EU database for that, as well as reporting (on a public EU database) on the capacity (GW, tonnes, etc.) of industrial installations or power plants waiting to be connected to the network in each country and the evolution across the time. The adoption of an EU framework for environmental studies that would share information, help build transparency and trust, and where certain elements of a study done for the same industry in a country A could be possibly reused for country B, provided that local specificities are, of course, further reflected, could also facilitate public acceptance and accelerate projects.

To complement and align with the IAA and the revised Public Procurement Directive, EU's competition policy and decision-making process in cases of state aid should give increasing importance to the matters of resilience, European preference, as well as to the wide European benefits and positive externalities of a project (including from a

geopolitical/geoeconomic standing and international competition point of view) instead of a too narrow focus on competition at national/European level only.

A healthy level of competition must be preserved on European markets, but it should go hand in hand with the enhancement of the Single Market, of our industrial and employment basis and strategic autonomy.

## EU Competitiveness Fund

The EU Competitiveness Fund should include dedicated financing for the CRM sector of around €15 billion to be managed by the CRM Centre with the support of the EIB, where necessary. Placing it under the Resilience and Defense pillar is justified, as it would be broadly used across industries (beyond the energy transition technologies) to enhance economic security and defense.

The EU Competitiveness Fund must also increase funding for the energy transition, as in the current proposal, de facto only €26 billion of fresh money (outside the Innovation Fund which was already in place and depends on the evolution of EU ETS $CO_2$ prices) are dedicated to supporting clean technologies and industrial decarbonization (very far from the promise of €100 billion of the Decarbonization Bank). The previous framework had more than €250 billion in fresh money (loans and grants) for the energy transition under the Recovery and Resilience Framework (in addition to the 30% spending requirement across the entire EU budget, which is rightly maintained in the next MFF).

## CRM Centre

The EU CRM Centre must not turn into yet another simple layer of coordination on CRM at the EU level (as there is already the CRM Board, the Resource Platform, etc.) but be part of a game-changing strategy in the CRM space.

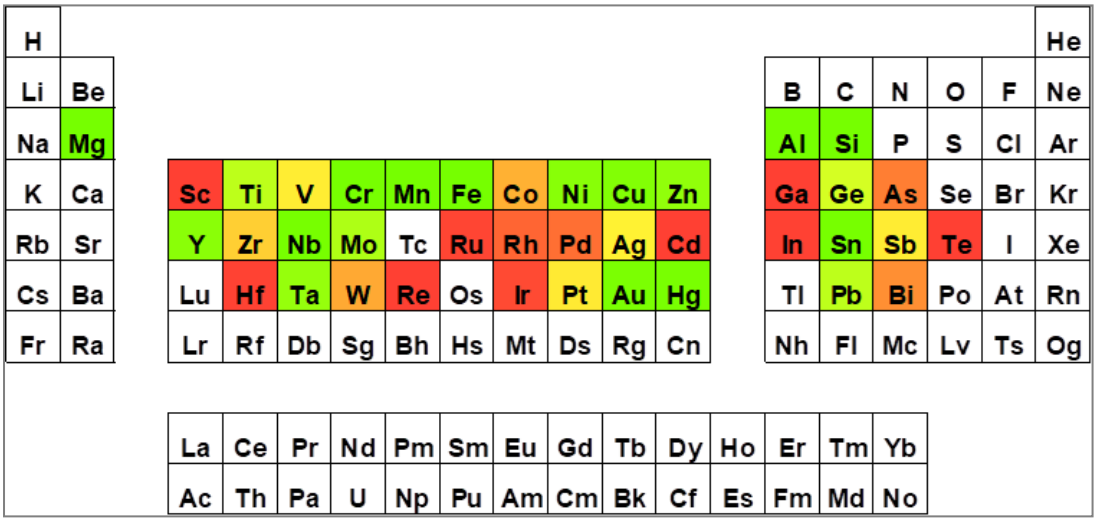
A lot of work and activities have been ongoing at the multilateral, European and national level. The external environment has also been rapidly degrading following China's restrictive measures. Current urgencies include:

- **Build strategic stockpiles of critical raw materials:** choices have to be made (what is most exposed to China, still not too expensive, where supply is tiny and inelastic, such as for companion metals, and absolutely critical for defense industries, for example), and instruments & management rules put in place. It must be clear that the stock cannot be fully ESG-compliant in times of crisis and that such a stock is not a magic tool that would exempt the EU and Member States from taking other supply chain resilience actions. It must also be clear that

developing these stocks requires discretion and very limited communication.

- **Develop EU refining industries of CRMs** as well as recycling industries alongside further tools to largely reduce the scrap outflow out of Europe. Environmental criteria and mandatory inclusion requirements could be notably used.
- **Develop mining and industrial projects** in countries that are signatories of partnership agreements with the EC and have financial tools that can be effective and operational in complex environments. Focus should be notably on heavy rare earths, copper and lithium. Concrete projects should be supported by Canada, Australia and Japan.
- **Engage in public diplomacy** with producing countries deploying export restrictive measures in order to entice them into win-win partnerships and continue to cooperate with G7 countries on building out infrastructure for mining countries and regions.
- **Assess situations** where there is a deliberate weaponization of CRM supplies to the detriment of Europe and propose defensive and offensive actions to the EC and Council against this third country to deter such actions or mitigate them.

**Figure 1. Assessment of the Periodic Table Heatmap Featuring the Risk Inherent to Inelasticity of Companion**

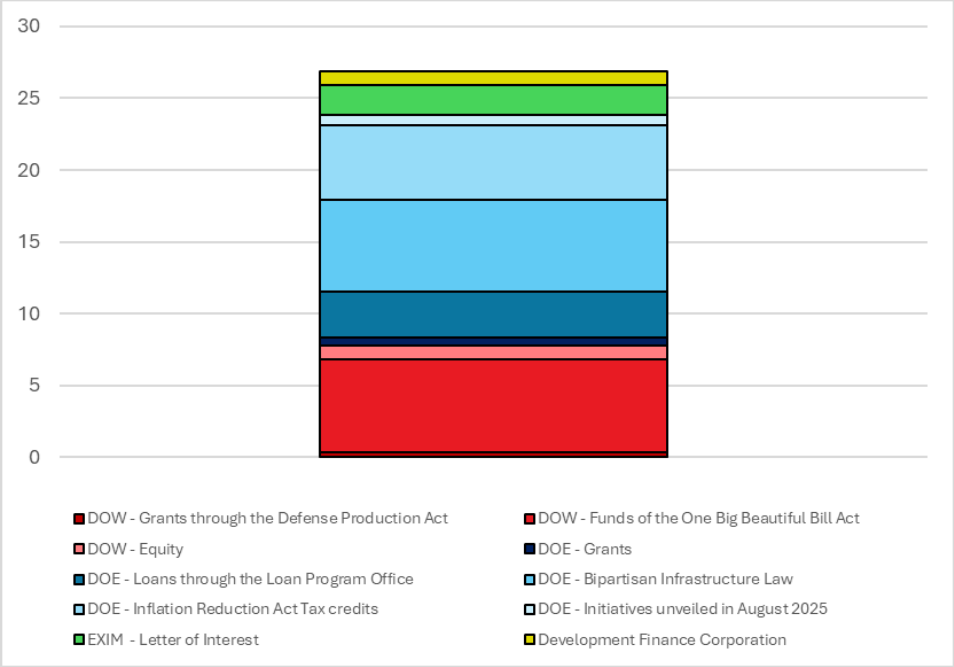



*Source: F. Rousseau, "'Why Price Signals Fail for By-Products: An Intrinsic Inelasticity Risk Metric for Companion Metals', manuscript submitted to Resources Policy, under review, 2026."*

Facing existential security of supply challenges in the field of critical raw materials, the EU's response has the merit to exist but is not yet at scale. The US mobilization is much bigger, similar to the Korean and Japanese ones. And the EU's own financial resources mobilized for this vital issue are just a drop compared with what has been allocated, for instance, for hydrogen support measures in past years. In addition, much of the

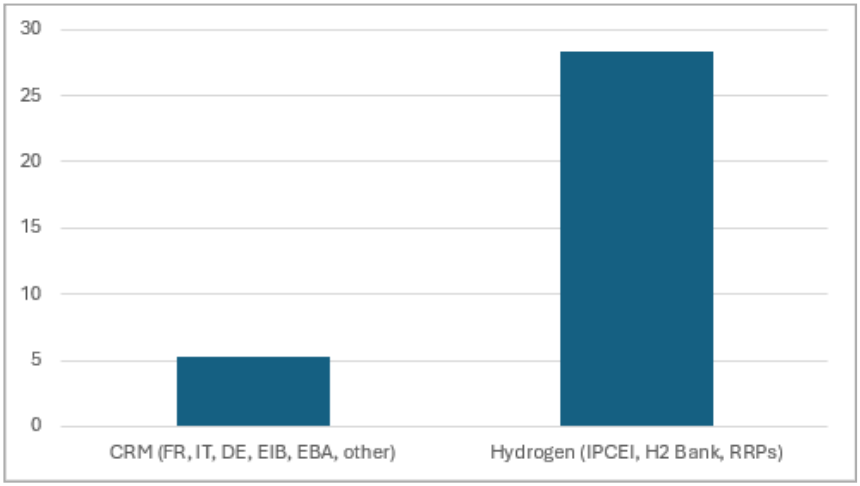
announced funding has not actually been spent, in part due to very little risk appetite, as well as difficulties in designing the right tools on a case-by-case basis.

**Figure 2. Estimated public support for CRMs in the United States for the period 2021-2026 in billion EUR**




*Source: Ifri, based on public announcements. DOW refers to the Department of War, DOE to the Department of Energy, and EXIM to the Export-Import Bank of the United States. Regarding the Inflation Reduction Act provisions, for the 48C and 45X tax credits, which do not cover only critical minerals projects, the assumptions adopted are approximately 10% of the funds allocated to this type of project. Currency conversion, from USD to EUR, is based on the January 1st, 2026, exchange rate (i.e., 1 EUR = 1.173 USD).*

**Figure 3. Estimated public support in the EU announced for CRMs and hydrogen since 2021, cumulative in billion Euros**




*Source: Ifri, based on public announcements and EC report on Energy subsidies in the EU. Under the CRM category were included the national funds announced in FR, IT and DE, the EIB commitment of €2 billion/year in 2025, the European Battery Raw Materials Fund of €500 million, and other potential national measures (e.g., tax credits) estimated at €200 million. Under the Hydrogen category were included the 2 H2 IPCEI, the 3 H2 Bank auctions, as well as an estimated amount of support that Member States announced to direct to the H2 sector via their Recovery and Resilience Plans).*

To be truly operational and effective, the CRM Centre should not seek to address all current urgencies. Stockpiling should be done at the national level, or at the level of several Member States with common needs and interests, using public-private instruments. With a dedicated budget, a team of experienced and knowledgeable people in the fields of trading, mining and financing, the CRM Center could:

- **Be a knowledge hub analyzing markets,** with the support of relevant industries and organizations such as Ofremi, making projections and conducting stress tests & turning lessons into policy proposals.
- **Help to develop processing and recycling industries in Europe:** these require B2B matchmaking, transparency of resources and scrap flows, identification and standardization of products and material categories to build up standardized resources, and knowledge of demand (localization, volumes, evolution over time) to build up business cases. This supply and demand aggregation work is essential.
- **Centralize and follow the EU's resource developments** and liaise with national mining coordinators, national and local governments, to track progress and get involved when there are difficulties.
- **Support mining, processing and refining investment** in identifying projects in Europe and beyond and being able to mobilize an EU-wide finance and investment eco-system, not least in using a wide range of tools (floor prices, equity investments, guarantees, etc.) to achieve the CRMA objectives, depending on the type of market/metal and company involved in the project.
- **Better coordinate the EU's actions** in the field by ensuring cross-DG oversight.

It is essential that information on critical metals in Europe (deposits, value chain overviews, investment opportunities, public support schemes) be centralized and easily accessible. This should enable investors to find out about projects under development in Europe and project developers to establish links with each other in order to set up off-take agreements and enhance the financial attractiveness of their projects. These links should also make it possible to build integrated value chains. This knowledge is also useful to public authorities in identifying European dependencies, which can only be done through an accurate overview of European production assets, which is currently lacking in a number of sectors. An EU CRM and Strategic Value Chains Database could thus be developed by the CRM Center, fed by information from national authorities and private actors (in particular project developers). This database should make it easy to find the following information: location of identified metal deposits in Europe; metallurgical and recycling production sites; factories involved in

the various stages of the energy transition value chains (solar PV, wind, batteries, EVs), with the option of breaking down this map by value chain and stage, etc.; plans for factories of this type and projects supported by the EU; EU support frameworks for this type of project (EIB in particular).

Despite some patchy action (such as the consultation on aluminum waste exports), the EU is still missing a comprehensive framework to limit metal waste leakage. Such waste remains highly strategic and is attracting increasing interest from recyclers outside the EU, a phenomenon further amplified by US tariffs of 50% on steel and aluminum, as these tariffs do not affect steel and aluminum scrap, which are free to enter the US market. It is also particularly true of copper and battery waste, in the form of black mass, currently largely exported abroad. The classification of black mass as hazardous waste, decided in 2025, will not lead to a real reduction in this leakage of European black mass, as it can still be exported to OECD countries, namely South Korea. On this matter, a deeper analysis and recommendations set are available in our previous paper.

To support recycling inside the EU and prevent this leakage of waste, several options could be considered:

- **Boosting funding for domestic recycling plants** as a priority and providing long-term demand via mandatory incorporation requirements based on environmental criteria and guarantee mechanisms for these offtake contracts. This should be complemented by a system of bonus/malus for products using recycled materials, and the creation of a European trading platform for recycled battery raw materials should be explored.
- **Promotion of recycled metals within Europe,** for example, through tax incentives for manufacturers who include recycled metals from Europe in their production.
- **Necessity to demonstrate that no European actor has the capacity to process a scrap before exporting it.** This could go through the creation of an export licensing system for metal waste, based, for example, on Articles XX b) and g) of the World Trade Organization (WTO), in that metal waste can cause pollution (presence of heavy metals and emissions linked to recycling), and its treatment contributes to the "conservation of exhaustible natural resources" (subject of Article XX g), in a circular economy approach. Such a system would not prevent exports but would require European exporters to demonstrate that processing capacities are insufficient in Europe, or that recycling is undertaken under equivalent environmental conditions abroad (e.g., equal $CO_2$ emissions output). According to the OECD, 49 countries applied at least one such licensing system to their exports of metal waste in 2023.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