



RESHORING OF THE BASIC CHEMICAL PRODUCTION IN EUROPE STRATEGIC AUTONOMY

POLICY PAPER

ECRN FEEDBACK TO THE EC CONSULTATION ON EUROPEAN CRITICAL RAW MATERIALS ACT



DEFINITION OF OFFSHORING AND RESHORING

Offshoring is the **relocation of a business process from one country to another**—typically an operational process, such as manufacturing, or supporting processes, such as accounting.

Offshoring in itself is **not a new phenomenon**, the first cases as we phrase it date back to the 60s and 70s. For several decades, offshoring, namely the (re)location of activities from one country to another, has been regarded as one of the most important strategies, in particular for companies headquartered in developed countries.

The **main aim of offshoring business processes consists indeed of the reduction of costs, which may be achieved through lower labour costs, attractive regulatory environments or the proximity to sales markets**. In Europe, half of the jobs that are lost in the EU15 to other countries are in manufacturing sectors; most of these go to central and eastern European Member States or to Asia.

The **Reshoring** trend started way before the pandemic: as of February 2019, the European Reshoring Monitor[1] contained 253 reshoring cases announced in the media from 2014 to 2018. It is interesting to note, more than 85% of reshoring cases occurred in 'Manufacturing' (218), followed by 'Information and communication' (12) and 'Financial and insurance activities' (9), following the same trend as offshoring cases.

The **main drivers of reshoring are similar to those of offshoring and include issues related to (i) cost, (ii) quality, (iii) time and flexibility, (iv) access to and management of skills, knowledge or infrastructure, (v) risks and uncertainties, (vi) market, and (vii) other factors**.

Current context:

In the last years, **the European Commission undertook multiple initiatives to boost the European industry and make it more competitive globally**, such as The New Industry Strategy or The EU Chemical Strategy for Sustainability Towards a Toxic-free Environment. All these actions are supposed to **lead us to the green and digital transformation of the European industry and enhance Europe's strategic autonomy**.

Additionally, in **2020, the Commission presented an Action Plan on Critical Raw Materials (CRMs), aiming to make Europe's supply more secure**. The action plan on CRMs supposes to booster internal EU capacity building (e.g., by developing viable industrial projects on CRMs exploration, extraction, processing and refining), and to strengthen and **diversify external sources of CRMs (e.g. by sealing strategic partnerships with resource-rich third countries)**.

[1] <https://reshoring.euofound.europa.eu/>

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The revision of the Critical Raw Materials Act has been announced for Q1 2023 in the 2023 Work Programme. The EU's security and defence capabilities are fragmented, which has increased strategic dependencies over the past few years. **The Commission's February 2022 roadmap on security and defence technologies focuses on ways to support research, technology development and innovation** and to **reduce the EU's strategic dependencies.** It promotes an EU-wide strategic approach to improve coordination of EU and national RTD&I programmes and instruments for critical technologies.



Just after these strategic decisions, the WHO announced the global COVID-19 pandemic. The COVID-19 crisis has strongly affected the EU economy. Its impact varies across ecosystems and company sizes. The crisis **exposed the dependencies of global value chains** and demonstrated the crucial role of critical raw materials and offshore supplies. It was especially visible in the chemical and pharmaceutical sector that struggled with the access to the components and ingredients.

Many companies **experienced dramatic exposure to supply chain disruptions** during the pandemic and the subsequent lockdowns due to their reliance on offshore supplies. When the market slowly recovered after the pandemic, the war in Ukraine has started.

Another aspect that must be taken under consideration is the **enormous demand for resources (energy, food, and raw materials)** that puts extreme **pressure on the planet, accounting for half of greenhouse gas emissions and more than 90% of biodiversity loss** and water stress. Scaling up the circular economy will be vital to achieve climate neutrality by 2050, while decoupling economic growth from resource use and keeping resource use within planetary boundaries[2].

[2] Communication COM (2020) 98 final

[3] https://single-market-economy.ec.europa.eu/sectors/raw-materials/areas-specific-interest/critical-raw-materials_en

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The supply of many critical raw materials is highly concentrated.

For example, **China provides 98 % of the EU's supply of rare earth elements (REE), Turkey provides 98% of the EU's supply of borate, and South Africa provides 71% of the EU's needs for platinum** and an even higher share of the platinum group metals iridium, rhodium, and ruthenium.

The EU relies on single EU companies for its supply of hafnium and strontium. The risks associated with the concentration of production are in many cases compounded by low substitution and low recycling rates[3].

98%

Of the EU's supply of REE are imported from China

71%

Of the EU's supply of platinum coming from South Africa

98%

Of the EU's supply for borate comes from Turkey

We need to learn from these lessons and realize that the **European industry and the chemical one especially is facing an extraordinary number of challenges now**. The European regions that are dealing with the consequences of these crises on the ground want to take the **frontrunners' role in supporting the European chemical industry as its strength and autonomy are essential to the well-functioning and integrated markets and to secure the safety of citizens**.

The ECRN welcomes the establishment of the Raw Material Alliance in 2020 which aims to build resilience and strategic autonomy for Europe's rare earth and magnet value chains. It should identify barriers, opportunities, and investment possibilities in the raw materials value chain, while also addressing sustainability and social impact. However, we can observe the very low level of the Alliance's activities recently which is unusual in the current circumstances.

Our aim is to significantly contribute to the ongoing EU legislation and bring the regional perspective to the attention of the European Commission.

We call the European Commission to:

- Revamp and **relaunch the Raw Material Alliance to build a solid European Platform for raw materials** that will work on the ensuring the secured and sufficient access to raw materials sources. The Platform should also **identify the potential investment projects needed to build the European raw materials capacity.**
- Devise a strategy for **smart reshoring, redeploy industries to the EU, increase production and investment, and relocate industrial manufacturing** with a special attention to the investments in ensuring the properly skilled labour force which is a precondition of making the reshoring bankable
- **Stimulate the relocation initiatives for strategic supply chains by providing incentives on the regional and national levels** and by creating a friendly environment for offshoring. A clear example is provided by the Japanese initiative aiming to finance 70% of the relocation costs for small and medium enterprises producing PPE and raw materials for drugs or Australia that promoted a time-limited incentive to invest by accelerating depreciation deductions and increased the threshold for tax deduction for capital investments[4].
- **Map and proceed with in-depth analyses on the strategic dependencies** to identify the **weaknesses and potential disruptions of the supply chains**. It will help to prepare the urgent measures that can be undertaken by the Member States, LRA's and chemical companies to tackle the problems.
- **Invest in new technologies that will increase the recyclability and sustainability of the raw materials use** and will support the transition to the circular economy (e.g., CRM recycling targets and a monitoring framework)
- **Design the set of tools that allows reacting fast to significant supply chain disruptions** and serious market failures, such as state aid, market interventions, incentives, and protection policy.

[4] National Library of Medicine, <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7417743/>

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- Establish a **dedicated financial scheme to fund cross-border and multi-country projects to help scale up the projects that aim to build the European raw materials autonomy** and shorten the value chains. A significant part of such a scheme should be allocated to **hydrogen projects**. ECRN welcomes the Commission's Hydrogen Bank institution as one of its main policy objectives for 2023, foreseen for Q3 2023, however, the other chemical subsectors require support as well.
- **Allocate special resources for investments in research, innovative projects and key enabling technologies**, especially on projects related to the replacement of fossil fuels and critical raw materials in the supply chains. At this point, ECRN welcomes the **European Commission revised Communication on State aid rules for research, development and innovation adopted on 19 October 2022**.
- **Provide clear and standardized international purchasing procedures** and common procurement instruments to remove trade barriers and assure fair conditions for all Members States.
- Establish **strategic partnerships with resource-rich countries** to secure the supply chains of critical raw materials and **diversify access to the resources**.
- Create a **broad stakeholders' involvement** in the consultations and decision-making process. **Involvement of regional authorities and SME's** will help to better shape the strategic decisions. Such an approach may show the similarities and specific features of the chemical sector in different regions and prepare the tailor-made solutions.
- Foresee that the **investments in the reshoring of basic chemical production in Europe will require a well-qualified and properly trained labour force**. The European regions will be the first in line to deal with these challenges. The **support for the regional partnerships on skills in the chemical sector** that meaningfully involve all relevant stakeholders (regional and local authorities, industry, educational providers, and social partners) will be **strongly expected**.
- **Support the interregional and cross-border cooperation** as the reshoring procedures may have an influence on the macroregion scale and the close collaboration may help to effectively respond to the reshoring requirements by providing the necessary resources.

All these actions will lead us to the resilience of the European chemical sector and increase its competitiveness globally. Without necessary actions, the chemical sector will have a tremendous problem with reshoring basic production in Europe.

Better resilience of supply chains can be achieved through a combination of approaches, ranging from finding substitutes, encouraging diversification, forging strategic relationships with suppliers, stockpiling, or encouraging domestic production.

Industrial strategic autonomy needs to be rooted in digital and green transformation. We also cannot forget about the social aspect of the reshoring. The main philosophy that stands behind the relocation of the production to the third countries was the low production cost and sometimes a very low labour cost. Currently, consumers' awareness and sustainable approaches cause changes in the consumers' behaviour and priority is given to locally manufactured products.

The major challenges for a regional economy to host a manufacturing reshoring strategy can be the lack of a skilled labour force and the unavailability of local suppliers. So, the presence of local production systems with dense networks of suppliers and skilled labour is crucial to **convince firms that they can reshore either the whole or part of their production into a specific local area.**

This is because a **dense and well-developed network of suppliers offers not only opportunities for collaboration but also a competitive benchmark for continuous growth.** In addition, access to skilled workers can be the result of synergies between local universities and industries that collaborate through **joint research or professional apprenticeship projects to nurture new talent**[5].

[5]<https://link.springer.com/content/pdf/10.1057/s42214-021-00112-x.pdf>

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The reshoring of the basic chemical production in Europe is not only limited to the chemical industry as such, but it will have far more consequences on other sectors such as the food and agriculture industry (fertilizers and pesticides but also flavours, additives etc), car industry (batteries and plastics components), pharmaceutical and medical industry, and constructions industry, textiles (for specialty chemicals) and consumer products (household products, including cosmetics).

Note

Many regions and local authorities felt left out through the preparation of the National Recovery and Resilience Plans (NRRPs), according to the latest Annual Report on Regions and Cities. **The involvement of local and regional authorities in the preparation of the national recovery and resilience plans was low.** The Regional and Local Barometer carried out by the European Committee of Regions (CoR) shows that just 1% of the respondents were fully involved, and only 9% were partially involved in the drafting of NRRPs. **Regions need to be active and vocal, as they are key to deployment of these initiatives[6].** Building resilient regional and local communities is the second CoR core political priority for 2020-2025.

[6]https://cor.europa.eu/en/engage/brochures/Documents/EU%20Annual%20Report%20on%20the%20State%20of%20Regions%20and%20Cities%202022/4739_Report%20State%20of%20R%20and%20C%202022_EN-N%20-%20main%20page.pdf