

Does the EU need a revamped critical raw materials strategy?

Blog post by Associate Giovanni Scomparin, 28 September 2021

The ‘Fit for 55’ package released by the European Commission in July will mandate EU member states to boost renewable energy deployment, upgrade the EU clean vehicle charging infrastructure and phase out internal combustion engine vehicles. Reaching these targets will require a sizeable – indeed unprecedented – amount of critical raw materials (CRMs). This has already prompted some analysts to suggest that the EU will need a revamped critical raw materials strategy, which will require the bloc to confront some basic realities.

The first is that genuine strategic autonomy in critical materials is going to be problematic in some key areas. The case of lithium makes the point. Its consumption is expected to grow 60 times by 2050; even improving the bloc’s internal supply, lithium will have to be imported either from South America (e.g., Chile) or China, with no significant alternatives. The same is true for other CRMs like magnesium – where any form of autonomy is likely to come up against a basic incompatibility between EU demand and supply.

The second is that China is going to be central to this challenge. Beijing extracts around 86% of rare earth elements (REEs) globally and represents about 98% of EU supply. REEs, a type of CRMs, are critical for the production of wind turbine generators and EVs. For the EU, *significantly* replacing this dependence is de facto impossible. Nonetheless, margin for manoeuvre exists with some other CRMs (e.g., gallium, natural graphite, silicon metal) which can be sourced from outside China. The EU’s strategy might therefore take the shape of a mix of strategic supply chain diversification in pursuit of its green objectives – and some very uncomfortable recognition of dependence on Chinese supply.

The third is that member states’ internal politics is going to be key. Countries with critical material deposits (e.g. Portugal, Slovakia and Finland) will inevitably favour a more assertive approach to domestic mining and supply and put less emphasis on trade strategies such as revamped FTAs like the EU-Chile deal. However, larger economies such as Germany, which under the Fit for 55 package will have to radically electrify its mammoth car industry, are likely to push for more focus on strategic trade links with extra-EU, better established, exporters. This also given that developing a brand new EU CRMs industry is an option with a far from certain outcome. Other member state positions will finally reflect a mix of practical and environmental considerations. As usual with the EU, the eventual strategy is likely do something of all three approaches.

A final observation is that the commission might choose to adopt a more granular approach to CRMs, especially once the Fit for 55 package’s targets will have been negotiated. This could translate into developing ad hoc CRMs "strategies" rather than a single general one, with the aim of better weighing the specificities of each material (e.g., more refined long-term demand

projections, replaceability, sourcing, etc.). Still, notwithstanding increasingly sophisticated frameworks, what is certain is that the dependencies involved will put the EU's evolving notion of strategic autonomy to the test.

All the points raised show the limitations of any new EU's CRMs strategy. A "damage control" approach, which fully recognises areas where the bloc cannot reach independence, would be more realistic. To further complicate the current scenario, the race to source a significant amount of CRMs will soon affect other regions in the world – thus adding a critical time element to the release of a new CRMs strategy.