



PARLIAMENTARY DIMENSION



Background note

Session 2

Strategic autonomy in the energy and mining sectors: the example of rare metals

With a keynote speech of Mr Guillaume Pitron, journalist, author of *The Rare Metals War: the dark side of clean energy and digital technologies*

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Strategic autonomy in the energy field: the example of rare metals

The energy transition implies the production and consumption of decarbonised electricity and the progressive phasing out of fossil energies. This decarbonisation is made all the more necessary by the war launched by Russia against Ukraine, which highlights the geopolitical consequences of the dependence of the European Union and its Member States on Russian hydrocarbon imports.

Whereas traditionally the emphasis has been on the security of energy supplies, **the energy transition also means focusing on rare metals**, which are indispensable components in renewable energies (wind and solar power) and electric batteries. These metals include in particular copper, aluminium, lithium, cobalt, nickel and rare earths.

This use of rare metals poses four economic challenges.

Firstly, it **carries with it a risk of inflation**, the prices of copper and aluminium having risen sharply over the last few years.

In addition, it **creates a risk of dependency on the producer countries**, whose economic, social and environmental standards are often lower than European standards. Broadly speaking, half of copper is produced in Chile and Peru, half of aluminium comes from China, and half of cobalt is produced in the Democratic Republic of the Congo (DRC). Europe also depends on Russia for its supply of strategic metals, especially aluminium, nickel, palladium and titanium.

Another important point is that **this use of rare metals is a source of negative externalities**, such as greenhouse gas (GHG) emissions, environmental pollution or nuisance for local populations. For example, the production of aluminium alone generates 1% of all the world's GHG emissions.

Finally, **this use of rare metals must become part of the circular economy**, with an emphasis on local production, but also collection and recycling of waste. There remains much to be done in this respect, with only 10% of lithium batteries being recycled, for example.

This dependency was first identified by the European Commission at the beginning of the 2010s, but it has taken a worrying turn since China has taken control of virtually all the resources of rare earths. The reinforcement of mining potential in Europe or the improvement of recycling technologies will play an essential role in the European Union's strategic autonomy in this area.

Proof of the growing involvement of public authorities, **France has, for example, adopted an objective of mining sovereignty as part of its reform of the Mining Code** under the "Energy-Climate" Law of August 2021, which sets the following objectives: "to develop the attractiveness of mining on national soil whilst ensuring demanding environmental and social requirements are met, to repatriate value chains, to secure channels of supply, to guarantee the knowledge, traceability and re-use of subsurface resources and to reduce France's dependency on imports."

In this context, several questions will be at the centre of this session: **what is the scale of the "hidden face" of the energy transition? To what extent is Europe dependent on the rest of the world for the supply of rare metals? How can this dependency be reduced, whilst improving the exploitation of mining potential or recycling technologies?**