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# DEPENDENCE ON STRATEGIC METALS: WHAT SOLUTIONS FOR THE ECONOMY?

RÉPUBLIQUE FRANÇAISE
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Ignored for a long time, France's dependence on metals - which are for the most part imported - has come back to our companies' attention during successive crises, brought about by a geostrategic context that is driving tensions on certain markets: rare earth metals, cobalt and aluminium. Such crises look set to become much more common as global demand increases in step with population growth and rising living standards. And yet, many sectors of French industry rely heavily on some of these metals, not least tungsten, cobalt, antimony and certain rare earth metals.

According to a recent OECD study, metal use is projected to increase from 7 to 19 Gt per year over the period to 2060, posing serious threats to supplies at a time when the digital, energy, automobile, aerospace and defence industries, among others, are dependent upon them.

On the supply side, the US Bureau of Mines (USBM) and certain private consultancy firms estimate that, in light of current global reserves, chromium has 18 years' worth of supply remaining, tin has 20, nickel has 30, manganese has 33, copper has 38 and cobalt, 60.

It is against this backdrop that the ESEC's Section for Economic Activities - after studying the industrial question and then energy - decided, in early 2018, to turn its attention to the issue of dependence on strategic metals. Several publications have since addressed this subject, on the part of the French Committee for Strategic Metals (Comes), French Environment and Energy Management Agency (ADEME), French Academy of Sciences and French Institute of International Relations (Ifri). In July 2018, the Minister of Economy and Finance tasked the Strategic Committee for the "Mines and Metallurgy" Industry (CSF) and General Council for the Economy (CGE) with a mission to study the vulnerability of raw material supplies for French businesses. This mission was still in progress at the time this opinion went to press.

This is not about "choosing" between dependence on oil or dependence on metals, or between the needs of industry and environmental constraints, but about managing all of these aspects. This opinion sets out to paint a cross-cutting picture of our country's dependence that takes in the economic, social and environmental aspects.

The overall challenge involves achieving growth and employment through more thrifty, efficient use, by decoupling economic growth and demand for materials. The concepts of the circular economy, defined by ADEME, provide useful general principles for breaking free from such dependence. This approach applies not just to metals but to all resources, whether we are talking about fossil fuels, land cover or biodiversity.

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## THE ESEC'S RECOMMENDATIONS

The recommendations below are the result of a deliberation process among organised civil society and naturally draw inspiration from studies and reports conducted on strategic metals over recent years - without reiterating the measures that have already been outlined, such as in the road map on the circular economy, which is expected to deliver meaningful change.

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## THE ESEC'S PROPOSALS

- **1.** Display strong political will to secure French industry's strategic metal supplies. Such resolve must be evident through enhanced political leadership, deliberations on the coordination between the various public intervention structures and improved inter-company coordination.
- **2.** Act upon the political will by making financial commitments in terms of posts in the public organisations concerned, chief among which the French Geological Survey (BRGM), Comes and ADEME.
- **3.** Act upon the political will through enhanced bilateral and multilateral diplomacy aimed at securing supplies.
- **4.** Identify the French and European sectors investing in recycling solutions and, together with the National Council for Industry (CNI), look into ways of developing them. This concerns both the traditional sectors, special steels for example, and emerging sectors alike, including batteries, mobile phones, aircraft and ship dismantling.
- **5.** Include the material flow analysis aspect in environmental communication on the basis of operational and standardised life cycle assessments.
- **6.** Via Bpifrance, look into setting up seed capital funds for developing a product-service system.
- **7.** Launch an assessment with all the stakeholders of tax measures for supporting the ecological transition in the waste industry.
- **8.** Include material content, along the same lines as carbon content, in customs policy and global trade agreements.
- **9.** Initiate multilateral consultations on principles aimed ultimately at managing metal resources, viewing them as global public goods of humanity.
- **10.** Advocate for the definition of European standards (the intention being for these then to become global standards) on material flow analysis, the circularity index and definition of a product passport.
- **11.** Complete the European Directives (lifespans, sales of goods) with information allowing material loss to be limited: material analysis, toxicity analysis, reparability, availability of spare parts. Increase the legal guarantee period either up to 5 years or up to the average lifespan of products.
- **12.** Urge Member States to improve scrutiny over incoming and outgoing waste streams. Define and apply penalties in the event of neglectful practice.
- **13.** Undertake reform of the mining code. This should include involvement of stakeholders, definition of environmental undertakings, including with regard to facility closure and post-closure, links between exploration and development and adaptation to the specific statuses of Overseas territories.
- **14.** Redefine the consultation process leading to delivery of permits for exploration and then, where applicable, for development.
- **15.** Scale up the capabilities of the BRGM, French Research Institute for the Marine Environment (Ifremer) and French Agency for Biodiversity (AFB) to gain a clearer idea of resources and impacts. In this context, ask the BRGM to update the National Mines Inventory (in conjunction with Ifremer for marine resources) with a view to bolstering its research and exploration missions.
- **16.** Resume study of the 2014 plans for a French State-owned mining company, set up with funding from the Government Shareholding Agency (APE), or broaden the remit of the BRGM and Ifremer to forge development partnerships. A consensus could not be reached on this recommendation.
- **17.** Revive multidisciplinary courses in geology, basic metals and mining, especially at HND and Bachelor degree levels.

You can find the whole opinion on the website www.lecese.fr