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RAW MATERIALS

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Raw materials: Towards a global resource war?

While Europe tries to ensure undistorted access to raw materials for its industries, commercial conflicts over export restrictions are a growing area of tension in international trade, with developing countries defending their right to curtail global access to their resources in support of domestic economic development.

"World history has been influenced by hostile resource wars and much of the European expansion and colonisation of Africa was to control raw materials," said Mogens Peter Carl, former director-general of the European Commission's trade department.

Speaking in Brussels on Tuesday (1 March), Carl, who is now senior advisor at communications consultancy Kreab Gavin Anderson, warned that "there is a danger of a resource war even today – but from the commercial aspect only".

The EU is already highly dependent on imports of raw materials for its industry. The dependency rate for minerals ranges from 48% for copper ore and 78% for nickel to 100% for materials such as cobalt, platinum and titanium.

Due to this import dependency, the EU's raw materials strategy, updated in February this year, places particular attention on fighting export restrictions, including export taxes, bans and regulated exports.

The world is already witnessing a resource war today, Carl said, referring to a series of ongoing commercial conflicts caused by Chinese export restrictions on rare earths.

"China restricts its exports but allows local companies to use and transform them into finished products – that's what the conflict is about," Carl explained.

The export restrictions allow China's domestic processing industry to develop and become more competitive on world markets – eventually undermining EU business competitiveness.

Last October, German companies complained that they were being pressured by Beijing to boost their investment in China if they wanted to secure access to rare earth minerals.

Export revenue is Africa's economic development

But EU outrage over Chinese rare earth export quotas is just one illustration of the wider EU policy of fighting export restrictions, regulations and taxes in developing countries in order to ensure continuous supplies for European industry at competitive prices.

Many developing countries are highly dependent on raw material exports and most of their revenue comes from export taxes, which can be used to promote industrialisation and economic development at home.

Indeed, the EU's efforts to liberalise trade and secure unrestricted access to precious resources in African and other developing countries is seen by those nations as an attempt to undermine their economic development.

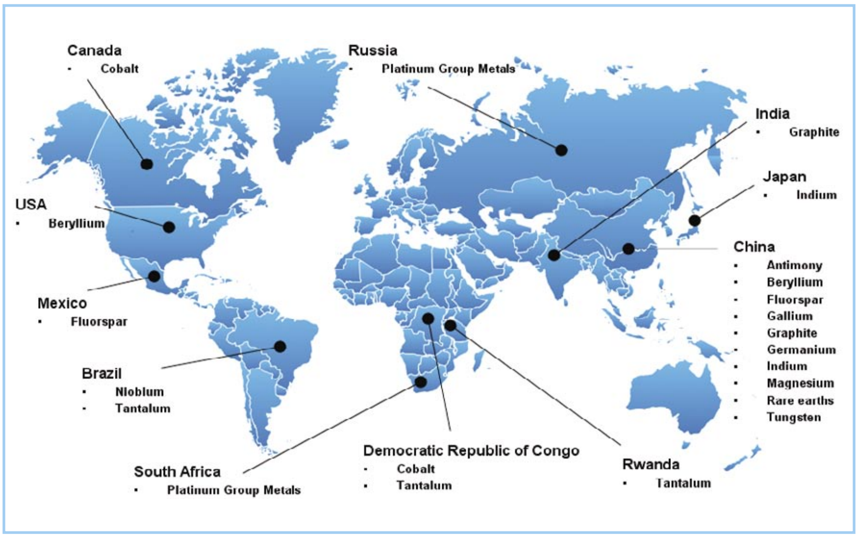
Oxfam International, an NGO fighting poverty and injustice, slammed the February policy paper issued by the European Commission, which identified trade agreements as one of the three pillars of the EU's raw materials strategy. For the NGO, the EU's promises of a better partnership with Africa are no more than "window dressing for a forceful diplomatic and trade strategy".

According to Oxfam, the bloc is merely seeking to continue pursuing its own narrow commercial interests in its relations with developing countries, with little real effort to ensure mutual benefit.

The EU executive is not only attempting to force developing countries to ban or curb the use of export taxes, Oxfam stressed, it is also "trying to negotiate new rules on investment that will give European companies unprecedented access to developing country raw materials on the same or even better terms as local businesses".

Referring to mining in Africa as "a hot potato," Frank Hoffmeister, deputy head of staff for EU Trade Commissioner Karel de Gucht, stressed that Africa still holds some of the largest unexploited mineral resources in the world.

But while the EU is still the continent's main trading partner, its relative share is declining as China expands its commercial relations there, Hoffmeister noted, adding that trade between Africa and China had grown ten-fold between 2002 and 2008, from €10 billion to €140 billion.



WTO a 'no-solution'

Europe is unsure how to respond to export restrictions imposed by developing countries, because they often relate to legitimate concerns over the exporting country's economic development and EU trade diplomacy is often seen as arm-twisting by its partners.

Rufus Yerxa, deputy director-general at the World Trade Organisation (WTO), acknowledged that export restrictions are clearly "an area of growing tension" in which new disputes are arising.

But Yerxa noted that the WTO does not have any specific agreement to regulate trade in raw materials and that many issues related to them are actually dealt with outside its structures. These issues include ownership of natural resources, investment policies, environmental protection and the fight against corruption in international business transactions.

He said the body's rules were initially developed to deal with import-related protectionism rather than export restrictions. WTO rules on this are therefore yet to be tested, he noted.

A pending WTO case on raw materials brought up against China by the EU, US and Mexico in 2009 is expected to provide further guidance on the issue, Yerxa said.

The official also stressed that WTO is a consensus-based organisation, and that any new rules at international level can only be created if everybody agrees on them.

Solutions lie the EU's own backyard

For the former director-general of the European Commission's trade department, Mogens Peter Carl, focusing merely on trade and export restrictions will only solve short and medium-term issues related to raw materials. The potential threat of scarcity in the long term will remain, he warned.

According to Carl, international negotiations represent only 10% of the total solution on access to raw materials, whereas further exploration and exploitation of new resources could offer an extra 20%. Meanwhile, "the major part of the solution – 70% – is on our own backyards," he said, citing Europe's complete domestic control over activities such as waste collection and recycling, waste exports and the promotion of research on substitution and recovery.

The WTO's Yerxa also argued that trade measures are typically "the second best policy option to address problems associated with raw materials". For him, the best option is domestic policy, because it addresses the problem comprehensively and "in a more undistorted manner".

EU wants to tame 'financialisation' of commodity markets

Speculation on commodity markets and excessive concentration in the mining industry is hampering companies' access to resources at competitive prices, in turn affecting economic growth and prompting EU policymakers into action.

While global metal and mineral markets generally follow a cyclical pattern based on supply and demand, the 2002-2008 period was marked by unforeseen high prices triggered by soaring demand in emerging countries, according to the European Commission.

Currently, worldwide consumption is picking up after a slowdown due to the economic and financial crises, and is forecast to grow steadily in the coming years, due to continued strong demand from economies such China and India.

Price volatility

However, in recent years, commodity markets have experienced increased volatility and unprecedented price movements that cannot always be linked to changes in supply and demand.

This trend can be perceived in all major commodities, including energy, metal, mineral, agriculture and food markets. And there is a growing consensus that excessive speculation on commodity derivative markets plays a major role in spurring volatility.

In February, the European Commission proposed to tackle the challenges in commodity and raw materials markets, also pointing to that argument.

"It is clear that price movements across different markets have become more closely related, and that commodity markets have become more closely linked to financial markets," the EU executive noted.

"In order to secure supplies of raw materials for European industry for the coming years, we need to link this policy with our reforms of the regulatory framework for financial markets," said Commission President José Manuel Barroso, stressing the need for better understanding of synergies between the two.

'Financialisation' of commodities markets

Sujiro Seam, deputy director for food security and economic development at the French Foreign Ministry, said keeping an eye on price volatility is important because the existing tensions between supply and demand will only increase in the long term as supply will be crunched by increasing demand.

Seam added that commodity markets have seen a tendency towards greater "financialisation," with investment bankers developing commodity-led products, adding to volatility.

In some cases such volatility means "disconnection between price evolution and fundamental elements of the markets," the expert added, explaining that actual production, consumption or stocks of commodities no longer determine the prices.

Much international attention has focused on agricultural commodities and on how volatility of food prices affects producers, consumers and security of supply. But parallels can be drawn with trade in raw materials, as "financial markets don't make any distinction between the different commodities, be they agricultural, energy or mineral," said Seam.

Therefore, any action taken to improve transparency of financial markets will indirectly help mineral markets as well, stressed Seam.

The European Commission's plans to curb speculation on commodities include forcing traders to disclose their positions and imposing so-called "position limits" to stop mega-trades that could upset markets.

The EU executive also plans to review the bloc's legislation on market abuse and on markets in financial instruments to improve the integrity, transparency and stability of commodity derivatives markets.

Iron, steel moving to quarterly trades

Downstream industries in the manufacturing sector – the steel and car industries in particular – have voiced concerns over fair access to raw materials at affordable prices.

Rising raw material prices are reducing profit margins in the manufacturing industry, carrying a threat of factory closures, lay-offs and the relocation of industry to cheaper regions.

European steel and engineering industries, represented by Eurofer and Orgalime, for example, have called on EU governments and authorities to tackle competition distortions in raw materials markets and "to prevent speculation on raw materials in order to support the long term future of the industrial value chain in Europe".

They are particularly worried about the high degree of market concentration in the seaborne iron ore market, with just three companies (Vale, BHP Billiton and Rio Tinto) controlling almost three quarters of the global market, which has given them a significant pricing power.

Robrecht Himpe, CEO of ArcelorMittal Flat Carbon Europe, explained that over the past 20-30 years prices of iron ore have been very low – around $40 dollars a tonne - as supply was greater than demand, materials suppliers were scattered and deals were based on yearly contracts.

This was the case for decades until 2004, when China's ramping up of steel production created for the first time an imbalance between supply and demand, and prices started to rise. In parallel, consolidation took place between global iron ore exporters Vale, BHP Billiton and Rio Tinto.

At the beginning of 2010 the 'big three' moved from the traditional long-term yearly contract pricing to a quarterly sales system for raw materials in an effort to move closer to higher spot market prices. This revolutionary move saw iron ore prices in the first quarter of 2011 rise to $130 per tonne from $70 in the first quarter of 2010, Himpe said, adding that current spot prices between India and China are at $190.

According to Eurofer, the move to quarterly pricing has significantly increased the price volatility of raw materials.

European steel and engineering industries stress that iron ore is "the basis for the EU's most important value chain" and if unjustifiable pricing jeopardises steel production in Europe, "severe consequences for the whole value chain" should be expected, with millions of jobs affected in different sectors.

In order to bring in price stability and to give markets a known price for a six-month period, iron ore futures markets are currently being developed by banks. But some argue that the markets are not mature enough to have futures markets on iron ore yet.

EU industry ministers meeting

EU industry ministers will meet next week to debate the Commission's raw materials strategy, including aspects related to financial markets.

"The conclusions are very good," said a diplomat from one of the big EU member states, saying the draft text recognises "the link between price volatility and the development of financial market" and in particular "the derivatives market".

"The Council now clearly says that the transparency and integrity of those markets needs to be improved," the diplomat said, adding this was "something that had not been said until now".

"And this axis is the priority of the French Presidency of the G20," the diplomat added with satisfaction.

Raw materials: Are they truly scarce?

The EU should not restrict itself to China-bashing over rare earth supplies and instead focus on access to all raw materials and emphasise recycling and substitution, experts say.

A long-awaited European Commission paper on raw materials, tabled on 2 February, has failed to raise enthusiasm among EU businesses and other stakeholders.

Many described the paper as a mere repetition of a previous 2008 initiative and called for better prioritisation of its three pillars of action – trade, domestic mining and recycling (see 'Background').

German centre-right MEP Karl-Heinz Florenz (European People's Party), president of the raw materials group in the European Parliament, said he could not see "any new initiative" in the proposal and lamented the lack of "clear weighting between the pillars".

The majority of stakeholders also seem to have rejected the inclusion of a whole new chapter on financial and commodity markets, saying these should be dealt with separately.

The European Parliament's raw materials group, which was set up two weeks ago to work on an EU strategy, is not even going to address these markets.

The new chapter was added to the Commission paper at the last minute at the request of France, which has vowed to take on commodity speculators as part of its G20 presidency.

Scarcity

Concerns over scarcity and supplies of raw materials have emerged as the global population continues to grow and the world's poor continue to lift themselves out of poverty.

The rapid industrialisation of emerging economies, such as Brazil, China and India, has intensified competition for raw materials, pushing up prices on world commodity markets.

However, some scientists are now challenging this widely accepted view. "We are not running out of minerals, at least not any time soon," Professor Roderick Eggert of the Colorado School of Mines told a European Parliament hearing in January.

Speaking in Brussels, Eggert, a geochemistry graduate who holds a PhD in mineral economics, challenged such perceptions and said businesses and policymakers should focus instead on "costs, geography and timeframes".

By cost, Eggert referred to both the economic cost of extraction and recycling, "which varies significantly from one location to another". He also drew attention to broader, "less quantifiable" environmental and social costs associated with those two methods of production.

For the European Commission, the "criticality" of a raw material primarily relates to the concentration of production in a handful of countries. But Eggert disputed this claim and argued that "geographically concentrated production cannot be a risk factor in terms of access to raw materials".

In his view, geographic concentration and dependency on imports are simply not the same thing. And in many cases import dependency can even be good if foreign sources are better and available at lower cost than domestic ones, he said.

Eggert also stressed the difference between short and long-term supply issues. In the short term, the real issue is "the reliability of

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producers and the risks associated with availability," which depend on existing production capacities and are strongly influenced by investment decisions and past government policies.

Long-term issues are very different and are linked to geological availability, the evolution of production techniques and the role that public policy plays in facilitating them, the professor went on.

The Commission's new strategy also calls on member states to draw up "national minerals policies," draft land-use planning policies for minerals, and ease the authorisation process for mineral exploration and extraction.

Even regarding rare earths, Eggert believes that non-Chinese sources of supply will ultimately come on to the market, as a result of "miner mania" – the expected boom in exploration for deposits that contain rare earth elements.

Despite their name, rare earths are actually not that rare, with a third of the world's known reserves located in Greenland and deposits existing in the US, Canada, Australia, South Africa and even Sweden, according to Reinhard Bütikofer, a Green MEP.

Had it not been all too easy in the past to rely on China to supply Europe's high-tech industries with rare earths, policymakers would not have fallen asleep at the wheel, he wrote in a recent op-ed for EurActiv.

"Within the next couple of years, production is already expected to come online in the United States and particularly Canada. As such, others argue that their supply risk is more of a medium to long-term issue," Bütikofer said.

Available, but at what price?

If, like Eggert and Bütikofer suggest, raw materials are not really scarce, the EU could decide to boil down its strategy to ensuring that industry access is maintained at a competitive price.

The European Commission says the 2002-2008 price boom was marked by surging demand from emerging countries and that the trend will continue with further industrialisation of China, India and Brazil.

As European demand for materials remains relatively stable compared to the surge in China, the Old Continent is losing buying power on world markets to emerging economies, and is forced to gear up its raw materials diplomacy via trade agreements or attacks against China at the WTO.

But rare earths are not the only case in point. In sectors such as steelmaking, market concentration has also played a big role in pushing up prices, the Commission says. While reserves of iron ore are abundant, supplies have tended to concentrate into the hands of a smaller number of global companies, such Australian mining giant BHP Billiton, British-Australian firm Rio Tinto and Brazil's Vale.

Last month, Bloomberg analysts estimated that the three companies were set for record profits totalling $52 billion, representing an average 66% jump in annual earnings last year compared to 2007. In contrast, the largest publicly-traded steelmakers, including ArcelorMittal, may have seen an average slump in profits of 30%t over the same period, the analysts predicted.

The European steel industry, represented by Eurofer, said it was "outraged" by recent increases in iron ore prices of nearly 100%. The confederation warned of its "significant impact on steel prices and as such on the whole manufacturing and construction value chain, and ultimately on the European consumer".

Cutting-edge R&D

Yet industry and lawmakers alike acknowledge that potential raw material supply risks should be seen as an opportunity to direct the EU economy towards a more resource-efficient model.

Reducing consumption of materials while pushing for more recycling and substitutions are seem as key to reducing the bloc's dependency on imports and steering the Union towards a more resource-efficient economy.

And with proper investment in research and development into new recycling technologies and substitution materials, Europe can secure a leading position in this knowledge area and create new green jobs, proponents argue.

Stéphane Arditi from the European Environmental Bureau (EEB), an NGO, noted however that "legal drivers" such as ambitious targets for recycling need to be put in place to provide the recycling industry with incentives to invest in R&D and new plants.

The European Commission is currently preparing a roadmap to a resource-efficient Europe, due in June. According to Environment Commissioner Janez Potočnik, the map, which will also address raw materials, might introduce resource-efficiency targets for member states.

Europe urged to take global lead on recycling

The risk of a raw materials supply shortage should be seen as an opportunity to boost research into substitution and recycling technologies to reduce Europe's import dependency. EurActiv spoke with leading businesses and NGOs on how to create a competitive recycling market.

"First, we need to reduce our consumption, second, try to substitute and increase the resource efficiency of our processes and third, recycle," said Stéphane Arditi, product and waste policy officer at the European Environmental Bureau (EEB), an NGO.

Only then should Europe seek to intensify commercial exchanges to make up for shortfalls of certain imported materials, he added.

Arditi was commenting on a European Commission policy paper, adopted in February, which identified three pillars in response to potential supply shortages of key raw materials: securing trade agreements, domestic mining and recycling.

Arditi broadly supports the Commission's agenda but says the three pillars need to be better prioritised. His argument is that Europe's import dependency is likely to increase if recycling and efficiency are not prioritised over trade and domestic mining.

Supporting a viable recycling industry

However, Arditi warns recycling will not happen without "legal drivers" such as recycling targets, which would give the recycling industry long-term visibility and assurances that its investments will be profitable.

In this sense, he said further focus on mining and trade initiatives could jeopardise research into substitution and recycling. If the recycling industry has to compete with virgin material extraction, then businesses will be more reluctant to set up recycling facilities, he argued.

"This is exactly what happened with rare earths," Arditi explained. "Our current recycling techniques and methodologies are not really profitable and there is a kind of reluctance from the industry to develop that further intensively, because the shortage of rare earths is not an absolute shortage, but is linked to Chinese export quotas," he went on.

In short, if a new mine is opened somewhere in the world, it can jeopardise investments in the recycling industry, Arditi argues.

"I'm not saying that only recycling can save us. But prioritising will enable us to get all the potential we've got in terms of R&D, technology and innovation in recycling. This is good for Europe because these activities are located here and could create jobs here," Arditi said.

While rare earths are currently dominating the headlines on raw materials, Arditi argues that merely focusing on them does not help to address the real problem of resource scarcity.

Of course, rare earths are very difficult to recover, he accepts, but technologies do exist to recover other critical resources like platinum and lithium. And a new legal framework on these could herald a step-change in boosting the effectiveness and economic viability of recycling, he believes.

Towards high-tech recycling

The NGO's views are strongly supported by Umicore, a Belgian-based global leader in waste recovery and recycling. The multinational firm operates the world's largest precious metal refining installation, which partly runs on electronic scarp.

The company is advocating a move from the traditional waste business to quality high-tech recycling in order to close the loop on all materials. Stephan Csoma, Umicore's senior vice-president of government affairs, explained that recycling is made possible due to the value attributed to waste, or because the volume of waste, which includes vehicles at the end of their lives, is such that society cannot cope with it.

For Csoma, it would still make sense to recycle scarce and critical raw materials even though the process is not economically viable, because doing so would contribute to the EU's resource security.

Urban mining

In its February policy paper, the European Commission identified urban mining – the recovery of resources contained in waste – as holding untapped potential to improve access to raw materials.

But the returns from urban mining are not as high as from virgin extraction. Speaking in Brussels, Csoma highlighted the huge difference in concentration of materials in urban mines compared to primary mines: "In a primary gold mine you have five grams of gold in one tonne of ore, whereas in one tonne of circuit boards you have 250 grams of it and in one tonne of mobile phones 300-350 grams."

If all mobile phones and laptops were recycled, one fifth of the cobalt which is mined today could already be recycled, he said, noting that only 2% cell phones are currently collected worldwide.

The same applies to catalytic converters, which use platinum metals. Csoma says that for one tonne of platinum materials – platinum, palladium, and rhodium – drawn from catalysts, "you have two kilos of these materials versus five grams in the ore body".

Even though the amount of recovered raw materials is low in urban mining, the main advantage is that it requires less energy than primary production to produce the materials. The consequence is that less CO_2 emissions are generated. In a carbon-constrained world, this should help producers to keep costs down.

Meanwhile, the EU continues to export large quantities of electronic scrap to developing countries, where precious materials escape treatment and recovery. When e-waste is exported, only 25% of gold is recovered compared to 100% with best-available technologies, Cosma said. With the best technology, not only gold but 15 to 20 other metals are recovered as well, he pointed out.

"It is not worth having a great collection and dismantling system in place if we then export the scrap and the result for Europe is zero recovery," Csoma said, emphasising that recycling should always be considered as a holistic system.

Parliament group to dig up raw material issues

A special group was set up in the European Parliament last month to collect first-hand information on the issues affecting the availability and price of raw materials. Group chair and German MEP Karl-Heinz Florenz told EurActiv about his objectives.

MEP Karl-Heinz Florenz

Climate change has tended to dominate the global environmental debate for some time now, said European People's Party (EPP) MEP Florenz.

But he believes that climate change is just the tip of the iceberg, underneath which lies a much bigger problem – raw materials.

Whereas the CO2 problem can be solved within 10 to 30 years, "there might not be enough raw materials to build the very highly developed technologies we need to combat climate change, such as electric cars," he warned.

The MEP welcomed the European Commission's raw materials initiative but described February's strategy paper as very disappointing, particularly given that its scope was broadened to cover other commodities, such as agriculture. "I think that it is the wrong strategy, because agriculture is too important to be mixed together with iron ore, for example," he said.

Florenz also questions the lack of prioritisation between the Commission's proposals. The strategy addresses access to international markets, domestic mining and recycling, but does not establish a clear hierarchy between them, he complains.

"All three are important, but I think that recycling policy is the most important," said Florenz, who also lamented that the plan published last month did not include any new initiatives and merely repeated what the EU executive had already said back in 2008.

MEP group to rework definition of 'criticality' of materials

The lawmaker plans to help the Commission to clarify its strategy by communicating the input of a cross-party group of MEPs on raw materials over which he presides.

The group was established on 15 February to work together with a special European raw materials "club" of companies and industry members. The club is to be set up shortly.

Asked to outline the group's priorities, Florenz cited rare earths, foreign affairs and trade, as well as recycling. Regarding cooperation with industry, the group will seek expertise from companies on the ground and will consider what exactly is currently going on in Africa, India or China. Exchanges with the WTO, the OECD and the US administration are on the group's agenda.

In its work, the group will exclude agriculture, refineries and the oil business in general. But it will include companies that use oil to make cosmetics or chemicals, Florenz said.

Agreeing on a definition of what are critical and non-critical raw materials also features among the group's priorities. One option is to see whether criticality could also be defined as the amount of materials needed and not just their relative scarcity. The US, for example, defines materials as critical according to whether reserves are still available, whereas the European Commission is placing more emphasis on whether global production is concentrated in a handful of countries.

The group is not aiming to become "a second debate club," but will rather seek to find out where the problems are and identify tools that can be used to solve them, said Florenz. He also promised that the group would react quickly to information received and seek direct action from international organisations and the EU institutions, instead of pursuing the lengthy process of getting a resolution adopted by Parliament.

Chinese rare earth exports and practices in Africa

Asked about China's export restrictions on rare earths, the lawmaker said he was not opposed to joint action with the US at the WTO. "The Chinese must realise that we cannot accept everything," he said.

Last October, German high-tech companies reported their first supply shortages of rare earths following a rapid diminution in Chinese export quotas.

Florenz stressed that if China continues to restrict exports of rare earths and ceramics, European companies will not only experience supply problems for all kinds of electronic goods, but the consequences will also be felt in other industries like steel-making, as the sector needs ceramics to keep its iron ore furnaces burning.

According to the lawmaker, the United States and Europe need to take the lead together on raw materials to influence worldwide definitions, standards and regulations, perhaps by teaming up with other countries in South America and technology leaders such as Japan.

Florenz also drew attention to Chinese practices in Africa. The Chinese come with a suitcase of money and use cash to buy iron ore and copper mines, which they then close to push material prices higher, he complained. Even all Europe's steel companies together could not buy mines with cash because they don't possess the necessary cash flow, he noted.

To understand why, it is useful to bear in mind that Chinese operations are government-led, whereas EU businesses are private companies, he said.

The European Parliament's raw materials group will investigate what exactly is going on regarding the purchase of mines and analyse what influence this phenomenon has on international markets and prices, Florenz noted.

To establish a link between development policy and raw materials policies – which is one of the focuses of the Commission's strategy for ensuring access to materials – the lawmaker believes that a fairer price for materials must be paid to mining companies in Africa so that workers also get fair salaries and their working conditions improve.

"We have to help them to develop their countries and for this, the price paid for raw materials needs to be increased," he said.

Domestic mining and environmental concerns

Regarding domestic virgin material mining in the EU, the MEP warns that "some tough debates" lie ahead, as environmental organisations are unhappy with the idea of opening mines, in particular within the Natura 2000 network of protected sites.

"We have some mines in Germany that were running well and then closed because the companies went bankrupt, and reopening was not allowed later because of the Habitats Directive," he noted.

The European Environmental Bureau (EEB), a green NGO, says Natura 2000 sites represent an obvious "reserve" of raw materials in the EU and is concerned that mining activity in these areas will be restarted, even for non-critical materials.

"Critical materials are defined as materials not available or easily available in Europe. So, we are clearly talking about materials which are not found in Europe. I don't see how our mining activity could help us on that," argued the EEB's Stéphane Arditi.

For him, the focus should rather lie in recycling and reusing materials from their end-point of consumption, which is usually in cities. "It is clear that urban mining and recycling can maybe make a difference here," he said.

Arditi pointed out that mining activity already taking place in Natura 2000 sites mainly relates to digging out aggregates for the construction sector. However, these are not identified as strategic for the industry. In addition, construction and demolition waste recycling is clearly not optimal yet in Europe, he underlined, leaving plenty of scope for improvement.

Late last year, the Commission tabled guidelines on how to reconcile environmental protection in Natura 2000 areas and the development of extractive activities. Indeed, the guidelines do not automatically rule out non-energy extraction activities in or around these protected sites.

Automakers worried about metals, not rare earths

The European car industry today seems more worried about the rising price of metals than about China's moves to restrict rare earth exports. EurActiv spoke to Renault and other car industry representatives, who predict that tensions will have been alleviated within three to four years.

Rising oil prices and tighter CO2 emission standards have pushed car manufacturers to find alternatives to the combustion engine.

Among EU carmakers, Renault has been at the forefront of this development, with plans to sell one million electric vehicles in the world by 2016, together with its partner Nissan.

But doubts have been raised as to manufacturers' ability to secure access to key raw materials needed for the batteries of electric vehicles.

For instance, a kilo of neodymium, a rare earth mineral, is necessary to make a high-power, lightweight magnet used in electric motors of hybrid cars, such as the Toyota Prius.

And China, which produces more than 95% of rare earths, has gradually reduced its export quotas as part of an effort to retain more of the minerals for domestic manufacturers, a policy that has raised alarm among nations with industries that depend on them for high-tech applications.

Renault not worried

But not everybody is worried. Philippe Schulz, an expert in energy and raw materials at French carmaker Renault, believes the hype around rare earths will have evaporated three years from now.

"We are not exposed to a risk shortage of rare earths," Schulz told Autoactu.com, pointing out that there are 800 years worth of reserves available. "We are only exposed to a time-limited rise in cost because of rising demand in a producer country," he told the news site.

"Three to four years from now, there will be no tensions around rare earths anymore," Schultz said.

Schulz explained that the current concentration in rare earth mining in China is a relatively recent trend that can be overturned. "Before 1985, China was not an actor on this [rare earth] market," he pointed out. "From the year 2000, it has replaced the other producing countries like Brazil and India, because its prices were much more competitive. Countries then closed their mines."

But with prices on the rise, the US is now planning to re-open its old mine in Mountain Pass, California, and Australia will soon re-open its mine in Mount Weld. And "other countries will follow," Schulz affirmed.

Nicolas Meilhan a senior consultant at Frost & Sullivan, a market research and consulting firm, agrees. "For a number of countries, it is now becoming more profitable to exploit rare earths than to import them."

"Rare earths are not a critical issue for the auto industry," Meilhan said.

Technological choices to reduce dependency on rare earths

For carmakers, technological choices are also key.

Toyota, currently the world leader on electric vehicles with its flagship hybrid car Prius, announced at the end of January that it was developing an engine "using less rare earths".

And Schulz said the Renault-Nissan alliance, has managed to reduce its dependency on rare earths by adapting its technology. As a result, electric engines manufactured by the alliance "need ten times less chemical elements than other engines using a technology called 'permanent magnets'," he said.

However, lithium remains an issue for the batteries used in the car industry, as it faces strong competition from other industrial sectors. Car manufacturers have found alternatives using nickel and zinc but lithium-ion batteries remain the most widely used technology for now.

Schulz, however, says lithium is not a problem as Renault-Nissan has secured its supplies "via agreements allowing battery suppliers to have a guaranteed supply of lithium".

And in any case, the electric car market is expected to remain marginal, representing about 10% of vehicle sales in 2020, according to the most optimistic scenarios. By then, new technologies relying on other raw materials will come onstream, experts believe.

Lead shortages looming

But before electric cars dominate the market, the automotive sector will have to continue relying on lead for its batteries.

And there, problems could come up more quickly than generally imagined. The auto sector is the largest consumer of lead, with 60% of world production going to car manufacturers, according to Prim'finance, a fund management company specialising in raw materials.

And according to the US Geological Survey, the world's lead reserves will have expired by 2030 if the 2008 production levels are maintained (3.5 million tonnes were produced that year).

Problems are similar for copper, which is utilised in automotive cables and sold for $11,000 a tonne. "Studies announce 35 years worth of reserves of copper if we base ourselves on 2008 production levels," said Nicolas Meilhan of Frost & Sullivan. "But this deadline could come closer when taking into account the rapid growth in demand for copper," he warned.

When pressed to mention what other metals could become problematic for the car sector, industry representatives quickly fall silent. Steel? Aluminium? Iron? Platinum?

"This question is too strategic," said several people in the industry. "All raw materials are exposed to a risk of brutal rise in prices or time-limited shortages," said Schulz. "One has to anticipate them and put solutions in place," he added.

Recycling as an alternative way of securing supplies

In its February initiative, the European Commission identified recycling as one of the three pillars of is raw materials policy, the other two being trade and domestic mining.

On the diplomatic front, EU automotive manufacturer and supplier associations ACEA and CLEPA have called for "a systematic consideration of raw materials supply in bilateral free trade agreements with third countries," taking example on the agreement struck between Japan and India.

When it comes to recycling, this is something the industry has been doing for a long time, says Renault's Schulz. "First, our vehicles must be recycled up to 85% by 2015. Second, in collaboration with our parts suppliers, we work upstream to introduce recycled parts in the production of our vehicles."

"But this circular economy, which consists in putting back parts in the production cycle is difficult to implement and can be costly given the changes that this implies. It must be made on a case-by-case basis with each supplier," Schulz explained.

Volvo Trucks is one of the rare manufacturers to communicate its statistics on how recycled parts are used in its production lines. "30% of the weight of new trucks are made of recycled raw materials, with rates going up to 50% for iron and 97% for cast-iron," the company says.

Patrick Poincelet, head of recycling at CNPA, a French association representing professionals in the automotive value chain, said: "The problem with recycling comes mainly from a lack of downstream markets for recycled products. As long as we don't put in place competitive markets, recycling will not become a sufficiently attractive solution for industry."

"Taking only the case of vehicles, only 3% of recycled plastics used in the cars are coming from vehicles that we have destroyed," Poincelet points out. "And this is because we don't have a downstream industry which allows reintroducing recovered materials in new vehicles in a competitive way."

China eyeing Europe's used cars for recycling

Each year, 12 million vehicles are being destroyed in the European Union, representing a significant potential for raw materials recovery. And China has now started to tap this potential to emerge as a major player on the recycling market for cars.

Huaren Resources Recycling (H&R), a Chinese company, is buying up pre-treated car wrecks from Europe and ships them to China where they are stripped of their precious components: aluminium, steel, lithium, rare earths, lead, plastics, palladium, etc. H&R has announced an objective to recover two million car wrecks from Europe by 2012.

"According to documents that this Chinese company has showed us, recyclers in Spain and Austria have already accepted their offer," said Patrick Poincelet.

"We need the European Commission to take up the issue of recyclable waste exports to China if we want to secure our raw material supplies," he stressed.

EU to table oil, mining transparency bill

To combat illegal exploitation of conflict minerals in Africa, the European Commission is expected to table by November a proposal for an EU law asking large companies to reveal their oil and mining activities to shareholders.

The EU executive will table a proposal to include "mandatory country-by country disclosure" of money flows between mining companies and governments, a senior Commission official told the Financial Times.

The EU law will use the so-called 'Dodd-Frank' bill in the US as a minimum standard, said Klaus Rudischhauser.

The EU proposal is expected to be agreed eighteen months after the Dodd-Frank Act, a bill on so-called "conflict minerals", was adopted in the US (July 2010).

The US law requires oil, gas and mining companies listed on Wall Street to publicly disclose their income and tax payments. It also requires companies to certify whether their products contain minerals from rebel-controlled mines in Congo and other countries with oil and mining activities.

Minerals such as cobalt from the Democratic Republic of Congo (DRC) attracted international attention after being labelled 'conflict' or 'blood minerals' as the mining of these resources is reported to finance armed groups, which are waging bloody wars and committing atrocities to intimidate local populations in order to secure control of mines.

EU's 'Dodd-Frank Plus'

Rudischhauser told the FT that the EU executive is currently mulling whether to "include other companies not in the extractive industries, such as forestry or consumer goods," in the EU bill and whether there should be "disclosure of profits in addition to disclosure of taxes".

With plans for fuller disclosure, the initiative is already being dubbed 'Dodd-Frank Plus'.

The issue of transparency in the extractive industries is being addressed within a wider context of reforming EU financial markets. Late last year, a public consultation was organised to gather European stakeholders' views on financial reporting by multinational companies.

Rudischhauser's comments came on the fringes of the Extractive Industries Transparency Initiative (EITI) global conference, which gathered leaders from governments, companies and civil society organisations in Paris this week.

The EITI aims to strengthen governance by improving transparency and accountability in the extractive sector and supports improved governance in resource-rich countries through the verification and full publication of company payments and government revenues from oil, gas and mining.

The EU already supports the initiative and the Commission's February communication on raw materials suggests further enhancing European financial and political support for the EITI, and helping developing countries to implement it.

An EU 'Dodd-Frank' bill would be more binding than the EITI.

WTO opens China to rare earth challenge

Confidential World Trade Organisation findings regarding China's export limits on raw materials have boosted the case for a European Union challenge to Chinese export curbs on rare earths, sources say.

"China has export restrictions on raw materials that are questionable, according to the WTO," a source familiar with the case said on Tuesday (1 March). "So that will be taken seriously when the EU considers China's restrictions on rare earths too."

The European Commission last year started screening the legality of plans by China to cut back exports of rare earths, which are minerals crucial to production of high-tech goods from fibreoptic cables to smartphones and electric cars.

China, whose mines supply 97% of the world's rare earths, says export reductions aim to protect the environment and scarce resources - an argument that would comply with world trade rules enforced by the WTO.

But trade sources say a confidential, preliminary report by the WTO found flaws in similar reasoning used by China in an ongoing legal fight to defend its export restrictions on raw materials such as bauxite and magnesium, used to produce steel, aluminium and chemical products.

The EU, United States and Mexico sued China at the WTO in 2009, complaining that limiting exports of these raw materials through quotas and red tape discriminated against foreign manufacturers and gave Chinese producers an unfair advantage.

The WTO - which rarely comments on current disputes - has publicly questioned whether Chinese curbs on exports of some raw materials to conserve resources meet the stated goals or merely favour Chinese manufacturers.

Its preliminary report, which has been handed to the parties to the raw materials dispute, is confidential until publication in April. Both sides can then appeal. If China loses it will have to make amendments to export controls to avoid penalties.

The United States said last month there was a possibility of a US challenge on Chinese rare earth exports at the WTO.

For information on EurActiv Special Reports...

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Des eurodéputés planchent sur les matières premières

Des députés européens de tous bords ont formé un groupe pour collecter des informations sur les problèmes liés aux matières premières. Selon son président, l'allemand Karl-Heinz Florenz (PPE), cette question est bien plus importante que celle du changement climatique. [...]

http://www.euractiv.fr/eurodeputes-planchent-matieres-premieres-article

EurActiv.de

Im Schatten Chinas: Autobauer setzen auf Recycling

Europas Autobauer scheinen sich heutzutage mehr Sorgen um die Preissteigerungen bei Metallen zu machen als um Chinas Absicht, den Export von seltenen Erdmetallen zu begrenzen. EurActiv sprach mit Vertretern der Automobilindustrie, darunter Renault. Ihrer Einschätzung nach werden die Spannungen innerhalb der nächsten drei bis vier Jahre nachlassen. [...]

http://www.euractiv.de/ressourcen-umwelt-00/artikel/autobauer-setzen-auf-recycling-004465

EurActiv.com.tr

Avrupa'da tehlike sinyalleri: Hammadde savaşları kapıda mı?

Avrupa sanayi ihtiyaçları için ham madde erişimini en üst düzeyde tutmaya çalışırken ihracat kısıtlamaları nedeniyle yaşanan ticarî anlaşmazlıkla uluslar arası ticarette giderek daha büyük bir sorun hâline gelmeye başladı. Öte yandan gelişmekte olan ülkeler ham madde karşılığında kendi ekonomik gelişimlerini sürdürebilmek için destek bekliyor. [...]

http://www.euractiv.com.tr/ticaret-ve-sanayi/article/avrupada-tehlike-sinyalleri-hammadde-savalar-kapda-m-016243