



RAW MATERIALS IN THE EU ECONOMY

SPECIAL REPORT | DEC. 2019 - FEB. 2020
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Securing access to critical raw materials has become a strategic objective for the European Union as the bloc moves towards ever-more digitalisation and green, high-tech products. In this special report, EURACTIV looks at some of the essential building blocks of the 21st century economy.

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Europe waking up to raw materials 'criticality'

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By Dave Keating | EURACTIV.com



Raw materials

Access to critical raw materials used in digital and clean technologies was labelled as “a strategic security question” in a European Green Deal unveiled today (11 December). A new industrial policy is expected to complete the picture next year.

Last month, when the new European Commission presented its latest thinking at the EU’s annual Raw Materials Week, the audience was full of concerned faces.

There are plenty of methodologies available, but whether a raw material is critical to the EU economy is determined chiefly by the industries’ different material dependencies.

And with domestic mining in the EU decreasing and import dependency increasing, industry players worry the realities are not understood by policymakers.

There are 27 materials on the EU’s “critical raw materials list,” including phosphorus, natural rubber, vanadium, and borate. All are

considered both important to the EU economy and of worrying scarcity and therefore benefit from specific attention at the EU level to guarantee their sourcing and encourage their reuse.

Accessing these raw materials is growing increasingly difficult however, as developing countries require more and more of them. The market supply is dwindling, and that’s bad news for places that are resource-

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poor, like Europe.

“Emerging markets like China are mining more and are creating greater demand for minerals and metals as their growing middle classes buy more household goods and cars and housing in these countries expands, and that is a good thing,” said Jane Korinek, an economist and trade policy analyst at the OECD.

“But the greater demand for goods inevitably creates greater demand for non-renewable raw materials like metals, minerals and petroleum,” she said.

TRADE TENSIONS

In Brussels, the challenge is well understood by the European Commission.

Access to resources is “a strategic security question” the EU executive said in its European Green Deal, unveiled today (11 December).

Ensuring the supply of critical raw materials used in clean technologies, digital, space and defence applications is “one of the pre-requisites to make this transition happen,” the Commission said.

Critical raw materials “are irreplaceable in solar panels, wind turbines, electric vehicles, and energy-efficient lighting” which are essential for the energy transition, the EU executive said in its latest Report on Critical Raw Materials and the Circular Economy, published in January 2018.

And as global demand for digital and green technologies continues to rise, ensuring frictionless trade in raw materials has become paramount for Europe.

“In some raw materials, Europe is resource-poor,” Korinek said. “But this is a challenge that is wider than Europe,” she added, saying some minerals and metals are produced only in a few countries.

In the case of at least five strategic

minerals and metals, 95% or more of them is produced only in three countries, Korinek said.

“Such geographical concentration means that trade barriers, in particular barriers to the export of raw materials, can have very strong impacts on downstream industries for which these raw materials are inputs.”

As trade tensions increase between the US, Europe and China, concerns are growing over the availability of raw materials. There are calls to beef up the EU’s critical raw materials list and to start thinking about a return to mining in Europe.

“Since most economies today are highly integrated with one another, many industries rely on imported materials and parts in their production processes,” said Korinek.

For the time being, countries have not looked to restrict their exports, she said. But should they start doing so, “it could severely disrupt certain strategic global supply chains,” she warned.

“Perceptions of uncertainty of supply of minerals can incentivise some countries to open mines that were previously considered unprofitable. If trade tensions continue and countries wish to guard against supply risks, they may invest more heavily in extractive industries.”

MINING AT HOME

The ability for Europe to increase its mining activity is limited, however. Many materials are just not available here, and some that are have already been mined out. But the EU suffers from a lack of information about which materials are available for mining, and industry players are trying to convince the Commission to increase raw material tracking.

“The Commission realises that at this moment in time we don’t have any more expertise for the mining industry,” said Aurelio Braconi, senior raw materials manager at European steel industry association Eurofer.

“They’ve started to set up a database and information exchanges among all the different geological services in the member states. That’s a good thing, because mapping for the mining industry is good, because then you know exactly the places where you can have resources at a concentration that make mining economically feasible.”

An increase in data could help EU countries increase mining for the materials deemed critical – particularly in concentrations that would ensure that mining them is profitable.

But Braconi is concerned that instead of expanding the raw materials list, the Commission may shrink it next year. Some materials critical for the making of steel such as coking coal, may be removed soon, even though the Commission admits it is a “borderline” case.

RESPONSIBLE MINING?

The increase in raw materials monitoring isn’t just meant to benefit supply certainty for Europe’s companies. The intention is also to help companies and consumers ensure that these raw materials were sourced sustainably and responsibly.

At Raw Materials Week last month, the European Commission launched an online portal called Due Diligence Ready!, which will provide businesses with guidance on how to check the sources of the metals and minerals entering their supply chains.

It will help them ensure that their use of raw materials respects human rights while improving transparency and accountability across their value chains.

“Today, market demand for responsibly sourced raw materials is growing,” said former EU industry commissioner Elżbieta Bieńkowska while unveiling the system.

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“These materials are essential to new business sectors and clean technologies like high-power batteries, and businesses should ensure that each step in the value chain is carried out in a transparent, responsible and sustainable way.”

The OECD has launched a similar scheme, called the Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-affected and High-risk areas.

ALTERNATIVES, REUSE AND RECYCLING

Of course, another way to avoid this import dependency is to start using alternative materials. Companies are looking into this, but the possibilities are at the moment limited.

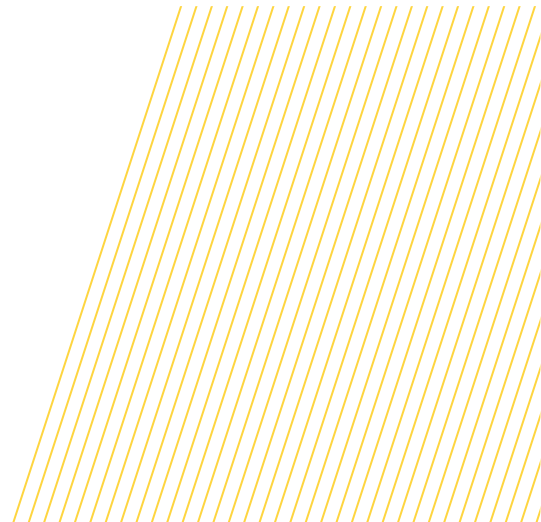
“Often, these types of raw materials cannot be substituted, at least not in the short-term, and not without investing in costly research and development to find new or alternate technologies that use more readily-available raw materials,” said Korinek.

She says the greater possibilities in the short-term lie in increased reuse and recycling. Braconi says the steel sector is looking to greatly increase its use of recycled scrap in order to insulate itself from the volatile import market dynamics.

There are many reasons for the EU to be concerned about its sourcing of raw materials. Thierry Breton, the EU’s new industry commissioner who took office on 1 December, has placed a strong focus on European industrial sovereignty and emphasising the industrial pillar of the European Green Deal, to be unveiled later today.

In March, the Commission will adopt a new EU industrial strategy that is likely to revise the critical raw materials strategy.

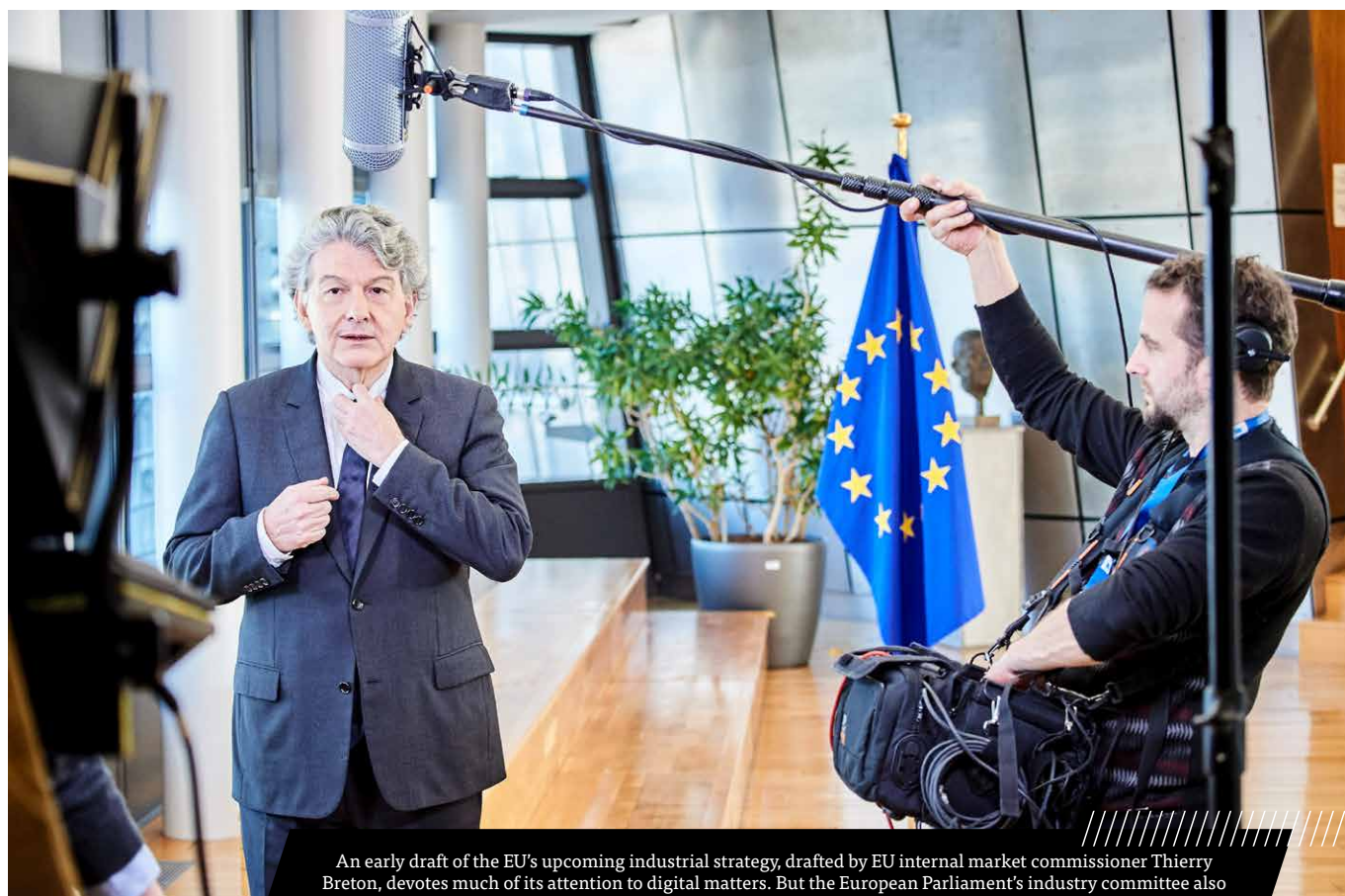
Over the coming months, concerned segments of industry in Europe will be working to convince him that the raw material situation needs to be tackled with urgency.



MEPs push for raw materials focus in EU's new industrial strategy

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By Dave Keating | EURACTIV.com



An early draft of the EU's upcoming industrial strategy, drafted by EU internal market commissioner Thierry Breton, devotes much of its attention to digital matters. But the European Parliament's industry committee also raised concerns about raw materials availability. [European Union, 2019 Source: EC - Audiovisual Service]

Foreign competition and access to raw materials top the agenda for steelmakers and other basic industries as they await European Commission plans to accompany the EU Green Deal.

As the deadline for publication of a new industrial strategy for Europe looms, some members of the European Parliament are becoming concerned that it will focus too much

on digital technology and not enough on manufacturing sectors such as steelmaking.

In January, the Commission kicked off a public debate about a European "Climate Law" meant to enshrine the EU's 2050 climate neutrality target into hard legislation.

But other accompanying measures are also being considered in order to calm industry concerns that the plan would reduce Europe's

competitiveness versus other areas of the globe.

Commission President Ursula von der Leyen has been pushing for a carbon border tax, which would apply to imports from countries that do not have the same stringent climate legislation as the EU, in order to shield EU companies from competition with foreign companies that can spend less

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to produce goods – a phenomenon known as ‘carbon leakage’.

A wider effort to address industry’s concerns will come in the form of an industrial policy strategy.

Expected in March, the strategy will aim to revitalise European industry in a way that is compatible with the Green Deal’s ambitious climate goals. An early draft of the strategy, seen by EURACTIV, appears to devote the majority of its focus to digital issues.

But as EU single market commissioner Thierry Breton learned last week during an appearance at the European Parliament’s industry committee, concerns are not limited to emissions reductions or digital challenges.

RAW MATERIALS ON THE MENU

MEPs on the committee brought up the issue of raw materials scarcity, an increasingly worrying phenomenon that is both about the nuts and bolts of the traditional economy and the hardware behind the emerging digital economy.

Europe’s sourcing of the materials needed for the basic building blocks of the economy, such as steel, and new technology, such as smartphones, is growing precarious.

“In Europe our industry is extremely dependent on raw material from outside Europe,” Mauri Pekkarinen, a Liberal Finnish MEP, told Breton. “The so-called scarce metals, we’re 90% dependent on China, and we have wanted to promote electric vehicles on the European market. But we ourselves produce very little of those raw materials, cobalt and others, which we need for the batteries,” she said.

“European industry is faced with a huge stress test,” agreed Dan Nica, a centre-left Romanian MEP. “We need to meet our requirements under the

Green Deal, and also make sure we are competitive. What worries those in the industrial sector is that: the very future of industry in Europe.”

“We’re getting steel imported from Turkey, the Ukraine, and more and more from China. That’s going to give rise to losses on the European steel market,” Nica said.

CRITICAL LIST OF RAW MATERIALS

Jerzy Buzek, a centre-right Polish MEP and former chair of the Parliament’s industry committee, said the issue of resource scarcity has been particularly affecting the steel sector.

“Steel production, it requires coke,” he said, referring to coking coal. “There is no technology today that can replace it. We are dependent in the EU, Germany, France, Romania, Poland. We have a big steel industry, and it’s necessary to import coke from Mozambique, China, and Russia,” Buzek said.

“So that is why it is crucial to keep coking coal on the critical raw materials list in 2020,” the former Polish Prime Minister told Breton. “This will depend on your decision. So we expect that you will keep coking coal and coke on the list [of critical raw materials].”

The EU’s list of critical raw materials is due to be updated in March alongside the industrial strategy. It is designed to identify which raw materials are both essential to the EU economy and face supply risks. Among the steel sector, concerns have been expressed that some materials, such as coking coal, could fall off the list.

Breton told the committee members that the list’s revision will be informed by what’s available in Europe. “Industry is going to need critical materials, and it’s going to become more crucial in supply,” the French EU commissioner agreed.

“We’ve defined this list, we’ve updated it, but in our geopolitical

risk assessment, we need to see what we have available in Europe. We have a lot of critical materials in Europe that we haven’t found, and with the new generation of Copernicus [satellites] we’ll be able to develop these technologies which will enable us to get a better idea of what we have,” Breton said.

The Commission has underlined better data as a way to get a better understanding of raw materials available in the EU and deal with Europe’s supply challenges.

As Europe’s basic industries await publication of the von der Leyen Commission’s industrial vision, policymakers will have a delicate balancing act to perform.

In the end the strategy will have to address three essential concerns: competitiveness in an era of new climate targets, preparedness for an era of new digital technology, and security of Europe’s basic industrial needs. Breton will have his work cut out for him if he wants to deliver a truly effective strategy.

Coke and nickel keeping EU steel industry up at night

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By Dave Keating | EURACTIV.com



In total, the OFCE estimates that France could make €3 billion in revenue off this new tax, which would cost taxpayers three times less than Macron's previously proposed climate-energy contribution.

The European Commission is considering removing coking coal from a list of critical raw materials. The steel industry, already facing difficulty importing the raw materials it needs, says this could spell disaster.

Europe's steel industry is facing critical headwinds. Trade tensions between the EU and the Trump administration in the United States have put the sector in a world of uncertainty.

And a new, more obscure threat may be looming around the corner – a loss of raw materials critical to the

production of steel.

Donald Trump's decision to slap 25% tariffs on foreign steel last year has already hobbled European steelmakers, who are struggling with a glut of steel they can no longer export.

The European Commission has put in place "safeguard" measures to stop the glut by limiting incoming steel that is being diverted from the US market. But the steel industry says it has not been effective.

Lakshmi Mittal, CEO of steelmaker ArcelorMittal, told the German newspaper Frankfurter Allgemeine Zeitung earlier this year that there are around 500 to 550 million tonnes

of overcapacity in the steel industry – a quarter of global steel production.

According to Mittal, this shows the EU measures aren't working. "Further measures are urgently necessary given the import tariffs US President Donald Trump has imposed on steel imports to the United States," he said.

"The EU's safeguard clauses have gaps – it's too easy for exporters to evade them and the impact is massive: we have a steel glut."

The problem, the European steel industry says, is that much of the overcapacity is the result of state

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subsidies in Asian economies. Those subsidies can come in curious forms. For instance, the EU believes Indonesia is giving its steel imports into Europe an unfair advantage by restricting the export of the raw materials used to make steel.

NICKEL COMPETITION

Nickel ore, used in the production of stainless steel, has also come into focus. Indonesia has massively increased its production of stainless steel in recent years, taking advantage of the fact that it mines about a quarter of the nickel ore in the world.

The situation has become so serious that last month the European Commission launched a complaint against Indonesia.

"EU steel producers are under a lot of pressure and are suffering from the consequences of global overcapacity and unilateral trade restrictions," said Cecilia Malmström, EU trade commissioner at the time.

"The export restrictions imposed by Indonesia put further jobs in the EU's steel industry at risk," she said.

The European steel industry says Indonesia is using the nickel export restrictions to undercut them. "Indonesia is sitting on vast quantities of nickel, they've set up an entirely export-oriented stainless steel industry," says Aurelio Braconi, senior raw materials manager at European steel industry association Eurofer.

He says the Indonesian steel is flooding into the European market at cut-throat prices because of the country's access to nickel. The situation shows just how critical raw materials can be.

"We have a double exposure," he explains. "We don't have enough resources in Europe and we don't have the possibility to compete."

Indonesian stainless steel exports have gone from almost nothing two

years ago to becoming the second largest exporter worldwide and the largest to the EU. All the while, it is implementing strict control over the export of nickel ore, making it harder for other countries to produce stainless steel.

The country's capacity is expected to expand to more than 11 million tonnes by 2025, even though its internal market demand was estimated at just 200,000 tonnes in 2018.

The Commission's safeguard exercise is monitoring the situation on the steel market. But at the time it was launched two years ago, Indonesia wasn't exporting stainless steel, so the country hasn't been included.

"The market conditions changed so fast, so every instrument set up by policymakers should be adapted to have an update when needed for raw materials," says Braconi.

COKING CONCERNS

Nickel ore isn't the only raw material the European steel industry is struggling to procure. Coking coal, which is used to produce steel in an oxygen furnace, is also mostly imported. This specific type of coal is a very small proportion of the overall coal that is mined. But it's essential to the steel-making process.

Because it is both so essential and so scarce in Europe, the European Commission has placed it on a list of "critical raw materials". But in 2017, the Commission moved it to a list of "borderline" materials that may be removed at a later stage.

Now, the steel industry worries it could be removed altogether when the list is updated in March next year. "Coking coal for the steel industry in the short term is still a critical material," says Braconi. "Maybe in the next 10 to 15 years there could be new technologies to replace it, but for now we need it."

Poland is the only place in Europe that is mining coking coal in any

significant capacity, although there is also a small mine in the Czech Republic. The vast majority is imported from elsewhere in the world. And with trade tensions and economic trends threatening raw materials supply, a sudden shift in the import situation could mean steel is no longer available for European construction.

Already, the industry says there has been a decoupling of raw material market dynamics from supply and demand. "Previously raw materials would fall with falling demand," says Braconi. "In recent months we've seen prices of steel collapse even as raw materials prices remain high."

China is the largest producer of coking coal, accounting for more than half of global supply. Australia produces 15%, and Russia and the United States 7% each. EU production of coking coal accounts for just 1% of world production. Most EU imports of coking coal come from Australia, Russia and the United States.

JSW, a Polish company mining the material, is urging the Commission not to remove coking coal from the list.

"Taking into account the growing demand for steel, the demand for coking coal will increase significantly," the company says. "Bearing in mind the significant CO2 emissions from coking coal imported from distant countries, it should be crucial to secure a stable, reliable domestic production meeting the European environmental standards."

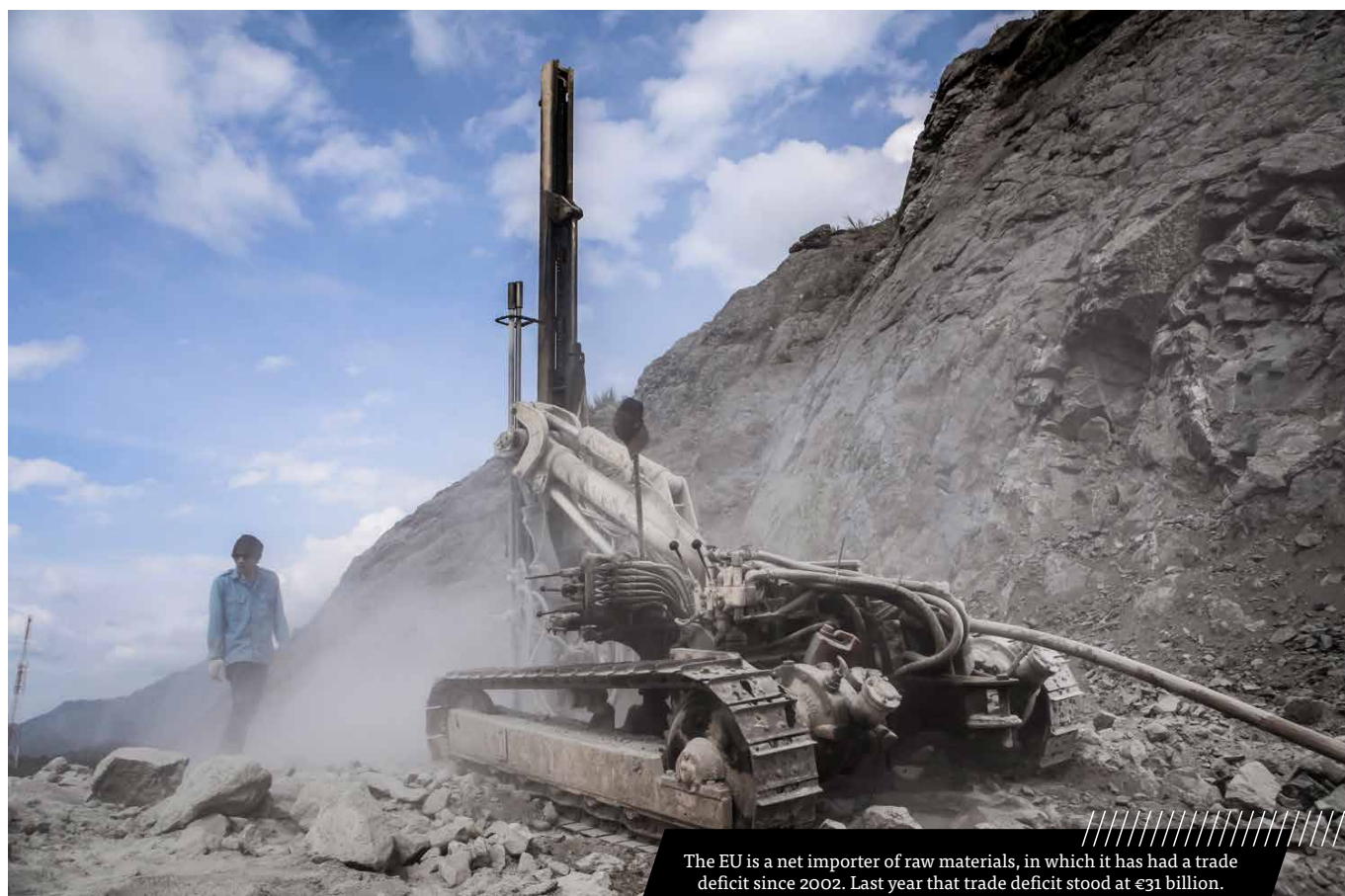
"We strongly urge the European Commission to maintain coking coal on the critical raw materials list."

As the steel industry faces multiple headwinds, the sector is hoping that these issues will be addressed in the industrial strategy to be adopted in March. That strategy is expected to revise the critical raw materials policy. The result of that revision could have a significant impact on European steel.

Europe looks home for new mining opportunities

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By Dave Keating | EURACTIV.com



The EU is a net importer of raw materials, in which it has had a trade deficit since 2002. Last year that trade deficit stood at €31 billion. [Parolan Harahap / Flickr]

As EU policymakers worry about global tensions threatening raw material imports, one option could be getting more from their own backyard.

When Europeans think of mining, they may think of an old-fashioned activity from another era. Over the past 50 years mining activity in the European Union has gone from being a very visible driver of European

economic growth to an activity that is more out of sight and out of mind.

But with raw material access coming into question, mining in Europe may be coming back into the spotlight.

Today, the EU imports most of the materials it uses rather than mining them itself. It is a net importer of raw materials, in which it has had a trade deficit since 2002. Last year that trade deficit stood at €31 billion.

While mining in the rest of the world has increased exponentially, it has remained limited in Europe, aside from coal and lignite mining which has declined. That has meant that the EU now accounts for a smaller share of global mining than it did a few decades ago.

The reasons European mining isn't growing at the same rate as the rest

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of the world are myriad. Some of the quarries in Western Europe have been mined out, and large concentrations became easier to find in other areas of the globe. Labour and infrastructure costs are also cheaper outside Europe, which means it was less expensive to import the resources than to mine them domestically.

The European mining industry has long complained that it is not operating on a level playing field when it comes to international competition. "The existing extractive industry, in as far as it is exposed to international competition that does not operate to the same standards, needs to be safeguarded against aggressive industrial and economic policies," says Corina Hebestreit from the Brussels-based industry association Euromines.

There are also concerns that many of the important raw materials Europe imports come from parts of the world lacking political and economic stability – a situation that could be rectified by mining those same materials in Europe. Over 50% of major reserves are located in countries with a per capita gross national income of \$10 per day or less.

On the whole, the situation has left Europe dependent on imports for many of the raw materials that are essential to the economy. And as the world seems to be retreating into a protectionist era where supplies could suddenly run dry, many are questioning whether it has been wise for Europe to allow its domestic mining to flatline.

There are already over 450 export restrictions on more than 400 different raw materials worldwide – something economic observers have become increasingly concerned about.

"Perceptions of uncertainty of supply of minerals can incentivise some countries to open mines that were previously considered

unprofitable," says Jane Korinek, an economist and trade policy analyst with the OECD.

"If trade tensions continue and countries wish to guard against supply risks, they may invest more heavily in extractive industries."

EU STRATEGY

Despite popular conceptions, Europe still has many resources. Europe mines more than 42 different metals and minerals, plus ornamental stones, sand and gravel and aggregates. The situation varies dramatically by geography, but resources are particularly plentiful in Europe's east and north. The question is how to make the extraction of those materials more economically interesting.

EU policymakers have suggested capitalising on what European mines do well – efficiency. The bloc's environmental and safety standards, far more strict than in the developing world, may have driven up costs but they have also spurred efficiency and productivity improvements. EU companies are now at the forefront of innovation in raw-materials supply.

But the concern is that the more mining is driven outside Europe, the more that expertise is lost. It isn't just the technology that could move out of Europe – it's also the best brains in the business. There is a risk that the research and education that Europe has been invested in then goes to benefit mines in other parts of the world.

In order to reverse the trend, the European Commission has taken a number of actions. It established a raw materials programme in the EU's Horizon 2020 initiative to award money to innovations in the mining sector. One of those investments was a €7.4 million award in 2014 to a mining initiative called FAME which is trying to find new ways to process certain ore bodies commonly found in Europe, such as pegmatites.

Other projects are seeking to capitalise on Europe's innovation and research in the area. "The European Innovation Partnership on raw materials is working in various areas to increase access and investment in raw materials," says Hebestreit. "The European Commission is working on a renewed work programme for the access to raw materials for Europe's industrial value chains. An industrial policy including these recommendations is expected to be published by March 2020."

NEW INVESTMENT

Though there is significant political will to ensure security of supply for raw materials, there is also public opposition to increased mining because of its environmental effects. There is especially strong local opposition to new mines.

The biggest block to new investment may be the sheer costs involved. Mining exploration takes a lot of time and a lot of money. But new technology being developed in Europe could make the process easier, by combining X-ray based technologies and 3D modelling technology. One company working on this technology is Kista, in Sweden. They are developing the X-Mine project, designed to reduce both the costs and time involved in exploration.

The European Commission is now focusing on collecting information about the deposits available in Europe – not necessarily for new mines, but also to expand existing mines or use them more efficiently.

Hebestreit says Europe's mineral output could be increased without opening new mines by using better data and new technology. "Yes, in principle, but it requires exploration in extending the reserves of the existing mines, it requires investments into modern technologies and it requires

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a number of mines to go deeper which requires more energy,” she says.

URBAN MINING

And then there is the material the EU can mine without ever striking an axe into the ground – recycling scrap.

This so-called “urban mining” has been an increasing focus in the EU, particularly at its annual Raw Materials Week in Brussels.

The European Commission has made it an area of focus for the Circular Economy Strategy. The millions of tonnes of valuable materials that are lost to landfilling or export are a lost opportunity for Europe – but the question is how to collect it.

Last year the Urban Mine Platform was launched in order to build a centralised database of information on arisings, stocks, flows and treatment of waste electrical and electronic equipment, end-of-life vehicles, batteries and mining wastes. Last year also saw the adoption of EU waste legislation with increased recycling targets for municipal waste overall, and specific targets for packaging waste – 80% for ferrous metals and 60% for aluminium.

The hope is that the targets will encourage better product design and setting standards that encourage circularity, extended producer responsibility, improving collection rates and changing consumer behaviour.

As EU policymakers look for ways to make sourcing raw materials more secure, they have found a variety of different tools in the toolbox. Expanding domestic mining activity may be one of the routes to greater security.

PROMOTED CONTENT / OPINION

DISCLAIMER: All opinions in this column reflect the views of the author(s), not of EURACTIV.COM Ltd.

Towards a European Coking Coal and Steel Community?

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Steel for Europe



[Steel for Europe]

When in the aftermath of the Second World War European leaders sought to build a common European future, the first thing they did was to pool the control over two of the most crucial building blocks of the European economy, by founding the European Coal and Steel Community in 1951.

This was the first step of the European integration that led to fundamental political changes and to the emergence of the European Union

as we know it today: a community of shared goals and values, but also an organization with ambitions to be internationally competitive and to secure the prosperity of its member states.

Steel for Europe is an initiative on fostering steel security within the European Union.

Today, while economic prosperity remains at the forefront of EU priorities, the ambitious Green Deal

launched by the incoming European Commission also makes it clear that sustainability has become a prerequisite for any economic model for the future. And just like in 1951, steel and coal are crucial components of this sustainable future. However not the thermal coal as it used to be.

In the coming years, the transformation toward a low-emission industry is expected to drive up the demand for environmentally-friendly

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products and low-carbon technologies such as electric vehicles and wind turbines, of which steel is a key component. Manufacturing of one wind turbine of 1MW capacity requires around 200 tonnes of coking coal and as the offshore wind technology is getting more popular also the demand for high-quality steel will rise.

Therefore, while the role of traditional coal is currently decreasing in favour of renewable energy sources, domestic coking coal production – a metallurgical coal – will gain more and more importance, as it is an indispensable material for steelmaking.

The steel industry is the main consumer of coking coal as over 70 percent of steel is produced with the use of coke. Steel produced with coking coal is used in key sectors of the EU economy, such as the automotive, railway, defence, construction or household appliances industries. It is thus indispensable for the development of an innovative European economy.

Due to the rising demand for steel, it becomes crucial to secure a reliable domestic supply of coking coal because our European economy is too dependent on external sources of supply, making it vulnerable. Indeed, 780kg of coking coal is needed to produce 1 ton of steel and there are currently no technologically feasible or economically viable alternatives to replace coking coal in the production of steel.

But coking coal is not only important for the steel industry. Highly advanced materials and innovative technologies are also being developed with the help of coking coal. Amongst by-products of the coking process, carbon nanostructures, for example, are widely used in various sectors of the economy – such as defence, aviation and electronics – due to their small weight combined with

exceptional durability.

Industry leaders are also conducting intensive researches to implement a technology to separate hydrogen from coke oven gas. Indeed, coke oven gas contains 55% of hydrogen, a very valuable element to achieve climate-neutrality due to its role in zero-emission power generation or clean urban transport. In this field, demand for carbon fibres (which are made with a use of coal tar, another by-product of coking process), which are used in the production of hydrogen tanks, is also expected to rise significantly from 77.000 tonnes in 2018 to 117.000 tonnes in 2022 according to the Fraunhofer Institute.

Not only hydrogen tanks are made from coal tar – it is also a crucial material for electrodes production. The rapid growth of electric and hybrid vehicles industry directly has led to an increase in demand for needle coke, a direct product of coal tar used in anodes production. This key raw material for electrodes needs to be on a consistent quality level to provide the highest battery life span.

More broadly, as the EU continues its transition to a more circular economy, the demand for critical raw materials will increase due to their unique properties and essential use in green technologies and high-tech applications.

Recent years have already seen a growth in the number of raw materials used across product ranges leading the EU to recognize their fundamental importance by launching the “critical raw material list” in 2010.

The European Commission has recognized the fundamental role of coking coal for the EU economy by placing it on its list of critical raw materials. This list defines materials that need to be protected in the EU due to their high economic importance and high supply risk.

Coking coal holds a special place amongst these strategic materials. It has been on the list since 2014

due to, both its crucial use in the metallurgy sector, and the fact that a high concentration of supply lies outside Europe. In fact, the EU's import reliance for coking coal is at 62 percent, with a demand of around 53 million tonnes and imports of around 40 million tonnes mainly coming from distant countries such as Australia, USA, Canada, Russia or Mozambique. Not only the CO₂ emissions from coking coal imported from Australia to the EU are from 1,5 up to 3 times bigger than in the local production, but also the risk of unpredictable weather or political events is higher. The EU's domestic supply should, therefore, be properly secured and incentivised.

This is not just theory. In November last year, the European Commission launched a WTO challenge against Indonesia for imposing far-reaching restrictions on the export of nickel and coking coal, with potentially very negative effects for the European steel industry.

This is why a specific policy underlining the importance of critical raw materials for the economy and ensuring their continued supply is needed to preserve the EU's competitiveness and its sustainable future.

The availability of coking coal within the EU may change rapidly due to the reduction of supply and rising demand for steel, making it indispensable to keep it on the critical raw materials list, as this will enable additional investments in new mining techniques and access to research funds to address the EU's strong dependence on external sources.



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