



# SUSTAINABLE SOURCING OF BATTERIES

SPECIAL REPORT | OCT - NOV 2021

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*The battery market is currently dominated by Asia, but the EU hopes that new laws setting strict green criteria for batteries sold in Europe will boost domestic production and help the continent to stake its place as a global leader.*

*The rise of electric mobility and an ever-greater reliance on handheld devices has made the battery market one of the world's most strategic.*

*In this special report, EURACTIV looks at Europe's push for sustainable, ethically produced batteries, and how the raw materials needed to power these batteries can be sourced responsibly.*

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# EU aims to dethrone Asia as world's battery powerhouse

By Sean Goulding Carroll | EURACTIV.com



Global demand for batteries is set to increase 14-fold by 2030, with the EU expected to account for 17% of that demand. [Roman Zaiets / shutterstock.com]

**B**russels plans to wrest the title of global electric vehicle battery leader from Asia by supercharging Europe's battery production and imposing strict green criteria that will make European products the de facto global standard.

New EU legislation seeks to make European batteries the greenest in the world by setting carbon emissions limits on production, obliging manufacturers to use recycled content, and imposing checks to prevent labour abuses in the battery supply chain.

Collectively, China, Japan, and South Korea are the world's most prolific battery producers, making Asia the global powerhouse of electric vehicle batteries. North America is the second largest producer, with Europe taking bronze.

The steady shift to electric vehicles and an increased reliance on handheld devices in recent years has seen the demand for batteries in Europe surge.

According to EU estimates, global demand for batteries is set to increase 14-fold by 2030, with the EU expected

to account for 17% of that demand.

EU leaders believe Europe can stake its place in the global battery market by making European batteries synonymous with sustainability.

"Batteries placed on our market, regardless of their origin, will be sustainable," said European Commission vice-president Maroš Šefčovič, speaking shortly after the EU executive unveiled its proposed EU battery regulation in December last year.

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In fact, adhering to the EU's green production criteria will likely soon be a prerequisite to sell a battery within the bloc.

Stefano Soro, an official at the European Commission's internal market directorate, said the EU would essentially set global standards. He called the EU "an unavoidable market for all those who want to do business", a reference to the bloc's position as the world's largest market.

The European Commission also wants to curtail Europe's reliance on outside nations for the raw materials necessary to make batteries. Currently, around 65% of cobalt is mined in the Democratic Republic of the Congo, with most of the world's lithium mines currently located in South America.

The Commission-backed [European Raw Materials Alliance](#), launched in 2020, aims to strengthen the EU's access to rare metals, while the [European Battery Alliance](#), established in 2017, seeks to bolster Europe's battery cell manufacturing capacity.

These alliances are a crucial part of Brussels' efforts to wean the continent off Asian-made batteries in favour of home-produced cells. Indeed, Vice President Šefčovič has already set a goal of meeting domestic battery demand solely from EU producers by 2025.

## EU BATTERY REGULATION

The most significant piece of legislation to reach the dual aims of greater sustainability and increased battery self-sufficiency is the new EU Battery Regulation, tabled in December 2020.

The draft is currently being debated by the EU's co-legislative branches – the European Parliament and Council representing the EU's 27 member states.

The regulation is noticeable for covering every stage of the battery process, from the extraction of raw materials, through to manufacture, until the eventual disposal of the battery.

It replaces the now obsolete battery directive from 2006, updating it to reflect advances in technology and recycling techniques.

Unlike the 2006 directive, which allowed member states to adapt the law to their national circumstances, the newly proposed legislation will apply uniformly across EU countries.

In addition to sustainability standards, the regulation sets criteria for the performance and durability of batteries and enhances transparency through labelling requirements.

This includes the introduction of so-called "battery passports", which will show the origin of materials used in the battery.

These labelling requirements will extend to the battery's lifespan and charging capacity, giving consumers a greater understanding of how well the battery is functioning.

It's foreseen that providing this information will help to build confidence in the second-hand battery market, a key element in making electric vehicles affordable for more consumers.

## MEASURING THE CARBON FOOTPRINT

The proposed green criteria requirements are expected to significantly curtail the number of foreign made batteries for sale in Europe.

From 1 July 2024, battery manufacturers that do not clearly label the carbon footprint of their industrial and electric batteries will face exclusion from the market. From 2027, a carbon emissions limit will apply.

This requirement has proved controversial, with questions arising over the calculation method to evaluate the battery's carbon footprint.

"Calculating carbon footprint at manufacturing plant level could be feasible, but it would lead to inequalities in the results depending on the manufacturing location, and thus confuse end consumers," said ACEA, a lobby group representing car manufacturers, in a recent [position paper](#).

In addition to cleaning up the manufacturing process, the regulation aims to facilitate a more circular approach to battery disposal. Each battery must be designed in a way that makes it possible to remove the precious raw materials within it.

The use of recycled content will become an obligatory part of battery manufacturing, a move the EU says will promote the "circular economy" in which goods are reused or recycled rather than thrown away.

Thanks to increased recycling and reuse of precious metals, the amount of virgin raw materials that must be extracted to power European batteries will then gradually fall, according to the Commission's reasoning.

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## MANDATORY RECYCLED CONTENT FOR COBALT, LEAD, LITHIUM AND NICKEL

From 2027, the quantity of recycled cobalt, lead, lithium, and nickel in each electric battery must be made public, with mandatory minimum levels kicking in from 2030.

These levels will be staggered over time, to ensure there are enough recycled batteries in the system to meet the targets.

The mandatory recycling requirements will start at 12% for cobalt, 85% for lead, 4% for lithium and 4% for nickel in 2030, and rise to 20% for cobalt, 10% for lithium and 12% for nickel by 2035.

The Commission has also significantly raised collection targets for EU countries to 65% of portable batteries by 2025 and 70% by 2030, up from the EU's current target of collecting 45% of portable batteries.

Large batteries, including those used in electric vehicles, must be collected and recycled in full.

However, these measures have not met universal approval. Poland previously cast doubt on the feasibility of a 70% collection target by 2030, while Bulgaria said the timeline was "unrealistic".

ACEA also warned that mandating levels of recycled content will push up the cost of batteries, making electric vehicles more expensive.

They further expressed concern that locking in specific requirements may stifle innovation in a quickly

moving industry.

## PREVENTING HUMAN RIGHTS ABUSES

Most metals used in battery production are primarily sourced, at present, from developing countries. And demand is accelerating.

Current EU estimates forecast that the bloc will need nearly 60 times more lithium and 15 times more cobalt by 2050 compared with the current supply.

The extraction of these metals has led to controversy. In 2016, Amnesty International sent tremors through the tech industry when it published a report revealing that 35,000 child labourers worked at cobalt mines in the Democratic Republic of Congo, the world's leading producer of the metal.

The report led to revulsion among lawmakers and consumers, and industry vows to address abuses in the supply chain.

"Cobalt mining is, in some areas of the world, linked to human rights abuses, child labour, and life threatening working conditions," said Stefano Soro, confirming that the regulation will play "a significant role" in ending abuses.

Under the proposed battery regulation, companies that do not act against these abuses will face a ban from the EU market.

Hewing closely to OECD guidelines for ethical sourcing of raw materials, the proposal will require third party verification carried out by accredited bodies.

The raw materials industry has generally welcomed the proposed rules, reserving criticism for the time available to implement it.

"The due diligence policies will have to be implemented, but also the results will have to be verified by third party assessment bodies, and this entire system of checks will have to be established at national level," said Francesco Gattiglio, EU affairs director with battery manufacturers group Eurobat.

"We do not think that one year is enough to have all of this done."

However, for an industry tarnished by reports of worker exploitation, battery sourcing verification may offer a path to redemption.

Mark Mistry, senior manager with the Nickel Institute, said he is certain that companies in the industry will embrace the due diligence requirements as an opportunity "to demonstrate that [they] are ready to identify and to address environmental, social, and governance risks".

## INTERVIEW

# Simona Bonafè MEP: Recovery of raw materials is cornerstone of EU battery law

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By Sean Goulding Carroll | EURACTIV.com



MEP Simona Bonafè spoke to EURACTIV about the EU's proposed battery regulation and the future of battery production in Europe. [European Parliament]

The European Commission has proposed new standards to make batteries produced and sold in Europe the greenest in the world. If passed, the regulation will ensure greater amounts of precious metals are recovered through battery recycling, says the EU lawmaker in charge of the proposal.

*Simona Bonafè is an Italian MEP sitting with the Socialists & Democrats (S&D) group in the European Parliament. She is rapporteur for the EU's proposed battery regulation in the Parliament's environment committee.*

**Did the European Commission strike the right balance in the EU battery regulation proposal in your opinion?**

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The Regulation we are discussing aims to create the first legislative framework. With the current Regulation proposal, the European Commission, for the first time, intends to legislate holistically on the entire life cycle of a product: from its design to its end of life.

In the report that I presented [within the European Parliament's

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environment committee], I fully support this approach which takes up what the European Parliament requested in its resolution on “[the new circular economy action plan](#)” adopted in February.

I would like to underline that this new holistic approach must represent the “rule” for future legislation on the circular economy and sustainable products.

**Discussions in the Council have seen concerns raised over various aspects of the regulation, such as the recycling and collection targets. Are you concerned that it will be difficult to reach an agreement with member states?**

The data reported in the Commission’s impact assessment in support of the proposal speak for themselves and support the need to define specific sustainability criteria for batteries.

It is estimated, in fact, that the total of industrial batteries could go from the current 0.7 million tonnes to almost 4.4 million tonnes in 2035. Among these, batteries for electric vehicles, which should represent approximately 87% of the market share, will play the predominant role.

These numbers imply an exponential increase in the use of strategic materials such as those at the base of lithium-ion technology and in particular cobalt, lithium, nickel, and manganese, of which Europe is poor and today completely dependent on imports.

To be able to keep pace with our global competitors, guaranteeing strategic autonomy in procurement

and exploiting the potential of new technologies, industrialisation policies will have to be implemented that use the principles of circularity as the main lever of sustainable development.

So, it is clearly understandable that we need ambitious targets to support the uptake of secondary raw material.

Several environmental ministers argued the same in the recent past, so I’m pretty confident that we will be able to work constructively with the Council during our triologue negotiations.

**Many Europeans were gravely concerned by reports of worker abuses and the use of child labour in the extraction of raw materials used in batteries. Does this legislation go far enough to combat that in your opinion?**

I very much appreciated the new Article 39 which for the first time provides for the inclusion of mandatory measures concerning due diligence for a specific product.

I believe, however, that these rules should apply, not only as foreseen by the Commission proposal to industrial batteries and those for electric vehicles, but to all batteries covered by this regulation.

The risk of environmental, social, and economic exploitation does not occur on the basis of the type of batteries, but at the time of the procurement of raw materials.

To be truly sustainable, the entire battery supply chain will have to combine environmental sustainability with the social

dimension. Several amendments that I have tabled are aimed precisely at this goal.

**In a recent [position paper](#), the European Automobile Manufacturers’ Association expressed concern that the proposals in the EU batteries regulation could drive up the cost of batteries and ultimately push up the price of electric vehicles. Could this law make electric vehicles more expensive?**

At present, the potential of battery recycling within the EU remains untapped and therefore only a small part of materials used in battery manufacturing are secondary materials.

The European Commission’s impact assessment states clearly that batteries using recycled materials results in lower environmental impacts, when compared to the use of virgin resources.

Today, almost no lithium is recovered in the EU because it is not economical. If we would not create legislation to support the uptake of secondary raw materials through mandatory recycled content, Europe would run the risk that secondary materials obtained from the recycling of waste batteries would only substitute a relatively small quantity of the virgin material used.

In a context where the total demand keeps rising, this would mean the production of virgin materials would have to increase strongly to meet the demand, which will have higher environmental impacts and present a barrier to the development of cost-efficient technologies that can deliver battery-grade recycled

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materials.

The legislation includes some delegated acts which are triggered on the basis of scientific development, in order to keep the legislation updated in line with the latest technologies.

***Vice-president Maroš Šefčovič has called for Europe to be “strategically autonomous” in the production of batteries. Do you think this is a realistic goal? Could Europe be a global leader in battery production in your opinion?***

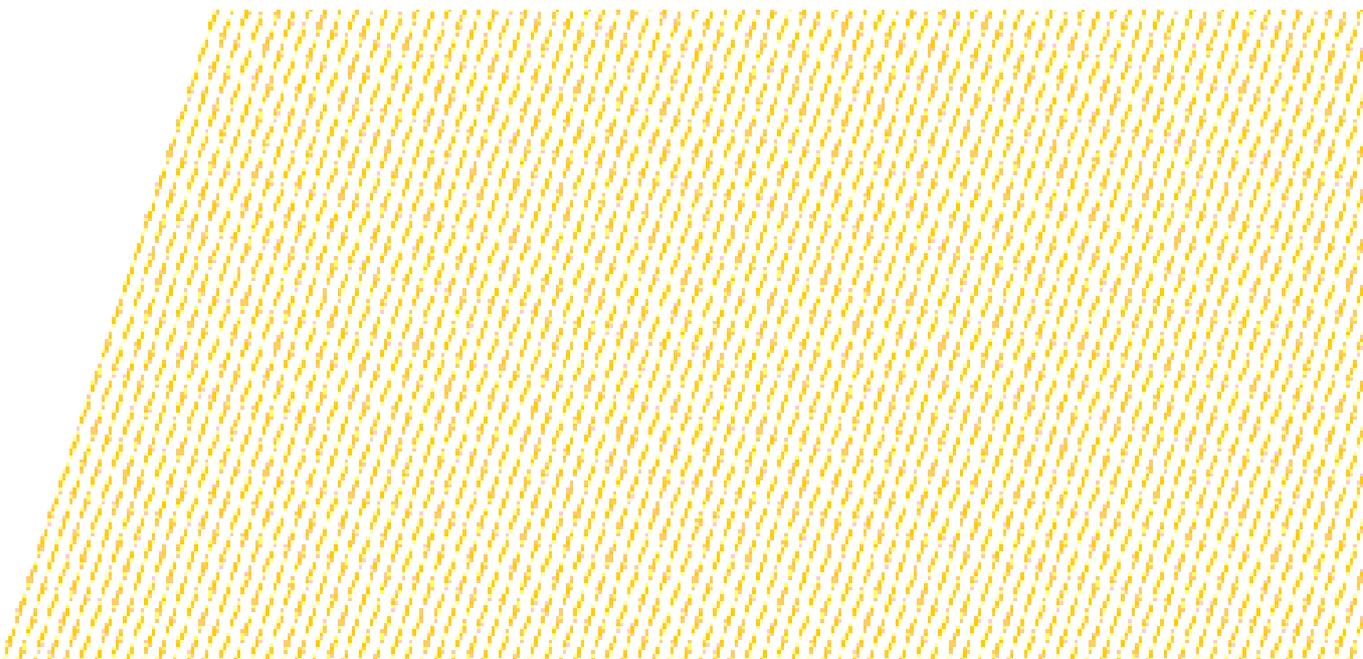
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Batteries are a key technology for Europe’s energy transition. They are crucial for sustainable mobility and for storing renewable energy and are an integral part of everyday life in Europe.

For a sustainable transition in line with the objectives of the Green Deal, we need to boost the development of the batteries market.

For this reason, I agree with Vice-president Šefčovič. This new Regulation aims to lay down harmonised rules setting sustainability standards to promote end-to-end battery production in the so called ‘gigafactories’.

These new standards could become a benchmark for the entire global battery market and should apply to all types of battery sold on the European market, including those imported from non-EU countries. At the same time to get Europe “strategically autonomous”, Europe will have to continue to invest in new infrastructure and in research into new technologies.



# Mining industry warns against Europe's drive for raw material 'autonomy'

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By Sean Goulding Carroll | EURACTIV.com



"Nickel mined within the EU and from sources outside of the EU complement each other. The growing demand within the EU can only be satisfied by ensuring that mine production from the EU and elsewhere go hand in hand," a Nickel Institute spokesperson told EURACTIV. [Sunart Media / Shutterstock.com]

Relying solely on raw materials sourced within Europe could incentivise the use of cheaper, non-recyclable batteries, increasing the need to mine virgin materials to power electric vehicles, industry has said.

Rare earth metals, cobalt and nickel, are key components in lithium-ion batteries and are well-suited for reuse, which has given rise to hopes that much of Europe's demand for these raw materials can be met through recycling rather than mining.

However, until enough end-of-life batteries enter the system to facilitate widescale reuse, it is necessary to continue mining large quantities of virgin materials to meet projected demand.

Under the proposed EU battery regulation, the use of minimum levels of recycled content for cobalt, lead, lithium, and nickel in battery manufacturing will not become mandatory until 2030.

Nickel is primarily sourced from Asia at present, while around two-thirds of cobalt is mined in the Democratic Republic of Congo.

But concerns over poor working conditions there and potential supply disruptions have led the European Union to look for raw materials inside Europe in search of greater "strategic autonomy".

"More than 90% of rare earth magnets are produced in China today," reads an extract from a [recent report](#)

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by the EU-backed European Raw Materials Alliance.

“This high production concentration in combination with rising global political tensions and a growing Chinese domestic market demand – particularly driven by a growth in electric mobility – results in a high supply risk for these materials from a European perspective,” the alliance warned.

In addition to opening mines within EU countries, EU leaders have sought to strike deals with neighbouring countries such as Ukraine and Western Balkan nations for raw materials sourcing.

Some lawmakers have gone further and called for European automakers to favour battery chemistries that exclusively require raw materials that can be sourced from Europe.

While shifting exclusively to technology that does not require imports may seem like a solution on paper, doing so would harm efforts to create a more circular economy and may require more virgin material extraction, explained Adam McCarthy, President of the Cobalt Institute.

“The thing that makes [cobalt-free cells] attractive to purchasers is the fact that they’re much cheaper. But that also means that it’s not economical for recycling companies to recycle it, because the value of the metals is lower,” he told EURACTIV.

“So, you have this set of trade-offs where it might be helpful [at meeting a certain policy objective] in some ways, but it doesn’t necessarily mean that it’s going to be better from a new

sourcing perspective.”

The Nickel Institute said that while there are world-class nickel producers in Europe, nickel sourced from outside of the EU is currently necessary to meet demand.

“Nickel mined within the EU and from sources outside of the EU complement each other. The growing demand within the EU can only be satisfied by ensuring that mine production from the EU and elsewhere go hand in hand,” a spokesperson told EURACTIV.

Green campaigners, for their part, say the status quo is much worse.

“Europe is essentially 95% supply dependent on imports of crude oil,” said Alex Keynes, a clean vehicles expert with green NGO Transport & Environment. “It’s not like the status quo is a better situation [compared to virgin materials for batteries] and for the climate our dependence on oil is obviously a disaster,” he told EURACTIV.

“The key here is for Europe to move away from oil,” he added.

### WORKING CONDITIONS

The mining industry has faced controversy over reports of unethical working conditions in developing countries. In 2016, Amnesty International sent tremors through the tech industry when it published a report revealing that 35,000 child labourers worked at cobalt mines in the Democratic Republic of Congo.

It may be tempting for Europe to issue a blanket ban on materials from nations implicated in these abuses, but this would not solve the

broader problem, according to Adam McCarthy.

“You still need to engage with the underlying issues of poverty that exists in the cobalt mining regions, because without that you’re always still going to find these issues,” he said.

McCarthy referred to the severe poverty that many children in these regions face, noting that some are the de facto head of their household and so responsible for providing an income for their family.

“It’s not just a matter of one piece of legislation tackling the problem. It has to be international cooperation, including the government of the DRC. Some people tend to simplify the issue, although it’s not just black and white. It needs a more detailed and nuanced approach to it, as we see right now,” he added.

This view was broadly shared by Alex Keynes, who argued in favour of rigorous checks rather than halting all mining activity.

“[T&E is] not calling for some kind of moratorium on metals from high-risk areas, because it would actually be, in some cases, a lot worse for the workers in the region if the companies were to blanket pull out. The solution is rather to help regulate the sector and for companies to exercise their own leverage to ensure they’re sourcing from suppliers that are not exploiting their workers,” he said.

Under the proposed battery regulation, companies that do not act against worker abuses will face a ban from the EU market. The law would also require third party verification

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carried out by accredited bodies.

Green MEP Henrike Hahn called the due diligence requirements “the key element of the proposed EU batteries regulation”, arguing that verification is needed to weed out abuses in the supply chain.

“These [due diligence requirements] are intended to ensure that neither the production of batteries nor the extraction of the required materials leads to human rights violations or environmental damage,” she told EURACTIV.

“[The Greens] are calling for mandatory due diligence and the system of controls and transparency over the supply chain. That is important to us, including the chain of custody or traceability system,” she added.

## TIMELINE

Mark Mistry, senior manager with the Nickel Institute, said the industry welcomes the due diligence requirements, seeing it as “an opportunity for companies to demonstrate that they fulfil the expectations from regulators, their customers, and civil society”.

However, he warned that the deadlines to implement the responsible sourcing requirements contained in the draft law are overly short given the complexity involved.

“We acknowledge concerns that for the EU battery regulation to be a success, it is important that responsible sourcing be implemented shortly after it enters into force. However, the timeframe needs to remain realistic to develop and implement solid, rigorous responsible sourcing frameworks before auditing takes place,” he wrote in a recent op-ed article.

In response, T&E’s Alex Keynes encouraged lawmakers to stick with the current deadlines, arguing that the due diligence requirement only requires proof that a company has started the process.

“You don’t have to show proof of result, you have to show proof of process and effort,” he said.

“European companies are at the forefront of higher social and environmental sustainability practices. A lot of companies are already implementing social supply chain due diligence policies. Many of these companies are already essentially doing a lot of this stuff,” he added.

# Industry anxious about mandatory recycling targets in EU battery law

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By Sean Goulding Carroll | EURACTIV.com



*"The introduction of a mandatory recycling quota can stimulate the recycling industry by artificially creating a scarce commodity with high demand and low supply," said Green MEP Henrike Hahn. [asharkyu / Shutterstock.com]*

Requiring companies to use recycled metals in new electric vehicle batteries is necessary to prevent manufacturers from opting for cheaper, freshly mined virgin materials, the EU says. Still, the automotive sector, battery makers and the mining industry are all anxious about the upcoming EU battery regulation.

The small quantities of end-of-life batteries currently available is pushing up the cost of recycling batteries, making recovered raw materials more expensive, says Henrike Hahn, a Green Member of the European Parliament.

This makes the business case

for recovering precious metals like cobalt, nickel or lithium unattractive as companies prefer cheaper virgin materials over recycled content.

But policymakers can turn this around by forcing battery makers to use recycled content, the German MEP told EURACTIV.

"The introduction of a mandatory recycling quota can stimulate the recycling industry by artificially creating a scarce commodity with high demand and low supply," she said.

Under the proposed EU battery regulation, the quantity of recycled cobalt, lead, lithium, and nickel in

each electric battery must be made public from 2027, with mandatory minimum levels kicking in from 2030.

These levels will be staggered over time, to ensure there are enough recycled batteries in the system to meet the targets, according to the European Commission which tabled the proposal in December last year.

The mandatory recycling requirements will start at 12% for cobalt, 85% for lead, 4% for lithium and 4% for nickel in 2030, and rise to 20% for cobalt, 10% for lithium and 12% for nickel by 2035.

To facilitate this, the EU executive

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has proposed obligatory recovery targets for valuable materials to be achieved by 2026 and 2030.

The targets are 90% for cobalt, nickel, and copper by the end of 2025, rising to 95% in 2030, while for lithium the figure is 35% by the close of 2025, increasing to 70% in 2030.

### “MEDIocre RECOVERY RATES”

However, these recovery targets were criticised as insufficient by the clean mobility NGO Transport & Environment, which warned that Europe risks falling behind rivals such as China.

“We know already today, recycling companies outside of Europe are recovering well over 90% of key battery metals including cobalt, nickel, and crucially lithium,” said Alex Keynes, a clean vehicles expert with T&E.

“With this in mind, some of the Commission’s proposed targets are not fit for purpose, specifically the 2026 and 2030 targets for lithium recovery,” he told EURACTIV.

Keynes warned that significant investment into state-of-the-art battery recycling technologies is needed to ensure Europe can extract raw materials at the rate needed, citing the bloc’s current reliance on China for battery recycling.

“Setting comparatively mediocre recovery rates in Europe for 2026 and 2030 when we know that there are companies in other countries already exceeding them today will do little to make Europe’s industry more

competitive on the global market and will discourage investments in companies that are aiming higher,” he added.

### RECYCLING TARGETS ARE ONLY THE START

But setting ambitious goals is only the start, industry says. In addition to setting targets, Europe must also be prepared to legislate for the practicalities of recycling raw materials, according to Adam McCarthy, the President of the Cobalt Institute.

McCarthy argued that Europe has so far been content to allow the burden of dealing with hazardous materials to take place outside of the EU. Currently, less than 1% of rare earth elements are recycled in Europe.

Facilities handling hazardous raw materials need safety measures in place to avoid long term exposure of their workforce, McCarthy said.

“At the minute those jobs [mostly] take place in China, as we’ve made it really difficult to do those in Europe,” he explained. “But if you make a political decision that you want to do more of that in Europe, then you need a framework that allows that to happen,” he told EURACTIV.

“I think the regulatory regime still needs to be adapted to a world where actually we’re going to have to work with substances like cobalt, if you want the vertical supply chain in Europe for batteries,” he added.

### CAR INDUSTRY AND BATTERY MANUFACTURERS CONCERNS

The European Automobile Manufacturers’ Association (ACEA) has taken issue with several of the proposed recycling measures in the EU battery regulation, cautioning that potential shortages of recycled content will harm the competitiveness of European vehicles.

ACEA also criticised the timeline proposed by the Commission as too ambitious given it is not known how many batteries will be available for collection in years to come.

“As of today, it is also close to impossible to predict in which quantities a recycled material will be available 15 years from now, when electric vehicle batteries are returned for recycling purposes – or even later when it includes second use batteries,” states a recent [ACEA position paper](#).

“Likewise, it is very difficult to predict what kind of new technologies will be on the market when the recycled material requirements enter into force, and how this will influence demand for and supply of virgin and recycled materials,” the paper continues.

These concerns are broadly shared by the Association of European Automotive and Industrial Battery Manufacturers (Eurobat), who argue that obliging manufacturers to use recovered material could lead to production issues.

Francesco Gattiglio, Eurobat’s

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director of EU affairs, worries that the automotive sector could experience a shortage of secondary raw materials in 10 to 15 years, comparing it to the [current semiconductor shortage](#) which has upended car manufacturing.

“The big uncertainty that this regulation is creating is what do we do if at a certain point there are not enough secondary raw materials available?” he told EURACTIV.

“That’s the risk we are facing,” he added.

## MARKET UNCERTAINTY

The uncertain nature of the future market for raw materials was also acknowledged by MEP Henrike Hahn.

“The scenarios [in the regulation] themselves work with assumptions that are often uncertain, as the future market for batteries might be bigger or smaller than assumed and less vehicles might be sold due to changes in behaviour or consumer patterns,” she said.

In addition to questions over the availability of recycled content, the implementation of other aspects of the regulation may prove difficult, according to Eurobat.

The requirement that each battery must contain – and display – a set percentage of recycled material will create a massive administrative burden for battery manufacturers, Gattiglio argued.

“I don’t think the Commission fully realises the amount of work they are creating for us and for

market surveillance authorities. [The regulation] means that every factory would have to produce hundreds of certificates every year,” he said.

Rather, Eurobat would like to see the focus of the legislation shift away from individual batteries to require an overall proportion of recycled materials in the manufacturing process.

“Our proposal would be instead of gathering data on each battery, basically to make it a due diligence requirement, so that every company simply has to prove that it is using a certain share of raw materials. And that’s very easy to prove, because you have the invoices of buying the material,” said Gattiglio.

## THE RAW MATERIALS INDUSTRY

The mining industry is in favour of recycling as a means to increase circularity within Europe but warned that primary materials extraction will continue to be necessary.

“Will we have 20% of cobalt being circular by 2030 [within the EU]? I think that’s probably challenging. Will you have it by 2040 or 2050? That’s probable, as you can get up to a high amount by then. But it will take time to come on stream,” Adam McCarthy told EURACTIV.

McCarthy believes that Europe will become “more and more reliant” on cobalt from recycled sources in the coming years.

“Although you will never completely get rid of the need for some primary supply, you can see that becoming a less important part

of the mix, while recycled content increases,” he said.

The Nickel Institute similarly emphasised that the industry is already preparing for the changes outlined in the EU battery regulation.

“Some EU-based nickel producers are already active in recycling – or preparing themselves to recycle electric vehicle batteries once they reach the end of their valuable life,” a Nickel Institute spokesperson told EURACTIV.

“This will become, in the mid to long term, an important additional future source of nickel required by the EU decarbonisation strategy,” they added.

Tabled in December 2020, the draft EU battery regulation is currently being debated by the EU’s co-legislative branches – the European Parliament and the Council representing the EU’s 27 member states.

It replaces the now obsolete battery directive from 2006, updating it to reflect advances in technology and recycling techniques.

PROMOTED CONTENT

*DISCLAIMER: All opinions in this column reflect the views of the author(s), not of EURACTIV Media network.*

# Sustainable sourcing of battery raw materials

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*By Dr. Mark Mistry | The Nickel Institute*



[Evgeny\_V / Shutterstock.com]

**E**V batteries are critical to achieving the EU's climate change targets. Europe has therefore set itself the ambitious goal of establishing – within a very short time frame – a complete and competitive electric vehicle battery value chain.

*Mark Mistry is a Senior Manager of Public Policy at The Nickel Institute.*

The level of ambition is even higher with the requirement that all production and manufacturing steps in this value chain are conducted sustainably. The proposed EU battery regulation plays a key role in achieving both targets. The new regulation, which is expected to be adopted in 2022, will provide the framework conditions necessary to operate competitively and to provide sustainably manufactured batteries to

the EU market.

The draft regulation pays special attention to the extraction and production of raw materials and their recycling at the end of life. Environmental, social and governance (ESG) impacts of metal production are increasingly examined by both the regulators and value chains and it is very important to correctly identify and manage these appropriately for

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each metal. Responsible sourcing and due diligence in raw materials production are therefore a key priority in the proposed ruling.

Nickel is one of the essential metals in modern EV battery technologies. It is mined, processed and refined in over 25 countries across the globe. The growing demand for nickel in the coming years will require nickel supply from sources within and outside the EU to go hand in hand. Together with other battery raw materials, nickel is in the focus of the proposed regulation when it comes to sourcing and other sustainability aspects.

Nickel Institute member companies are leading producers of nickel in Europe and globally. They have committed to responsible sourcing requirements. Over the past decades, they have invested in measures to protect the environment, comply with worker's protection standards and address social and governance risks. Responsible sourcing is an opportunity for companies to demonstrate that they fulfil the expectations of regulators, their customers and civil society.

The term "responsible sourcing" describes a multi-dimensional system. It comprises more than 30 different environmental, social and governance risks which need to be adequately addressed. While some of the ESG risks are common for all companies active in mining and metals production, some are specific to a given metal – and some others are less relevant. There is a need to tailor systems to the raw material in question.

Different metals sectors are now

cooperating to define responsible sourcing standards that take the commonalities as well as the characteristics of each metal into account. These standards will undergo a rigorous independent third-party review to show that the level of ambition is met and that the requirements and expectations of society and regulators are fulfilled.

The complexity of the system, the coordination efforts required as well as the third-party review means that that whole process is time-intensive. Before companies can even start to be audited the existing frameworks need to be reviewed and tailored to specific metals such as nickel, and the proposed frameworks must be certified.

We acknowledge concerns that for the EU battery regulation to be a success, it is important that responsible sourcing be implemented shortly after it enters into force. However, the time frame needs to remain realistic to develop and implement solid, rigorous responsible sourcing frameworks before auditing takes place. The initial proposal of the European Commission acknowledged this aspect and indeed provided sufficient time.

However, questions have been raised about industry-led schemes. There is the misconception that such frameworks are less ambitious than the requirements of the regulation. Review by for example the OECD or the International Social and Environmental Accreditation and Labelling Alliance (ISEAL Alliance) will play a critical role. Such independent third-party reviews will ensure that the standards fulfil

the necessary requirements and are robust.

We also strongly believe that the European institutions should seek coherence between the responsible sourcing requirements in the proposed EU battery regulation and upcoming legislation where responsible sourcing for raw materials in general and for other value chains will be addressed. Different requirements in different legislative proposals will not create benefits but lead to inefficiencies and confusion. The risk is that companies will have to choose between different EU priorities, which could lead to market disruptions.

Sustainable sourcing of battery raw materials is a critical topic that requires significant efforts from the companies involved. But it also offers opportunities for them to demonstrate their ESG performance and what they are doing to address impacts that need further attention. Companies and commodities are engaging in a joint effort to address concerns and questions through the development and implementation of appropriate and robust tools. These tools and standards will undergo rigorous review to ensure alignment with existing international frameworks and acceptance by accreditation bodies to provide the necessary reassurance to all stakeholders that the metals needed to help tackle climate change are produced responsibly.



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