

# HOW CAN THE BATTERIES REGULATION STAND THE TEST OF TIME?

Rechargeable batteries will increasingly become indispensable for Europeans – and innovation is moving fast. Modernising the legislative framework for batteries is therefore timely. There is a risk, however, that certain goals will not become a reality unless the text is amended.

The Cobalt Institute is a trade association representing the producers, users, recyclers, and traders of cobalt. We promote the sustainable and responsible production and use of cobalt in all its forms. The primary use of cobalt (55%) is in battery cathodes. As cobalt will continue to be a critical raw material for key battery chemistries, we set out below how the current text of the Batteries Regulation can be simply amended in order to stand the test of time.



Our Shared Goals For The Batteries Regulation	Amendments Needed For The Regulation	What Is At Risk?
<p><b>Strengthen the internal market through a level playing field</b></p>	<p>A new mechanism needs to be added to the draft Regulation which would automatically include battery chemistries once they achieve a certain market penetration. This will create a level playing field by obliging producers of all battery technologies to follow the same rules on recycling and recovery. This new mechanism would also allow the new Regulation to keep up with future technological developments.</p>	<p>Elements such as phosphates, aluminium, and iron are increasingly used in battery cathodes. A Regulation that does not apply the same recovery and recycling rules to all components creates a situation where the market is incentivised towards technologies that do not fall under the recycling requirements, due to lower costs at the end of the battery's life. This is unfair competition to the battery components included in the current text of the Regulation.</p>
<p><b>Promote a circular economy</b></p>	<p>Through the introduction of a mechanism to automatically capture new battery chemistries, all elements of the battery cathode will be subject to recycling and recovery targets, in line with the circular economy objectives.</p>	<p>If only some battery chemistries are subject to recycling targets and recovered content, cost incentives are created in favour of unregulated, poorly recycled batteries. This means that there is potential for batteries with low ecological standards to enter the EU market. The end of life of these batteries would not be accounted for under the Regulation.</p>
<p><b>Reduce the environmental impacts of batteries</b></p>	<p>Continue applying an occupational exposure limit to cobalt and remove these sections of the draft Regulation. It is important to regulate chemicals according to the conditions where they are used without unnecessary duplication.</p>	<p>This would have the consequence of confusing, overlapping layers of rules for producers and therefore increase costs, as well as undermine the EU's Better Regulation agenda. Cobalt only poses an occupational risk meaning the proposed use of REACH is inappropriate.</p>
<p><b>Reduce the negative social impacts of batteries</b></p>	<p>Future horizontal regulation needs to exactly emulate the Batteries Regulation due diligence framework to ensure that all uses of cobalt are captured by these rules. This would mean that no part of the supply chain would be able to operate with lower social and environmental standards.</p>	<p>Product-specific rules redirect problems to other supply chains. Therefore, we could see a situation where cobalt contained in batteries has strong oversight, but batteries become more expensive, and a flow of cobalt, with weak oversight and cheaper as a result, is redirected to other products.</p>

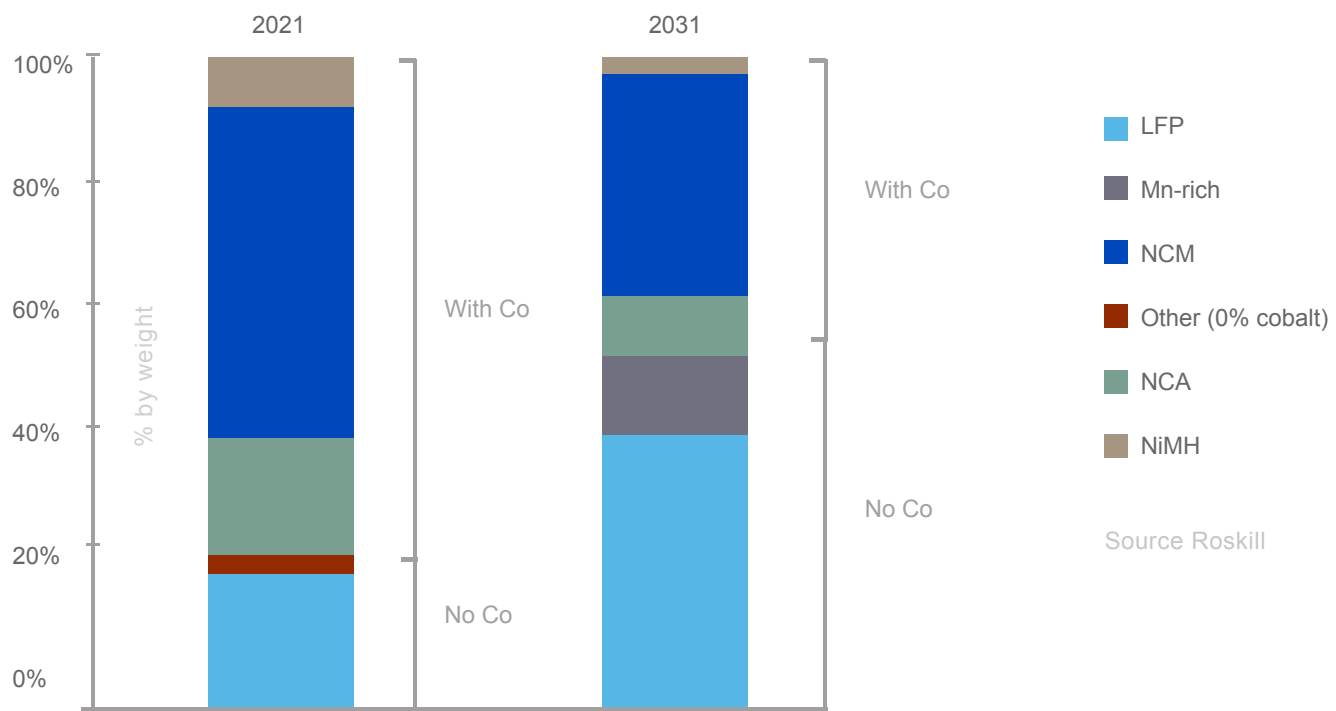
# 1. Ensuring the correct scope of battery materials for recovery & recycling targets

Article 8, 57 | Annex XII

## Key points

- As drafted, the Regulation will become quickly outdated and incentives the use of less easily (or un) recyclable battery chemistries.
- Not all chemistries used in modern electric vehicles are covered by specific recycling and recycled content targets in the Regulation and there's currently no mechanism to automatically add emerging battery chemistries in the future.
- Some battery chemistries are not economical to recycle and contain critical raw materials. Excluding them would make it more economically attractive for manufacturers to switch to cheaper, less recyclable battery chemistries, potentially increasing supply chain risks and inhibiting the circular economy.
- Rather than singling out certain battery chemistries, we propose amending the legislation to dynamically include all chemistries that achieve industrial scale.

## Forecast share of battery chemistry in xEVs



# 1. Ensuring the correct scope of battery materials for recovery & recycling targets

Article 8, 57 | Annex XII

## The problem? As battery technology develops, fewer batteries and materials will fall under the scope of the Regulation

The proposal contains specific recycling and recovery requirements for nickel, cobalt, lead, and lithium. This impacts many of the elements used in battery cathodes today - lithium cobalt oxide (LCO), lithium nickel cobalt manganese oxide (NCM) and lithium nickel cobalt aluminium oxide (NCA) batteries. However, it is not future-proofed as elements such as phosphates, and iron are increasingly being used and are not included in the targets. For example, electric vehicle manufacturers are investing in LFP (lithium iron phosphate) batteries, which are cheaper - albeit less performant. Volkswagen is producing LFP powered cars and Tesla has switched its China-based production to LFP batteries. This trend is set to continue as more Europeans start driving electric cars.

With battery technology evolving rapidly, an increasing proportion, such as lithium battery chemistries (lithium iron phosphate (LFP), lithium titanium oxide (LTO), lithium manganese oxide (LMO)), use some active materials that would not be subject to the Regulation's recycling and recovery targets. According to a study by Roskill, 40% of batteries by 2030 are likely to be LFP batteries that will not be covered by the specific materials requirements of the Regulation in its current form.

## Why does this matter? The growing market will be incentivised towards technologies that do not fall under the recycling requirements of the Regulation

Omitting a growing proportion of battery technologies would in fact incentivise this industry towards batteries not covered by the Regulation because these batteries would be comparatively cheaper. Recycled content costs more, meaning batteries containing these materials will also cost more.

One current example of the problem is LFP batteries, which are cheaper than cobalt-containing chemistries, but are only used in specific applications because they have poorer performance. The additional costs applied by the Regulation to cobalt-containing chemistries would make LFP more economically attractive. However, the more serious implication that it is likely not economically possible to recycle these. To illustrate this, a Kelleher report from September 2019 notes that "LFP batteries do not contain materials and metals of value to recyclers"<sup>1</sup>. It is valuable metals like cobalt that make battery recycling economically interesting.

If the Regulation is adopted as it stands, it will create economic incentives for batteries like LFP that have no recycling requirements and low recyclability. Limiting the scope of battery materials for the Regulation's recycling targets inhibits the transition to a circular economy and threatens the EU's climate goals.

# 1. Ensuring the correct scope of battery materials for recovery & recycling targets

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## **The solution? Introduce a mechanism to automatically include new battery chemistries once they achieve a certain market penetration.**

All battery chemistries placed on the EU market that reach a significant production level (i.e., above 10 or 40GWh), should have commensurate sustainability requirements as other battery chemistries. The European Commission should adopt delegated acts in accordance with Article 73 to amend the list of materials contained in paragraphs 1, 2, 3 and 4 where a minimum amount of recovered material from waste is needed from active materials in each battery model and batch per manufacturing plant.

## **Advantages of this solution**

- Supports regulated and secure innovation;
- Ensures the Regulation can keep pace with technological developments;
- Provides certainty and predictability for industry;
- Creates a level playing field for battery chemistries, avoiding unintended consequences.

## 2. Hazardous substances: ensuring uniform management of workplace risks regardless of the technology

Article 2, 6, 71

### Key points

- As drafted, the Regulation will create confusing and unnecessary layers of rules — both for Member State authorities and producers.
- Creating a new system, just for battery chemistries, means that Member States have different competences for assessing different substances.
- A blanket approach to all battery chemistries does not account for the fact that cobalt only poses an occupational risk and should not be treated as a general hazard.
- As the EU is in the process of revising REACH, this is the avenue by which to update chemicals management.
- Removing this proposed new procedure in the Batteries Regulation would progress the EU towards one clear, central mechanism for managing chemical risks.

### **The problem? The Regulation introduces overlapping layers of rules for battery chemistries. Cobalt only poses an occupational risk meaning the proposed use of REACH is inappropriate.**

The draft proposal sets out a new procedure to identify substances which the Commission deems to be hazardous, as well as the procedure to restrict the use of the substance in batteries (Articles 2,6,71). This process is similar yet different than the REACH Restriction process (i.e., Art. 69). As such, it effectively duplicates processes which are currently in place, and creates unclear Member State competences for battery chemicals versus others.

A further concern is that this article seems to suggest REACH should be the default route to regulate exposure to chemical substances. Cobalt only poses an occupational exposure risk. Because cobalt is safely contained within a battery, there is no consumer risk of prolonged inhalation exposure. Therefore, the proposed use of REACH is inappropriate. This situation would add additional burdens and costs for employers, which are then passed down the value chain, potentially making Europe less competitive globally. This could ultimately impact European jobs, and in a sector that is of strategic importance to the EU. It is also very unclear how the proposed Regulation would interact with the Chemicals Strategy for Sustainability and ongoing work around the REACH/OSH interface.

## 2. Hazardous substances: ensuring uniform management of workplace risks regardless of the technology

Article 2, 6, 71

**Why does this matter? Additional, inappropriate rules for Cobalt in one sector will discourage use of this important material for Europe's electric future.**

Cobalt is an highly recyclable, high-value element<sup>2</sup> that makes durable, long-charge batteries<sup>3</sup>. The EU wants to do more battery manufacturing, requiring more cobalt manufacturing. However, complex rules on substances, that add no additional worker benefits, will impact this industry by adding costs, and consequently affecting the EU's competitiveness when producing batteries. This stands at odds with the EU's critical raw materials and strategic industry agendas.

**The solution? Continue applying occupational safety and health standards to cobalt and omit these sections of the draft Regulation.**

The EU should regulate according to the conditions where the chemical is used. Using the OSH framework and setting Occupational Exposure Limits (OELs) through the Carcinogen and Mutagen Directive (CMD) is the appropriate and most effective route for cobalt. The ELV Directive which covers components of vehicles including batteries would, for example, also cover the waste phase of these batteries. There is no need to effectively copy what is already available<sup>4</sup> and enforceable at EU level and which has been demonstrated to effectively protect European citizens and workers. If the scope of REACH needs extending, this can be done under the current revision of REACH.

## 2. Hazardous substances: ensuring uniform management of workplace risks regardless of the technology

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**There should be one clear, central mechanism for managing chemical risks, that should: be risk-based and include robust socio-economic assessment; use RMOAs at the beginning; and**

- be risk-based and include robust socio-economic assessment
- use RMOAs at the beginning
- provide more expertise and extra resources ECHA if necessary.

### Advantages of this solution

- Aligns with European Commission's Better Regulation agenda <sup>5</sup>;
- Avoids regulatory duplication;
- Eases compliance due to clarity and consistency for producers;
- Avoids undue administrative burden;
- Encourages investment and innovation to flourish as substances have the appropriate procedures to handle their products' safety.



# 3. Due diligence

Articles 39, 72,

## Key points

- As drafted, the Regulation will **only cover one application of cobalt**. Whilst the procedure proposed is the right one, this system risks simply moving the problem — and making batteries more expensive in the process.
- Future horizontal regulation needs to exactly emulate the Batteries Regulation due diligence framework to ensure that all uses of cobalt are captured by these rules.

## The problem? The Regulation poses the right answer but risks moving and not truly solving the problem.

Proper oversight of cobalt is fundamental to the continuing operation of the industry. The Regulation proposes an excellent answer to the important question of where imported raw materials come from and who produces them. The Regulation obliges economic operators that place a battery on the EU market to address the social and environmental risks from the extraction of raw materials by setting up a supply chain due diligence policy based on internationally recognised due diligence principles. However, this does not go far enough. Batteries are just one product which uses cobalt. Therefore, strong oversight of just the cobalt used in batteries misses the wider industry. Compliance with due diligence rules also involves added costs. This could create a situation where producers using cobalt for non-battery products – such as magnets, electronic components, plating, inks, or alloys – would not be held to the same standard or to the same costs.

## Why does this matter? Product-specific rules redirect the problem.

It is important to know where all cobalt comes from - for all its applications. Having known sources of cobalt in batteries will help to ensure battery materials are being responsibly sourced. However, product-specific rules redirect the problem, and in fact demand and supply changes could create economic advantages for irresponsibly sourced cobalt outside of the batteries sector. This means less-responsibly sourced cobalt could instead just find its way into other products. A cheap flow of cobalt – where the sourcing is unknown – would then continue to flow around Europe. This would make batteries more expensive, while doing nothing to deal with responsible sourcing issues overall.

# 3. Due diligence

Articles 39, 72,

## What is the solution? Adopt EU horizontal due diligence legislation.

The EU should adopt a single, horizontal piece of legislation that obliges economic operators to put in place a due diligence policy. The upcoming Sustainable Corporate Governance (due diligence) legislation is the ideal avenue in the near future that could address the entire industry – not just batteries.

## Advantages of this solution

- Captures the entire supply of cobalt;
- Ensures strong oversight and transparent supply chains;
- Leaves nowhere for 'bad actors' to hide; and
- Ensures that European consumers can trust in the products they buy.

## Futher reading

The Cobalt Industry Responsible Assessment Framework (CIRAF) is a management tool designed for all companies, whether or not they are producing and/or sourcing from high-risk countries. Read more [here](#).



# ABOUT COBALT INSTITUTE

## Our vision?

To promote the responsible and sustainable production and use of cobalt in all its forms and applications.

## Our members?

Represent the entire cobalt value chain – from sourcing to users to recycling.

Meet them here: [cobaltinstitute.org/about-us/members/](https://cobaltinstitute.org/about-us/members/)

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