

Position on the EU Battery Regulation

Key messages

- BASF welcomes the proposed EU regulatory framework for batteries and aims to contribute to the European Commission's goal of establishing a sustainable and competitive battery value chain in Europe.
- Of key importance to us are the measures to incentivize responsible sourcing of raw materials, low carbon footprint of battery manufacturing and resource-efficient end-of-life battery management. These measures are in line with BASF's sustainability strategy and targeted investments in battery materials production and battery recycling in Europe.
- We are willing to engage with institutional and industry stakeholders during the legislative process on the basis of constructive proposals for implementing the EU Battery Regulation, outlined in this position paper.

About the topic

As part of the EU Green Deal and the Circular Economy Action Plan, the European Commission published a proposal for a Battery Regulation in December 2020 to develop a common set of rules for all batteries placed on the EU market. The Battery Regulation seeks to govern batteries on a life cycle basis by setting mandatory requirements for circularity, sustainability and safety of battery production (including the mining and processing of raw materials), use, re-use and end-of-life management.

What does BASF offer?

As a global leading cathode active material (CAM) supplier to the cell producers of lithium-ion batteries, BASF strives to contribute significantly to the development of the European automotive battery value chain. Via our production plants for precursor CAM in Harjavalta, Finland, and CAM in Schwarzheide, Germany, we will offer battery materials with a dedicated sustainability record for responsible and reliable sourcing of raw materials and an industry-leading low carbon footprint.

At the same time, BASF is looking into battery recycling and the use of recycled base metals in its production, thereby closing the loop in the battery value chain and reducing the carbon footprint even further. Through our prototype battery recycling plant in Schwarzheide, as well as future planned scale-up in Europe, we will provide state-of-the-art recycling technology to deliver superior returns of lithium, nickel, cobalt and manganese from spent batteries and from off-spec material from cell producers, thus complementing our CAM portfolio for lithium-ion batteries for electric vehicles (EVs).

Notably, our investments in Schwarzheide and Harjavalta are part of the Important Project of Common European Interest (IPCEI).

Further details on our [battery materials](#) and [battery recycling](#) solutions are available on our website.

Our position

BASF's sustainability strategy and targeted investments in battery materials production and battery recycling in Europe are aligned with the principles of the EU Green Deal and the Circular Economy Action Plan. We therefore welcome the proposed EU regulatory framework for batteries and aim to contribute to the European Commission's agenda towards a circular, sustainable and safe European battery value chain that is able to compete with other global players on an equal footing.

In our view, the following aspects regarding EV batteries need to be taken into consideration during the legislative process:

Supply chain due diligence for raw materials

- BASF is committed to fostering a **responsible and sustainable global supply chain of raw materials**. We therefore advocate for a **transparent yet pragmatic approach** to supply chain due diligence policies on battery raw materials, such as cobalt (Co), lithium (Li) and nickel (Ni). These policies should be developed in accordance with the **internationally recognized standards and instruments** at the UN and OECD level.
- There is a need for **clear guidance on a system of controls and transparency** to implement a chain of custody or traceability system that complies with proposed supply chain due diligence requirements. The **existing industry-led due diligence schemes, programs and standards**, such as the Responsible Minerals Initiative, should be recognized by the European Commission to enable companies to achieve the supply chain due diligence requirements.
- It is important to **avoid overlaps and contradictions** between battery-specific due diligence legislation and horizontal legislation at the EU/national level in order to ensure consistency and reduce the administrative burden on the industry.

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Carbon footprint of EV batteries

- We welcome the proposed introduction of the carbon footprint requirements for EV batteries. We believe that the **best-in-class performance categorization of batteries**, complying with the respective maximum life cycle carbon footprint thresholds, should be accompanied by **incentives for frontrunners**.
- The **accelerated timeline** for introducing the carbon footprint measures for EV batteries, regardless of where they are produced, is needed to maximize the decarbonization potential of the battery value chain in Europe.
- The **product carbon footprint calculation methodology for batteries** must be consistent and comparable:
 - The use of the ISO 14067:2018 guidelines on the quantification and reporting of product carbon footprint, compatible with the international standards on **life cycle assessment (LCA)**, should be considered as a helpful framework to evaluate the climate change effect of batteries.
 - The calculation methodology should recognize **industry efforts** to update the existing **Product Environmental Footprint Category Rules (PEFCR)** for High Specific Energy Rechargeable Batteries for Mobile Applications, as well as the work by the **World Economic Forum's Global Battery Alliance (GBA)** and the **Catena-X Automotive Network**.

End-of-life (EOL) EV battery management

Recycling efficiencies and material recovery

- BASF welcomes the requirement for all waste batteries collected to **undergo a recycling process**, rather than being incinerated or disposed of. It is also crucial to ensure the **highest possible collection rates for the EOL EV batteries**.
- The mandatory targets for 1) minimum recycling efficiencies of lithium-ion EV batteries and 2) material recovery for Ni, Co and Li are welcome, subject to the **right balance in target values**. On the one hand, the targets must be **ambitious enough** to create a business case for significant investments in battery recycling technologies in Europe. On the other hand, they must be **realistic** – overly excessive targets may compromise the overall environmental benefit of material recovery, as achieving them would mandate additional resource-intensive chemical processes, in turn increasing the carbon footprint.
- The targets must be underpinned by a **solid and verifiable calculation methodology**, the development of which must involve **all relevant stakeholders** such as battery recyclers. The methodology should be published as soon as possible to ensure **regulatory certainty for companies** in the battery value chain.
- The **point of material recovery** should be determined correctly, making sure that the recycling process does not end at the production of intermediates. The recovery of **battery-grade materials** should be sought to avoid downcycling.

Recycled content (RC)

- BASF supports the targets for a minimum share of recycled Ni, Co and Li in EV batteries, as they will create **high demand for recycled materials in the EU**, stimulating European recycling industry and increasing circularity in the battery chain.
- The RC targets should give a **competitive edge to European battery manufacturers and materials producers**, rather than creating disproportionate benefits to companies in third countries with access to significant battery waste volumes. A scenario in which imported secondary raw materials are needed to meet mandatory RC requirements in Europe must be prevented.
- The calculation methodology, clarifying what will be accepted as RC, must be defined together with **all relevant stakeholders**, including battery materials producers and battery recyclers. The **mass balance approach** should be accepted in determining RC. The methodology should be published promptly to ensure **regulatory certainty for companies**.
- The recycled materials should come from the **closed loop battery recycling process** in order to be accepted as RC in EV batteries. This is needed to guarantee high-quality recycled materials.

Shipment of waste batteries

- Once the European recycling industry is sufficiently mature, the **treatment and recycling of EOL batteries and battery waste within the EU** should be prioritized to prevent a higher carbon footprint due to the shipping of materials across the globe.
- The export of EOL batteries, as well as intermediates of recycling, for treatment and recycling outside the EU should only be allowed if **environmental, health and safety conditions equivalent to those in the EU** can be guaranteed.

Battery information exchange and battery passport

- The EU battery passport should be considered as a key instrument to enable a sustainable, circular and just battery ecosystem, facilitating the exchange of **traceable, verifiable and transparent data** between all authorized stakeholders.
- The EU battery passport, based on data sovereignty and linked to an open-source, inter-operable electronic exchange system for battery information, should be developed in coherence with industry initiatives, such as the **GBA** and the **Catena-X**.