Making the European battery sector more sustainable and resilient: a five-year plan



ASSOCIATION OF EUROPEAN AUTOMOTIVE AND INDUSTRIAL BATTERY MANUFACTURERS



Contents

Executive summary	3
Policy key asks and recommendations	4
Message from the EUROBAT President	.5
Pillar 1: Innovation	6
Pillar 2: A global level playing field	0
Pillar 3: Circularity	13
Endnotes	18

Executive summary

The European battery sector **is central to** achieving the EU's decarbonisation goals and delivering on the objectives of the **Green Deal**. Over the past five years, battery manufacturing in Europe has underpinned exponential growth in e-mobility. Electric vehicles have evolved from being a niche product and are now on the verge of becoming mainstream. At the same time, battery technology continues to be vital in supporting the increased integration of renewable energy systems. Batteries also power our daily lives, providing a clean energy source for industrial vehicles and equipment.

It is of critical importance to boost innovation **in all battery technologies** (lead, lithium, nickel, and sodium) to support the transition to a circular economy. The strategy involves providing funding for research and innovation to enhance the circularity of raw and secondary materials in batteries, contributing to Europe's strategic autonomy. Initiatives like the Net-Zero Industry Act and REPowerEU are indispensable to accelerate the adoption of battery technologies in mobility, motive power, and energy storage. Additionally, the use of **standards** is emphasised to implement the **Batteries Regulation** and ensure inclusiveness of mainstream and emerging technologies.

A **thriving European battery sector** offers numerous **advantages** for the EU. As well as economic opportunities, which include supporting skilled jobs in a dynamic high-tech sector, there are far-reaching environmental benefits. These encompass a significant reduction in carbon emissions, improved air quality, combined with the storage and distribution of clean, renewable energy. The battery sector also has an unwavering commitment to environmental responsibility, in terms of circularity and sustainability.

Nonetheless, Europe's battery sector remains **vulnerable** to external influences. The supply chain challenges experienced during the COVID-19 pandemic emphasised the essential requirement for reliable access to critical raw materials, stressing our persistent **dependence** on third countries. Furthermore, in the last five years, competition from non-EU sources has increased, highlighting the importance of establishing **a global level playing field** between batteries produced within the EU and those imported. The distorting impact of subsidies provided to manufacturers in foreign markets is a major concern.

Hence, the appointment of a **commissioner for strategic autonomy** becomes of paramount importance in addressing these challenges. Moreover, to fortify Europe's battery sector, there is a pressing need to provide **financial support** through appropriate funding mechanisms such as the Innovation Fund or new Important Projects of Common European Interest (IPCEIs). Streamlining the process to access these funds will be crucial in expediting research, innovation, and the development of domestic capabilities. This approach ensures the **competitiveness and resilience** of the EU battery industry by fostering a more agile funding infrastructure.

In the past 18 months, the sector has faced a serious challenge with the surge in energy prices, leading to increased manufacturing costs. At the same time, battery technology – which is central to the renewables sector – plays a pivotal role in managing and reducing energy costs over the short, medium, and long-term.

In view of these threats, Europe's battery manufacturers are working to make the sector more **robust**, while recognising the challenges in the legislative landscape.

This manifesto outlines **policies recommendations** to support Europe's battery sector and ensure its maximum contribution to the continent's green transition. The recommendations and key asks to policy-makers are based on the following three pillars: **innovation**, **a global level playing field**, **and circularity**.

Policy key asks and recommendations



Pillar 1 Innovation

- To recognise that further innovation in all mainstream battery technologies (lead, lithium, nickel and sodium) is vital to help meet the Green Deal decarbonisation goals and the transition to a circular economy.
- 2. To expedite research and innovation in all battery technologies, it is essential to unlock funding channels specifically directed at addressing the existing challenges related to strategic autonomy. This involves a focused effort on **enhancing the** circularity of both secondary and raw materials used in batteries.
- To strengthen initiatives that boost market uptake of battery technologies in mobility, motive power and energy storage, such as the Net-Zero Industry Act and REPowerEU for BESS.
- 4. To focus the EU's industrial policies on measures to further stimulate electrification in all other sectors to ramp up battery production in order to strengthen both Europe's energy security and clean energy production.
- To maximise the use of standards to implement the secondary legislation of the Batteries Regulation and ensure inclusiveness of all mainstream and upcoming emerging technologies.



Pillar 2 A global level playing field

- To appoint a commissioner for strategic autonomy. This role should play a crucial part in implementing measures to enhance the European Union's autonomy in critical aspects of the battery industry, fostering a secure and selfsustaining ecosystem.
- 2. To develop and strengthen strategic partnerships encompassing the acquisition, processing, and recycling of minerals that could reduce dependency on other markets.
- To provide financial support via appropriate funding mechanisms, aiming to cultivate more resilient and independent battery value chains.
- **4.** To ensure there is a **global level playing field**, enabling the European battery sector to meet the expected demand in the coming years.
- 5. To provide legal certainty and reduce red tape Policy measures that provide legal certainty and reduce red tape are essential for the continued development of the battery value chain in Europe. EUROBAT calls on policymakers to introduce a coherent and stable legal framework to support the sector. Specifically, all legislation that affects the EU's green transition ambitions must have policy objectives that are aligned and that are supported by appropriate coordination between the different directorates within the Commission.



Pillar 3 Circularity

- To provide consistency across different pieces of legislation, with the Batteries Regulation recognised as the principal piece of legislation regulating the complete life-cycle of batteries.
- 2. To avoid overlaps between different pieces of EU battery legislation, ensuring that restrictions of substances in automotive and industrial batteries are handled in the Batteries Regulation only.
- 3. Upcoming secondary legislation should prudently acknowledge the industry's expertise by endorsing the establishment of a comprehensive, standardised method for calculating the carbon footprint that considers all chemistries. Moreover, it should ensure the protection of confidential information within the Battery Passport and streamline administrative processes.
- 4. To speed up **permitting** for new projects, and closely work with industry in developing of best available techniques for mining and battery manufacturing.
- 5. To streamline shipments of waste batteries establishing a single waste code for waste lithium-ion batteries and another for manufacturing wastes to facilitate recycling supply chains.

Dear Reader,

We need to make electrification a success.

Batteries and a competitive and sustainable European battery industry **are indispensable** for the transformation of our mobility and energy systems. The path towards climate neutrality is a long one, and only through dialogue and cooperation can we reach it.

Over the past five years, EU policymakers have reshaped the legislative framework for batteries with the **Batteries Regulation** as the centre piece for our industry. For the first time, our industry has a holistic policy framework that regulates the whole life cycle of a battery. The policy objectives are ambitious, and the battery industry will have to work with all stakeholders to reap the full benefits offered by the sector, hence the importance of three key pillars identified by the industry: **innovation, a global level playing field, and circularity.**

The new-to-be elected European Parliament – supported by the European Commission and Member States – must build on **Green Deal** groundwork already carried out. With the aim of a cohesive and effective approach, the European industry strives for **clarity and consistency** among various legislative initiatives. This is especially crucial for the Batteries Regulation, its implementation through secondary legislation, automotive legislation, and revised chemicals management rules.

The implementation of the Batteries Regulation will be key to supporting a **self-sufficient and resilient European battery industry**. The Battery Passport, in particular, will provide transparency and accountability, while carbon footprint requirements will help create a level playing field between European and global battery producers and, as such, contribute towards a **net-zero society by 2050**.

Achieving all of this in the coming years is only possible through joint efforts. **We, therefore, stand ready** to support this work with our expertise and look forward to continued exchange with policymakers.

Enjoy the read.



Marc Zoellner EUROBAT President & CEO Hoppecke Batteries "Batteries and a competitive and sustainable European battery industry are indispensable for the transformation of our mobility and energy systems."



Pillar 1: Innovation

Batteries are and will remain instrumental in Europe's decarbonisation and net-zero neutrality ambition, thereby touching upon many policy fields, including **mobility and energy**. These policy fields are central to the functioning of our societies, which makes the role of batteries even more important. Additional policy decisions will have to be taken to further shape our mobility and energy systems, notably the decision about the EU's climate target for 2040.



Mobility Systems

Transportation is currently responsible for almost a quarter of total EU greenhouse gas emissions.¹ Decarbonisation of the transport sector will only succeed if we think of transportation in a holistic way. In terms of mobility, batteries play key functions in all of them – **road vehicles, trains, buses, trams, metros, forklift trucks, vessels, airplanes, and others.**

Policy measures need to be further developed in line with the growing market penetration of electricallypowered vehicles.

In addressing road mobility, it is imperative to implement a comprehensive set of measures to accelerate the transition towards electricallypowered vehicles. This includes the necessity for sustained financial and tax incentives aimed at promoting the adoption of electric vehicles (EVs) among consumers and businesses. These **incentives** can take the form of tax credits, subsidies, or other financial benefits that make electric vehicles more economically attractive compared to traditional internal combustion engine vehicles. Furthermore, to overcome the perceived limitations of electric vehicles, a robust and widespread **public charging infrastructure** is essential. The continued rollout



of charging stations across urban and rural areas is vital to alleviate concerns about the availability and accessibility of charging points.

Regarding non-road-mobile machinery, for example forklift trucks, growing electrification is leading to decreased emissions, which further increases the relevance of batteries in this segment. Materials handling and logistics applications are growing by around 5% annually in Europe.² The dominant battery chemistry is currently lead, but lithium is expected to overtake this by 2030.

Battery Energy Storage Systems (BESS)

The current geopolitical situation underscores the challenges Europe faces in relying on foreign energy sources. Industry, together with institutions, is advocating for a substantial increase in renewable energy generation to contribute to enhancing European energy autonomy and independence.

With the transition to renewable energy, the role and significance of battery energy storage will further increase, and significant growth of energy storage solutions is expected over the next years.

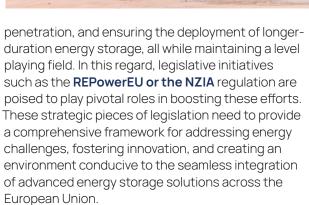


Batteries are reliable and well-established energy storage technologies, providing reliable and clean energy for business, industry, and grid infrastructure. Battery Energy Storage Systems ensure a resilient energy infrastructure by mitigating intermittency challenges, balancing supply and demand, and by enhancing grid resilience. All this facilitates the transition to renewable energy.

In this context, the revised Electricity Market Design Directive (EMDD) stands as a significant milestone in this EU political term. Its primary objective is to reduce the dependence of electricity prices on volatile fossil fuel prices. As a result of, the utilisation of battery energy storage systems becomes crucial. In terms of battery technologies, further innovation in Battery energy storage systems, both utility-grid scale and residential/commercial (storage behind the meter) will be crucial.

Stationary Battery systems are also used for **backup** power and Uninterrupted Power Supply (UPS), as well as for Telecom applications (TLC). ESS batteries are also integral to the development of the EV charging infrastructure, which is essential for the widespread adoption of electric vehicles. They help manage the demand for electricity at peak EV charging times, reducing stress on the grid.

To advance these efforts, the new leadership of the European Parliament and Commission, in coordination with Member States, must address any remaining barriers hindering the widespread adoption of energy storage. These barriers may include concerns related to energy security, maximising renewable energy





Contribution of Battery Innovation

Innovation along the supply chain is the foundation of a European battery industry that is globally **competitive**.

The EUROBAT stipulates that both lead and lithium have significant innovation potential and will remain in the market beyond 2030, with lithium chemistry (both Lithium Iron Phosphate and Nickel Manganese Cobalt) being used exclusively for traction.³ Promising emerging technologies include sodium room temperature batteries, which are already entering the market, and lithium solid state, which is expected to be available in the coming two to five years. All these mainstream and future technologies have **significant potential** and will trigger further innovation over the coming years.

To bolster innovation within the European battery industry, prioritising research and development (R&D) **funding** is paramount. Increased financial support for collaborative R&D endeavors between industry stakeholders, research institutions, and academia will drive exploration into novel materials, manufacturing techniques, and emerging technologies. Concurrently, the establishment of a **supportive regulatory framework** is crucial for incentivising the adoption of innovative battery solutions. Clear and streamlined technology agnostic regulations, coupled with market incentives such as subsidies or tax credits, can



create an environment conducive to the successful integration of advanced battery technologies.

Role of Battery Standards

Within the NLF (New Legislative Framework) and the EC's new **Standardisation Policy** in particular, standards are acknowledged as a highly effective tool for implementing **secondary legislation**. This recognition underscores the pivotal role that standards play in providing a structured and cohesive framework for the application and enforcement of regulatory measures.

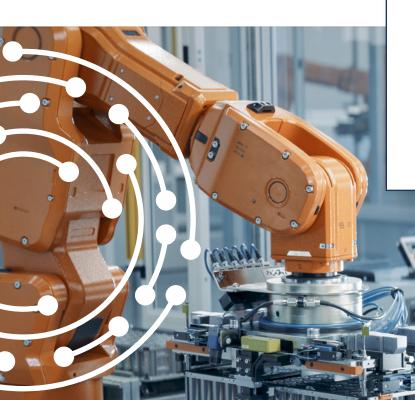
In this regard, developing a strong standardisation base across all main battery technologies is imperative to implement the essential requirements laid down in the new Batteries Regulation.

The harmonised standards developed under the CEN/ CENELEC Mandate M/579, providing presumption of conformity with the Regulations, will also give certainty to industry, customers and regulators, enhancing



awareness and public acceptance with regards to reliability, safety and sustainability of the products.

While the EC Strategy on Standards aims to better interlink academia in the standardisation processes, we recommend that the EC ensures that these open, transparent and consensus-based standardisation processes continue to be driven by **European industry experts** to take into account the integration aspects and the global view of the developing markets.



Our requests to policymakers are as follows:

1. To recognise that further innovation in all mainstream battery technologies (lead, lithium, nickel, and sodium) is vital to help meet the Green Deal decarbonisation goals and the transition to a circular economy.



- **3.** To **strengthen initiatives that boost market uptake of battery technologies** in mobility, motive power and energy storage, such as the Net-Zero Industry Act and REPowerEU for BESS.
- 4. To focus the EU's industrial policies on measures to further **stimulate electrification in all other sectors to ramp up battery production** in order to strengthen both Europe's energy security and clean energy production.
- 5. To maximise the use of standards to implement the secondary legislation of the Batteries Regulation BR and ensure inclusiveness of all mainstream and upcoming technologies.

INNOVATION

Pillar 2: A global level playing field

Establishing a global level playing field is vital to ensuring that the European battery industry can maximise its contribution to the EU's climate goals and capitalise on the sector's economic potential. Battery manufacturing in Europe has ramped up considerably in the last five years and will reach an estimated production capacity of close to 9,000 GWh by 2030.⁴ Europe will have the strongest growth worldwide and will become the second-biggest producer after China (in GWh) by 2030 as a result of electric vehicle demand. Despite that, Europe will still have to import around 15% of the lithium batteries it needs to meet local demand.⁵ Faced with this shortfall and recognising the importance of batteries in the green transition, it is essential that European companies are able to compete on an equal footing with manufacturers from outside the bloc.



The battery sector has become a key economic and strategic focus for all global regions, with exports identified as a valuable growth area. Consequently, creating a global level playing field is essential.

An evolving global automotive sector

The global market in both batteries and auto manufacturing is in a state of rapid flux, with potentially significant consequences for Europe's indigenous industry. In 2022, China overtook Germany to become the second-biggest auto exporter, and in the first quarter of 2023, it surpassed Japan to take the top spot.⁶ Legislating for fair competition will be vital to ensure that EU battery manufacturers can play their full part in delivering the continent's carbon-neutral future.

Competition for raw materials

A central challenge facing European manufacturers is **access to raw materials**, which are critical elements of the battery value chain. Strategic elements for battery production, recognised by Europe, include cobalt, lithium, manganese, nickel, copper, and graphite.⁷



Faced with practical limits on the availability of raw materials, and combined with a recognition that **circularity** is essential for an environmentally sustainable sector, refining and recycling are key elements of European battery production. The EU already has experience with end-of-life value chains for lead- and nickel-based batteries, with over 35 lithium-ion battery recycling projects currently underway or in planning, and multiple projects coming online before 2025.⁸ However, Europe must build on its **recycling expertise** to further improve the green credentials of batteries and maximise the recovery of essential minerals, thereby reducing dependency on imports.



Many global regions are pursuing active industrial policies. For example, over the past few years, policies have been developed in the US to create a conducive environment for gigafactory projects with the aim of attracting battery companies. These have included targeted government spending and incentives, as well as taxation policies. By creating an inviting fiscal landscape, the US and other jurisdictions have sought to bolster the economic viability of new gigafactories, thereby influencing the decisions of potential investors on where to locate. Lower corporate tax rates are a compelling incentive for manufacturers. Strategic policy measures such as these risk putting the EU at a competitive disadvantage, since companies seeking optimal investment conditions may choose locations with more favorable fiscal environments.

The role of Europe's law-makers

Significant progress has been made by EU lawmakers in recent years, and EUROBAT recognises the importance of what has been achieved. In 2017, we called for a comprehensive battery strategy, and in the autumn of that year, the European Commission launched the European Battery Alliance (EBA). This led to the establishment of a European battery value



chain, along with planned manufacturing capacity of gigafactories, plus planned recycling capacity.⁹

The two major milestones of the 2019–2024 political term have been the adoption of the **Critical Raw Materials Act (CRMA) and the Net-Zero Industry Act (NZIA)**. Together, these pieces of legislation underpin an EU green industry, encompassing the acquisition of raw materials and the engineering and building of renewable assets, such as wind turbines, photovoltaic panels, and batteries. While the two Acts are important and welcome, **access to raw materials** remains subject to considerable global competition. Furthermore, there is a need to retain control of refined and recycled mineral streams, and at the moment, the EU is lagging behind in both these areas. In this context, we applaud the recent introduction of the EBA Strategic Battery Materials Fund, with a target size of €500 million.¹⁰ The fund is aligned with the EU's Critical Raw Materials Act and aims to reduce Europe's reliance on supplies from overseas and address and rectify gaps in the upstream sector. Nonetheless, it remains to be seen whether it will be sufficient to alleviate the significant dependency that the EU currently has on third countries.

The CRMA is an essential component in the EU's attempt to regain ground in the race for access to minerals, but is **insufficient** to compete with other pieces of legislation, such as the USA's Inflation Reduction Act (IRA). This is reflected in the number of battery manufacturers and associated companies that are either choosing to leave Europe or refraining from investing in Europe in the first place.

What we ask of policymakers

1. To appoint a commissioner for strategic autonomy

In 2023, Europe formulated a strategic approach towards securing raw materials. The challenge over the coming years will be to turn this approach into actions. Achieving this will require a senior political figure operating at the head of the European Commission. We, therefore, call on EU policymakers to create a portfolio and an Executive Vice-Presidency to further develop and implement **Europe's strategic industrial autonomy**, looking at the whole value chain in terms of raw materials and production capacity, as well as energy and key technologies. One of the key roles of such a commissioner would be to ensure policy coherence across the different Directorates-General of the European Commission.

2. To develop strategic partnerships encompassing acquisition, processing, and recycling of minerals

Recognising that the EU has insufficient raw materials resources or processing and recycling capacity to meet the needs of the battery manufacturing sector, **EUROBAT** asks policymakers to:

- **Develop strategic partnerships** with global companies and key mineral-producing countries in order to secure access to critical resources.
- Support projects in those countries to enhance their capacity in aspects of the CRMA.
 Facilitate access to EU funding for projects, including mines, located outside the EU. A strategic EU approach will be crucial to foster these partnerships, supported by adequate administrative resources.

3. To provide financial support via appropriate funding mechanisms

The development of a lithium battery value chain is capital expenditure-heavy. Significant levels of public and private investment will be required over a sustained period to deliver this value chain. We, therefore, call on EU policymakers to:

- Launch a dedicated direct grant program. A European Sovereignty Fund could be a possible vehicle.
- A GLOBAL LEVEL PLAYING FIELD
- Allocate a dedicated **financial envelope** for project support to the different segments of the critical raw materials value chain during the next Multiannual Financial Framework review.

4. To provide legal certainty and reduce red tape

Policy measures that **provide legal certainty and reduce red tape** are essential for the continued development of the battery value chain in Europe. EUROBAT calls on policymakers to **introduce a coherent and stable legal framework to support the sector.** Specifically, all legislation that affects the EU's green transition ambitions must have policy objectives that are aligned and that are supported by appropriate coordination between the different directorates within the Commission.

Making the European battery sector more sustainable and resilient: a five-year plan

Pillar 3: Circularity

In circular battery supply chains, end-of-life batteries are recycled or re-used in second-life applications, maintaining valuable materials such as cobalt, lead, and lithium in a closed loop, allowing them to perform their role as energy carriers over and over. **This sets batteries apart from other applications** in transport and energy, as these most often rely on nonrecoverable resources, primarily fossil fuels. **Without circularity, there is no sustainable green transition.**

Recycling: The key to achieving a sustainable and autonomous battery industry

The European battery sector is actively advancing the creation of products designed for optimal **recyclability**, aligning with the central concept of **circularity**. This involves the repeated recycling of materials to free up resources for reuse, underscoring the **industry's dedication to environmental sustainability**.

Boosting the share of recycled content in batteries is key to reducing Europe's dependence on thirdcountry raw materials. Substituting primary with secondary materials also mitigates the environmental impact of batteries by easing the pressure from extractive activities and curbing the carbon footprint of the overall value chain.

An ambitious set of EU circularity targets

In this context, the Batteries Regulation dictates that no batteries should be disposed of, outlining stringent storage and treatment requirements. Combined with horizontal provisions in environmental legislation, the Regulation ensures control over emissions of substances to the air, water, and soil during a battery's end-of-life. Recycling is the preferred option for the treatment of waste batteries. Long-established battery types, in particular, leadbased and nickel-based batteries, already achieve strong circularity credentials.¹¹ Conversely, recycling of batteries from emerging chemistries, such as lithium-ion and sodium-ion batteries, remains a nascent industry with considerable potential for scaling up given the high market value of raw materials such as cobalt, copper, and lithium.

Over the past five years, the Commission has focused on harmonising the circularity and design of batteries across Member States with the EU Batteries Regulation. The Regulation specifies **targets for the share of recycled content** for key materials in batteries. To ensure manufacturers have enough secondary materials to meet the targets, the legislation sets an obligation **to collect all**



automotive and industrial batteries, and provisions to improve the efficiency of recycling processes.

At a higher level, the Critical Raw Materials Regulation sets annual benchmarks for the domestic mining, processing, and recycling of "strategic raw materials", including cobalt, copper, lithium, and manganese.

For all these ambitious targets, the establishment of the infrastructure supporting circularity hinges on a **legislative framework that provides substantial support to the industry.**

Meeting the EU's circularity targets: what we ask policymakers

1. The new Batteries Regulation – setting secondary legislation right

The **Batteries Regulation** and its implementation are poised to play a paramount role in the industry's well-rounded development. Yet, the devil lays in the details. Numerous specifics and requirements in the Batteries Regulation will be addressed through what is known as **secondary legislation**. These legislative acts empower the Commission to supplement or amend non-essential components of EU legislative acts, allowing, for example, the definition of detailed measures, such as the methodology for calculating the recycled content of various batteries.

In this context, the majority of detailed measures will be articulated through legislative acts known as **Delegated and Implementing Acts** and are slated for development and implementation until around 2030. Some of the most pertinent measures, soon to be approved, pertain to the calculation of the **Carbon Footprint Methodology**. In this regard, it is going to be specifically tailored for a group of batteries. This includes EV, LMT (Light Means of Transport) batteries, each adhering to distinct timelines. The requirements will be adopted with a staged approach, initiating with the declaration of the carbon footprint, followed by the establishment of performance



classes, and concluding with the determination of maximum thresholds. Here, the European Commission is anticipated to elucidate the intricacies of this methodology in the coming months for these various battery types, and from the industry, we hope for a commitment to ensuring **a level playing field and adopting a technology-agnostic approach**.



Carbon footprint of domestic and imported batteries – Setting a level playing field

The EU is working to ensure that products manufactured in Europe are **safe and sustainable**. Batteries made in Europe have **a lower environmental footprint** than those produced in other jurisdictions. The EU's regulatory framework should leverage the **green credentials of EU-produced** batteries and establish **a level playing field** concerning batteries imported into the EU. This should include developing a clear and standardised method for calculating the carbon footprint for the different types of batteries. EUROBAT has been actively involved in such processes and has represented battery manufacturers in discussions with other segments of the battery value chain. +)

#EUROBATMANIFESTO



With the introduction of the **Digital Battery Passport** in 2027, the battery industry will be the **first** sector to fully digitise its supply chains, paving the way for similar systems in sectors such as consumer electronics, textiles, and detergents. By easing data flows between manufacturers, second-life operators, and recyclers, the battery passport **will boost the circularity of batteries**. To ensure the passport plays an enabling role for the green transition, secondary legislation needs to protect confidential business information and mitigate administrative burdens for operators. Information requirements on battery cell composition, in particular, should not exceed what



is needed to facilitate the work of recyclers. Battery manufacturers would also benefit from access to dynamic battery management system data. Easing the flow of data generated during battery use up and down the supply chain will help understand product defects, improving performance and design.

Avoiding double-regulation: the Batteries Regulation as the principal legislation for batteries

A **clear regulatory framework** is a prerequisite for companies to continue investing in battery manufacturing in the EU. The Batteries Regulation should be **the sole and only piece of legislation regulating the design and circularity of batteries** and should, as far as possible, have primacy over other EU regulations.

2. ELV: Alignment across EU circularity legislation

One common element of the Green Deal has been the objective to create coherence across policy measures, something we have asked for a long time. One missing nexus for our industry is the link between the new **Batteries Regulation** and the newly proposed **End-of-Life Vehicles Regulation**. **Clarification and alignment** are needed here.

In particular, restrictions on substances in batteries should be entirely removed from the scope of the proposed Regulation on circularity requirements for



vehicle design and on the management of its end-oflife, as these are already addressed in **Article 6 of the Batteries Regulation.**

This also means that the **next exemption review for lead in batteries**, scheduled for 2025 under the End-of-Life Vehicles Directive, should **be paused and incorporated** into the comprehensive report on chemicals in batteries required under Article 6(5) of the **Batteries Regulation**.



Regulatory predictability over market access to hazardous battery substances such as lead, cadmium, or lithium is essential to the establishment of circular battery value chains.

The Commission should clarify at the earliest possible stage that the mapping under Article 6(5) of the Batteries Regulation will **not** lead to (a) ban(s) on battery substance(s). **Reinforcement** of OHS legislation, combined with **targeted restrictions**, is the most effective approach to addressing any residual risks from hazardous substances.

Through the REACH revision, policymakers may include circularity and/or criticality as factors in the

scoring system for the European Chemicals Agency's Recommendations for the inclusion of substances in REACH Annex XIV. Introducing **authorisation requirements** for lead, lithium salts, manganese compounds, and/or cadmium oxides would **jeopardise** Europe's attractiveness to investors.

In addition, **workplace limit values** for battery metals must **not** be set below what is needed to protect workers. Proper transitional periods for occupational exposure limits are key to **balancing** human health protection with global competitiveness.

4. IED: Simpler, faster permitting

Europe is gradually reducing its reliance on third countries for battery minerals and precursors.

Germany, for example, assesses that its reserves of lithium could serve 25% of the EU demand for electric vehicle batteries.¹² It is also estimated that twothirds of cathode active materials could be sourced domestically by 2027.¹³

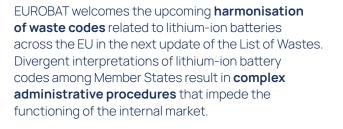
To unlock this potential, competent authorities should **speed up permitting** for all activities subject to the **Industrial Emissions Directive**, from the extraction of raw materials and their processing to the manufacture of cathode active materials, battery cells, and second-life materials.

Together with the JRC, the battery industry should lead the developments of best available techniques for mining and battery cells manufacturing.

5. Easing shipments of waste batteries and recycled materials Recycling supply chains involve several actors, often specialised in a particular step, from dismantling and

shredding to thermal treatment and the separation of black mass components. To facilitate their work, we propose establishing **a single waste code** for waste lithium-ion batteries and another one for manufacturing wastes of lithium-ion batteries. Access to the intra-EU fast-track procedure under Art. 14 of the new **Waste Shipments Regulation** should also be facilitated. "For all these ambitious targets, the establishment of the infrastructure supporting circularity hinges on a legislative framework that provides substantial support to the industry."





Endnotes

- 1 European Commission. <u>https://climate.ec.europa.eu/eu-action/transport/road-transport-reducing-co2-emissions-vehicles_en#:~:text=In%202020%2C%20</u>road%20transport%20contributed,)%2C%20the%20main%20greenhouse%20gas.
- 2 Avicenne Study. The EU Battery demand and supply (2023-2030) in a global context.
- 3 Avicenne Study. The EU Battery demand and supply (2023-2030) in a global context.
- 4 European Commission. The EU's industrial policy on batteries. <u>https://www.eca.europa.eu/ECAPublications/SR-2023-15/SR-2023-15_EN.pdf</u>
- 5 European Battery Alliance. The sustainable future of batteries in Europe rests on a developed recycling industry. <u>https://www.eba250.com/the-sustainable-future-of-batteries-in-europe-rests-on-a-developed-recycling-industry/</u>
- 6 European Battery Alliance. The sustainable future of batteries in Europe rests on a developed recycling industry. <u>https://www.wsj.com/world/china/china-vehicle-sales-rise-further-boosted-by-stimulus-policies-sales-promotions-3452cca1</u>
- 7 European Commission. The Critical Raw Materials List. <u>https://single-marketeconomy.ec.europa.eu/sectors/raw-materials/areas-specific-interest/ critical-raw-materials_en</u>
- 8 European Battery Alliance. <u>https://www.eba250.com/the-sustainable-future-of-batteries-in-europe-rests-on-a-developed-recycling-industry/</u>
- 9 Rho Motion 2024

Raw Material Demand - pure metal, tonnes

	2023	2030	2040
Li	18,044	72.967	127,160
Ni	90,216	337,084	583,597
Mn	22.192	83,949	238,985
Co	28,757	78,720	115.841
Na	9	5,761	34,129

Raw Material Demand- battery materials, tonnes

	2023	2030	2040
LCE	96,051	388,402	676,870
NiSO ₄	404.556	1.511.587	2.617.028
MnSO ₄	61.002	230,756	656,914
CoSO ₄	89,865	246,000	362,004
NaOH ₄	15	10.019	59,355

- 10 Cfr. EIT InnoEnergy and Demeter launch €500m European battery raw materials fund <u>https://www.eba250.com/eit-innoenergy-and-demeter-launch-e500m-european-</u> battery-raw-materials-fund/
- 11 Battery Council International. New Study Confirms U.S.' Most Recycled Consumer Product – Lead Batteries – Maintains Remarkable Milestone: 99% Recycling Rate. <u>https://batterycouncil.org/new-study-confirms-lead-batteries-maintainremarkable-99-recycling-rate/#:~:text=A%20lead%20battery%27s%20three%20 main,with%20no%20loss%20of%20performance.</u>
- 12 SWR. Lithium-Förderung in Deutschland Ressource und Umweltrisiko. <u>https://www.swr.de/swr2/wissen/lithium-foerderung-in-deutschland-ressource-und-umweltrisiko-102.html</u>
- 13 Deloitte. Unlocking Europe's Battery Potential: Powering growth, Driving Sustainability. https://www2.deloitte.com/content/dam/Deloitte/be/Documents/energyresources/european-battery-chain-landscape-and-opportunities-pov.pdf

$\left(+\right)$

#EUROBATMANIFESTO



ASSOCIATION OF EUROPEAN AUTOMOTIVE AND INDUSTRIAL BATTERY MANUFACTURERS

Avenue de Tervueren 188A, box 4 B - 1150 Brussels Belgium

www.eurobat.org

+ 32 2 761 1653 eurobat@eurobat.org