

Battery regulation 2023

In ten points (2023/1542)

The new European Battery Regulation affects the European availability of raw materials, the (economic) circularity, and the sustainability of the entire battery value chain



battery types



product standardisation
& collection



recycling & reuse

INTRODUCTION: THE MAIN POINTS OF THE EUROPEAN BATTERY REGULATION (summary)

On 28 July 2023, the European Commission published the new EU battery regulation in the EU's Official Journal, which repeals the former battery regulation 2006/66/EC of 06.09.2006 and which definitively entered into force on 17 August 2023. After a six-month period, the regulation shall apply in all EU Member States on **18 February 2024**.

The transition periods set out in the Battery Regulation are also set as a fixed date for the obligation arising from the regulation itself and as the effective date of the respective delegated acts. Theoretically, the latter date could also come after the deadline set for the requirement in question. In this article however, in all cases we set out from the fixed date of the articles in the regulation.

The main focus of the new European Battery Regulation is, in the wider context of the European Green Deal and the EU Circular Economy Plan:

- 1. to harmonise European product standards for all types of batteries,**
- 2. to set up a properly functioning internal European market for secondary raw materials for batteries**
- 3. to decrease the negative environmental effects in the production, use and end-of-life phase of all batteries.**

Discarded or waste batteries may therefore no longer be landfilled or incinerated and must be processed with limited emissions. Batteries are used in a global market, they are produced everywhere, and their raw materials come from all regions of the world. The EU is therefore also working on drawing up a **European Critical Raw Materials Act**.

The new Battery Regulation shall therefore also have an influence on the product regulations, transport regulations, environmental or environmental law, and regulations concerning waste, recycling and reuse/refurbishment.

In terms of content, the Battery Regulation relates to, among other things:

- **definitions of battery categories**
- the **"reusing" of batteries** in all aspects,
- the **collection and recycling**,
- the rules for a **properly functioning Extended Producer Responsibility (EPR)** for discarded battery compliance schemes such as Bebat VZW,
- the **reduction of the carbon footprint** of batteries,
- **minimum performance and durability requirements** (including lifespan),
- **using a percentage of the recycled material, the removability and replaceability of batteries from devices/appliances**,
- **safety requirements**,
- **provision of information to the battery user regarding environmental and safety aspects**,
- **socially responsible and sustainable procurement of batteries by government agencies**,
- **due diligence in the battery value chain**, especially in the extraction of raw materials.
- **due diligence procedure**
- **a CE marking**



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better for all of us

- **REGULATION ENTRY INTO FORCE:** Article 96 of the Regulation expressly states that the Regulation as a whole applies from **6 months after entry into force** (20 days after publication) i.e. **18 February 2024**; there is the conformity assessment (Chapter IV- see below) **by 18 August 2024**, and there is **Chapter VII (due diligence requirements) set to take effect on 18 August 2024**. **Chapter VIII (waste management)** applies **on 18 August 2025**. The current regulation (the old Regulation) for batteries will not be revoked until **18 August 2025** after publication, which therefore makes it possible to continue to place batteries on the market under that regulation.
- **IMPORTANT FOR PRODUCER/IMPORTERS: they must check the following elements:**
- EU declaration of conformity and the technical documentation in Annex VIII on whether the manufacturer has carried out the conformity assessment procedure.
- whether the battery carries the CE-marking and all required indications and symbols
- whether the battery was accompanied by the relevant documentation, instructions and safety information or whether the manufacturer complies with the applicable requirements with a view to the identification of the manufacturer.
- They are not permitted to import batteries that do not comply with the requirements relating to the restriction of hazardous substances, performance and sustainability parameters, as well as health and lifespan lifetime, the safety of stationary battery energy storage systems and battery management systems and that have not manufactured in conformity. The producer-importers must make sure that the storage and transport conditions do not affect the conformity of the battery with the current requirements, as long as the battery is their responsibility.

1. NEW BATTERY CATEGORY/CATEGORIES IN THE BATTERY REGULATION

In light of the current evolution and innovation in the market, **new battery categories** have been included in the Battery Regulation. Due to the predicted growth of the market of “emobility” in combination with the current characteristics of the batteries used to power electric vehicles, the European Commission has decided to take this development into account and create a new category of “traction batteries” (i.e. **“EV batteries”**) alongside the current battery categories (portable, industrial and automotive batteries) as part of the existing battery directive. According to the definition in Art. 3 no. 14 of the Regulation, a “battery for an electric vehicle” (**EV battery**) is a battery specifically designed to power hybrid and electric road transport vehicles. Therefore, these batteries would no longer be classified as industrial batteries as they are today under the Battery directive. In addition, batteries seen mainly in the electric two-wheeler sector (e-bikes, e-mopeds, e- scooters, etc.) (the so-called **“Light Means of Transport (LMT)”** or **Light Vehicles (LV)**) will be classified under a new and completely separate battery category, again to take into account the significant market share and predicted growth in this market.

Article 38 et seq. (chapter VI) lists all the obligations incumbent on the manufacturers/importers/distributors including exporters of re-use, necessary to “place a battery on the market” or to “place a battery into service”. (leasing, rental, etc.) (e.g. **Technical documentation** from Annex VIII and the CE declaration which **must be kept available for 10 years** for national authorities, model identification or serial number, parameter values, information to the market surveillance authority, etc.)

THE REGULATION THEREFORE HAS 5 CATEGORIES OF BATTERIES (CHAPTER I)

- **“SLI battery” or Automotive battery:** any battery used solely for providing power for the starting, lighting or ignition of a motor vehicle and that can also be used for auxiliary or back-up purposes in vehicles or other means of transport or machinery (called in the Regulation SLI –Start Light Ignition batteries); (usually lead batteries)
- **“Electric Vehicle battery”** (EV battery): A battery specifically designed to power Category L hybrid and electric road vehicles with a weight exceeding 25 kg, or of hybrid/electric vehicles from Category M, N or O. Not included: batteries from machines and boats, which are classified as industrial batteries, or batteries for light vehicles weighing less than or equal to 25 kg.
- **“Portable battery”:** any battery that:
 - is sealed,
 - weighs less than or equal to 5 kg,
 - is not specifically designed for industrial purposes, and
 - is neither an electric vehicle battery or a light vehicle battery or an SLI battery;
- **“Industrial battery”** means a battery specifically designed for industrial use and all other batteries with a weight above 5 kg that is not a light vehicle battery, an electric vehicle battery or an SLI battery; Within this category “Batteries for stationary Energy Storage Systems”(ESS) are defined as follows: an industrial battery with internal storage specially designed to store and supply electrical energy from the power grid, or to store and supply electrical energy to the end user, wherever this battery is used or by whom it is used.
- **“Light vehicle batteries (LMT)”:** any battery that is sealed and has a weight of less than or equal to 25 kg, designed to provide electrical power for the traction of wheeled vehicles that can be propelled by the electric motor alone or by a combination of motor power and human power, including approved Category L vehicles within the meaning of Regulation (EU) no. 168/2013, and which is not a battery of an electric vehicle.

2. SUSTAINABILITY AND SAFETY REQUIREMENTS (CHAPTER II)

The durability and safety requirements in **Chapter II** of the Battery Regulation form the regulatory heart of the new Regulation and introduce, in addition to the raw material restrictions already described in the current Battery Directive, **completely new regulatory requirements** for the market product, "battery". This concerns in particular:

- **Carbon footprint (definition below)** across the entire life cycle of **electric vehicle batteries (> 2 kWh), batteries for light vehicles, industrial batteries (> 2 kWh) and energy storage batteries (> 2 kWh) (ESS)** i.e. From the extraction of raw materials to the production of the actual battery components, and the transport to the end user to the collection, recycling and disposal of used batteries. DATES: (article 7)
 - **Information requirement** in the form of **a carbon footprint statement** (from 18 February 2025 for EV batteries, on 18 February 2026 for industrial batteries (> 2 kWh), on 18 February 2028 for batteries for light vehicles and on 18 February 2030 for ESS batteries (> 2 kWh).
 - **Classification into carbon footprint performance classes** on 18 February 2026 for EV batteries, on 18 February 2027 for industrial batteries (> 2 kWh), on 18 February 2030 for batteries for light vehicles and on 18 February 2032 for ESS batteries (> 2 kWh).
 - **Maximum threshold value** for life cycle carbon footprint on 18 February 2028 for EV batteries, on 18 February 2029 for industrial batteries (> 2 kWh), on 18 August 2031 for batteries for light vehicles and on 18 August 2033 for ESS batteries (> 2 kWh).

The carbon footprint is to accompany the battery until the statement becomes available via the QR code.

EXPLANATION: The **CO2 footprint** is defined as the sum of the quantities of greenhouse gases emitted in or removed in a product system (article 3, no. 21). The EU endeavours to reduce the emissions and therefore views the introduction of a carbon footprint as a step to achieve climate neutrality by 2050 as a Union objective.

- To this end an IT tool needs to be developed. The details of the CO2 footprint are set out in article 7 of the new regulation.
- There will be three regulation levels (see above), which each take effect at a different point in time and certainly act to step up the level of ambition.
- To this end, implementing acts or delegated acts must be gradually introduced in support of the development of harmonised calculation rules for the required CO2 footprint statement and to calculate CO2 emission performance classes.
- **Recycled content** in new industrial batteries from 18 August 2028, in new EV batteries from 18 August 2028, in new batteries for light vehicles from 18 August 2033 and in new SLI batteries from 18 August 2028 in terms of **cobalt, lead, lithium and nickel**. During the first phase, only the statement (**documentation**) of the actual recycled content is required; in a **further two subsequent stages**, progressively higher minimum recycled content will be required for new batteries (Article 8). **This obligation also applies to "importers"; from now on they will no longer be allowed to place batteries on the European market that do not comply with European rules.** The EU value chain currently sources most of its batteries from the Far East. Producers from outside the EU shall therefore have to comply with these European sustainability targets for batteries, which shall certainly require good contractual agreements in the future for all those placing batteries on the market in European countries. In the context of this recycled content, industrial batteries must be subject to the following staged requirements (the Parliament even proposes to extend these requirements to certain portable batteries):
 - **From 18 August 2028 for industrial batteries (> 2 kWh), from 18 August 2028 for EV batteries and SLI batteries, from 18 August 2028 for batteries for light vehicles**, batteries must be accompanied by documentation stating how much cobalt, lead, lithium or nickel each contains (if any) from recycled waste.
 - **From 18 August 2031**, industrial batteries > 2 kWh, EV batteries and SLI automotive batteries must contain a minimum proportion of recycled materials, namely 16% cobalt, 85% lead, 6% lithium and 6% nickel.
 - **From 18 August 2036**, these types of batteries will be required to have an increased amount of recycled content, and the minimum will increase to 26% cobalt, 12% lithium and 15% nickel (lead remains at 85%).

- PERFORMANCE AND DURABILITY REQUIREMENTS.

PORTABLE BATTERIES

- **From 18 August 2028:** portable batteries (excluding button cells) for general use (4.5 Volts (3R12), D, C, AA, AAA, AAAA, A23, 9 Volts (PP3)) may only be placed on the market if they meet the electrochemical performance and durability parameters that have been set by the Commission.
- **Specific requirements shall be determined for each category via a delegated act**, which shall be adopted by the Commission by 18 August 2027 at the latest for portable batteries.
- **31 December 2030:** the Commission shall carry out a study to assess the feasibility of any measures to phase out the use of general purpose non-rechargeable portable batteries, and shall submit a report to the European Parliament and the Council with proposals of appropriate measures, including any legislative proposals.

RECHARGEABLE INDUSTRIAL BATTERIES, BATTERIES FOR LIGHT VEHICLES (LMT) AND EV BATTERIES

- **Information requirement regarding the performance parameters** (in Annex VIII of the Battery Regulation) regarding the electrochemical processes and robustness of rechargeable industrial batteries by 18 August 2028 and for batteries of electric vehicles by 18 August 2027, and for batteries for light vehicles delegated act by 18 August 2027.
 - By 18 August 2024, rechargeable industrial batteries for internal Energy Storage Systems (ESS) must comply with minimum safety parameters that shall be determined by the Commission.
 - By 18 August 2024, these types of batteries must be accompanied by a **document** containing the electrochemical performance and durability parameter values.
- **Removability and replaceability of portable batteries and batteries for light vehicles (LMT);** in this regard, it should be noted that this is essentially a liability for the producer of electrical and electronic equipment and light vehicles (usually two-wheelers such as e-bikes).

Products with portable batteries and batteries for light vehicles must be designed so the batteries can be removed and replaced easily by the end user at any time during the life of the product, and they must be accompanied by instructions and **safety information on the use, disposal and replacement** of the batteries. This information must be available permanently online.

There are very few **limited exceptions** to these regulations:

- there is a partial exemption to allow a product to be designed so that battery replacement is performed by an independent professional (and not by the end user) for products designed to operate in an environment subject to splashes, streams of water or immersion in water, and those that are intended to be washable and rinseable (when necessary to ensure safety), as well as for a limited category of medical devices and medical devices.
- there is a full exception when continuity of power supply and a permanent connection between the product and the battery is required to ensure safety, or for products that, for data integrity reasons, collect and deliver data as their main function.

By 18 August 2027, portable batteries and batteries for light vehicles must be designed in such a way that consumers are able to remove and replace them easily without assistance.

- **Safety of stationary Energy Storage Systems.** (or ESS)

Extensive (detailed) amendments have been proposed in this area. In particular, this concerns the applicability of the individual obligations for the different battery types and the respective starting dates of the validity of the individual obligations or the transitional periods to be specified.

The safety requirements in the proposed Battery Regulation, as mentioned in Article 4 and Article 12. Article 4, a general-purpose requirement, covers all types of batteries.

Article 12 only concerns stationary **battery systems (ESS)** and refers to **Appendix V** with specific safety parameters (such as prevention of short circuit, heating, etc.). A producer can claim the battery is safe after it has carried out all the tests described in **Appendix V** of the proposed Battery Regulation. The implementation of these tests does not have to take account of any specific safety aspects of the battery and the context in which it is located. **Appendix V may be amended by the European Commission in the light of technical and scientific progress** (e.g. new or updated standards). This means the following:

- The safety requirements applicable to all types of batteries (Article 4) will not be further elaborated in more detail via a more detailed requirement or a reference to an assessment framework, approach or standard. This means (as is the case for the current Battery Directive) that the general approach for **product safety from the Product Safety Directive** will be used.
- **The specific safety requirements in Article 12 only apply to stationary battery systems. (ESS)**
- No distinction is made between the battery chemistry and the various hazards that may be associated with it.

The safety requirements are guaranteed by means of a self-declaration, while the sustainability requirements (CO2 footprint, recycling and raw materials/risk areas) require verification by a **Notified Body (NB)** or conformity assessment body, after which **the CE marking** can be assigned to the battery.

**Sustainability and safety requirements in the proposed Battery Regulation
To be corroborated by technical documentation**

		Article 17 Conformity Assessment	
		Appendix VIII, Part A, Self-declaration or internal production control	Appendix VIII, Part B Verification by NB
Article 6	Substance Restrictions	X	
Article 7	Carbon footprint of batteries for electric vehicles, Light Means of Transport (LMT) and rechargeable industrial batteries		X
Article 8	Recycled content in industrial batteries, Batteries for electric vehicles and SLI batteries		X
Article 9	Performance and robustness requirements for portable batteries for general use	X	
Article 10	Performance and robustness requirements for LMT batteries, rechargeable industrial batteries and batteries for electric vehicles	X	
Article 11	Removability and replaceability of portable batteries and batteries for light vehicles (LMT)		X
Article 12	Safety of stationary battery systems for energy storage (see Appendix V: Safety Parameters)	X	
Article 13	Labelling and marking of batteries	X	
Article 14	information on condition & expected lifetime of batteries	X	

IMPORTANT FOR PRODUCERS OF PRODUCTS WITH A BATTERY INSIDE

- A producer of a product in which the battery is incorporated understands the context of use better than the battery manufacturers who supply the battery for the product/device/apparatus/vehicle or work equipment/tool. However, the current Battery Directive and Battery Regulation do not impose any specific requirements on the producer of the battery to provide safety information to the next party in the chain who incorporates the battery into their end product (which in turn falls under its own legislation).

This means producers of a product in which the battery is incorporated therefore have to set the safety requirements for the battery based on the use of the product.

- The Welfare at Work Codex is also applicable **to professional use of tools with a battery** for additional protection. This requires the employer to draw up an inventory of the use of the work equipment and to check the supplier's information against how the work equipment is actually used by the employees. The employer then uses this to identify any possible risks posed by the work equipment, and subsequently any measures required to use the work equipment safely based on the information provided by the supplier. **(Risk Assessment)**. The Battery Regulation does not contain any specific requirements that oblige the producer to pass the correct safety information along the chain to the professional end user so the professional end user can carry out the risk assessment.

3. LABELLING AND INFORMATION REQUIREMENTS FOR BATTERIES (CHAPTER III)

The provisions of **Chapter III** concerning the **labelling and information requirements** are intended to extend the existing labelling requirements by numerous elements. The relevant **Appendix VI** (*) in the Regulation for example, requires the hazardous substances in the battery (defined in Art. 3 No. 52 via a reference to certain hazard classes of Regulation (EC) no. 1272/2008), **the date of manufacture, and future placing on the market) to be reported on the battery.**

(*)(**Appendix VI A**) General battery information: Battery label information: Place of manufacture (geographical location of a battery manufacturing facility); production date (month and year); Weight; Performance values; Chemistry; Hazardous substances in the battery other than mercury, cadmium or lead; extinguishing agent in the event of a fire

In addition, there is a new requirement for **mandatory product labelling** – in the future, every battery must be provided with **a QR code (Appendix VI C)**, and this QR code must provide access to all the labelling information and additional information (e.g. identification by serial number) and reports that must be provided or prepared in the context of complying with other obligations under the Battery Regulation. Under the current set-up, the QR code labelling shall not remove the need for **physical labelling elements on the battery** (or, in exceptional cases, on the packaging and/or accompanying documentation), even though the QR code is linked to all the required labelling elements. **This means double labelling/markling.** In this context, the question arises whether 100% duplication of the labelling elements listed in Appendix VI Parts A and B on the battery and through the **QR code** really offers added value, or whether certain elements can also be covered only via the QR code in favour of clear physical labelling, or despite this, whether the QR code can be used as an emergency solution if it is not possible to label the battery with all the mandatory elements. (=Article 7, 8 and 10)

As required under the current battery directive, batteries must be marked with the **crossed garbage can symbol (Appendix VI(B))**, and batteries containing cadmium and lead levels above a set parameter must be marked with the respective chemical symbol for the metal involved.



In addition to the labelling requirement, **for rechargeable industrial batteries, EV batteries, and batteries for light vehicles (LMT), a Battery Management System (BMS)** will be made mandatory which contains **accessible data** about the **parameters to determine the ageing state and the expected lifetime of the battery**, which must be accessible at all times to the battery purchaser (the obligation to provide information set out in Article 73 of the Battery Regulation rests with the original producer all the way to the “refurbisher”).

This is intended to support the second-hand market for used industrial batteries, EV batteries and batteries for light vehicles. This obligation seems somewhat in contrast to the obligation to use recycled raw materials from used batteries. This means all other batteries, such as electric bicycles, scooters, and small batteries used in other means of transport, can be refurbished (reused) by third parties under less stringent safety requirements.

DATES labelling obligations:

- **From 18 August 2025:** the symbol for “separate collection” (crossed out crate) (part B of Annex VI) for all batteries (article 13, paragraph 4)
- **From 18 August 2026:** general information about batteries on battery labels (part A of Annex VI) (article 13, paragraph 1)
- From 18 August 2026: capacity information of portable rechargeable batteries, LMT batteries and starter batteries (article 13, paragraph 2)
- **From 18 August 2026:** the symbol “non-rechargeable” for corresponding portable batteries and the specification of the average minimum operating time (article 13, paragraph 3)
- **From the entry into force:** the symbol of the heavy metal (lead or cadmium) (article 13, paragraph 5)
- **From 18 February 2027,** all batteries must carry a QR code, in black and readable using common QR code readers (Annex VI, part C). The QR code must refer to the above information at the relevant times and, in the case of LMT batteries, industrial batteries with a capacity in excess of 2 kWh and EV batteries, a link to the battery passport and, in the case of other batteries, a link to relevant information, declaration of conformity, report, information about the prevention and management of waste batteries (article 13, paragraph 6).

In addition, by 31 December 2027, the Commission will also assess the feasibility and potential benefits of setting up “deposit systems” for batteries, especially general purpose portable batteries. To achieve this, the Commission will report to the European Parliament and the Council and consider taking appropriate action, including the adoption of legislative proposals.

4. ASSESSMENT OF CONFORMITY UNDER THE BATTERY REGULATION & CE MARKING (CHAPTER IV)

CE MARKING ON THE BATTERY

The rules on the CE marking apply in accordance with article 30 of Regulation (EC) no. 765/2008. The CE marking is to be followed by the identification number of the notified body, if so required under Annex VIII. Said identification number is applied by the notified body itself or, in compliance with its instructions, by the manufacturer or his authorised representative (article 20, paragraph 3). The CE marking and the identification number are also allowed to be followed by a pictogram or another sign which highlights a particular risk, use or hazard in connection with the use, storage, handling or the transport of the battery (article 20, paragraph 4). **The changes in the application of the CE marking apply from 18 August 2024** (ref. art. 38 + annex VIII).

CONFORMITY ASSESSMENT PROCEDURE

To be able to place batteries on the market, they must comply with the requirements set out in the regulation. Conformity is checked by way off the conformity assessment procedure, of which the norms and requirements are supplemented with the performance and sustainability parameters, the parameters to determine the health status and expected lifetime, as well as the CO2 footprint and the recycled content.

To strengthen confidence in the battery market, to strengthen the obligation of producers to comply with the requirements of the Battery Regulation, and to facilitate enforcement by market surveillance authorities, **Chapter IV** contains F the **obligation to assess the conformity of batteries**. In conjunction with the specifications in **Appendix VIII**, Articles 15 and 17 provide **two types of conformity assessment procedures** for the assessment of conformity under the Battery Regulation, which are dependent on the applicable obligations and the batteries involved – either **a pure internal production check (self-certification)**, or **an internal production check with supervised verification by a “notified body” (NB notified body)**. (see overview in box above in Point 1) **Regardless of the specific procedure, an EU declaration of conformity and CE marking shall become mandatory for batteries in the future**. In this regard, the Battery Regulation shall eventually be aligned with the other legislation that prescribes the use of a **CE marking**.

The assessment of the conformity of batteries with respect to the electrochemical and sustainability parameters, as well as the parameters to determine the health status and expected lifetime, is to be carried out in accordance with the following procedure:

- For mass-produced batteries:
 - Module A – Internal production control (part A of Annex VIII)
 - Module D1 – Quality assurance of the production process (Annex VIII, part B)
- For non mass-produced batteries:
 - Module A – Internal production control (part A of Annex VIII)
 - Module G – Conformity based on unit verification (part C of Annex VIII) (article 17, paragraph 1)

The assessment of the CO2 footprint and the recycled content is to be carried out in accordance with the following procedure:

- For mass-produced batteries:
 - Module D1 – Quality assurance of the production process (Annex VIII, part B)
- For non mass-produced batteries:
 - Module G – Conformity based on unit verification (part C of Annex VIII) (article 17, paragraph 2)

The CE marking shall be visibly, legibly and indelibly affixed to the battery. In cases where this is not possible or justified due to the nature of the battery, it shall be marked on the packaging and documentation accompanying the battery.

5. DUTY OF CARE OBLIGATIONS IN THE VALUE CHAIN (Chapter VII)

An important aspect of the Battery Regulation is that **Art. 47, 48 & 49 in conjunction with Appendix X** of the Regulation provides for **extensive due diligence obligations** in the value chain, which must be satisfied by **all market participants (except SMEs with a turnover below €40 million) that market certain batteries** (i.e. making them available on the EU market for the first time). On the one hand, the **due diligence obligations** in the value chain relate to the relevant supply chains for **cobalt, natural graphite, lithium, nickel and certain chemical compounds from these raw materials**, and on the other hand on aspects such as **human rights, environmental concerns, human health and occupational health and safety**. The new requirements contain **significant deviations** at a detailed level, despite being aligned with the existing Regulation (EU) 2017/821 to establish the due diligence supply chain obligations for Union importers of tin, tantalum, tungsten, ores and gold from conflict-affected and high-risk areas (the so-called “Conflict Minerals” Regulation) and the existing proposal for a due diligence and accountability directive to be applicable to companies.

DUE DILIGENCE RULES

From 18 August 2025, initial distributors of batteries with a turnover of at least 40 million EUR/year must meet the obligations in the area of due diligence in the supply chain by establishing a system of diligence requirements which comprises three obligations: setting up a management system, a risk management plan and the disclosure of information.

The diligence must be assessed by a notified body and audits must be conducted on a regular basis to ensure appropriate implementation. To this end, an audit report is to be prepared (article 45 bis, paragraph 1 bis), which is to be kept along with other documents for a ten-year period by way of proof of diligence. The above requirements may also be conducted in association with other stakeholders.

1. MANAGEMENT SYSTEM

The distributor must:

- Include raw materials (Annex X, point 1) and **social and environmental risk categories** (Annex X, point 2) in its business strategy in order to be able to **clearly communicate with these suppliers and the public at large**
- Include norms in their systems of diligence requirements that meet the internationally recognised systems of diligence requirements within the meaning of Annex X, point 3 bis
- Organise internal management systems in such they way that they comply with the rules on due diligence

In addition, they are required to put in place and implement a **system of control and transparency of the value chain**, which is to be documented with the following information:

- **Description of the raw material**, with the inclusion of the trade name and type
- Name and address of the **supplier** who supplied the raw material in the batteries to the economic operator who places the batteries containing the raw material in question on the market
- The country of origin of the raw material and the market transactions from the time of the raw material's extraction all the way up to the supplier and the economic operator
- Quantities of raw material of the batteries placed on the market, in **percentages or weight**.
- Independent **test reports** of a notified body relating to upstream suppliers.

Where there reports are unavailable: if the raw material originates from a conflict region or high risk region, supplementary information on the mine of origin, the locations where raw materials were consolidated, traded and processed, and where axes, fees and royalties are **paid** (due diligence and risk management measures must be included in the contracts and agreements with suppliers. A grievance (complaints) mechanism, an early warning system and a remediation mechanism must be instituted based on the UN's guiding principles on business and human rights.

2. RISK MANAGEMENT PLAN

The risk management plan is to list and describe the risks of harmful effects in the supply chain in connection with the risk categories specified in Annex X, point 2. To this end, a strategy must be designed and implemented to manage the risks identified so as to prevent adverse impacts:

- Transferring the results of the risk assessment to the highest level of management
- Putting in place measures in compliance with the international diligence requirements of Annex X, point 3 bis, whereby pressure is brought to bear on suppliers, subsidiaries and subcontractors
- Designing and implementing the risk management plan, monitoring and tracking the results of the actions, reporting and considering ending the business relationship with suppliers, their subsidiaries or subcontractors
- Conducting additional incident and risk assessments for risks which must be restricted.

3. DISCLOSURE OF INFORMATION

Distributors must prepare a **due diligence report** (article 45 sexies, paragraph 5) which reports on:

- Access to information
- Public participation in decision-making processes
- Access to the courts in environmental matters relating to the purchase, processing and trade in raw materials.

4. VERIFICATION BY THIRD PARTIES

The verification of compliance is carried out independent third parties. The purpose being to make sure the due diligence obligations comply with the due diligence regime. The notified body is to prepare a test report specifying the activities carried out and the results.

- Inspections of companies and gathering information of stakeholders.

There is a risk that this shall lead to a huge increase in communication costs in the supply chain. The Battery Regulation states that compliance with these due diligence obligations must be checked by a **Notified Body** to ensure compliance with the relevant requirements.

6. BATTERY PASSPORT

Bebat also highlights the obligation set out in **Art. 78 of the Battery Regulation to link a battery passport to industrial batteries (> 2 kWh), EV batteries and batteries for light vehicles (LMT) from 18 August 2027**. The passport must **be accessible online** via an identification/access code printed or engraved on the battery. The battery passport must contain detailed information about the name of the battery producer and the composition of the battery, information about the carbon footprint, the expected lifespan, and certain information about the operation of the battery.

The battery passport is aimed at economic operators and recyclers. It entails the tracking and tracing of batteries, information on the CO₂ intensity of their production processes, as well as on the origin of the materials used, their composition, with the inclusion of raw materials and hazardous chemicals, repair, repurposing and dismantling activities, as well as on the processing, recycling and recovery processes which the battery may be subjected to at the end of its lifetime. It is a kind of **digital file** with information on the battery model and on the individual battery which is set out in **Annex XIII**

- With its own identifier, which the distributor assigns to the battery, printed or engraved
- The passport will be linked to the information about the basic characteristics of each battery type and model, which will be stored in the data sources of the digital exchange system.
- It is **made available to be consulted online** by way of the QR code.
- The dismantling of the battery, with the inclusion of relevant safety measures and the exact composition of each battery, to enable repairers, reprocessors, operators of re-use facilities and recyclers to be consistent with the performance of their respective activities.
- In the case of individual batteries, information for the buyer to make the individual battery available to independent energy aggregators or energy market participants.
- It also provides access to the performance and sustainability parameters.

This is intended to raise transparency in the supply chains and value chains. The content is broken down further based on information.

- **Which must be accessible to the public at large (Annex XIII point 1)**
- **Which are intended to be exclusively accessible to authorised economic operators** and to the Commission (**Annex XIII, points 2 and 4**);
- And which **must be reserved for notified bodies, market surveillance authorities and the Commission**.

Information for natural or legal persons include:

- the **dismantling of the battery, with the inclusion of safety measures and the composition of the battery**.

The business owner is to make sure the information is accurate and complete.

The battery passport expires when the battery has been recycled.

The Commission also plans to establish (delegated acts) for the battery passport.

7. LIFE FROM THE BATTERY WASTE STAGE (Chapter VIII)

Battery producers have extensive producer responsibility. An economic operator–producer who places a battery on the market for the first time in the territory of a Member State by preparing the battery for reuse, or by repurposing or reproducing the battery, shall be considered as the producer of such a battery for the purposes of this Regulation and shall have Extended Producer Responsibility (EPR)(re-use/ repurposing of batteries for light vehicles (LMT), industrial batteries and EV batteries Article 73)

The EU member states are required to draw up a **“register”** to monitor compliance of producers with regulations concerning the management of waste batteries. The register will be managed by “the competent authority” of the EU Member State. **Producers are required to register**, and the registration is granted upon submission of an application.

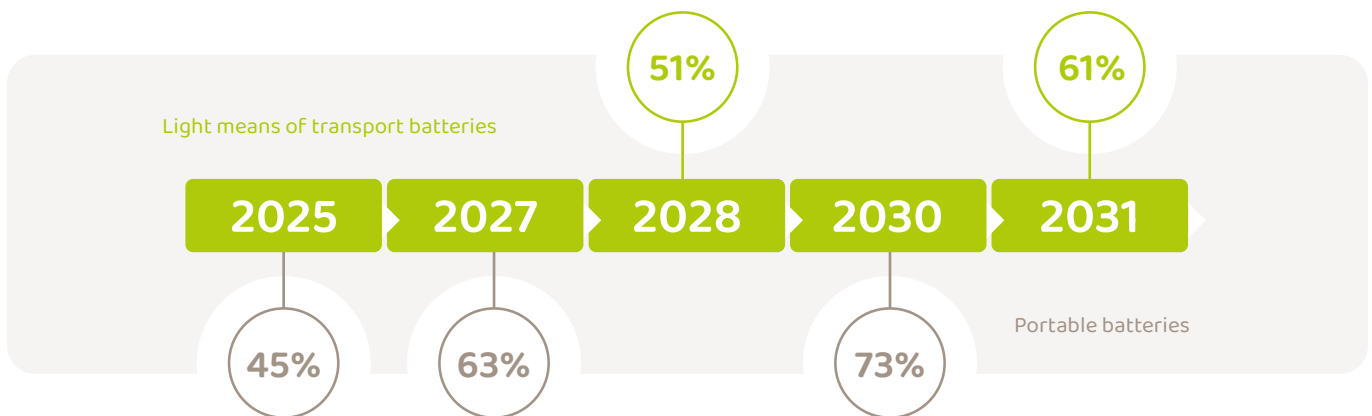
The producer must provide the following information upon registration:

- Location data of producer, as well as telephone number and other contact details.
- Producer identification code, trade register number and European or national tax number.
- In case of authorisation, the details of the authorised party.
- The type of batteries the producer wants to put on the market.
- The brand under which the batteries are to be marketed.
- Information on how the producer fulfils its responsibilities under Article 47.

This registration serves to check compliance with the obligations detailed in **Chapter VIII** of the Regulation. **Each country shall determine how this shall be organised.**

The Battery Regulation also introduces several new measures regarding discarded batteries. These include the following obligations:

- The Regulation establishes the extended responsibility of “producers” (*) for batteries that will be delivered to a market of a Member State for the first time (=Article 56);
- An obligation arises for the producers to ensure and facilitate targets for waste collection (take-back obligation) of various types of batteries (=Articles 57 and 58);
- This goes hand in hand with an obligation for Member States to ensure **45% of waste portable batteries** are collected before 31 December 2023, 63% before 31 December 2027 and **73%** before 31 December 2030 (=Article 55). (Based on or with reference to the PoM-put on market figures per country averaged over three previous years.) For batteries for light vehicles (**LMT batteries – “light means of transport batteries”**: e-bikes, scooters, etc.) Member States must ensure that 51% are collected by 2028 and **61%** by 2031. This is based on the calculation methodology of what the Commission calls “available for collection”.
- Articles 74 and 75 state respectively which prevention information and waste management information per battery type must be provided to the end user or consumer by the producer and/or battery management bodies such as Bebat. (organisation of collection network, information about labelling, recycling and importance of reuse.



Extended Producer Responsibility (EPR) is imposed on **the “producer”** (who is not necessarily the “manufacturer”). It actually means the person who places batteries on the market for the first time in a Member State. In order to fulfil their obligations, producers can also organise themselves collectively (**Articles 56 and 57**) in an organisation for producer responsibility (such as Bebat vzw/asbl). This responsibility includes in particular the obligations to finance and organise the separate collection and treatment of waste batteries, to report to the competent authority, to promote (raise awareness of) the separate collection of batteries, and to provide information about everything related to the end of battery life.

The producers must ensure, individually or through a producer responsibility organisation (such as Bebat vzw/asbl), that **all waste portable batteries** are collected, regardless of their nature, voltage, brand or origin. To this end they shall, free of charge for the end user, set up a **network of collection points in collaboration with other actors involved, including distributors, establishments for the collection of waste electrical equipment and end-of-life vehicles, government agencies (municipalities/intermunicipal companies) and voluntary collection points**. Producers and their collective organisation(s) (e.g. Bebat vzw) are also obliged to make the necessary practical arrangements for the collection and transport of waste batteries from these collection points to ensure the waste portable batteries and batteries for light vehicles (LMT) are subsequently processed and recycled. **Producers of waste portable batteries and batteries for light vehicles (LMT) are obliged to meet the collection targets mentioned above.**

The collection arrangements depend on the **permission or acknowledgement** of the competent authority responsible for verifying that the producers are fulfilling their obligations regarding the **collection of waste portable batteries**, including the achievement of the objectives. **In Belgium, this is done by the environmental administrations of the Regions. (OVAM (VL), Leefmilieu Brussel and DSD (WL)).**

The producers of **automotive batteries (SLI batteries), industrial batteries, batteries for electric vehicles (EV batteries) and now batteries for light vehicles (usually two-wheeled) (LMT batteries)** will also be obliged to organise the collection of all discarded batteries individually or through a producer responsibility organisation (for example Bebat vzw/asbl).

The collection is free of charge for the end user and without obligation to buy a new battery. The producer takes the waste automotive batteries (SLI), industrial batteries, batteries for electric vehicles (EV batteries) and batteries for light vehicles (Light Means of Transport (LMT)) off the end users or from accessible collection points in co-operation with distributors of these types of batteries, treatment and recycling facilities for waste electrical and electronic equipment and for waste vehicles, government authorities, and third parties who carry out waste management on their behalf.

A producer, **in the case of the individual compliance** with the obligations under the Extended Producer Responsibility (EPR), and battery management bodies (such as Bebat vzw) that have been appointed in the event of the **collective fulfilment** of Extended Producer Responsibility (EPR) obligations, **provide a guarantee (Article 58.7)** to cover the costs incurred by the producer in connection with waste management activities or in case of non-compliance with Extended Producer Responsibility (EPR) obligations, including in the case of permanent cessation of its activities or insolvency. **Member States may impose additional requirements on this guarantee.**

The costs covered by the producer for the EPR obligations are shown separately to the end user at the point of sale of a new battery.

By 18 August 2025 at the latest, the Member States shall lay down the rules for **the sanctions applicable to infringements of this Regulation** and take all necessary measures to ensure they are implemented. The sanctions laid down shall be effective, proportionate and dissuasive. Member States shall immediately notify the Commission of those rules and measures and of any subsequent amendment affecting them.

8. REUSE OF BATTERIES & RECYCLING (Chapter VIII)

• REUSE

Article 73 of the Battery Regulation also contains requirements concerning the activities known as “reuse” (preparing for re-use) and “preparing for repurpose” (reuse for another destination) to give a second life to **industrial batteries, batteries for light vehicles and batteries for electric vehicles (EV batteries)**. It contains the rules to facilitate this reuse, including the obligation for the producers of the batteries concerned to inform economic operators involved in the reuse about how to grant access to **the data of the Battery Management System (*)** to review the condition (“**State of Health**”) of a battery. **The provisions here also state the requirements for anybody who reuses or performs reproduction activities to ensure battery testing, battery performance testing, packaging and transfer of batteries and their components in accordance with appropriate quality assurance and safety instructions.** The people or entities performing reuse activities shall ensure the reused battery complies with the new Regulation and other relevant regulations, as well as any current and future technical standards that are in force for their specific re-use when they are returned/ placed on the market. The safety requirements described in Article 73 of the Battery Regulation regarding reuse (**preparing for reuse and preparing for repurpose**) only applies to industrial batteries, electric vehicle batteries (EV batteries), and batteries for light vehicles (LMT). This sets the same safety requirements for new batteries and re-use and repurpose batteries.

()=definition: “**Battery Management System**”: an electronic device that regulates or manages the electrical and thermal functions of the battery to ensure battery safety, performance and longevity, and that manages and stores data about the parameters for determining the health status and expected life of batteries as referred to in Appendix VII, and which communicates with the vehicle, light means of transport or device in which the battery is installed, or with a public or private charging infrastructure;*

If, however, it is shown that a battery for reuse or reproduction **was placed on the market before entry into force** of certain requirements related to the carbon footprint, content of recycled material, performance and robustness, and due diligence in the supply chain, the obligations under those provisions after reuse or reproduction **are not applicable** on the relevant (reused) battery. In order to document that a battery has ceased to be waste after repurposing or reproduction, the economic operator (new “producer”) carrying out the relevant operation shall, upon request from a competent authority, demonstrate the following:

1. proof of the **“self-assessment” (Bebat has developed a model document for this)** and tests of battery condition and product status (according to Article 6 of the EU Waste Framework Directive),
2. a guarantee that the battery shall be used (by means of an invoice or sales agreement), and
3. that the battery is adequately protected against damage during transport and loading and unloading.

This information is made available on equal terms to end users and third parties acting on their behalf as part of the technical documentation accompanying the reused battery when placed on the market or put into service.

An economic operator placing a battery on the market from preparation for re-use or reproduction-repair, remanufacturing, is considered the producer of said battery for the purposes of this Regulation and has an Extended Producer Responsibility EPR or acceptance obligation. Due account must be taken of the fact that because of re-use batteries may come under a new category.

At the request of the market surveillance authorities, the relevant documentation must be provided to demonstrate that the revised batteries comply with the right definition.

• RECYCLING (Appendix XII)

Waste portable and industrial batteries must be collected and recycled, and the recycling process must comply with **(i) minimum efficiency standards and (ii) minimum recovery levels of cobalt, copper, lead, lithium and nickel.**

By 31 December 2027, recycling processes must be able to recycle at least 90% cobalt, 90% copper, 90% lead, 50% lithium and 90% nickel. By 31 December 2031, this will be 95% for cobalt, copper, lead and nickel and 80% for lithium.

The minimum levels of recovered resources such as cobalt (16%), lead (85%), lithium (6%) and nickel (6%) from production and consumer waste must be reused in new (industrial, EV and SLI) batteries. These targets shall be gradually increased and other types of batteries shall also have to meet these requirements.

With respect to **recycling efficiency (%) expressed in average weight**, the following percentages are laid down in the Regulation for the following battery chemistries **by 31 December 2025:**

- (a) recycling of **75%** for lead batteries;
- (b) recycling of **65%** for lithium based batteries;
- (ba) recycling of **80%** for nickel-cadmium batteries;
- (c) recycling of **50%** from other waste batteries.

By 31 December 2030

- (a) recycling of **80 %** for lead batteries;
- (b) recycling of **70%** lithium based batteries.

When **recycling occurs outside the EU**, waste portable and industrial batteries must be able to meet the recycling targets (as shown above) when exported from the EU, but only if the exporter can confirm that the treatment has taken place under conditions equivalent to the requirements of the Battery Regulation. Parliament has proposed a higher standard requiring the exporter to “provide documentary evidence approved by the competent authority of the destination” demonstrating that the relevant requirements have been met. Parliament is also attempting to ensure compliance with relevant requirements for the protection of the environment and human health in other EU legislation.

9. DELEGATED ACTS

In accordance with Article 89, the Commission is competent to establish delegated acts. This means the European Commission can impose stricter verification requirements that do not have to go through the political legislative process (via the European Parliament and Council). For several provisions in the Battery Regulation, the Commission can adopt **delegated acts** to give substance and guidance to important aspects of the Battery Regulation. For example, amendments can be made to Appendix VIII by introducing additional verification steps in the conformity assessment modules.

10. TECHNICAL STANDARDS

Standards and norms have been developed for the safe design, production, transportation, use, collection and degree of recyclability of all types of batteries. These standards are established at European and international level.

For electrical and electronic products, the European and international standardisation bodies work together, because these products serve a global market. These are the International Electrotechnical Commission (IEC) and the European Committee for Electrotechnical Standardisation (CENELEC) and European Committee for Standardisation (CEN) and to a lesser extent the International Standards Organisation (ISO). To achieve standardisation for batteries, these bodies have formed the Technical Committee TC 21 and the sub-committee SC21a. These committees develop standards for a wide range of battery systems: from automotive to portable individual batteries.

PHD/August 2023/Bebat