

Charging the future: How the new EU battery regulation will shape the next decade

Steve Binks International Lead Association





- Batteries are key to the decarbonisation process and the EU's shift towards zero-emission
- Demand for batteries is expected to grow by more than **10X** by 2030
- EU Battery Regulation is the 1st holistic piece of legislation under EU Green Deal – covering entire life cycle: sourcing, design, use and end-of life
 - Replaces the current batteries directive of 2006
- Will apply to **all batteries** including portable batteries, electric vehicle batteries, industrial batteries, starting, lightning and ignition (SLI) batteries and batteries for light means of transport (e.g. electric bikes, e-mopeds, e-scooters).
- Applies to battery whether it is incorporated into a product or is supplied together with or separately from a product in which it is to be used.
- "Battery producers" placing a battery on the EU market will be subject to EPR including, for example, financing the separate collection and transport of waste batteries.
- Has **dual legal basis** with all elements, except end-of life management (Chapter VIII), harmonized across the EU

Overview





Sustainability and safety:

e.g. carbon footprint rules, min. recycled content, performance & durability criteria, safety parameters

Labelling and information:

e.g. information on sustainability and data on state of health and expected lifetime

End-of-life management:

e.g. collection targets & obligations, targets for recycling efficiencies & recovered materials, EPR

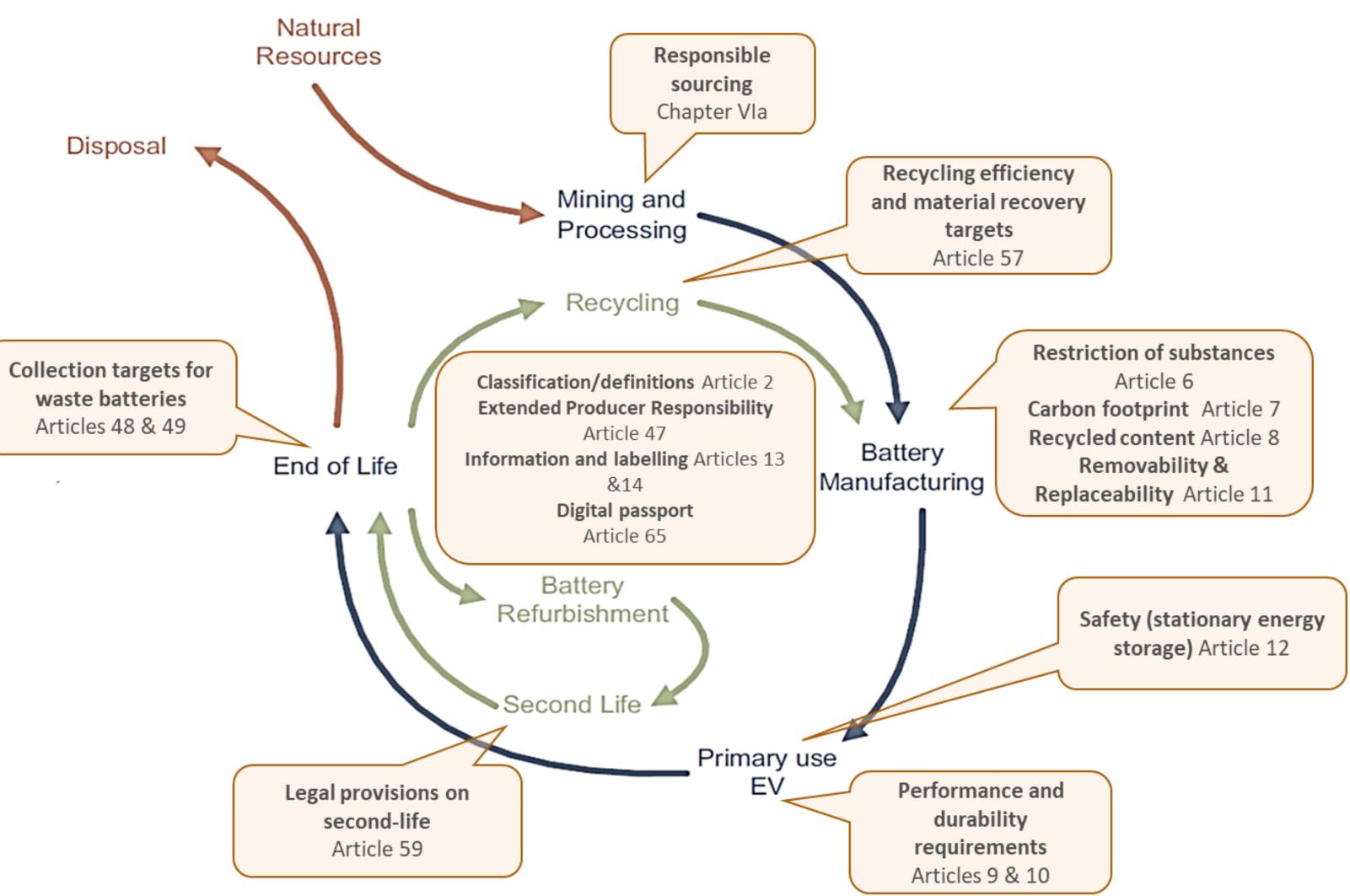
Obligations of economic operators: e.g. linked to product requirements and due diligence schemes

Electronic information exchange e.g. EU electronic exchange system, battery passport, QR code

Issues Covered by the Regulation







Key Elements- full battery life cycle covered





Hazardous substance management COM evaluation report (Art. 6) – restriction procedure (Art 86-88)



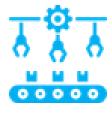
Carbon Footprint (Art. 7) Methodology – Format – Classes – Market access



Recycled Content (Art. 8) Methodology – Target re-assessment – Market access



Performance & Durability (Art. 10) Methodology – Market access



BESS Safety (Art. 12) Common specification

Secondary Legislation- details yet to be defined



Labelling (Art. 13) Harmonized specifications



Due Diligence Policies (Art. 47ff) Application guideline – Substances – Risk categories



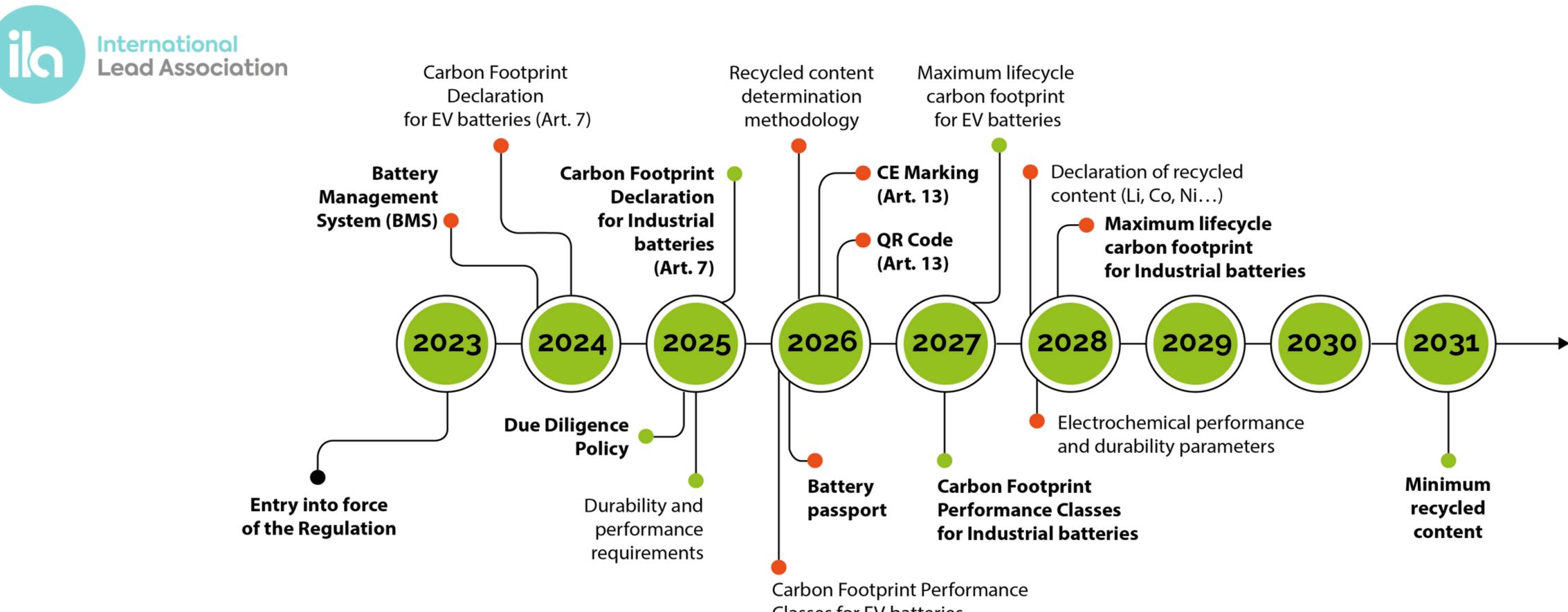
End-of-life Management (Art. 71ff) Recycling efficiency – Material recovery – Equivalent conditions – Reuse & repurpose



Reporting (Art. 76) Report to Commission



Battery Passport (Art. 77) Format - Update content – Access level criteria



- lacksquare2023
- Requirements will be phased in over the next decade and many operational details still to be defined through \bullet secondary legislation

Classes for EV batteries

Legal text adopted on 10th July 2023 and came into force following publication in the Official Journal on 18th August







Producer' means any manufacturer, importer or distributor or other natural or legal person that, irrespective of the selling technique used, including by means of distance contracts, either:

a) is established in a Member State and manufactures batteries under its own name or trademark, or has batteries designed or manufactured and supplies them for the first time under its own name or trademark, including those incorporated in appliances, light means of transport or other vehicles, within the territory of that Member State;

(b) is established in a Member State and resells within the territory of that Member State, under its own name or trademark, batteries, including those incorporated in appliances, light means of transport or other vehicles, manufactured by others, on which the name or trademark of those other manufacturers does not appear;

(c) is established in a Member State and supplies for the first time in that Member State on a professional basis, batteries, including those incorporated in appliances, light means of transport or other vehicles, from another Importer Member State or from a third country; or

(d) sells batteries, including those incorporated in appliances, light means of transport or other vehicles, by means of distance contracts directly to end-users, whether or not they are private households, in a Member State, and is established in another Member State or in a third country;

Important as the "Producer" is responsible for all Chapter VIII "management of waste batteries" requirements

Article 3-DEFINITIONS

Manufacturer

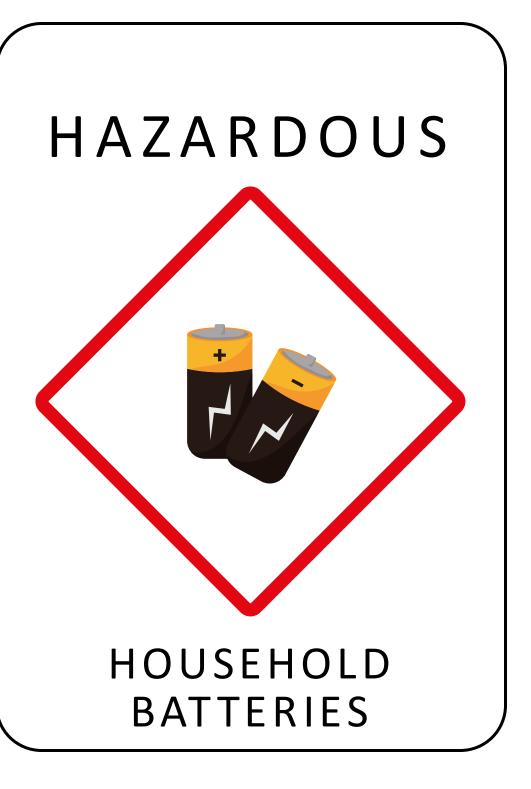
Reseller

Distance seller



Article 6: Restrictions on Substances

- Designed to stimulate development of environmentally sustainable batteries manufactured without use of very hazardous substances.
- Commission has power to propose a restriction if risks demonstrated from use of a hazardous chemical in a battery (will consider full lifecycle including recycling) that are not considered to be adequately controlled.
- By 31 December 2027, the Commission, assisted by the European Chemicals Agency, shall prepare a report on use of substances of concern used in batteries.
- Substance of concern defined as causing "adverse effect on human health or the environment or hampering recycling for safe and high quality secondary raw materials".
 - Lead, Cadmium, Cobalt already highlighted as priority in this review.
- European Chemicals Agency (ECHA) tasked with providing opinion on restrictions to EU Commission by December 2026

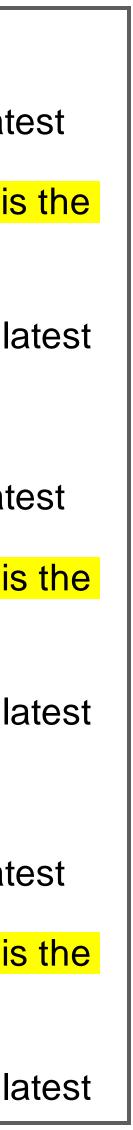




- Applies to Electric Vehicle, rechargeable industrial batteries with a capacity greater than 2 kWh and LMT batteries
- A carbon footprint declaration must be drawn up for each battery model per manufacturing plant
- CF calculated as kg of carbon dioxide equivalent per one kWh of the total energy provided by the battery over its expected service life;
- Raw material manufacture, battery manufacturing, distribution and end-of-life all included (but not use phase).
- Stepwise approach as secondary legislation still needs to developed and published
 - COM to publish calculation methodology through a "delegated Act", Industry has to declare CF information
 - COM to **publish CF Classes**, Industry has to label CF Class
 - COM defines max. CF class for market access, products above max. CF Class excluded from market
 - **Delegated Acts describing Carbon Footprint Methodology** published:
 - Electric Vehicle: **Feb 2024**
 - Industrial: Feb 2025
 - LMT: Feb 2027

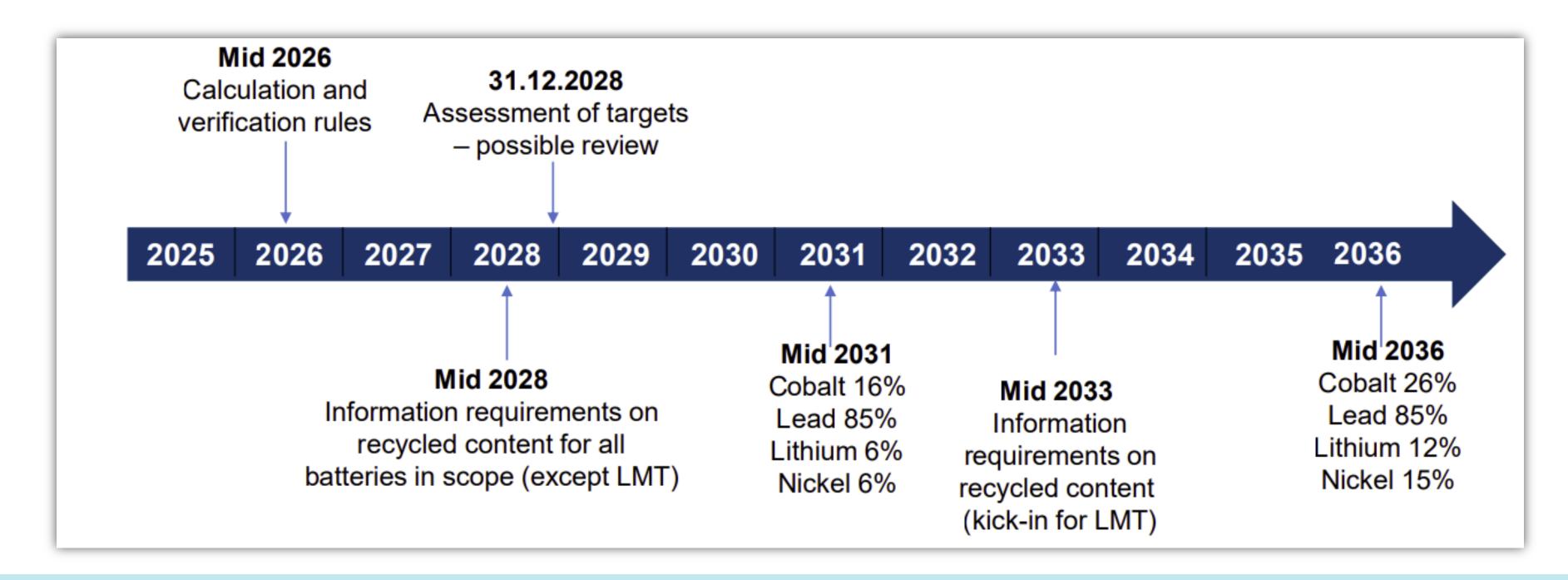
Article 7- CARBON FOOTPRINT

- Declaration of CF [on label]
 - <u>EV</u> 18 months after EIF or 12 month after DA, whichever is the latest
 - <u>IE > 2kWh</u> 30 months after EIF or 18 month after DA, whichever is the latest [Q1 2026]
 - <u>LMT</u> 60 months after EIF or 18 month after DA, whichever is the latest
- CF class [on label]
 - <u>EV</u> 36 months after EIF or 18 month after DA, whichever is the latest
 - <u>IE > 2kWh</u> 48 months after EIF or 18 month after DA, whichever is the latest [end 2027]
 - <u>LMT</u> 78 months after EIF or 18 month after DA, whichever is the latest
- Max. CF class for market access
 - <u>EV</u> 54 months after EIF or 18 month after DA, whichever is the latest
 - <u>IE > 2kWh</u> 66 months after EIF or 18 month after DA, whichever is the latest [mid 2029]
 - <u>LMT</u> 96 months after EIF or 18 month after DA, whichever is the latest





- Applicable to Industrial, SLI (former automotive), EV batteries and LMT \bullet
- Percentage share of recycled content of Co, Ni, Li in <u>active materials</u> of the battery, or Pb in <u>the battery</u>
- Applies for each battery model per year and per manufacturing plant
- targets for recycled content (cobalt, lead, lithium, nickel) to gain market access
- Possibility to review minimum targets at end of 2028



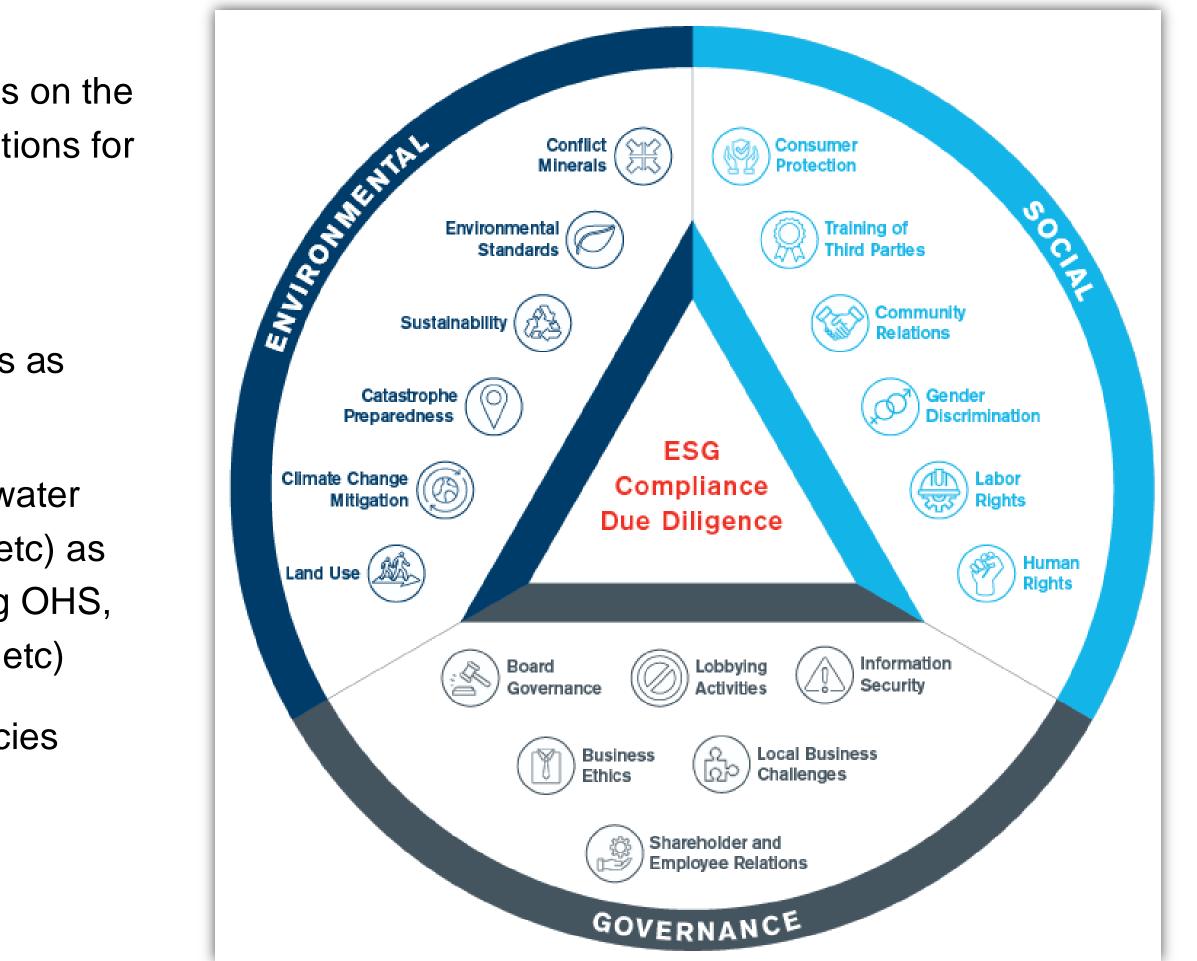
Article 8- Recycled Content

Staged approach: calculation methodology first, then declaration of recycled content (information requirements), then minimum



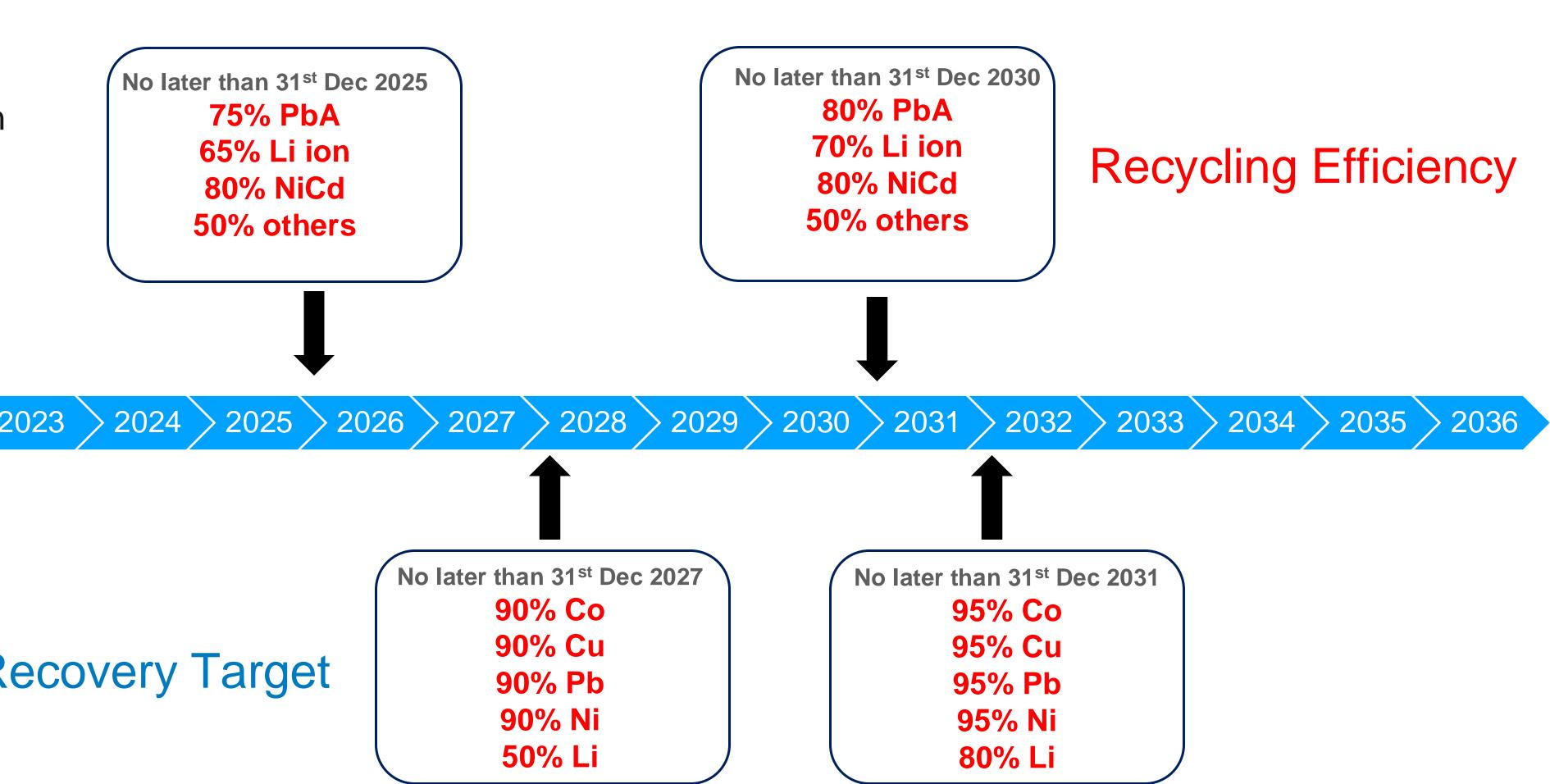
- From **18 August 2025**, economic operators that place batteries on the market or put them into service shall fulfil due diligence obligations for raw materials:
 - Cobalt, Nickel, Natural Graphite, Lithium
- By **18 February 2025**, the Commission shall publish guidelines as regards the application of the due diligence requirements
- Due diligence to cover social & environmental risks (e.g air & water pollution, GHG emissions, energy use, biodiversity protection etc) as well as human rights, labour rights and industrial relations (e.g OHS, child labour, trade union freedoms, indigenous people's rights etc)
- Economic operators shall have their battery due diligence policies verified by a notified body ('third-party verification')

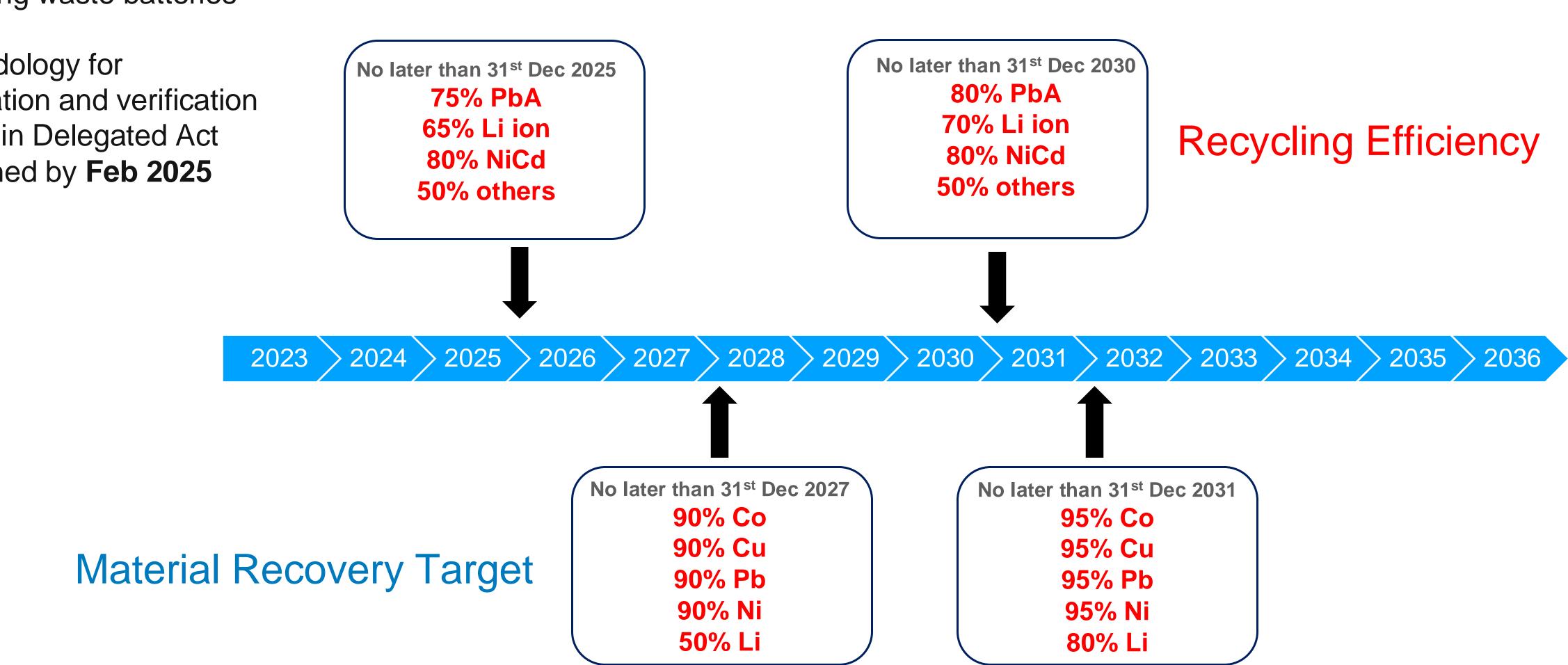
Articles 48,49, 50- Due Diligence





- Applies to recyclers receiving waste batteries
- Methodology for calculation and verification will be in Delegated Act published by Feb 2025



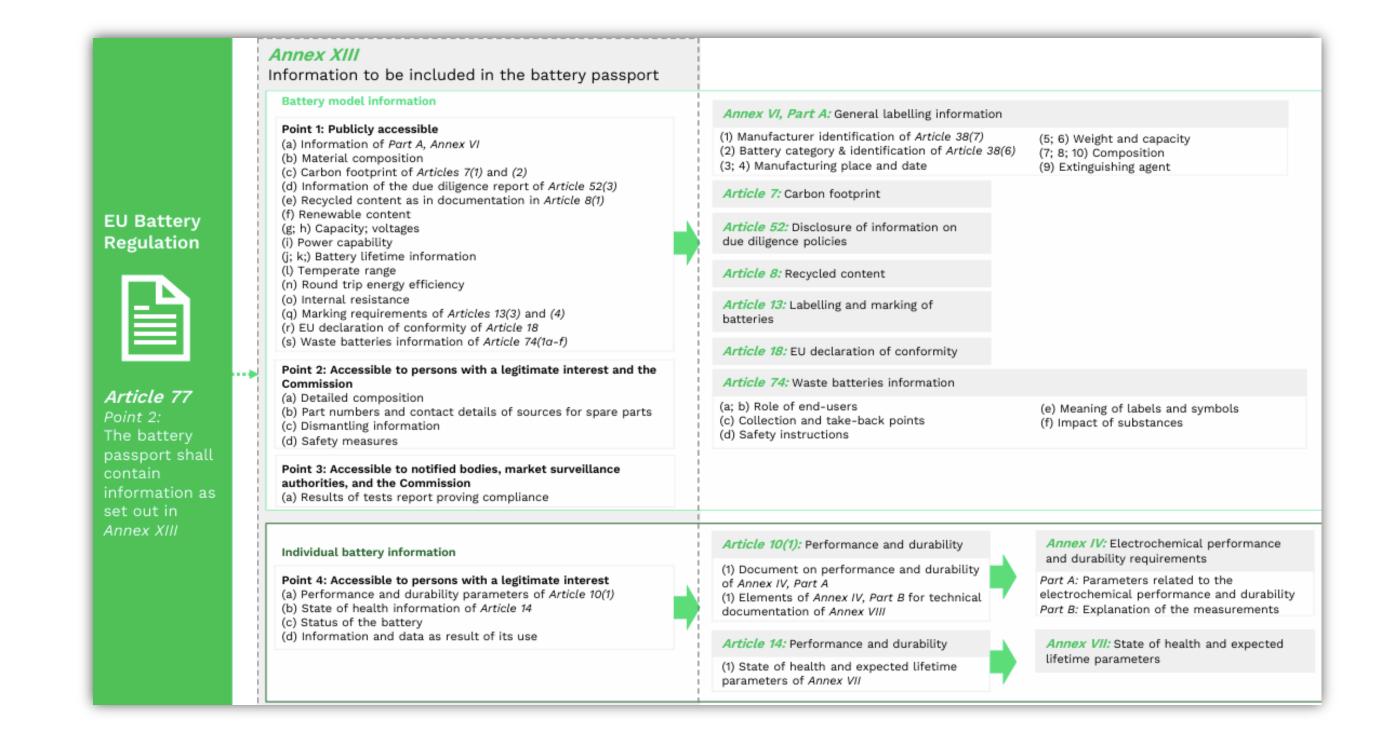


Article 71- Recycling Efficiency and Material Recovery Targets



- From **18 February 2027** each LMT battery, each industrial battery with a capacity greater than 2 kWh and each electric vehicle battery placed on the market or put into service must have an electronic record ('**battery passport**').
- The battery passport will contain information relating to the battery model and information specific to the individual battery as set out in Annex XIII of the Regulation.
- Some information in the battery passport must be accessible to the general public, other information only to the notified body and/or repairers, remanufacturers, second-life operators and recyclers
- The battery passport will be accessible through the battery QR code
- The battery passport shall cease to exist after the battery has been recycled

Articles 77- Battery Passport





- The new EU Battery Regulation is the first Global policy instrument to address all aspects of a batteries lifecycle
- It is designed to secure the sustainability and competitiveness of EU battery value chains that will support the green energy transition and zero-emission mobility
- The Legislation is complex and many operational aspects will need to be defined through delegated acts over the next decade
- Only when fully implemented will we be able to assess whether additional costs related to increased administrative resources required by battery producers will deliver economic and environmental benefits

Summary

