



re-sourcing

Proposal for a Battery Regulation as Flagship Case  
(Good practice example)

Overarching regulation for a circular economy  
that covers the entire product value chain and  
focuses on sustainability

Case Introduction: Content of the EU Commission's Proposal  
for a new Battery Regulation





## Case Study Learning Objectives

1. **Learning** to design and implement an overarching regulation for circular economy with specific, mandatory targets.
2. **Understand the benefits** of strong regulation, which creates a level playing field.
3. **Get insights into** strategic choices, challenges and success factors concerning such a strong policy.



## Case Context

- The battery market, especially lithium-ion batteries for electric mobility, is growing very fast. This is connected to huge challenges concerning environmental and resource footprint, human rights violations and missing infrastructure to cope with the new flow of end-of-life batteries.
- The new proposal for a European Battery Regulation as part of the larger European Strategic Action Plan for batteries intends to create a European wide law, to modernise the EU's regulatory framework for all batteries in order to secure the sustainability and set themselves apart from the global battery industry.
- Main objectives are:
  - Strengthening the functioning of the internal market (including products, processes, waste batteries and recyclates), by ensuring a level playing field through a common set of rules
  - Promoting a circular economy
  - Reducing environmental and social impacts throughout all stages of battery lifecycle



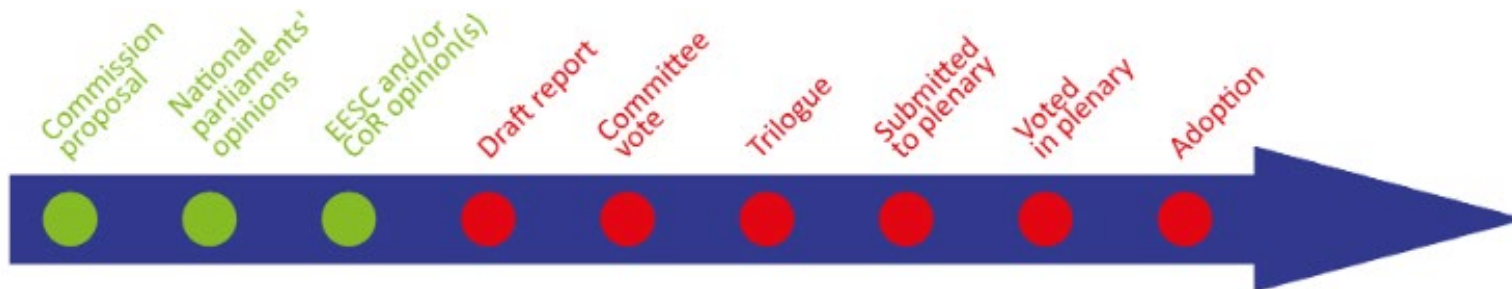
## Case Context

- The proposed EU Battery Regulation intends to introduce
  - Mandatory requirements on sustainability
    - Carbon footprint rules
    - Minimum recycled content
    - Performance and durability criteria
  - Safety and labelling for the marketing and putting into service of batteries
  - Requirements for end-of-life management (re-use/repurposing and recycling)
  - Due diligence obligations for economic operators as regards the sourcing of raw materials
  - Extended producer responsibility for all batteries
  - Frame for reuse/repurposing where suitable
  - Further points from the Battery Directive are concretised and improved (e.g. restrictions on hazardous substances or removability).



## Approach Undertaken by European Commission

- First proposal published in 10<sup>th</sup> of December 2020 accompanied by an impact assessment
- Feedback on proposal and roadmap by stakeholders and Member States
- Co-decisions and discussions parallel in Parliament and Council
- Preparation of final draft and vote of the European Parliament in February 2022
- Political agreement expected in mid 2022
- If successful, the Regulation does not have to be incorporated into national law, but becomes binding automatically throughout the EU on the date it enters into force





## Good Practice Aspects Concerning Recycling

- Higher collection rate target for portable batteries: 45 % today → 65 % 2025 → 70 % 2030
- Higher general recycling efficiencies applying for LIBs (50 % (today, „other batteries“) → 65 % 2025 → 70 % 2030)
- Material specific recovery targets for copper, cobalt, nickel and even lithium (nearly no Li recycling today)
- Recycled content targets for cobalt, lithium, nickel (and lead) in new batteries > 2 kWh
- Recycling targets all are connected and enable each other

## Challenges addressed

- Challenge: Environmental burden due to hazardous materials, missing collection and treatment options
- Challenge: Loss of material due to low collection rate target, only general and low recycling efficiencies and no material specific recovery rates
- Challenge: Down cycling due to high costs of recovery and purification leading to competition with primary material prices



## Good Practice Aspects Concerning Due Diligence

- Ensuring the ethical sourcing of battery materials (cobalt, natural graphite, lithium, nickel) by requiring battery makers (or importers) to apply the OECD Due Diligence guidelines on their activities globally and along their entire supply chain for batteries > 2 kWh (applies to all EV traction batteries)
- This includes:
  - Ensuring not to facilitate the commission of human rights abuses associated with the extraction, transport or trade
  - Interrupting engagement with suppliers where there is reasonable risk that they are linked to such practices
  - Contributing to the effective elimination of money laundering and bribery across the supply chain

## Challenges addressed

- Challenge: No mandatory policy exists prohibiting companies benefitting from suppliers with human rights abuses
- Challenge: No transparency concerning the supply chain of OEMs
- Challenge: Sourcing of battery minerals like cobalt has a high risk to be connected to child labour and other human rights abuses



## Good Practice Aspects Concerning Carbon Footprint

- Batteries with a capacity > 2 kWh will need to
  - have a declaration concerning their carbon footprint by 1 July 2024,
  - get classified in accordance with the carbon footprint performance classes by 1 January 2026 and
  - meet maximum life-cycle carbon footprint thresholds by 1 July 2027.
- Calculation according to EC Product Environmental Footprint (PEF) method
  - should be based on the cost of material, energy, and auxiliary materials (particularly the electronic components and the cathode materials) used in a plant to produce a specific battery model

## Challenges addressed

- Challenge: High energy consumption during production leads to a high carbon footprint of a lithium-ion battery and therefore the EV using this battery
- Challenge: No mandatory policy for imported goods to be produced with low CO<sub>2</sub> emissions possibly leading to an economic disadvantage for European companies falling under the European Union Emissions Trading System





## Good Practice Aspects Concerning Additional Requirements

- **Performance and durability requirements:** Portable batteries (in 2027) and rechargeable industrial and EV batteries > 2 kWh (in 2026) will need to meet minimum performance and durability parameters.
- **Green public procurement:** For the first time, contracting authorities must include technical specifications and award criteria to ensure that only batteries with lower environmental impacts over their lifecycle are chosen.
- **Labelling:** Batteries must be labelled (QR code) to provide information on charging capacity and presence of hazardous substances. Batteries > 2 kWh also have to include further performance parameter, their carbon footprint, their due diligence report and their recycled content of Co, Ni, Li (and Pb).

## Challenges addressed

- Challenge: Environmental impact of batteries due to short lifetime
- Challenge: Price always dictates the public procurement, while environmental impacts do not play a role
- Challenge: Information about the battery necessary for e.g. sound recycling and reuse/repurposing is missing



## Limits of the Flagship Case

- The regulation is only a proposal
  - It could be changed or weakened.
  - It has to prove its usefulness first.
  - Some parts depend heavily on the exact design and still need to be specified.
- It is a compromise; some targets could be more ambitious or further include other raw materials.
- Some policies like a deposit on portable batteries are missing.
- Several goals take a long time to actually come into force.

## Transferability of the Flagship Case

- The proposal for a battery regulation is a blueprint for further legislation to come
  - Several policies have never been tried before
  - If they will be approved and work, they will be transferred to many other areas (e.g. the Sustainable Products Initiative)



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