

# Perspective from Europe and Germany

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# The evolution to the new EU Batteries Regulation I/II

- Existing framework: EU Battery Directive (BD) of 2006\*
- Step 1: Evaluation of the BD (2018) reveals many weaknesses
- BD is in urgent need of reform, especially due to the dynamics of lithium-ion batteries (electromobility etc.)

Study in support  
of evaluation of the  
Directive 2006/66/EC  
on batteries and  
accumulators and  
waste batteries and  
accumulators

**Final Report**

Trinomics 

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\* DIRECTIVE 2006/66/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 6 September 2006 on batteries and accumulators and waste batteries and accumulators and repealing Directive 91/157/EEC

# The evolution to the new EU Batteries Regulation II/II

- Step 2: 2019 - 2020: comprehensive work on behalf of the EC to prepare the reform of the BD: including intensive stakeholder consultations in early summer 2020.

Study-to-identify-and-assess-the-feasibility-of-measures-to-enhance-the-impact-of-Directive-2006/66/EC¶  
Final-report¶

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ASSESSMENT-OF-OPTIONS-TO-IMPROVE-PARTICULAR-ASPECTS-OF-THE-EU-REGULATORY-FRAMEWORK-ON-BATTERIES¶  
Final-report¶

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umweltbundesamt<sup>U</sup>  
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- Step 3: 10 Dec. 2020: EC publishes comprehensive proposal for a new EU Batteries Regulation (EU BR)

# EU BR: a new dimension in environmental policy

- The EU BR wants to pave the way for sustainable batteries **over the entire life cycle**:
  - Ambitious environmental and social standards for primary raw materials,
  - Minimizing the carbon footprint in the manufacturing chain,
  - Increasing useful life, safety and second use,
  - Significantly improved recycling by increasing collection and recycling rates.
- Once adopted, an EU regulation has a direct effect on all EU Member States: better harmonization for all actors!

# EU BR: 13 Measures I/IV

- 1: Classification and definition
  - New category EV batteries: from 5 kg industrial batteries; distinction from portable batteries
- 2: Second life for industrial batteries
  - Batteries retain waste status until the waste battery has been prepared for reuse or otherwise transformed
- 3: Collection targets for portable batteries
  - 65% from 2025, 70% from 2030, based on quantity placed on the market

## EU BR: 13 Measures II/IV

- 4: Collection rates for starter, EV and industrial batteries
  - New reporting system based on the existing systems of the End-of-Life Vehicles Directive and the Waste Framework Directive
- 5: Recycling efficiencies and specific recovery rates
  - For lithium-ion batteries: Recycling efficiency 65% by 2025, 70% by 2030, Specific recovery rates of 90% for Ni, Co, Cu and 35% for Li in 2026, 3 x 95% and 70% in 2030.
- 6: CO<sub>2</sub> footprint for industrial and EV batteries
  - CO<sub>2</sub> footprint performance classes and max. limits for batteries as a condition for placing on the market

## EU BR: 13 Measures III/IV

- 7: Performance and lifetime of rechargeable industrial and EV batteries
  - Information requirements on performance and durability, minimum requirements
- 8: Non-rechargeable batteries
  - Minimum requirements for performance and service life as well as minimum threshold values
- 9: Secondary metal content in industrial, EV and starter batteries
  - Lithium-ion batteries 2030/2035:  
Li: 4%/10%, Co: 12%/20%, Ni: 4%/12%

## EU BR: 13 Measures IV/IV

- 10: Extended producer responsibility
  - Level Playing Field through better and more specific requirements
- 11: Design requirements for portable batteries
  - Better removability and interchangeability from devices
- 12: Provision of information
  - Provision/exchange of resilient information: Battery passport etc.
- 13: Supply chain due diligence for raw materials
  - Mandatory due diligence for industrial and EV batteries



## EU BR: Current discussions

- 2021/2022: European Parliament and EU Council assess the EC proposal and demand a couple of changes in detail
- Main changes demanded by EU Parliament
  - Recovery rates for Li: 70% by 2027 and 90% by 2031
  - Definition of a new battery category: batteries used for traction in light means of transport (such as e-bikes and e-scooters) with a couple of obligations like carbon footprint declaration, collection rates 75 % by 31 December 2025; 85 % by 31 December 2030!
  - EU-wide deposit return system for batteries, in particular for portable batteries of general use should be assessed!

## EU BR: Current work of Oeko-Institut for the EC

- Review of the current status and foreseeable developments (from a technical and economic perspective) regarding the possible recovery rates of lithium from waste batteries!
- Evaluation of the feasibility of introducing deposit and refund schemes (DSR) for portable and light means of transport (LMT) batteries!

## EU BR: Outlook

- The proposal on the EU Batteries Regulation, if implemented, will be a milestone in EU environmental policy and an important building block of the European Green Deal!
- The market ramp-up of electromobility and the related industrial policy of the EU (Gigafactories for battery cells) provides a new strategic perspective: it is not just about "waste", but about optimizing the entire life cycle of batteries, a safe and ethically justifiable supply of raw materials as well as supporting the EU's climate goals!

# Thank you for your attention!

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