

BATTERIES FOR A CARBON-NEUTRAL EUROPE: TIME TO CHANGE THE FRAMEWORK

SUMMARY

- A competitive, clean and sustainable European battery sector is essential to deliver the EU energy and climate goals while also securing European independence in energy supply and industry competitiveness.
- Batteries are crucial for the promotion of low-emission and zero-emission mobility technologies, in particular electric vehicles, and for the management of the electricity grid that is becoming more decentralised and more renewable.
- Building a competitive and sustainable European battery sector requires a revision of Directive 2006/66 so as to **(1)** define and harmonise sustainability and performance criteria, **(2)** improve consumer information, **(3)** develop a sound battery reuse system and improve battery waste collection and recycling, **(4)** ensure traceability and **(5)** harness investments.

I. Setting performance and sustainability criteria at EU level

Performance criteria: one size does not fit all. Specific performance criteria should apply to specific categories of batteries, depending on the type of use and capabilities. This should be considered when setting criteria related to performance, e.g. battery life, battery capacity, charge/discharge efficiency etc.

Sustainability criteria: carbon footprint and recyclability should be set as key indicators. We recommend establishing a CO₂ per kWh indicator – calculated in life-cycle assessment. Expected life time – understood both as batteries' limitation in years and in numbers of charge/discharge cycles -, possibility of reuse and recyclability should also be included in the set of indicators.

Performance and sustainability criteria should be set at the EU level, with clear definitions and measurement methods that would ultimately improve consumer information and comparability on the market.

II. Improving market information and consumer awareness

Consumers should have **simple and clear access to key relevant information** for the various use of batteries, including in particular: **battery life, battery capacity, charge/discharge efficiency and recyclability, recommendations for charging, using, recharging and storing their batteries.** We believe it is important to prioritise key information to consumers rather than displaying too much, too detailed technical information.

Risk of fire or explosion, presence of toxic materials, if any, should be mentioned with appropriate recommendations.

III. Encouraging battery reuse and improving battery waste collection and recycling

Batteries do not have to be systematically recycled after their first use: they can be repurposed and reused (e.g. as grid-connected energy storage). Battery reuse is crucial in reducing electric vehicles prices and pressure on critical raw materials. We recommend that legislators should set adequate fiscal and regulatory incentives to support battery reuse while not reducing incentives to recycle.

Harmonised collection & recycling targets should also be set in the legislation. In this perspective, we encourage the legislator to consider the following priorities:

- Minimum collection rates for *all* category of batteries and accumulators;
- Harmonised rules and standards on recycling processes and efficiency rates;
- Specific (higher) recycling targets for certain critical raw materials (such as cobalt & nickel), to be clearly identified, with an appropriate balance of regulatory constraint vs. additional costs;
- Surveillance of greenhouse gas emissions related to battery recycling.

IV. Ensuring data traceability

The legislation should include a framework for access to battery-related data. Considering that traceability will be crucial in the upscaling of battery recycling practices and in the market uptake of smart charging innovative services, it is necessary to ensure the free flow of (1) dynamic data such as charging rate (kWh currently stored in the battery), capacity (maximum number of kWh that could be stored in the battery) and number of charging/discharging cycles operated, (2) static data such as battery characteristics and composition.

V. Harnessing investments

In order to support the market uptake of the European battery industry, innovative funding schemes are required. Trans-sectorial initiatives should be incentivised, in order to promote joint R&D investments between battery user industries, battery manufacturers and governments.

About EdEn

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Construction



Energy



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MEMBERS

EdEn membership includes institutional actors, consumer associations, trade-unions, professional federations, industrial groups, SMEs and artisans.

All our members contribute to the energy transition and are directly involved in the economic and societal realities of their sector.

STRATEGIC OBJECTIVES

- ✓ To promote technologies that help **reduce greenhouse gas emissions**
- ✓ To support the growing use of **renewable sources** in the energy mix
- ✓ To encourage **energy efficiency** improvements of buildings
- ✓ To stimulate the development of **clean mobility** technologies
- ✓ To consolidate **energy independence**, both at national and European levels

