

EU Battery Regulation Guide

Battery passport, QR labeling, and phased obligations in the EU market

What you will get in this guide

- What Regulation (EU) 2023/1542 changes
- Key obligations and business impacts
- Phased timeline and preparation plan
- Battery passport data blocks and implementation blueprint

Disclaimer: This document is an informational overview and does not constitute legal advice. Always verify obligations against the latest EU texts and sector-specific delegated/implementing acts.

1. Executive overview

The EU Batteries Regulation (EU) 2023/1542 replaces the previous directive-based approach with a directly applicable regulation across the EU. It introduces phased requirements across design, safety, labeling, due diligence, recycled content, and digital information.

For many battery categories, a QR code-based digital information layer is required; for LMT, industrial and EV batteries, a dedicated 'battery passport' is expected.

2. What the regulation changes for market access

Theme	Business impact	Typical workstreams
Labeling + QR	Product must carry accessible information	Label redesign, UID/QR generation, hosting/registry, multilingual content
Battery passport	Role-based access for stakeholders	Passport platform, access control, data partitions
Supply chain due diligence	Stronger traceability & documentation expectations	Supplier onboarding, critical raw material evidence, audits
Carbon footprint	Increased reporting and potential thresholds	Data collection, LCA pipelines, verification support
End-of-life	Collection and recycling obligations	Take-back ops, recycler integration, reporting

3. Timeline (high-level, phased)

The regulation applies from 18 Feb 2024, but key obligations phase in. EUR-Lex summary notes labeling requirements applying from 2026 and QR code requirements from 2027; certain batteries will require a battery passport accessible via the QR code.

Year	What typically starts	What to prepare
2024-2025	Governance + early obligations	Scope mapping by battery type, supplier evidence readiness
2026	Labeling requirements ramp up	Artwork/packaging changes, internal data ownership
2027	QR code information and passport readiness	Passport platform, UID/QR operations, partner access workflows
2028+	Broader reporting maturity	Carbon/LCA pipelines, verification processes, audit readiness

4. Battery passport data model (practical view)

While details can vary by category and implementing guidance, most battery passport programs converge on these data blocks:

- Identification: battery model, UID, manufacturer, batch/serial (where applicable).
- Performance and safety: capacity, chemistry class, key safety and conformity information.

- Sustainability: recycled content, carbon footprint declarations, responsible sourcing evidence.
- Lifecycle: repair/removability info, state-of-health, end-of-life instructions.
- Chain-of-custody events: manufacturing, deployment, servicing, repurposing, recycling.

5. Implementation blueprint

A battery passport is best implemented as an API-first service with strict access control (e.g., consumers vs. authorities vs. recyclers), backed by an evidence vault and audit trails.

Capability	Minimum viable	Enterprise-ready
UID/QR ops	Generate + resolve QR to passport	Tamper strategy, batch ops, print integration, monitoring
Data governance	Single owner per field	RACI, validation, supplier SLAs, data quality KPIs
Evidence	Store documents	Traceable evidence chain, verification workflows, retention policies
Integrations	Manual uploads	PLM/ERP/LCA/WMS integration, partner APIs

References

- EUR-Lex summary, 'Sustainability rules for batteries and waste batteries' (Regulation (EU) 2023/1542) — <https://eur-lex.europa.eu/EN/legal-content/summary/sustainability-rules-for-batteries-and-waste-batteries.html> (accessed 2026-02-13).
- TÜV Rheinland, 'EU New Battery Regulation (EU) 2023/1542' overview — <https://www.tuv.com/landingpage/en/eu-new-battery-regulation-eu-2023-1542/> (accessed 2026-02-13).
- Battery Pass consortium, 'Battery Passport Content Guidance' (PDF) — https://thebatterypass.eu/assets/images/content-guidance/pdf/2023_Battery_Passport_Content_Guidance.pdf (accessed 2026-02-13).