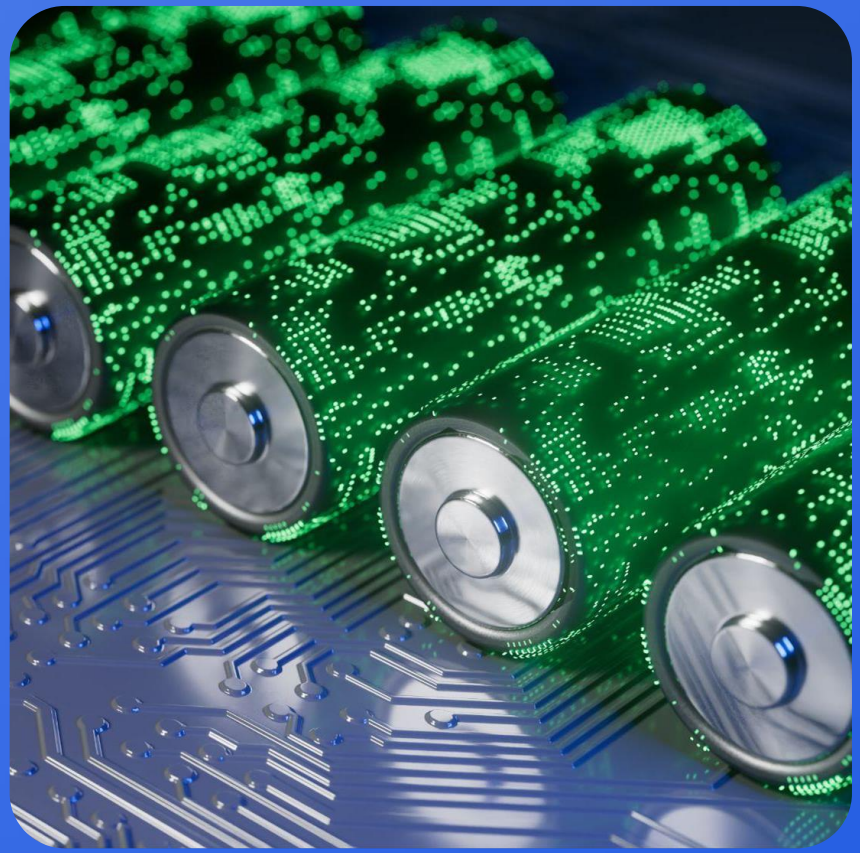
Compliance & Risks

Webinar

EU Battery Regulation: Key Compliance & Sustainability Requirements for 2025 & Beyond



10 September, 2025

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Meet the Team

Dila Şen,
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Andrew O'Neill,
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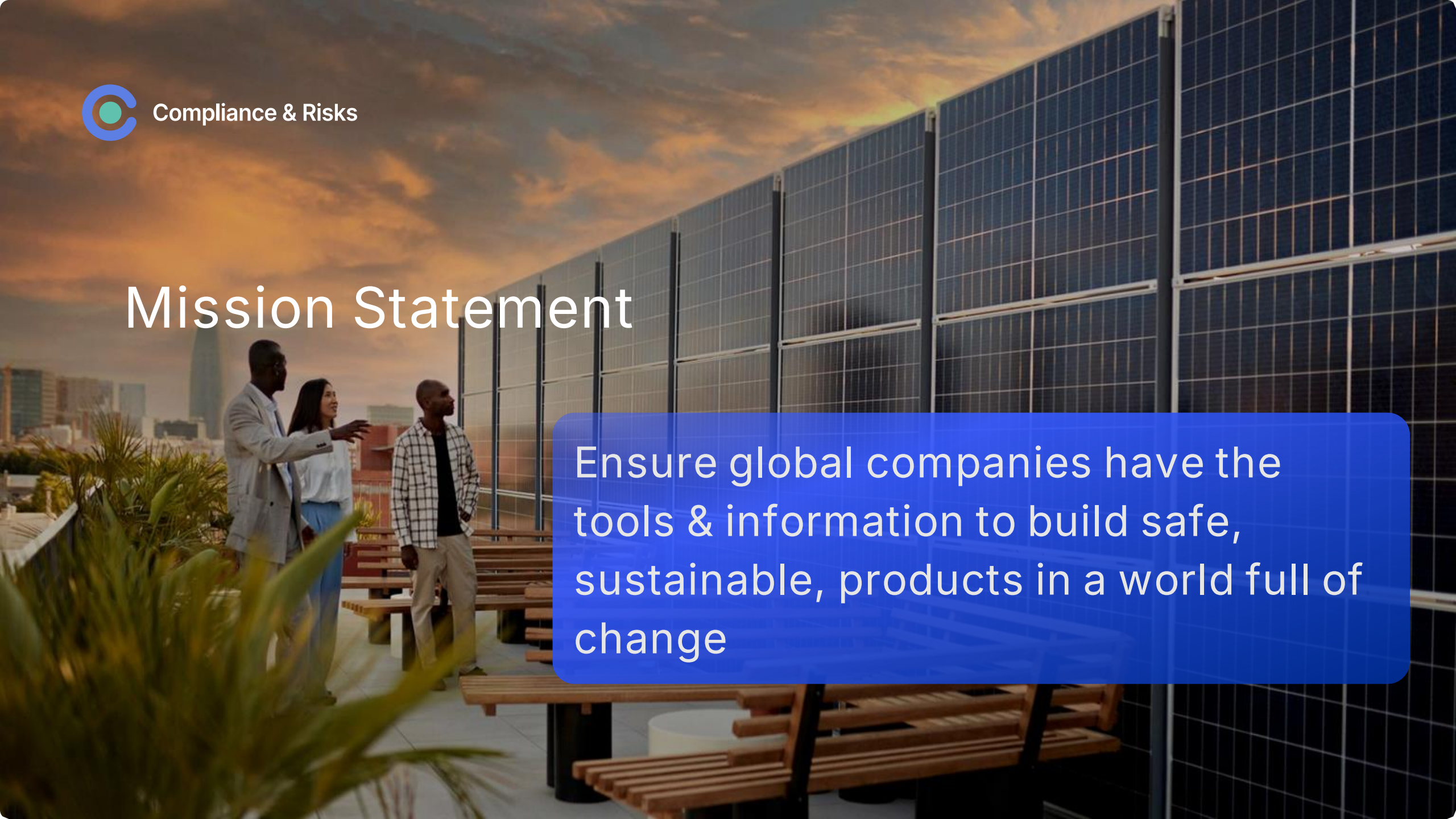
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Mission Statement
Ensure global companies have the tools & information to build safe, sustainable, products in a world full of change

Trusted by the World's Leading Brands

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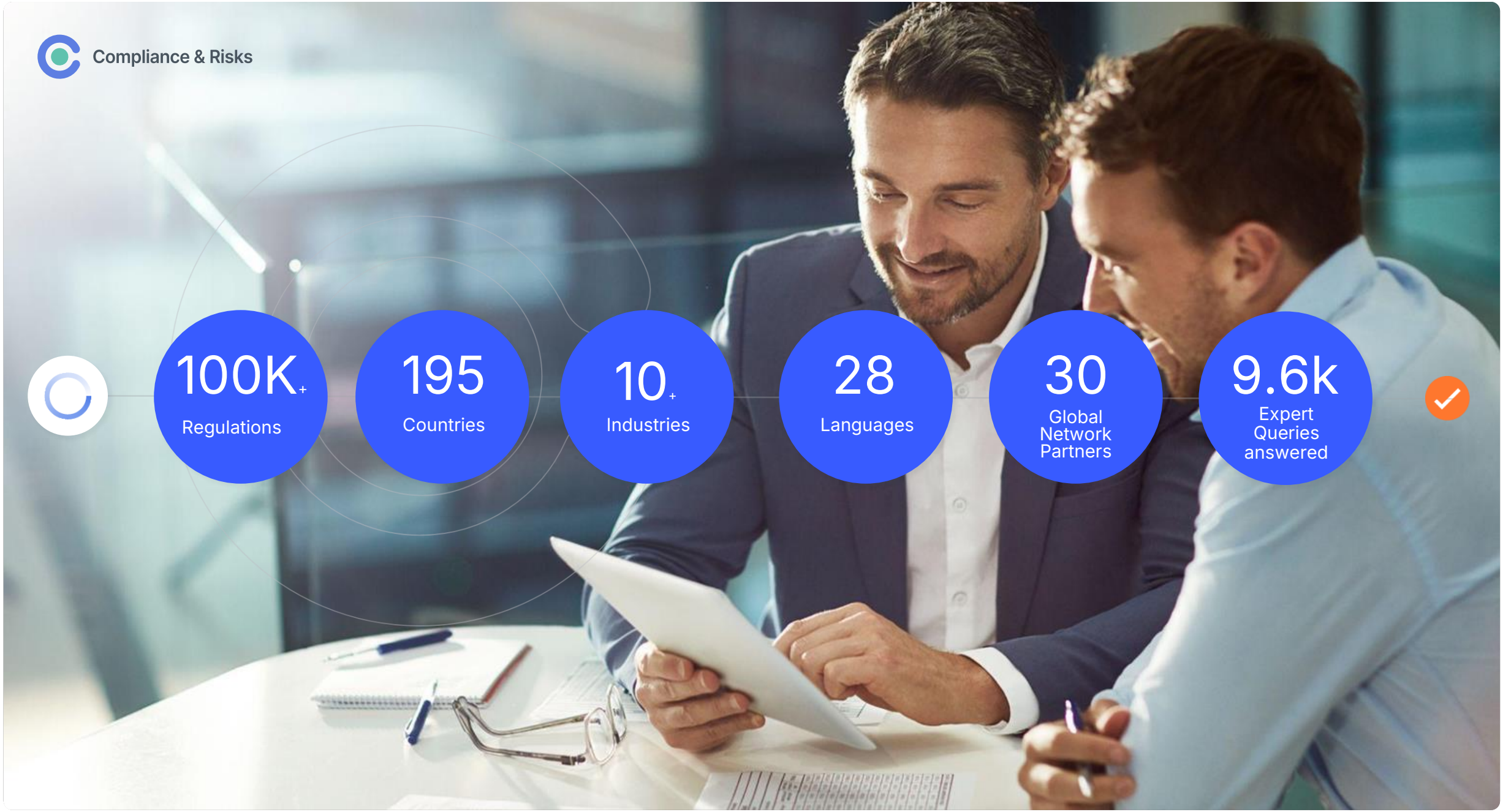
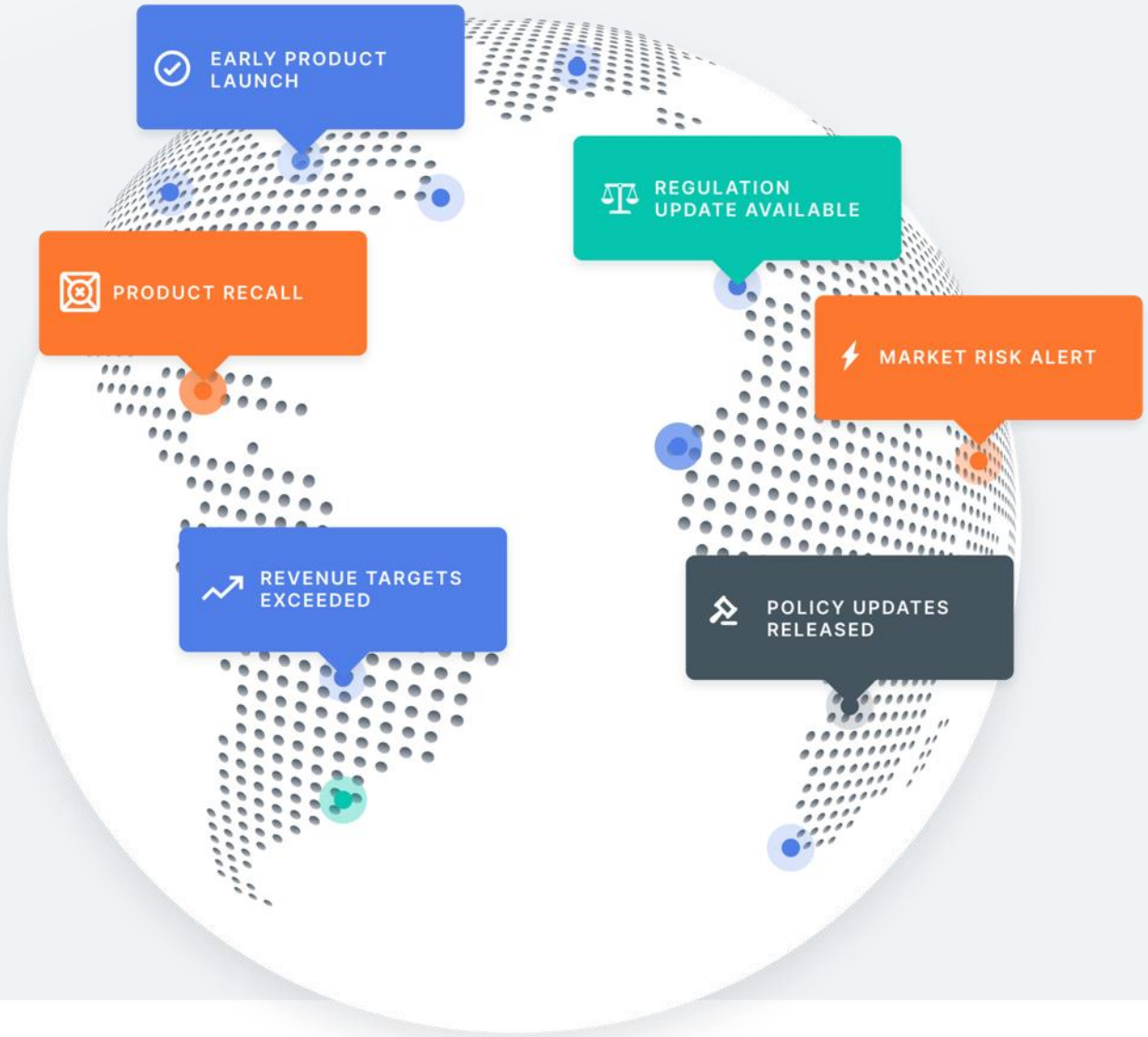


WHAT WE DO

Unlocking Market Access

Keep on top of regulatory changes and their impact worldwide. Early warning alerts, impact probability, productivity workflow tools and so much more.



Agenda

1. Batteries - EU Road to Compliance

2. Battery Regulations Across the Globe

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EU Road to Compliance

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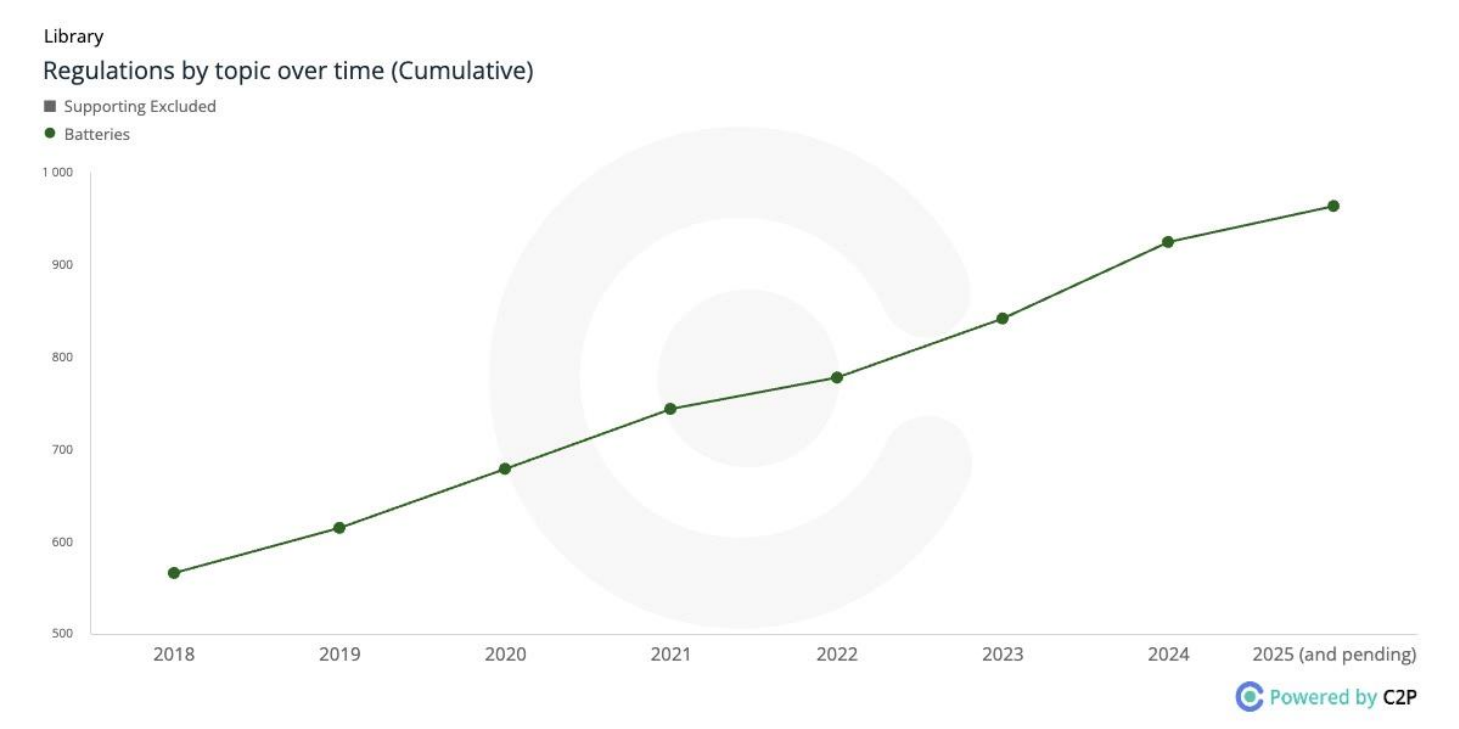
Number of regulations is growing...

Proving difficult to catch up...

- Significant increase in battery regulations!
- 25 compliance deadlines in the EU Batteries Reg alone!
- 98 upcoming battery related compliance deadlines globally



EU Batteries & Waste Batteries Regulation 2023/1542

- The first EU law to address entire battery life cycle.
- Aims for a circular, carbon-smart battery industry: sustainable materials sourcing, durability, performance labeling, and recycling targets.

Who is Responsible?

Economic operators are any natural or legal persons involved in making batteries *available* or *putting them into service* in the EU.

- Manufacturer
- Supplier of Battery Cells/Modules
- Authorised Representative
- Importer
- Distributor
- Fulfilment Service Provider

Key Definitions:

- *Placing on the market*: First supply for distribution/use in the EU
- *Putting into service*: First actual use in the EU

EU Batteries & Waste Batteries Regulation 2023/1542

Covers all battery types **as *products*** and batteries ***in products*** under one law.

Applies to ALL batteries on the EU market:

- Portable
- Starting, Lighting & Ignition (SLI)
- Light Means of Transport (LMT)
- Electric Vehicle (EV)
- Industrial
- Battery packs

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Note: Military/Space applications are exempt.

Due Diligence & Responsible Sourcing

- 21 May 2025: Threshold & Reporting Frequency Change *Proposal*:
  - Raise threshold to €150M from €40M
  - Change reporting frequency from annual to every 3 years
    - Awaiting committee decision
- 31 July 2025: 4th Omnibus Simplification:
  - Postponed DD obligations by 2 years to 18 Aug 2027
  - Postponed publication of DD guidelines from 18 Feb 2025 to 26 July 2026

Removability & Replaceability (Art. 11)

- By 18 Feb 2027: All portable and LMT batteries must be easily removable and user-replaceable.
- Limited exemptions: Only two narrow cases are exempt, and then *only if irreparable otherwise*. Manufacturers must apply for derogations by 30 Apr 2025.
- Guidance published: (8 Jan 2025) the Commission Notice
- Design impact: Consider serviceable batteries in product design – this requirement is real from 2027!

Digital Battery Passport (Art. 77)

- From 18 Feb 2027: EV, industrial (>2 kWh) and LMT batteries must have DBP
- Content: DBP must include model info and individual battery data (Annex XIII). Public info vs. restricted data
- Access: Battery’s QR code links to its passport. Operators placing batteries on the market ensure data is correct and up-to-date.
- Purpose: Enables tracking/tracing and aids recyclers, remanufacturers, market surveillance, and end-users.

Recycled Content & Material Targets

EV, industrial (>2 kWh), and SLI batteries that contain Co, Li, Ni or Pb must;

- On 24 July 2025: Commission published a delegated regulation (EU) 2025/606 on the Methodology for Calculation and Verification of Rates for Recycling Efficiency and Recovery of Materials from Waste Batteries
- By 18 Aug 2028: include *documentation* showing % of each metal that is recycled
- By 18 Aug 2031: *meet minimum recycled content* in active materials:
  - Cobalt: ≥16%
  - Lead: ≥85% (lead-acid batteries)
  - Lithium: ≥6%
  - Nickel: ≥6%

CE Marking & Labeling Requirements

- CE Mark & Declaration of Conformity: Battery must bear CE mark and have a signed EU DoC (from 18 Aug 2024).
- General Info Label (Annex VI-A): Portable and LMT batteries must carry info on housing or packaging by 18 Aug 2026.
- Collection Symbol: All portable batteries must show the crossed-bin symbol by 18 Aug 2025.
- Other Labels: Rechargeable battery capacity labels and average life for non-rechargeable also by Aug 2026.
- CE placement: The CE mark must be on the battery itself (or if large, on its packaging/instructions).

Compliance Roadmap: 2025

2025: “Starting Line” – Set up and document your processes:

- Due diligence: Establish policies, train staff, and engage a notified body for eventual verification. Begin supply-chain audits now.
- Labeling: Update product documentation; ensure CE marking procedures cover the new reg. Get collection symbol added (portable batteries).
- Battery Passport prep: Plan for the 2027 DBP. Catalog raw materials and production data for each battery model.
- Derogations: If any portable batteries truly cannot be made user-replaceable, file for a derogation by 30 Apr 2025.
- Carbon Footprint: Prepare LCA data collection (EV CF starts Feb 2025).

Compliance Roadmap: 2026-2027

2026-2027: “Midway Pit Stop” – Hit upcoming targets:

- Labels: By Aug 2026, affix required info on packaging.
- Removability: Ensure products comply with Art.11 by Feb 2027. Test removal/replace procedures.
- Battery Passport: From Feb 2027, EV/Ind/LMT batteries must have passports. Link each battery to its digital record.
- Carbon Footprint: From Feb 2027, EV and industrial batteries must display CF labels (performance classes in effect).

Compliance Roadmap: 2028-2031

- 2028: “Halfway Checkpoint”
  - Recycled Content Docs: By 18 Aug 2028, include required recycled content info in documentation for EV/Ind/SLI batteries. Adjust production records accordingly.
  - Carbon Footprint (LMT): LMT batteries need CF declarations by Aug 2028.
- 2030/2031: “Destination In Sight”
  - Minimum Content: By 18 Aug 2031, EV, industrial, and SLI batteries must *meet* the recycled-content targets.
  - Review & Revise: Track regulatory updates by 2030.
- Beyond: Continue planning for 2036 targets (phase II) & leverage battery passports for recycling efficiency.

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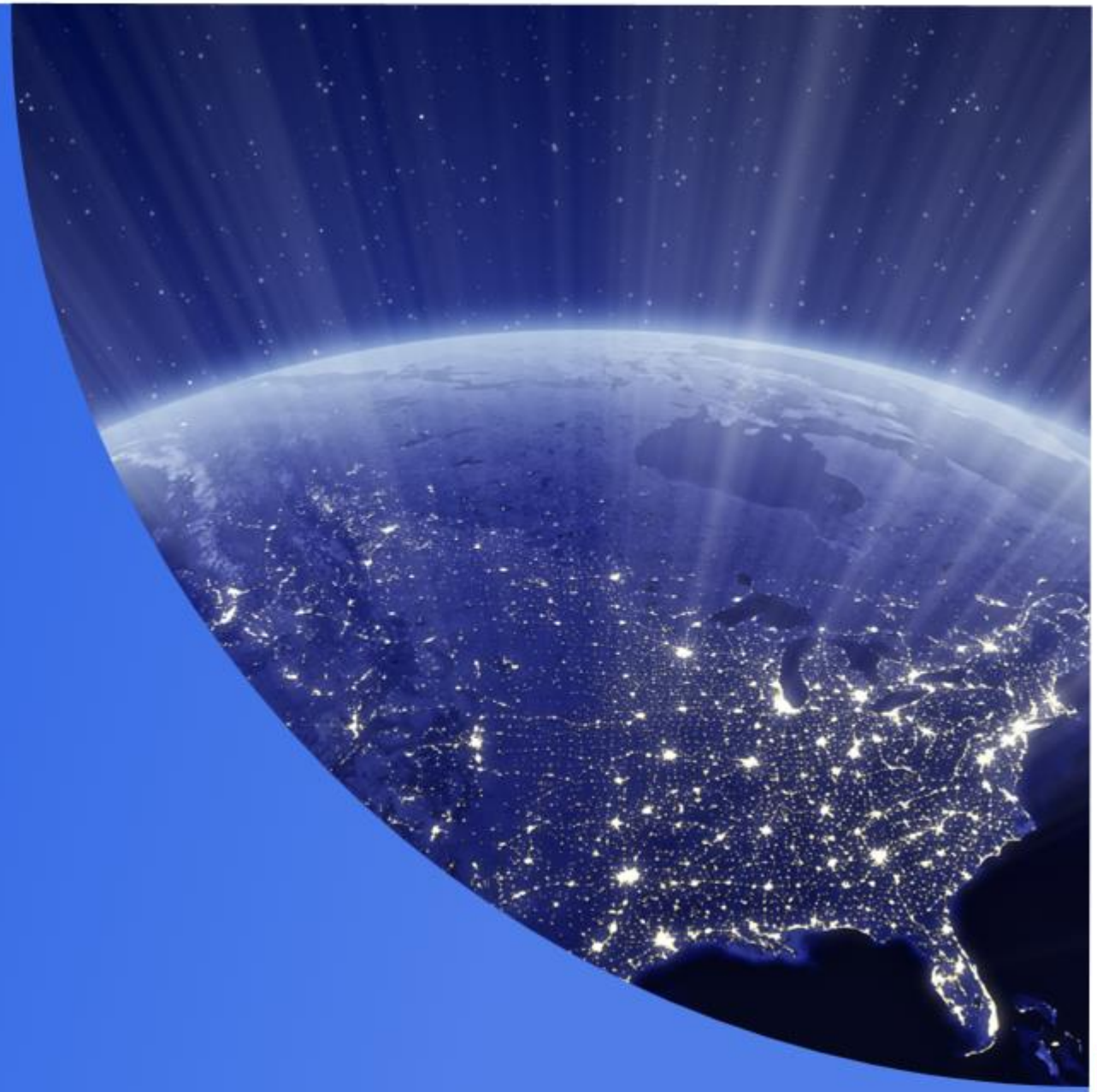
Overview of Rest of the World



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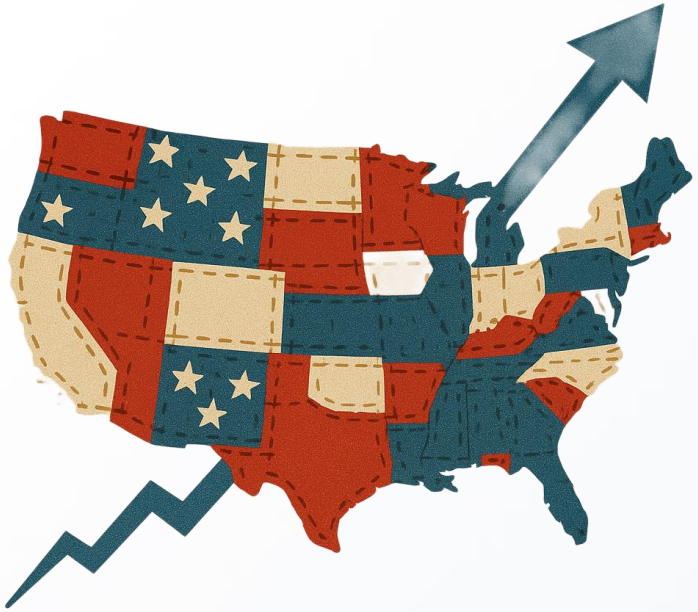
Introduction – Why Battery Regulation Matters Globally

- Batteries power nearly all modern devices and clean energy solutions.
- Safety incidents (e.g., 1,000+ fires in NYC from e-bike batteries since 2019).
- Environmental challenges: critical mineral mining, e-waste, improper disposal.
- Opportunity: Circular economy potential and $31B global battery recycling market by 2040.
- This presentation explores how different countries regulate batteries across their lifecycle.

The U.S. Approach – Fragmented but Evolving

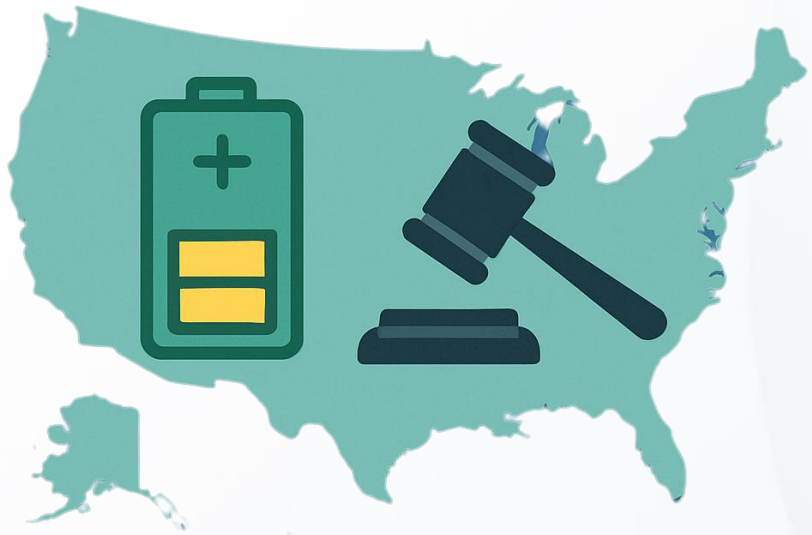


- No single federal battery law; regulations split across agencies
- EPA: waste and recycling (Universal Waste Rule, RCRA).
- DOT: shipping (UN38.3 testing, PHMSA rules).
- CPSC: consumer safety (reactions to fires, Reese's Law, recent NPR).
- Patchwork of state-level Extended Producer Responsibility (EPR) laws.

U.S. Federal Coordination and Policy Developments

- National Blueprint for Lithium Batteries (2021–2030):
- Coordinated federal strategy to support domestic battery supply chains.
- Infrastructure Investment and Jobs Act (2021):
- $7B+ in funding for battery recycling, R&D, and processing.
- Inflation Reduction Act (2022):
- Tax incentives for EVs, battery production, and critical minerals sourcing.

State-Level Battery Regulation in the U.S.



- California: AB 2440 EPR law mandates stewardship for all battery types by 2026.
- Vermont: First single-use battery EPR program (2014).
- Illinois: Battery Stewardship Act (2023), bans landfilling by 2028.
- New York City: UL safety standard requirement for micromobility devices.
- Online marketplaces and retail sellers also face stewardship duties.

Canada – Provincial Leadership and National Coordination

- Provincial EPR programs:
  - BC, Ontario, Quebec: Mandatory take-back, targets, performance standards.
- Call2Recycle: Nationwide stewardship program covering 9/10 provinces.
- Environment and Climate Change Canada supports harmonization.
- Transport Canada: Aligns with UN transport standards for lithium batteries.

Indonesia – Mandatory SNI Certification

- Regulation 69/2024 mandates SNI (Indonesian National Standard) certification for primary batteries.
- Applies to batteries imported or sold in Indonesia after May 20, 2025.
- Certification scope:
  - Labeling requirements (manufacturer, type, expiry date, etc.).
  - Conformity testing (capacity, safety, hazardous substance content).
- Products must bear the SNI mark and pass certification through accredited Indonesian bodies.

India - Battery Waste Management Rules and Market Requirements

- Battery Waste Management Rules, 2022
- Applies to all types of batteries, including embedded, imported, and sold.
- Mandates EPR registration for producers with targets for collection and recycling.
- Differentiates battery types (portable, EV, automotive, industrial).
- Labeling and information disclosure required.
- Recyclers and refurbishers must report quantities processed.
- Indian Standards (IS) for battery performance and safety aligned with BIS.

China – Industrial Policy Meets Recycling Innovation

- World’s largest battery market.
- China RoHS: Limits hazardous substances (Hg, Cd).
- GB Standards: GB 31241 (battery safety), GB/T 34013 (EV battery recycling).
- 2018 Interim Measures: EV makers responsible for battery take-back.
- National Battery Traceability Platform (like a battery passport).

Japan – Collaborative EPR and High Collection Rates

- No single battery law but strong legal framework
- Effective Utilization of Resources Act.
- JBRC: Nationwide rechargeable battery recycling scheme.
- EV batteries: handled under End-of-Life Vehicle Law.
- Industry-led efforts (e.g., 4R Energy by Nissan).

South Korea – Industry-Led Reuse and EPR

- EPR law for electronics covers rechargeable batteries.
- High lead-acid battery recycling rate.
- Government supports battery repurposing (e.g., Hyundai projects).
- KC certification for battery safety.

Australia and New Zealand – Moving from Voluntary to Regulated

- Australia:
- B-cycle: National voluntary EPR scheme launched in 2022.
- Car battery recycling strong; lead-acid infrastructure in place.
- Government considering mandating B-cycle participation.

- New Zealand:
- Batteries designated priority product under 2008 Waste Minimisation Act.
- Mandatory schemes under development.

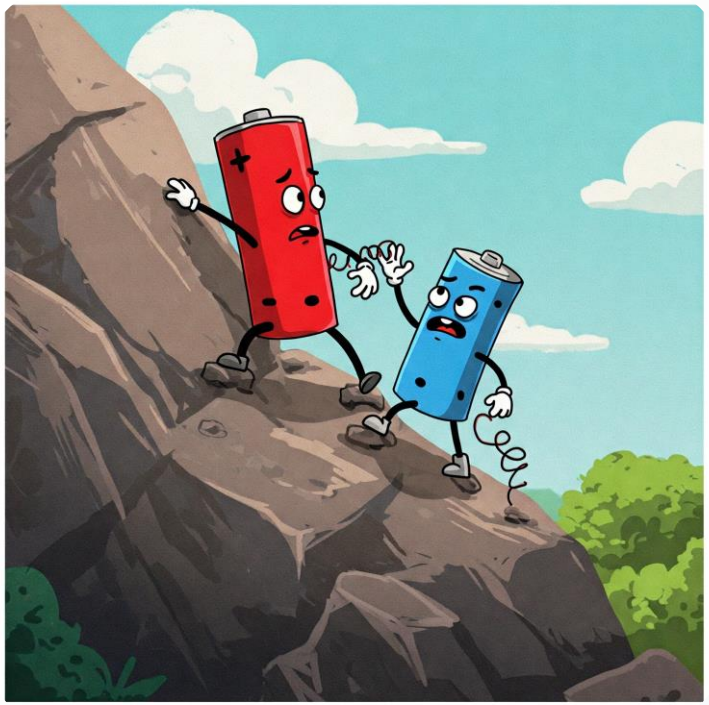
Latin America – Brazil as a Leader

- CONAMA Resolution 401/2008: bans on mercury, cadmium, lead.
- PNRS Law 12.305 (2010): formal EPR obligations for batteries.
- High recycling rate for lead-acid batteries.
- ANATEL enforces telecom battery standards.
- Colombia, Chile, Mexico: Enacted EPR and take-back programs.

Global Trends in Battery Regulation

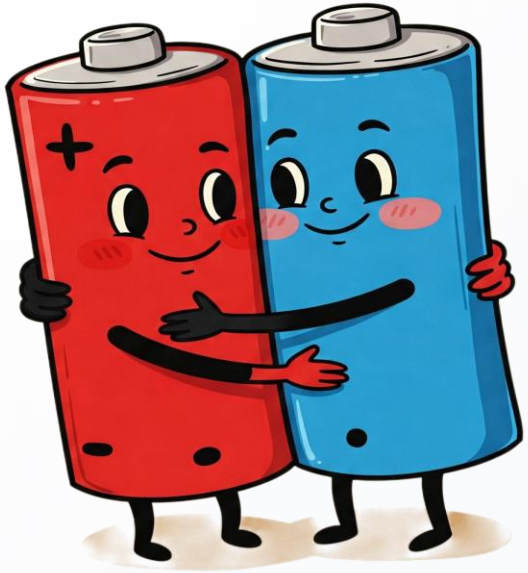
- Circular Economy: Reuse, second-life, and mandatory recycling targets.
- Carbon Footprint Disclosure: EU leads, others may follow.
- Digital Traceability: Battery passports gaining traction globally.
- UN 38.3 Transport Safety: Widely harmonized standard.
- Standards Harmonization: IEC/UL/GB convergence.
- EPR as a Norm: From voluntary to mandatory, now standard in many regions

Challenges for Battery Manufacturers



- Compliance with a patchwork of laws and labels.
- Supply chain due diligence (conflict minerals, sustainability).
- Design changes: user-removable batteries, recyclability.
- Economic pressures: EPR fees, documentation, testing.
- Need for digital tools to manage carbon, recycled content, safety data.

Conclusion: Toward Global Alignment and Safe, Sustainable Batteries



- Regulation is becoming stricter, smarter, and more coordinated.
- Alignment can reduce compliance costs and boost sustainability.
- Manufacturers must integrate regulation into design and operations.
- The future: digital passports, circularity, global safety standards.
- Batteries must be safe, traceable, and recyclable by design.

Questions?

Lets Talk

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