

ABOUT THE BATTERY BENCHMARKS

GLOBAL BATTERY ALLIANCE

BATTERIES POWERING SUSTAINABLE DEVELOPMENT

What are the GBA Battery Benchmarks?

The **GBA Battery Benchmarks** are the only globally harmonised framework to help answer questions on environmental, social, and governance (ESG) performance in battery supply chains. They uniquely reflect the views and expectations of the entire value chain, civil society, financial institutions, and international organisations. They were developed in multi-stakeholder working groups representing the GBA's membership, which comprises over 150 leading businesses and organisations.

Why the Battery Benchmarks matter

The Benchmarks are a key instrument to accelerate collective progress toward a sustainable battery ecosystem. They offer for companies, policymakers, and investors a shared language for assessing and rewarding responsible production and sourcing as they

- Promote transparency and accountability
- Provide actionable insights for continuous improvement

- Support compliance with emerging regulations and disclosure frameworks
- Build trust among consumers, investors, and civil society
- Enable comparability across regions, sectors, and supply chain segments
- Are built in partnership with existing voluntary sustainability standards, embedding cross recognition, promoting synergies and efficiency.

ESG Issues Covered in the Battery Passport

Cross-Cutting

1. Risk and Sustainability Management Systems

2. Supply Chain Due Diligence

3. Stakeholder engagement

Environment

Energy and GHG

- 4. GHG emissions*
- 5. GHG reduction and energy efficiency

Environmental Safeguards

- 6. Biodiversity loss
- 7. Pollution (air, soil, water)
- 8. Waste management (incl. mine waste)
- 9. Natural resource management/stewardship

Circularity

- 10. Circular design**
- 11. Resource and material efficiency

Social & Economic

Human Rights

- 12. Child labour
- 13. Forced labour
- 14. Use of security forces

Labour Rights

- 15. Employment terms
- 16. Freedom of association and collective bargaining
- 17. Occupational health and safety
- 18. Diversity and non-discrimination

Social and Community Engagement

- 19. Community impacts
- 20. Indigenous Peoples' rights***

Local Economy

- 21. Local economic development
- 22. Sourcing from artisanal and small-scale miners

Product Cost

- 23. Total cost of ownership

Governance

Compliance & Good Governance

- 24. Business integrity & transparency
- 25. Product quality and safety

Legend:

ESG issues corresponding to risk categories of Annex X of the EU Battery Regulation (2023) – coverage in 2025 Beta release

ESG issues corresponding to Annex II risks of the OECD minerals guidance

Other salient ESG issues – coverage in 2027 framework

*Please refer to the GBA's GHG rulebook v.2.1

**Circular design to be revised for the 2027 edition

***Indigenous Peoples' rights under drafting and multi-stakeholder consensus building

Figure 1. The Battery Benchmarks environmental, social and governance (ESG) modules

How do the Battery Benchmarks work?

The Battery Benchmarks evaluate company performance through a modular, step-by-step process designed to ensure credibility, comparability, and continuous improvement:

- **ESG reporting modules:** Facilities in the battery value chain report against Benchmark modules based on risk relevance, covering management systems for due diligence and environmental, social and governance impacts associated with produced battery materials and components.
- **Data disclosure:** Facilities submit information and evidence according to standardised indicators and reporting criteria within each module, whilst retaining ownership of their underlying data.
- **Assurance:** Reported data is subject to verification and assurance, following GBA's assurance rules (first, second- or third-party assurance, recognition of existing standards, and GBA-approved document review).
- **Performance scoring:** Facilities are scored against GBA-defined performance level (A / AA / AAA) based on the maturity of their systems and scored on the aggregate performance across ESG modules and across the value chain.
- **Benchmarking:** Results are comparable between peers and value chain segments, enabling

identification of best practices, common gaps, and continuous improvement.

- **Integration & Reporting:** Verified performance data is integrated into the GBA Battery Passport together with battery carbon footprint calculated with the GBA's Greenhouse Gas Rulebook, and labelling, technical and performance information, contributing to product-level sustainability profiles and aggregated insights across the industry.

Together, these steps provide a consistent and transparent method to evaluate, compare, and communicate sustainability performance across the global battery value chain.

Figure 2. Harmonised, efficient reporting with the Battery Benchmarks

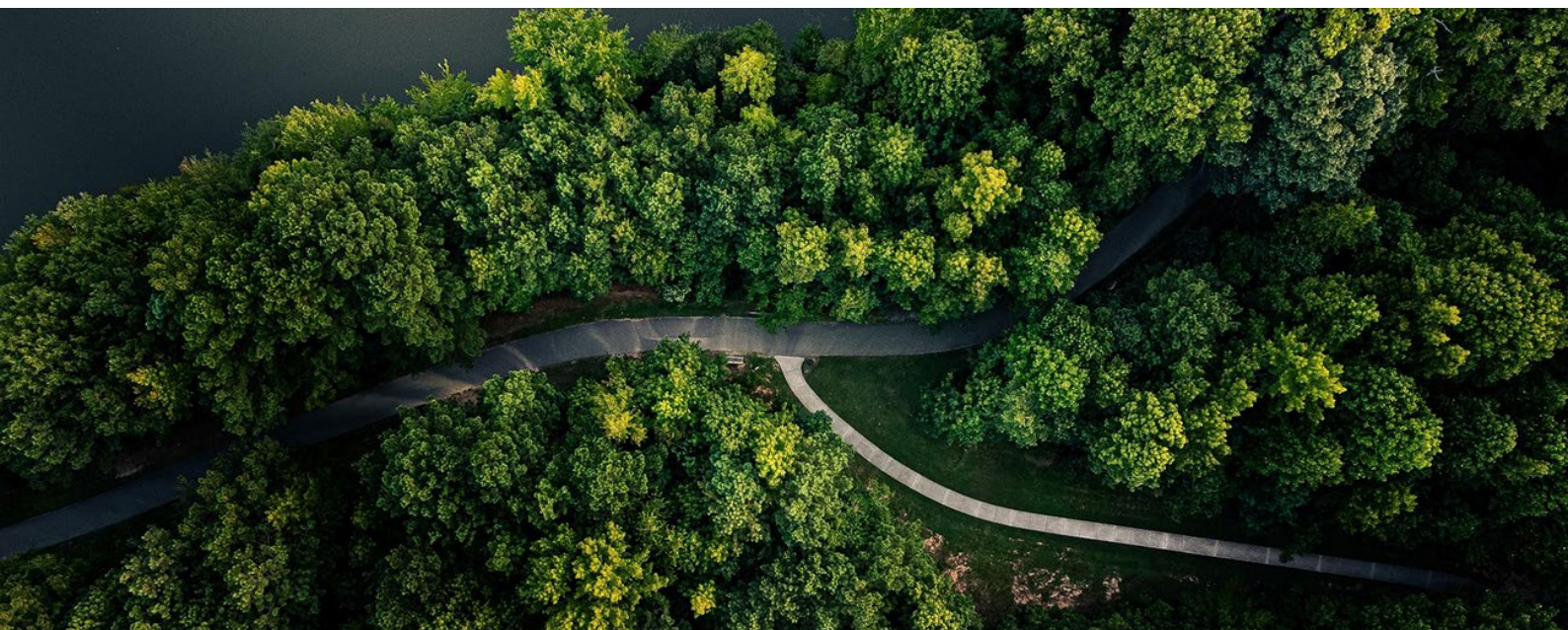
Battery Benchmarks: Reporting modules Example: Pollution

- ✓ Organised according to the OECD RBC guidance 6-step framework
- ✓ Level A anchored in compliance with EU Batteries Regulation
- ✓ Mapped against existing standards

ISSUE MODULE: Pollution

Due diligence step	Benchmark level	The facility...
3. Cease, prevent and mitigate adverse impacts of pollution	Level A	Deploys on-site controls to monitor and address potential and actual negative impacts from air, land and soil, noise, vibration and water pollution on people and the environment, using a risk-based approach and following a materiality assessment. Has an emergency spill/leakage response plan.
	Level AA	Implements the mitigation hierarchy to address actual and potential impacts of pollution in line with set reduction targets.
	Level AAA	*Reduces light, radiation and odour pollution levels below baselines defined using credible frameworks.

Due diligence step	Benchmark level	Regulations and international frameworks					Recognised Voluntary Sustainability Standards							Other Mapped Standards ¹⁰⁰											
		EU Batteries Regulation (2023)	EU Conflict Minerals Regulation (2017)	EU Forced Labour Regulation (2024)	Canada Supply Chain Act (2023)	UK Modern Slavery Act (2015)	ASX Performance Standard v3.1 (2023) ¹⁰¹	CopperMark/RMA Criteria Guide (2023) ¹⁰²	IRMA Standard for Responsible Mining (2018)	RMI Facility Standard 2025	TSM (2021-2024)	Copper Mark JDS (2022)	RMI RMAP All Minerals (2022)	RMI Supply Chain Due Diligence Plus (2023)	ICMM Mining Principles (2024) ¹⁰³	ETI Standard (2023)	GRI 101 - Biodiversity (2024)	CCMC Due Diligence Guidance v2 (2022)	CCMC Mining Investment Social Guidelines (2017)	GISTM (2020)	ISO 9500: Energy management systems	ISO 14001:2015 Environmental Management Systems (EMS)	ISO 26000 Guideline for Social Responsibility	ISO 45001 OHS (2018)	
1. Embed pollution prevention and reduction into policies and management systems	A	X						X	X	X	X							X						X	
	AA								X	X	X													X	
	AAA																								
2. Identify and assess actual and potential adverse impacts of pollution from the enterprise's operations	A	X						X	X	X	X	X						X						X	
	AA								X	X	X													X	
	AAA																								
3. Cease, prevent and mitigate adverse impacts of pollution	A	X						X	X	X	X	X												X	
	AA							X	X	X	X													X	
	AAA																								



Benefits for stakeholders



Implementation and next steps

Operational trials and phased implementation are underway to ensure usability and interoperability.

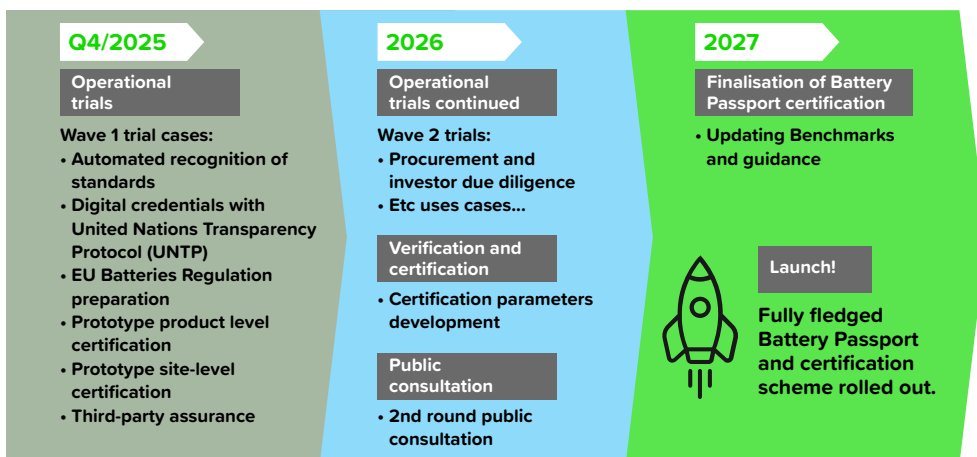


Figure 3. Roadmap from 2025 Battery Benchmarks to full battery certification in 2027

GET INVOLVED:

Participate in our Operational Trials:

For more information and engagement opportunities, visit globalbattery.org

HOW TO JOIN:

To find out more and join the GBA, visit our [website](https://globalbattery.org), follow us on [LinkedIn](https://www.linkedin.com/company/globalbattery/) or contact the Secretariat secretariat@globalbattery.org

Preview of upcoming publications to support Battery Passport implementation under Publications:

- **The Battery Benchmarks:**
[gha-batterybenchmarks-final-web-resolution-duplicate.pdf](https://globalbattery.org/gha-batterybenchmarks-final-web-resolution-duplicate.pdf)
- **The Operational Trials:**
PowerPoint Presentation
- **The public consultation webinar:**
GBA Battery Benchmarks Launch public webinar
- **The GBA Gateway:** An overview of the digital infrastructure to operationalise the Battery Passport, under development with the International Trade Centre (ITC).
- **Readiness for EU Batteries Regulation:** Briefing outlining how the GBA Battery Passport supports collection and reporting on data required by the EU Batteries Regulation and helps companies self-assess readiness and prepare for upcoming requirements.