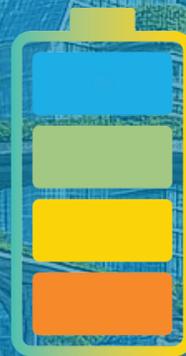


A BATTERY DEAL FOR EUROPE



Bridging Innovation and
Industrial Policy



The Future is Electric

In addition to Electric Vehicles, other **modes of mobility** are rapidly transitioning



The future of grids relies heavily on performant and cost-effective batteries



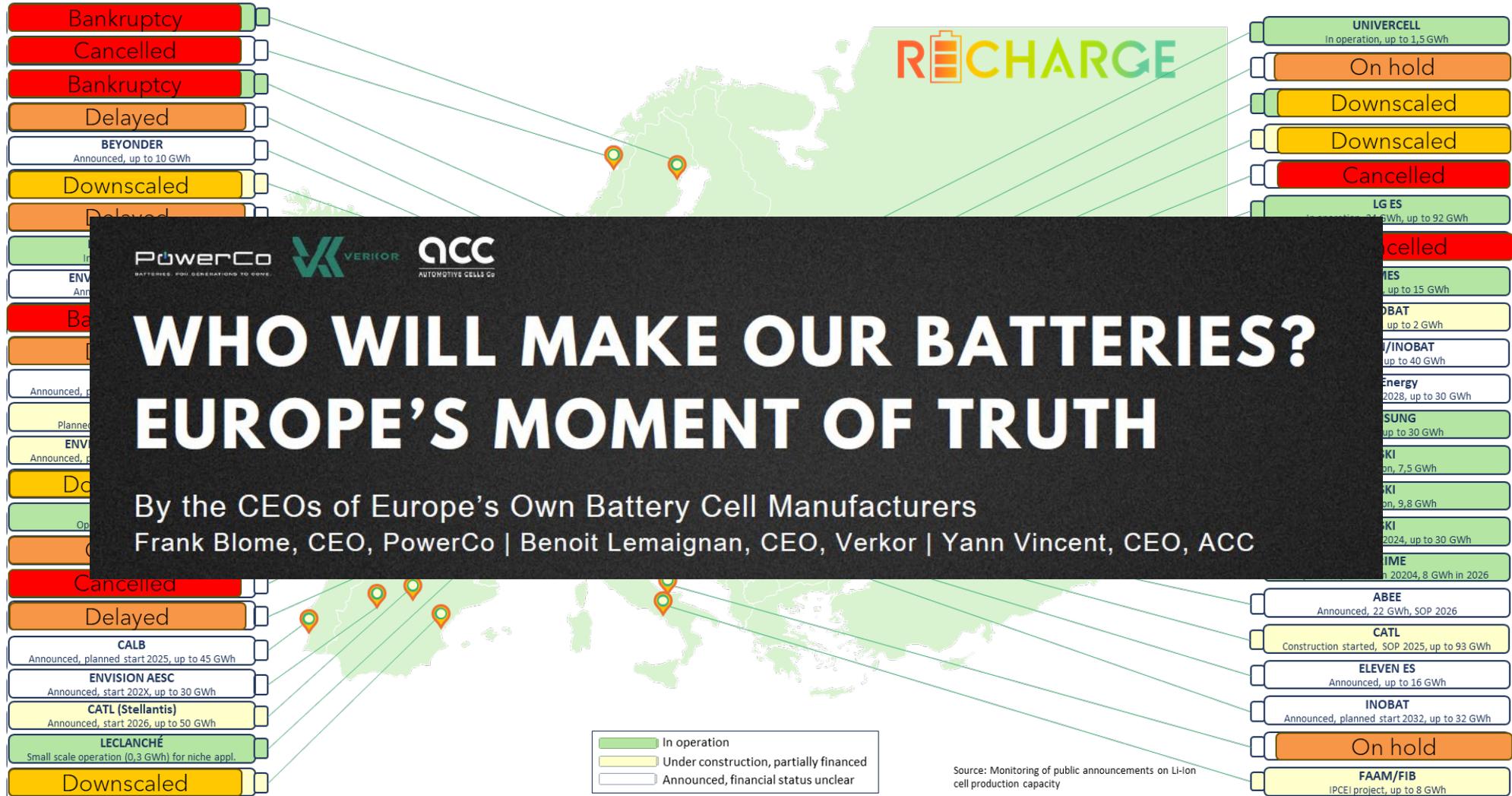
Batteries power future tech industry



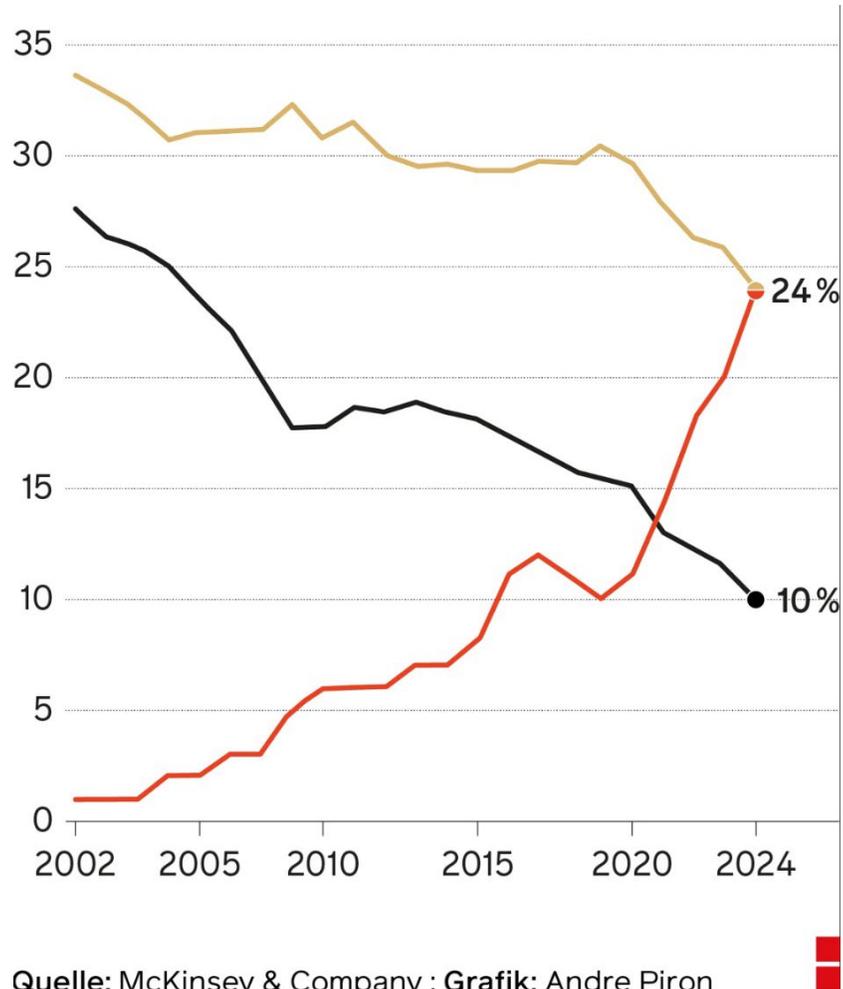
Cutting-edge batteries power Europe's defence



But Who will Power this Transition?



And what car will we drive in the future?



Global Market Share of Passenger Cars by Brand Origin (All Drive Types)

The graph compares how the global market share of passenger cars has evolved over time across three brand categories:

1. Established European Car Brands

(includes: VW, Skoda, Seat, Audi, Porsche, BMW, Mercedes, Fiat, Opel, Renault, Peugeot, Citroën)

2. New Electric Car Brands from China and the USA

(includes: Tesla, BYD, GAC Aion, Hozon, NIO, Li, Lucid, Rivian, Polestar, WM, Xiaomi, Changan, Chery)

3. Established American Car Brands

(includes: Ford, Chevrolet, GMC, Buick, Cadillac, Chrysler, Dodge, Ram, Jeep)

9th of October: A Strategic Wake-Up Call

China announced export licences for key battery-related products via the State Council's trade department

AFFECTED CATEGORIES UNDER EXPORT CONTROLS

- High Energy Density Batteries
- Cathode and Anode materials & their precursors
- Manufacturing Equipment: For Cell and Materials Production

STRATEGIC IMPLICATIONS

- Immediate supply chain disruptions
- Enhanced geopolitical leverage for China
- Opportunity for China to monitor and influence global dependency dynamics

Europe risks becoming a passive consumer in a market it helped regulate but failed to secure.

China announces export controls on lithium batteries, graphite anode materials

By Global Times
Published: Oct 09, 2025 08:15 PM



The Ministry of Commerce (MOFCOM) Photo: VCG

What Are We Facing?



Political Acceptance

- 2035 ICE phase-out: realistic or revision needed?
- Trade tensions: navigating EU-US-China battery dynamics



Social Dimension

- Affordability: Can consumers realistically switch to EVs?
- Adoption: Do people want EVs now—or still hesitant?
- Support Landscape: Uneven EV demand incentives across EU Member States



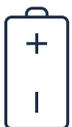
Legal & Regulatory Framework

- OEM penalties: Adjust fines or offer flexibility?
- Charging infrastructure: Fragmented and insufficient
- EU battery regulation: Unclear, inconsistent, and evolving



Economic Conditions

- Fragmented support: EU-level ambitions vs national implementation gaps
- Member States still competing with each other, rather than positioning the EU collectively against global rivals
- Funding shortfalls for scaling industrial capacity and innovation



Technology Choices

- Innovation gap: EU vs Asia in battery R&I and scaling
- Chemistry trade-offs: Design-to-Cost vs Design-to-Performance
- Next-gen tech: Advanced Manufacturing for Advanced Chemistries

Strategic Gaps in Europe's Battery Ambition— The 4 “S” : Scope, Scale, Speed, Sustainability



SCOPE

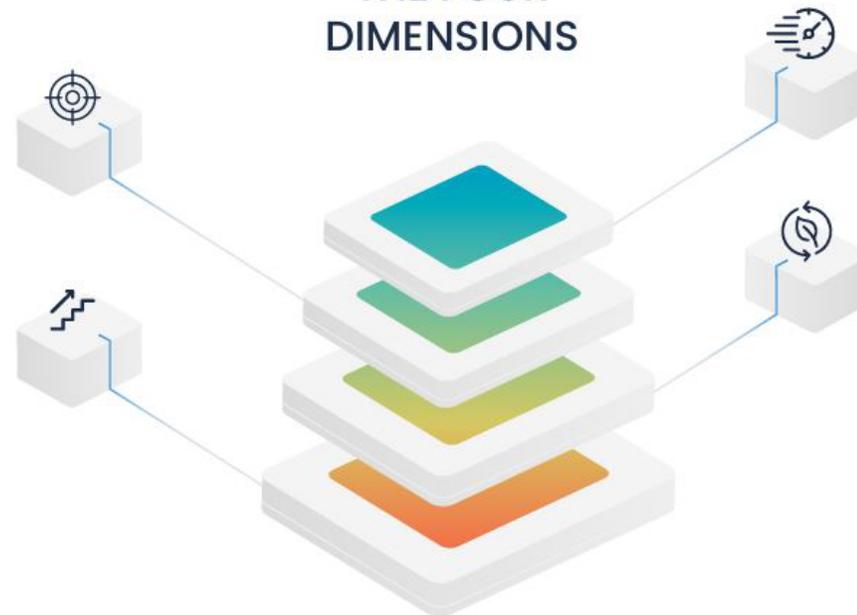
Each part of the value chain, from mining and refining to cell production and integration, has distinct capital needs, lead times, and technological constraints. A coordinated ecosystem is essential to ensure end-to-end development and avoid bottlenecks. Scope also reflects the growing diversity of applications that batteries enable — from automotive and grid storage to emerging sectors such as aviation and defense — all vital for Europe's industrial and strategic future.



SCALE

Is equally critical. The battery market is expanding rapidly, and maintaining competitiveness requires massive investments to achieve economies of scale. Yet European producers face high energy and labour costs, lack of accumulated manufacturing know-how, intense global competition, and limited access to affordable raw materials.

THE FOUR DIMENSIONS



SPEED

Remains a major constraint. Industrial projects are often slowed by bureaucratic hurdles, regulatory uncertainty, and talent shortages. Faster permitting and more efficient execution of public support are essential - but speed also means simplification. Simplifying and streamlining regulations is key to accelerating industrial deployment—cutting red tape, boosting innovation, and enabling faster execution, including through initiatives like the Omnibus proposals.

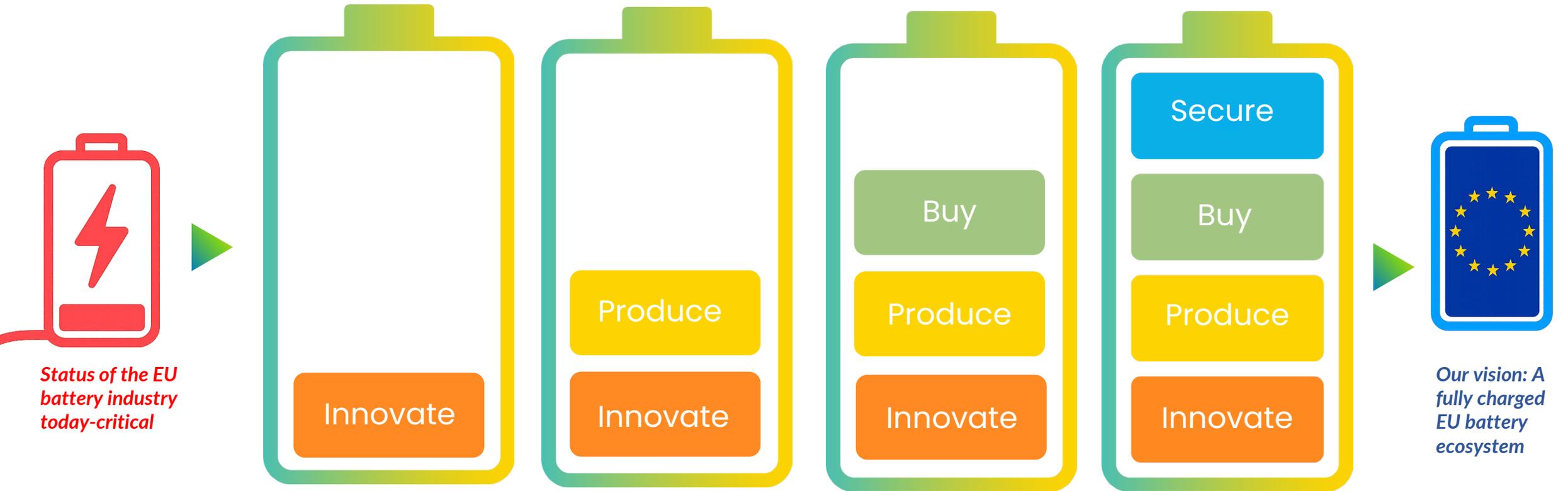


SUSTAINABILITY

While a shared goal, presents its own challenges-across the battery value chain—from the cost of renewable electricity to ethical sourcing and waste management. Sustainability must be understood in all its dimensions: not only environmental, but also economic and social. A truly sustainable battery industry requires viable business models, fair labour practices, and responsible resource use—ensuring competitiveness, inclusiveness, and long-term resilience.



Our Proposal? A Holistic Approach To Ensure The Growth Of A Robust EU Battery Ecosystem





INNOVATE

Europe needs to run both an innovation sprint and an innovation marathon

For Europe to compete with Asia in such a tough global arena, it is not about innovating less, but about innovating more, innovating better, innovating faster

Scope

- Europe still lacks diversification of types of battery technologies (i.e., battery chemistries) beyond EVs. Growing needs in grid and stationary storage, aviation, aerospace, and defence remain underserved.
- Innovation must **broaden the technology base** – delivering affordable large-scale solutions while advancing next-generation systems

Scale

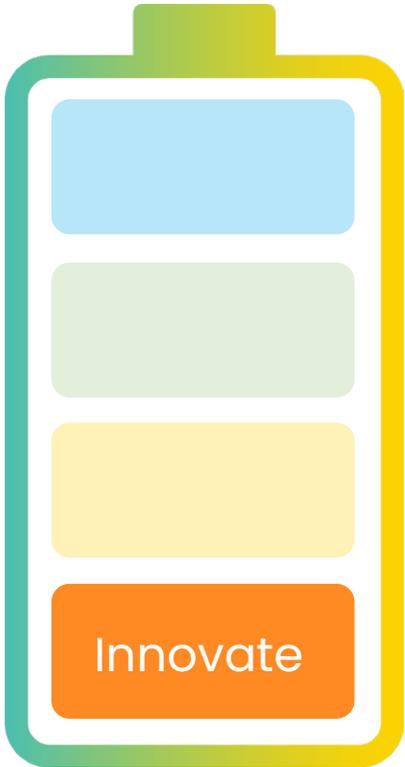
- Battery manufacturing in Europe remains too capital-intensive, rigid, and energy-hungry.
- The challenge is to **innovate toward less capital-intensive**, more modular, and cleaner production models that can be rapidly scaled and adapted across sites

Speed

- Europe is slower than its competitors in leveraging digital tools to accelerate innovation.
- The challenge is to **deploy digitalisation more effectively** – transforming it into a driver for shorter development cycles and faster commercialisation.

Sustainability

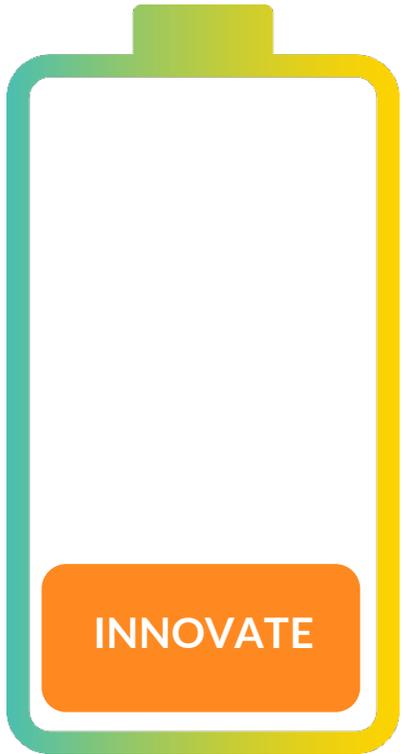
- Europe's battery value chain still relies heavily on raw material processing and refining while recycling technologies remain limited in efficiency and cost-effectiveness.
- The challenge is to **innovate cleaner and more cost-efficient processes** for raw material conversion and chemical refining, and at the same time to advance recycling methods that can recover complex feedstocks at scale.





INNOVATE

Main Recommendations



Scope

- Launch an expanded battery R&D partnership (BATT4EU 2.0) covering the full value chain, all chemistries, all applications
- Keep industry at the centre of defining R&D priorities in collaboration with universities and research institutions
- Support establishment of European Centers of Excellence / Technology Infrastructures on battery R&D

Scale

- Commit to ambitious funding across the battery value chain and technology readiness levels (from Horizon Europe to the Competitiveness Fund to the EIB)
- Earmark sufficient battery R&D in European Innovation Council Fundings

Speed

- Simplify criteria for evaluation of grant proposals
- Reduce significantly time-to-grant to accelerate innovation cycles

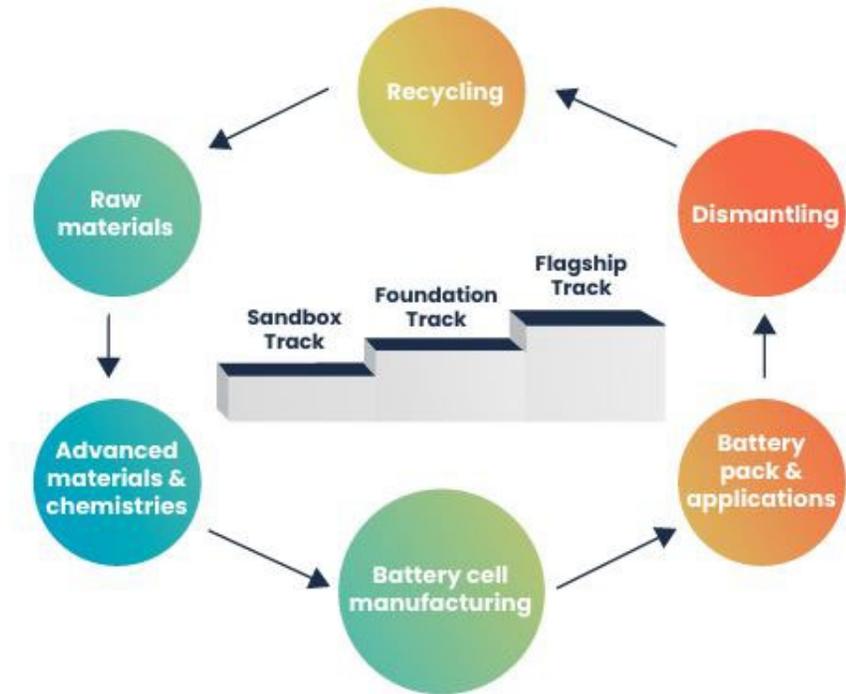
Sustainability

- Ensure R&D priorities embed circularity, resilience, and strategic autonomy across the European battery ecosystem



INNOVATE

Taking it forward



BATT4EU 2.0 will cover all parts of value chain at all stage of development from lab to fit-for deployment



Next Battery R&I Partnership for Europe – BATT4EU 2.0

BATT4EU 2.0 will empower application-specific Partnerships

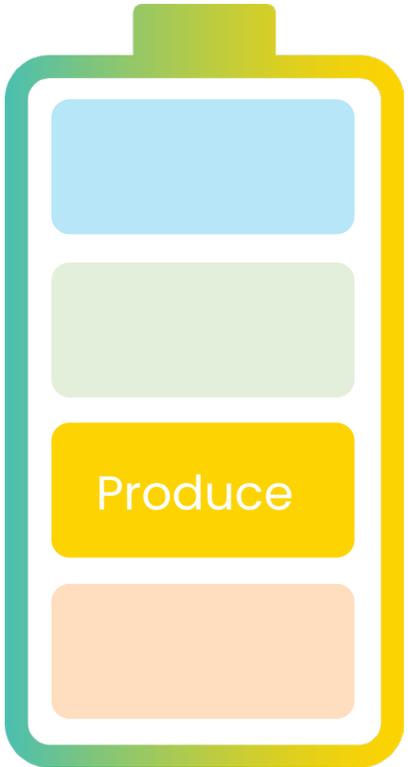
- Automotive
- Grid Storage
- Aviation
- Rail
- Waterborne
- Electronics
- Defence

BATT4EU 2.0 will empower EU policies and initiatives

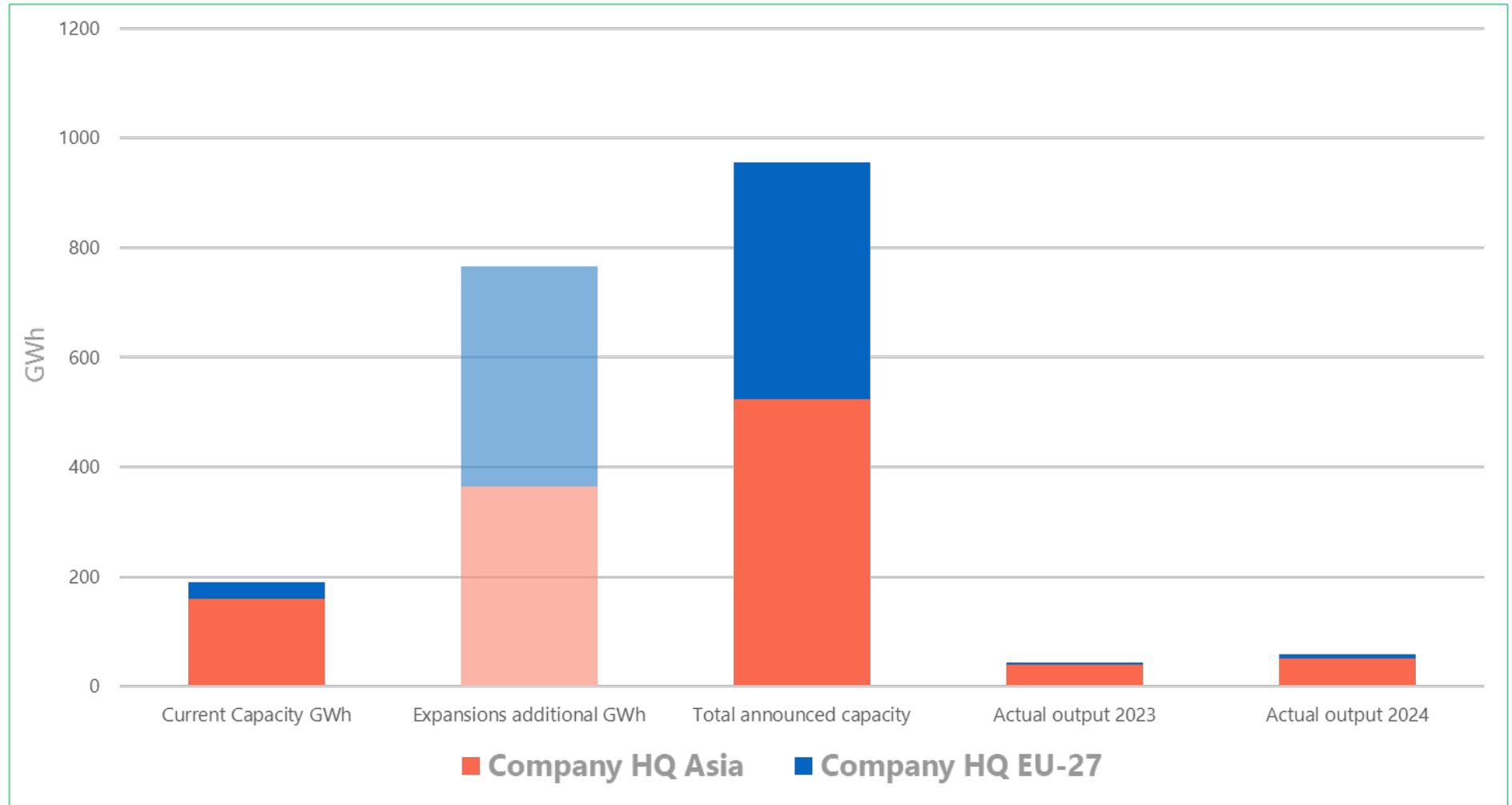
- Industrial Action Plan for the Automotive Sector
- Action plan for Affordable Energy
- Clean Industrial Deal
- Critical Raw Materials Act
- Net Zero Industry Act
- SET Plan
- Chips Act



PRODUCE



Main Challenges- who produces our batteries?





PRODUCE

Europe needs industrial innovation—not just lab breakthroughs—to close the competitiveness gap and build a resilient battery ecosystem

Dual Support Strategy

- Output-based aid for cell manufacturing (€/kWh tied to verified production)
- CAPEX support for upstream and circular projects (e.g. refining, recycling)

Scope

- Extend support across the full battery value chain—from raw materials to recycling
- Enable industrial learning and next-gen tech readiness

Scale

- Predictable, performance-linked revenue streams improve bankability
- CAPEX support vital for capital-heavy segments facing global subsidy competition

Speed

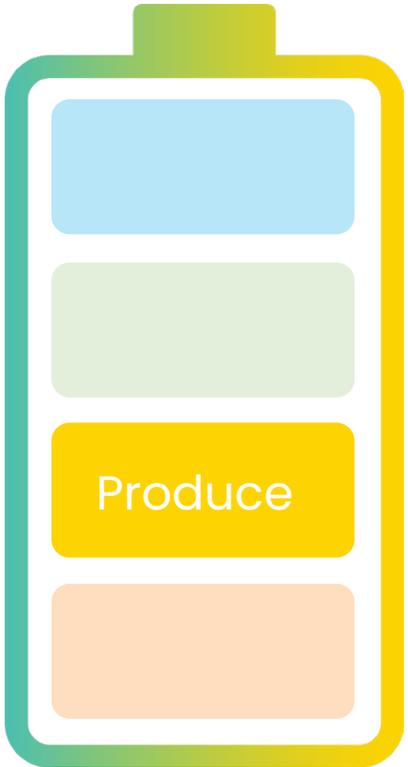
- Reform outdated “Start of Work” rules in EU State Aid
- Recognize commissioning phases as industrial learning to unlock timely support

Sustainability

- Incentivize low-carbon domestic production

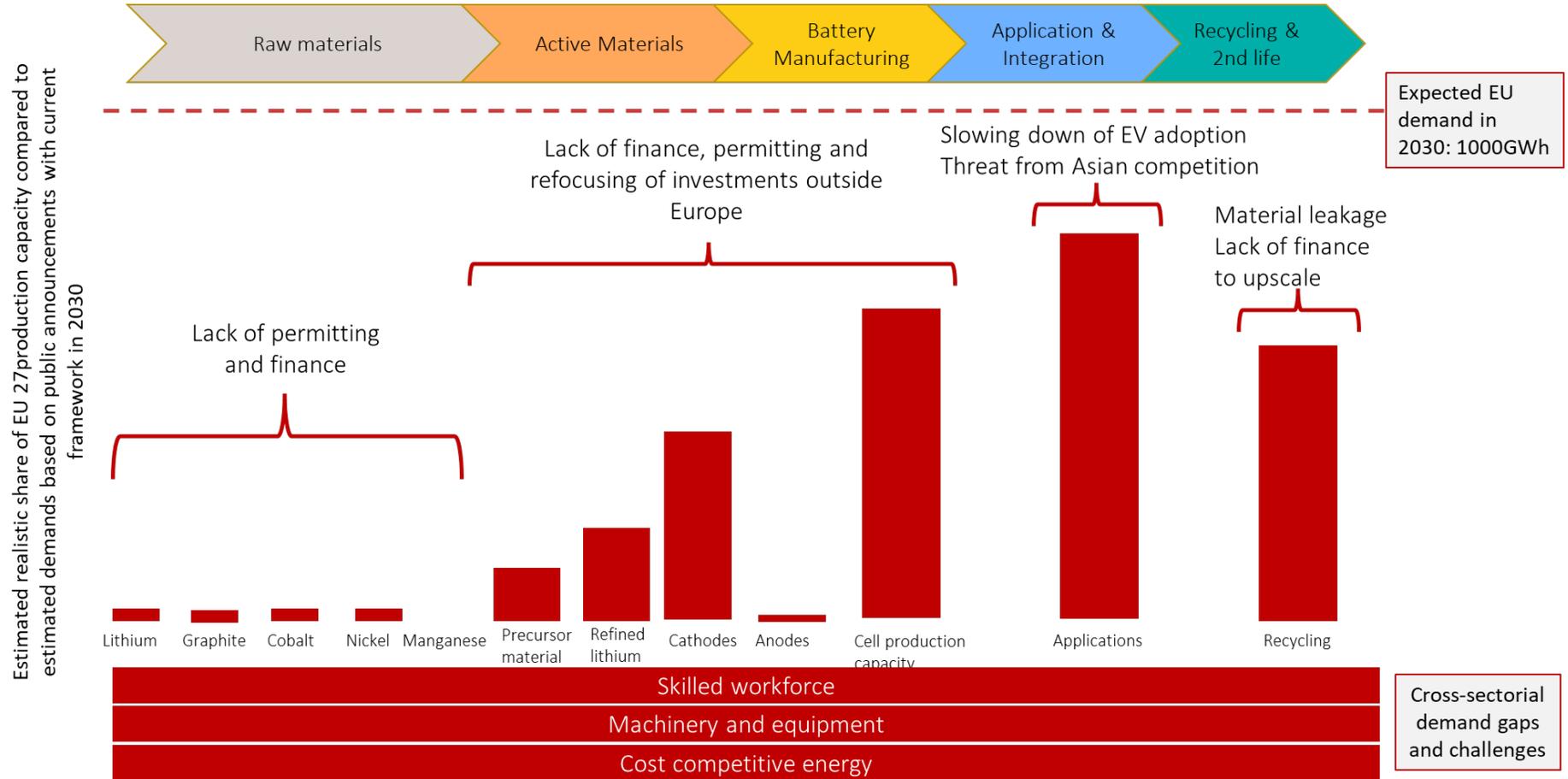
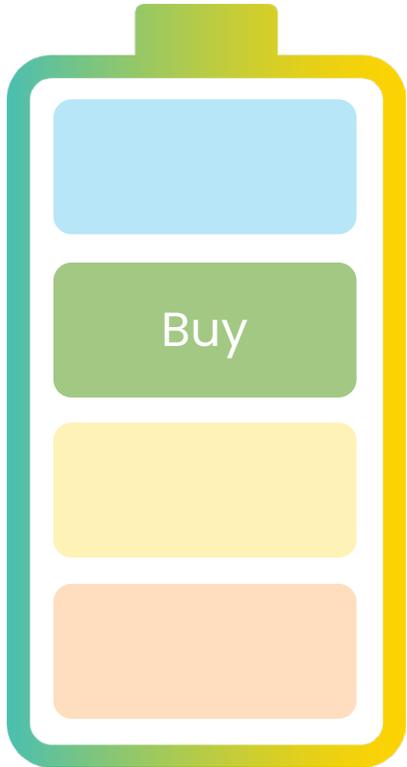
Taking It Forward

EU Competitiveness Fund should deploy these tools—evolving into a powerful Battery Booster over 15 years to finance infrastructure, incentives, and strategic demand





Main Challenges- Choose European, because a value chain is only as strong as its weakest link





Strategic demand as a Driver of Sovereignty – Domestic production for job creation – not just climate ambition

Scope

- Cover the full battery value chain: raw materials, components, recycling, and digital infrastructure
- Use Local Content Requirements (LCRs) to anchor industrial activity in Europe

Scale

- Match demand with investment via LCRs and sustainability-weighted tenders
- Embed criteria into EU funding tools to deliver jobs, skills, and regional growth

Speed

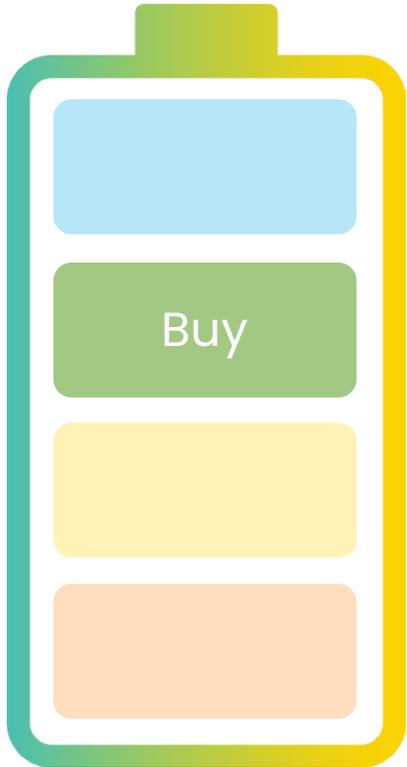
- Starting with gradual phase-in, adapted to each market segment
- Deploy an EU Toolbox for Sustainable Public Procurement to harmonize implementation

Sustainability

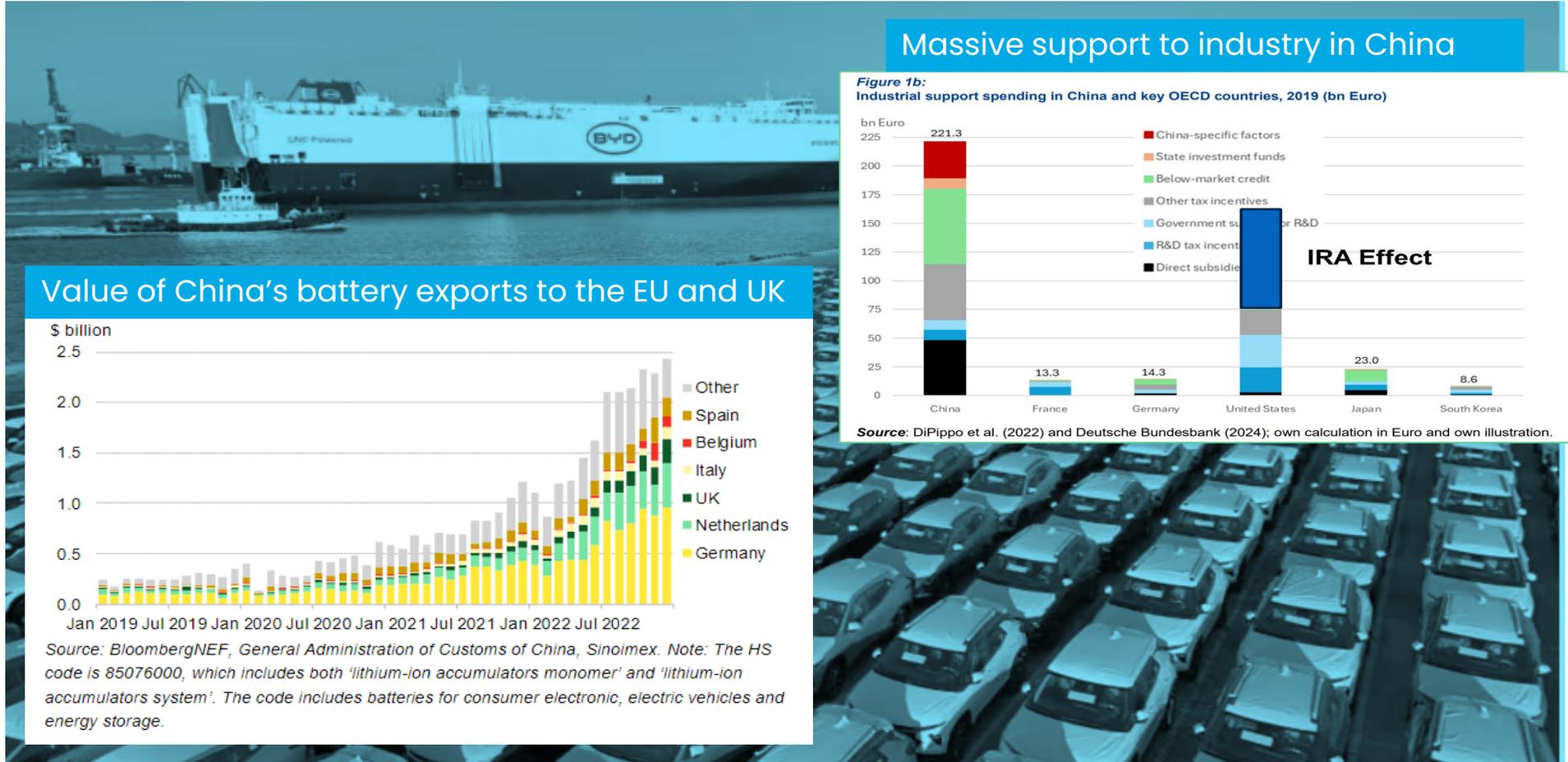
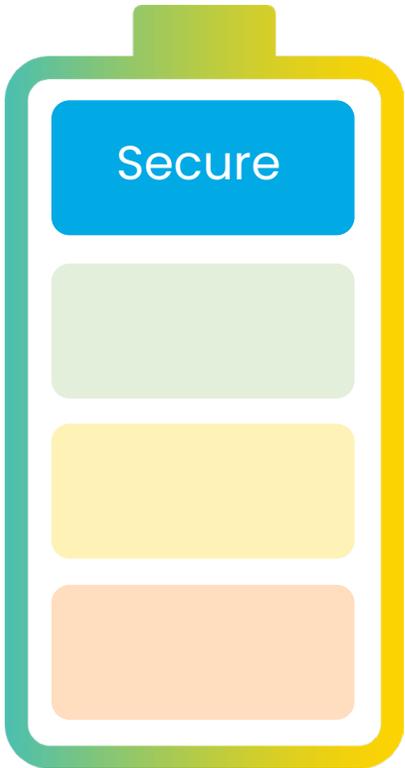
- Reward low-emission, ethically sourced, traceable EU-made batteries and materials
- Align procurement LCRs, climate goals and circular economy principles

Taking It Forward

Embed EU content requirements into key instruments (e.g. Innovation Fund, Battery Booster, NZIA, CRMA) to turn strategic demand into industrial strength.



Main Challenges- Secure a growing industry in transition facing unfair global competition



Main challenges – Global Competitiveness Positioning Europe in a Fierce Global Arena

Scope

- Set clear boundaries for value creation
- Enforce EU content requirements for foreign investment
- Strengthen FDI screening and customs enforcement

Scale

- Scale domestic production of strategic materials, diversification of the supply chain
- Apply trade defence tools and review tariffs to ensure fair competition

Speed

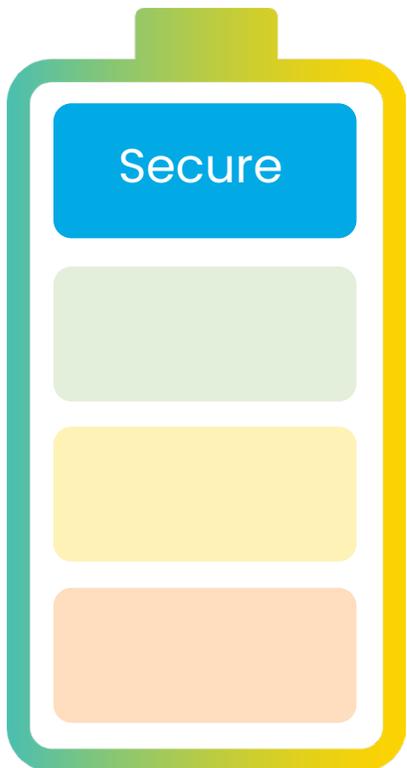
- Build alliances to diversify supply chains
- Align EU regulations with global standards
- Harmonize safety and intra-EU transport rules to support industry growth

Sustainability

- Embed non-price criteria such as sustainability and LCR requirements across funding, procurement, and trade policy

Taking It Forward

Establish **fair competition and international relations** to protect the infant European battery industry and by **establishing minimum value creation requirements** for foreign investments in the EU



The Long Game Starts Now

1. Reality Check!

Acknowledge global competition, regulatory fragmentation, and industrial gaps. **Europe faces growing exposure to external players** that control next-generation battery technologies and manufacturing know-how

2. A Joint vision!

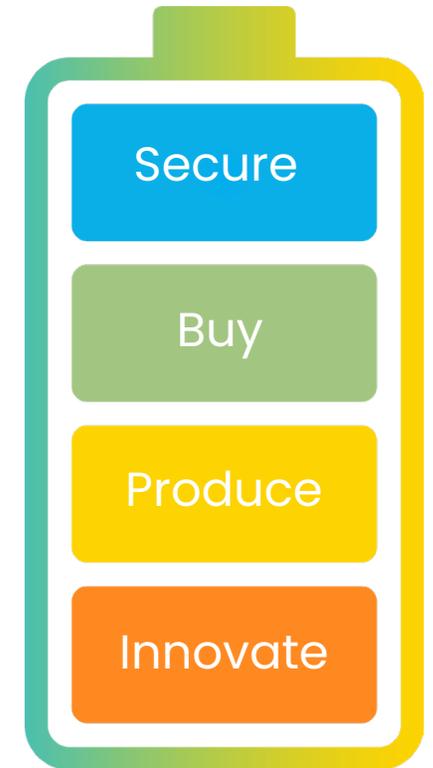
Where do we want to be in 2035? Define Clear and common goals based on a joint vision with all relevant stakeholders

3. A holistic and integrated strategy

Connect the dots across regulation, investment, innovation! **4 Pillars, 4 S!**

4. Accelerate implementation!

Scale fast. Deliver impact. Lead globally.



This is Europe's moment. Join the **Battery Deal** and make it count!

Supporting “ A Battery Deal for Europe”

- **Signing the Pledge:** Support A Battery Deal campaign by signing the pledge **as entities** at <https://batterydeal.eu/>
- **Presentation:** In case you would like to plug the Deal in external events, you can find in [this link](#) the presentation. (Relevant slides 7-8-9 -10 & 18)
- **Social media:** [Here is the link](#) to the Social Media Collateral, with guidelines for announcing the support on LinkedIn, hashtags,...



Contact us

BEPA Members: v.petetti@bepassociation.eu
RECHARGE Members: kinga@rechargebatteries.org

Be part of the change
Sign today!

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