

# A BATTERY DEAL FOR EUROPE



Bridging Innovation and  
Industrial Policy



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



## SCOPE

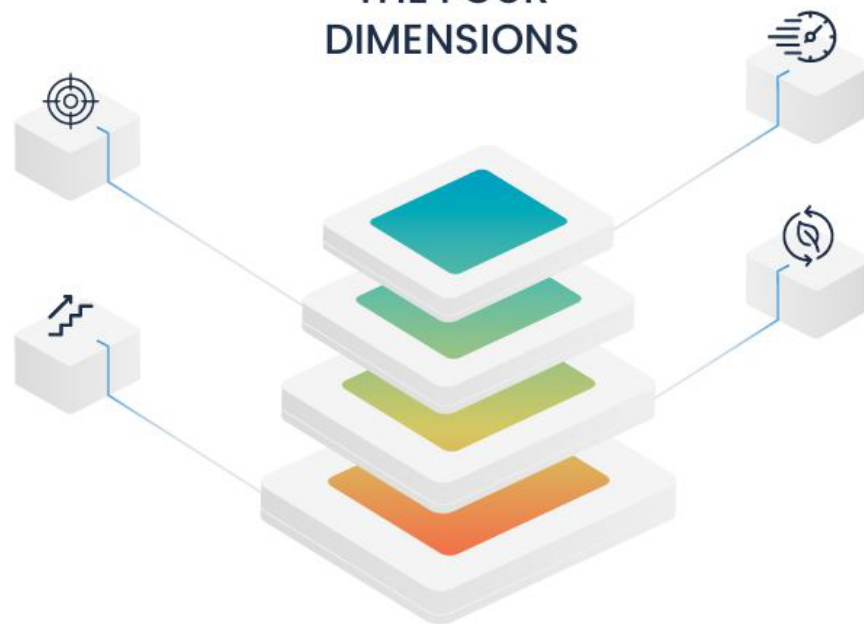
Each part of the value chain, from mining and refining to cell production and integration, has distinct capital needs, lead times, and technological constraints. A coordinated ecosystem is essential to ensure end-to-end development and avoid bottlenecks. Scope also reflects the growing diversity of applications 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



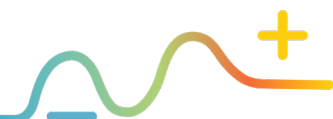
## SPEED

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.

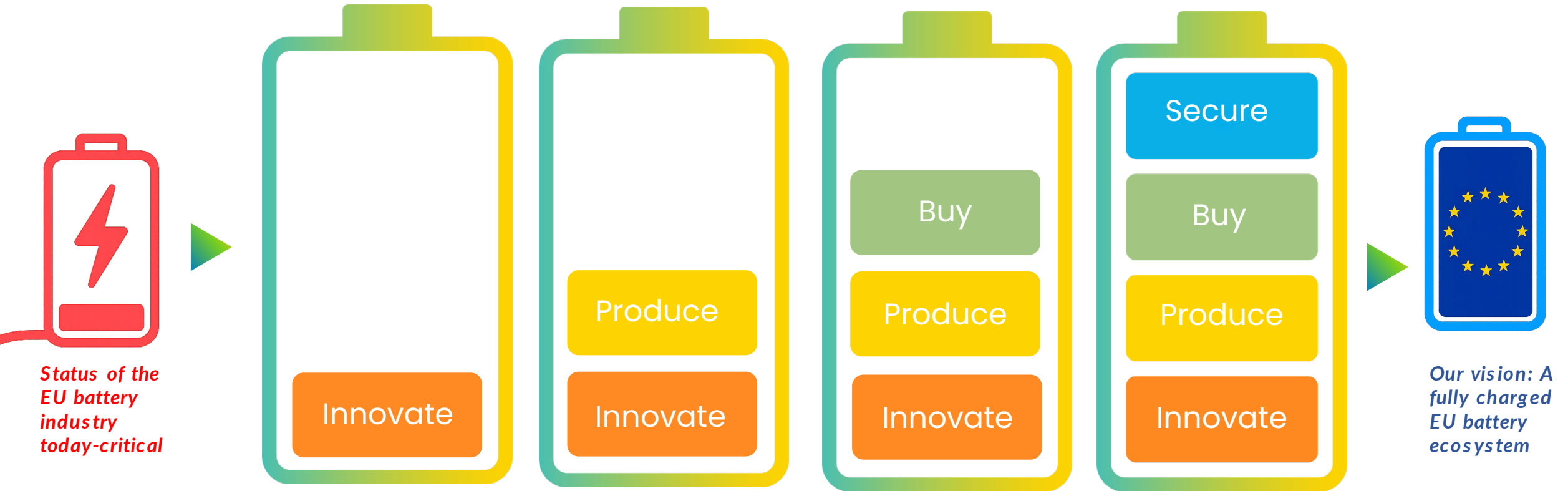


## SUSTAINABILITY

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

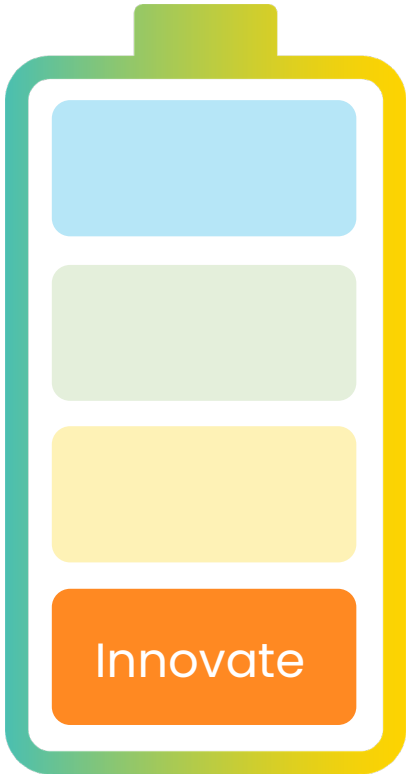
- Battery manufacturing in Europe remains too capital-intensive, rigid, and energy-hungry.
- The challenge is to **innovate toward less capital-intensive**, more modular, and cleaner production models that can be rapidly scaled and adapted across sites

### 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

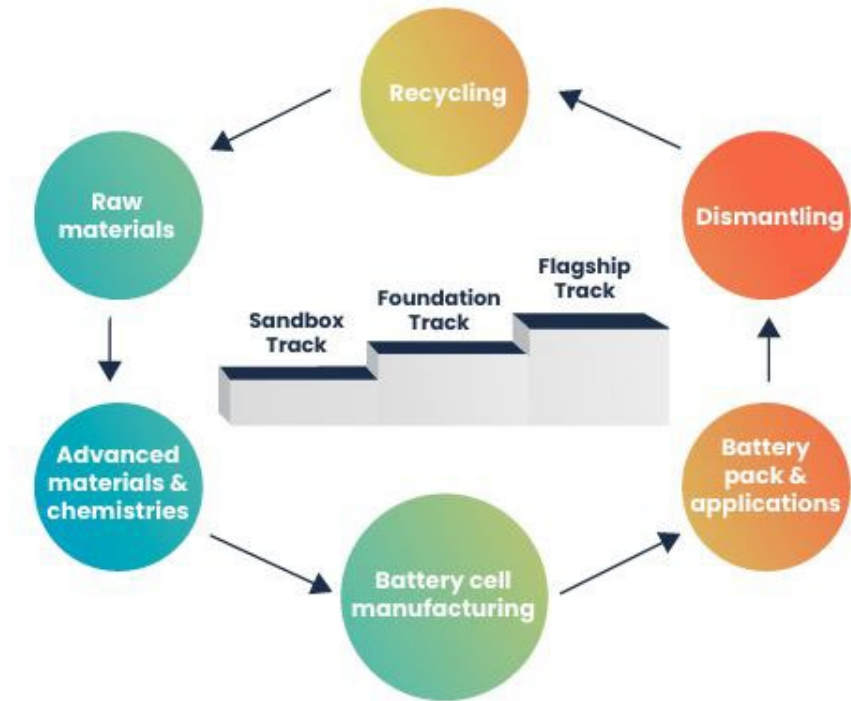
- Europe's battery value chain still relies heavily on raw material processing and refining while recycling technologies remain limited in efficiency and cost-effectiveness.
- The challenge is to **innovate cleaner and more cost-efficient processes** for raw material conversion and chemical refining,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





**INNOVATE**

**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

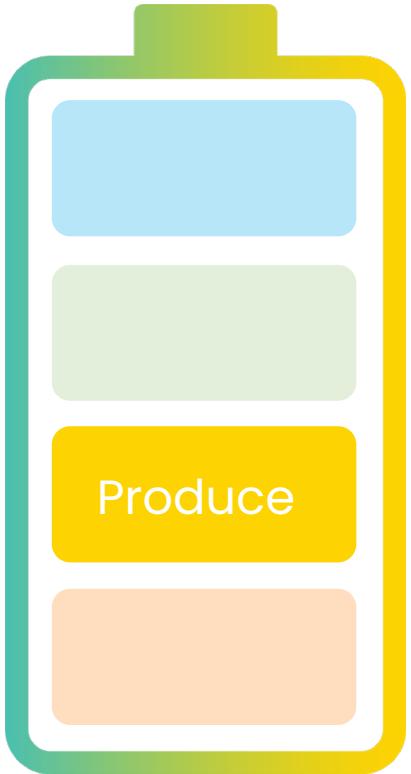
- Automotive
- Grid Storage
- Aviation
- Rail
- Waterborne
- Electronics
- Defence

**BATT4EU 2.0** will empower EU policies and initiatives

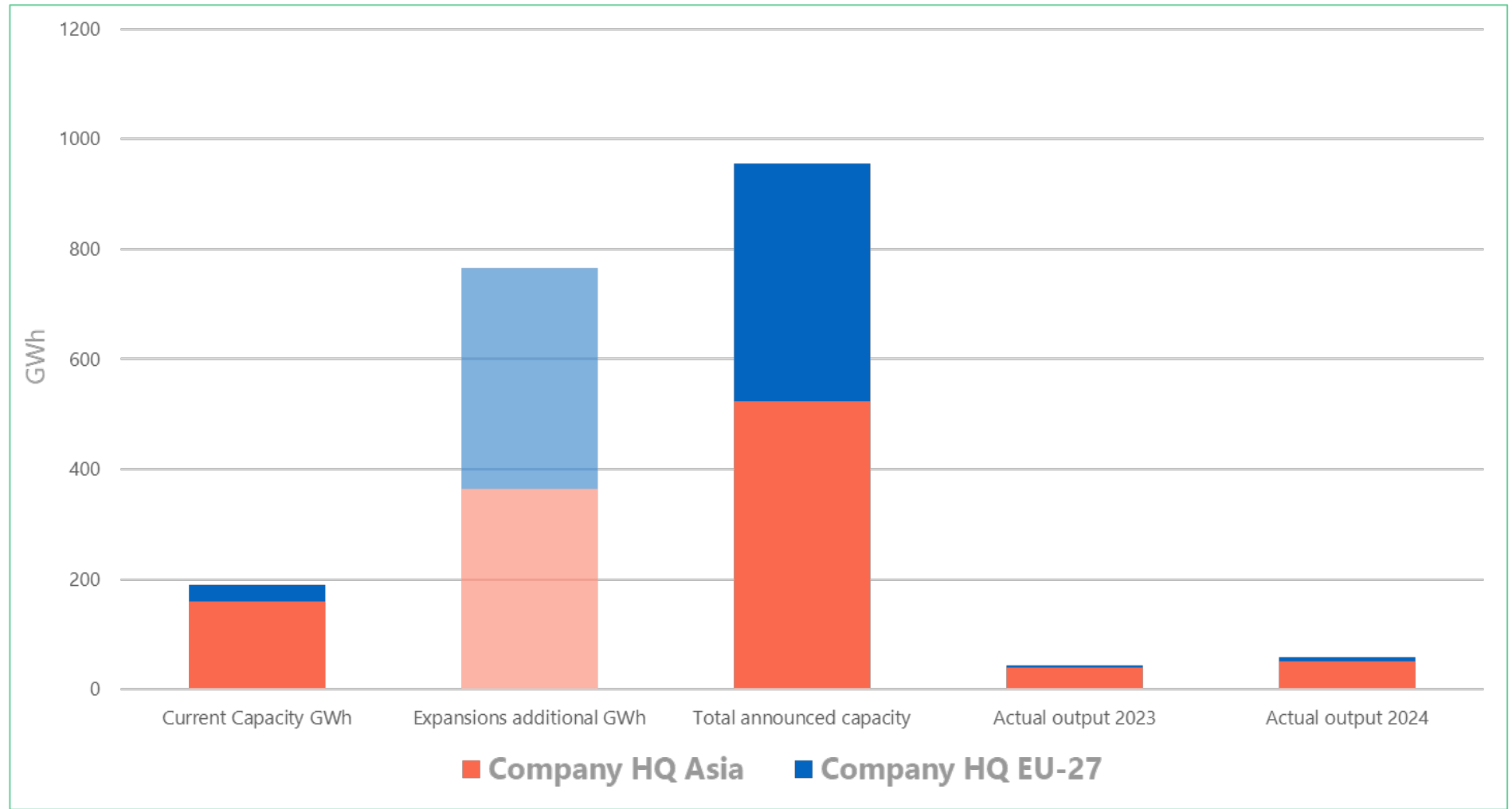
- Industrial Action Plan for the Automotive Sector
- Action plan for Affordable Energy
- Clean Industrial Deal
- Critical Raw Materials Act
- Net Zero Industry Act
- SET Plan
- Chips Act



# 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

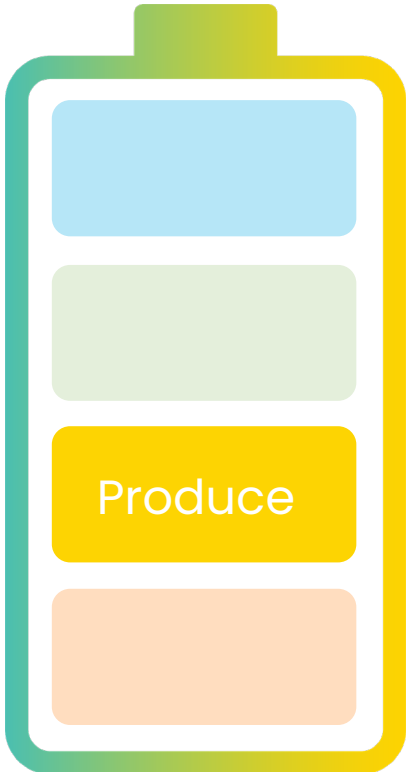
- Reform outdated “Start of Work” rules in EU State Aid
- Recognize commissioning phases as industrial learning to unlock timely support

### Sustainability

- Incentivize low-carbon domestic production

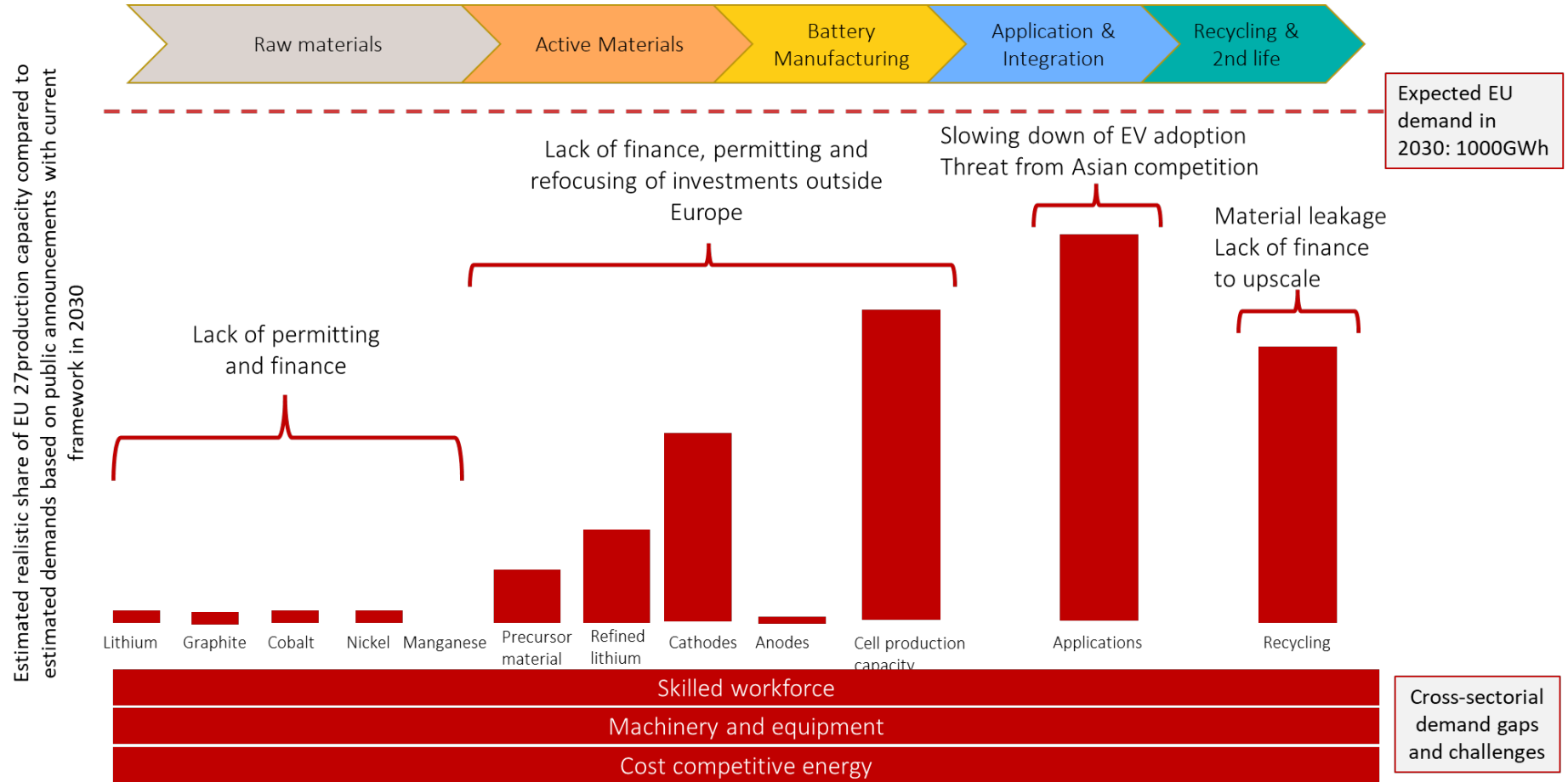
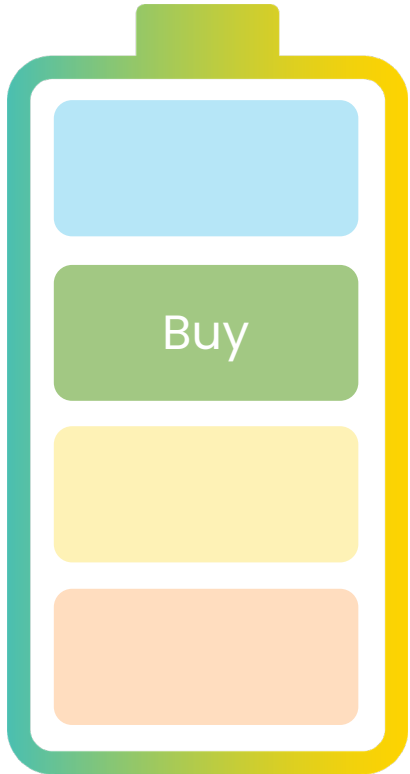
### Taking It Forward

**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

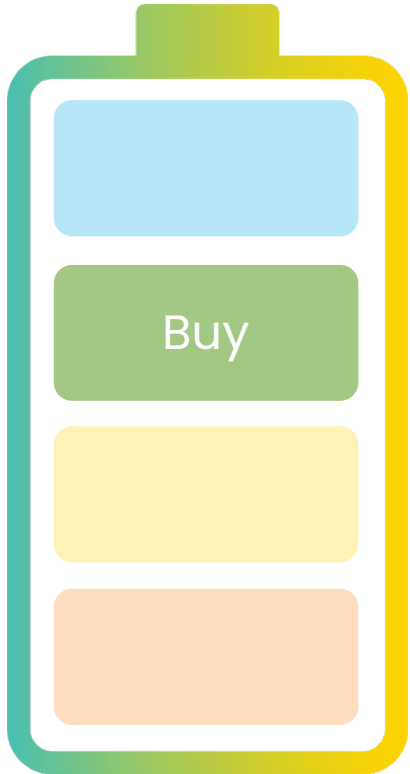
- Starting with gradual phase-in, adapted to each market segment
- Deploy an EU Toolbox for Sustainable Public Procurement to harmonize implementation

### Sustainability

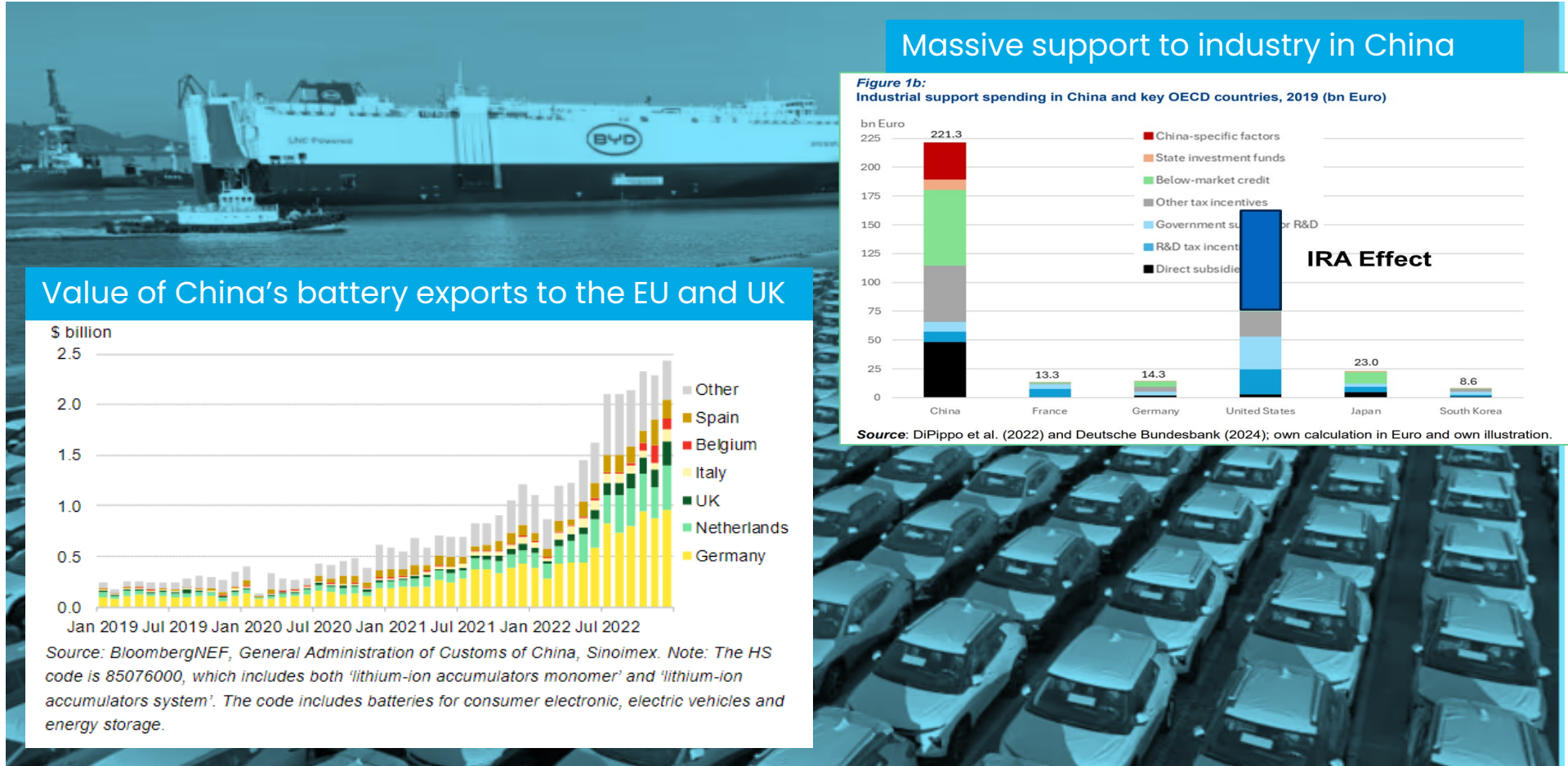
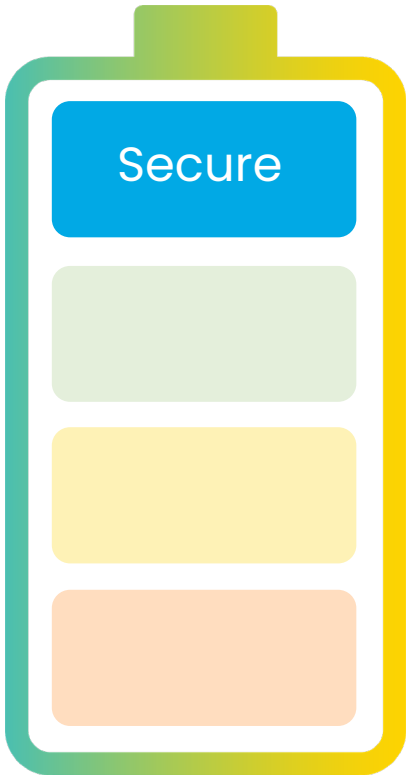
- Reward low-emission, ethically sourced, traceable EU-made batteries and materials
- Align procurement LCRs, climate goals and circular economy principles

### 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

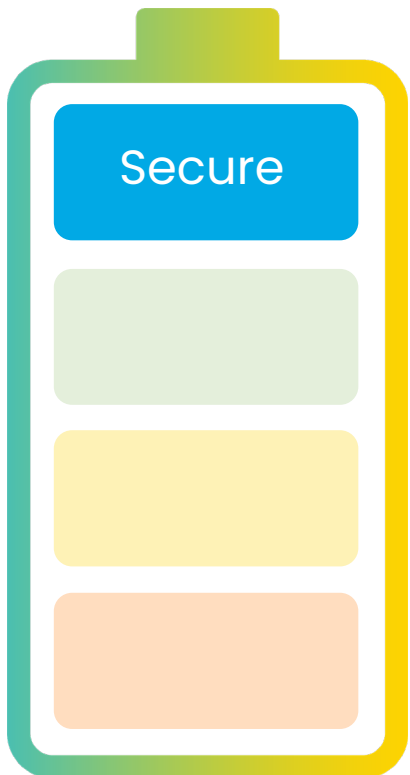
- Build alliances to diversify supply chains
- Align EU regulations with global standards
- Harmonize safety and intra-EU transport rules to support industry growth

## 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 Time to Act is 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!

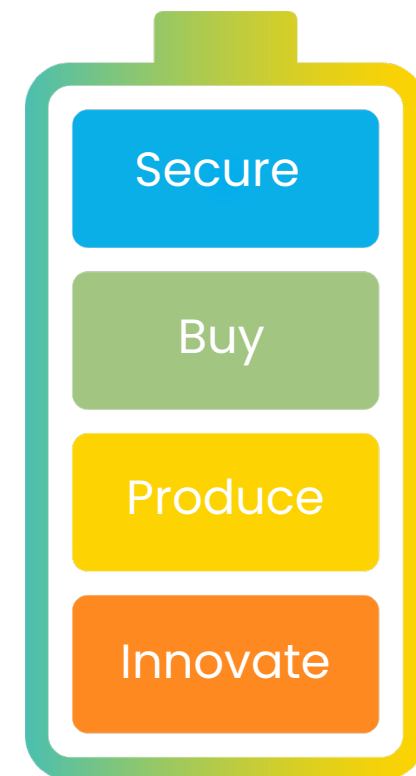
**Where do we want to be in 2035?** Define Clear and common goals based on a joint vision with all relevant stakeholders

## 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!



Be part of the change  
Sign today!

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[For individuals](#)

Join the  
**A BATTERY  
DEAL FOR  
EUROPE**



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to sign your support

