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Possible European content requirements applicable to batteries following the Automotive Action Plan

Fields marked with * are mandatory.

Following the Automotive Action Plan, the Commission is currently exploring how possible European content requirements for batteries could be structured, with the aim of creating a lead market for the European battery value chain.
This survey seeks to gather insights from industry stakeholders to better understand the potential impacts of such requirements on the European battery industry's competitiveness, supply chain strategies, business operations, and investment planning within the EU.

All responses will be treated confidentially and used solely to inform the Commission's policy development process.

Should you have any questions or wish to provide additional input beyond the survey, please do not hesitate to contact us at:

Section 1 - About you

* Please indicate the type of organisation you represent:
  - ○ Company
  - ◉ Business Association / Industry group
  - ○ Public authority
  - ○ Trade Union or employee representative organisation
  - ○ Research or academic institution
  - ○ Civil society or non-governmental organisation (NGO)
  - ○ Other

Indicate the size of your business according to the following categories:
  - ◉ Micro enterprise
  - ○ Small enterprise
  - ○ Medium-sized enterprise
  - ○ Large enterprise

* How are you of involved in the battery value chain? (multiple choices available)

- [x] Downstream sector user: Automotive
- [x] Downstream sector user: Battery Energy Storage Systems
- [x] Downstream sector user: other
- [x] Battery pack
- [x] Battery cell
- [x] Cathode active material
- [x] Anode active material
- [x] Precursor Cathode active material / Precursor Anode active material
- [x] Separator
- [x] Electrolyte
- [x] Other Chemicals
- [x] Recycling
- [x] Machinery
- [x] Critical raw materials
- [x] Battery Management system
- [x] Battery cooling/heating systems
- [ ] Other

Section 2 - European Content Requirements

For the possible establishment of EU content requirements, how would you define ‘EU content’:

- [ ] Specific percentage of the bill of materials is produced inside the EU
- [x] Specific components or materials used in a product are produced inside the EU
- [x] Specific percentage of the components of the battery are made in the EU
- [x] The battery is assembled in the EU and specific percentage of the components of the battery are made in the EU
- [ ] Specific percentage of the value of the battery is generated in the EU
- [ ] Specific percentage of the weight/volume of the battery is generated in the EU
- [x] Other

Please provide your definition of 'EU content'

Minimum EU content requirements can play a vital role in strengthening European industry, especially when applied through public procurement and funding schemes. These mechanisms offer direct levers to stimulate demand for locally produced components and materials, guiding investment toward EU-based supply chains. Importantly, local content requirements (LCRs) should serve as a tool to boost domestic production- not as a gatekeeper for market entry. To foster growth without creating barriers, a phased implementation is essential, along with regular revision of targets and timelines to avoid unintended harm to existing battery clusters in Europe. EU content should be defined as the combination of processes, components, and materials that originate within Europe, with a clear focus on manufacturing sovereignty and supply chain resilience. At the core of this approach is domestic cell production. Without a strong foothold in cell manufacturing, Europe risks losing strategic control over the most critical part of the battery value chain. Given that electromobility will be the primary demand driver in the coming years, local content requirements (LCRs) should initially focus on supporting cell manufacturing destined for Electric Vehicles, but they should also be designed to anchor growth across other key applications. A forward-looking approach to LCRs can accelerate investment in EU-based cell production while reinforcing the wider battery ecosystem in Europe. However, this ambition must be pursued through a carefully phased and targeted approach. Immediate and rigid requirements at the cell level risk undermining the existing battery assembly industry, particularly in segments where EU-made cells are not yet available in the required formats or volumes. This is especially true for non-EV applications, where supply chains are more fragmented and less mature. To avoid unintended disruption, any cell-level requirements should be introduced progressively, with clear timelines and differentiated targets across application areas. This will allow domestic cell production to scale sustainably while preserving and strengthening existing European battery assembly clusters. A practical and transparent definition should therefore be based on: EU local content refers to battery cells that are assembled within the EU, supported by a defined percentage of key components and materials for cell manufacturing, that are produced or processed inside the EU. Use of EU-made machinery and equipment in production should be incentivised to further strengthen local industrial capacity. We advocate for a component-based approach, not a value-based one, as it is more transparent, easier to implement (avoiding complex bills of materials), and enables policymakers to target components most critical for Europe’s strategic resilience. In the short term, optimal policy tools should: - Ensure that cell, not only battery assembly, takes place within the EU. - Require a measurable share of key cell components to be produced in the EU. - Promote circularity by mandating that a portion of battery materials be recycled within the EU. Implementation Principles Requirements should be mandatory and uniformly applied. The current “menu” approach under the NZIA, where multiple flexible options are offered, creates fragmentation and weakens their effectiveness. For EU content rules to support EU's industrial strength and technological autonomy, the framework must be consistent, enforceable, and applied across all relevant policies and programs. To maximise impact, EU content requirements must be: - Simple: Clear-cut rules without multiple opt-in pathways, avoiding complexity seen in current non-price criteria or rules of origin frameworks - Harmonised: Applied and enforced consistently across all EU+ Member States - Strategic: Embedded within key policy tools and instruments, as listed below, that influence investments We therefore call on the European Commission and Member States to implement harmonised EU content requirements across at least the following instruments: - Corporate Fleets Directive and national/regional fiscal or non-fiscal company car incentives - Battery Booster and other EU funding programs such as the Innovation Fund - Public Procurement Directive, ensuring standardised criteria across all government levels - Industrial Decarbonisation Accelerator Act, incl. contracts for difference - EU FDI Screening, ensuring foreign investments contribute to EU value creation and jobs (criteria may include EU-based equipment ownership, local hiring, joint ventures, and IP transfer) - Strategic project eligibility under NZIA and CRMA Finally, LCRs must remain tools to boost domestic production, not barriers to market access. With careful design and coordinated implementation, this framework will reinforce Europe’s competitiveness and support both environmental and industrial sustainability.

The battery value chain encompasses a series of interconnected steps that transform raw materials into finished battery modules and packs used in electric vehicles, energy storage systems, and other applications.

These steps typically include raw materials extraction, material processing, component manufacturing, cell manufacturing, module and pack assembly, and integration into end products. In which steps of the battery value chain would it be technically and economically feasible to apply minimum EU content requirements? Are there risks or benefits with introducing requirements in specific parts of the value chain, for example upstream on raw materials or downstream on OEMs? Please provide detailed explanations.

To build a strong, competitive, and resilient European battery ecosystem, minimum EU content requirements must be designed to support the full value chain, from raw materials and components to cell production, battery assembly, and end-of-life management (EU, broadly understood to include the EEA, Switzerland, and the UK). While cell manufacturing represents a strategic cornerstone of technological sovereignty, it should be integrated into a broader framework that reinforces all segments of the battery industry. From this foundation, EU content requirements should be applied across all stages of the battery value chain, but tailored to the technical and economic maturity of each segment. There's no one-size-fits-all solution. Requirements must align with sector-specific realities and be backed by solid market data. This strategy should extend beyond the Net-Zero Industry Act to include areas covered by the Critical Raw Materials Act (CRMA). Local content obligations should be introduced step-by-step, with differing targets or timelines based on the maturity of each part of the value chain. A staggered approach, where thresholds become stricter over time, can help the EU industry grow and take on a larger share of demand without disruption. Minimum EU content rules are feasible in all segments, if applied strategically. Early attention to upstream processes, such as the production of precursors and cathode active materials for both NMC and LFP chemistries, will be key. These steps remain highly vulnerable and dependent on non-EU suppliers. Prioritising them will help attract investment, enhance supply chain security, and reinforce critical downstream segments like CAM producers and gigafactories. To give the value chain time to adjust, LCR should also take into account and allow sourcing of pCAM and CAM from countries with FTAs at least for the initial phase of such targeted requirements. Since refining, pCAM and CAM are deeply interconnected, those steps should be covered to avoid repeating past mistakes seen in sectors like semiconductors. Recycled materials should also be part of EU content targets. Their inclusion supports circular economy goals, reduces reliance on imported virgin materials, and lowers the environmental footprint. To make this effective, EU recycling policy must be tightened, and incentives should be introduced to keep end-of-life batteries within Europe. To support the development of a robust European battery ecosystem, minimum content rules should be introduced in a way that encourages the establishment of local supply across all segments, including OEMs and integrators. A progressive implementation, starting with battery cell production and upstream activities such as pCAM and recycled inputs would ensure meaningful strategic impact while allowing downstream actors to adapt as local availability scales up. Recharge recommends that rules are designed not to be uniform, but effective, tailored to the realities of each segment and introduced in a way that supports strategic growth, technological leadership, and economic sustainability across the full battery value chain. And all measures need to be accompanied by proper market surveillance.

Indicate in which step of the battery value chain EU content requirements should be introduced (multiple choices available, please select all that apply):

- [x] Downstream sector product: Electric Vehicles/ Energy storage systems
- [x] Battery packs
- [x] Battery cells
- [x] Battery components
- [x] Battery materials
- [x] Other

Please specify in which other step of the value chain EU content should be introduced:

To establish a robust and strategically autonomous European battery industry, local content requirements must focus on cell manufacturing—not just battery assembly. Battery cells are the technological heart of the value chain, and without strong domestic capabilities in this segment, Europe will fall short in building core industrial knowledge and innovation. Anchoring local content rules around cells is essential to developing long-term competitiveness and strategic depth across the entire sector. To build a complete and resilient battery value chain in Europe, local content requirements should be applied at every stage, from mining and refining (sourced within the EU and Free Trade Agreement countries), processing to recycling and final assembly, including incentives for the use of EU-manufactured machinery and equipment.

Considering the risk of overdependence on imports or significant loss of market share in this value chain, are there specific steps in the value chain for your business where introducing EU content requirements could support your industry's competitiveness? How/why?

In the battery value chain, EU content requirements could enhance competitiveness, especially in sensitive segments like active materials and recycling. This is valid for both nickel-based chemistries (e.g., NMC) and iron-based chemistries (e.g., LFP). Introducing local content obligations for precursor materials and cathode active materials (pCAM and CAM, respectively) that are incorporated into battery cells would reinforce Europe’s industrial capacity across the entire battery landscape, including automotive, energy storage, and beyond. Anode active materials are equally critical, notably natural and synthetic graphite. With a quasi-monopoly currently held by China, this segment poses one of the greatest strategic vulnerabilities in the battery supply chain. Strong policy backing and targeted carbon-based incentives are essential to make local production of anode materials economically viable and environmentally competitive. Including incentives for the use of European manufactured machinery and equipment would further reinforce domestic industrial capacity and innovation. Rather than setting fixed content thresholds, we recommend a phased and carefully calibrated approach, based on solid market studies and segment-specific analyses. This ensures the rules are realistic, achievable, and supportive of industry development without creating unintended constraints. Recycling should also be included as a priority, to retain valuable metals and reduce resource dependency. In principle, local content requirements should apply across all steps of the value chain, with differences in scope and timing aligned to each sector’s maturity and strategic relevance. This strategic approach would reinforce Europe’s industrial resilience while enabling gradual uptake of domestic production.

To support your business, where could minimum EU content requirements be included? (Multiple choices available)

- [x] Public procurement
- [x] All forms of public funding and support schemes
- [x] Private procurement understood as establishing requirements for all products placed on the EU market
- [ ] None of the above

Please explain your responses to the previous question

Minimum European content requirements can play an important role in supporting European industry, particularly when applied through public procurement and public funding or support schemes. These channels offer direct levers to stimulate demand for locally produced components and materials and to guide investment toward EU-based supply chains. They should be the primary focus for introducing content obligations. Private procurement, meaning the establishment of requirements for all products placed on the EU market, could in theory extend the reach of these measures, but its scope remains unclear and potentially too broad. Currently, it appears focused on automotive applications, and it's not evident which specific instruments, such as the Greening Corporate Fleets initiative, might be used to implement it effectively. On the last point, more work is needed to define how private procurement could meaningfully contribute without creating distortion or complexity but can e.g. be stimulated by incentivizing products with EU content. And most importantly, local content requirements should be used to incentivise domestic production and investment, not as a barrier to market entry.

What would you recommend as the most effective method to track and trace the EU origin of batteries and its materials/components? In your view, how should this method be properly verified?

The most effective method to track and trace the EU origin of batteries and their materials/components is through a robust, interoperable digital system that builds on existing industry and regulatory frameworks. This could include elements of the Battery Passport introduced under the EU Battery Regulation, provided it is implemented in a proportionate and targeted manner that avoids unnecessary administrative burden.

“Rules of origin” are trade rules that determine where a product was made and whether it qualifies for preferential treatment (such as for example lower tariffs) under an international trade agreement. They ensure that only goods sufficiently produced or transformed in a partner country benefit from the agreement. In your sector, could the application of EU rules of origin be beneficial? Why?

Rules of origin have proven to be a powerful tool in trade policy, helping protect local industries, ensure fair competition, and encourage investment in emerging sectors. The EU-UK Trade and Cooperation Agreement (TCA) offers a concrete example: the introduction of local content requirements for Cathode Active Materials (CAM) from 2027 has significantly influenced market behaviour, prompting increased supply and investment within the EU. A predictable and regulatory timeline was key to achieving this shift. TCA also offers a good example that phase-in timelines must be realistic and based on in-depth market research. TCA timelines were too ambitious and had to be postponed, indicating that regular revision of measurements in light of market realities is good and necessary. However, such rules are tailored for external trade and should not be directly applied to the EU’s internal market. Instead, they can serve as a reference point to inform future regulatory frameworks aimed at deepening the single market. Any potential application of origin-based rules within the EU should be adapted with care and grounded in sector-specific conditions. As the EU develops new local content requirements under initiatives like the Industrial Decarbonisation Accelerator Act, it is crucial that commitments under the TCA are upheld as further delays in implementation undermine their intent. Clear definitions from the Commission, especially of what constitutes CAM, and closure of loopholes (such as counting only a second firing step in the EU) are essential to maintain credibility and impact. In future Free Trade Agreements (FTAs), origin-based mechanisms could be explored to support EU industry. However, existing FTAs should not be reopened solely to introduce such rules, nor should reverse effects or unintended trade barriers be created. One constructive option could be to exempt tariffs on imported components used by EU-based manufacturers to help offset the costs of meeting local content conditions, striking a balance between industrial development and supply chain openness. In the current EU context, a non-preferential approach remains appropriate. The focus should be on creating targeted, enforceable content rules that support competitiveness, encourage investment, and maintain flexibility across supply chains.

In your sector, what are the expected impacts (positive or negative) of introducing EU content requirements across the battery value chain, with regards to...

	Very positive	Positive	No impact	Negative	Very negative
Social aspects (e.g. jobs)	◉	○	○	○	○
Economic aspects (e.g. profitability)	○	◉	○	○	○
SMEs	○	◉	○	○	○
Skills and workforce developments	○	◉	○	○	○
Price of the battery	○	○	○	◉	○
Price of the downstream sector's products	○	○	○	◉	○

In your experience, what effect would a possible introduction of local content requirements have on national, regional or local level?

Local content requirements would have strong positive effects at national, regional, and local levels, particularly by securing industrial activity, creating jobs, and thereby building economic resilience. Importantly, these requirements also provide the predictability needed for the battery cell manufacturing industry to attract long-term, bankable offtake agreements from OEMs. Such certainty is crucial for unlocking financing and scaling investment across the EU battery landscape. They would incentivize investment across the battery value chain and support Europe's strategic autonomy by developing domestic capabilities and reducing reliance on non-European suppliers. This is key to decarbonizing the automotive and other sectors and maintaining industrial leadership. However, because European production costs are higher than in other regions, especially Asia, these measures must be accompanied by targeted support tools, such as public financing and investment incentives as well as targeted support in electricity cost reduction, to help bridge the competitiveness gap and ensure the viability of emerging industrial projects in Europe. If carefully designed and backed by such instruments, local content rules can drive industrial growth and reinforce Europe's role in sustainable technologies.

Are there any other considerations to take into account, that are not covered by the previous questions?

RECHARGE calls for a thorough and evidence-based accelerated impact assessment prior to the implementation of any European local content requirements. The technical feasibility and commercial viability should be in the center of the evaluation to avoid unintended consequences. LCR may result in higher costs in the beginning, until a full scale production base with high volume production units (economy of scale) is reached. These early years (duration tbd.) should be accompanied by an output-based production support.as RECHARGE has outlined in its Recommendations to the Industrial Decarbonisation Accelerator Act.. While understanding the sector realities is of utmost importance to avoid hasty decisions, the Commission needs to avoid delaying the actual introduction of the incentive schemes, as the batteries sector needs the local content requirements as soon as possible. RECHARGE stands ready to support the Commission on this important challenging balancing act of respecting urgency and proper assessment This is critical to ensure that proposed measures are technically feasible, aligned with sector realities, and capable of delivering meaningful strategic value without unintended consequences. Several sections of this consultation, particularly Sections 3 and 4, touch on commercially sensitive information that is often subject to non-disclosure agreements. As such, it is not feasible for RECHARGE, but also individual industry actors to provide detailed input on current or future sourcing strategies within this format. RECHARGE therefore urges the Commission to complement the survey with a targeted study focusing specifically on Sections 3 and 4. This would enable a more structured and confidential dialogue with stakeholders, allowing for meaningful and informed feedback that reflects real-world conditions and strategic constraints

Section 3 - Specific questions for stakeholders in the battery value chain sector that produce batteries, components or materials

When answering the following questions please take into account any relevant differences between battery chemistries (i.e. NMC, LFP, or others).

A Bill of Materials is a list of all the materials, components, parts, and subassemblies required to manufacture a finished product. For the sector relevant to your operations, what minimum percentage of your Bill of Materials can you realistically attribute to EU sourced components and materials in the following years? If you are involved in more than one sector, please answer separately for each of them respectively. When answering the following question please indicate the battery chemistry relevant to your operations (i.e. NMC, LFP, or others). If your operations relate to more than one chemistry, currently or in the future, please answer separately for every chemistry.

	% Bill of Materials covered by EU content
Currently	
2027	
2030	

Select which of the following components you currently source from the EU, and to what extent (i.e. percentage of each component sourced locally out of your total usage), as well as your projections for 2027 and 2030. When answering the following question please indicate the battery chemistry relevant to your operations (i.e. NMC, LFP, or others). If your operations relate to more than one chemistry, currently or in the future, please answer separately for every chemistry.

	Yes / No / NA	Current % sourced locally	Projected % sourced locally for 2027	Projected % sourced locally for 2030
Battery module / pack				
Battery cell				
Battery management system				
Cathode active material				
Cathode precursor				
Anode active material				
Anode precursor				
Separator				
Electrolyte				
Machinery				
Other (please specify)				

What are the main barriers preventing manufacturers located in the EU from sourcing more components or materials from within the EU?

Indicate major dependencies across the value chain

How would EU content requirements affect your supply chain strategy (e.g. reshoring, diversification, supplier development)? Additionally, what would be the expected timelines and key milestones for relocating or adapting your supply chain operations within the EU?

Section 4 - Specific questions for stakeholders in the downstream sector that use batteries

When answering the following questions please indicate the battery chemistry relevant to your operations (i.e. NMC, LFP, or others). If your operations relate to more than one chemistry, currently or in the future, please answer separately for every chemistry.

Do you currently source batteries from within the EU? If yes, what percentage of your battery supply is currently sourced from within the EU?

Do you foresee any changes in your sourcing strategy by 2027 or 2030? If yes, what percentage of your battery supply will be sourced from within the EU by those years?

Do you currently face, or anticipate in the future, any risk in your battery supply chain? If so, what are the most significant risks you identify (e.g. geopolitical tensions, logistical disruptions, cost volatility, regulatory uncertainty)?

To what extent do you consider relocating battery-related operations in response to costs and supply chain risks?

If linked to demand side measures, would the introduction of EU content requirements influence your decision to locate or expand operations within the EU? Please explain.

Would EU content requirements influence your long-term investment decisions in the battery value chain? Please explain.

Which type of battery / battery chemistries do you currently use and expect to use in 2027 and 2030 (i.e. NMC, LFP, NCA, etc.)? Please indicate the approximate percentage share of each chemistry in your total battery usage.

	Currently	2027	2030
NMC			
LFP			
NCA			
4V Ni or Mn based			
Sodium-ion			
Other (please specify)			

Contact

Contact Form