

AVERE's call for a Battery Materials Bank and a European Critical Raw Materials Fund

Executive Summary

The development of a strong battery value chain and the production of EU-made batteries have become a strategic imperative for the EU to enable its clean energy transition. In this paper, AVERE calls on European decision-makers to rapidly introduce a 'Battery Materials Bank' to strengthen the EU's domestic battery and materials value chain. The scope of this new Bank should cover primarily the processing and refining of critical raw materials, and the manufacturing and recycling of batteries. Funding would be based on well-designed auction mechanisms, providing payments based only on certified and verified output production, and supporting mature production processes that still encounter profitability issues. This auctioning system would provide a more transparent and predictable business framework conditions for investors, thereby attracting more companies to Europe. The new bank should become operational as soon as possible in the early 2020's, in line with the EU's 2035 internal combustion engine (ICE) phase out objective.

In the longer-term, this Battery Materials Bank should be accompanied with a 'European Critical Raw Materials Fund'. This new fund would have the same scope as the Battery Materials Bank but would be based on existing EU financial framework and tools, notably the EU Multiannual Financial Framework (MFF), the European Regional Development Fund (ERDF), the European Investment Bank (EIB) and the European Bank for Reconstruction and Development (EBRD). It should be discussed separately in the context of the MFF revision for the period 2028-2034, it should ensure complementarity with national funds and directly contribute to the EU's green industrialisation process and autonomy. The Fund would be financed through additional EU-pooled money and it would be based on existing tools and governance frameworks mentioned above. The scope of the rules for each funding stream will need to be made as clear as possible, making sure there is no double funding of the same cost items.

Overall, whereas the Bank would be instrumental in changing the current financing paradigm in Europe to start strengthening the domestic raw materials and battery value chain, the Fund would have a longer term criticality, as it would consolidate the EU's industrial competitiveness to make sure the transition to e-mobility fully takes shape in the next years and decades.

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1. EU context

Over its 2019-2024 mandate, the European institutions adopted a considerable set of critical legislations aimed at reducing our greenhouse gas emissions and mitigating climate change, notably the EU Green Deal and the “Fit for 55” package. The road transport sector is already seeing a significant shift towards zero-emission vehicles to meet its EU vehicle fleet-level 100% emissions reduction targets by 2035 and achieve our net-zero objective by 2050. Electric vehicles have proven to be the most mature and effective technology for reducing road transport emissions in Europe and globally.

To support the e-mobility ecosystem's continued growth, the EU needs to focus on accelerating the production and refining of minerals and metals needed for battery packs to power the electric transition. The battery value chain is still at a very nascent stage in Europe and production needs to be executed and scaled up to build up the EU's own battery material capacity. At the same time, projections show that, by 2030, battery production in Europe is expected to reach 1,725 GWh, whereas in the same timespan the battery value chain in Europe is poised to generate around 1.5 million direct and indirect jobs¹. Furthermore, the battery market value in the EU is projected to reach €35 billion in 2030, growing from €15 billion in 2019².

However, for these ambitious expectations to materialise, appropriate financial support is needed to build a proper battery value chain and industry on the European continent. In this context, AVERE welcomes the dedicated instrument for the battery value chain that was proposed in December 2023 under the EU Innovation Fund, providing additional funding of up to €3 billion, for three years, to boost the EU's battery manufacturing industry to the most sustainable European battery manufacturers³. However, this instrument has yet to become fully operational and could be jeopardised or delayed by the latest EU elections. AVERE believes that any financial instrument should address the industrial gaps across the EU's battery value chain more upfront, in particular battery materials refining. The levels of financial support should also be scaled up and later phased out progressively to demonstrate at least a temporary business case of building capacity in Europe, which should help make the industry more viable in the longer term.

Therefore, the EU needs to craft financing initiatives that will directly help develop areas of the battery value chain where the EU can differentiate itself and ensure the long-term competitiveness of its industrial base. To achieve these goals, we call on the European Commission to set up a “Battery Materials Bank”, to incentivise, in the short term, the development of a real European raw materials value chain that could accelerate the EU's autonomy in this field. The core aim of the Bank - which could operate e.g. as soon as possible and until the end of 2034 - would be to de-risk investments from political and market

¹<https://www.transportenvironment.org/uploads/files/An-industrial-blueprint-for-batteries-in-Europe-How-Europe-can-successfully-build-a-sustainable-battery-value-chain.pdf>

²<https://www.eurobat.org/resource/avicenne-study-eu-battery-demand-and-supply-2019-2030-in-a-global-context-shows-that-%E2%80%8Ein-the-next-decade-lead-and-lithium-batteries-are-critical-to-clean-energy-transition-2/#:~:text=The%20European%20Li%2Dion%20battery,estimated%20EUR%2035bn%20in%202030.>

³ https://ec.europa.eu/commission/presscorner/detail/en/ip_23_6369

uncertainties, to leverage private sector investments by increasing confidence among investors for this critical market segment. This new EU Battery Materials Bank could, in the very short term, replicate the basic design of the pilot EU Hydrogen Bank⁴, on the basis of the EU Innovation Fund's legal framework and governance.

This short-term solution should then be accompanied by a dedicated 'European Critical Raw Materials Fund', that should be set up in the longer term. This Fund should be developed to strengthen the EU's domestic value chain, in line with the EU's 2035 internal combustion engine (ICE) phase out objective. The new 'European Critical Raw Materials Fund' should get financed in the context of the Multiannual Financial Framework covering the 2028-2034 period.

The Bank and the Fund would have the same scope, but the auctioning system under the short-term Battery Materials Bank could be phased out over time, while the Fund would continue to ensure solid financial support in the longer run. Strengthening the raw materials and battery value chain in Europe would contribute to setting up a more transparent and predictable business climate for investors, thus helping European businesses to compete globally and deliver the materials Europe needs on the continent. AVERE believes that new, innovative funding tools are the only tangible way for the EU to compete with the U.S. Inflation Reduction Act (IRA) and Chinese investment policies. Funding tools must be reformed in order to move away from a project-based approach and instead reward the output of industrial activities. They should be as simple and predictable as possible.

2. What is lacking from the current EU toolbox

In the past few years, the EU has developed helpful industrial policy efforts to upscale battery production in the EU. Indeed, between 2014 and 2020, the battery industry received at least €1.7 billion in EU grants and loan guarantees. Moreover, between 2019 and 2021, the Commission authorised direct state aid of up to €6 billion for IPCEIs on batteries (European Court of Auditors data⁵). However, granting state aid has proven to be insufficient to ensure a proper industrial development at the European level. This is due to the limits of over-reliance on state aid, which puts Member States with smaller budgets at a disadvantage with their bigger counterparts, amplifying divergences in industrial power across Member States and undermining the foundations of the European single market.

Existing instruments have proven to be significantly inadequate for the EU to develop a solid battery and critical raw materials value chain that can compete on a global stage, due to the insufficient attributed levels of financial aid, as well as the excessive length and uncertainty of application procedures, which discourages companies from planning investments in Europe. In this respect, the difference with the U.S. IRA is stark, since the latter sets requirements for domestic sourcing and manufacturing tax incentives designed to reshore supply chains, through simple, predictable and output-based rules leading to a swift implementation and with immediate impactful results.

⁴ Communication from the European Commission on the European Hydrogen Bank:
<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52023DC0156&qid=1682349760946>

⁵ <https://www.eca.europa.eu/en/news/NEWS-SR-2023-15>

As shown by the European Court of Auditors in its latest report⁶, inefficiencies are also related to the European Commission's lack of a proper overview of the total public support given to the battery industry. A key challenge in this regard is to consolidate and streamline existing funding streams to allocate the EU's financial resources efficiently and to avoid overlaps, namely in the Horizon Europe programmes, the European Regional Development Fund (ERDF), the strategic investments operated by the European Investment Bank (EIB), the Innovation Fund and the Recovery and Resilience Facility (RRF) respectively. The ECA also stressed that conditions for financial support under IPCEI projects depend too much on the location of investments and that potential participants do not necessarily benefit from a level playing field in accessing funding. Beyond that, we believe it would be crucial for the EU to go beyond the IPCEI model, and to implement an output-based approach.

A short-term Battery Materials Bank and a long-term European Critical Raw Materials Fund should serve as a "platform" to rationalise existing funds while adding new financial envelopes under new financing mechanisms.

3. A Battery Materials Bank for short-term action

To create and sustain a self-sufficient European battery value chain, the European Battery Alliance estimates that €380 billion worth of new investments are still needed by 2030.⁷ In addition, €9 billion will need to be invested in the battery recycling industry to meet European circularity objectives.⁸ These numbers do not include the financial support needed to upskill and re-skill workers, to create a proper European raw material mining, refining and recycling industry. Therefore, creating a new, time-limited Battery Materials Bank is key to make the EU a global leader in this industry, to secure employment and accelerate the transition. The EU currently relies on a legislative framework with targets and aspirations in the form of the EU Critical Raw Materials Act⁹ which does not include any appropriate financing mechanism to match its stated goals.

This new Bank should help finance new operational capacity to refine battery materials needed for electric vehicles and to secure EU material self-sufficiency and EU-based employment as soon as possible. This is the only way of achieving the Critical Raw Materials Act's material self-sufficiency targets¹⁰.

We suggest to include the following industrial sectors in both the short-term Battery Materials Bank and the long-term European Critical Raw Materials Fund:

- Critical Raw Materials processing and refining needed to produce battery packs;
- Battery recycling;
- Battery manufacturing;
- Critical Raw Materials recycling.

⁶ <https://www.eca.europa.eu/en/news/NEWS-SR-2023-15>

⁷ <https://www.eba250.com/joint-statement-for-an-accelerated-action-plan-to-support-the-growth-of-the-european-battery-industry/>

⁸ <https://www.strategyand.pwc.com/de/en/industries/automotive/recycling-european-battery.html>

⁹ <https://eur-lex.europa.eu/eli/reg/2024/1252/oj>

¹⁰ <https://eur-lex.europa.eu/eli/reg/2024/1252/oj>

The Bank should be empowered to finance not only the large hurdles posed by upfront capital costs, but also operating expenses (OPEX). Compared to China, establishing a battery cell factory in Europe is 47% more expensive, costing around 100 million €/GWh. Most notably, due to higher energy prices, Opex in Europe can be up to 70% more expensive than in China, a significant halt for investors¹¹.

The Bank should also work to coordinate EU and national support instruments, including technical assistance and investment support inside and outside the EU. The Bank would remain solely focused on boosting the above sectors to appropriately address identified gaps in the battery value chain. Each sector should have a dedicated allocation of funding.

3.1 Functioning of the auctioning system

In the short-term, AVERE recommends setting up a new auction mechanism under the EU's existing Innovation Fund to finance the Battery Materials Bank. Well-designed auction mechanisms would allow efficient allocation of support to the Bank, minimising public costs and attracting a significant amount of private capital. Auctions would provide payments based only on certified and verified production, without pre-financing or payments before entry into operation, to support mature projects that still face profitability issues.

The auctioning system should be kept as simple as possible. It should be based on a limited set of criteria that investors would need to meet, such as:

- based on delivered output;
- mass capacity and scaling, to go beyond the principle of first industrial deployment
- prioritisation of possible offtake from mid and upstream battery value chain companies based in the EU
- low carbon footprint, based on the EU Batteries Regulation¹² to be measured in kg of CO₂ eq/kWh.

Winning bidders would need to build battery factories in Europe as they would benefit from a premium in EUR/per kg of battery material refined in the Continent. This would guarantee a business case to manufacture materials in Europe while guaranteeing high environmental and social standards and responsible, low carbon footprint sourcing.

Support should be based on the delivered output (e.g. production of refined lithium for use in a battery pack), predictable and limited in time, e.g. by phasing out the auction mechanism by a defined time period. This is needed to move away from the EU's current complex, non-transparent and unpredictable project and subsidy model.

Support should be directed both to capital investments needed to set facilities up and to operational costs to scale production, also covering energy costs, which are still putting European businesses at disadvantage with their global competitors.

¹¹<https://www.transportenvironment.org/uploads/files/An-industrial-blueprint-for-batteries-in-Europe-How-Europe-can-successfully-build-a-sustainable-battery-value-chain.pdf>

¹² <https://eur-lex.europa.eu/eli/reg/2023/1542/oj>, Article 7

Lastly, to speed up the process, the first calls for proposals should be announced by the end of Q4 2024, whereas funding would have to be confirmed by the end of Q1 2025.

4. Partnerships with third countries

Funding should also encompass strategic partnerships with third countries all around the world, in particular producing countries. This would imply building on what has been envisioned in Article 35a of the Critical Raw Materials Act ('International cooperation and strategic partnerships') and on the definition of 'strategic partnership'¹³, which is designed to be a commitment between the Union and a third country to increase cooperation related to the raw materials value chain. Such cooperation should be established through a non-binding instrument setting out concrete actions of mutual interest, which facilitate beneficial outcomes for both partners. In this regard, we endorse the Commission's approach towards strategic partnerships set out in the Global Gateway, as it has already led to many strategic trade partnerships with countries of major critical raw materials suppliers across the world.

At the same time, we call on the Commission to boost its commitment to scale up its action on EU-based mining projects, which are particularly important to scale up lithium and cobalt production, provided that the EU's standards to preserve nature and biodiversity are safeguarded.

5. A long-term European Critical Raw Materials Fund to ensure a resilient EU-based material industry

In the longer term, a new 'European Critical Raw Materials Fund' should be set up. This fund would have the same scope of the Battery Materials Bank, but it would be funded with additional EU level money and it would be based on existing, revamped tools, such as the EU's Multiannual Financial Framework (MFF), the European Regional Development Fund (ERDF), the European Investment Bank (EIB) and the European Bank for Reconstruction and Development (EBRD).

Every source of funding will need to change paradigm, going beyond investments in research and development, and early scale up, to focus instead on large scale production. In addition, the scope of the rules for each funding stream will need to be made as clear as possible, avoiding any potential overlaps and making sure there is no double funding of the same cost items. This monitoring and coordination role would be undertaken by the Fund, which will have to make sure that money is allocated in an efficient and transparent manner.

For example, as part of the MFF revision for the period of 2028 to 2034, a new additional budget should be allocated to critical raw materials and batteries industrial operations, by enhancing several funding opportunities that are already part of the MFF, such as Horizon Europe, InvestEU, Programme for the Environment and Climate Action (LIFE), and the Just Transition Fund. The ERDF should also be strengthened, as it is a key enabler of the EU's

¹³ <https://data.consilium.europa.eu/doc/document/ST-16127-2023-INIT/en/pdf>

Cohesion Policy. To improve it, grants will need to be increased while safeguarding the cooperation between the Commission and Member States, especially those with the highest concentration of disadvantaged communities. To make ERDF more efficient, the nomenclature for classifying co-funded projects by categories will need to be amended, as it currently does not establish a specific category for battery-related projects¹⁴. Also, the Commission should be asked to put in place procedures for monitoring the amount of expenditure made by ERDF for the battery value chain. This would also improve the monitoring of the level of subsidies allocated to the European battery industry.

The EIB should complement the Fund, especially through the European Fund for Strategic Investments (EFSI)¹⁵ to help mobilise private investments. The Regulation¹⁶ that established its functioning should be amended further so that EFSI can also operate in the long-term. This would be coupled by the loans provided by the EIB with EU budget guarantees. Most importantly, the EIB should work alongside the Commission to create a dedicated batteries funding and financing portal to facilitate stakeholder access to appropriate financial support and assist in the blending of financial instruments. This would be valuable for the EU battery value chain, and it would complement the more comprehensive InvestEU Portal, set up in 2021, which aimed to bring together investors and project developers¹⁷. The EBRD should continue to contribute to investments made in EV battery manufacturing and circular economy projects. This is exemplified by recent projects across Europe in recent years, mainly in low- and middle-income countries¹⁸, which focused on private sector investment and support for policy reform. The EBRD's presence in Central Asia, Eastern Europe and Baltic States could help the EU boost its partnerships with third countries.

¹⁴ <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32014R0215>

¹⁵ <https://www.consilium.europa.eu/en/policies/investment-plan/strategic-investments-fund/>

¹⁶ <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32015R1017&from=EN>

¹⁷ <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32021D0626>

¹⁸ <https://www.ebrd.com/news/2023/ebrd-and-innoenergy-partner-on-ev-recycling-in-poland-central-europe-next.html#:~:text=In%20Poland%20the%20EBRD%20has,new%20EV%20battery%20recycling%20facility.>