Questions and Answers: The European Battery Alliance: progress made and the way forward

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What progress has been achieved in developing the battery value chain in Europe so far?

The industry-led European Battery Alliance was established in October 2017 to achieve strategic autonomy in one of the most fundamental sectors of the future green and digital economy. Currently, the Alliance counts over 700 industrial and innovation members. The efforts are centred on building a sustainable and vertically-integrated battery value chain in Europe, to ensure a secure supply of green, safe and high-performing batteries, while also gaining a significant share of the global battery market.

Thanks to the collaborative and ambitious cross-cutting policy approach adopted by the Commission and Member States, and supported by other institutions and European banks, Europe has turned a battery greenfield project into one of its fastest growing industries.

In 2021, despite the coronavirus pandemic and significant supply disruptions, Europe continued its efforts and succeeded in anchoring its position as a frontrunner in the global sustainable battery market. So far, 111 industrial battery projects are being developed across EU Member States, with some 20 battery cells Gigafactories. The EU is set to meet 69% and 89% of its increasing demand for batteries by 2025 and 2030 respectively, and should be capable of producing batteries for up to 11 million cars per year. The total level of investment along the battery value chain amounted to €127 billion by 2021. Additional investment of some €382 billion is expected to create a self-sufficient battery industry by 2030. With this pace of investment, the annual added value created by the battery industry would be an estimated €625 billion by 2030.

Does this go hand in hand with the surge in e-mobility?

The expanding battery industry will be key to meeting Europe's growing demand for batteries. This in turn is being driven notably by the surge in e-mobility, which reached new heights in 2021. Despite the disruption on the automotive market in Europe caused by the drop in the overall sales of cars exacerbated by chip and magnesium supply disruptions, the sales of electric vehicles (eVs) between January and November of 2021 reached some 1.5 million units representing a record high market share of 17.2%, a figure which is likely to hit 21% across the whole of 2021.

Europe has retained its position among the global leaders in e-mobility next to China, which, with some 2.7 million between January and November of 2021, saw eV sales reaching 14.3% of market share.

The surge in e-mobility has been accompanied by an upward trend in the installation of public recharging points in the EU, which reached 302,417 in 2021 (up from 206,511 in 2020).

How did the Commission support the development of the battery industry in 2021?

In 2021, the Commission approved the second battery-related Important Project of Common European Interest (IPCEI), jointly notified by 12 Member States, with a total value of €12 billion. It complements the first battery-related IPCEI with a total value of €8.2 billion, which was adopted in 2019.

In 2021, the Commission launched calls for proposal for battery research projects of €160 million. The calls were a success: they resulted in 61 projects proposals being submitted. In total, some €925 million will be allocated to battery research from the EU budget up to 2027.

In 2021, the Commission adopted, as part of the Fit for "55 package", legislative proposal which will further foster the development of the battery market in Europe, including regulations laying down stricter CO₂ emission performance standards for new passenger cars and vans, and new rules to provide a broad roll-out of the recharging infrastructure across all EU Member States.

What are the key priority areas for the European Battery Alliance in 2022?
Since the establishment of the Alliance there was a good overall progress in developing the battery value chain in Europe and the recent initiatives addressing the emerging challenges. However, further concerted efforts are needed by Team Europe.

The Commission has identified the following priorities for 2022:

- Providing a new legal framework for the battery industry;
- Diversifying supply sources and routes for battery raw materials;
- Streamlining and accelerating permitting procedures for battery raw material projects at national and regional level;
- Improving and facilitating access to funding for primary and secondary battery raw materials projects; and
- Launching of national re-skilling and up-skilling programmes.

What was the main purpose of the High-Level Meeting?

Since its establishment in 2017, the European Battery Alliance meets annually at Ministerial level. Today, the sixth high-level meeting of the European Battery Alliance took place in Brussels to discuss the progress achieved in developing the battery value chain in Europe and to address the most pressing challenges on the way forward. In particular, the discussion focused on how to strengthen the resilience of the European battery industry by securing supplies of sustainable critical raw materials and how to coordinate re-skilling and up-skilling efforts at European level, by swiftly rolling out high-quality training across Member States. To help address the skills gap, estimated at 800,000 people by 2025, the Commission formally launched the European Battery Academy in the margins of the High-level meeting. By signing a letter of intent between the European Institute of Innovation and Technology (EIT) and EIT InnoEnergy, the Commission will support the Academy with a grant of €10 million under the REACT-EU.

What will the newly-launched European Battery Academy do?

The continuation of the European battery success story will depend on Europe's ability to address the emerging skills gap. The manufacturing and recycling of batteries requires a specific set of skills: it focusses on high-quality, high-volumetric and highly-digital production processes often involving the handling of chemicals. The European labour market does not yet sufficiently meet the demand for a skilled, qualified and experienced workforce. This is mainly because the battery ecosystem is still in its infancy, and the lack of a directly compatible sector on which to draw. According to industrial estimates, 800,000 workers will need to learn new or additional skills in the battery industry by 2025.

The launch of the European Battery Academy is a concrete action to make sure Europe has a sufficient number of skilled workers in the battery industry to ensure its continued successful growth. The European Battery Academy was designed to identify and frame the main skill demands across the European battery value chain. Based on industrial insights and up-to-date skills intelligence, the European Battery Academy will develop training programmes and learning content to address skill gaps, including online learning modules, in-person training and training manuals.

As a tangible contribution under the Pact for Skills, the EU is supporting the Academy with a grant of €10 million under the Recovery Assistance for Cohesion and the Territories of Europe (REACT-EU). Three Member States – Spain, France and Hungary – have already engaged with the Academy by signing Memoranda of Understanding to train up to 150,000 workers in each of the first two countries and up to 40,000 workers in the latter. The Academy complements existing long-term initiatives, such as the Blueprint Alliances under the Erasmus+ programme: the Alliance for Batteries Technology, Training and Skills (ALBATTS) and Development and Research on Innovative Vocational Educational Skills (or DRIVES). It also complements, the industry-led Automotive Skills Alliance launched in November 2020 as one of the first sectoral partnerships created under the Commission’s European Skills Agenda.

How do we tackle access to critical raw materials for batteries?

In September 2020, the Commission adopted the Critical Raw Materials Action Plan, which highlights 10 priority work areas for the EU to reinforce resilience of its raw materials industry. The Action Plan was accompanied by a list of 30 critical raw materials, and a foresight study in 2020 on future raw materials demand for strategic technologies and sectors, which shows that the demand for raw materials will increase significantly.

The Commission's approach to securing supplies of critical raw materials is based on developing most valuable and sustainable domestic projects. This is why our European Industrial Alliances on batteries and raw materials (EBA and ERMA) are mobilising investments to accelerate responsible
and sustainable battery raw materials projects in the EU. For example, lithium extraction projects are progressing in different EU countries to become operational (FI, ES, PT, CZ, DE, AT). Current mineral resources estimates more than double the figures available in November 2020, from 2.2 to 5.5 million tonnes of lithium. This increase is largely due to the new geothermal lithium project in the Upper Rhine valley (DE), which is adding 3.2 Mt of lithium mineral resources. In addition to these, there are new development projects in Portugal and Spain. All these potentially viable projects will allow us to keep our wider objective unchanged to cover up to 80% of Europe's lithium needs from EU domestic sources.

Streamlining national permitting procedures and ensuring compliance with the environmental acquis and the highest standards on transparency and public engagement, will be key to strengthening Europe's domestic capacities. In order to ensure that battery raw materials projects are developed in a fully sustainable and socially acceptable way, in 2020 the Commission adopted a batteries regulation proposal, which lays down strict due diligence requirements for all battery raw materials-related activities. These requirements, based on the guidelines of the Organisation for Economic Co-operation and Development (OECD), will apply to all critical raw materials used for batteries placed on the EU market regardless of their origin.

Furthermore, in September 2021, the Commission published the EU Principles for Sustainable Raw Materials. These voluntary guidelines provide an integrated approach to sustainable raw materials extraction and processing in Europe in terms of social, environmental and economic performance. In 2021, the Commission also published a report, which provides examples of best practices and a list of recommendations for the environmental impact assessments of minerals extraction projects.

Furthermore, we are building strategic partnerships with like-minded trade partners reach in critical raw materials. The Commission has adopted two strategic partnerships on raw materials, one with Canada in June 2021 and one with Ukraine in July 2021, with the aim of achieving a closer integration of raw materials and batteries value chains. The Commission will continue exploring possibilities to enhance cooperation with other trade partner countries, including Norway and countries in Latin America and Africa as well as the Western Balkans and Greenland.

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