

# EU Battery Alliance: Major progress in establishing battery manufacturing in Europe in only one year

One year on from the [launch](#) of the European Battery Alliance (EBA), the Commission Action Plan is in place, the first pilot production facilities are being built and further projects are announced to establish the EU as the lead player in the strategic area of battery innovation and manufacturing.

Batteries will be as essential to the automotive industry of the 21<sup>st</sup> century as the combustion engine was in the 20<sup>th</sup> century. If the EU is to maintain its leadership in the automotive sector, but also in clean energy systems, it has to have independent capacity to develop and produce batteries. Today Vice-President **Šefčovič** is hosting a high-level meeting with Member States and CEOs to present main achievements and to discuss next decisive steps.

Vice-President for Energy Union Maroš **Šefčovič** said: *"I am proud to see the traction created by the European Battery Alliance. As we mark its first year anniversary, we can show how the various pieces of puzzle are coming together thanks to our collaborative work with the European Investment Bank, several governments and the industry. We are now building a whole competitive value chain in Europe, with sustainable battery manufacturing at its core. And we are doing this at light speed."*

Commissioner for the Internal Market, Industry, Entrepreneurship and SMEs Elżbieta **Bieńkowska** said: *"This alliance is at the heart of our industrial policy. A strong battery industry is a perfect fit for our ambition to promote clean mobility. E-cars are the standard example, but we're also already thinking about how the battery alliance could be useful for trucks, sea shipping and ferries. If Europe wants to lead and compete with other big industrial players around the world, we need to hurry up."*

For Europe, battery production is a strategic imperative for clean energy transition and the modernisation and competitiveness of its industry, including the automotive sector. This will, at the same time, be providing a boost to jobs and growth, stimulate research and innovation and prepare the European industry to support climate commitments set by the EU to tackle climate change also in the context of the Paris Agreement. Moreover, the Commission's "New Industrial Policy Strategy" goal is to make the EU the world leader in innovation, digitisation and decarbonisation.

The Strategic [Action Plan for Batteries](#) covered all the activities which can help Member States, regions and European industry establish competitive, innovative and sustainable battery manufacturing projects in the EU. These include measures on the access to [raw materials](#), research and innovation, skills, the regulatory framework that will ensure that the batteries placed on the market are not only competitive, high quality and safe but also sustainable and recyclable. The Action Plan was built on discussions with key

industrial stakeholders, interested Member States and the European Investment Bank.

On the side of **the industry**, there has already been substantial progress in many areas.

#### **On the EU ecosystem:**

In less than a year, the **European Institute of Innovation and Technology (EIT) InnoEnergy** has managed to mobilise and steer a network of around **260 innovation and industrial actors**, coming from all segments of the batteries value chain. These key actors have committed to investing into actions and projects that they have collectively identified as top priorities, ranging from cells manufacturing, second-life batteries, ecolabel, carbon footprint reduction in manufacturing, a clearing house for batteries recycling, vehicle-to-grid, and enhanced cooperation between universities and companies to set up relevant education and training programmes.

#### **On manufacturing projects:**

##### **Battery materials**

- Umicore announced in June 2018 a major investment in Poland – Nysa – for the production of cathode materials. The plant will build upon the state-of-the-art technologies and is due to start deliveries in late 2020. Furthermore, a new Process Competence Centre will be built in Belgium to develop and scale up high-efficiency production technologies.
- BASF is a strong player in the battery materials market. The company expects the market for lithium-ion batteries to grow rapidly and plans to add production capabilities in Europe.
- Solvay is working on developing state-of-the-art electrolytes and electrode binders and separators that are needed for highly efficient batteries. The company is considering building a plant in Europe.

##### **Battery cells**

- Work has already begun to build a demonstration line in a project led by [Northvolt](#) of Sweden (with a EUR 52.5 million loan from the European Investment Bank).  
The production is to start in the second part of 2019. Northvolt has also obtained the permit to construct a larger scale facility in Skellefteå in Sweden. The objective is to scale up production up to 32 GWh in 2023.
- The BMW Group, Northvolt and Umicore have formed a joint technology consortium in order to work closely together on the continued development of a complete and sustainable value chain for battery cells for electrified vehicles in Europe.
- The battery maker company SAFT has announced in February 2018 a consortium with Solvay, Umicore, Manz and others to develop and manufacture battery cells – starting with advanced Li-ion technology followed by Li-ion solid state.
- Siemens is working with the entire cell manufacturing value chain on manufacturing challenges and solutions, and has recently engaged in

piloting the first fully automated and digitized production lines in Europe.

- Companies and research institutions in Germany are working with great ambition to establish a battery cell production in Germany in due time.
- Other EU operators are also building facilities to produce battery cells, notably for energy storage applications (FAAM in Italy and MES in the Czech Republic).

This list of announced manufacturing projects and investments is by no means exhaustive.

The Commission has **started with the rapid implementation of the Strategic Action Plan for Batteries**. Key actions are now underway:

1. **The regulatory framework** – the work on a new Eco-design Regulation is rapidly developing, to set the performance and sustainability criteria that batteries will have to comply to be placed on the EU market. The preparatory study is under preparation and a first stakeholder public consultation meeting will be organised on 20 December in Brussels. In the context of battery Ecodesign, the Commission's Joint Research Centre has also [published today](#) the results of a survey of battery-related standards. The Commission Report on the Evaluation of the EU Batteries Directive should also be published before the end of the year. It will address i.a. the collection of waste batteries, the recycling levels achieved within the EU or the labelling system. The results of the study in support of the Evaluation will be made [available](#) by the end of October.
2. **Raw Materials** – a High Level Conference on Raw Materials in Brussels on 14<sup>th</sup> November will present recommendations based on a dialogue launched by the Commission with the Member States on battery-related raw materials in view of developing attractive framework conditions for exploration, extraction and recycling of battery raw materials in Europe. The Commission is calling industry to also build raw materials refining capacity in the EU.
3. **Interregional Partnership on Batteries** – at a workshop on 8<sup>th</sup> October an Interregional Partnership on batteries has been set up. Slovenia has proposed to take the lead together with 7 regions in total on advanced materials. This partnership will benefit from support from special teams established within the Commission and can also benefit from external advisory services to accelerate towards scale-up and commercialisation activities. Another partnership led by Lombardy on de-and-remanufacturing of batteries is already well advanced in establishing a network of pilot demonstration plants for recycling. Based on their respective special strengths, more regions are currently expressing interest in joining these partnerships. Support is provided from the European Regional Development Fund ([ERDF](#)).
4. **Research** – on 24 January 2019 a call will open with a total budget of EUR 114 million from the EU Research and Innovation Programme Horizon 2020 for battery related topics, also supporting European Battery Alliance objectives. In 2020, additional topics for battery-related projects with a total budget of EUR 70 million will be published. For

the next MFF the Commission has also the intention to propose a "Partnership" on batteries under Horizon Europe. In parallel, a new European Technology and Innovation Platform is being set up. The objective is to advance on battery research priorities, define long-term visions, elaborate a strategic research agenda and road-maps. The leadership of this Platform will be taken by the industrial stakeholders, research community and Member States.

5. **Skills** – In the framework of the Erasmus+ programme, the next call for proposals for the Sector Skills Alliances implementing the [Blueprint for Sectoral Cooperation on Skills](#) will be published in the end of October 2018. This new call will cover six sectors including 'batteries for electro-mobility'. The selected Blueprint Alliances will identify skills gaps and future skills needs in the sector, develop a sectoral skills strategy, work on European occupational 'core' profiles and labour-market relevant European vocational 'core' curricula, and draft an action plan for implementation at national or regional level.

## **Background**

The European Battery Alliance was launched by Vice President Šefčovič with Member States and industry in October 2017. This cooperative platform now gathers the European Commission, interested EU countries, the European Investment Bank and over 260 industrial and innovation stakeholders. The objective is to create a competitive, innovative and sustainable value chain in Europe with sustainable battery cells at its core. To prevent technological dependence on our competitors and capitalise on the jobs, growth and investment potential of batteries, Europe has to move fast in the global race. According to available forecasts, the battery market could be worth of €250 billion a year from 2025 onwards. To cover the EU demand alone, it requires a conservative estimate of at least 20 'gigafactories' (large-scale battery cell production facilities) established in Europe. The scale and speed of the necessary investment require a combined effort to address this industrial challenge.

The main outcome of the European Battery Alliance so far has been the Strategic Action Plan for Batteries adopted in May 2018 and the industrial investments announced in the area of battery materials and battery cells. The Action Plan – part of the third ['Europe on the Move' package](#), completing the Juncker's Commission's ambitious agenda for the modernisation of mobility – comprises of a set of robust measures in the area of critical raw materials, EU research and innovation or regulatory requirements to support the competitiveness of our companies.

## **For More Information**

[MEMO/18/6113](#)

[European Battery Alliance website](#)

[Europe on the Move website](#)