

## 【欧州】【自動車】

# Road - Environmental friendly vehicles: European Commission Vice-President Maroš Šefčovič meets with industrial actors to discuss the further steps in European Battery Alliance

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### 【概要 : Summary】

In the EU, electric vehicles (EV) experience an increasing acceptance amongst the consumers as alternative to the internal combustion engine vehicles. Accordingly, major car manufacturers are announcing a broader portfolio of EV models, amounting to over 210 by 2021. However, since so far the necessary batteries for the EVs were mainly imported from battery producing industries in Asian countries, the European automobile industry needs to become independent from these imports in order to maintain their competitiveness in the future automobile market. Since a continuous dependence on battery imports would create long-term competition disadvantages and dependences for European automobile manufacturers, the establishment of a strong battery cell production industry in Europe is considered mandatory for developing a mass-market for EVs in Europe. It is estimated that the EU's automobile industry will need about 10 to 20 large-scale battery cell production facilities ( " gigafactories" ) for battery cells production to meet the future demand and in order to avoid competitive disadvantages for European automobile manufacturers. The European automobile manufacturers are currently facing the challenges to adapt to stricter emissions rules beyond 2020

and at the same time, they are lagging behind other manufacturers in the world market of EVs production.

Therefore, the European Commission considers the establishment of a battery industry in the EU as an essential pre-condition to deliver on the EU's ambition to maintain its leadership in the automobile and clean mobility sectors. The battery production in Europe needs to be pushed ahead and the European Battery Alliance is part of the Energy Union Strategy and aims at strengthening clean mobility and reducing dependencies deriving also from battery cell imports.

### 【記事 : Article】

#### 1. Background of the European Battery Alliance (EBA)

While there are still around 95% of automobiles in the EU using fossil fuels, in order to meet the future CO2 emission standards for new passenger cars and vans' and to achieve the targets of CO2 emission reduction under the Paris agreement and the EU's Green Deal, the EU needs to achieve the transition to low- and zero-emission vehicles. Currently, the European automobile manufacturers are still highly dependent on imports of the latest lithium-ion cell batteries for EVs. Only about 3% of batteries for EVs are produced in the EU. The

small battery production industry in the EU is mainly a result of a delayed introduction of EVs' production in the EU.

Under the Energy Union Strategy to achieve zero emission mobility, the mass-production of EVs needs to be accelerated. Therefore, the increase of battery cell production in the EU has been identified as one of the key initiatives and a battery cell production industry needs to be established in the EU. Under its second Clean Mobility package of 8 November 2017, the European Commission proposed not only new CO2 standards, but also a battery initiative.

Registrations of battery electric vehicles (BEV) in Europe doubled during the first months of 2020, while overall passenger cars fell by 25.6% compared to the same period last year. However, Data by the European Alternative Fuels Observatory (EAFO) shows that electric cars still only accounted for 4% of total. It is estimated that Europe will need at least 10 to 20 large-scale battery cell production facilities ( "gigafactories" ). The Commission's objective is that the EU becomes an industrial leader and increases its strategic autonomy in the battery sector, across the value chain. Therefore the aim is to lay the ground for a sustainable, competitive and innovative battery ecosystem in the EU. Although it has been an early supporter of the development of batteries, the Commission has identified the need for a more collaborative and comprehensive approach, given the pace of change in this field.

## 2. The European Battery Alliance (EBA)'s launch

While so far the European automobile manufacturers mainly only assemble battery packs for electric cars, there was no industrial initiative visible for creating a battery industry in the EU.

However, the lack of a European battery cell manufacturing industry and the dependence on imports from battery producing countries causes a competitive disadvantage for Europe.

Since the European automobile manufacturers are facing competition in the production of EVs in the world market, the aim is to create a platform that allows the Commission, industry and research to cooperate in setting up a European battery mass production. In October 2017, the European Commission's Vice President Maroš Šefčovič launched the European Battery Alliance (EBA), in order to establish a battery producing industry of significant size, to make Europe independent from battery imports and allow it to become a global leader in sustainable battery production.

The EBA is a cooperative platform for pooling efforts to create a competitive, innovative and sustainable value chain in Europe with sustainable battery cells at the centre of interest. The EBA includes the European Commission, interested EU Member States, the European Investment Bank, key industrial stakeholders and innovation actors.

The EBA is part of the Energy Union Strategy and aims at strengthening clean mobility and reducing dependencies deriving also from battery cell imports. A Strategic Action Plan was presented on 17 May 2018 (COM (2018) 293 final) as part of the Europe on the Move III package. The strategic action plan of a cross-border and integrated European approach covers the whole value chain of the batteries ecosystem, focusing on sustainability. Major car manufacturers are announcing a broader portfolio of EV models, amounting to over 210 by 2021, but at the same time, the establishment of the battery production in Europe needs to be pushed ahead. The EU intends to support the increase of battery-producing capacity in Europe by about 20 times in the next five years. The aim is to reach 90 gigawatt-hours of manufacturing output per year by 2025. The European Investment Bank (EIB) also approved EUR 52.5 million in financing for Swedish battery cell manufacturer Northvolt, in February 2018, Europe's first lithium-ion battery cell gigafactory. The factory in Sweden will help reduce the EU's dependence on oil and imported batteries. Northvolt will construct the Northvolt Ett

lithium-ion battery cell factory in Skellefteå, northeast Sweden and in parallel, Northvolt is building a demonstration plant in Västerås, near Stockholm, where the batteries can be tested. Work on both plants began in 2018, followed by testing with industrial partners in 2019. Mass production is still planned to start in 2020 and the total capacity of its annual output is expected to reach 32 gigawatt hours by 2023. The company also hopes to recycle batteries, thereby reducing use of minerals like cobalt.

The Strategic Action Plan for Batteries of 17 May 2018 (COM (2018) 293 final) comprises of a set of measures that cover the whole value chain, starting with the extraction and processing of raw materials, the design and manufacturing phase of battery cells and battery packs, and their use, second use, recycling and disposal in a circular economy context, as well as regulatory requirements. On 30 April 2019, the European Commission Vice President for Energy Union Maroš Šefčovič hosted the third political meeting at ministerial level under the EBA. The objective was to discuss in particular the strategic issues including the sustainable production of batteries and the sustainable processing of raw materials, the use of financial instruments, State aid and Important Projects of Common Interest (PCIs).

Furthermore, the aim was to bring together the significant support of the Commission, the EIB and invited Member States to cross-border manufacturing projects.

In Sweden, France, Germany, Italy, the Czech Republic, consortia for the battery cells production was established. Raw materials are supported by consortia in Sweden, Finland and Portugal. The chemicals part for battery production is supported in cooperation between Belgium and Poland as well as between Germany and Finland. The automobile manufacturers in Germany, France, Spain and Slovakia are working on the battery packs, software, machine tools and engineering, whereas recycling is a focus in Belgium and Germany. More

EU Member States are now showing their interest to join the IPCEI (the important projects of common European interest). After the launch of the European Battery Alliance (EBA), the German and French governments announced several measures to set up facilities for the development and production of next-generation solid-state batteries, among others.

On 9 December 2019, the European Commission approved EUR 3.2 billion in subsidies of France and Germany and several EU Member States to creating the “pan-European battery eco-system”. According to the EIB, the production capacity of lithium-ion battery cells projects the bank is supporting stands at 51GWh, which includes already-approved and signed facilities as well as those under appraisal. This would build on a present production capacity of 49GWh in the EU which is equivalent to the US’ current total, but only to around a tenth of dominant player China’ s capacity. The establishment of a European battery industry will contribute to the EU’ s objective of becoming the first carbon-neutral continent by 2050.

### **3. Recent action to build up a European production for sustainable batteries**

The uptake of electric vehicles has continued in the first three months of 2020, with electric vehicles benefitting from the decline in demand for diesel and petrol vehicles, with their market share rising to 6.8%, up from 2.5% in Q1 2019. Considering this development, the further establishment of battery production sites is of vital importance. There are some positive prospects of developing self-sufficiency in the lithium industry with four sustainable lithium mining projects totalling EUR 2 billion that have been launched in Europe (ES, PT, DE/CZ, DE/FR) and should be in operation by 2022-2024. Their impact will be significant as they are set to meet up to 80% of Europe’ s lithium needs by 2025, thus contributing directly to the EU’ s strategic autonomy.

At a video meeting between EU Commission

Vice-President for Inter-institutional Relations and Foresight Šefčovič and European Investment Bank (EIB) Vice President Andrew McDowell and high-level industry representatives on 19 May 2020, Šefčovič asked to keep the momentum based on the increased uptake of electric vehicles, the expected electric vehicle production trends and EU's prospects of self-sufficiency in the lithium industry. With the EV's market share rising to 6.8% (from 2.5% in Q1 2019), the expected production trends and the increased number of electric vehicle models, the EU's needs for lithium will be up to 80% by 2025, contributing directly to the EU's strategic autonomy.

Commissioner Šefčovič and the high-level representatives from industry also assessed the impact of the COVID-19 crisis on the battery ecosystem. According to Maroš Šefčovič, the corona crisis has further highlighted the importance the European Battery Alliance to increase Europe's resilience and strategic autonomy in critical industrial sectors. Šefčovič added that the Commission will continue to mobilise all industrial actors, Member States and the EIB in order to increase investment and adequate regulatory framework to building up the EU's raw materials resilience as part of Europe's strategic autonomy. The initiatives under the EBA can also forcefully support the EU's recovery in the post corona era, aimed at building a more sustainable, competitive and resilient economy.

The Commission will come up with a critical raw materials action plan to address the security and sustainability challenge of raw materials (beyond lithium), as announced in the Industrial Strategy. In addition, based on the EBA model, the Commission will work closely with industry to remove bottlenecks in critical raw materials supply chains through a dedicated alliance.

The EIB VP Andrew McDowell reaffirmed EIB's commitment to supporting an independent EU battery industry in line with the EU's decarbonisation and green recovery objectives. The EIB expects to

increase its backing of battery-related projects to more than EUR 1 billion of financing in 2020.

This support benefits from a successful partnership with the European Commission, which has enabled new financing instruments such as the InnovFin Energy Demonstration Programme to facilitate the demonstration phase of innovative energy projects including battery pilot lines.

Šefčovič stated that the COVID-19 pandemic has further highlighted the importance of the EU Battery Alliance to increasing Europe's resilience and strategic autonomy in critical industrial sectors and in key, game-changing technologies. This includes also reducing the EU's dependency on third countries, such as China and South Korea. According to Commission Vice-President Maroš Šefčovič's statement following the meeting with high-level industrial actors under the EBA, he is convinced that EBA could contribute to the EU's post COVID-19 pandemic recovery.

#### 4. Outlook

China is likely to continue to be the global centre of battery production for the years to come. In 2008, 97% of the global production of batteries was concentrated in China, with global capacity then standing at 6GWh in total. By 2019, the global total capacity has increased to 365GWh and 75% of this was still to be found in China. Only 5% of the production is located in Europe. The share of European battery production is expected to rise to about 10% by 2030 on the basis of the establishment on new battery production sites in Europe.

Even the COVID-19 pandemic has shown the importance of introducing a self-sufficient battery production industry in the EU, because critical battery components are manufactured in China and automobile manufacturers in Europe suffered from severe disruptions to their supply chain. As a consequence from this dependence it is of high strategic importance to establish a strong battery industry with the production of state-of-the-art batteries for electric vehicles in Europe. The

development of an independent European battery ecosystem would allow the EU to secure local battery capacity to boost the European automotive industry and safeguard thousands of jobs.

As a further step to achieve this target, in October 2020, the European Commission intends to publish a proposal for a revision of the Battery Directive 2013/56/EU as one of the first deliverables of the European Green Deal. Batteries will play a crucial part in the digitalisation and electrification of a circular economy. At the same time, also the environmental challenges associated with batteries will need sustainable solutions.

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