

Road - Environmental friendly vehicle: European Technology and Innovation Platform (ETIP) - “Batteries Europe” starts work with first stakeholder meeting

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【概要 : Summary】

Currently around 95% of automobiles in the EU are still using fossil fuels. The deployment of low- and zero-emission vehicles will have to increase substantially in order to meet the new passenger cars and vans' CO₂ emission standards in the post-2020 period until 2030. In the past years, Europe has gone through the initial adoption phase of electric mobility with the introduction of electric vehicles (EVs), which are considered being an important tool to achieve the EU's target to decarbonize mobility and the road transport sector. However, while automobile manufacturers start to produce EVs at a greater scale, they are increasingly dependent on imports of the latest lithium-ion cells and batteries for EVs, as there does not exist any significant battery production industry in the EU. Without the setting up of a battery production industry of significant size in Europe, the European automobile industry is believed to face competition disadvantages and continued dependences from battery production industries in Asia and the US. This could ultimately have a negative impact on the rise of electric mobility and the development of a mass-market for electric cars in Europe.

Consequently, the European Commission has underlined the importance of building a significant battery production industry in Europe. The Commission supports the European Battery Alliance (EBA) and the

set up of the Batteries Europe platform. The Batteries Europe Platform is the Batteries “Research and Innovation” (R&I) pillar of the European Battery Alliance. On 25 June 2019, the Commission Vice-President for the Energy Union, Maroš Šefčovič, officially launched the European Technology and Innovation Platform (ETIP) on Batteries. This R&I platform will be a “one-stop shop” for the battery-related R&I in Europe and it is expected to bring together public and private stakeholders along the whole value chain of battery production. It will gather research, industry as well as representatives from several Commission Services and EU Member States in order to identify, prioritise and co-ordinate the main research and innovation needed to build up a significant sustainable battery industry in Europe.

【記事 : Article】

1. Background of the European Battery Alliance

Currently, there does not exist any battery producing industry of significant scale in the EU for producing the latest lithium-ion cells and batteries for the EVs. 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. Therefore, in order to achieve the electric mobility and at the

same time to prevent a technological dependence on competitors, the EU has to invest into the set up of a battery production industry. 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.

As a first step, the European Commission supported the set up of the European Battery Alliance (EBA), which was launched in October 2017. The immediate objective of the EBA is to set up a competitive manufacturing industry for producing sustainable battery cells of significant size in Europe. The key players involved in this development are the European Commission, interested EU Member States, the European Investment Bank (EIB), key industrial stakeholders and innovation actors. The establishment of the EBA was followed by the presentation of the Strategic Action Plan for Batteries on 17 May 2018 (COM (2018) 293 final) as part of the Europe on the Move III package. The strategic Action Plan for Batteries comprises of a set of measures that cover the whole value chain, starting with the extraction and processing of raw materials for the battery production, the design and manufacturing phase of battery cells and battery packs, and their use, their second use, recycling and disposal in a circular economy context, as well as the connected regulatory requirements.

2. The European Technology and Innovation Platform on Batteries (ETIP): Batterie Europe

Decarbonisation of the economy and the transport sector are key to ensuring the EU's compliance with the Paris Agreement as well as with reaching the long-term goal of net zero CO2 emissions. In this context, the electrification of road transport is considered playing a major role. Consequently, batteries are at the heart of the electric mobility uptake and since the EU has the political target to become a market leader in the production of batteries for EVs, including research and innovation, the new platform

Batterie Europe is expected to become an important step stone on the way to achieve Europe's transformation into a world leader of batteries and storage development and production.

The Batteries Europe platform brings together key European stakeholders in the European batteries research and innovation community as cooperating partners to work together, from mining, refining, design and manufacture, to digitalisation and recycling. The Batterie Europe is expected to help the research and innovation community to share information, ideas, best practice, research, and access to finance. Thereby, the platform on batteries is expected to develop and update research and innovation agendas and roadmaps for developing battery projects at both EU and national levels. By ensuring research and industry actions are taken in tandem, the platform can fast track the progress towards a sustainable and competitive battery supply chain in Europe.

On 5 February 2019, the European Technology and Innovation Platform on Batteries, Batterie Europe was launched in order to drive research and innovation, knowledge transfer and competitiveness across the European battery value chain. This EUR 1 million Platform on Batteries is led by the Europe's sustainable energy innovation engine InnoEnergy supported by the European Institute of Innovation and Technology (EIT) together with the European Energy Research Alliance (EERA) and the European Association for Storage of Energy (EASE).

On 30 April 2019, the European Commission Vice President for Energy Union Maroš Šefčovič hosted the third political meeting at ministerial level under the European Battery Alliance in order to discuss in particular the strategic issues including the sustainable production of batteries and the sustainable processing of raw materials.

3. The ETIP Batterie Europe Platform start work with first shareholder meeting

On 25 June 2019, the European Commission Vice President for Energy Union Maroš Šefčovič officially

launched the first work meeting of the European Technology & Innovation Platform (ETIP) on batteries or “BatteRIes Europe”. BatteRIes Europe Platform is a research and innovation platform, gathering public and private stakeholders along the whole value chain of battery production. It is the forum bringing together all relevant stakeholders active in the European batteries research and innovation in order to develop and support a competitive battery value chain in Europe. Thereby, the BatteRIes Europe platform will become the “one-stop shop” for the battery-related R&I in Europe and a forum for setting strategic research and innovation agenda throughout the whole value chain and an important cooperation platform. It will not be a funding instrument but will bring together different funding schemes, such as Horizon 2020. Thereby, it will become an important link in the batteries research and innovation landscape and ensures one-stop access to all involved Commission structures and beyond.

The first stakeholder meeting on 25 June 2019 aimed at establishing the overall structure of the ETIP for the coming three years. The event gathered over 200 battery innovation and research experts of Europe as well as national and regional representatives from Member States and EU institutions. BatteRIes Europe builds on work previously performed on battery Research and Innovation under the Integrated SET-Plan and Strategic Transport Research and Innovation Agenda.

It is expected that by enhancing support for research and innovation on all types of battery technologies the industrial basis can be consolidated and thereby new growth opportunities can be created for this sector. BatteRIes Europe will have six working groups and a national and regional coordination group, led by a secretariat consisting of partner institutions and the European Commission.

Furthermore, chairs of working groups presented their co-chairs and gave a broad overview of their topic of competence. Then the participants gathered in roundtables of their working groups of expertise, in order to decide the action plan for the following 6

and 12 months. Thereafter, their work will continue in the next years, supported by the national and regional coordination groups as well as the secretariat and the European Commission.

At the launch event, Šefčovič reiterated the Commission’s support, noting that by 2040, 57% of new vehicles are expected to have batteries. According to Šefčovič, the European Technology & Innovation Platform (ETIP) on batteries or BatteRIes Europe will attract public and private partners involved in research and innovation (R&I) of batteries, and ensure that the relevant stakeholders have the possibility to discuss, and agree upon common R&I priorities, coordinate their efforts, and mobilise resources so to implement R&I activities in the battery field.

According to Šefčovič, the aim is to convert the strong research and innovation potential into a real competitive edge in this rapidly growing sector, noting that battery production is expected to take off by 2023/2025. All the projects are now starting and involve companies like Northvolt, Saft, Umicore and BASF. The EIB already provided significant loans to Northvolt so that they can build a pilot line at a gigafactory. BASF invested EUR 400 million in battery material processing while Umicore invested EUR 660 million in Belgium and Poland on battery materials and other substantial cells manufacturing projects and consortia in place and emerging from Sweden, France, Germany, Belgium, Poland, Finland and the other Member States. Regarding the cooperation with EU Member States, Šefčovič noted that in their National Energy Climate Plans there are not only important plans for the deployment of charging infrastructure and alternative fuels but also for the next generation of batteries manufacturing.

Regarding the legislative instruments, the Electricity Market Design Directive COM (2016) 864 final/2 is a key instrument to enable new market players, increase competition for electricity and energy storage. The Directive COM (2016) 864 final/2 gives also a crucial role to the consumers, including final consumers, to become active market participants

in the energy transition. The new electricity Directive and Regulation, which replace Electricity Directive (2009/72/EC) and the Electricity Regulation (EC/714/2009), are aimed at adapting the rules to new market realities.

The ETIP creates a bridge between the different actions related to the battery industry, especially in relation to research and innovation (R&I), and should ensure that the relevant stakeholders have the possibility to discuss, and agree upon common R&I priorities. Several of the EU Member States have already launched processes to identify potential consortia and are working together to design one or more projects of common European interest in this field. Besides the cooperation to set up battery production sites like the under the French-German cooperation also 27 European regions have committed to support battery related projects and have identified potential projects for which they can mobilise regional funding. They have been brought together in the Commission's "Smart Specialisation Partnership on Advanced Battery Materials".

4. Conclusion

The European automobile manufacturers have been accelerating the production of electric vehicles with some years of delay and this has also delayed the decision on how to deal with the problem of European dependence on battery imports for EVs manufactured in the EU. While so far European automobile manufacturers have been reluctant to initiate high investments into the large-scale battery production in Europe, the European Commission is ready to support initiatives as the concerns regarding the risk of becoming irreversibly dependent on battery cells imports from Asia or the US has been increasing. The Commission's focus is now on establishing a battery mass production in Europe in order to prevent a further deepening of the dependence on battery imports. The launch of the European Battery Alliance is part of the EU's Strategy of establishing a battery production in Europe and taking measures to reducing dependence from battery cell imports. The latest step

is the official launch of the ETIP Batteries Europe Platform. The aim of the Batteries Europe first meeting was to establishing the overall structure of the ETIP for the next three years and the working groups will continue their efforts in the next three years. They will be supported by the national and regional coordination groups as well as the secretariat and the EU Commission. The Batteries Europe Platform as the research and innovation pillar of the EU Battery Alliance is expected to play a relevant role on the contribution of batteries to the decarbonisation of the EU energy system.

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