

Faraday Briefing. Brexit and Batteries: Rules of Origin

5 March 2021

This briefing discusses the impact of the Brexit trade deal on electric vehicles (EVs), batteries and the UK automotive industry, and on the need for UK-based gigafactories.

Stephen Gifford, Chief Economist, Faraday Institution said:

“The new Brexit trade deal provides the UK economy and business with much-needed certainty. The protracted negotiations were having a chilling effect on business and inward investment in the automotive industry.

“The new rules of origin should provide the conditions for the UK automotive industry to succeed. But, to do so, it is now more important than ever that gigafactories are built in the UK, and quickly, and with well-developed local supply chains.

“And the UK has a lot of catching up to do. China is the global leader in batteries and is subsidising EV manufacturing. The EU will also have a dozen gigafactories opened by 2025.

“But the support for battery manufacturing announced in the Prime Minister’s Ten Point Plan and the wider Net Zero policies in the 2021 Budget will give the UK a fantastic boost in this increasingly competitive global race.”

UK Automotive¹ and the Trade & Cooperation Agreement

The UK automotive industry is heavily reliant on overseas markets, particularly the European Union (EU). In 2019, 1.3 million cars and 2.5 million engines were manufactured in the UK. 81% of cars were exported, of which 55% were exported to the EU.

The recently negotiated free agreement between the UK and the EU, known as the Trade & Cooperation Agreement (TCA), has important implications for the UK automotive industry. Provisionally applied from 1st January 2021, the TCA enables traded goods between the UK and the EU to be carried out at zero tariffs and zero quotas if the goods ‘originate’ in the UK.

The Rules of Origin

Whether products are deemed to originate in the UK is defined by the Rules of Origin part of the TCA.² These rules stipulate the proportion of the product in value terms that need to be created in the UK or the EU for the product to be classed as a UK/EU originating product. In effect, these rules limit the proportion of imports from outside the UK and the EU that can be used to create the product.

There is a six-year phase-in period to a permanent state from 2027 for EVs, plug-in hybrid EVs (PHEVs), hybrid EVs and EV batteries. From 2027, the UK can export any number of EVs and PHEVs into the EU market at a zero tariff under the following conditions:

- EVs must have 55% UK/EU content and must have an originating battery pack.
- An originating battery pack must have either 65% UK/EU content for the cell or 70% for the battery pack.

Transitional rules of origin apply for the period from 2021 to 2026.

Implications on the UK Automotive Industry

A March 2020 report by the Faraday Institution [“UK electric vehicle and battery production potential to 2040”](#) concluded there will be demand for seven UK-based gigafactories by 2040. These gigafactories are large, high volume battery manufacturing facilities and each producing 20 GWh per year of batteries.

The UK is, however, at risk of falling further behind Europe for battery manufacturing. Battery manufacturing capacity in continental Europe is expected to reach nearly 450 GWh per year by 2030. The UK currently has a 2 GWh per annum plant in Sunderland and Britishvolt has selected Blyth in the North East for a 30+ GWh per annum plant.

Batteries are heavy and regulations about cross-border transport are increasing. Batteries are also hazardous to transport over long distances due to their flammability. This will push EV manufacturing to be located relatively close to battery manufacturing, probably in the same country or region. If batteries are made in Europe or Asia, then it is likely that the EV would be as well. Building gigafactories in the UK will help to safeguard the future of the UK automotive industry.

Should the required seven UK-based gigafactories be built, the Faraday Institution forecasts that the overall industry workforce in the automotive and EV battery ecosystem would increase by 29% from 170,000 in 2020 to 220,000 employees by 2040.

Further details

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Notes:

¹ SMMT Motor Industry Facts 2020.

² This briefing is a summary of the TCA. Exporters should look at the following document for a full set of origination rules [‘The European Union Origin Reference Document’ \(30 December 2020\)](#).