

Brexit, Batteries and Building Cars: Rules of Origin in the Auto Industry after Brexit

By [David Bailey](#), senior fellow at The UK in a Changing Europe, Professor of Business Economics at Birmingham Business School, and Visiting Professor at the Centre for Brexit Studies.

Europe's major automakers' trade association has called on the European Union to adopt a less restrictive stance on UK auto firms' access to the EU market.

The European Automobile Manufacturers' Association (ACEA) – the trade body that represents major EU auto makers – has pressed the EU to "reconsider its position" on the Rules of Origin that will be used to decide whether goods will qualify for tariff-free trade, and has warned that elements of the EU's current position are "not in the long-term interests of the EU automotive industry".

In particular, ACEA has requested that the EU reduces the percentage of components in a car that must be either European or British for the vehicle to qualify for the benefits of any EU-UK trade deal.

As highlighted recently by the [Financial Times](#), ACEA's stance signals how some key EU industries are concerned about the possible impact of Brussels' approach to the negotiations, although the EU's chief Brexit negotiator Michel Barnier has stated that firms need to be prepared to accept "short-term adaptation costs" so as to protect the EU's "long-term economic interests."

As detailed in a [recent blog](#), Rules of Origin are critical in industries like automotive where an assembled car might be made up from as many as 30,000 'bits' with extended supply chains crossing borders many times and components often made in a number of different countries before being assembled into the final end product. As a result, it's not so easy to work out where value has been added and hence where the end product has really been made.

A Toyota Corolla assembled at Burnaston may have a Union Flag sticker in the window, but given that parts are imported from Germany, France, Italy and Japan (amongst other countries), what ‘nationality’ is the car? That’s where ‘Rules of Origin’ come in, being used to decide whether a product assembled in a country should be counted as a product from that country or as an imported product.

The UK asked for a ‘cumulation’ agreement that would allow auto firms to count all EU and UK content as local, as well as lots of content from other countries with which Britain and Brussels both had trade deals — such as Japan.

The EU is open to the former but is taking a more narrow approach on how much non UK/EU content can be allowed in cars. Behind this is a long running concern in some European countries over the UK being a centre for assembling cars using components coming from the Far East, with those assembled cars then being sold into the European market. Similar fears arose in France when Japanese cars were first assembled in the UK.

In a draft annex to the trade deal under discussion, Brussels has – as expected – stuck to its traditional line in trade deals that there should be 55% ‘local’ content (that is UK and EU content) to qualify for free trade status – in other words that content from outside the UK and EU is limited to 45% of the car. The UK wants this to be as high as 50% and ACEA supports this more flexible approach.

ACEA’s view is that the big changes coming in the UK industry (towards Autonomous, Connected and Electric – ACE – cars means that firms will have to source key technologies from around the world (in line with a shift in the industry towards more of an ‘open innovation’ approach).

In addition, ACEA wants a ‘phase-in’ period to allow auto firms to adjust to the Rules of Origin being applied, noting contracts between assemblers with suppliers often last for years (a typical model is produced for 6-7 years before being replaced).

Another big issue for the auto industry raised by ACEA is on Rules of Origin for Battery Electric Vehicles (BEVs). The UK has requested special arrangements for BEVs whereby 70% of parts could come

from non UK and EU sources with only 30% ‘local’ content. As noted recently in another blog, this looks set to be rejected by the European Union, with the latter sticking to its usual 55% local content figure (and hence 45% non-local content from the rest of the world).

Furthermore, the EU’s proposals aim to completely end the use of batteries made outside the UK/EU from 2027 onwards if the end product cars are to qualify for tariff free trade between the UK and EU, with the draft annex stating that “a strong stable and predictable battery supply is of strategic importance for the long term competitiveness of the EU automotive sector.” From 2024 the non UK/EU content of battery packs and cells would fall under the EU proposals.

An excellent [blog](#) by leading trade expert Sam Lowe is well worth reading on this. He argues that the “*EU wants to use the EU-UK trade deal to help on-shore an electric vehicle supply chain. But this heavy handed approach risks undermining its claim to be a world leader on climate change and green technologies*”. He goes onto suggest that the EU “*spies an opportunity to use the trade agreement to further its ambitions of ‘strategic autonomy’, and cajole European industry into hastily developing an on-shore domestic battery industry*”.

He argues that while internal combustion engine (ICE) cars would qualify easily for tariff-free trade through a UK/EU trade agreement, BEVs will struggle because of the Rules of Origin requirement being 55% – his point being that this is too high a threshold for BEVs to clear. This is due to the battery of an EV accounting for a big chunk of the final value of a BEV. This is indeed the case but is becoming less of an issue over time as battery costs are falling rapidly (in turn making BEVs more attractive). The battery share of final car value has fallen in the last few years from over a half to around a third and is continuing to drop. Battery costs are likely to fall by around another third by 2024 according to recent projections.

Lowe points to McKinsey estimates that in 2018 only 1 per cent of the demand for EV batteries was supplied by European companies, with 97 per cent being supplied by companies in China, Japan and South Korea. This was correct for 2018 but doesn’t take into account the massive scale of investment now going into battery ‘gigafactories’ currently across the EU (in stark contrast with the UK position).

The biggest plant in the UK, a 2GWh plant facility in Sunderland now owned by Envision, can make enough battery cells for roughly 50,000 40kWh Nissan Leaf models a year. That's increasingly seen as small scale.

Much bigger plants have been announced or are actually being built by the likes of Samsung SDI (Hungary), LG Chem (Poland) and Northvolt (Sweden – and via a JV with VW in Germany) and France (Avtovista and Verkor).

As the Faraday Institution notes, based on current plans alone, battery manufacturing capacity in the major centres in continental Europe will reach 130 GWh per year in six years' time (hence the 2027 EU target) – this is already an understatement of planned investment in capacity.

And to push this along EU countries are doing much more in policy terms (all within the confines of EU State Aid rules) than the UK to attract such investment. Germany has a €1 billion federal support programme for EV battery production along with state guarantees for investment, while in Poland and Hungary, special economic zones have been set up offering tax relief for EV production. Perhaps Rishi Sunak's much touted free trade ones might do something similar in the UK over time.

I'm not taking issue with Lowe's analysis of the suggested rules – he is right in noting that from 2027 the vast majority of the battery supply chain will need to be located within the EU or UK, as well as the creation of chemical compounds. And I would concur on Lowe's point that if the EU and UK do agree on Rules of Origin rules on BEVs and batteries along the lines proposed by the EU then a review clause should be built in to assess whether the UK and EU auto industry can comply with further rule tightening. Similarly, I would agree that the EU should review and update existing FTAs, under which BEVs may not qualify for preferential treatment, so that they do not put BEVs at a disadvantage compared to traditional ICE cars.

However, where I take a rather different view is on his assertion that the EU's industry is nowhere near being close to deliver an entire domestic battery supply chain by 2027 and that the "EU seems to want to move faster than its own industry can manage".

Massive investment is going into battery production in the EU which will be on stream by 2026. In addition the actual costs of batteries is falling dramatically as the industry scales up and learns-by-doing so this becomes less of a critical issue in terms of meeting Rules of Origin rules.

While there is a tentative proposal from BritishVolt to build a battery gigafactory in the UK, the [UK is lagging badly](#) behind the EU in this area. Without a major effort to reorientate the auto supply chain, UK assembly will be increasingly dependent on imported components from the EU to meet Rules of Origin rules going forward.

Ironically, the UK has been missing out on battery investment for a number of reasons. Brexit uncertainty itself remains a serious issue and the UK is lagging in terms of electric vehicle take-up and infrastructure. In such circumstances, why would a company want to invest in a massive battery plant here?

It was noteworthy that Tesla chief executive Elon Musk said that Brexit uncertainty was a factor in the firm's decision to build its first major European factory (including battery production) near Berlin in Germany rather than the UK.

A much more holistic industrial policy approach is needed to help the industry make the transition to BEVs, according to Steve Turner, assistant general secretary at Unite the Union. And Jaguar Land Rover's previous Chief Executive has stressed that "if batteries go out of the UK, then automotive production will go out of the UK."

While JLR is investing at Hams Hall near Birmingham to assemble battery packs for the new Jaguar XJ EV it is again small scale and battery cells will – it seems – be imported.

The [Faraday Institution](#) argued last year that without battery manufacturing in the UK, the automotive industry will slowly decline over time. It has a point.

This blog develops and expands on a blog at The UK in a Changing Europe.