



The importance of a strong UK supply chain in realising vehicle electrification opportunities

Following announcements such as those by Nissan in Sunderland, Vauxhall in Cheshire and Jaguar Land Rover at Hams Hall, the commitment from UK based car manufacturers to EV and ZEV battery development is becoming more evident.

As a result, the UK is seeing an increasing need for new Gigafactory locations for battery production and assembly, that will power the next generation of vehicles.

However, ensuring that a strong UK based supply chain exists consisting of technology led manufacturers with the core competencies aligned to battery development is crucial, says Redditch based Samuel Taylor Limited (STL).

For generations, the UK has been a successful and productive base for vehicle manufacturing, with brands such as Nissan, Toyota, Jaguar Land Rover, Aston Martin, Bentley and many others choosing to base production here.

Their confidence to do so in part stems from regional clusters consisting of thousands of suppliers; engineering and manufacturing companies geared up to produce external and internal automotive components and a skilled talent base from design, tooling through to production and inspection.

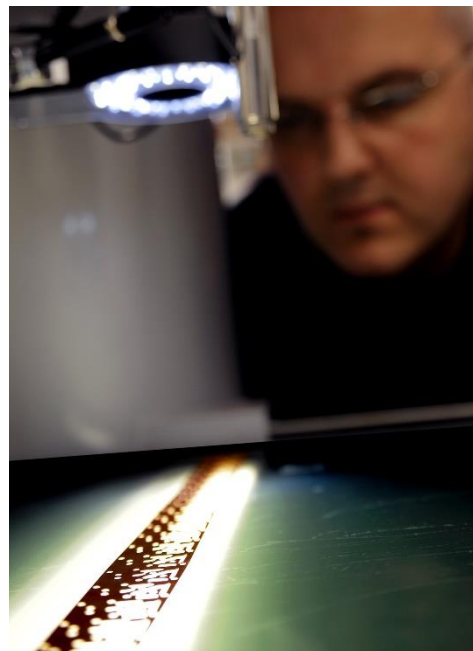
However, as vehicles transition from ICE to other technologies, the vehicles themselves will change. So too therefore, will the components from which they are comprised of, and the competencies required to make those components. This is particularly applicable to components linked to vehicle powertrain.

STL have already experienced this firsthand. The company would not be regarded as a traditional 'automotive component manufacturer'. One of the company's success stories involves electrical smart metering and, more specifically the contacted busbars used in the meters themselves.

Utilising this core competency, STL worked with a leading developer of EV battery modules to design and build a pilot scale stamping line for their EV battery design.

Busbars are an integral part of EV battery packs, improving the busbar can lead to lighter packs, therefore extending the range of zero emission vehicles and developing the lighter, greener vehicles of the future.

Electrical contact bi-metal materials have long been supplied by STL into the power and fuse market, typically



using copper and silver combinations. Herein lies another of the core processes developed over many years by STL, which could find a new outlet in the developing EV market.

For example, STL currently have a collaborative project with TWI Ltd to investigate an innovative Copper to Aluminium bonding technique for use in zero emission vehicle busbars, funded by Innovate UK.

As the design and internal composition of vehicles change to accommodate battery technology, for UK manufacturing to continue to compete in this area, it is essential that UK based suppliers are geared up with the expertise and capacity to facilitate the design and production of what is needed.

Moving forward, change is inevitable within the makeup of the UK automotive supply chain. Historical suppliers with nontransferable expertise linked to producing legacy technologies are likely to be replaced by those with the competencies and expertise linked specifically to battery development. Unsurprisingly, this will include new entrants to the supply chain.

Such is the importance of the UK manufacturing and engineering sector to the national and regional economies; it is essential therefore that those capable of facilitating this are aware of and primed to seize these opportunities.

ENDS.