

Composites UK Report

A Working Breakfast with Sarah Jones MP Shadow Minister for Industry and Decarbonisation

Wednesday 29th November 2023 - 08:30-10:00

Institute for Mechanical Engineers, 1 Birdcage Walk, London, SW1H 9JJ.

The following representatives from Industry and Academia attended.

Name	Company
Faye Smith	Avalon Consultancy Services
Steve Barbour	Composite Braiding
John Davidson	Cygnets Textimp
Marcus Henry	Jaguar Land Rover (and CLF Vehicular Group)
Keri Montague	Leonardo Helicopters UK
Rich Oldfield	NCC - National Composites Centre (HVMC)
Peter Quigley	NIACE - Northern Ireland Advanced Composites & Engineering Centre
Adrian Bratt	Princess Yachts
Matt Bradney	Prodrive Composites
Marie Elliott	Scott Bader
Mark Harriman	Solvay
Roger Salomone	Vestas Blades
David Bailey	Composites UK
Sue Halliwell	Composites UK

The Shadow Minister was supported by Maisie Caro (Parliamentary Assistant), Ruby Evans (Senior Parliamentary Researcher), and organisation was from Helena (Senior Executive Officer).

Introduction

The working breakfast started with David Bailey, Chief Executive of Composites UK, welcoming Sarah Jones MP, Shadow Minister for Industry and Decarbonisation, to the George Stephenson room, the father of the railways, and one of the original founders of the Institution of Mechanical Engineers.



David explained that Composites UK is the premier trade association for the UK's composites industry with over 380 members. The Composites Sector contributes significantly to the UK economy, £12.3 Billion in the last year – up 14.7% on the previous year – and employs over 48,000 skilled people in high value jobs. The Composites Sector supports many of the UK's priority industries including Aerospace, Automotive, Construction, Defence, Energy, and Marine Sectors – many represented in the meeting.

The working breakfast allowed the industry representatives to raise key points with the Shadow Minister that they think are currently challenging, or providing opportunities, for the UK's composites sector. The discussions were themed around Supply Chain, Sustainability, Skills, and Policy.

This report records the key elements of the discussion and will be shared with Sarah Jones MP and the Shadow Ministers executive team.

Supply Chain

- The US Government has identified carbon fibre as one of the key pillars of the US Advanced Materials Strategy. In a similar way, there is a need to identify critical materials to the UK's Advanced Engineering and Manufacturing (AEM) Sector, and the gaps in the value chain, as part of an Advanced Materials Strategy.
- The UK currently imports composite materials for the Aerospace, Automotive, Defence, and Energy Sectors. There is a clear need to develop a sovereign capability in the production of raw materials from carbon, glass, and new fibres to ensure the UK maximises value from its Advanced Engineering and Manufacturing (AEM) supply chains. UK producers of both carbon and glass fibre currently export around 95% of their stock. UK material supply is the enabler to circularity and reduced carbon footprint for composites.
- The UK's composites sector is leading recycling solutions to recover fibre and resins from manufacturing waste and end of life composites for reuse. However, there is a need for new research into the new materials needed to help the composites industry to achieve NetZero.
- Access to 'patient' affordable capital investment for SMEs is important. The UK Government investing a small amount of funding will attract inward investment and will help unlock the UK supply chain.

Sustainability

- Lightweight, adaptable, immensely strong, and durable, composites are the essential enabling technology for decarbonisation. They hold the key to more efficient transportation (air and land), the transition to sustainable energy (wind, hydrogen, and nuclear), and to increasing defence resilience. The UK's Composites Sector will help our powerhouse industries – aerospace, automotive, defence, and energy – stay relevant and competitive.
- 'Greenshoring' is critical to the UK achieving Net Zero as 60% or more of the total embodied carbon content of our Aerospace and Automotive products is contained in the raw materials we currently import. The onshoring of the raw material supply chain will allow us to use renewable energy, more efficient processes, and reduced transportation to create lower carbon products.
- There is an opportunity in new biomaterials to create and build UK supply chains. These materials go beyond composites and impact on other sectors such as agriculture and textiles.

- Carbon Border Adjustment Mechanisms (CBAMs) will be critical to the future of the UK composites market as most of the material is imported and we have no idea what tariffs will be imposed. There is a risk that, without a sovereign raw materials supply chain, this could lead to loss of competitiveness of key UK products such as aircraft wings and wind turbine blades.
- Skills and sustainability are interlinked, if we want net zero, we need engineering to be valued to deliver the innovations toward achieving the Net Zero targets. Skills and the value of those skills needs to be integral within the education system, so that primary school and secondary schools see the value of it and aspire to be in the engineering sector.

Skills

- Key OEMs are looking to recruit several thousands of new engineers in the coming years, but it is unclear where these people will come from, and there are already severe shortages within the current workforce. Industry needs to work with Government to develop a much stronger educational STEM capability.
- Skills and education are intrinsically linked and therefore collaboration across government departments is crucial to put in place a solution. The solution could take the form of a 10-year government investment to address the shortfalls around engineering education at every stage, from primary to degree. The government has recently invested heavily in AI, but without engineers to implement that AI into the applications we will not maximise on this investment.
- Upskilling is vital and the skills required for making carbon fibre can only be learned on an actual line, so much of the available knowledge in the UK resides in the north.
- The UK's Composites Sector needs to help itself, by paying competitive salaries for science and engineering skill, if we want to retain staff and grow. Better childcare solutions would also enable more women to return to work more easily.

Policy

- The UK needs a joined-up approach on strategy, with a focus on enablers as well as sectors. It is important that the UK invests in the enabling/cross cutting technologies and capabilities that will support the sector specific strategies.
- Whichever ways that HMG is split into departments, there will always be a need to work across the departments to solve the cross-cutting problems such as

decarbonisation and to support the cross-cutting solutions such as materials and manufacturing.

- There should be a push for financial support (not grants but long-term stable loans) for the manufacturing sector. We would like to see more IUK loan funding and encouragement for more UK funds to invest in UK manufacturing as we create real jobs and value plus exports. There are fiscal tools that could be brought in by government, such as providing UK investors with tax breaks if they invest in long-term UK manufacturing. It would not need taxpayer money and if successful should be a positive contributor to the economy. It should be more than the Seed and Enterprise Investment Schemes (SEIS) as they tend to cover the early years of new businesses.
- The current export control regulations are something of a moving target, especially where China is concerned. UK businesses have millions of pounds worth of orders in limbo because the goalposts keep moving, even for equipment not in the EGCO.

Next Steps

- The working breakfast demonstrated the impact that representatives from across all sectors and the whole supply chain can have when all agreeing on what is needed for the composites sector. Composites UK should consider how we work with this group in future to capture ‘thought leadership’ for the sector.
- Composites UK now needs to work with stakeholders, including the Composites Leadership Forum, on “How” these recommendations can be delivered. The industry needs to offer solutions to the challenges we face. The delivery needs to come from a partnership of industry and government, with cross departmental agreement and collaboration. The industry felt that a Minister for Manufacturing with responsibility for supply-chain (materials & resources) would be a good first step.

Composites UK and all our representatives would like to thank Sarah Jones MP, Shadow Minister for Industry and Decarbonisation, and her executive team for such an engaging and helpful discussion.