Materials
Processing
Institute

BRITISH MANUFACTURING PLANT CONSTRUCTORS' ASSOCIATION

Annual Dinner, Cutlers' Hall, Sheffield.

6 April 2017

Preamble

Thank you to the Association Chairman, Andy Orme, for the kind invitation to join you for dinner this evening and to propose the toast to the Association. It is always a pleasure to attend an event organised by the Association, due to the warm and welcoming reception of you, the Association members. This warm welcome is due in no small part to the organiser of the dinner, Bob Ruddlestone and I would like to take this opportunity to thank Bob.

I was fortunate enough to be invited to join you for dinner last year and at that time I remember listening to Graham Honeyman's thoroughly entertaining talk, where we learned that whilst he is very keen on Eurovision, he is less of a fan of political interference. I understand that Graham is not here tonight and I can only imagine that by now, one year later, he is heartily sick of European politics, but I am afraid that there will be no respite tonight, for whilst I cannot promise to be as entertaining as Graham, I will pick up on the theme he set last year, that of Europe.

First I want to lay my cards clearly on the table. I voted to remain in the EU, not only that but I took a public position to advocate others to do the same. I lead the Materials Processing Institute and in our work in research and innovation and I am concerned about the possible loss, not only of funding, but of the ability to collaborate with the wider network of national universities, research institutes and companies, that form the European innovation landscape.

Industrial Strategy and Supply Chains

I am though by nature an optimistic person and within days of the vote to leave I considered how Britain might take advantage of being a global trading economy and I published a paper calling on Government to establish an industrial strategy, to invest in our manufacturing supply chains and to support our foundation industries, as a crucial part of our sovereign capability. I am pleased to say that, whilst I certainly cannot take the credit, only weeks later Government did announce their intention to have a UK industrial strategy. Several months later, what this industrial strategy is now revealing is that my second call to action, the need to invest in our manufacturing supply chains, is now being widely acknowledged, indeed for some of the places that voted to leave the EU, significant opportunities are now appearing.

Take for instance Sunderland. As a resident of the constituency that is usually the first to declare on general election night, it was no surprise to me that Sunderland came out early and came out strong to leave. With Nissan as a major employer in the region, there were understandable concerns, but it would seem that sufficient reassurance has been given by Government to convince Nissan to stay. What many people forget though is that far more people, 28,000 people in fact, work in the Nissan supply chain, than in the Nissan factory itself. So when Colin Lawther, Nissan's European Director of Manufacturing, appeared at the select committee hearing for the Department of International Trade recently, and said that on leaving the EU Nissan's component count in its vehicles would need to increase from the current level where 15% are produced in the UK to a situation where more than 50% are produced in the UK, the local member of Parliament was quick to identify the potential for growth of tens of thousands of jobs in the Sunderland area, to support the Nissan supply chain alone.

Up and down the country this story will be repeated, where the risks of tariffs, supply interruptions, working capital increases, or the need to innovate, tip the balance in favour of onshoring a greater proportion of the supply chain, resulting in a greater investment in those long ignored parts of the UK economy, our materials, foundation industries, metals formers and component manufacturers.

These are often small to medium sized businesses, that are significant employers in their respective regions. In recent times they were expected to benefit from a trickle down effect of public sector investment in the prime manufacturers at the end of the supply chain, but never did and who lacked the direct voice to Government make their case. This crucial part of the economy everybody knows in Germany is referred to as the 'Mittlestand', but which in Britain is not well understood. These companies, that were the most Eurosceptic part of British industry, now have the most to gain from the new industrial strategy emerging from Britain's post Breixt thinking, but more than this, they and their success is absolutely essential to the future prosperity of the UK as a whole.

A New Measure of Economic Prosperity

Prior to the vote to leave the EU, those of us who advocated the importance of manufacturing in the UK faced a combination of ignorance and blind prejudice, that denied the possibility of Britain's competitiveness in this area of the economy. Since the vote to leave something has fundamentally changed and I believe it can be summed up quite clearly in the words of the Prime Minister that she wants 'an economy that works for everyone'. What these words mean is that Gross Domestic Product, GDP, the traditional measure of economic progress, on which we compare the relative wealth of nations and their progress over time, is now no longer relevant. What was once considered radical left wing thinking, that GDP and indeed economics in general, are an incomplete measure of the progression and wellbeing of the people in a nation, is now mainstream thinking.

Whether consciously, or not, we have moved from a position where so long as GDP was maximised, it was valid to drive towards a huge concentration of jobs in City based financial services, with outlying regions having a largely public sector economy; to one where it is recognised that on a personal level, there is a social benefit to reducing inequality and achieving a mixed economy, of different types of work in different regions and places. The overall effect of this is one where the UK may well accept an overall lower level of GDP than would otherwise have been the case, but strives for a higher level of personal satisfaction and a lower level of inequality.

This 'balanced scorecard' approach to economic growth would have been possible without leaving the EU and is possible within the EU, but is only happening in the UK, right now, because we are contemplating our future, outside the EU. It is only happening in the UK, right now, because of places such as Sunderland.

So think back now to the EU referendum, think back to Sunderland and how the voters there were characterised as lacking in understanding because they had apparently voted to endanger the future of their largest employer and for an overall reduction in GDP that would make us all worse off. Then consider what has actually happened. The growing realisation that in this city where the people are proud to be known as 'Mackems', because they 'Make Things' there will have to be a massive resurgence in metals, materials and component manufacturing, with tens of thousands of new jobs and that the reduction in GDP, far from making us all worse off, will be a consequence of a less efficient, but more equal allocation of capital and resources. I think this is exactly the kind of future that the people of Sunderland, Hartlepool, Redcar and places up and down the land were hoping for.

We do not have to turn far from Cutlers' Hall, to see a fine example of what can be achieved when there is a proper focus on manufacturing. Hopefully some of you have seen the recent article in the Financial Times , highlighting the development of this great city of Sheffield and recent announcements of investment from William Cook, McLaren, Forgemaster and Boeing.

I am not saying that to achieve this will be easy, nor will it be straightforward. I am not saying that the risks are low, or that nothing will go wrong. What I can see though is that if Britain is to make a success of Brexit then that success will be founded on a future that will be dependent on the success of our industry and our manufacturing, dependent on the success of the people, the individuals and companies represented in this room tonight.

Conclusion

In conclusion then the key challenge for the future of UK industrial innovation is SME connectivity, to address the barriers of innovation diffusion and availability of capital expenditure, through support delivered locally.

UK SMEs are not asking for elaborate grant schemes, but they do need focussed support, delivered locally. It is recommended that Government focus much more on rebalancing in support of process development that enhances productivity, rather than towards new product introductions.

Specific changes to UK tax and intellectual property policy have been proposed that will enable this enhancement of SME innovation and accelerate the diffusion of innovation throughout the economy.

Chris McDonald is the Chief Executive Officer of the Materials Processing Institute. The Institute carries out industrial research and innovation in advanced materials, low carbon energy and the circular economy. Chris's background is in industrial research and manufacturing, where he has worked internationally. He led the divestment and return to independent, not-for-profit ownership of the Institute in 2014, the year the organisation celebrated its 70th anniversary.

In addition to leading the Institute, Chris provides expert consultancy support to companies, Governments and public bodies, in technology strategy and the technical due diligence aspects of mergers and acquisitions. He is prominent in the development of public policy, around innovation, steel and SMEs, where he works to support growth and inward investment. He is the policy chair for Innovation and Enterprise for the Federation of Small Businesses, a member of the CBI Regional Council for the North East and is the Innovation Lead for the UK Metals Council. Chris is also a member of the Steel Advisory Board for UK Steel (EEF).

A graduate of Cambridge University, Chris is a Fellow the Institute of Chemical Engineers and of the Institute of Materials, Minerals and Mining. He sits on industrial advisory boards at a number of universities, including Oxford and Sheffield.

He is often called to commentate in the media on innovation leadership and the steel industry.

“Chris provides expert consultancy support to companies, Governments and public bodies in materials, technology and innovation strategy”

Chris McDonald
Chief Executive Officer
Materials Processing Institute

Materials Processing Institute

The Materials Processing Institute is an independent, open access and not-for-profit technology and innovation centre working with industry, government and academia worldwide. Support ranges from small scale, site based investigations, through to long term collaborative research programmes.

The Materials Processing Institute is expert in advanced materials, low carbon energy and the circular economy, specialising in challenging processes, particularly those involving high specification materials, high temperatures and difficult operating conditions.

The Institute has over 70 years' experience as a leading UK technology provider. Extensive materials processing knowledge is supported by state-of-the-art facilities with a broad range of equipment, from laboratories through to demonstration, scale-up and production plant.

Scientists and engineers work with industry and apply their expertise to develop and implement robust solutions to research and development and improvements for products and processes.

Expertise is spread across a wide range of disciplines, including:

> Materials Characterisation, Research and Development

> Simulation and Design

> Monitoring, Measurement and Control in Hostile Environments

> Process Development and Upscaling

> Specialist Melting and Steel / Alloy Production

> Engineering / Asset Management

> Materials Handling

> Minerals and Ores

Research and project management teams deliver support across a wide range of industrial and manufacturing sectors including:

> Metals and Metals Manufacture

> Chemicals and Process

> Nuclear

> Oil & Gas

> Energy

> Aerospace and Defence

> Mining and Quarrying

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