

Manufacturing in the UK – what's not to like?

Rupert Hodges, Secretary of the Engineering and Machinery Alliance (EAMA)

You have to admit it's an unexpected and impressive list.

- A cabinet committee chaired by the Prime Minister with the remit to drive the economy and an industrial strategy for the nation
- A network of seven world leading open innovation centres where industry and academics can collaborate using highly advanced machinery to speed commercialisation of new UK processes and products and help ensure they come to market here rather than in another country
- A tax structure that encourages both research and development and even pays up on past activity that's not been claimed before
- A permanent annual investment allowance of £250,000 that supports industrial investment
- A new government department that's identified export potential for UK companies in certain overseas markets for sectors such as pumps, taps and valves and fluid power
- Six national initiatives helping firms explore new technologies such as flexible manufacturing, mass customisation, additive layer manufacturing/3D printing, the internet of things and through life engineering support services for new business opportunities.

Things really have changed for UK based manufacturers

These are just some of the activities and opportunities that are available to most UK manufacturers today. We could go on. But it's enough to show that today's situation is all a million miles away from the UK scene in the nineties and early 'noughties' when the buzz in Westminster and Whitehall was about the 'new economy' and how light-weighting was the path to follow. Manufacturing was the past and for less well developed economies. The future belonged to the knowledge intensive entrepreneur and company. Finance and other services would create the wealth and jobs the economy needed to provide a good standard of living for all.

Indeed the UK undertook what turned out to be a very successful experiment for a while. Finance did drive the economy and was so successful that the nation became almost too dependent on it, certainly to such an extent that the UK became a two-speed economy both in terms of economic activity and regionally -- as services grew, house prices rose and government action to calm mortgage demand made investment in property more profitable than investing in capital plant so UK manufacturing competitiveness declined internationally.

The advantages of co-operation between networks

This was all a school of very hard knocks for probably the majority of UK manufacturing managers. And it was against this tough background for supply chain companies that some associations came together to form the Engineering and Machinery Alliance (EAMA) towards the end of 2002.

The British Fluid Power Association is one of what is now a 14 trade body alliance representing some 2,000 firms in the mechanical and electronic sectors serving all the major supply chains, e.g. automotive, aerospace, construction, offshore, farming and food, offshore and medical.

Today's business environment is not without its very serious challenges – Brexit implications not least amongst them. But at least there's significantly more 'ammo' available to arm our manufacturers to help them make a success out of the changes ahead.

Associations working together share all sorts of advantages.

Fourteen associations brigaded together represent bigger battalions and therefore a stronger and more persuasive voice than a member on their own. That's one sort of benefit that flows from collaboration. Another is that together they can undertake activities which some might find unthinkable on their own.

Grouped together this way, EAMA has a strong and talented board made up of the heads of the various member bodies with differing skills sets, including BFPA's chief executive Chris Buxton who has been an important contributor including to the key piece of working currently in train, the development and implementation of an industrial strategy for the machinery, electronics and component supply chain.

A strategy to help supply chain companies

The UK's core industrial sectors (e.g. aerospace, automotive, medical, and offshore) have developed long term strategies to underpin their growth and future development in the UK.

To a very large degree the success or failure of those plans will be determined by the companies that provide end user OEMs and Tier 1 companies with the enabling technologies they need (hardware, software and services increasingly including innovation). These companies further 'down' the supply chain are usually smaller companies and in many cases SMEs.

Those plans therefore represent major opportunities for UK-based supply chain companies and potential wealth creating prizes for the UK communities where those supply chain companies operate.

In 2014 EAMA commissioned University of Cambridge Institute for Manufacturing ECS (IfM) to help the Alliance scope recommendations and then turn them into a practical package that companies in the machinery, electronics and component supply chain will be able to use to raise their innovation and growth performance if they wish to.

The programme comprises two inter-connected strands:

- Strand One is on-going and contributes to the national programmes and priorities, providing channels to and from relevant supply chain companies and SMEs (e.g. on the Additive Layer Manufacturing Strategy).
- Strand Two is a continuing pilot programme focused on a selected sector and region to tie down the various links and understand more directly what the SMEs involved need to succeed at the pace required (e.g. in capacity, capability and competence development support) and shape further action.

Several BFPA members have contributed to workshops developing the programme. If you would like know more or become involved in any way please let Chris know.

Our work is cross-sectoral, or 'horizontal' in the jargon, which is quite different to end-user sector strategies (e.g. automotive) and their 'vertical' approach. Our broad aims are that:

- OEMs and Tier 1s are able to source more of their requirements competitively from their UK-based supply chains
- There is significant exploitation of currently available and emerging technologies in automation/motion control, industrial robotics and simulation and modelling
- Expertise in new manufacturing technology applications, particularly additive layer manufacturing (ALM), servitisation, digital manufacturing and internet of things/Industry 4.0 are extensively exploited across the supply chain
- UK supply chain is seen as pro-actively involved in setting and exploiting the UK innovation agenda and associated government investment

Dealing with Brexit is the next challenge

At the time of writing another example of mutual co-operation is the Brexit survey exercise we launched over the summer. A couple of associations decided to send the questionnaire out after the summer holidays so we still have responses to come in. Our aim is to identify the key priorities for members in the Brexit negotiations.

We specified seven possible options (plus 'other' as an eighth, but it was only used by 1% of all respondents. They were invited to select one priority only for their first, second and third most important issues.

The spread of their responses (so far) are highlighted in yellow in the chart below which also segments responses as between those that manufacturer in the UK (M) and those that do not (NM).

The results are as follows:

Conclusions

- Access to the single market is the key priority (79% All (A); 80% manufacturers (M); 76% non manufacturers (NM))
- Access to skilled workers is 2nd overall (25% A; 31% M, but only 20% NM).
 - NM's 2nd choice 25% is Free movement of people between UK and the EU
- Reduced regulation is clearly the third choice overall (28% A; 35% NM, but only 19% M)
 - UK manufacturers third choice (24%) is clearly Influence on the standards used in that market

The points of difference between UK manufacturers and non UK manufacturers are interesting:

- UK Manufacturers put the accent (31% the fifth largest percentage on the chart) on access to skilled workers with at least an implied recognition of the need for training and skills development
- Non UK manufacturers put a similar accent (25% the sixth highest percentage on the chart) on Free movement of people between the UK and the EU
- Reduced regulation isn't the same sort of bugbear of UK manufacturers that it is for non UK manufacturers, while influencing standards is clearly much more high profile and a market opportunity. As one of the respondents put it:

"EU regulations are largely very good things. Good for consumers, good for manufacturers and good for the instrument business. They generate new markets for higher-value-added goods or services - such as low emission indoor or in car products. This in turn stimulates R&D and helps reduce the competitive threat from cheap Asian imports. Why should British consumers not get the best clean/low-energy products and why would UK companies not want to take advantage of the new market opportunities these kinds of regulations create? New regulations should be seen as a business/market opportunity to be embraced not a threat to our independence or common sense. So often in the UK - we focus on the perceived negatives and overhead cost of change without waking up to the opportunities created."

Negotiation priorities (All, UK Manufacturers, Non UK Manufacturers)

	1 st Priority %			2 nd Priority %			3 rd Priority %		
	All	Manu	Non Manu	All	Manu	Non Manu	All	Manu	Non Manu
Access to the Single Market	79	80	76	12	14	11	5	4	4
Access to skilled workers	3	3	3	25	31	20	16	20	14
Continuation of the derogation from the Working Time Directive	0	0	0	3	2	3	6	4	7
Eliminate (or reduce) the UK's payments to the EU budget	8	6	9	13	13	13	14	14	14
Influence on standards used in that market	1	2	1	14	15	14	17	24	13
Free movement of people between the UK and the EU	1	0	2	19	12	25	14	15	13
Reduced regulation	7	8	7	14	13	14	28	19	35
Other (please specify below)	1	1	2	0	0	0	0	0	0

