Engineering and Machinery Alliance

13 November 2017

Agricultural Engineers Association
British Automation and Robot Association
British Compressed Air Society
British Fluid Power Association
British Paper Machinery Suppliers Association
British Plastics Federation
British Turned Part Manufacturers Association
Gambica
Gauge and Toolmakers Association
Manufacturing Technologies Association
Printing Industry Confederation
Processing and Packaging Machinery Association
Solids Handling and Processing Association
UK Industrial Vision Association

The Rt Hon Philip Hammond Esq MP
Chancellor of the Exchequer
HM Treasury
1 Horseguards Road
London SW1A 2HQ

Dear Chancellor

Summary

- We represent a quarter of a sector (SIC 28) that has continued to do well over the last 12 months. Statistically the outlook appears benign. However, anecdotal feedback says cooling investment will have impacts expected to show through in the second half of 2018. (1-4 and 24-25)
- The keys to its future here lie in educating and reskilling workers relevantly, negotiating successful Brexit terms and increasing value added through digitalisation, some £455 billion over the next decade (5-8 and 33-37).
- The sector has a clear vision as to what is required for a well negotiated Brexit that keeps trade flowing and enables the UK to develop a strong brand for capital goods and other goods and services that also underpin all UK manufacturing efforts and their communities. (9-23)
- The UK has some important strengths with which to take up the challenge of digitalisation (the fourth industrial revolution) including labour market efficiency and flexibility, which if incentivised appropriately will benefit wealth creating communities across the UK long term. (24-32)

Background

1. EAMA's 14 trade associations represent circa 2,000 companies, mostly in mechanical and electronic engineering, with sales of £10 billion into the main user supply chains (including automotive, aerospace, food medical, defence, oil & gas, offshore and onshore wind), providing capital equipment, components and services.
2. According to our monthly Business Monitor, the sector enjoyed another solid performance in the Third Quarter. Lead indicators continue to underline the prospective potential for business development with 12 months of unbroken increases in UK business enquiries and nearly two years of the same for exporters.
3. While the rate of converting these big increases into orders is somewhat erratic, reflecting the Monitor's monthly reporting base, they are consistently positive on a three-month running average, with Quarter Three again producing positive balances both for home and for export markets.
4. Confidence remains firm and, despite some recent high profile uncertainties, has continued on a strengthening trend since August 2016.

Keys for the future

5. Alongside the need for skilled workers, the biggest drivers affecting EAMA members' future are Brexit outcomes and the transformative potential in digitalisation -- the sector's key challenge in the putative Industrial Strategy.

6. We realise the public finances are severely constrained and support the need to focus on infrastructure investment, particularly (affordable) housing, which is urgently required across the country (not least in parts of London and the South East). In this regard we urge you to consider making the use of brown field sites close to public transport infrastructure a priority so that more of those living in these new developments are able to access it immediately.
7. Aside from these brief comments, we therefore limit our observations to matters that affect the whole economy as well as being the key drivers for our industry, namely skills and training, the successful outcomes in the Brexit negotiations and the uptake of digitalisation across UK manufacturing, which is estimated to be worth £455 billion to the UK over the next decade[1]
8. We look forward to the government's Industrial Strategy White Paper, the priorities to be set out in the Challenge Fund and how both of these link into the Made Smarter Review, which we very much welcome.

Brexit

9. First, I want to say how very much we welcome the changes your interventions have made in the Brexit debate, bringing some commercial realism and pragmatism to the debate.
10. As a member of the EURIS grouping of trade bodies, representing sectors with a total UK turnover in excess of £100 billion or a fifth of all UK manufacturing output, we are keenly aware of how free markets are built on communally accepted standards. Europe is a global hub for standards and the UK needs to maintain its very significant role within the system, (i.e. CEN, CENELEC and ETSI) which runs outside the EU framework and should therefore we believe remain unaffected by Brexit.
11. When it comes to the negotiations themselves our objective is to achieve as near to frictionless trade as possible, i.e. agreement round non-tariff barriers (e.g. customs procedures, VAT for integrated supply chains), minimising divergence on European market standards and an extended transition period of five years.

Negotiation outcomes

12. Specifically, we urge you to support these four priorities:
    1) UK/EU regulatory alignment: adopting/mirroring EU technical product regulations for the long term, to maintain sizeable markets for UK suppliers in the EU and also in countries outside the EU where they use the same specifications
    2) Five-year transition period to give UK manufacturers time to develop new markets and solutions to meet the EU's product regulations and standards
    3) Frictionless trade borders so that they don't increase tariffs, add costs, cut trade, cause delays or impose a border between Ireland and Northern Ireland.
    4) Companies that trade internationally or aspire to must be free to employ foreigners and move them to where their skills are required or can best be developed, without major administrative burdens. It makes no sense to talk of the UK trading globally and then hobble companies doing so with limitations on the talent they can employ.

Widening trade

13. During the period of transition, it's important that companies develop new arrangements with existing customers, further explore opportunities in countries they know well as well as in virgin territory.

[1] Accenture Report: 2017 Industrial Digitalisation Review Benefit Analysis

14. In 2016, mechanical machinery exports were £41 billion (14% of total exports)[2]. Electrical machinery accounted for a further £25 billion (8% of total exports). To add some perspective UK car exports in the same period were £30 billion (10%).
15. EAMA estimates circa 40% of the mechanical machinery sales went to EU markets.
16. The same recent ONS data indicate that goods exports into the EU this year are currently ahead of last year's performance (three months to August) +£1.7 billion, but exports to the rest of the world are down £3.9 billion.

Trade shows and UK brand

17. Trade shows are key for sectors like ours, selling capital goods and allied components and services, because to succeed the exporter has to demonstrate the product's performance and crucially a long term commitment to the market. How rash would foreign OEMs (original equipment suppliers) and Tier1 suppliers need to be to let a new supplier run machines in their factory without proving that capability and commitment long term?
18. These basic tenets haven't been reflected deeply enough in recent UK exporting policy. Other important initiatives have taken precedence but our key target decision makers for a sale are the factory procurement or production directors who attend major trade shows around the world.
19. With Brexit pending, it's vital that we build a strong national brand for high performance manufacturing and product excellence in the medium tech as well as the leading edge. Our strong recommendations therefore are that:
    1) The Trade Show Access Programme be given a much higher priority and longer term planning cycle within DIT with funding to match the task. What the current programme means for most SME beneficiaries is they get one hit which, although useful, is only an incentive to attend one show, one time, not to develop new sales abroad. So, let's make a serious effort to encourage companies willing to take up the challenge. Give them support over a targeted period with several chances to use the scheme to develop overseas sales in a planned way over several years.
    2) EU market access must involve as little change as possible, otherwise exporting will simply be too much of a hassle for many current exporters, particularly for SMEs.

Digitalisation

20. Market statistics say performance and confidence are holding up.
21. However, according to a recent EEF/Santander report, investment isn't strong with half of companies saying they are going to keep their investment levels the same or reduce them in the future, the three main reasons being a) they don't need to b) they still have spare capacity and c) domestic demand has weakened.
22. Brexit will benefit a minority of companies according to our surveys. At the moment it has had a cooling effect on some activities and many firms have opted to examine or even put in place contingency plans to minimise the harm Brexit might do.

UK efficiency

23. Eurostat recently (October 2017) published data showing the weight of economic activities in different EU countries by Gross Value Added (GVA) and share of population employed by each sector in each country. In the table below we have selected four countries and four sectors for comparison.
24. The data reflect the different national priorities and strengths within their economies, not competitively between countries.

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[2] ONS Statistical Bulletin: Exports: October 2017

Sector % national total value added and as % national workforce and efficiency use ratio

Country	Industry			Finance & Insurance			Professional & Business Services			Public sector		
	GVA	Emp	Eff	GVA	Emp	Eff	GVA	Emp	Eff	GVA	Emp	Eff
EU national average	19*	15	1.3	5	3	1.7	11	13	0.8	19	24	0.8
UK	14	9	1.6	7	3	2.3	12	17	0.7	18	25	0.7
Germany	26*	19	1.4	4	3	1.3	11	14	0.8	18	25	0.7
France	14	11	1.3	4	3	1.3	13	15	0.9	23*	30	0.8
Netherlands	15	9	1.7	7	3	2.3	15	21	0.7	21*	27	0.8

Notes:

a. GVA = GVA as % of national; Emp = sector share of national workforce; Eff = sector employment efficiency ratio (GVA share/employment share)

b. indicates country's biggest sector GVA; UK biggest is wholesale, retail, food, accommodation

29. They suggest UK industry may be at something of a flex point in that the UK produces a smaller proportion of its added wealth in the economy through the sector than the EU average, but is making more efficient use of the people who work in the sector than the average. This isn't the same as productivity but it does align well with the recently published Made Smarter Review, which says:

"the relatively flexible and competitive UK labour market has allowed many companies to achieve world-class productivity at lower levels of automation. This will provide an even stronger competitive advantage with Industry 4.0 (digital) technologies like 'cobots', where humans work in harmony with advanced technologies to create highly agile businesses attuned to the changing needs of their customers."

30. Digitalisation is the conversion of information (text, image, sound and video) into electric signals/'common language' that information technologies can then utilise, e.g. through the internet and hand-held devices such as smartphones. Increasingly Big Data and with it AI facilitate the storage and useful management of complex production systems.

31. The potential is huge. 'Digital' can capture the whole process from an expression of customer need, through design to raw material conversion, component amalgamation, logistics and performance monitoring into common language(s) and a medium which bring the physical, the creative and the virtual world together so that all parts can be interrogated in real time for feedback and according to need adjustment through the system. The arrival of the latest technologies now mean that this information can be shared between companies and machines can talk to machines.

Digital adoption

32. Given the right circumstances, companies will adopt digital technologies to overcome the disadvantages of Brexit. But the risks could appear formidable unless the government shows that it has digitalisation as a priority for the country, to meet the challenges of competitor countries such as France, Germany and the Netherlands. The fundamentals are:
    1) A clear and meaningful commitment to speed up fibre access (5G) across the country
    2) A suite of financial incentives that will help catalyse adoption by ensuring that channels to firms with good potential are well briefed and able to encourage them to explore the opportunities (e.g. accountants and trade bodies)
        a) Enhanced capital allowances for specific digital technologies in line with energy saving equipment
        b) An extension to the R&D tax credit programme to include digital integration that is innovative and new for the company concerned
    3) A kick start funding scheme that offers SMEs support when they partner for a specified limited period with a higher education establishment or research centre to examine digital potential and feasibility for the SME concerned

a) Other variants to incentivise intermediaries to act as catalysts bringing a wider group of companies together to:
   i) explore collaboration and supply chain situations
   ii) bring national sector efforts to show what good looks like to LEPs running local adoption programmes

Skills

33. The current lack of digital skills is the main barrier holding back the UK, so the Made Smarter Review's second recommendation is to upskill a million industrial workers over the next five years so that the digital technologies can be exploited successfully.
34. The main objectives will be to retain existing employees, their skills and experience while upgrading their digital knowledge and capabilities.
35. The proposal is to use an on-line platform to deliver the necessary kite-marked training. Using this channel will enable individuals to study in a more personal way, at their own pace in a flexible infrastructure that can be made available at work and at home.
36. The costs of training shouldn't be onerous. But UK demand in this area is already weak, especially amongst SMEs (half the EU average according to Made Smarter). Also, those most likely to be in need of training and re-skilling will be those in the lowest skilled jobs on the lowest earnings.
37. We therefore suggest that training costs should be shared between employer and government, perhaps through the Apprenticeship Levy as long as it's kept simple for SMEs to use.

With best wishes

Yours sincerely

(Signed electronically 13 November 2017)

Martin Walder
Chairman

Rt Hon David Davis MP, Secretary of State (DExEU)
Rt Hon Liam Fox MP, Secretary of State (DIT)
Rt Hon Greg Hands MP, Minister of State, DIT
Claire Perry MP, Minister of State (BEIS)
Matthew Ahmed, Matthew Wicks, Matt Barnes (HMT)
Caroline Jackson, Michael Essex (DIT)
Clare Porter, Terry Boniface, Michael Willcocks (BEIS)
Charanpreet Walia (DExEU)
Member associations
Dr Howard Porter chairman of EURIS