Engineering and
Machinery Alliance

11 November 2016

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

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

Dear Chancellor,

Engineering and Machinery Alliance Autumn Statement Letter

The Alliance'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 equipment, components and services. According to ONS data roughly 65% of sector sales are derived from exporting.

Current economic environment

- According to EAMA's Monthly Business Monitor the third quarter turned out well with record positive balances for the proportion of firms reporting improvements in export orders.
- UK orders were also strong and the prospect balances, monitored as a lead indicator (numbers up minus numbers down) have been indicating gains to come since November last year, albeit with the occasional monthly 'wobble'.
- Job opportunities have also remained at a relatively high level.
- Confidence has come back recently after turning negative in the fourth quarter last year and remaining weak until the last couple of months.
- The disappointments have been round the reported investment returns where we have six measures to characterise sector activity. 'Investing in all areas' had been notching up 35-45% returns on a consistent basis until October last year, but has been running below that range since.

Brexit negotiation priorities survey

Withdrawal from the EU is by far the biggest event influencing our members' operating environment.

- Roughly a fifth of our 2,000 company membership took part in this survey.
- The Single Market is an extension of the UK 'home' market. Companies were asked what their top three priorities are for HMG's Brexit negotiations with the EU. The results for each priority were analysed separately:
    - First priority: Access to the Single Market (78%)
    - Second priority: Access to skilled workers (23%)
    - Third priority: Reduced regulation (28%)

For firms manufacturing in the UK, their third priority was influence on the standards used in that market. (More information: http://www.eama.info/downloads/EAMA_Brexit_survey_results_9-11-16.pdf)

- Companies were also asked to comment on various factors. Some of these comments are used to introduce each of the following sections.

Productivity

"Continue to improve productivity. Invest cautiously." (Large manufacturer)

- Since we last wrote on these topics in March, we have continued the work on the innovation and productivity programme we are developing with Cambridge University's Institute of Manufacturing ECS to raise supply chain sector performance so that growth-minded companies will better be able to drive their own new business development and innovation activities with local partners of their own choosing to raise performance and thereby underpin supply chain activity in the UK.
- We hope this work, which informs some of today's observations, will also receive support from BEIS to complement the big contributions and commitments from our member firms and trade bodies.
- It is broadly accepted that productivity is key to furthering UK manufacturing competitiveness, but it is also worrying to see comments increasingly coalescing round statistical definitions (e.g. output per worker per hour) in isolation, rather than harnessing such calculations to other important valuations that record growth's progress (e.g. changes in gross value added).
- This is particularly pertinent given the UK's past experience and your administration's aim to make sure that economic growth works for everyone.
- We wrote to your predecessor about this last year, because in manufacturing the UK is very good at doing 'lean' to improve productivity but when it did so in the period 1998-2007 it produced the following results which as you can see were excellent for productivity but did little to grow the UK economy. We urge you to make sure that the UK doesn't follow the same policy path to the same unsatisfactory outcome for the economy as a whole and would be pleased to discuss this with you or your officials.

Manufacturing value added constant 2010 national currencies 1998 -- 2007

	1998			2007			% change 1998-2007		
Country	**Sector billion**	**Nos employed millions**	**Per employee '000**	**Sector billion**	**Nos employed million**	**Per employee '000**	**Sector GVA**	**Nos employed**	**GVA per employee**
Germany	420	7.8	54.1	545	7.3	74.9	+30	-6	+38
Netherlands	55	0.9	63.0	70	0.8	90.6	+27	-11	+44
France	176	3.5	52.3	217	3.1	72.3	+23	-11	+38
UK	**151**	**4.1**	**37.0**	**155**	**2.8**	**55.0**	**+3**	**-32**	**+49**
USA	1363	20.6	73.4	1879	17.2	126.3	+37	-17	+64

Source: AMECO On-line ECFIN revised 5 May 2015
Note: Germany, France and Netherlands in Euros, UK in GBP and USA in USD

- UK manufacturing GVA per employee increased 49% in the period 1998-2007 (Germany 38%). But total UK manufacturing GVA, that is total wealth created by manufacturing within the country only grew 3% (from £151 billion to £155 billion in constant 2010 money) compared with total GVA growth in Germany (+30%), Netherlands (+27%) and France (+23%). The USA even achieved a 37% gain in its total manufacturing GVA. (Note: all these data are in national currencies on the same basis, source AMECO Online 5 May 2015).
- While most other countries weren't anything like as successful as the UK in driving up productivity they all increased the size of their respective manufacturing sectors considerably more than the UK did and of course that increased their contributions to their national economies.
- We believe that low manufacturing equipment investment levels are part of the reason for the UK's lagging performance. The EU Commission's 2014 Competitiveness Report (SWD 2014/278 figure 1.1.16) shows the UK's weak position when comparing investment in equipment as a percentage of GDP:

UK 3%

Well behind other EU countries and the EU average as a whole

Germany 6.5% - France 5% - Netherlands 6% - Spain 6% - EU average 6%

Investment

"Increased investment in UK manufacturing is going to be a key component in the UK's ability to mitigate the possible adverse effects of leaving the EU. UK central government needs to prioritise putting in place the right incentives to make sure this happens." (medium sized non-manufacturer)

"Capital expenditure to be reviewed as negotiations progress. Increased activity to promote manufactured instead of factored goods. Reassign sales staff to export of manufactured goods." (medium sized manufacturer)

Investment in greater automation and efficiency to mitigate the effects of commodity and wage inflation (medium sized non-manufacturer)

- To achieve comparable levels of investment to GDP requires long term policy continuity (beyond five years) so that it's seen to be a 'settled' policy, encouraging investment in skills, R&D and innovation, as well as productive capacity through the cycle, even when margins are very thin (e.g. in automation and new processes to achieve better yields, increased precision and more cost effective outcomes).
- When it comes to automation's potential for driving up UK productivity and GVA please see Barclays Bank's report *"Future-proofing UK Manufacturing"* comparing UK and German attitudes (https://www.barclayscorporate.com/content/dam/corppublic/corporate/Documents/research/automation-report.pdf) It concludes a moderate increase of £1.24 billion in automation could raise UK manufacturing GVA to the economy by £60.5 billion over the next decade -- plus, "accelerated investment in automation and robotics would have an indirect impact on the supply chain and on the wider economy" which could amount to an extra £2.5 billion a year by 2020 and £3.9 billion by 2025. In addition, the investment in automation would safeguard more than 100,000 jobs by 2025 helping to upskill employees too – 57% of respondents believe that it would.
- More than halving the Annual Investment Allowance from £500,000 at the last Budget turned out to be unhelpful as far as encouraging investment is concerned.
- ***We therefore support the CBI's recommendation to raise the Annual Investment Allowance very substantially (to £1,000,000) until 2020, indicating that at that time the intention will be for it to revert to a lower level – but preferably around £500,000.***
- As you know, some industries suffer investment disadvantages from the current Business Rates system. Although plant and equipment per se aren't included in the rates, some industries are penalised by an increase in their rates if they invest in new operations (e.g. ovens, furnaces and overhead cranes). This equipment then represents an additional fixed cost they have to meet but that their international competitors don't, with downstream implications for their customers purchasing their goods (e.g. more expensive metals, chemicals, glass) and UK-based equipment suppliers who find that their UK customers don't invest as much as others abroad, making their home base market less competitive and maybe less innovative.
- ***We therefore re-iterate our call from last year that you exclude new plant and machinery from business rates. CBI estimates the cost at £1.3 billion by 2020/21.***
- An efficient and resilient national infrastructure is key to raising productivity + GVA, which is why we very much welcomed the decisions to proceed with Hinkley Point C and the Third Runway. But they were a very long time in the making and as a result there's an apparent 'vacuum of indecision' round many major UK projects unless Government is seen to be actively promoting them.
- **Strong Government announcements about upgrading transport, energy and telecommunications infrastructure will have a revitalising impact on manufacturers' and many others' 'investment climates' as well as being good for national productivity and growth.**

Skills and training

"Make sure we look after high quality Polish employees. Recruit more apprentices. Build bridges with our European friends" (small manufacturer)

"We need and should welcome skilled workers from both the EU and outside the EU. What is not acceptable is the uncontrolled free movement of people hence the first priority." (small manufacturer)

"May switch some R&D out of the UK due to skills shortages. "(large manufacturer)

- All EAMA subsectors report skills shortages.
- Firms' number two priority when it comes to leaving the EU is having access to skilled workers and allowing skilled people to travel from country to country to supply support services that are increasingly bundled with the manufacturers' hardware as part of longer-term contracts where clients want to purchase outcomes rather than products alone.
- The only way to provide the required skills (managerial and technical) now is to bring them in from outside the UK. In practice that may mean from outside the EU because every other EU member

state is targeting similar objectives and seeking similar resources in the internal market. This sits very uneasily with the immigration goals.

- However, a clear 'skills required' system based on an official audit of needs and roles to be filled, perhaps with some mentoring obligations to spread the expertise would at the very least show the dimensions of the problem and underpin the rationale for the Apprenticeship Levy.
- The advent of the new approach to apprentice training is therefore timely, but we aren't at all sure that all firms can be well enough briefed between now and April 2017 about how to go about getting the most out of the new framework. It must make sense to ensure that ALL companies are clear about their obligations and their opportunities before April 2017. So far there haven't been loads of Road Shows and other promotions to market it, which is understandable given that the framework has evolved over the last six months.
- Catalysing the launch of an effective new approach to training across all industries and all LEPs in England may well require a 'hard' deadline, otherwise companies and other stakeholders won't commit sufficiently to make it work. But to be effective companies need clear information and opportunities to try out the system to see what works best for them before committing to a particular pathway.
- ***As we highlighted last year, we need a change of culture, but we also need to protect the gains we have made and recognising the domicile status of EU workers here will be helpful in that.***
- ***A delay to the introduction of the Apprenticeship Levy so that firms are able to make rational decisions about this very significant change in their human resource operations would be helpful.***

Innovation and R&D

"UK receives much funding in the scientific area due to high class R&D and universities in UK. This will cease after Brexit, so Research Council funding will need to be ring-fenced and increased to ensure no further degradation of this important sector of the economy" (medium sized non-manufacturer)

"Review involvement in EU funded research projects - e.g. Horizon 2020 - as we are already seeing a negative impact on the desire for pan-EU R&D applications to include ANY UK based firms." (medium sized manufacturer)

"Ultimately jobs will be lost in manufacturing together with a loss of funding for research and development for many of our universities and institutions." (large manufacturer)

- Innovation and R&D are areas where the UK scores well in comparison to other EU Member States, e.g. on the Innovation Union Scorecard that reflects performance across 24 dimensions from human resources to financial support and economic effects, despite UK businesses' investment in R&D as a share of GDP being below the EU average (2012)[1].
- Members have welcomed the steady development of the Catapult network.
- The funding model (one third core public, one third competitive contract and one third competitive collaborative R&D funded by public and private sectors) enables some SMEs to access facilities that wouldn't be available otherwise.
- The R&D Tax Credit is an absolutely invaluable support for high tech firms as well as research-based start-ups, not only helping them through the early years when they are loss-making with payments that can be used on company operations but then in later years continuing to encourage innovation.
- ***It will be vital that this Tax Credit structure is maintained and expanded as the UK negotiates its way out of the EU. Combined with an AIA at a significantly enhanced rate would make the UK stickier during the two year Brexit transition period when companies assess how to position their innovation investments.***
- ***We would also like to see more use made of the successful collaborations involving SMEs as case studies to show SMEs (and their financial partners) what successful collaborations look like to encourage further wider development particularly in areas that***

[1] EU Commission's 2014 Competitiveness Report (SWD 2014/278)

are fundamental to SMEs' bottom line performance such as process improvement and supply chain added value.

Exporting

"Take advantage of the weaker pound and boost exports. Reassure our customers outside the EU that Brexit will be a good thing and will boost trade." (small manufacturer)

"We need simple procedures in place to handle movement of goods, it is not just about tariffs, it is also about the handling of VAT, and the need to reduce documentation for handling imports and exports between UK and EU countries." (small non-manufacturer)

"In my area of regulatory compliance the key feature is whether UK companies can still register products under various registrations within the UK or whether it will need to make/re-make these registrations in the EU." (large manufacturer)

- Doubling exports to £1 trillion is an ambitious goal that requires an ambitious policy response
- To raise the UK's export ratio to GDP from one of the very lowest in the EU (31.4%) to even a middle ranking performance (EU average 44.9%)[1] requires a culture shift.
- Without such a change we risk a declining standard of living because we currently import so much. After we leave the EU this will be more important than ever.
- For many machinery and component companies exporting is a necessity because the UK market is too small -- the required economies of scale can only be achieved by adding sales overseas. They regard the Single Market as an extension of their home market. For us it accounts for 37% of sector product exports.
- In 2011, the UK had nearly 20,000 SMEs exporting outside the EU, the fifth largest national cohort behind Italy (over 60,000), Germany (nearly 29,000), France and Spain (both over 20,000)[1].
- To substantially increase the number of firms exporting will require an infrastructure that's:
  a) flexible enough to support very different types of exporters through very different 'exporter journeys' (some typically lasting several years before a sale)
  b) sufficiently incentivised to encourage a company to tackle exporting wholeheartedly and maybe for the first time.
- UKTI's funding has been cut to such an extent that it is unable to make a significant difference to companies relatively new to exporting.
- For machinery makers trade shows are the foundations on which to build the confidence foreign prospects need before they'll commit to using new machinery in their factory or in their product. This isn't like a consumer purchase that may be fashion based. It's an Investment Goods purchase where the implications, relationships and allied service are all long term and that may take several years of painstaking preparatory work to develop, showing off machines at shows in a new market.
- UK Export Finance has improved its offer markedly over the last four years, particularly for medium size and larger companies able to employ specialists to handle the paperwork.
- However we note that the European Development Bank is able to offer loans to support SME exporters and that a UK bank has a product using that facility. That bank will not be permitted to offer the same when the UK leaves the European Development Bank and decides to operate solely under WTO rules, which ban such activity.
- Otherwise problems still remain for the smaller, highly specialised firms (employing fewer than say 70 people), particularly if those firms make high ticket items (£500,000 to £1 million) almost all of it for export. They find it extremely difficult to get the sort of support that's needed to help finance the export work in progress that other countries' export credit agencies seem to be able to supply.
- **HM Treasury to review the impact of UKTI cost savings alongside the challenge to double SME UK exports and compare this performance with competitor country support for their exporters (e.g. USA and Germany).**
- **Examine Italy's programme supporting their SME exporters for possible lessons.**
- **HM Treasury to 'test' the concept of offering a tax credit on certain SME export sales to break first move inertia (e.g. one contract, new to export minimum of £30,000).**

- **Consider setting a three-year rolling cycle of activity focused specifically on raising exports in markets agreed with business so that export partners can plan activities in line with local capital equipment procurement practice, rather than according to HMG's budgeting cycle.**
- **It would be very helpful if UKEF could be encouraged to develop products and services to specifically meet SME needs (speed, high responsiveness, little paper work, simple system), rather than adapting products that were originally designed to support big contracts for big companies.**
- **Risk is an inherent ingredient in (SME) exporting. We need to learn how to manage that risk competitively (e.g. how are companies from Germany and other countries dealing with the increasing uncertainty in international trade. Recent developments only strengthen the belief that the risks in trade will grow).**

With best wishes

Yours sincerely

(signed electronically 11 November 2016)

Martin Walder
Chairman

cc Nick Hurd MP – Minister of State, BEIS
Rt Hon David Davis MP – Secretary of State, DExEU
Rt Hon Greg Hands – Minister of State, DIT
Matthew Ahmed, Matthew Wicks -- HMT
Clare Marett – BEIS
Caroline Jackson, Michael Essex -- DIT
Member associations