

15 February 2008

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

Dear Chancellor

**Re: Engineering and Machinery Alliance Budget Submission**

I write to you on behalf of the 1,300 mechanical engineering firms in nine subsectors represented by the following organisations:

- British Automation and Robot Association
- British Paper Machinery Suppliers Association
- British Plastics Federation
- British Turned Part Manufacturers Association
- Confederation of British Metalforming
- Gauge and Toolmakers Association
- Manufacturing Technologies Association
- Printing, Papermaking and Converting Suppliers Association
- Processing and Packaging Machinery Association

Together they represent mostly SME firms with a total turnover of some £7 billion split pretty evenly between finished capital goods and components for capital goods.

UK mechanical engineering sector turnover in 2006 was some £37 billion, 76 percent of it from exports -- we are one of the few UK manufacturing sectors to regularly run a positive trade balance. Our customers are in other manufacturing sectors, automotive, aerospace, medical, food and materials handling and processing for example.

**UK mechanical engineering in 2006**

Sales £ billion	Exports £ billion	Trade balance	Exports % sales	GVA £ billion	No. of firms
37	28	+5.6	76	13.1	13,007

Sources: Annual Business Inquiry (16 November 2007, reporting 2006 data)  
Export data from Monthly Review UK External Trade (November 2007)

Before I lay out our recommendations I would like to share our perspective on the current business environment as I hope that this will help put them in context.

**A CURRENT BUSINESS ENVIRONMENT  
Business performance and outlook**

Most member firms say they have done well recently. Nearly half in our December 2007 survey thought that business in 2007 was better than in 2006, and over half expected 2008 to turn out even better than 2007.

***Business expectations were very positive in December 2007***

2007 compared to 2006			2008 compared to 2007		
Higher/much higher	The same	Lower/much lower	Higher/much higher	The same	Lower/much lower
49	37	14	57	39	4

Source: Topline results EAMA Skills Survey (February 2008 reporting December 2007)

Our members have seen UK manufacturing lose critical mass over the last ten years. It has fuelled our need to export. For many of our firms, the EU is now their largest market accounting for as much as 50 percent of their sales.

### UK manufacturing is competing, but not expanding

The uncomfortable truth though is that while manufacturers in France, Spain and Germany are growing their total output in real terms (all up by a fifth in the period 1997 to 2006), in the UK output is static.

**France, Germany and Spain have increased their real manufacturing output, the UK hasn't**  
(manufacturing gross value added comparison constant (2000) prices)

Country	1997		2006		% change 1997 - 2006	
	Sector billion	Per employee '000	Sector billion	Per employee '000	Sector	Per employee
Germany (€)	391	51	475	71	22	38
Spain (€)	94	37	114	39	21	6
France (€)	182	50	222	67	22	36
UK (£)	145	32	149	46	2.8	43

Source: AMECO

However, in terms of productivity the UK is managing to outperform the others producing 43 percent more per employee over the period.

Broadly, while UK manufacturers have shed jobs to produce the same amount of goods, German, French and Spanish businesses have kept their employees to produce more.

There are several reasons for this difference.

### Manufacturing investment

There is anecdotal evidence that supply contracts in those countries tend to be longer term, while in the UK they may be up for review annually to ensure competitive pricing. The longer term contract period makes it easier for suppliers to decide to invest in new manufacturing kit that will be used over the extended period of the contract.

Manufacturers do require a stable investment climate. It is nigh impossible to forecast variables like interest rates and raw material prices three or five years ahead. But that is the time scale for a reasonable investment decision on productive capacity.

UK manufacturing investment over the period 1988 to 2006 year shows that average UK manufacturing investment by company has fallen 41 percent in the ten years since 1997. However, it increased a third in the ten years from 1988 to 1997, when UK manufacturing output grew 46 percent in real terms.

**UK manufacturing investment increased in the early '90s but has fallen 48% since 1997**

Year	Change 1988 - 1997	1988	1997	2006	Change 1997-2006
No of companies	+ 34,189	135,474	169,663	151,371	-18,292
Investment	+67%	£12,170	£ 20,314 million	£10,592 million	-48%
Investment per firm	+ 33%	£89,837	£119,731	£69,973	-41%

Sources: Annual Census of Production/Annual Business Inquiry

Data 1985-1992 SIC Divisions 2-4; Data 1993-2002 SIC Section D; Data 2002-2006 SIC Section D

**UK manufacturing output increased significantly in the early '90s**

(manufacturing gross value added comparison constant (2000) prices)

Country (billion)	1988	1997	Change % 1988 - 1997
Germany (€)	N/A	391	N/A
Spain (€)	79	94	19
France (€)	146	182	25
UK (£)	99	145	46

Source: AMECO

There are therefore also questions about how the money is spent as well as the sums involved.

### **Investing in new manufacturing technologies**

As suppliers to other manufacturing industries, we see UK firms as more reluctant to invest in new manufacturing technology than overseas competitors. For example, in our 2007 investment survey, two-thirds of respondents said that overseas customers are adopting new technology faster than their UK customers.

One of the main competitive advantages manufacturers in India and China have is their comparatively low wage structures. UK manufacturers could offset this advantage, at least in part, by automating. But our anecdotal evidence is that the UK has a poor record in this area, not just alongside Japan and the USA, but compared to France, Germany and Spain.

Unfortunately, we know of no comparative automation data per se.

However, the United Nations publishes an annual report comparing robot use and installed numbers in manufacturing and some subsectors, such as automotive internationally. We believe that these data are a useful proxy for automation more generally. If this is accepted, then they reveal a startling picture of just how far behind the UK is in moving into these new types of technologies. If not, at the very least they beg the question of why the UK trails in these applications.

#### ***UK investment in robots is half that of our main competitors***

*(Estimated number of multipurpose industrial robots per 10,000 persons in manufacturing)*

	<b>1997</b>	<b>2000</b>	<b>2003</b>	<b>2005</b>
<b>UK</b>	24	31	41	44
<b>Germany</b>	86	117	151	171
<b>France</b>	43	57	72	84
<b>Spain</b>	29	49	74	89
<b>USA</b>	36	48	72	90

Source: United Nations World Robotics 2006

Of equal importance, or perhaps even more worrying for the future is how far the UK could be left behind in these applications by countries such as China. China wants to move up the value chain. To achieve consistent quality in manufacturing it has installed in just six years as many robots as the UK did in twenty-five.

#### ***Estimated operational stock of multipurpose industrial robots***

	<b>2000</b>	<b>2003</b>	<b>2005</b>	<b>Change 2005/2004</b>
<b>UK</b>	12,344	14,015	14,948	5%
<b>Germany</b>	91,184	112,393	126,725	5%
<b>France</b>	20,674	26,137	30,434	8%
<b>Spain</b>	13,163	19,847	24,081	10%
<b>Korea (1)</b>	37,988	47,845	61,576	20%
<b>China</b>	930	3,603	11,557	63%

Source: United Nations World Robotics 2006

Note (1): refers to all types of industrial robots

These manufacturing investment figures need to be put in a UK context. Even though investment per firm has fallen very significantly, the average spent by a UK manufacturing firm in 2006 was still £70,000. (The EAMA investment survey in 2007 showed nearly a fifth of firms investing sums in excess of 20 percent of their sales.) Purely for contextual comparison, firms in the rapidly expanding business services sector, which includes legal, accounting, architecture, call centres and management consultancy amongst others, averaged £9,727 in that year.

Finally in looking to the year ahead, we can see that firms are coming off a period of solid business. Uncertainties in the banking sector in the USA shouldn't affect them. But investment may be affected by banks' liquidity. If banks hold back, the causes and implications will be clear. Less obvious is how the general decline in share values will affect publicly quoted manufacturers. Industrials on the FTSE are currently a fifth down on last year, but the productive assets of the companies involved are probably worth just as much as they were a year ago. Will such a change, basically beyond the control of the companies make them ripe for takeovers? Will it affect their managements' investment plans?

### Taxation

In manufacturing, retained earnings are by far the most common source of investment finance. A recent EEF report (*Strategies for Success* September 2007) put the figure as high as 80 percent across all sizes of manufacturer.

So Government action on tax can have a direct impact on firms' ability to invest.

It is often claimed that UK tax levels weigh lightly on UK-based firms, because the UK has one of the lowest levels of corporation tax (CT). This confuses the level at which tax is set with the taxes actually paid by companies. In fact as a percentage of GDP UK taxes on corporate income are higher than many of our main competitors according to OECD data.

#### **Taxes on corporate income as a percentage of GDP**

	2004	2000	1995
<b>UK</b>	<b>2.9</b>	<b>3.6</b>	<b>2.8</b>
<b>Germany</b>	1.6	1.8	1.0
<b>France</b>	2.8	3.1	2.1
<b>Italy</b>	2.8	2.9	3.5
<b>Spain</b>	3.4	3.1	1.7
<b>USA</b>	2.2	2.6	2.9

Source: OECD Revenue Statistics 2006

We therefore welcomed the decision at the last Budget to maintain 50 percent capital allowances for another year and believe that it has had a positive influence with anecdotal evidence of an improvement in machinery sales to UK manufacturers in 2007.

We were also pleased to learn of your intentions to introduce a 100 percent Annual Investment Allowance up to £50,000 from April 2008. However, as this is to be introduced with an increase in SMEs' Corporation Tax (CT) rates to 22 percent, and the phased withdrawal of Industrial Buildings Allowance (IBAs) we asked PricewaterhouseCoopers to evaluate the impact of these changes against the actual filed accounts of a small sample of member companies (11 firms in all).

Unfortunately the PwC data are pretty negative. They show that the more a company invests (over £150,000 which in manufacturing is quite common even amongst SMEs) then the worse off the company will be compared to the pre-existing regime.

PwC also found that a third of the firms had claimed first year allowances and that three-quarters of these were well in excess of the proposed £50,000 ceiling.

#### **Firms claiming First Year Allowances in 2006**

Firm 1	Firm 2	Firm 3	Firm 4
£256,765	£25,062	£77,584	£98,047

Source: Summary of private EAMA/PwC analysis

So combining those changes with the CGT increase will have the perverse effect of making it less attractive for firms to invest in manufacturing kit.

## **B RECOMMENDATIONS**

### **Tax policy**

Although the plans announced for 2008/09, to reduce the main CT level to 28 percent, raise allowances on long life assets to 10 percent, enhance both rates for R&D tax credits and introduce a 100 percent annual investment allowance are all positive, the tax treatment of manufacturers and SMEs in particular now appears rudderless, short-term, even arbitrary.

UK tax policy should:

- reduce corporation tax levels so that they are more competitive with others in the OECD.
- reinforce long term investment with reasonable offsets for the 'losses' that occur over time due to inflation (even at two percent, inflation over ten years reduces the value of the original investment by nearly a third).

### **Manufacturing investment**

Currently too many UK manufacturers prefer to take on cheap Eastern Block labour to reduce their costs of manufacture rather than investing in automation that will allow them to compete in world markets for the longer term. This reluctance to invest in automation is not solely a money issue.

- The Government will be applauded if it helps to both educate and encourage companies to invest in new technology, like the Germans do.

But we do need to kick-start UK manufacturing investment in value adding technologies. That is the route to real, commercial competitiveness when confronting the rapidly industrialising economies.

- We see an incentive targeting automation (perhaps along the lines of the 100 percent allowances for energy-saving plant and water conservation machinery) as being of limited interest to the vast bulk of service firms but of considerable help in kick-starting serious investment.

### **Value added manufacturing, energy and the carbon footprint**

Companies in energy intensive sectors have been eligible to participate in Climate Change Agreements (CCAs) since the introduction of the levy in 2001. Experience has shown that the CCAs have been particularly effective at encouraging firms to reduce their energy consumption and thus their carbon footprint. An EEF report "*Manufacturing Performance 2006/7*" published in March 2007, found that 91 percent of firms in CCAs undertook energy audits and other energy reduction measures compared with 54 percent amongst non-participant companies. The report pointed out that this applies especially to SMEs.

The Confederation of British Metalforming, an EAMA member, has administered a CCA for their subsector, including many smaller firms. Their members have cut their energy consumption by 15 percent.

But value added processes such as metal cutting (e.g. turning and laser, water and diamond cutting) are still excluded.

- If Government policy widens the eligibility of CCAs to cover SMEs in other less energy intensive manufacturing processes it will encourage these difficult-to-reach companies to reduce their energy consumption and their carbon footprint at the same time, both of which are key goals for the Government's climate change programme.

### **Industrial buildings**

The hit that firms are going to take on IBAs will be direct on retained earnings (depreciation), which is the main source of investment finance. Industrial buildings are rarely constructed for a '100-year' life. Typically when sold after 25/30 years they have little or no value, quite different to the land on which they stand, or indeed commercial buildings where the seller expects to make a return. Industrial buildings need to be written down so that they can be replaced at the end of 25/30 years.

- We therefore suggest that withdrawal of IBAs be offset by permitting firms to consider a proportion of the buildings as long term assets for tax purposes.

## **Exporting**

The current system discourages SME companies from setting up operations to handle client after-sales care in export markets. This is an increasingly competitive area for firms tendering for longer term contracts.

The Government can resolve this issue.

*Companies are responsible for assessing their own liability for corporation tax and for ensuring that all the money that is due is paid on time. Most companies have to pay CT within 9 months of the end of their accounting period.*

*This rule applies to SMEs with profits up to £1.5 million. The £1.5 million threshold is reduced for every active company under common control within a group. For an SME active say in five overseas markets, the figure of £1.5 million reduces to £250,000.*

*Larger companies have to pay the tax due in quarterly instalments.*

*This is very onerous on cash flow in the transitional year, as the company has to pay its CT liability under the '9 month' rule and a quarter of its estimated liability for the following year in the first 6 months on the new accounting year.*

*All this means that the simplest way to minimise your CT bill is to limit the number of subsidiary or associate companies, which hampers a UK SME trying to grow its international capability in areas such as servicing machinery, which is an increasingly important and competitive part of the higher value added export sale.*

- Different transitional arrangements should surely be introduced to encourage firms to grow their ability to service customers abroad directly, otherwise the jump from SME to large company tax status simply sinks on a tax structure consideration.

Budgetary pressure on UKTI has reduced its capabilities to support export activity, just as global competition is increasing and the UK is more dependent on trade than ever before (55% of UK GDP depends on trade according to the World Trade Organisation).

A recent study by the International Consultancy Group for the Manufacturing Technologies Association (an EAMA member) comparing the UK's support for exporters at international exhibitions with French, German, Italian, Spanish, Turkish and Chinese practice shows that the UK lags both in its promotion of the UK brand and in the range of different services to involve companies of different sizes in exporting across the world as a positive benefit to the economy as a whole.

- The UK needs a national agency that champions UK exports and exporters. To match the best in the world this agency should be totally separate from inward investment activities and staff.
- The regime should be far simpler, run with a national focus, not subservient to regional priorities.
- The Export Credit Guarantees Department's cover needs to be remodelled to be competitive starting at £250,000.

## **Skills/Training**

The Government's laudable plans to encourage larger numbers to take a university education and the practice of making funds available to assist them have set benchmarks for parents and guardians by which they and their charges judge alternatives. The low interest funding (£2,000-£5,000) available for the 'academic route' makes a clear practical statement about that route as a priority. Employers taking on apprentices are going to have to overcome an apparent disadvantage because the young apprentice is not currently blessed with a similar incentive.

- To underpin young people's initial enthusiasm for apprenticeships we suggest some form of tax relief on what they earn while they go through their three-year course or grants and loans structured on similar lines (e.g. re-payment to start when earnings reach £15,000 a year).

- This support should be limited to training schemes where there is documentary evidence of regular assessment and progress.
- It will enhance the image of apprenticeships amongst young people, teachers, their parents and guardians, giving the vocational stream status closer to that of the academic route.

Services and manufacturing are not only central to the UK in balance of trade terms. They require different skill sets of the people who work in them and therefore have major implications for our shared pursuit of sustainable communities. If our economy is to provide rewarding careers for all our people at all aptitude levels, we must provide productive, value adding jobs for all levels of competence.

This is an immense task and one in which manufacturing with its value enhancing technologies provides considerable scope for success. The challenge for Government is to harness that diverse and oft-overlooked societal potential in manufacturing alongside the economic by creating policies that lock it in for the UK, rather than letting it move offshore to the benefit of citizens in other countries.

Yours sincerely



Graham Hayes  
Chairman

cc Baroness Vadera – Minister for Competitiveness -- BERR  
Simon Edmonds/Brian Greenwood/Sandy Grom -- BERR  
Stephanie Yow/Katherine Green – HMT  
Member associations