eama
Engineering and Machinery Alliance

BEATING THE RECESSION AND REBALANCING THE ECONOMY

Engineering a successful outcome for the future

UK manufacturing:

- Is 6th largest in world with sales of £500 billion
- Provides half of UK exports
- Adds £150 billion of extra value to the economy
- Creates 13% of UK GDP.

Manufacturers face many challenges:

- Global competition
- Rising energy and raw material costs
- Rising labour costs
- Skill shortages.

Whoever wins the General Election has the opportunity to put in place policies to radically affect the UK's economic make-up and structure – a massive task.

As far as manufacturing goes it will basically be nothing short of the fundamental choice between:

- *continuing as before , where the focus on productivity has produced highly effective companies using the globalised system to maximize manufacturing efficiency, but at the expense, so far, of growing the sector's added value for the economy as a whole, and*
- *a new, changed dynamic where the framework encourages long term investment in productive capabilities (in terms both of plant and manpower) to increase the sector's value added and make a real contribution to rebalancing the economy.*

Mechanical engineering firms will have a major role to play under both scenarios.

Already, to get over the recession they have cut numbers, tightened pay and perks and are seeking new customers.

Some are closing UK manufacturing capacity and opening elsewhere (not necessarily in the Far East), where they judge the long term investment environment to be manufacturing friendlier.

Others are looking for new financial partners to develop further in the UK.

Mechanical engineering companies are active across the country …

- supplying 'enabling technologies' to other sectors (e.g. automotive, aerospace, medical, power and food industries) in the form of machinery or packages combining services and products through:
  - 10,000 companies, mostly SMEs across the country
  - 211,000 employees in nearly every constituency
  - £31.6 billion in sales each year.
- This is not just the preserve of the large company.
- There are also many innovative, entrepreneurial SMEs pushing the boundaries of factory performance, extending the envelope of the physically feasible to new levels in terms of speed, precision and migration into novel technologies and materials.

… supplying other sectors and raising their added value …

The wider community benefits from mechanical engineering because the sector:

- Helps other sectors be more efficient and competitive in what they do and produce
- Helps employees in other sectors earn more money by adding extra value (working value adding machines) in their jobs
- Has the potential to help resolve some of the major issues facing society such as climate change and diversifying energy supply.

… making a major contribution to the UK's export earnings so the country pays its way

The wider economy benefits from mechanical engineering because the sector:

- Exports over 70% of production (£24.8 billion in 2008 according HM Customs Trade data)

- Is one of only two manufacturing sectors that regularly contribute a positive trade balance to the UK economy -- over £3 billion in 2008.

The nation hasn't invested enough in plant or people …

- Even before the recession, The City was not interested in investing long term in SME manufacturing.
- From a banking perspective, SMEs are typically riskier than large companies. And UK manufacturing has fewer large companies employing over 500 (0.5%) than competitors such as the USA (1.4%).
- UK manufacturers have not invested as intensively in advanced manufacturing kit as their competitors. ONS data show that UK manufacturing investment per company in 2007 (£81,000) was still 30% down on where it was in 1997 (£120,000). (Table 1 p4)
- The poor work ethic and education standards of so many school leavers mean many SMEs have little option but to take on foreign workers (Sheffield University: 22% of English 16-19-year-olds are functionally innumerate and 17% are illiterate)

… and as a result the UK has produced less, perhaps as much as 25% less.

- So over the ten years, 1997 to 2007, while French and German manufacturers for example have invested and grown their output and the wealth it generates by a quarter with (nearly) the same number of employees, in the UK we have maintained output pretty well static but cut the numbers needed to produce by a quarter and have therefore added less value to the economy directly and through exports. (Table 2 p4)
- A huge loss of potential, lost to the pocket and purse of every UK citizen.

What should the UK do to rebalance the economy?

Here are 10 areas where a new administration can win immediately, demonstrating a long term commitment to a manufacturing friendly policy framework to underpin industry's own efforts.

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1 A changed economic framework

- To affect the change that will put the economy on the rebalancing path, the UK needs a competitive tax system and an economic framework that favours long term investment as well as short term returns.
- Tax and investment go hand in hand because tax reduces the funds available for company investment in growth.
- UK corporate tax rates are no longer as competitive as they were.
- On tax competitiveness, the UK is now ranked 17th amongst the OECD's 27 countries having been 5th in 1996.
- Firms aren't going to invest in five or ten year projects (let alone 20-30) if the short term risks and rewards are better. The same applies for the banks.
- Reluctantly we have come to the conclusion that in the immediate term banks, if left to their own devices, are unlikely to offer UK manufacturers terms to match or beat our French, German or US competitors.
- Banks that have accepted public funding should be directed to take part in and help finance an Infrastructure and Industry Bank or Fund.
- This will radically change perceptions of the UK as a place for manufacturers to invest in for the long term.

2 Investment

- The decline in orders has brought about its own decline in demand for new manufacturing capability. The danger is that too many firms are not investing ahead of the eventual upturn for lack of confidence.
- ONS data show that UK manufacturing investment per company in 2007 was still 30% down on where it was in 1997 (see Table 1 p4).
- (For comparison only, in 2007, the 447,000 firms in one of the UK's most rapidly developing sectors, business services, invested £4.8 billion in total or £11,000 per firm.)
- The £100,000 cap on the 100% capital allowances is far too low for manufacturing.
- While recognising that the downturn puts pressure on the public finances the cap should be be raised to £250,000 immediately to encourage firms to kick-start investment.
- Then ultimately the cap should be raised to £500,000 to encourage investment in more substantial, leading edge equipment and eligibility should be extended to companies with a maximum turnover of £50 million.

3 Automation

- UK manufacturing has been slower to adopt automation, preferring in part to have the ability to change the size and configuration of the workforce to meet changing needs.
- As a result UK factories are underinvested compared with the high value adding automated producers in Europe, USA and Japan. Increasingly they face a threat from newly automating countries such as India and China because they are also recognising that automation:
  - Reduces operating costs and increases production output.

  - Improves product quality and consistency and reduces waste.
  - Raises quality of work for employees and improves safety.
  - In addition it increases resource efficiency, optimising output for a given input both of raw materials and energy, and thereby advances the low carbon agenda.
- The UK must implement automation to a much greater degree.
- This step change requires government leadership to ensure awareness of the problem and provide technical support and access to finance to aid implementation.

4 Research and Development

- Many UK mechanical engineering SMEs supply 'one-off' products tailored to resolve problems in a unique manner. The sale may even be dependent on the firm coming up with a novel solution, which itself has to be tested. Anything which therefore goes to preclude such sales puts UK firms at a competitive disadvantage. Anything that complicates the application or claims process also works against the interests of the dynamic small firms as engines for innovation and change.

5 Energy infrastructure

- The UK must diversify its energy resources, including increasing gas storage capacity, renewables and acting on nuclear.
- However, in moving forward on these technologies we must ensure that the standards applied (e.g. on nuclear projects) are consistent with normal UK practice.
- That way they won't disadvantage UK manufacturers and installers with a bias towards US or French standards giving suppliers from those countries a leg up.

6 Transport infrastructure

- The way roadworks are handled in the UK is poor and needs to be changed.
- For many exporters the biggest proportion of their transport costs even to places like South Africa or the Far East is incurred from the factory to where the goods leave the UK.
- According to the AA there are four million holes in UK roads at any one time – one dug every seven seconds (and that estimate predates last winter).
- The time lost due to the state of the roads is estimated at £4.2 billion in lost business.

Regulation

- We estimate the average SME spends over £33,000 a year complying with various regulations.
- The environmental and employment areas are of increasing concern with firms required to start plotting their carbon footprint and the management of family friendly policies that are onerous for small firms to comply with.
- Actions to reduce wasteful regulation:
  - drafts regulations with business so that implementation is practical and clear
  - simplify compliance by using fewer, simpler forms and fewer regulatory bodies
- To ensure fair competition in a global market it is important the UK maintains the ability to verify that goods entering the UK conform to the standards nominally specified.
- For preference imported manufactures will be produced in factories meeting similar social and environmental standards as those required of UK .companies.

8 Environment

- Environmental taxes often have a disproportionate impact on manufacturers, particularly exporters.
- In the past, when the UK has decided that it wants to take a lead to show the world how to make headway, UK manufacturers have ended up paying the bill through loss of business when other countries have decided not to follow the UK lead.
- It is therefore vital that DECC, Defra and others ensure that environmental initiatives are subject to a rigorous cost benefit analysis that includes the international business cost implications and well as the political benefits of leadership.

9 Skills

- Skills development is the second most important issue for most companies in the sector (after finding new customers).
- Workforce and management skills levels vary by sector and by company.
- After several different initiatives over the last five years, many firms have come to the conclusion that the training arena is controlled by educationalists -- not users.
- Complexity leads to waste and expense.
- The system should be simplified to deliver direct to companies.
- This could be in the form of a loan the firm repays out of the 6:1 savings it will make once the training is complete.
- If introducing a training levy is the only way to ensure that the money is spent on what firms need, then EAMA members agree that they would have to recommend it to their member firms, depending on the simplicity of applying for the refund once training had been completed.

10 Exporting

There is a view 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. Work is progressing, but:

- 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 simpler, run with a national focus, not subservient to regional priorities.
- Companies should be supported for their commitment and professionalism to exporting, not for their exporting 'virginity'.
- The Export Credit Guarantee Department's cover needs to be remodelled to be competitive across a far wider range of business.

Table 1

UK manufacturing investment has fallen 30% since 1997

	1997	2007
Companies	169,663	149,101
Total investment £ millions	20,314	12,002
Average per manufacturing company £	120,000	81,000

Source: Annual Business Inquiry 16 June 2009

Table2

UK manufacturing value added has remained static while productivity rose a quarter

	Year	Germany	France	UK
Gross Value Added manufacturing industry	2007	€494.0	€220.7	£150.5
Constant 2000 prices (billions)	1997	€390.5	€174.4	£141.7
Difference GVA manufacturing growth *(10 years*)		**+27%**	**+23%**	**+6%**
Numbers employed in manufacturing	2005*	7,515	3,325	3,299
Full time equivalents (thousands)	1997*	8,098	3,634	4,520
Difference numbers employed *(8 years)*		**-7%**	**-9%**	**-27%**
Manufacturing Value Added	2005*	€70.0	€68.0	£51.7
Per employee (thousands)	1997*	€53.9	€51.4	£37.3
Difference GVA per employee growth *(8 years)*		**+30%**	**+32%**	**+39%**
Goods exports	2007	€975.2	€400.0	£209.9
Constant 2000 prices (billions)	1997	€457.3	€255.4	£160.6
Difference in growth of goods exports *(10 years)*		**+113%**	**+57%**	**+31%**

Source: AMECO (EU Commission ECFIN Database)

* Note: 8 year span due to lack of UK data for 2006 - 2007

The Engineering and Machinery Alliance

The Engineering and Machinery Alliance (EAMA) is a grouping of eleven trade associations:

- Agricultural Engineers Association
- 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 Industries Confederation
- Processing and Packaging Machinery Association
- UK Industrial Vision Association