UK Manufacturing in Transition

The Impact of the Two-Tier Economy

A Report produced by



Engineering and Machinery Alliance

This report has been prepared by the

Engineering and Machinery Alliance

which consists of the following nine member trade associations:

British Automation and Robot Association (BARA)

British Fluid Power Association (BFPA)

British Mechanical Power Transmission Association (BMPTA)

British Plastics Federation (BPF)

Gauge and Toolmakers Association (GTMA)

Manufacturing Technologies Association (MTA)

Mechanical and Metal Trades Confederation (METCOM)

Printing, Papermaking and Converting Suppliers Association (PICON)

Processing and Packaging Machinery Association (PPMA)

Together, EAMA member associations represent over 4,000 companies employing 400,000 people and create an annual turnover in excess of £33 billion.

Chairman's Foreword

The strength of EAMA (the Engineering and Machinery Alliance) is its size - nine trade associations, representing 4,000 member companies, a combined annual turnover of £33 billion and 400,000 manufacturing employees, as well as the vast cross section of UK engineering and manufacturing that forms its customer base. It is therefore in a unique



position to reflect the current state of health of industries and companies, large and small, and, with its emphasis on capital goods supply, it is a barometer of investment levels and intentions, which are themselves a reflection of confidence in the future of UK manufacturing.

For the past six years our members have experienced intense frustration, as they have witnessed UK manufacturing suffering the consequences of the two-tier economy, with interest and exchange rates working against them. Government and the Treasury in particular have been lulled into a false sense of security by the apparent strength of the UK GDP growth based on services and strong consumer expenditure fuelled by the 'feel good' factor from inflationary house prices – another bubble waiting to burst. Meanwhile, our ability to create wealth through manufacturing and exporting high added value, high technology goods, has been severely diminished by a lack of investment and very low levels of confidence. As this situation has existed over a prolonged period, it has reached a critical stage where declining productivity, compared to our major competitors in Europe and the USA, is widening the competitiveness gap and it is hard to see how we can ever reverse the trend. The current record trade deficits are a clear reflection of the seriousness of the situation. Further evidence comes from the European figures, which show that European industrial production has grown 15% since 1995, whilst UK industrial production has shown no growth at all. Clearly, the developed economies of the Euro Zone are able to compete more efficiently with the low wage/low cost economies than the UK, probably because of their higher investment and capital stock levels.

Over the past six years, there has been intense lobbying of the Government by all the major representative bodies and an amazing consensus among unlikely bed fellows ranging from the CBI, the EEF and the TUC, all trying to raise the Government's attention to the long term consequences of the dismal investment levels and the decline of UK manufacturing. To date, it would appear to have fallen on deaf ears. We hear words of recognition of the problem from the DTI and the importance of productivity improvements from the Treasury, but no real policy or action has been forthcoming to stem the tide. Successive budgets have barely mentioned manufacturing, nor recognised its importance to exports and the economy as a whole, but instead further injuring it with additional taxation (the Climate Change Levy, increased National Insurance) and the burden of red tape. As a consequence, manufacturing investment fell in 2002 by a further 15% to a record low.

We are aware that Government Departments do not like to interfere with free market forces for fear of getting it wrong, but to do nothing is an equal or even bigger dereliction of duty. The economy needs to be managed just like any company or business, with a long term strategy taking into account market failures and imperfections in the global market and in particular, to recognise the problems created by short termism which is so prevalent in our economy.

This survey was undertaken to give voice to a broad cross-section of businessmen who are directly affected by the consequences of the two-tier economy and the lack of a meaningful government strategy for manufacturing. We feel it is important for those politicians and civil servants who are in a position to influence to know the strength and depth of feeling of those who are suffering from economic factors, which are beyond their own control. There may be no surprises in the results but that does not remove anything from their validity.

Mike Legg

Chairman
Engineering and Machinery Alliance

A. Introduction

The Manufacturing Crisis

The UK manufacturing sector has been in steady decline since the end of the late 1980s. The causes of this decline are diverse and have been attributed, among other things, to weak investment and consequently low productivity and, more recently, to an adverse exchange rate (at least with the euro markets) and the unbalanced nature of the UK economy, where the service sector has faced buoyant growth, compared with stagnation or decline in many of the manufacturing sectors - the so-called two-tier or two-speed economy. This latter situation has led to the introduction of interest rates aimed at keeping the service sector and house prices from 'overheating', but it has also had the effect of depressing investment in the manufacturing sector.

The two-speed economy has also diverted investment funds from a lacklustre manufacturing sector into more profitable service-based activities, again stifling investment and productivity improvements and contributing to a vicious circle, which has proved difficult to break. Our manufacturing productivity and competitiveness has therefore fallen further behind our major international competitors, weakening exports and widening the adverse trade gap.

The Government's Response

The present Government and the DTI, in particular, appear to recognise this problem and have brought in a number of measures since 1997 aimed at helping the business community in general, and the manufacturing sector in particular, to overcome some of these difficulties and compete more successfully in world markets. However, these policy initiatives appear to have had limited effect on productivity competitiveness or investment levels, particularly within the manufacturing sector.

The Industry Perspective

This report sets out to examine the effectiveness of those steps already taken by the Government – as perceived by nearly 300 small and medium-sized manufacturing companies polled in a postal survey conducted in the Autumn of 2002. It also looks at the impact of other factors that may influence the success or failure of the manufacturing sector in the UK.

The objective here is an attempt to provide a longer-term route-map for future Government initiatives. These are presented as a set of seven policy recommendations at the end of the report.

Finally, appendix 1 to this report provides a snapshot of the state of health – and, in a sense, the state of mind – of the manufacturing sector in the UK, based on a series of interviews with 40 manufacturing companies and the answers received in the questionnaires.

Comments have been selected to complement each of our key policy recommendations.

B. Summary of findings

A more detailed discussion of the survey results is to be found on page 10. However, here is a summary of the main points.

1. There is almost no support among SMEs for the Government's Manufacturing Strategy

The most striking statistic to emerge from the entire survey is that there is almost no support at all from the companies polled for the Government's manufacturing strategy. 95% of respondents claimed not to support the Government's policies relating to the sector.

2. Government advisory agencies are seen as ineffective

Many of the Government's main advisory agencies for SMEs – including the Small Business Service and the Manufacturing Advisory Service - are seen as having little impact on the fortunes of companies in the manufacturing sector. With regard to the MAS, this may be because it was only launched in late Spring 2002 and had yet to be fully established.

3. Some Government policies are damaging manufacturers

In line with views expressed in previous surveys of the manufacturing sector, the key plank in the Government's energy and environmental policy – the Climate Change Levy – is seen as having a strong negative impact on UK manufacturing. So too will be the increase in employers' National Insurance contributions due to be introduced in April 2003.

While opposition within the manufacturing sector to the Government's Climate Change Levy has been well documented, what is striking here is the almost complete lack of support for the Government's manufacturing strategy – and the extent to which the sector remains indifferent to some of the Government's flagship initiatives for the small companies and manufacturing sector.

The survey also highlights policy initiatives that manufacturers consider to be of direct benefit to the sector. These include the new tax credits for SMEs investing in R&D (brought in already by the Government in 2001) as well as further reductions in corporation tax, and the introduction of 100% first year capital allowances for high-tech equipment. Further factors which respondents identified as being of crucial importance to the future health of the sector include:

- The quality of management teams within UK manufacturing companies
- An improved public perception of the manufacturing sector in Britain
- The skill levels of those entering the manufacturing sector as employees
- The attitude of banks and investors to the risk and return associated with the manufacturing sector

C. About the survey

The survey was preceded by face-to-face interviews with 40 companies from EAMA members and then a questionnaire was circulated to all EAMA members based on these responses. A selection of the statements recorded during the interviews, together with comments made on the questionnaires, is included in appendix 1 of this report. This report is based on a written questionnaire completed by 281 manufacturing companies, polled in the Autumn of 2002. The respondents were drawn from the nine member organisations of the Engineering and Machinery Alliance, and thus represent a broad cross-section of manufacturing sectors in the UK. More than 90% of the respondents qualify as small or medium sized firms in terms of employment, and 80% of the respondents qualify as SMEs on the basis of turnover. However, it should be noted that nearly half of the firms surveyed formed part of a larger group of companies.

The respondents are less dependent on direct export business than the UK manufacturing sector as a whole. Some 60% of the companies surveyed reported that export revenue accounted for less than 20% of total turnover, but indirectly they are affected by their customers' dependency on exports.

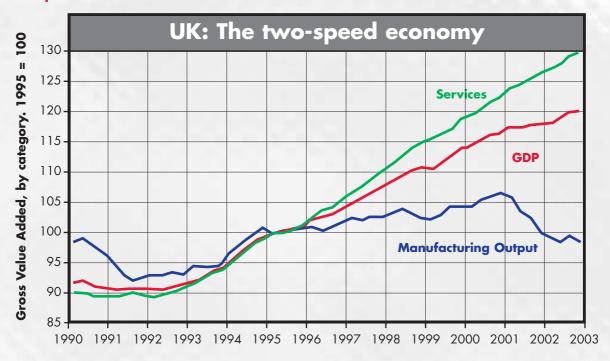
D. Economic background

Context: The two-tier economy and other problems

The chronic decline of the UK manufacturing sector over the last decade has created an emerging crisis in British industry, with a persistent lack of investment leaving many production lines or process plants with an ageing capital stock that threatens to widen even further the productivity gap between the UK and its rivals in global markets.

At the same time, the continued and steady growth in the services sector in the UK during the same period has left economic policy makers with the problem of the 'two-speed economy' – i.e. how to stop the services sector and consumer spending from overheating, while at the same time trying to keep the manufacturing sector out of recession. In trying to keep inflation in check, in part by dampening a booming services sector, one of the effects has been an interest rate regime that manufacturing companies have seen as penalising the sector.

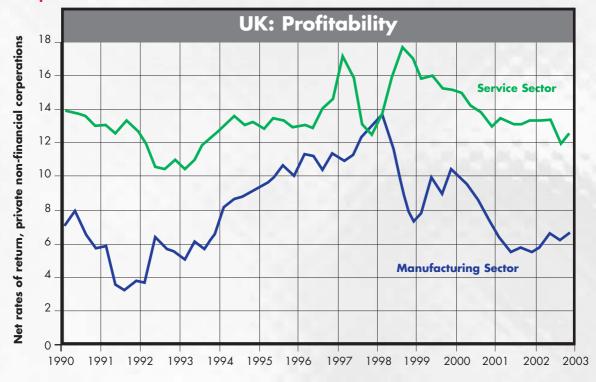
Graph 1



Source: Office for National Statistics

The figures illustrate the extent of the problem. Since 1995, the service sector has grown by 30% (Graph 1) while the manufacturing sector has actually declined slightly. Meanwhile, profitability in the manufacturing sector has been in freefall since 1998, and now stands at an average of around 6%, compared with 13% in the services sector (Graph 2).

Graph 2



Source: Office for National Statistics

Equally, the high value of the Pound relative to the Euro over the last four years has depressed export performance in many sectors of manufacturing and prevented the gains from cost-saving measures and productivity improvements being passed on to customers in the Euro-zone.

It would seem that one explanation of the two-speed economy could be the prevalence of 'short termism' in the UK and the fact that manufacturing needs much larger amounts of investment over a longer period than service industries, where the entry level is low with faster returns and therefore lower risk. Government policy needs to address this fundamental market failure and to encourage the retention and reinvestment of profits.

The risk of being left behind

Of course, the UK manufacturing sector is not alone in suffering what is a general global decline. However, figures from OEF predict that UK growth rates in the engineering and metal goods sectors will continue to under perform our main European rivals, as well as Japan and the US, over the next four years. (Tables 1 and 2).

Table 1

	Engineering c An	ınd Metal G nual % Chan		ut	
	2001	2002	2003	2004	
Triad	- 3.7	- 3.5	2.8	3.8	
US	- 6.6	- 2.8	3.1	4.0	
Japan	- 8.9	- 5.9	4.1	4.1	
W Europe	0.8	- 2.9	2.0	3.6	
Germany	2.6	- 3.4	2.6	3.9	
France	- 0.2	- 1.2	1.2	3.4	
Italy	0.6	- 2.2	1.8	3.1	
UK	- 1.5	- 5.2	- 0.3	2.3	

Source: Oxford Economic Forecasting

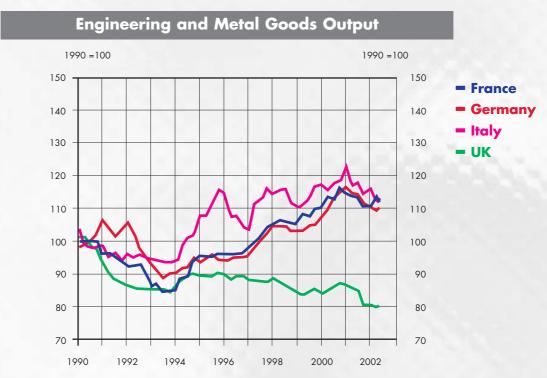
Table 2

		ı l Engineerir ınual % Chang		
	2001	2002	2003	2004
Triad	- 4.7	- 4.7	3.0	4.6
US	- 7.8	- 4.2	3.1	4.8
Japan	- 10.5	- 8.6	5.9	6.0
W Europe	1.3	- 3.1	1.4	3.6
Germany	2.6	- 3.9	1.7	3.5
France	- 0.4	- 1. <i>7</i>	1.5	3.9
Italy	0.8	- 1 <i>.7</i>	1.6	4.1
UK	1.0	- 5.7	- 0.3	2.3

Source: Oxford Economic Forecasting

In fact, while Germany, Italy and France already have a lacklustre record in terms of growth rates in the engineering sector (output has risen only around 10% since 1990 in all three countries), in the UK the situation is much worse, as output has fallen 20% over the same period. (Graph 3)

Graph 3



Source: BAK Oxford International

E. A survey of those at the sharp end

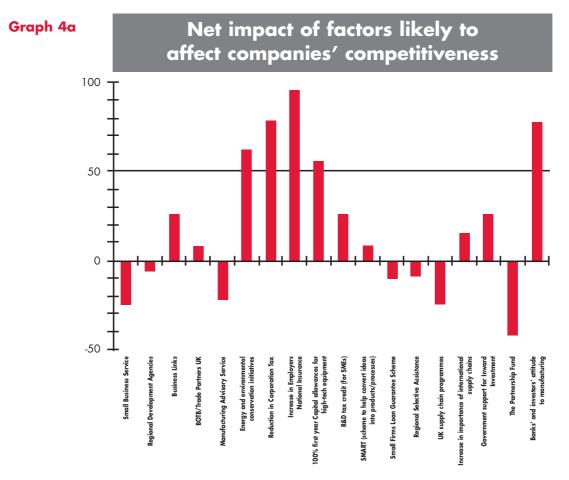
The companies involved in this survey are predominantly suppliers of capital goods or intermediate goods – the machinery, equipment or component parts which are instrumental in creating the technological advantages that lead to productivity improvements. In the next section of this report, we have asked these companies to assess the effectiveness of the Government's policy initiatives to date – and other policy initiatives, which the Government has implemented – in getting UK manufacturing out of its current decline.

The opinions of these companies matter: they are, after all, at the sharp end of the investment decisions taken by manufacturers within the economy as a whole.

The survey results

1) Factors acting on competitiveness

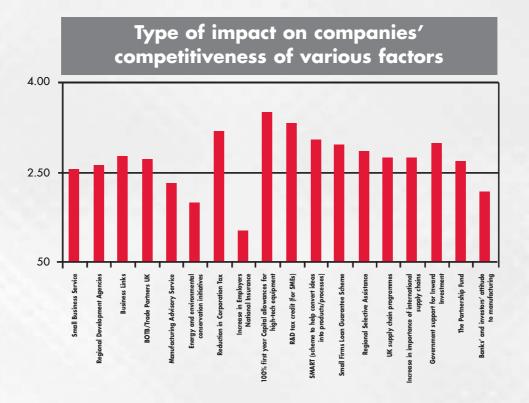
The survey asked companies to assess a range of factors in terms of their impact (positive or negative) on competitiveness. These factors range from Government policy, Government-backed agencies, and policy measures that have not been adopted by the Government. The findings are shown in Graphs 4a and 4b.



Positive net impact figure implies a majority think the measure has an impact; negative implies the majority believe it has no impact on their company's competitiveness

It is notable from Graph 4b that the factor which is seen as having the greatest negative impact on competitiveness (increase in employers' National Insurance) is a Government policy. The same is true of 'energy and environmental conservation initiatives', which include the Climate Change Levy. The attitude of banks and investors to manufacturing industry is also seen as highly influential, and again is judged as being a negative influence on competitiveness.

Graph 4b



To be read in conjunction with Graph 4a (page 10). Measures with a score above 2.50 are thought to have a POSITIVE impact on competitiveness, while those scoring below 2.50 will have a NEGATIVE impact. The importance of this impact is shown in Graph 4a. For full text of questions see appendix 2.

The survey asked respondents to assess a number of Government schemes and agencies aimed at benefiting SMEs in the manufacturing sector such as the Small Business Service, the Regional Development Agencies, Business Links, Trade Partners, SMART grants for innovation, and Regional Selective Assistance.

What emerges immediately from the survey is that only around half the respondents believe that many of these initiatives have any impact at all on their firms' competitiveness.

Of those respondents who *did* judge these factors to have an impact, they attributed this impact on balance to be fairly positive or neutral. The exception, perhaps surprisingly, is the Manufacturing Advisory Service (MAS), which is seen as having a negative impact on competitiveness, possibly because the MAS was only launched in late Spring 2002 and had yet to be fully established.

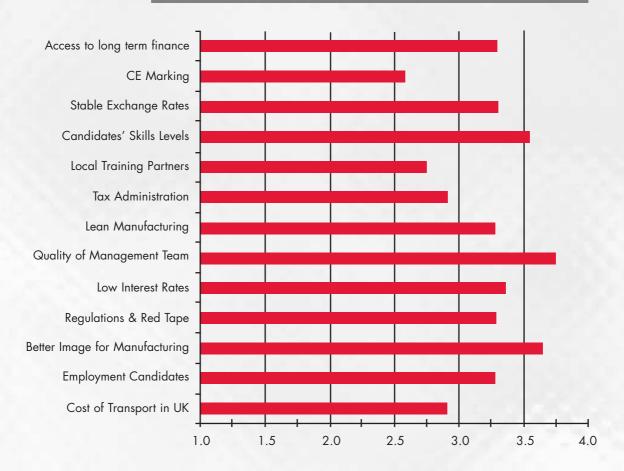
Factors which were seen as having the most positive impact on competitiveness and which were seen by a large majority of respondents as having an impact, included 'Reduction in Corporation Tax' and '100% first year capital allowance for high technology equipment', plus 'the R&D tax credit for SMEs' and 'Government support for inward investment.'

2) Other relevant factors

The survey also asked respondents to rank a series of other factors relating to the future success of their manufacturing companies. The results are shown in Graph 5.

Graph 5

The importance of other influencing factors



Rating of the importance of these factors to the respondents' companies.

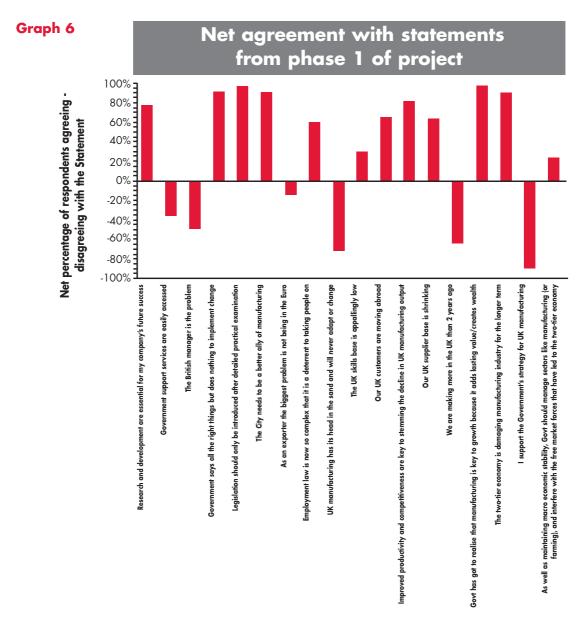
Response scale from 1="not important" 4="very important"; mid-point score is 2.5

People and skills issues come out as two of the most important factors that will affect future competitiveness of UK manufacturers. The quality of the management team (ranked 1st) and candidates' skills levels (3rd) topped the list, along with the 'image' of manufacturing (2nd), which is also seen as a factor in the skills problem.

Economic factors, such as exchange rates (4th) and interest rates (=5th), are viewed as important, together with access to long-term finance (=5th) followed by the burden of red tape. Productivity-enhancing 'lean manufacturing' techniques were ranked 8th out of the 13 factors examined.

3) Attitude survey

The final part of the survey assessed attitudes to a range of statements relating to the current state of UK manufacturing and a number of possible policy options facing the Government. The full results are shown in Graph 6.



Negative Net Figure implies overall disagreement with the statement. For full text of questions see appendix 2.

The overall picture is of a strong degree of unanimity of opinion over many of the statements. The most notable points to come out are the following:

"I support the Government's strategy on manufacturing" 94% of respondents **disagreed.**

"The Government says all the right things but does nothing to implement change" 96% agreed.

"The City needs to be a better ally of manufacturing" 96% agreed.

"Government support services are easily accessed" 67% **disagreed.**

"Employment law is now so complex that it is a deterrent to taking people on." 80% agreed.

These statements also provide a number of worrying indications about the continuing decline facing the manufacturing sector.

"Our UK supplier base is shrinking" 82% agreed.

"Our UK customers are moving abroad" 83% agreed.

"We are making more in the UK than 2 years ago" 81% **disagreed.**

The survey showed that the SMEs polled were split in terms of support of the Euro, with 56% disagreeing with the statement that "As an exporter, the biggest problem is not being in the Euro."

Almost all respondents (96%) agreed that "The two-tier economy is damaging manufacturing industry for the longer term." However, just under two thirds (62%) of respondents believe the Government, while maintaining macroeconomic stability, "should manage sectors like manufacturing...and interfere with the free market forces that have led to the two-tier economy."

F. Policy recommendations

The responses from this survey add further credence to the arguments that have already been advanced by EAMA and its member organisations on how the UK Government should respond to the continuing crisis facing the manufacturing sector. We believe that it is possible to deal with the many factors that are dragging down the manufacturing sector in the UK, and that this can be achieved by focussing on seven policy areas.

1) Create a 'real' manufacturing strategy.

Our survey shows that only 6% of manufacturers agree with what they perceive as the current Government's manufacturing strategy. It is clear that the Government's Manufacturing Strategy, published in May 2002, is not known to, or does not fulfil the expectations of most SME managers in the engineering sector. We therefore call upon the Government to sit down with business and the trade unions and work on a strategy which covers both vision and delivery, and which will have the public support of the Prime Minister, the Treasury, the DTI and UK industry. It must have specific goals and targets, which can be measured, and it should be reviewed on a regular basis. The Government should be at the forefront, as they are with the Health Service and Education, promoting the strategy and publicly demonstrating that it and UK Industry are behind manufacturing and they are committed to reversing its decline in terms of GDP.

2) Encourage investment.

Years of under-investment and weak productivity and competitiveness need dramatic action to reverse the trend and kick start a manufacturing and engineering revival similar to that achieved in the USA in the 1990s. We reiterate our calls for the introduction of 100% first year capital allowances to help counterbalance some of the uncertainties that are holding back investment. Although not recommending a return to the SEFIS scheme of the early 1980's, we ask the Government to look carefully at grants or tax credits targeted at the SME sector to help them to invest in high technology plant and equipment. We believe that by doing this, productivity in the UK will rise and therefore our companies will become more competitive in the global market. Measures such as these directly encourage the retention and reinvestment of profits, secure jobs, raise skill levels and lift the company into the higher quality, higher added value league.

3) Boost competitiveness through innovation.

The R&D tax credit needs to be easier to apply for. The definition of what constitutes R&D needs to be clear to all parties, especially to the Inland Revenue, where there is some indication that they delay the process because of this uncertainty. We also recommend the introduction of grants to help companies turn innovation into commercial advantage.

4) Improve access to Government assistance.

Two thirds of manufacturers find the current structure of assistance for investment, R&D and exporting, too difficult to access. There is a need to re-evaluate the workings of Trade Partners UK, which comes in for heavy criticism from our survey and is obviously not effectively helping SMEs in their crucial export work. There are also too many schemes aimed at SMEs in the manufacturing sector being delivered by too many different agencies; there should be one agency, clearly

defined and publicised, dealing with all schemes. Under current policies, there is too much emphasis on start-ups and not enough on helping existing proven businesses survive adverse economic conditions. We would like to see the balance here change.

5) Reduce red tape and taxation.

The burden of red tape for many SMEs is now a severe problem hindering their competitiveness. The Government must try, where possible, to remove these burdens and consider every new regulation for the impact on the competitiveness of industry. Likewise the Climate Change Levy should be abolished as it has not been implemented by any other country and therefore puts UK companies at a competitive disadvantage. A Carbon Tax would be more equitable and probably do more good for the environment. The increase in taxation since 1997 has also been severe for most SMEs and a reduction would be welcome. The increase in employers National Insurance contributions is a body blow, at a time when manufacturing has been in a severe recession and will see no real recovery until the end of 2003, at the earliest.

6) Deal with the skills crisis.

We welcome the Government's move to a more vocational based strategy for 14-19 year olds. However there is still a major problem with the attitudes of teachers and parents towards manufacturing. There needs to be a major effort by Government to raise awareness in schools and in the media of the excellent career opportunities that manufacturing can offer, both to academic and more practical students. The Government also needs to boost manufacturing apprenticeships and give more financial support to manufacturing companies who provide training.

7) Change the culture at the Treasury.

It has been clear for many years that the DTI has recognised many of the problems facing manufacturing in the UK, especially concerning SMEs and has tried to implement measures to help, but has had its hands tied by financial constraints.

On the other hand, the Treasury has been far less sympathetic to the plight of manufacturing, giving the impression that it believes that the UK economy can flourish without the major contribution that manufacturing makes to wealth creation, jobs and the balance of payments. This has a dangerous knock-on effect in the City financial institutions and the media, as well as on Government itself.

We welcome the recent DTI initiative whereby all involved civil servants are expected to spend a week per year in industry to better understand the business issues and we recommend extending it to the Treasury professional economists, who need a better understanding of the practical issues and consequences of decisions made behind closed doors based on an inexact science of economic theory.

Clearly, None of these solutions will provide a quick fix to the long-term problems facing the sector, but they should at least start a partnership process between Government and Industry aimed at defining the most effective route towards a revival of UK manufacturing.

APPENDIX 1

Below are some selected statements from faceto-face interviews conducted with 40 SME manufacturers during the Autumn of 2002 or comments made in the questionnaires. They are presented here to provide an anecdotal illustration of the policy recommendations listed on page 16 of this report.

1. Create a strategy

Managing director of medium-sized West Midlands manufacturer, exporting 50+% of production:

"Now, one of the questions that I would pose is what is the Government's strategy for manufacturing? I don't mean the overall macro strategy; what the country needs is a strategy that breaks down into the various sectors to know where things are going. If we were talking about biotechnology or software for example, I am sure we'd see a very strong endorsement as far as the Government is concerned. On the other hand, if we're talking about our particular industry, I would have much more serious reservations about what the Government strategy is, if indeed there is a strategy."

"I think that a Government strategy for manufacturing should clarify Government's attitude towards the sector, whether or not they consider that it should continue to contribute to the economy in the proportions that it currently does. There should be a breakdown according to the different sectors, so there could be some clarity about what the Government's views are about those various sectors. And I think additionally it would describe what the Government intends as we move forward on issues such as investment, training, grants, skills, research and development and links between industries and universities. There would need to be a broad-

based and a detailed description of what the Government's thoughts and planned actions really are."

"If we had such a Government strategy, overall people would be much more positive."

2. Encourage investment

Managing director of a company employing 200 people, mostly in the UK, turnover £30 million with 80% of sales overseas, 65% in the USA:

"A manufacturing operation...needs an investment pattern that runs over a number of years and a number of cycles. The structure and thinking of the City are both tailored around regarding the returns on investment in a very short term way. It is all about trading goods and objects rather than investment in processes and equipment."

3. Boost competitiveness through innovation

Chairman, managing director and director for finance, sales and personnel in a northern company employing 120 people, with a turnover of £5-10 million and exporting to 30 countries:

"They introduced a grant for R&D, which we thought was tremendous. We got the Inland Revenue in 18 months ago to review our accounts. They looked at two or three machines, which we had developed with our own R&D funds, and asked what they did. We explained, and they went away to consider whether this investment on our part would be eligible for the Government grant. When we asked what the problem was, they said the Government funding was targeted more towards the high tech industries, and they hadn't come across any examples of it happening in engineering yet."

4. Improve access to Government assistance

Managing director, northern, niche heavy manufacturer, employing 30 people with a turnover of some £3 million:

"If there is one thing the Government could do for all of UK manufacturing, I think that would be to give us more market intelligence.

A manufacturer cannot have spies everywhere. There doesn't seem to be an intelligence network where Government's collating what opportunities there are about in the world, at least, I can't find one."

5. Reduce red tape

Managing director, mechanical engineering manufacturer, West Midlands, employing 45 people with a turnover of £5 million:

"Our administration department has to cope with the burgeoning bureaucracy in pensions, health and safety, taxation and the rest. We would like to employ more design engineers, but cannot afford to do so. Instead, we have to carry the high cost of our administration department, as failure to keep on top of these issues is punishable by massive fines."

6. Deal with the skills crisis

Senior manager, southern components manufacturer, employing 40 people with a turnover of £2 million:

"Following a local school visit to a components manufacturer, the teacher was heard to say to the class as they were leaving: 'If you don't want to get your hands dirty, as in there, you had better concentrate on working hard to get a better job.'"

7. Change the culture at the Treasury

Managing director, northern manufacturer, 40% exports, only one major UK quoted company in sector dominated by foreign owned competition:

"It's very hard for Government to develop a strategy that would just help manufacturing. Government's very much of the opinion that what matters is to get the macroeconomics right and you get growth in the GDP. There used to be this old rule that if GDP was growing 2.5% then machine tools and manufacturing were doing well, 1% it was steady, negative and – well you were for the chop."

"That formula unfortunately doesn't hold as true as it used to because of this two-tier economy. If you're out there, the shops are heaving, the trains are full and hotels are packed out. So the macro economy is doing all right and so the Bank of England, the Treasury and the Chancellor think if we get this right, manufacturing will get pulled along with it too. In the past there was always some truth in that. But I think there was so much money that got dragged into the 'dotcom' companies, that suddenly evaporated and was lost, that some of the money that would have been spent on manufacturing has gone. That money would have been a good thing for us. It would have been helpful, but has been lost elsewhere in the economy and therefore won't be invested in plant and machinery."

APPENDIX 2

For Graphs 4a and 4b, the questionnaire asked respondents to rank the following factors:

This section addresses a range of factors to see whether or not they affect your company's competitiveness (and, therefore, whether or not they help to address the issue of the two-tier economy) and, if so, whether that impact is positive or negative.

	Very Positive
	Fairly Positive
	Fairly Negative
	Very Negative
	No Impact
FACTO	rs likely to impact on your company's competitiveness
Small B	usiness Service
R&D ta	x credit (for SMEs)
Region	al Development Agencies
SMART	(scheme to help convert ideas into products/processes)
Busines	s Links
Small F	irms Loan Guarantee Scheme
BOTB/	Trade Partners UK
Region	al Selective Assistance
Manufo	acturing Advisory Service
UK sup	ply chain programmes
Energy	and environmental conservation initiatives (incl. Climate Change Levy)
Increas	e in importance of international supply chains
Reducti	on in Corporation Tax
Govern	ment support for Inward Investment
Increase	e in Employers National Insurance
The Par	tnership Fund
100% f	irst year Capital allowances for high-technology equipment
Banks'	and investors' attitude to manufacturing

The data from Graph 6 was based on the following sections from the questionnaire:

The initial stage of the research was a series of face-to-face interviews with 30 companies belonging to the EAMA Associations. Do you agree or disagree with the following statements that were made in these interviews?

	Agree strongly
	Agree
	Disagree
	Disagree strongly
	Don't know
"Resear	ch and development are essential for my company's future success"
"Govern	nment support services are easily accessed"
"The Br	itish manager is the problem"
"Govern	nment says all the right things but does nothing to implement change"
"Legisla	tion should only be introduced after detailed practical examination"
"The Ci	ty needs to be a better ally of manufacturing"
"As an	exporter the biggest problem is not being in the Euro"
"Employ	yment law is now so complex that it is a deterrent to taking people on"
"UK mo	inufacturing has its head in the sand and will never adapt or change"
"The Uk	C skills base is appallingly low"
"Our U	K customers are moving abroad"
	red productivity and competitiveness are key to stemming the decline in UK cturing output"
"Our U	K supplier base is shrinking"
"We ar	e making more in the UK than 2 years ago"
	as got to realise that manufacturing is key to growth because it adds lasting reates wealth"
"The tw	o-tier economy is damaging manufacturing industry for the longer term"
"I suppo	ort the Government's strategy for UK manufacturing"
	ll as maintaining macro economic stability, Govt should manage sectors like cturing (or farming), and interfere with the free market forces that have led to the two-tier by"

EAMA member associations:

British Automation & Robot Association (BARA)

International Manufacturing Centre University of Warwick Coventry CV4 7AL

Tel: 02476 573 742 Fax: 02476 573 743 Email: info@bara.org.uk Web: www.bara.org.uk

British Fluid Power Association (BFPA)

Cheriton House Cromwell Business Park Banbury Road Chipping Norton OX7 5SR

Tel: 01608 647 900 Fax: 01608 647 919 Email: enquiries@bfpa.co.uk Web: www.bfpa.co.uk

British Mechanical Power Transmission Association (BMPTA)

Suite 43 IMEX Business Park Shobnall Road Burton on Trent Staffordshire DE14 2AU

Tel: 01283 515 521 Fax: 01283 515 841 Email: admin@bga.org.uk Web: www.bga.org.uk

British Plastics Federation (BPF)

6 Bath Place Rivington Street London EC2A 3JE

Tel: 020 7457 5000 Fax: 020 7457 5045 Email: bpf@bpf.co.uk Web: www.bpf.co.uk

Gauge and Toolmakers Association (GTMA)

3 Forge House Summerleys Road Princes Risborough HP27 9DT

Tel: 01844 274 222 Fax: 01844 274 227 Email: gtma@gtma.co.uk Web: www.gtma.co.uk

Manufacturing Technologies Association (MTA)

62 Bayswater Road London W2 3PS

Tel: 020 7298 6400 Fax: 020 7298 6430 Email: info@mta.org.uk Web: www.mta.org.uk

Mechanical and Metal Trades Confederation (METCOM)

Savoy Tower 77 Renfrew Street Glasgow G2 3BZ

Tel: 0141 332 0826 Fax: 0141 332 5788

Email: glasgow@metcom.org.uk Web: www.metcom.org.uk

Printing, Papermaking and Converting Suppliers Association (PICON)

St Christopher's House Holloway Hill Godalming Surrey GU7 1QZ

Tel: 01483 412 000 Fax: 01483 412 001 Email: info@picon.co.uk Web: www.picon.com

Processing & Packaging Machinery Association (PPMA)

New Progress House 34 Stafford Road Wallington Surrey SM6 9AA

Tel: 020 8773 8111 Fax: 020 8773 0022 Email: admin@ppma.co.uk Web: www.ppma.co.uk

For further enquiries on this report, please contact EAMA:

Jim Hewitt
Secretary
Engineering & Machinery Alliance
62 Bayswater Road
London W2 3PS

Tel: 020 7298 6450 Fax: 020 7298 6434 Email: eama@mta.org.uk

