



Industry Forum

Business Excellence Through Inspired People

September 2013

UK Medical Equipment and Technology: Is the Strategy Right?

Between 2000 and the start of the recession in 2008, the global market for medical equipment expanded at an average rate of 7% per annum. In the remaining part of this decade the expansion rate could be even higher per annum from a current market size in excess of \$200bn with new medical technologies, emerging economies and demographic change as major factors in this future growth.

The USA currently accounts for about 40% of the global spend on medical equipment. Germany, Japan, France and Italy all account for more than the UK spend which is around 3% of the total global spend, taking into account NHS, private health and home spend. Globally, the leading manufacturers reflect this market pattern with the majority of leading firms being US based. Important firms globally are also based in Japan, Germany and Switzerland.

The ONS provides statistics for the UK sector and the latest figures for 'Manufacture of medical and dental instruments and suppliers' show that between 2008 and 2011 employment fell from 47k to 41k – so that it is currently about 1.5% of UK manufacturing employment. However value added per person employed in the sector increased steadily from £39k to £55k over the same period – an impressive compound rate in excess of 10% per annum. This is encouraging but it leaves the sector still at 90% of the UK manufacturing average on this measure. One might judge that medical equipment is part of UK advanced manufacturing but an important part of advanced manufacturing is the generation of higher than average value added and on this evidence the sector has not yet achieved this benchmark.



A D Little undertook a very thorough examination of the competitiveness of the UK medical equipment sector for the DTI which was published in May 2005. While this is slightly out of date, no equivalent study has been done since and the findings make interesting reading. A D Little homed in on six subsectors: Medical Imaging, Diagnostic Equipment and Materials, Active and Passive Implantables, Radiotherapy Equipment, Electromedical/Respiratory and Advanced Wound Management.

They suggested that given the pace of global consolidation, commercial success for the UK relied on continuing investment in R&D, skilled labour, specialist infrastructure plus specialist sales teams. They found that the UK possessed few important R&D or manufacturing centres in mature subsectors. A D Little suggested that the best opportunities for the UK would be in emerging subsectors where the process of global consolidation was less advanced.

The UK procurement system was found to be largely risk-averse, under high cost cutting constraints and not

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adapted to evaluate and acknowledge the benefits of new products. A D Little suggested that improvements in the design of clinical trials in the UK would help to improve the competitiveness of the sector. An improved commercial clinical trials environment would help attract globally mobile R&D to the UK.



Within the Coalition's Industrial Strategy the medical equipment sector is covered by the Life Sciences Strategy, which was published in December 2011 as the first sector strategy. Ministers made a commitment to develop an infrastructure which connected academics, industry, investors, clinicians and the NHS. The Strategy promised to review regulations that impact the life sciences sector generally and held back innovation – a general approach which is in tune with A D Little's recommendations.

In December 2012 a review of the progress in the first year of the Life Sciences Strategy was published. This included a number of major inward investment projects involving Johnson & Johnson, Eli Lilly, GSK, Eisai, Pfizer, Novartis, Piramal and Sanofi. In addition a number of awards had been made from the Regional Growth Fund involving Redx Pharma, SCM Pharma, Astra Zeneca, De Puy Synthes and BCM. These lists suggest that within the overall Life Sciences umbrella pharma will inevitably overshadow medical equipment.

In August 2012 the Wellcome Trust and EPSRC announced the launch of a joint £30m initiative to find biomedical engineering solutions to challenging healthcare problems. The 'Innovative Engineering for Health' initiative provides funding for a limited number of long-term projects designed to address a specific healthcare need for which current solutions are inadequate. Up to £10m is available for each project, providing the resources to conduct high quality basic research and to enable its adoption into clinical or public health practice. Applications are invited for projects that will address the problems of the highest priority in healthcare or public health for which solutions are not obvious with the current state of technology.

The National Institute for Health Research has committed £6.4m to fund eight new Healthcare Technology Co-operatives within the NHS as centres of expertise in developing new concepts, demonstrating proof of principle and devising research protocols for new medical devices and healthcare technologies. These centres will work on themes such as chronic gastrointestinal disease, brain injury, heart disease, wound management and mental health. These are all conditions of high morbidity and unmet need for NHS patients and healthcare technology users, which have not to date benefited from a high degree of innovation.

In May this year, NHS England announced that it has designed and licensed 15 new Academic Health Science Networks (AHSNs) which are formed to act as a collaboration between the NHS, academia and industry. They are to improve health and create wealth by delivering a step-change in the way the NHS identifies, develops, adopts and spreads new innovations. The aim is both to improve healthcare outcomes for patients and drive economic growth. The AHSNs, which are paid for by NHS England, will look to ensure collaboration and build strong relationships with regional



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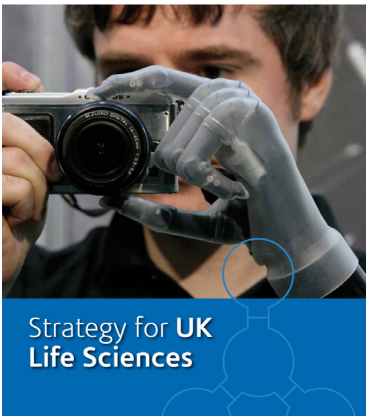
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scientific and academic communities and industry. The 15 AHSNs will cover the whole of England and have been welcomed by industry. The Association of British Healthcare Industries will ensure that in every AHSN there is an understanding of the medical technology development process and that AHSNs maximise the potential of partnering with medical technology companies to facilitate knowledge of emerging innovations.

BIS Department for Business
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One important element in the Life Sciences Strategy is the desire to reach out to SMEs in the expectation that a growing number of SMEs playing a leading role in driving growth. The strategy review found that in 2012, over 380 pharmaceutical companies were based in the UK, employing nearly 70,000 people, with an annual turnover of £30bn. The medical technology and medical biotechnology sectors are estimated at over 4,100 companies employing over 96,000 people. This means that the average size of the pharmaceutical firms in the UK is eight times larger than the technology firms. Large global firms have the capability to connect easily with national strategies especially where there is the incentive of capital and R&D grants. Dedicated outreach is needed to engage SMEs.

The opportunities for medical technology SMEs that have been offered so far within the Life Sciences Strategy require them to have sophisticated capabilities. Rather than joining a supply chain they are being offered the chance to become part of a value network and to benefit in this way the firms' employees require a much richer skillset. The timescale for the innovation sequence envisaged by the new programmes announced under the strategy may be several years long which

is a further obstacle to SME participation.

In the automotive and aerospace sectors specialist global quality standards have been an important instrument in driving up the capabilities of the supply chain. The global medical equipment industry has produced its own standard – ISO 13485. Promoting this more strongly in the UK medical equipment SME sector may well provide quicker returns for the firms than the longer term innovation programmes that are being developed within the Life Sciences Strategy.

On 11 September, Vince Cable announced supply chain development funding for the life sciences sector under the Advanced Manufacturing Supply Chain Initiative (AMSCI). He announced £115m help for suppliers of advanced manufacturing assemblies and products at the Government and CBI's Industrial Strategy Conference. The target is suppliers in the UK who nearly qualify to supply big manufacturers so that they get onto the approved procurement lists of those big firms. CBI director-general John Cridland said: "We are calling for industrial strategy to focus on strengthening UK supply chains and this initiative is one of the best ways to deliver this.

Industry Forum has extensive experience of using global quality standards to improve supply chain firms' competitiveness and has in depth experience of helping firms design and deliver successful AMSCI programmes.



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