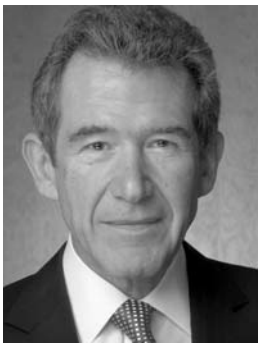
SEVEN POINT PLAN – AN INDUSTRIAL STRATEGY FOR UK COMPETITIVENESS



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A post-election summit, hosted by The Royal Society and The Royal Academy of Engineering, in May 2010, looked at the most pressing issues for the new government to address. At the summit, the following seven point plan for creating an innovation economy was presented.

The long term health of the UK economy will depend on our ability to compete successfully with other technologically advanced and entrepreneurial emerging nations, particularly in the hi-tech and lower carbon industries of the future.

I would like to offer some thoughts about what can be done to re-tool the British economy for economic growth based on science and innovation.

We have many cards in our favour. Britain leads the world in a number of fields including small satellites, aerospace, life sciences and creative design. We have world-class research facilities and world-class businesses – both small and large – capable of exploiting it.

But our track record of turning British ideas into substantial business successes is not exemplary. Time and time again, ideas generated in the UK end up being exploited commercially overseas. Improving on this track record must become a priority if we are going to build a balanced economy. It has as much to do with improving our commercial and entrepreneurial skills as it does with inventing new technologies. Moreover, British companies must now compete with a growing array of global players, not just from America and Europe, but from China and India as well.

The Coalition Government has made clear that its immediate priority is to reduce the budget deficit. But decisions must be taken with a clear vision for the future.

Policymakers agree that a diverse, knowledge-based economy is the best platform for British businesses to compete in the hi-tech and lower-carbon industries of the future. And they agree that, while businesses remain the prime vehicle for wealth creation, government can do a lot more to foster the right climate for success. But there is confusion about exactly what government should be doing to help.

The scale and urgency of the change needed means it cannot be left to chance, the priority must be to create an enabling environment in which business and industry can flourish. This will provide fertile ground on which new technologies can thrive. We need an industrial strategy that aligns policy, investment, effort and culture across government departments and brings business into the decision-making process.

Improving competitiveness is not about picking winners – either technologies, companies or products. But it is about supporting strategic sectors where the UK can enjoy a competitive advantage.

Policymakers should focus on seven areas.

First, government can support business by ensuring that there are sufficient numbers of people with the right skills. In a global competition for talent the most innovative businesses are determined by the quality and diversity of their workforce.

Second, we need to keep ideas flowing by funding the best quality scientific and engineering research and researchers. We then need an urgent and serious debate on what other research we can afford.

Third, even the best research needs support to bring ideas out of the lab and into the market. Government can play a significant role in building systems to help bridge that gap.

Fourth, only a stable policy climate will give business the confidence to invest over the long term. That includes an enabling regulatory framework to provide signals to business, encouraging experimentation and innovation.

Fifth, more tangible incentives will be needed – whether through tax regimes, capital grants or seed funding, or a combination of all of the above. These incentives will work best when they are transparent and accessible to small companies as well as large ones.

Sixth, government should recognise its influence as a customer in supporting new technologies and enabling new companies to grow. Public procurement must be used as much as a tool for encouraging innovation as for driving down costs.

And seventh, all of this must be rolled into a coherent policy framework, managed, measured and continually refined.

On the other hand, there are some areas where it makes less sense for government to take a lead. For instance, it is important that policymaking draws on this country's rich vein of scientific and engineering expertise. Technology councils, businesses and, of course, the national academies are full of people with skills in management, research and problem solving. The government should make full use of these outstanding human resources.

There is also an issue of culture. Young people still view science and engineering as somehow quite boring – something that uninspiring people do behind a desk or laboratory table. This is an area where the scientific community must take a firmer lead, encouraging its great people to get out there and communicate: through the media, in schools and colleges. We are doing this at The Royal Academy of Engineering, but we can – and will – do more in the future.

Great innovation occurs when science and engineering meet business and enterprise – where people can face in two directions at once, translating the fruits of scientific research into opportunities to create wealth and jobs. That is not a job for government, but it is an area where government can play a useful leadership role, fostering an environment that harnesses the natural power of business to innovate.

The state of the UK economy is the overwhelming concern of government and the nation, and the available Science and Research budget should be targeted where it will have most impact in the foreseeable future, as far as possible without compromising unforeseen developments. Future potential will never be realised if the nation has not created the means to exploit it.

That is how to create an innovation economy. The seven-point plan delivers this and I wholeheartedly recommend it to our government.

WHY SUSTAINABILITY IS THE KEY TO EFFECTIVE, INTEGRATED HEALTHCARE

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OUR DISEASE BURDEN

There is a fundamental disconnect between the healthcare needs of individuals in our contemporary society and that which, in the main, is presently being delivered. Derek Wanless, in his 2004 report to the UK Government on the future needs of the National Health Service (NHS), commented that the NHS had become a 'national sickness service' rather than a 'national health service'.[1]

Wanless upheld that the NHS remained medically driven and preoccupied with inpatient services. He also said that the low level of patient engagement in personal health was unsustainable. He proposed three possible models for the reform of healthcare, the most efficient being one in which the individuals are 'fully engaged' in relation to their health. Such a scenario was claimed, amongst other things, to extend life expectancy beyond current forecasts, as well as lead to a dramatic improvement in health status. Aside from this, Wanless' fully engaged scenario was considered the cheapest to implement, and the only one that might be described as sustainable.

It is clear that the overall direction of the NHS has changed little since 2002. Among the multitude of reasons for this is the fact that the primary burden on healthcare is caused by chronic, noncommunicable diseases, notably heart disease, cancer, diabetes, obesity and osteoporosis, all of which are multi-factorial in nature and strongly associated with diet and lifestyle patterns.[2] The World Health Organization (WHO) estimated that mortality, morbidity and disability attributed to the major noncommunicable diseases