

WORKSHOP SUMMARY

The Science and Innovation Framework 2004-2014

Held at the UBS, London on Tuesday 11th October, 2005

Chair: **The Rt Hon the Lord Jenkin of Roding**
Chairman, The Foundation for Science and Technology

Speakers: **John Kingman**
HM Treasury (on behalf of John Healey MP, Financial Secretary, HM Treasury)
Darren Winder
USB

MR. KINGMAN said that the White Paper on the 10-Year Framework had based the need for R&D investment to cope with global competition, on evidence that R&D spend promoted economic growth. The aim was to raise R&D spend from 1.8% of GDP to 2.5%. Government had certain tasks – increasing the investment in public science, encouraging Universities to get closer to business, promoting science in schools and tackling animal rights extremists. But the increase in R&D spend must in practice come from industry itself. It was not obvious that this was happening outside the Defence and Pharmaceutical industries. Why? Did investors view R&D spend negatively? Was it easier for US companies to sell R&D spend to investors than in UK? Were we more short-termist? We certainly needed more obvious triumphs from R&D spend.

MR. WINDER thought the City had little interest in R&D spend either as a Government policy, or in looking at individual companies. The mood of the market at present was to encourage companies to throw off cash to benefit investors, not to encourage long term investment. But he demonstrated that over the 1997-2005 period, investing in R&D intensive companies would have produced better returns than all-share investment. US evidence showed that productivity was linked to R&D spend. The government needed to make their policies and views more widely known.

The following points were made in discussion:

1. Investors found it more attractive to invest in R&D in aggregate, rather than risk it in an individual company or project.
2. Investment was governed by the ratio between debt and equity. If the ratio moved against equity, as it is doing, there would be less incentive to look at long term investment through R&D.
3. It was necessary to look at the relative costs of R&D and product manufacture in considering R&D spend and its significance. Where R&D was large compared with manufacture – e.g. Pharmaceuticals – it would look quite different from R&D in the reverse – e.g. Rolls Royce.
4. Investment was a global market; it would follow companies which showed effective spend of R&D, not R&D spend on its own or as a percentage of a companies expenditure. UK companies needed, therefore, to demonstrate, not that they were spending more than companies in other countries on R&D, but that they were spending it more effectively.
5. Investors were interested in what companies were prepared to tell them about their R&D programmes, and needed to understand what was long term and what was close to sales. But some companies were reluctant to be open about their research, particularly if they feared that they might be giving privileged information which would concern the FSA.
6. The present interest and concern of government for R&D was recognized, but policy had not been consistent in the past, and might change again in the future. How could industry be sure that there would not be future cutbacks? It was only through continuous pressure by industry and scientists that governments of any party could be held to present commitments. It was not enough to rely on the enthusiasm and drive of one or more ministers.
7. Government had learnt the lesson that it could not drive R&D forward by making major investments on its own account – e.g. Concorde – but must create the conditions where industry itself saw benefit in technological advance. A good example might be renewed investment in nuclear energy. Past nuclear programmes had been government led without understanding of commerciality. A new nuclear programme should be led by industry. The Government's job was to create the conditions in which investment was profitable, not invest itself.
8. It was notable how much innovation had come out of the defence industry. The US procurement policies allowed much greater latitude in R&D than did UK policies. Could the Ministry of defence policy, which concentrated narrowly on value for money be too restrictive?

9. It was extremely difficult to see where and how R&D was occurring in companies. For example, banks must invest enormously in improving and updating their IT systems. But did this count as R&D? Where did the figures appear? How did one know where the spend was effective and where not? Again big retailers such as Tesco owed their success largely to innovative IT systems; how was their spend analysed and regarded?
10. R&D was risky. There were bound to be failures. If a national culture was risk averse and not entrepreneurial, R&D would lag other countries. The US culture welcomed risk and the entrepreneurial spirit. It made failure less traumatic, and gave greater benefits for success. Were we moving rapidly enough in the same direction? The CGT change for business development was valuable, as were tax credits, but more needed to be done. The US investment in venture capital was 5 times greater than in the UK. Structural differences might account for some of this, but the cultural difference accounted for still more.
11. The DTI R&D scoreboard, which ranked companies by the ratio of R&D spend to sales, did not capture the whole picture. Nor was it easy to see how it tied in with the value-added scoreboard. More thought needed to be given to metrics for tracking R&D trends.

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