

## **Council for Science and Technology Review of Departmental Science and Innovation Strategies**

This note is an account of our review of the science and innovation strategies drawn up by departments as a result of the policy initiative announced in the Government's 2000 White Paper: "Excellence and Opportunity – a science and innovation policy for the 21<sup>st</sup> century."

### **Background**

In 1998, Sir Robin Nicholson and other members of the Council undertook a short, strategic review of science and technology activity across Government. Sir Robin wrote to you in the summer of 1999 with his report of the group's findings, entitled "Review of S&T Activity across Government" ("the Nicholson report").

Among the recommendations in that report was that departments should take a more forward-looking approach to science and technology and develop strategies to deal with the opportunities, threats and key scientific issues that will need to be addressed in the longer term.

In its initial response of September 1999, the Government accepted this recommendation and agreed that departments with an interest in science and technology should prepare science and innovation strategies for review by the MSG. This was later confirmed in the Implementation Plan. Following the SR2000 cross-cutting review of science and research, it was proposed to Lord Sainsbury by the Chief Secretary that the CST should be involved in the review process to provide an input external to Government.

### **The review process**

As a result, at the end of last year, Lord Sainsbury invited the Council to set up a subgroup to assist in the CST's review of the emerging departmental strategies, and to inform the MSG overview. The members were Sir Chris Evans, John Weston, Dr Rob Margetts, Professor Peter Schuddeboom and me (chair). This is our report.

Over the past few months departments have put considerable effort into developing their science and innovation strategies. By the beginning of the year, work was sufficiently advanced for us to commence our assessment and provide feedback to the departments concerned. We decided that it would be most constructive if the review took the form of a dialogue as most strategies were still under development. As a result of this approach, a lot of the points that we have made have already been accepted and incorporated into later drafts.

In our review work we concentrated largely on the departments with the most significant science interests, namely the Ministry of Defence, Ministry of Agriculture, Fisheries and Food, Department of Environment, Transport and the Regions, Department of Trade and Industry, and the Department of Health. These were the departments that had been the focus of the Council's review of science and technology activity across Government, on account of their significant expenditure in this area, and we were especially keen to follow up their progress. As with our earlier review, we met senior officials in these departments, this time to discuss their strategic approach to the science and technology issues they were facing in the longer term.

We were also able to review strategies from Department of Culture, Media and Sport, Department for International Development, Department for Employment and Education, Health and Safety Executive, Forestry Commission, HM Treasury and Cabinet Office.

### **The assessment criteria**

Our assessment was partly concerned with whether the strategies addressed the key elements set out in the Government's response to the Nicholson report, including the criteria set out in the Implementation Plan. We were also keen to address what we considered to be two major cross-cutting issues. First, did the strategies present a reasonably co-ordinated and coherent picture across Government? Second, were the strategies forward-looking enough to support policy-making in the longer term? The following conclusions are based on these three areas of assessment.

**Key elements in response to the Nicholson report:** Broadly, we feel the strategies satisfied the criteria used in our assessment and gave a good indication of widespread commitment to science and innovation. As far as assessing the strategies against the key elements set out in the response to the Nicholson Report and the criteria in the Implementation Plan, all those we looked at attempted to address these where relevant. While perhaps the most mechanical part of our assessment, we felt it was important that these basic building blocks were in place.

**Co-ordination and coherence:** When we looked at whether the strategies presented a reasonably co-ordinated and coherent picture across Government, our second area of assessment, it was clear that the key elements and the criteria have helped departments to look at activities related to science and technology in a more consistent way and contributed to good practice across Whitehall. For example, there should be no department that is not considering how to deal with technology transfer, programme evaluation or stakeholder dialogue. Through such requirements, I believe that we can feel more confident about the future quality and relevance of research activities and their ability to add value to policymaking and service delivery.

**Longer term view:** As regards our third assessment criterion, ie whether the strategies were forward-looking enough to support policy-making in the longer term, we noted that the process of preparing strategies had prompted several departments to undertake a more thorough review of their science and technology infrastructure and management, and to look carefully at the programmes needed to strengthen the development of policy and delivery of objectives. We see this as a key benefit of the process of strategy development – it helps departments themselves focus on the question of whether their systems are capable of delivering the longer-term thinking which is needed.

### **General observations**

Taking the strategies as a whole, we are broadly content with the work that has been done, both by the departments with a major interest in science and technology and by those with less direct involvement. Indeed, we were favourably impressed by the approach of departments in the latter category, most of which have made an intelligent and objective assessment of their interest in science and technology. In

fact, in a number of cases the strategy development process had revealed a scale of interest arguably much larger than previously assumed, for example, in terms of science being an important driver in related sectors. The very process of developing a strategy has increased awareness and this in itself is very positive for the future.

However, having said this, we still have reservations that departments are not taking a sufficiently long-term approach. The planning horizon in many cases seems to be no more than a few years ahead, whereas we believe departments should be looking over the substantially longer term, say 10, 15 or even 20 years. We would also wish to see a shift in approach to innovation, with more emphasis on it as a desirable policy goal, perhaps through increasing partnership with academia and industry. For example, in one major department innovation tended to occur in isolated pockets, yet we could see much more potential for sharing data and information if only the barriers could be overcome. Finally, we would suggest that all departments need to reflect on their ability to mobilise resources or switch priorities at short notice. Programmes often involve a commitment over many years and we were not convinced that, in another BSE-type crisis, departments would be able to put in train the research in the time scale or on the scale required.

I believe our assessment and comments have been generally useful and well received. Subject to further revision and internal clearances, most of the departments are moving quickly towards publishing their strategies, something that should be welcomed in the interests of openness and informing the widest possible audience.

To conclude, our recommendation to the Ministerial Science Group would be that they should now approve publication of the strategies, subject to any final amendments which may be necessary in order to meet their concerns and our remaining ones, and that for the next round departments should be encouraged to look in more detail at the longer term issues identified above.

Council for Science and Technology  
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