

UK goes for 'generic priorities' in bid to boost science/industry links

London. John Major, Britain's prime minister, has given his endorsement to a set of linked initiatives being launched by various government departments to stimulate technological innovation by building closer links between science and industry.

Speaking at a press conference in London on Monday, Major welcomed the report of the steering committee of the recent Technology Foresight exercise as "the next stage in our science and technology policy".

David Hunt, the minister responsible for science, announced that the government is to provide an extra £40 million (\$64 million) over the next four years — with the expectation that this will be matched by a similar sum from the private sector — to a new fund intended to support collaborative initiatives on priority topics identified by the Foresight programme.

In parallel, the Department of Trade and Industry (DTI), whose spending on research and development has — as the opposition Labour Party gleefully points out — fallen from £900 million in real terms in 1984–85 to £245 million in 1994–95, announced a slight reversal of this trend with an extra £70 million pledged to a variety of moves to promote technological innovation.

The high-profile press conference, attended by five cabinet ministers, was held to launch three separate documents which the government, whose moral and political credibility has recently been taking a severe battering, sees as the cornerstones of its science and technology policy.

The first was the report of the steering committee of the Foresight exercise, which was launched in the 1993 white paper on science, and resulted last month in the publication of the reports of 15 sectoral panels.

Out of 360 detailed recommendations from the panels, the steering group has identified six cross-sectoral strategic priorities. Three focus on the development of new technologies: in communications and computers; in developing new organisms, products and processes from genetics; and in advances in materials science, engineering and technology.

The remaining three priorities are more concerned with ways of exploiting new technologies. They emphasize the need to improve production processes through new technologies such as sensors and automation, to create a 'more sustainable world', and to address the impact of demographic change in creating new markets and ensuring the acceptability of technical change.

Within these strategic themes, the steering group has identified 27 'generic' priori-

ties in science and technology, subsequently grading these according to feasibility and attractiveness. Top of the list come genetic and biomolecular engineering, bioinformatics and 'communication with machines'.

The second document is the so-called *Forward Look*. This has been prepared by the Office of Science and Technology as an overview of the current research and development activities — and future plans — of all government departments. As such, it is intended to be a vehicle by which the government as a

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On target? Major (top) has welcomed efforts by Stewart (right) to focus UK research.

whole can judge the extent to which such plans coincide with its broad political and economic objectives.

Complementing these was a new DTI white paper on industrial competitiveness. Government officials claim that the general philosophy contained in the three documents forms a coherent strategy for ensuring the application of science to wealth creation and enhancing the quality of life without an excessive centralization of power.

In particular, they point out that preliminary findings from the Technology Foresight exercise have already been used by various departments in deciding their future spending plans on research and development.

For example, the distribution of additional funding made available to the six research councils in this year's science budget is already being distributed to topics — such as genome sequencing and 'cognitive engineering' — whose importance has been endorsed by one or more of the Foresight panels.

The trend is expected to increase. One proposal from the steering committee is that both universities and the Higher Education Funding Councils should reflect Foresight priorities in the way they allocate both recurrent and capital expenditure.

"At the end of the day, we have delivered", says Sir William Stewart, the government's chief scientific adviser and, as head of the Office of Science and Technology, one of the architects of both the white paper and Technology Foresight.

Reactions in industry have been mixed. Many, while welcoming the direction in which government policy is pointing, remain cautious until they are able to assess whether the new initiatives will make a significant impact on the thinking of investors and shareholders.

Caution is equally marked in the academic community. There is relief that Technology Foresight has not recommended a full-scale swing towards short-term objectives. The important of strategic priorities is also recognized — while the steering group's endorsement of universities' needs for modern equipment and the protection of long-term thinking is likely to be welcomed.

But there is also an awareness that, without promises of extra funding, greater support for priority areas will inevitably mean less money for those who have greater difficulty in persuading the government that their work contributes to wealth creation. "We must await careful analysis of the details to tell if the 'boosts' announced today are real new money, or repackaged old money," said a statement from the pressure group Save British Science.

Perhaps inevitably, the greatest scepticism has come from the Labour Party. John Battle, the party's science spokesman, points out that the new money being allocated to collaborative research and development efforts is relatively small compared to the cuts in government R&D spending over the previous few years.

Battle also says that, in practice, the degree of harmony between the research plans of government departments is considerably less than the OST claims, and pledges that, if elected, Labour will remedy the situation with its own plans for greater co-ordination.

But the government remains convinced that it is on the right track. "The Technology Foresight exercise in the United Kingdom is seen as a trailblazer across the world," said Hunt on Monday. A further report on the programme's progress will be published at the end of the year.

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