

SCIENCE AND TECHNOLOGY PROGRAM - UNITED KINGDOM

the life sciences and the physical sciences. On allocating this new funding, the government set itself two targets: to maintain the 'excellence and relevance' of the science and engineering base (SEB), as measured by agreed international standards; and to increase, by 50%, the number of 'spin-out' companies established annually from publicly-funded science. They also called for a 'transparency review' of the dual-support system, to ensure universities become more accountable for their research spending and this is currently in progress.

Examples of other measures in the CSR include: an increase of 20%, over 3 years, to £230 million in the DTI's Innovation Budget to help promote collaboration between industry and the science base; an increase of 8% to £170 million, to the Department of the Environment, Transport and the Regions to support research to underpin a more integrated transport system better able to tackle the problems of congestion and pollution; extra funding for the Department for International Development to provide over £1 million annually towards developing vaccines for infectious diseases such as malaria and HIV in third world countries; helping to tackle health inequalities as part of the Department of Health's £70 million research programme; and research within the Home Office to focus on new ways of supporting policing and crime reduction.

Exploitation of the science base

The UK is recognised for having an excellent science base, however, the problem in Britain is transferring the results of that science to the marketplace. The Government's December 1998 White Paper, *Our Competitive Future - Building the Knowledge-Driven Economy*, illustrated the important role that scientific and technological knowledge has in driving forward the nation's capacity for innovation and enterprise, and highlighted the need for a fundamental change in the UK's climate for innovation. There are a number of well established programmes in the UK designed to tackle the issue of knowledge transfer and partnerships between academia and industry, which continue to receive increased levels of government funding, e.g. the LINK collaborative research programme, the Teaching Company Scheme, and the Network of Faraday Partnerships. However, the White Paper introduced several new mechanisms for supporting innovation, for example: a £50 million University Challenge Fund to provide seed funds to assist with the successful transformation of good research into good business; a £25 million Science Enterprise Challenge to establish eight centres within universities for fostering the commercialisation of research and for incorporating the teaching of enterprise into the science and engineering curricula (in addition to the Cambridge University-MIT partnership); and a £50m Higher Education Reach Out to Business and the Community (HEROBIC) Fund to provide a third-leg of funding to award those universities that are already working with industry. The Treasury have also commissioned a study into the commercialisation of research outputs from Government's public-sector research establishments, and the DTI are currently questioning whether the Research Assessment Exercise is still the most efficient way to finance universities to produce the kind of scientific research that can be developed commercially to benefit the economy.

In addition to this 'university-push' side of the partnering equation, the government is also working with businesses to encourage 'industry-pull' and to promote technology transfer and the uptake of best-practice. Technology diffusion is driven within SMEs through schemes such as the Information Society Initiative and BioWise, and R&D is encouraged through SMART awards and new tax incentives (to be introduced from April 2000). New measures to promote *Clusters* which create a critical mass of growth, collaboration between the business and scientific community, competition and opportunities for investment are also currently being investigated.