Large firms 'benefit most from EC grants'

Paris. The assumption that small companies are more innovative than big ones is challenged in an independent evaluation of the European Community's BRITE-EURAM research programme which has been carried out by the Bureau d'Economie Théorique et Appliquée (BETA) of Strasbourg.

The assessment looked at 176 companies and research organizations that took part in the programme, which provides support for research into innovative industrial technologies. It concluded that they expect to generate Ecu 413 million (US$480 million) in product sales or cost reductions from the Ecu 39.4 million of research funding they have received. The evaluation also says that technology transfer, increased training and other "indirect" benefits will generate a further Ecu 132.2 million.

The BRITE-EURAM programme is only open to research projects involving at least two partners. Companies that paired up with basic research laboratories generated product sales and cost reductions estimated at five times the amount of funds they injected into a project, according to the report.

Marc-Jacques Ledoux, who led the study, says that this result contradicts theories which argue in favour of cutting public funding of fundamental research in order to benefit applied research. Such theories, he says, are based on the "nonsense" that basic research only creates revolutionary and not incremental innovation.

But the report also finds a big difference in the value of BRITE-EURAM projects to firms of different size. Big firms generated Ecu 25.3 in product sales and cost savings from every Ecu of public funding; in contrast, small firms generated only 2 Ecu.

Ledoux says this result reflects that fact that small companies often lack the cash to develop and sell new products arising from their research. Big companies also enjoy the advantage, he says, of having all the competencies needed under one roof. Consortia of small companies did much better, for example, when they developed their own system of vertical integration by bringing together firms involved in research, product-development, and product-use.

According to the report, Britain earned almost twice as much per Ecu for its investment in BRITE-EURAM projects than Germany, six times more than France, and twenty times more than Italy.

One of the more surprising aspect of the report is that BRITE-EURAM has already produced economic benefits for participating companies. Community funding rules specify that research must be "precompetitive" — far enough from the market to allow companies to share results without swapping trade secrets. Ledoux says that the notion of precompetitive research stems from an obsolete linear model of innovation.

A separate evaluation of the BRITE-EURAM programme, by the Programme of Policy Research in Engineering, Science and Technology (PREST) in Manchester, arrives at similar conclusions. Neville Reeves, who took part in the evaluation, says this is one reason that demand for BRITE-EURAM funding is outstripping supply. "If available money is likely to produce near term benefits then demand will go up and up and up."

Declan Butler

BIG FIRMS DO BETTER

Parameters	Big	SME
Number of firms	75	38
Ratio of direct effects[1]/EC funding	**25.3** (503.7)	**2** (17.9)
Ratio of indirect effects[2]/EC funding	**5.45** (108.5)	**2.75** (24.9)

SME = Small and Medium Enterprises
[1]direct effects = sales/cost reduction
[2]indirect effects = technology transfer/improved networks, reputation, organization, etc/training
Figures in parentheses are for total MECU

Biological survey needs more support

Washington. The National Biological Survey (NBS) set up in August by Bruce Babbitt, the Secretary of the Interior, lacks sufficient means to meet its goal of assessing every ecosystem in the United States, according to a report published this week by the National Research Council (NRC).

The report says that achieving this goal will require greater coordination of the biological research carried out in various agencies throughout the country.

The NBS is intended to bring together the biological research and survey work scattered throughout the Interior Department, and in particular that carried out by the Bureau of Land Management, the National Park Service and the US Fish and Wildlife Service (see *Nature*, **364**, 751; 1993).

Babbitt wants the survey to provide decision makers with better information and techniques to manage the nation's biological resources. He also sees it as a way of averting clashes such as those between environmentalists and the timber industry over the fate of the northern spotted owl in the Pacific Northwest.

The NRC report says that the survey is an important first step in this direction. But it argues that the NBS alone cannot muster the research and information resources needed to fulfil its goal of compiling an inventory of every ecosystem in the United States.

The report recommends that the Department of Interior set up an accompanying programme to stimulate and coordinate biological research carried out by federal and state agencies, museums, academic institutions and non-governmental organisations. It says that this "National Partnership for Biological Survey" — which the NBS would lead — must be "science-driven".

One of the main functions of the partnership would be to provide information suitable for use by government regulators, legislator, planners and resource managers. The report recommends that the NBS abandon the idea of creating a large central database to hold such data. Instead it recommends that the partnership should link new and existing databases throughout the country, through standard interfaces such as Internet.

The report also says that the number of staff transferred to the NBS from within the Department of the Interior will not meet needs. It says NBS will need to hire more botanists, ecologists, invertebrate zoologists, population biologists, information scientists, social scientists, statisticians and taxonomists.

Diane Gershon

Stanford wins in bid for B factory

Washington. A high–energy facility known as the B factory, designed to produce large quantities of B mesons through collisions between electrons and positrons, should be built at the Stanford Linear Accelerator Center (SLAC) in California, President Clinton has announced. SLAC won out against New York's Cornell University in a fierce contest to host the $170 million facility. Despite a detailed technical assessment carried out during the summer by an independent panel chaired by Stanley Kowalski of Massachussetts Intistute of Technology, the decisive factor in the choice was almost certainly political (*Nature* **364**, 7; 1993).

Clinton announced the decision at a San Francisco press conference on his plans to bolster California's moribund economy. Now that a site has been selected, Congress must decide whether to appropriate money for the project in the coming financial year. A conference between the House and Senate is expected to do this within days: the same conference will determine the fate of two other contentious research programmes, the Superconducting Super Collider and the Integral Fast Reactor.

Colin Macilwain