

Technology dodging the cuts

"THIS is a changed culture compared to 20 years ago," says Juhani Kuusi, director general of Finland's Technology Development Centre (TEKES). "Finland has had a very humanistic tradition and we are young in technology; but all that is changing very fast."

Official statistics confirm the change. The share of high-technology products in the nation's exports rose from 4 per cent in 1980 to 15 per cent last year. Much of the credit for this is claimed by the two agencies that have been responsible for boosting technical research during this period: TEKES, set up in 1983 to lead the nation's technology strategy, and the Technical Research Centre (VTT), the largest research centre of its type in the Nordic countries.

Both agencies bear witness to the government's past commitment to creating a national technology policy, but are now having to adapt to a harsher economic and political climate.

VTT is the older of the two. Established more than 50 years ago as a testing facility for the nearby Helsinki University of Technology, VTT is responsible for carrying out technical research, both on its own initiative and increasingly under contract to private industry, in areas ranging from the processing of forest products to molecular electronics. VTT grew rapidly in the 1970s and 1980s, with its research budget (and personnel) doubling in each of these two decades. It now has a budget of Fmk950 million (£130 million) financed partly by the government and partly by contract research raised from private industry. Its 2,700 staff members, 55 per cent of whom hold university degrees, now work in 34 separate laboratories; most of these are still based in Espoo, but others are distributed in major cities throughout the country.

The period of growth has now come to an end. Staff numbers are already being cut as a result of a government decision to reduce the number of public sector employees. Contract research funding from private industry is becoming scarcer as a result of the recession. And VTT expects a cut in its government grant for next year.

Despite this, VTT director general Markku Mannerkoski is determined to remain optimistic. "We need to adapt to a new situation," he says. "The recession serves to provide further incentive for streamlining our activities and making further efforts." In practice, that means that private industry is likely to be invited to take a more active role in determining the content of research programmes at VTT. "If industrial enterprises become interested in participating in strategic

research and technology programmes to advance generic technologies, that means more commitment from industry to these programmes."

TEKES faces an equally daunting task in adapting to the new climate. So far, it has avoided major budget cuts. While basic research funded through the Finnish Academy and the universities is being reduced in line with general reductions in public spending, TEKES has persuaded the government to give it a 10 per cent



TEKES director Juhani Kuusi: "The big challenge will be how to get back the money we will be paying into the Framework programme".

increase next year.

The decision reflects the important role that TEKES now plays in supporting research projects in private industry. When the agency was set up in 1983, it was given responsibility for 12 broad-based government-led programmes covering familiar generic technology areas such as biotechnology and information technology. On their completion,

however, many of these programmes were criticized for failing to produce results which were of immediate interest to Finnish industry.

The emphasis of TEKES's activities has now shifted to include more direct funding of R&D projects within industrial enterprises — two-thirds of last year's budget of Fmk862 million was spent in this way — and giving industry greater control of individual technology programmes.

The second reason why TEKES remains central to the government's strategy is the role it has played in stimulating and coordinating research projects between Finnish scientists and those in other European countries, for example through EUREKA and the various programmes of the European Commission such as ESPRIT and RACE.

In 1991, for example, Fmk145 million out of TEKES's total budget was spent supporting such projects. TEKES is also responsible for a worldwide network of industrial attachés in its foreign embassies. "Our achievement has been the internationalization of Finnish technology," says Kuusi.

This task will increase in importance if, as expected, Finland becomes a full member of the European Commission's Framework programme next year, meaning that it will no longer be able to subscribe to projects on an individual basis, but will have to compete for funding from a central pool. □

Opposition confounds nuclear policy

COULD Finland become the first country to abandon its nuclear power programme through a political accident? This may yet be the consequence of a surprise vote in Parliament last month, in which the deputies agreed that nuclear power should not play any role in the country's future energy strategy.

The script was not meant to go like that. The government's plans were that the key vote on the future of nuclear power in Finland would be based on the application it received last year from power companies to build the nation's fifth 1,000 MW nuclear power plant. Although the licensing decision is the responsibility of the cabinet — which has already delayed any decision for 18 months — under Finnish law any such decision has to be ratified by Parliament.

But the whole process has now been overtaken by events. When Parliament debated a separate report on energy strategy produced by a parliamentary committee, a series of amendments were presented. One of these, from an opposition member, suggested that the nuclear

option should be abandoned. And, on a free vote, the amendment was adopted.

Party officials were taken by surprise. With ten separate parties in the Parliament — five forming the coalition government and the five others in opposition — confusion on a free vote was perhaps inevitable.

The whole issue is now in abeyance while the government decides what to do next. The delay has been widely welcomed by the country's growing anti-nuclear movement, but the nuclear industry is dismayed.

"The situation is quite a mess at the moment, and we have decided to wait and see what happens," says Anti Rooskannin, a spokesman for Imatran Voima (IVO), the country's leading producer of electricity, which has already compiled a short-list of six potential sites for the fifth reactor. The company had been confidently expecting the go-ahead. "Now we would prefer to wait for a positive decision, even if it takes time, rather than face a rapid negative one?" says Rooskannin. □