UK computing

Prospects good and bad

By the United Kingdom's own rather sad standards, computing research in universities is doing relatively well. Sir Keith Joseph, Secretary of State for Education and Science, this month gave the Computer Board for Universities and Research Councils an extra £1 million for 1986-87, to be followed by £2 million for each of the next two years, to enhance Janet, the wide area network that will connect computers in all universities, research council sites and polytechnics. Although the demand by researchers for computing facilities far exceeds resources, the Computer Board continues to make a relatively successful case to the government for increased support, most recently in its three-yearly report (see below).

In the private sector, computer companies themselves are finding life difficult, but the manufacturing industries are greatly increasing their use of computers. A survey of more than 2,000 engineering companies, sponsored by the Department of Trade and Industry and published this week*, shows that nearly 60 per cent of

UK engineering plants are using or are about to use computers. In 1986, the industry plans to spend £250 million on software and £600 million on hardware, mainly on minicomputers and mainframe computers rather than micros. John Butcher, Under Secretary of State for Industry, says that the United Kingdom may be leading Europe in the uptake of computers for engineering purposes, "although European data are hard to come by".

The most widely used applications of computers in industry are in manufacturing management and mechanical design, although computer-aided design and draughting are the fastest-growing applications. The top-selling microcomputers are IBM personal computers, XTs and ATs; Apricot is a poor second with only half as many installations as IBM.

IBM is the largest manufacturer of computers in the United Kingdom, and, according to a forecast published last week*, although the company's activities contribute to import savings, UK computer companies are growing too slowly. "The prospects for ICL [Britain's nationalized computing company] are less clear now that the government has largely abandoned its 'buy British' policy and the outlook for small computer companies is extremely volatile", according to Cambridge Econometrics' model. The deficit on the balance of payments for office machinery and electronic data-processing equipment rose from £200 million to £1,100 million between 1980 and 1983 (current prices).

Cambridge Econometrics expects industry's investment in computing equipment and export demand to increase by 4 per cent per year for the next 10 years; by the end of the century, the demand for office machines and data-processing equipment will still be the highest for all manufacturing industry in Britain. But British companies are unlikely to be taking advantage of these opportunities.

The study suggests that new domestic and foreign entries to UK production during the next few years may improve the viability of the industry, but it says that "we do not see enough evidence at the moment to build such hopes into our central forecast". Large companies at present involved in other areas of electronics, particularly military applications, could enter the civilian computer market, or more foreign companies could locate European production centres in Britain. But these remain hopes rather than predictions.

Maxine Clarke

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UK space centre

Space programme coordinated

BRITAIN last week re-entered the international space arena with the announcement of its National Space Centre (NSC), to be based in London. The first director general of the centre is Roy Gibson, who was also the first director of the European Space Agency (ESA), for a three-year period. NSC's initial budget is £100 million a year, or about one-fifth of the French government's space budget.

The purpose of the centre, a concept that the Minister for Industry Geoffrey Pattie has taken the lead in promoting, is to coordinate Britain's fragmented space programme, which at present includes projects sponsored by the Department of Trade and Industry (DTI), Ministry of Defence (MoD), Science and Engineering Research Council (SERC) and Natural Environment Research Council (NERC). But "no change in policy" has occurred with respect to ESA; NSC is intended to make Britain's contribution "more efficient".

The first task for NSC is to develop a long-term strategy for Britain's space effort by coordination of industrial, defence and scientific users of space, who will be able to influence the policy of the centre by "financial and in-kind contributions". NSC's first projects will be based at the Royal Aircraft Establishment, Farnborough (where DTI and MoD already have programmes) and at SERC's Rutherford Appleton Laboratory, the present focus of the academic space programme in Britain.

Professor Bill Mitchell, chairman of SERC, welcomed the formation of NSC last week on behalf of SERC and NERC. The main interests of the research councils are astronomy from outside the atmosphere and remote sensing. SERC, NERC and DTI already collaborate on the latter.

The centre will not be involved in the US Strategic Defensive Initiative "at this stage" — the largest proposals with which it is at present concerned are whether, as a member of ESA, to take part in the US space station planned for the 1990s and whether to support the development of the novel reusable launch vehicle *Hotol* in collaboration with the private sector.

Britain pulled out of Europa, its collaborative space venture with France and Germany, 25 years ago. Since the failure of that project, France has taken the lead in the development of Ariane, now a commercial competitor of the US space shuttle. Although Britain's effort has a long way to go before catching up with other countries with space programmes — not only France and the United States, but also Japan, West Germany, Italy and India — the creation of NSC is a step in the right direction.

Maxine Clarke

UK board reports

THE report of the UK Computer Board for Universities and Research Councils, published this month (Cmd 9671, HMSO, £3.30), covers the period April 1983 to March 1985. During this time, the board was mainly concerned with supporting local computing facilities for research and teaching in universities, supporting national facilities and promoting the efficient sharing of resources. The most important developments were the extension of supercomputing facilities in the two national centres and the development of Janet, the wide area network connecting all research establishments. The board has also taken a lead in developing standards and encouraging the use of computers for teaching in universities. Reappraisal of some of its methods has been caused by its observations of developments in the United States and Japan.

During the next few years, the board will re-examine its relationship with the University Grants Committee (UGC) and will assess its priorities for what it sees as the two ends of a spectrum — supercomputers for the specialized research user and workstations for the undergraduate user.

A joint working party with UGC and the Advisory Board for the Research Councils has set up two subgroups; one, chaired by Professor A. MacFarlane (Cambridge) will examine the scientific need for advanced computing facilities and the other, chaired by Professor E. Spratt (Kent) will examine technical options for meeting that need, particularly in collaboration with industry.

Maxine Clarke