The decision by the Commission of the EC to adopt integrated services digital network (ISDN) as the basis of a future EC telecommunications-information network also opens up numerous opportunities for new software and integrated systems development.

## **EC Policy and Programs**

The two major EC programs for information technologies are RACE and ESPRIT. Their combined five-year budgets are \$3.2 billion. When the matching private sector contributions are included the two programs involve \$6.4 billion.

The main thrust of the RACE initiative is to develop the next generation in telecommunications infrastructure. It has also sought to develop and harmonize standards for an ISDN, digital mobile communications and future broadband communications. And it is promoting Europe-wide open standards for terminals and equipment.

ESPRIT is focusing on microelectronics technologies. Its projects involve transnational cooperative ventures that include firms and government or academic research labs.

EFTA countries have been granted limited involvement in a number of the EC technological programs. Whether non-European firms will be eligible for ESPRIT or RACE grants is not altogether clear, but the minimum eligibility criteria requires having an EC subsidiary or subcontracting to an EC consortium member.

## Outlook

The year 1990 was difficult for the EC information technologies sector, but analysts believe that the market may pick up in 1991. In 1990, dramatic changes in costs and technology drove marketing costs skyward, while

demand for information technology products in Europe and the U.S. declined as a result of recessions in the U.K. and the U.S., and because large customers were trying to cut back on the amount they spent on information technology.

The sectors most likely to do well are personal computers, particularly laptops, and those technologies that can improve the productivity of existing systems. The computer industry is looking to a combination of new software, new markets and lower prices to regain customers.

Many information technology suppliers are seeking new and more profitable ventures. There is a good deal of potential in ISDN and high-definition television. As the decade progresses, more companies seem likely to turn to facilities managers as a way of cutting data processing costs. Such companies accept a fee for managing all of a company's data processing or communications activities.

Opportunities for Canadian firms in the EC are more likely to take the form of establishing a presence instead of arms-length trade. For larger firms this may mean acquisitions or greenfield investments. For example, Northern Telecom has established a number of operations in Europe, including the U.K., Ireland, Germany, Holland, France and Switzerland. DMR has acquired firms in Belgium and Holland, while Memotec has bought one in Belgium.

Small- and medium-sized Canadian firms will also have to develop multinational capabilities if they want to address an EC-wide market. A few, such as GEAC, have establishments in Europe, but, for many, strategic alliances will supply a more economical route.