TECHNOLOGY STRENGTHS

The catalytic role of the E.C. has been very successful in correcting the attitudes of Europeans - they do today work together - and are rapidly improving the R&D situation. Recognizing that rapid improvement and with the perspective of the large industrial market of 1992, interest has clearly been shown by the United States and Japan to work closer to Europe - even though in sectors such as information technologies, Europe is still behind its competitors. Europe is however a leader in fundamental research, especially today in the sector of thermonuclear fusion and all technologies related to nuclear research.

KEY ORGANIZATIONS

Most research funded by the E.C. is contracted out to industry, universities and member states' government laboratories on a 50/50 basis.

The Community also has intra-mural research conducted at the four facilities across Europe regrouped in the *Joint Research Centre (JRC)*. It was reorganized in July 1989 and divided into research institutes reflecting new trends but also more clearly responding to the E.C. role of establishing standards and covering safety aspects. This establishment has over 2000 scientists and works partly on a cost recovery basis. The main Institutes of the JRC are Environment, Remote Sensing, Nuclear Research (fission and fusion, including management of radioactive waste), Advanced Materials, a Bureau of Reference and Telecommunications/ Information Technology.

In addition to the JRC and the Framework Program of R&D where most of the research is done, the E.C. has training programs such as COMETT and ERASMUS, has demonstration programs such as THERMIE, and has a regional policy which provides funding for regional development such as installation of telecommunications equipment through the STAR program.

The E.C. is also an active member in the EUREKA initiative which has engaged 6.4 billion ECUS for research work.

The E.C. is also an active member of the COST which stands for Cooperation in Sciences and Technology. The COST structure regroups the twelve E.C. member states plus Norway, Sweden, Finland to provide a framework for specific projects in which all these countries are free to participate.

KEY SUPPORT PROGRAMS

Existing programs and the new programs (under the new Framework Program for 1990-1994) are organized under specific themes.

FIRST THEME: ENABLING TECHNOLOGIES
Information Technology and Telecommunications

Information Technology (I.T.)

ESPRIT: (Strategic European Research Program in Information Technologies)
The program has a budget of 1.6 billion ECUS for the period of 1989-1993. ESPRIT was launched in 1984 and carried out 277 joint projects, more than half of which resulted in industrial applications. The second phase ESPRIT II will remain on precompetitive research, but the emphasis will be placed on demonstration activities for the preparation and validation of standards and for integration of I.T. It will also deal with basic research, especially in cognitive sciences.

Telecommunications

RACE: (Research in Advanced Communications for Europe)
Its aim is to develop technologies and standards needed for the future broadband integrated network - with a budget of 550 million ECUS (over C$700 million) for the 1987-1991 period. It will