



Telefónica I+D.
Researching to build the
future.

meet various communications requirements, such as connections with the Canary Islands, business networks and VSAT networks. It will also facilitate a prompt response to special events and will be an efficient tool for restoring traffic in cases of emergency.

Also during last year, we started negotiations in order to finalize investment agreements in a number of other projects, among them:

- * 10% holding option in Mercury Personal Communications Network Ltd.. In December of last year, this consortium obtained one of the three operating licenses for the Personal Mobile Telephone service in the United Kingdom.

- * A holding in the Chilean Company, CTC, which supplies local telephone services in Chile. This operation was completed in April, 1990.

- * The creation of a computer software company, subject to the agreements signed with the Ministry of Industry and Energy. Telefónica will contribute to this venture the software activities developed by its affiliate ENTEL, while the INI (National Institute of Industry) will offer those of ERIA.

International Relations

Throughout the year, Telefónica continued to cooperate with other public network operators. Agreements were reached with TELEVERKET of Sweden and PTT TELECOM

of the Netherlands, as well as with the North American operator, US WEST.

During the year, together with our affiliates, we also increased our presence in the European Community by taking part in various projects within the following EC programmes: RACE (18 projects), ESPRIT (10 projects), CTS-2 (3 projects), DRIVE (2 projects), AIM

(2 projects) and DELTA (1 project). Telefónica also set up an office in Brussels, which will act as our permanent representative to the European Community entities.

Finally, we should mention Telefónica's participation in several European memorandums of understanding for the coordinated introduction of networks and services.

1989 was a year of consolidation for our subsidiary company, Telefónica I+D, in which the company defined its technological direction and inaugurated the new intelligent building, from where it will carry out research and development activities. With an area of 21,000 square metres, 13,000 of which are designed for laboratory use, the new Telefónica I+D headquarters is equipped with the latest technologies. Of particular note, is the advanced communications system (with a local 40 MHz broadband network) and the 50 MIPS computing centre with over 600 users. At 1989 year-end, there was a staff of 500 employed by this affiliate to perform the various activities in the new research and development centre.

During 1989, the company completed the hardware development of the TESYS-B packet switching system together with the soft-

ware corresponding to the first delivery, programmed for 1990.

As regards the operations and maintenance structure (EOC), which is a systems package for telephone network management and operations, activities commenced in preparation for an initial trial in real plant during 1990. This trial will cover all network operations and maintenance in the province of Guadalajara. Telefónica I+D also carried on its activities in the field of speech technology, began developing a Broadband Communications experimental network and initiated a new line of work aimed at identifying ISDN services, which will open up fresh business opportunities for both users and Telefónica.

One final note, Telefónica I+D placed special emphasis on developing tools for network planning and increased its participation in advanced EC projects.

Research and development