network in the province of Almería, with special emphasis on the development of a distinctive tourist model.

Telefónica also signed cooperation agreements with the Autonomous Communities of Asturias, the Basque Country and Valencia for the installation of advanced telecommunications infrastructures in their respective technological parks, while at the same time we continued to cooperate with the Communities of Castilla-León, Murcia and Catalonia in coordinating the development of advanced communications networks in these regional areas.

Business communications and new services

IBERPAC

The Iberpac packet-switching network continued its rate of development during 1989, with the commissioning of 50 new centres and almost 15,000 new applications for connection. There was a 41% increase in network capacity, with 98,371 ports for all types of user connections and 223 network centres. All the extensions were carried out on the Iberpac X.25 network which carries internationally standardized protocols.

At year-end there were over 55,000 connections to the Iberpac network, 22.5% more than the previous year. At the same time, international access was extended from the Iberpac network to 108 public networks in 61 countries.

Iberpac also supports a variety of new data communications services, such as the X.28 service (with a network capacity of 13,400 terminals), the X.32 first class, high capacity service and the Electronic Transfer of Funds and Ibertex services.

IBERCOM

During 1989, the growth in the Ibercom service continued, with 145,888 lines connected by the end of the year, representing an increase of 111.7%.

As for subscriber numbers, client figures reached 350, which was more than double the figure recorded at the end of 1988.

At year-end, there were 54 Ibercom front-end centres, supplying a potential capacity of 350,000 lines, with coverage extending throughout almost the whole of Spain.

IBERMIC

In 1989, more new Ibermic centres were set up, with particular emphasis on medium and high-speed user connections. Installations

were carried out in over 130 Ibermic centres and local access loops installed for the formation of optical fibre circuits from the customer's own building. Particularly significant was the creation of the Madrid-Sol access loop, which is now being allocated to users. Work also proceeded on the setting up of new 64Kbit/s circuits and other higher speeds.

ELECTRONIC FUNDS TRANSFER

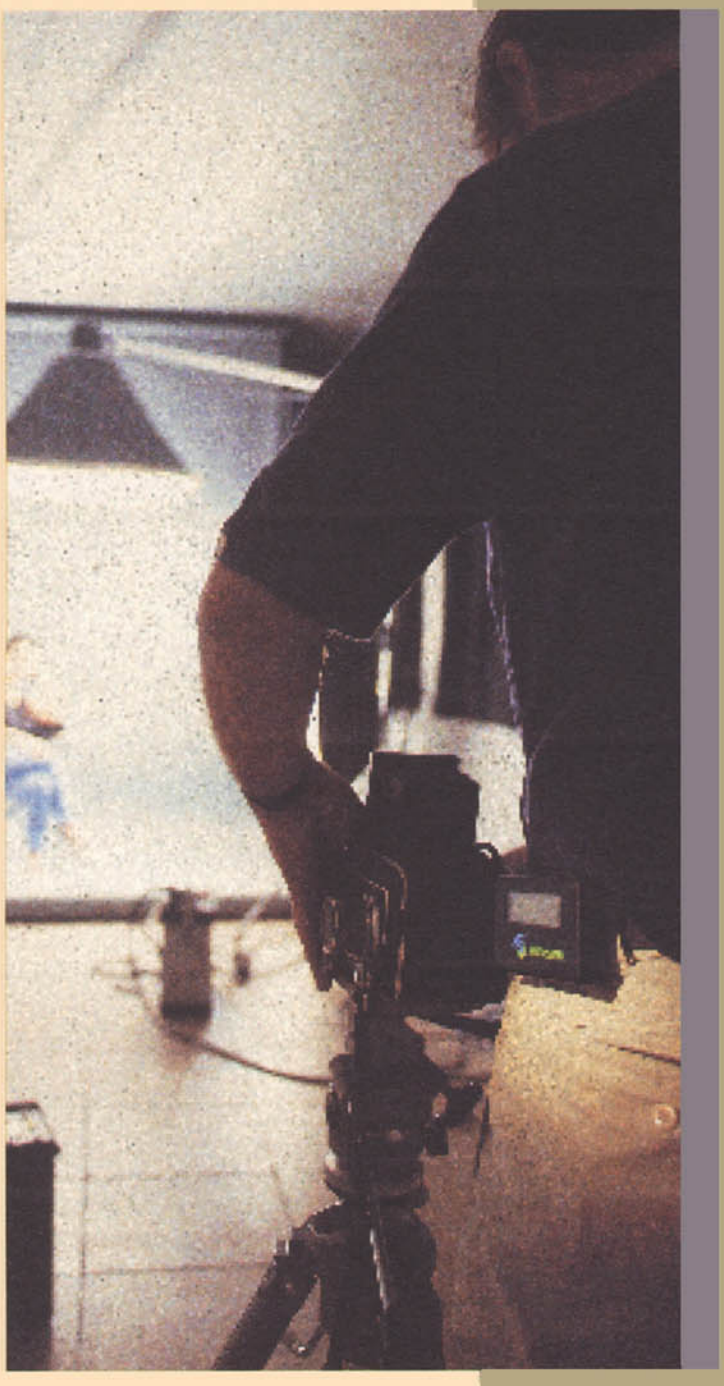
During 1989, the Dataphone Electronic Transfer of Funds service saw a two-fold increase in the number of terminals connected. There were approximately 129,000 terminals by the year-end, performing an average of 7 million credit card transactions per month.

SATELLITE COMMUNICATIONS

1989 saw the commissioning of a VSAT network for the EFE press agency covering Europe and South America and the first 2Mbit/s digital circuit between Spain and Germany via EUTELSAT. In addition, there were 7 new earth stations for television services, 3 for domestic telephony, 2 for special events and rented circuits and 12 for extending the SER radio broadcasting company network.

UNDERWATER OPTICAL COMMUNICATIONS

Last year witnessed the launching of a new, underwater, optical fibre cable in the Telefónica network (Penbal III) linking the Spanish Peninsula and the Balearic Islands.



Mensatel. Messages reaching anywhere. At any time.

We anticipate a major increase in the availability of these systems for both domestic and international usage. Some of the projects underway, due for launching in 1990, include the following systems: Pencan IV (Canary Islands-Spanish Peninsula), Penbal IV (Valencia-Ibiza-Palma), Trascan II (Gran Canaria-Fuerteventura-Lanzarote) and Almería-Melilla. In all, these systems will increase Telefonica's underwater plant by 2,180 kms. In addition, Telefónica is also taking part in several international joint ventures, due for launching in 1991. These include the Spain-UK 4, MAT-2 (Estepona-Mallorca-Palermo) and TAT-9 (Europe-North America) cables.

INTEGRATED SERVICES DIGITAL NETWORK

In 1989, Telefónica began the experimental phase of the Narrowband ISDN, with the installation in the Castellana and Santo Domingo exchanges in Madrid. Marketing is due to commence in 1991 on an initial low-capacity network, which will enable us to offer ISDN services in several market segments and will gradually expand in the coming years in line with demand.

INTELLIGENT NETWORK SERVICES

The Automatic Reverse Charge 900 service was firmly established in 1989 as an efficient tool for telemarketing and promotion campaigns. At year-end, there were 977 clients connected to the service, representing an increase of over 122% with respect to 1988.

During 1989, the 900 service was extended to provide international coverage and agreements were signed to this end with France, the United Kingdom, the Netherlands, Sweden, Portugal and Japan.

Agreements were also signed concerning the supply of an intelligent network which will give access, from 1991 onwards, to a range of new services currently unavailable in the network. These include advanced automatic reverse charge calling, televoting (mass call handling), personal telephony, credit calls and special charging.

TELEFAX

Once again, in 1989, there was a tremendous rise in the demand for Telefax service, with users totalling 99,242 by December 1989, that is 85% more than at the end of the previous year. We expect these growth trends to continue, as they are doing in most of the neighbouring countries.

SUPPLEMENTARY TELEPHONE SERVICES (STS)

Along with basic telephone services, Telefónica now offers a host of supplementary facilities from its new digital switching exchanges. At 1989 year-end, there were 37,337 users between the following different supplementary telephone services:

*Call waiting *Conference calls *Pre-programmed dialling *Call rerouting *Abbreviated dialling *Detailed information services *Multifrequency dialling *Remote call charge meters *Line hunting.

IBERTEX

Throughout 1989, we continued to open 031 access to the Ibertex service. By year-end almost all Spain's provinces had access and prospects for consolidating and expanding the service looked healthy.

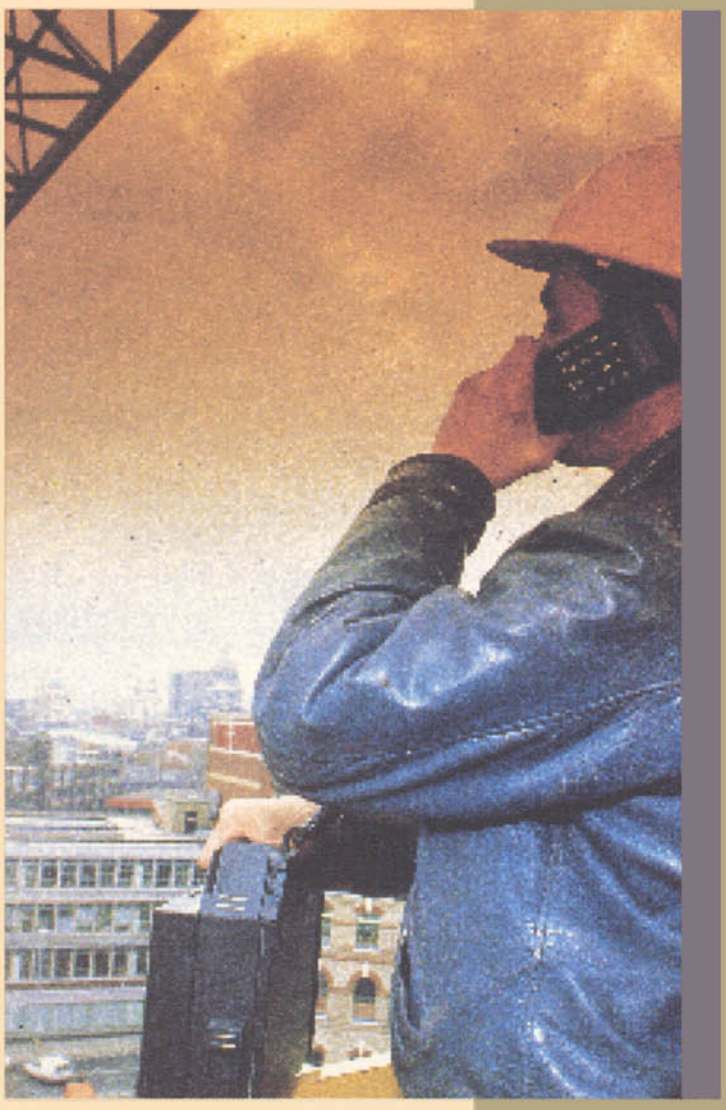
TERMINALS

During 1989 the supply of main rented telephone sets was reduced to just one model, the TEIDE. At the same time, the range of supplementary and complementary telephone equipment available for purchase was expanded and marketing of modems for the switched telephone network continued, in preparation for the liberalization of this terminal market which took place at the end of the year.

MOBILE COMMUNICATIONS

Mobile communications are proving to be one of the major growth sectors worldwide. Telefónica is determined to take full advantage of this business opportunity by providing the appropiate high-tech, reliable solutions to our customers.

In 1989, our Automatic Mobile Telephony service (TMA) continued on an upward trend, increasing by 156% to reach 29,783 users by the end of the year. The existing TMA 450 MHz network was extended to 46 provinces with a potential network capacity of around 45,000 users. In December, construction began on the infrastructure for the support of



Mobile Telephony.
The telephone leaves home.

the new TMA 900A system. From 1990, this system will offer new mobile options and increase network capacities in areas of high demand. This will give a substantial boost to our mobile service, while development continues, in conjunction with other European operators, of the new cellular Pan-European GSM-900 system.

During the year, marketing commenced of a new radiomessage service called Mensatel, which we believe will compete aggressively in this dynamic mobile services segment.

We should also mention Telefónica's participation during the year in the European negotiations for two Memorandums of Understanding (MOU) for the coordinated introduction of the Telepoint service in 1991 and the Pan-European radiomessage service (ERMES) in 1992.

PUBLIC TELEPHONY

In 1989, the number of public telephone booths reached 40,607, representing an increase of 1,183 compared to the end of 1988. Preparations also went ahead for the introduction of the "Modular Telephone Set" in 1990, which will accept both coins and electronic phone cards.

VALUE ADDED SERVICES

Telefónica's affiliate, Telefónica Servicios TS1, founded at the end of 1988, implemented the following new services in 1989: Electronic Mail (Mensatex), Voice Mail (Mensavoz), International Corporate Communications (Infonet), Electronic Data Interchange (EDI) and the development of the commercial channels of the Mensatel radiopaging and radiomessage service.

In 1989, CETESA, another affiliated company concerned with the publication of telephone directories, launched the Electronic Yellow Pages, which open up vast new horizons in the field of electronic publishing and distribution of information.

VIDEOCONFERENCING

In 1989, the Videoconferencing service was introduced in six of Spain's major cities, with international connections to the United Kingdom, Finland, Switzerland and Germany. In 1990, we plan to extend coverage both in Spain and abroad in order to boost service sales.

ONE-STOP-SHOPPING

In order to meet the needs of international telecommunications users with network requirements in various countries, Telefónica signed a memorandum of understanding with 17 other European operators for the creation of a new One-Stop-Shopping service. With this service, the customer deals with one services supplier who acts on his behalf in various countries with no additional charges to the tariffs in force. Pre-purchase information, customized design of network requirements, repair and maintenance control in just one country, are some of the facilities which this new service will offer.