Innovation

Servicio FonoM@il

*Telefónica I+D, with its technological innovation projects,
provides services to all the Group's companies,
such as, in this case, the "Fonom@il Service"
for Telefónica de España*

Increased competitiveness

Telefónica I+D is the most important private company devoted to research and development in Spain. Its national and international activities are aimed mainly at helping to increase the competitiveness of the Telefónica Group and to create value for Group customers. It is formed by 1,208 technology experts and scientists qualified in the fields of telecommunications and computer technology.
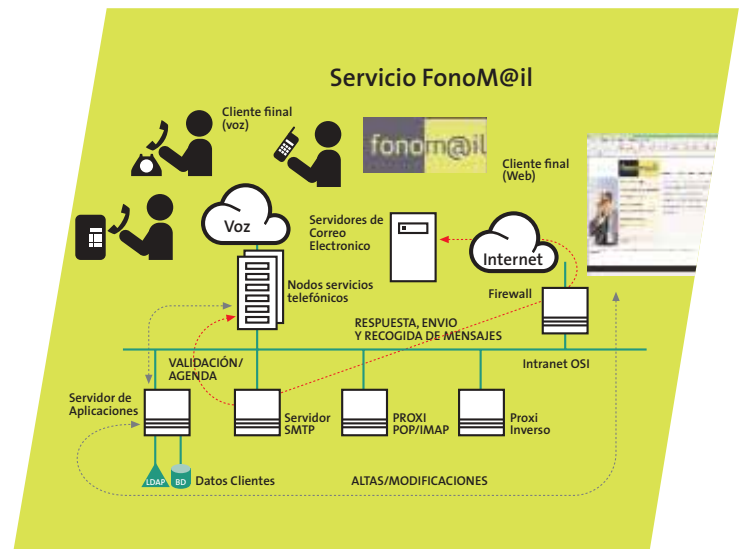
In 2001, Telefónica I+D worked on 1,200 projects in line with the global strategy of Telefónica. It embarked upon a wide range of activities and created products aimed at strengthening fixed-line, mobile, multimedia and interactive products, network and services management systems, operation support systems and support systems for business and innovation. The innovative, efficient and cutting-edge nature of these products, and their design "tailored" to the realities of its customers, support the offer of Telefónica, making it one of the most technologically advanced and competitive companies in the world of telecommunications.

Development of Broadband and Internet

During 2001, Telefónica I+D developed new advanced interactive multimedia services that provide ADSL users to access commercial broadcasting services of TV channels, video on demand, á la carte content services and Internet surfing capabilities.

The development of these services was completed with the Integrated Management System for ADSL, which has enabled Telefónica de España to achieve its objectives for 2001 in terms of registered ADSL customers.

Mobile services for new markets

In order to support the international expansion of Telefónica Móviles, projects related to the new technologies GSM, GPRS and UMTS were carried out. Telefónica I+D solutions were also applied in user localization services: the 112 emergency service line and voice access information service.

Telefónica I+D has an array of products for developing the most advanced automatic treatment services which, when applied on multiservice platforms, provide the most advanced voice portals and automatic information and customer services.

*The technological
innovation
of Telefónica I+D
generates value creation
for the Group and increases
its competitiveness*

Leadership in voice technologies and voice platforms was applied to access e-mail from mobile telephones and for voice access to the chat service. Development recently began on the voice portal of Telefónica Móviles.

Customer Service Systems

In 2001, customer services were strengthened, through the replacement of traditional Call Centers with state-of-the-art Customer Contact Centers. Resources were also improved that enable interaction with customer services facilities without the need for human intervention.

Efficiency and Quality in business management

Telefónica I+D focused its developments on improving the efficiency of operations, with products such as the Activity Manager, which was selected as "the Group's product with the greatest transforming potential in 2001".

The company worked on the corporate Management Charts for the Group's companies, as well as the Management Chart for Purchasing and Monitoring sales activity at Telefónica de España. Cicorp, the Group's corporate financial analysis information center, was also implemented, as were the CORE/CUNE systems that generate analytical cost accounting and produced their first results for the Latin American operators.

Intelligent Business activities were focused on the development of data warehouses. The large systems already developed were consolidated: DW Minerva, at Telefónica Móviles España; DW Siete, at Telefónica de España; DW Corporativo Telesp, at Telefónica São Paulo; and DW Corporativo, at Telefónica Móviles Celular in Brazil. At the same time, work on the DWs at Telefónica Móviles Argentina and Telefónica del Perú was completed, and development began on the data warehouse of Telefónica Publicidad e Información.

In order to support marketing, an advanced and stable version of Innovatel was implemented, for the purpose of supporting customer loyalty plans.

On the other hand, strategic applications were also performed for Canal OnLine, including the following: User Management, Technical Encyclopedia, On-line Forum and Daily News, Customer Services and Management Information Systems, as part of the objective of fostering the development of Telefónica as an e-Company.

Development of the Information Society

The publication "The Information Society in Spain: Outlook for 2001/2005" includes, in addition to the opinions of numerous experts, Telefónica I+D's vision of the Knowledge Society. As part of this initiative, the Broadband Communities Project provided a local high-performance

As part of the implementation process for the Telefónica I+D Center in Barcelona, a collaboration agreement was signed in 2001 with the Pompeu Fabra University

Intranet, offering municipalities and communities access to a wide range of local services with very interesting content and fast access to multiple services (leisure, media, etc.)

Internationalization

The mission of Telefónica I+D to provide service to all Group companies prompted it to continue to expand its international activity, mainly in Latin America, and particularly in Brazil. In order to satisfy this growing demand, a Telefónica I+D centre will be opened in that country on a future date.

Some of its research activities were undertaken within the framework of European Programmes, through numerous projects promoted and partly financed by the European Union.

Innovation

The set of medium and long-term activities encompassed within the Innovation Plan was focused on identifying the factors that will influence the evolution of Group business, taking into account the market, the need to anticipate its competitors and technological innovation.

Particular success was achieved in the area of intelligent or digital homes, with the expansion and improvement of the demonstration homes in Valladolid and Madrid, which are equipped with new supported control networks and access points, such as the use of voice activation from any telephone or small devices such as PDAs and mobile telephones.

In terms of Voice Technology, work was performed on text-to-voice conversion and natural language recognition, mainly for accessing Internet content. Specific developments included a generic text spelling correction system, the capacity for personalizing telephone services using natural language and the voice recognition device for handling expert sub-dialogues.

In data and multimedia, multimedia service platforms were created on XDSL, with network video recording, combined chat with TV, and multi-player multi-access games. Work was also performed on totally optical networks, architecture modelling and traffic on IP networks.

Within the scope of the new UMTS, GPRS, WLAN, WDM technologies that Telefónica I+D is innovating and developing, a pilot platform was created within the UMTS framework in order to offer third generation services, an experimental service that uses, among other capacities, personal communication services, and a Virtual Announcer service on PDAs. It is worth highlighting the experiences with local wireless technologies WLAN and Bluetooth, and their integration with GPRS mobile technologies.

Lastly, it is worth mentioning that Telefónica I+D's vocation as a company committed to innovation, with frequent registrations of products, was recognized as being the ideal company to be given the responsibility of managing Telefónica de España's Industrial and Intellectual Property Portfolio.

Telefónica I+D employs 1,208 technology experts and scientists specialised in the fields of telecommunications and computer technology

During 2001 there was especially successful progress in the area of intelligent or digital homes