

## EDITORIAL

### Cellular telephony is booming

Cellular phones, which once seemed to be barely more than an expensive craze, are rapidly turning into the fastest growing segment of the telecoms market.

Subscribers world-wide grew by 49% in 1993 to 33 million, and could skyrocket to 200 million by the turn of the century. The market, worth 22.5 billion Ecus in 1993, is expected to grow by 60 billion Ecus a year over the next five years.

In a world where mobility and instant communication are becoming increasingly important, cellular phones are turning into an indispensable tool, particularly for corporations, for whom they are the key to the portable office together with the lap-top computer, the modem and eventually personal communicators.

In developing countries of Latin America and Asia, cellular telephony is perceived as the easiest and cheapest way to provide basic telephony, a key to economic growth, without installing expensive wire networks. The same applies to Central and Eastern European markets, where US companies such as US West, are already very active.

In America and Western Europe, cellular networks allow for increased competition at the local level with operators running fixed networks. In fact, private consumers are increasingly seduced by the freedom and user-friendliness associated with cellular phones and are the most promising market, providing high prices are significantly reduced.

Forecasters predict that within seven years, technological progress and competition could bring prices down to the level of conventional phones. While in this respect US customers are still better off than their European counterparts with prices 20 to 40% lower, the process is well under way on both sides of the Atlantic.

In America, GTE is about to launch the world's cheapest cellular service, Telego. In Great Britain, competitive pressure is mounting with the launch of a fourth cellular system, Orange, while France Télécom has just reduced the price of its Bi-Bop.

For Europe, however, despite the success of GSM, the take-off of private demand will depend on the ability to overcome

nationally-oriented licensing, which has fragmented the market along national lines, as well as moving towards a fully liberalised pan-European market. This is exactly what a European Commission Green Paper on Mobile Phone released last week calls for.

## EUROPE

Trends: In Europe, things have progressed on the liberalisation front with the partial privatisation of Tele Danmark and Spain's announcement that it would liberalise its telecoms sector by 1998. Separately, Stream (STET and Bell Atlantic) has launched Europe's second video-on-demand trial, while a new overseas alliance has been sealed to develop ATM.

## APPLICATIONS

Stream, a multimedia joint venture recently set up by STET, the state-owned company grouping Italy's telecoms operators, and Bell Atlantic, a US regional telecoms company, will launch in November Europe's second video-on-demand trial after British Telecoms'.

The experiment will involve 2,000 households in Italy and will also include services such as on-line banking and sale of airline tickets.

## LEGISLATION

The Danish state launched on April 28 the privatisation of 48.3% of the capital of the national's telecoms operator Tele Danmark by floating over 63 million actions in the Copenhagen and New York stock exchanges.

The net proceeds of the sale will go to the company. While the state will retain a 51% stake in Tele Danmark, the company will have full operational independence.

Spanish Prime Minister Felipe GONZALES said his country would fully liberalise its telecoms sector by the year 1998, five years ahead of schedule.

While the European Union has agreed to liberalise voice telephony no later than 1998, Spain was amongst the four countries (with Portugal, Greece and Ireland) which obtained a transition period until 2003 at the Council in June 1993.

## TECHNOLOGY

Danish software producer Olicom and Japanese electronics company Fujitsu have sealed a long term alliance to co-operate on the development of ATM (Asynchronous Transfer Mode), a technology that allows the swift and simultaneous transmission and switching of text, sound and image.

## NORTH AMERICA

Trends: In the USA, the focus has further shifted from infrastructure developments to applications with the launch of an interactive news service trial combining video and data, Xerox' idea of a document superhighway and co-operation on future interactive video games and films. On the PC network front, Apple is planning to catch up with IBM and Compaq.

## APPLICATIONS

The US all-news cable TV channel Cable News Network (CNN) and the American chip manufacturer Intel said they will jointly launch in May an interactive multimedia news service trial for business personal computer networks.

The experiment, which will involve local business PC networks, will display CNN programming that users will be able to store and retrieve. The service will eventually allow users to merge video newscasts with data from on-line information services.

The trial will be based on a new Intel compression technology. While video applications currently require too much bandwidth to be used on PC networks, Intel has developed a technology that cuts the need for transmission capacity by more than 95%.

Xerox, the US document processing company, said it is developing the technology to create a global digital "document superhighway".

Xerox wants to develop the tools that will enable users of business, government, legal and other documents world-wide to collect, store, disseminate and print them electronically when, where and in whatever form they wish.

Xerox said it has already agreed with the top US long distance operator AT&T as well as the Belgian and Dutch national telecoms companies to send data over their networks. Later this year, it will start selling a new software, DocuSP(document services platform), allowing for the interconnection of desktop publishing computers and document scanners, storage devices and printers.

Sega of America Inc., the US subsidiary of Japanese video game giant Sega, and Hollywood Metro-Goldwyn

Mayer(MGM), a film studio controlled by France's Crédit Lyonnais , have sealed an alliance to develop a new generation of interactive video games and films.

It is the first time a software and a movie company agree to co-operate through the complete process of developing products, from the original idea to the manufacturing. The game software will mainly be available on CD-Roms and will feature real actors.

## TECHNOLOGY

US computer maker Apple plans to launch a new line of powerful computer servers, to boost the Macintosh's weak presence in the corporate personal computer market.

Apple, which is strong in the home and SME's market segment, only controls 11% of the personal computer market world-wide, far behind IBM and Compaq. This is in part a result of its servers' poor interconnection capacity, which only allow to link up 200 PCs.

The new servers will be based on a new chip, PowerPC, which will enable to hook up thousands of PCs. The networking software for the PowerPC line will be a new version of US software producer Novell's Netware.

Separately, rival US software maker Intel, whose chips are used in PCs manufactured by IBM and Compaq, is also working on a new generation of more powerful chips.

## ASIA AND PACIFIC

Trends: A series of new infrastructure initiatives have been launched in China, Australia, Indonesia and Malaysia, while Pakistan is moving ahead with its plans to privatise its national telecoms operator. On the technology side, Japan heads further towards the development of digital HDTV.

## INFRASTRUCTURE

Chinese authorities have signed agreements with Northern Telecom, a Canadian telecoms company, and rival US long distance operator and equipment manufacturer AT&T, to set up telecoms joint ventures in China.

The co-operation will mainly cover equipment manufacturing, software development and research and development activities.

Northern Telecom and AT&T will both invest 130 million Ecus in the joint ventures.

The contracts are part of China's plans to upgrade its telecoms infrastructure, which will require an estimated investment of almost 80 billion Ecus. The market is currently dominated by France's Alcatel, Sweden's Ericsson and Germany's Siemens

Telecom Australia, Australia's state-owned telecoms company, its private rival Optus and PT Indosat, the Indonesian national telecoms operator, will invest 85 million Ecus to build an optical fibre link between Australia and Indonesia.

The cable network, which will come into service at the end of 1996, will provide Australia with access to a planned Asia-Pacific cable network. Telecom will provide 69% of the funds and Optus the remaining 31%.

## LEGISLATION

The Pakistanese government plans to appoint a group of consultants to put a value on the national telecoms company Pakistan Telecommunications Corporation (PTC), in view of this partial privatisation later this year.

The release of the consultants' report should be followed by an agreement over a schedule for the sale-off of PTC. A 26% stake is expected to go to a "strategic investor," while another 25% will be sold through a public flotation.

## TECHNOLOGY

The Japanese Ministry of Posts and Telecommunications (MPT) has presented a plan aiming at standardising Japan's digital television technology for satellite, terrestrial and cable broadcasting by 1996.

The MPT's move tends to confirm Japan's intention to drop its analogue high-definition television technology MUSE and jump on the Euro-American digital HDTV bandwagon.

## WORLD-WIDE

## INFORMATION SOCIETY

Airlines around the world, including Cathay Pacific, Singapore Airlines, United Airlines, SwissAir and Virgin Atlantic, are getting set to launch a series of new in-flight communication services such as phone, fax and access to databases

as well as computerised car hiring and duty free shopping.

Aircrafts will be hooked up via a new satellite communications system developed by the international satellite company Inmarsat , which will allow for a fast and easy link between air travellers and ground telecoms and computer networks.

The new services, which will also include live news broadcasting, multilingual audio and video programming as well as video games, will be charged for and mainly directed at business class passengers. A regular phone call would cost \$10 a minute.

A new generation of pocket satellite navigation devices, based on the US Global Positioning System (GPS), a fleet of 24 satellites used for military navigation, could help sailors, pilots and hikers find their way around the globe and never get lost.

While the military degrade signals on civilian frequencies to avoid the use of GPS by potential foes, ground stations permit to re-establish the accuracy of positioning up to three meters before the signal is relayed.

While so-called "differential GPS" is already available in the United States and most of Northern Europe, GPS devices will only take off providing their price, currently around 1,300 Ecus per unit, decreases sharply.

The most active electronics companies in GPS, a market estimated to 365 million Ecus in 1998 in Britain alone, are Japan's Sony and Matsushita and Sweden's Silva.

The content of the press review doesn't necessarily reflect the European Commission's views.