

Telecommunications in Portugal

Eli M. Noam

Do not quote without permission of the author.  
c 1988 revised 1990. Columbia Institute for Tele-Information

Columbia Institute for Tele-Information  
Graduate School of Business  
809 Uris Hall  
Columbia University  
New York, New York 10027  
(212) 854-4222

### 23: Portugal

The telecommunications sector in Portugal reflects the country's relative poverty and its struggle to catch up with the rest of Europe in industry and advanced services during a period of domestic turmoil. Although it has made much progress, it has not yet reached a level where the policy issues that affect most other Western European countries are part of the Portuguese agenda. Portugal is, however, affected by these issues in its procurement decisions.

Portuguese telecommunications are the charge of three organizations, two of which, Correios e Telecomunicacoes de Portugal (CTT) (renamed Telecom Portugal) and Telefones de Lisboa e Porto (TLP), operate according to the directives of a common General Board; the third, Companhia Portuguesa Radio Marconi (CPRM), derives from the Anglo-Portuguese telephone company. Telecom Portugal's service area covers most of the country; it is also responsible for international telephony within Europe and for the Portuguese telex network. TLP operates telephone service and networks within a 30 kilometer radius of Lisbon and a 15 kilometer radius of Porto, the two largest Portuguese cities. The nominally private CPRM provides satellite links and submarine cable service, including connections to the Azores and Madeira. Its franchise covers all public overseas international telecommunications, as well as the concession for maritime mobile service in the whole Portuguese territory.

Telephone and telex service to the European countries, however, are operated by CTT in agreement with CPRM, using the

latter's transmission facilities. Although it is technically an independent operation with its own budget, 51 percent of CPRM shares are held by IPE, a holding company for state participation in private firms. The chairman of the CPRM board and two of its members are actually government appointed (Eurodata Foundation Yearbook, 1983, p. 310; de la Cal, 1990, p. 12). For years, relations between the two operating companies and ITT's Portuguese manufacturing subsidiary Standard Electrica were extraordinarily close.

All three of these telephone enterprises report to the Ministry of Public Works, Transport and Communications, which also supervises the postal service. Government control over telecommunications is exercised through appointments to the General Board, as well as through legislation on tariffs, the budget, borrowing, and other financial matters.

The Portuguese telecommunications sector, although relatively underdeveloped by European standards, in the 1980s began to receive increasing attention from the government, as reflected by raises in budgetary allocations. From 1978 to 1987, the investment per line rate was the third lowest among OECD nations. However, 1988 figures show a significant shift in priorities, placing Portugal first in the European Community in terms of telecom investment as a percentage of fixed capital formation (ITU, 1990).

In addition, the separation of the telecommunications and postal authorities and the merger of the three telephone service companies became topics of discussion. CTT and TLP agreed in principle to a statute that provided for their merger; they do

share administrative and fiscal counsels, as well as the same chairman as part of the General Board. Legislation passed in 1989 brought Portugal more in line with E.C. directives, though it permitted service monopoly where resources were scarce (de la Cal, 1990, p. 13). The law also created a Communications Institute of Portugal to coordinate development and liberalization (Transnational Data and Communications Report, 1989, p. 7).

To increase capital resources and to prepare for the single European market in 1992, the government, which became center-right in 1985, announced a process of "partial privatization" to begin after 1990. The government keeps 51 percent of CPRM, TLP, and of the telephone activities of CTT, with the remaining shares sold to private investors. Foreign and a holding company which includes individual holdings are limited to 10 percent, and 20 percent are owned by small investors and employees (Warden, 1990a, p. 7).

### Services

Telephone density in Portugal stood at eighteen lines per 100 persons in 1988, the lowest in Western Europe. The government's goal is to have 32 connections per 100 population by 1993. In 1988, the average wait for a telephone was 9.4 months, down from almost three years. The waiting list was still 15 percent of the total of main lines (ITU, 1990).

Data transmission service is available on analog leased lines over the public switched telephone network at rates of up to 2.4 kbps. Portugal restricted the creation of private networks based on the use of leased circuits, and customers were consequently not allowed to install their own data multiplexers (Eurodata Foundation

Yearbook, 1983, p. 312). This provision was lifted in 1986. Telpac, a packet-switched network featuring Northern Telecom equipment, was opened in 1984 under the control of Transdata, an organization set up by CTT and TLP. An expansion of data usage has been curtailed by the limitations of the Portuguese network. A 1990 survey by the European Association of Information Services (EUSIDIC) found that 64 percent of international data test calls made in 1990 from Portugal failed at three times the average rate for the fourteen countries studied, which were low in performance themselves (EUSIDIC, 1990, p. 7). Pilot trials of ISDN began in 1990 (de la Cal, 1990, p. 13; Baptista, 1988).

Portuguese international rates are high; calls placed from Portugal to other European Nations tend to cost twice as much as calls traveling in the opposite direction (Transnational Data and Communications Report, 1988, p. 9).

Given the priority of developing basic services, Portugal has been slower than other European countries to introduce cellular mobile telephony, teletext, and videotex. In 1984, public telefax service was introduced through the post office. In 1987, Portugal became the last European nation to select a cellular radio standard for mobile telephony, adopting Germany's C-Netz standard and contracting Siemens to supply the infrastructure (Purton, 1987, p. 14). By 1990, cellular phone service was available to 90 percent of Portugal's population in 30 percent of the country. But subscription levels were low--5000 in 1990 (Warden, 1990b, p. 10).

### Equipment

The two local operating organizations hold a monopoly over the

first telephone sets. Since 1983, it has been legal to obtain second sets from other sources. There is no government monopoly over the PBX or modem market, although they are also supplied by operating companies.

There are two main telecommunications manufacturers in Portugal: Standard Electrica, a subsidiary of ITT and subsequently of Alcatel, which has had a presence in the country since 1932, and Centrel, a wholly Portuguese company (ITT, 1983). Centrel goes back to the British Plessey, at one time the second leading telecommunications equipment supplier in Portugal, which left the country in 1979 and sold its Portuguese factory for £1 to the then unknown local firm, Centrel.

Standard Electrica is the country's largest communications equipment and electronics manufacturer. According to its own estimates, the company has trained about 60 percent of Portugal's telecommunications engineers, a fact that reflects the extremely close relationship that it maintains with the operating companies. Standard Electrica supplies 50 percent of Portugal's telecommunications equipment, producing two crossbar exchange switches (one of which is Portuguese developed) as well as System 12 switches. It also provides PBXs (holding a 90 percent market share), telephone sets, television sets (60 percent of all black-and-white sets sold in the country), and transmission equipment. Its share of Portuguese telex switch sales rose to 35 percent after Siemens's thirty-year hold over supply was ended.

Products by Centrel, the other manufacturer, include systems, repeaters, public switches of the crossbar and Strowger types,

handsets, coin box telephones, and transmission equipment. Centrel's public switch division, using Siemens technology, accounted for more than half of the company's total revenue. Although the bulk of the firm's output is purchased within Portugal, it also exports.

The allocation of the larger Portuguese procurement orders for central electronic switches was a multiyear story of intrigue on many levels. Throughout much of the organization's history, the traditional Portuguese supplier to CTT/TLP had been ITT's Standard Electrica. In March of 1985, however, a coalition government opened up the switch contract bidding to seven different companies to demonstrate openness to the European Economic Community. These six additional firms were Ericsson, which had been a supplier to Portugal's former African colonies, AT&T/Phillips, Northern Telecom, Siemens, Plessey, and Alcatel/Thomson. At the time of the awarding of the contract, Centrel had just entered into a joint venture with Siemens for the production of switches developed by the German firm, with some production to be undertaken in Portugal. This gave Siemens an inside track in the competition for the switch contract because it was a European company and could assure Portuguese jobs.

The lobbying for the contract became highly political. Alcatel's interests were personally pushed by French President Mitterrand, who was a friend of Portuguese Prime Minister Mario Soares. German politicians involved themselves in similar lobbying for Siemens, and ITT's interests were advanced by the telephone operating companies CTT/TLP. The government took away the

telephone authorities' power to allocate the order, and instead gave it to a more politically oriented interministerial commission. Ericsson, Northern Telecom, AT&T/Phillips, and Plessey were next excluded from bidding; surprisingly, so was ITT. The commission allocated 55 percent of the order to Siemens and 35 percent to Alcatel, despite the latter's lack of Portuguese production facilities, a disadvantage that had been stressed throughout the allocation process. The remaining 10 percent was allocated in a complex fashion among the two victorious companies, which were forced to compete for the last slice by offering technology transfer, guarantees of local production content, and software production (Smith, 1986).

The selection of Alcatel, made just before the election of 1987, raised a major controversy because, in addition to having no Portuguese production facilities at the time, the company had no history of working with the country's telephone organizations. To deal with this problem, as well as with the Standard Electrica employees who felt abandoned because their firm had been left out of the running entirely, the government ordered the ITT subsidiary to turn its physical plant and 20 percent of its equity over to Alcatel so that the French company could use it for the production of switches. This was considered a blatantly political act, and allegations of impropriety followed. After the election, the Socialists were replaced by a more conservative Social Democratic government, which immediately reopened the case. The Siemens/Centrel contract was not controversial and was allowed to stand, but the Alcatel share was opened for bidding, with the



operating companies regaining their traditional leverage in the decision process. In the end, Standard Electrica received a 45 percent share. Alcatel was out in the cold, or so it seemed. But within a short time, it pulled a major coup when its parent company, CGE, acquired controlling interests in most of ITT's international telecommunications operations. Alcatel was thus able to crack the Portuguese market after all.

## CHAPTER 23

- Baptista, Jose Viana. 1988. Portugal. Telephony, February 22.
- de la Cal, Martha. 1990. Portugal: A Radical Transformation of the Telecommunications Sector. 1992 Single Communications Review, 1(4):12-17.
- Eurodata Foundation Yearbook. 1983. London: Eurodata Foundation.
- EUSIDIC. 1990. 1990 PDN Study. p. 7.
- ITT. 1983. ITT in Portugal: The First 50 Years. February, No. 2.
- ITU. 1990. Annual Telephone Statistics. Geneva: ITU.
- Purton, Peter. 1987. Last European Country Chooses Cellular Standard. Telephony, December.
- Roussel, Anne-Marie. 1990. Portugal to Privatize. Communications Week International, November 12.
- Smith, Diana. 1986. Portugal Ends Battle Over Telephones. Financial Times, August 19.
- TDR. 1988. European Consumers Voice Telephone Goals. pp. 6-8. October.

----- . 1989. Europe Achieving Telecom Reforms. October, pp. 6-8.

Warden, Becky. 1990a. Portugal Sets Out Reforms. Communications International, March, p. 7.

----- . 1990b. Fresh Face for Privatisation. Communications International, July, p. 10.