

### Liberalization, privatization and competition

The industrialized countries are currently going through, or in many cases have completed, the process of a number of changes which completely revolutionize the traditional, public-utility type of telecommunication service provision. Liberalization, privatization and competition in the field of information and communication technology are processes which already put pressure on developing countries and are part of the globalization of commerce. Looked at overall, these processes are just components of the restructuring of the telecommunication industry. Incumbent industrialized country telecom “carriers” were initially apprehensive at the prospect of privatization and competition but their fears were mostly unfounded. In fact, they have found themselves to be in a strong, favourable position to take advantage of the benefits of competition. Rather than attempting to resist, developing countries may gain a number of advantages by joining the movement and actively managing the change. Moving in a clear, determined manner and involving the various stakeholders ensures the transparency that international, intergovernmental and private sector financial and donor organizations demand.

#### *Benefits of privatization*

One of the principal objectives of privatization is to bring the public the benefits of competitive private enterprises such as innovation, efficiency and responsiveness to users’ needs. The state must decide, before embarking on any privatization scheme, whether its strategic goals require retaining control of the national entity. Moreover, it must decide how to oversee the privatization process and establish clear, forward-looking tariff policies. Moving into a competitive environment after the relative calm of the monopoly situation may constitute a challenge and can take much more time and effort than selling the state enterprise. In order to make competition possible, tariffs have to be based on costs and this usually requires introducing some new tariffs and rebalancing existing tariffs, implying possible increases for certain services.

### Restructuring in the communication sector

Success in restructuring for developing country administrations implies disengagement from direct intervention in the economy of the sector and movement towards a market-driven, competitive situation. This change of direction can be more or less rapid, depending on the level of government openness towards investment and initiative. The stronger the government commitment, the more rapid the change. A first step, which is critical, is defining long- and short-term industry objectives in an

overall way as a kind of strategic plan that identifies the government’s goals and those who are responsible for achieving them. The “strategic plan” would be based on social benefits (e.g. health care, education), best funding possibilities, appropriate technology (easy to integrate with existing network, versatile, quick to implement and flexible for the future), tariff considerations and adaptability to changing needs and demands. Issues such as the following should be addressed:

- integrated policies and objectives for commercialization and liberalization;
- policies, objectives and plans for the division of responsibilities between the government and the regulator in areas such as rule making and enforcement, licensing, spectrum management, tariff approval and interconnection supervision;
- publication of a policy paper covering the above issues and describing the relationship between government and regulator.

### The purpose, scope and application of reforms

The legal framework for telecommunications in most countries is long established and geared to the kind of situations that were typical until the end of the 1970s. The radical and rapid changes in the nature and capacity of networks and services in the last 20 years have been such that additions to existing legislation will most likely be inadequate for today’s situation. Given that, a thorough overhaul of legislation providing a well-adapted framework would be advisable. This may go as far as changes to the constitution and therefore requires strong support at the highest levels.

The objective of the reforms is to provide telecommunications with the framework that will facilitate providing access to basic telecommunications for the whole population and to enlarge the possibilities for improving and broadening the range of services available. Besides diversification, reforms are expected to permit the modernization of networks, introduce operational efficiencies, reduce tariffs and improve the transparency of the regulatory process. Other possible advantages from the reform process could be in stimulating overall development and attracting equipment manufacturing or other investments in industry.

Reforms may be introduced progressively, by passing legislation that allows competition in certain sectors of the market with services such as mobile/cellular, satellite or data, or by providing legislation to privatize the national monopoly carrier either partially or wholly. Telecommunication legislation which is broad in scope is more effective over a longer period than tight legislation which

attempts to cover every situation. Detailed matters can be covered by rules and regulations that can be adapted when new situations arise. Broadcasting could possibly be partly covered by the telecommunication legislation, at least the signal transmission aspects, while issues to do with content may be more appropriately dealt with through other legislation. Cable broadcasting systems, which came into being much later than telecommunication systems, may be treated by new telecommunication legislation which is sufficiently broad, especially as these systems are capable of entering into direct competition with telecommunication services. But once more, the content and the community aspects of these systems may require a different approach. With adequate and flexible provisions incorporated in the

legislation, a new, independent, regulatory body can have the necessary space and discretion to address issues such as new technology or new services.

### The commercial approach

Even if it is decided not to dismantle the monopoly of the incumbent national telecommunication entity, it is advisable to review its operations and reorganize them along the lines of a commercial company. Firstly, being given the freedoms, incentives and discipline of commercial enterprises will stimulate and improve management, introduce efficiencies and better accountability and raise awareness of cost and profit centres. Certain activities may be outsourced to specialized companies, new services (e.g.

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### Increasing telephone density

**P**ORTUGAL TELECOM, Portugal's leading telecommunication provider, offers a complete range of telecommunication services including fixed telephony, mobile telephones, data communication, Internet access and cable television. It is also active in selected markets outside Portugal which include Brazil, Cape Verde, Kenya, Macau, Mozambique and Uganda.

The company's international activities are concentrating on expanding the number of customers, improving services and, to meet the needs of African public operators, increasing telephone density while improving profitability. Portugal Telecom has established strategic partnerships with a number of international telecommunication providers including British Telecom, MCI and Telefónica de España. By capitalizing on the expertise of providers which are experienced operators in fully liberalized markets, Portugal Telecom aims to advance its international opportunities, develop traffic flows and take advantage of international traffic infrastructure.

An experienced and independent regulatory environment in Portugal has benefited the telecommunication market and competition in mobile, data, satellite, cable and infrastructure services has boosted the industry. State-of-the-art infrastructure, digital local switching, and modern billing and customer care systems have helped to enhance the company's traffic growth. Portugal Telecom was the first operator in the world to launch prepaid services for mobile phones. It also introduced innovative services in response to the needs of small and medium-sized businesses and launched Netline, a system specifically

designed for Internet access, providing an additional line to the Internet to avoid logjams on the main line at peak times.

The company is a key member of the European Health Telematic Observatory which was initiated by the European Community to enhance clarity and conformity in health organizations. Remote personal communication services enable voice, fax and data communications to be established to any public telecommunication network of either a fixed or mobile nature. The service operates over the INMARSAT satellite and small, land-based, two-way transmission systems using very small aperture terminals (VSATs). Whilst directed towards business and government, the service is available to all customers.

Other innovative moves by this fast-growing company include specially priced services on fixed telephones for elderly people on low incomes, and reduced cost packages for schools across the country wanting Internet access. Portugal Telecom has also been responsible for developing telemedicine programmes, making medical data available via the Internet for the first time.

Regional services have been radically improved as a result of extensive investment in infrastructure and systems throughout Portugal, bringing modern information technology to the majority of its citizens while improving access to fixed telephone services.

#### Portugal Telecom

E-mail: [manuel.j.castela@telecom.pt](mailto:manuel.j.castela@telecom.pt)

Website: <http://www.telecom.pt>

For further information see Annex B

## annex c: Regulation for telecommunications

cellular) may be considered outside the scope of the existing monopoly, or contractors with appropriate expertise may be involved in special partnership arrangements, such as build-operate-transfer, to take over or extend services. These moves help in attracting to the telecommunication market new service providers and new investments which are necessary to expand the sector. Besides bringing investment capital, new operators that have been granted service or geographical exclusivity over a limited period of time

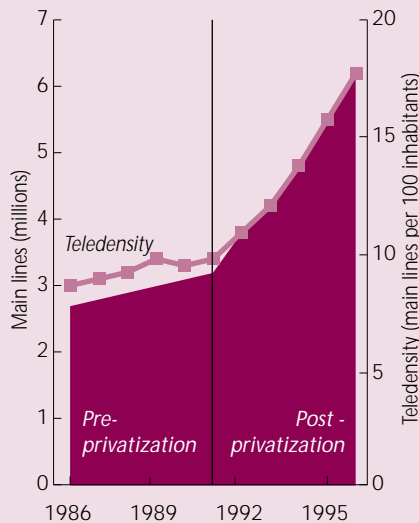
should, in exchange, be given certain obligations with regard to investment, service provision and the timetable for implementation. Such schemes should be the object of discussions with the investing company to avoid any conflict with overall plans. Among the issues that should be addressed are:

- level of investment required to meet public/social needs;
- projected timetable for recovery of investment by the provider;

### Four ways of enhancing access

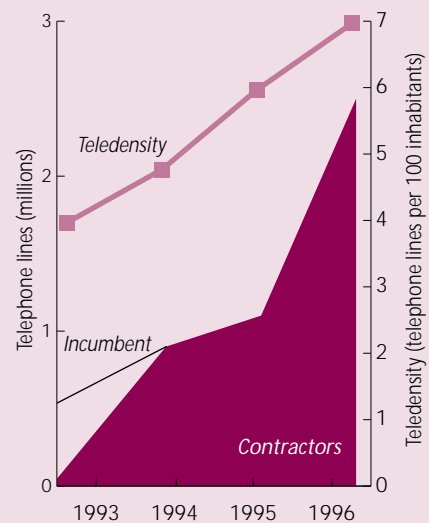
#### Privatizing – Argentina: main telephone lines

Argentina privatized its telecommunication operator in 1990 by separating it into two companies. The new owners were obliged to install a minimum number of telephone lines.



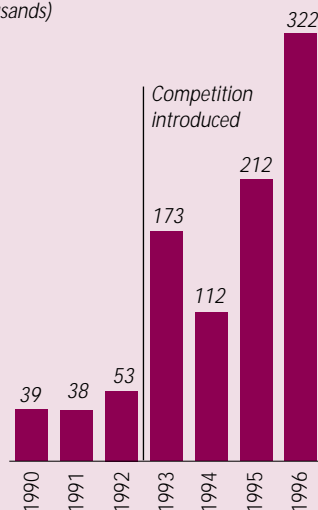
#### Contracting out – Thailand: telephone lines added

In 1991 two build/transfer contracts were awarded for the installation of 4.1 million telephone lines in Bangkok and rural areas.



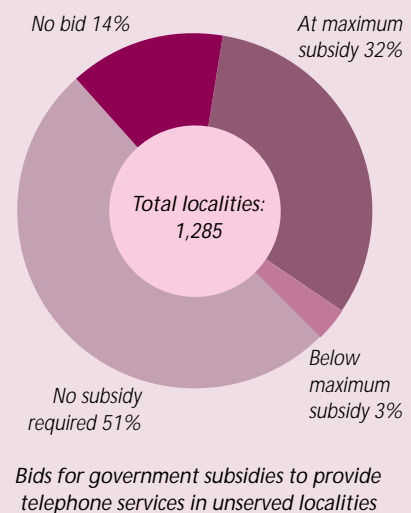
#### Competing – Philippines: telephone lines added by incumbent operator (thousands)

In the Philippines the incumbent Philippine Long Distance Telephone Company has doubled the size of its network since the introduction of competition in the local exchange market.



#### Funding – Chile: telecom development fund

In 1994 Chile established a government-budgeted fund for providing telephone services in unserved areas.



Source: World Telecommunication Development Report 1998, Executive Summary, ITU, at <[http://www.itu.ch/ti/publications/WTDR\\_98/index.htm](http://www.itu.ch/ti/publications/WTDR_98/index.htm)>

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- possibility to accommodate competition in other sub-sectors of the telecommunication market during the recovery period;
- termination date of any period of exclusivity and actions needed to ensure smooth transition to competition.

### The regulatory body

The establishment of an independent, impartial, transparent body to perform the role of regulator in the competitive environment is crucial to success but can be a complex matter when done properly. The size of the body and the resources required will naturally depend on the size and complexity of the market place in terms of number of operators, total revenues and number of market segments (e.g. cellular, radio paging). It will also depend on the degree of liberalization and the scope (e.g. regulation of both telecommunication and broadcast services) of the regulatory mandate. Other factors which will bear on deciding resource requirements are the availability of suitable professionals and whether the regulator is expected to play a relatively passive (e.g. issuing licences) or proactive (e.g. managing the competitive process) role in the new competitive environment.

The question of funding the regulatory process deserves particular attention so that the best decisions can be taken for the initial planning and implementation stages. The independence and transparency of the regulator depend on having adequate funding which is not subject to arbitrary political or budgetary constraints. This could be accomplished by having funding raised from a general assessment on all regulated operators by way of an annual licensing fee or from a combination of regulatory user fees and spectrum management fees. If the legislation mentioned earlier covers the establishment of the regulatory body, it should also define how its funding is arranged in such a way as to guarantee its independence, define how its members are chosen and their term of office, establish the extent of its jurisdiction and define how the courts may be involved in cases of appeal against regulatory decisions. These matters and other, possibly minor but important, acts demonstrating the regulatory body's independence from government and private industry (such as the location of its office) can have a positive influence on investor confidence.

When a new regulatory body is established it does not have to assume all the functions previously performed by government immediately. In fact, when expertise must be acquired it may be prudent to phase in the major responsibilities gradually. The major areas of responsibility include licensing, tariff approval, frequency spectrum management and monitoring, interconnection approval

and service quality monitoring. In the interests of good functioning of the competitive environment, provided it is done in a transparent manner, the regulator can:

- prevent or correct abuses of market power by the dominant telecommunication service provider;
- enable new service providers to become established;
- act as a substitute for competition and maintain pressure on the dominant carrier to perform well until competitive pressures become sufficient;
- support distributional goals such as service to disadvantaged geographical areas or segments of society.

### Areas of regulation

The areas in which the regulator may be involved include the following:

#### *Rule making and enforcement*

Rule making is a procedure initiated by the regulator or by others, involves public comment on proposals, and leads to a decision by the regulator to amend existing rules or write new ones.

Enforcement functions imply that the regulator is given investigative powers and authority to impose sanctions in the case of violations of telecommunication laws and regulations.

#### *Licensing and concessioning*

Licensing is a means of authorizing service providers to supply certain services based on being qualified to operate the service and on complying with rules when operating the service. Concessioning is the granting of the right to provide certain services in exchange for a service provider accepting certain conditions. Granting concessions attracts investors when restricted funding prevents the national carrier from providing the service. It can also be useful to encourage investment where there are technical, financial and commercial risks involved.

#### *Management of scarce resources*

This is an important permanent feature of national regulatory practice dealing with three types of limited resources:

- natural scarce resources such as the frequency spectrum and satellite orbital positions which require to be coordinated in a regional and global fashion;
- contemporary scarce resources such as calling numbers and broadcast sites which require to be coordinated in a national, regional and global fashion;
- technology-dependent bottlenecks such as shortages of cable or conduit capacity which need to be coordinated in a local fashion.

### The key regulatory issues

#### *Provision of service*

This process involves the selection of a service provider for a particular service. It involves a public announcement, which includes the conditions, to select a licensee, providing a delay for applications, selecting and announcing the decision and providing the possibility for appeals.

#### *Interconnection*

This refers to the need for service providers to interconnect their services or network, for example with the network of the national carrier in order to have access to international circuits. The regulator should only intervene when such interconnection has not been accorded at transparent,

non-discriminatory, cost-based rates, and on terms and conditions which are reasonable and fair.

#### *Universal access*

Policy makers have to provide a set of “universal access objectives” which should lay out how the goal of universal access is to be fulfilled and the responsibilities of the various parties in doing so. The regulator, according to government guidelines, would oversee the application of this policy.

#### *Tariffing*

As a first step the regulator has to oversee the rebalancing of tariffs, based on costs, in order to create an environment

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### Spreading the word

**T**HE INSTITUTO das Comunicações de Portugal (ICP), the regulatory body of the Portuguese communication sector which reports to the Minister for Equipment, Planning and Territorial Administration, was established in 1989 as a public institute with financial and administrative autonomy.

Entrusted by law to safeguard public interest and promote the country's telecommunication and postal markets, the institute is responsible for providing support to the Portuguese government in coordinating, directing and planning communications, representing the sector in the Ministry for Equipment, Planning and Territorial Administration, and managing and allocating radio and microwave frequencies.

The institute, which is seeking to increase its global area of operation, has participated in international telecommunication conferences which have been concerned with knowledge sharing among delegates, international coordination of communication systems, the provision of technical support for less-experienced authorities and the strategies involved in setting licensing standards for the latest communication technologies and processes.

By drawing on the growing expertise of the telecommunication sector in Portugal, and with its proven record of experience working in developing countries, the institute is able to play a key role in Portuguese-speaking African countries, assisting them in the technological and regulatory development of their own expanding telecommunication sectors. Portugal has developed particularly strong working relationships with Direcção Nacional de Correios e Teleco-

municações in Angola, Direcção Geral de Comunicações in Cape Verde and Instituto Nacional das Comunicações de Moçambique in Mozambique, as well as forming strong links with the telecommunication authority in Guinea-Bissau. Under these agreements the institute provides both equipment and professional training to the countries concerned.

In Mozambique, the institute's contribution was vital in establishing and developing the country's new regulatory body, Instituto Nacional das Comunicações de Moçambique, which is responsible for rehabilitating, modernizing and expanding the country's fledgling telecommunication sector. Besides offering bilateral assistance of this nature, ICP is committed to enhancing areas of multilateral cooperation. To this end Portugal is hosting the third post and telecommunication meeting involving the Commonwealth of Portuguese-Speaking Countries including Brazil. The Institute was also actively involved in Africa Telecom 98, participating as an exhibitor and in discussion forums.

By assisting Portuguese-speaking emerging economies to develop and expand their telecommunication systems, ICP is not only playing a vital role in bringing essential communication services to these countries but contributing to the spread of good telecommunication practice worldwide.

#### **Instituto das Comunicações de Portugal (ICP)**

E-mail: [maria.tobias@icp.pt](mailto:maria.tobias@icp.pt)

Website: <http://www.icp.pt>

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that will encourage competition, and decide on responsibilities, and how they will be shared, for providing universal access. The regulator would also be responsible for questions of long-distance and international tariffs, interconnection access charges and the rules governing these matters.

### *Frequency allocation and assignment*

This is a major area of responsibility for the management of national interests in the finite resources of the radio frequency spectrum and satellite orbits (especially geostationary) which may be assigned to the regulator. The functions involved include strategic spectrum planning, international frequency coordination, national coordination of frequency allocations, frequency assignment and licensing, standards making and conformity assessment, and monitoring and enforcement.

### *Broadcasting*

Radio and television broadcasting are subject to the technical regulation necessary to avoid harmful interference with other users of the radio spectrum. These services are also subject to licensing by the regulator because demand for channels normally exceeds the limited number available. There are also issues about whether to have regulations with regard to content which are sensitive from the socio/political viewpoint and which may impact on freedom of expression. It is for the national government to decide whether there are legitimate national objectives that may justify limiting this freedom.

### *Quality of service*

The regulator should monitor the quality of service offered by all service providers to ensure international norms established by the ITU and other standard-setting bodies are respected. It is important that efforts to reduce the price of services do not result in a diminishing quality of service.

### *Standardization and type approval*

Standardization of equipment and services is a function performed mainly by the ITU, and the regulator should be responsible for ensuring conformity of equipment used by service providers. Certain terminal equipment which is not covered by ITU standards may be controlled by type approval by the regulator.

### *Numbering*

Providers of switched services must be able to obtain national numbers by means of a transparent and non-

discriminatory procedure. The regulator has to assure provision of adequate number resources for present and future services and ensure that the same rules and the same access facilities are provided to all network operators and service providers.

### *Competitive safeguards*

The regulator has to assure the continued competitive national environment. The regulator also has to guard against the use of anti-competitive measures such as the withholding of essential technical and commercial information by any suppliers or operators of equipment, networks or services.

### **Where to get help**

Help and advice may be obtained from international organizations, neighbouring countries or international consultants and certain other sources. As far as the ITU is concerned, planned activities in this area include the following:

- A series of workshops for regulators and policy makers will be organized in order to provide a forum for the exchange of opinions, views and experiences among countries on specific concerns about sector reform. These will be carried out using traditional means, as well as electronic means, through the Virtual Training Centre.
- In order to keep track of the rapid reforms under way in the sector, the ITU Telecommunication Development Bureau (BDT) will establish an electronic library which will include key regulatory information, as well as the basic legislation of all ITU member states. The BDT regulatory database will be enhanced and on-line access provided while the ITU telecommunication regulation site on the World Wide Web will be expanded and a search engine to facilitate easy use of the system created.
- Training will be provided to regulators of developing countries, together with a human resources development and management programme, utilizing both traditional and electronic means.
- Direct assistance will be provided to developing countries, in particular the least developed countries, in drafting national communication policies and strategies and setting up a national consultative mechanism; introducing or modifying the relevant legislation to facilitate reform implementation; establishing regulatory bodies or making the established regulatory bodies functional; and establishing a regulator's hotline where assistance can be provided by telephone, fax or Internet.

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