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A P P E N D I C E S

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(Green Paper on the Development of the
Common Market for Telecommunications
services and equipment)

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CURRENT REGULATORY DEVELOPMENTS

A. Regulatory Developments inside the Community

This survey of regulatory trends in the Community was carried out during the first half of 1987 in conjunction with the Senior Officials Group on Telecommunications (SOG-T). The information was drawn from a range of sources available to the Commission, and was confirmed by the SOG-T. For easy reference, tables are reproduced from the Green Paper.

B. Regulatory Developments outside the Community :

- United States
- Japan

PRESENT TELECOMMUNICATIONS MARKET STRUCTURES IN THE EUROPEAN COMMUNITIES [1]

COUNTRIES

Belgium Denmark France Germany Greece Ireland

1. Relations with postal services

S (1) PTT (5) PTT PTT S S

2. Basic Service Network

- a) Local
- b) Long-distance
- c) International
- d) Mobile

GM (PC) OM (5) GM GM GM (PC) GM (PC)

GM (PC) OM GM GM GM (PC) GM (PC)

GM (PC) GM GM GM GM (PC) GM (PC)

GM (PC) OM GM (6) GM PL GM (PC)

Terminal Equipment

a) Supply :

- Main Telephone set
- PBX
- Telex
- Modem
- Data Terminal
- Mobile

M M L GM M M (21)

PL M L L L L

PL (2) M L L L L

PL (3) PL L RC (LTM) L L

L L L L (20) L L

M L L L L L

b) Maintenance :

- Main Telephone set
- PBX
- Telex
- Modem
- Data Terminal
- Mobile

M M L M M M (21)

PL M L L L L

PL M L M L L

PL PL L L (20) L L

L L L L L L

M L L L L L

4. Use of leased circuits

a) Domestic :

- Shared use/resale
- Interconnection with public network

N (4) N N (7) Y (8a) N N (4)

N N N (7) Y (8b) N N (4)

b) International :

- Shared use/resale
- Interconnection with public network

N (4) N (4) N (4) Y (8a) N (4) N (4)

N (4) N (4) N (4) Y (8c) N (4) N (4)

[1] SOURCES : Member States (SOG-T)
Abbreviations : see following page

PRESENT TELECOMMUNICATIONS MARKET STRUCTURES IN THE EUROPEAN COMMUNITIES [1]

COUNTRIES	Italy	Luxembourg	The Netherlands	Portugal	Spain	United Kingdom
1. Relations with postal services	S/PTT (5)	PTT	PTT (10)	PTT (5)	S (16)	S
2. Basic Service Network						
a) Local	GM (PC)	GM	GM (11)	GM (PC)	OM (16)	RC (LIM)
b) Long-distance	GM (PC)	GM	GM (11)	GM (PC)	OM (16)	RC (LIM)
c) International	GM (PC)	GM	GM (11)	GM (PC + OM) (5)	OM (16)	RC (LIM)
d) Mobile	GM (PC)	GM	GM (11)	-	OM (16)	RC (LIM)
3. Terminal Equipment						
a) Supply :						
Main Telephone set	M	M	M (12)	M	M	L
PBX	L	L	M	L	RC (LIB) (19)	L
Telex	M (3)	L	M	M	L	L
Modem	M (3)	PL	L	PL	M	L
Data Terminal	L	L	L	L	L	L
Mobile	L	L	M (13)	-	L	L
b) Maintenance :						
Main Telephone set	M	M	M	M	M	L
PBX	L	L	M	L	L	L
Telex	M	L	M	M	L	L
Modem	M	PL	L	PL	M	L
Data Terminal	L	L	L	L	L	L
Mobile	L	L	M (13)	-	L	L
4. Use of leased circuits						
a) Domestic :						
Shared use/resale	N (9)	N	N (14)	N (15)	N	Y (17)
Interconnection with public network	N (9)		N (14)	N (15)	N	Y (17)
b) International :						
Shared use/resale	N	N (4)	N (4)	N (4)	N (4)	Y (18)
Interconnection with public network	N	N (4)	N (4)	N (4)	N (4)	Y (18)

[1] SOURCES : Member States. (SOG-T)

Figure 2.

Survey of Terminal Equipment Regulatory Supply Conditions

Updated 16:00, 23 /4/87

	FIRST TELEPHONE SET	PBXs	MOBILE TIPHONES	RADIO PAGERS	MODEMS	TELEX TERMINALS	TELETEX TERMINALS	VIDEOTEX TERMINALS	FACSIMILE TERMINALS
D	Network Operator Exclusive Provision	Network Operator Exclusive Provision	Network Operator Exclusive Provision	Network Operator Exclusive Provision	Network Operator Exclusive Provision	Network Operator Exclusive Provision	Network Operator Exclusive Provision	Network Operator Exclusive Provision	Network Operator Exclusive Provision
F	Network Operator Exclusive Provision	Network Operator Exclusive Provision	Network Operator Exclusive Provision	Network Operator Exclusive Provision	Network Operator Exclusive Provision	Network Operator Exclusive Provision	Network Operator Exclusive Provision	Network Operator Exclusive Provision	Network Operator Exclusive Provision
I	Network Operator Exclusive Provision	Network Operator Exclusive Provision	Network Operator Exclusive Provision	Network Operator Exclusive Provision	Network Operator Exclusive Provision	Network Operator Exclusive Provision	Network Operator Exclusive Provision	Network Operator Exclusive Provision	Network Operator Exclusive Provision
NL	Network Operator Exclusive Provision	Network Operator Exclusive Provision	Network Operator Exclusive Provision	Network Operator Exclusive Provision	Network Operator Exclusive Provision	Network Operator Exclusive Provision	Network Operator Exclusive Provision	Network Operator Exclusive Provision	Network Operator Exclusive Provision
B	Network Operator Exclusive Provision	Network Operator Exclusive Provision	Network Operator Exclusive Provision	Network Operator Exclusive Provision	Network Operator Exclusive Provision	Network Operator Exclusive Provision	Network Operator Exclusive Provision	Network Operator Exclusive Provision	Network Operator Exclusive Provision
L	Network Operator Exclusive Provision	Network Operator Exclusive Provision	Network Operator Exclusive Provision	Network Operator Exclusive Provision	Network Operator Exclusive Provision	Network Operator Exclusive Provision	Network Operator Exclusive Provision	Network Operator Exclusive Provision	Network Operator Exclusive Provision
UK	Network Operator Exclusive Provision	Network Operator Exclusive Provision	Network Operator Exclusive Provision	Network Operator Exclusive Provision	Network Operator Exclusive Provision	Network Operator Exclusive Provision	Network Operator Exclusive Provision	Network Operator Exclusive Provision	Network Operator Exclusive Provision
IRI	Network Operator Exclusive Provision	Network Operator Exclusive Provision	Network Operator Exclusive Provision	Network Operator Exclusive Provision	Network Operator Exclusive Provision	Network Operator Exclusive Provision	Network Operator Exclusive Provision	Network Operator Exclusive Provision	Network Operator Exclusive Provision
DK	Network Operator Exclusive Provision	Network Operator Exclusive Provision	Network Operator Exclusive Provision	Network Operator Exclusive Provision	Network Operator Exclusive Provision	Network Operator Exclusive Provision	Network Operator Exclusive Provision	Network Operator Exclusive Provision	Network Operator Exclusive Provision
GR	Network Operator Exclusive Provision	Network Operator Exclusive Provision	Network Operator Exclusive Provision	Network Operator Exclusive Provision	Network Operator Exclusive Provision	Network Operator Exclusive Provision	Network Operator Exclusive Provision	Network Operator Exclusive Provision	Network Operator Exclusive Provision
E	Network Operator Exclusive Provision	Network Operator Exclusive Provision	Network Operator Exclusive Provision	Network Operator Exclusive Provision	Network Operator Exclusive Provision	Network Operator Exclusive Provision	Network Operator Exclusive Provision	Network Operator Exclusive Provision	Network Operator Exclusive Provision
P	Network Operator Exclusive Provision	Network Operator Exclusive Provision	Network Operator Exclusive Provision	Network Operator Exclusive Provision	Network Operator Exclusive Provision	Network Operator Exclusive Provision	Network Operator Exclusive Provision	Network Operator Exclusive Provision	Network Operator Exclusive Provision

NOTE: a table of this kind is inevitably a simplification; it describes the dominant features of the regulatory situation in each country for public network terminating equipment

LEGEND :

PTT	Posts and telecommunications services provided by the same organisation	OM	Monopoly of other types (private entity, etc).
S	Separate organisation	RC (LIM)	Regulated competition with limited entry
M	Monopoly	RC (LIB)	Regulated competition with liberalised entry
PL	Partly liberalised (some types liberalised, others not)	FC (LIB)	Free competition with liberalised entry
L	Liberalised	Y	Generally permitted
GM	Government monopoly (government agency)	N	Generally prohibited
GM (PC)	Government monopoly (public corporation)		

NOTES

- (1) RTT and Régie des Postes depend on the same PTT Minister
- (2) First telex terminal under monopoly, progressive liberalisation announced.
- (3) On request by the CEC, progressive liberalisation announced.
- (4) Subject to exceptions.
- (5) Telecommunications service providers exist in addition to PTT, on a monopolistic basis (concessionary basis, regional monopoly, etc).
- (6) Licensing of additional providers to be announced.
- (7) Steps regarding licensing of private providers of Value-Added Services announced.
- (8a) Shared use permitted, resale prohibited.
- (8b) Voice-band circuits : as far as technically possible, but at one end only (TKO, July 1986).
- (8c) International fixed connections without restrictions ; "flat-rate" circuits with restrictions.
- (9) New legislation on VANS is being discussed in Parliament.
- (10) A larger degree of separation between postal and telecommunication organisations within PTT has been announced for 1989.
- (11) PTT to be converted to limited liability company in 1989.
- (12) Government has decided to liberalise all terminal equipment as of January 1989.
- (13) Cordless telephone / car telephone / public pagers under monopoly ; closed mobile systems, radio telephones on ships, etc...liberalised.
- (14) Usage for VANS to be liberalised.
- (15) Currently under consideration in commissions.
- (16) Telex, telegram, public facsimile (Burofax), etc...are provided by the PTT.
- (17) Pure resale prohibited until at least 1989.
- (18) As (17), subject to additional restrictions.
- (19) Digital PBX's are supplied under monopoly.
- (20) Complete liberalisation has now been implemented after agreement with the European Commission on July 30th 1986 and will take place after conversion of CCITT Recommendations into specifications and definition of testing procedures.
- (21) I.E. does not hold a monopoly, but is at present exclusively licensed by the Ministry.

REGULATORY DEVELOPMENTS IN BELGIUM

I. REGULATORY BODY

Ministry of Post and Communications ("Ministère des Communications et des PTT").

II. TELECOMMUNICATIONS OPERATOR

Régie des Télégraphes et des Téléphones (RTT) (public corporation)

III THE CURRENT SITUATION WITH REGARD TO SERVICES AND EQUIPMENT

Major services operated by the RTT are the following :

- VOICE : Public Switched Telephone Network (PSTN)
 Mobile Radio Service (Mobilophone). RTT is due to
 introduce a cellular system in 1987 (NMT 450
 MHz / BENELUX)
 Radiopaging (Sémaphone)
- DATA : Non-switched leased lines
 Datel Services over PSTN
 Packet switched network (DCS)
- TEXT : Telex network
 A Teletex network is due to begin in May 1987
 Electronic mail (DCS Mail)
 Facsimile
- VIDEO : A trial videoconference system is run between
 Brussels and Luxembourg in conjunction with the
 EC. In addition, RTT is due to set up a public
 videoconferencing studio during 1987
- VIDEOTEK : A public videotex service, based on the Prestel
 standard, opened in 1985, which now has some 1000
 subscribers

There has been a certain amount of relaxation in recent years over equipment provision, notably in the area of telephone sets. RTT's monopoly here was relaxed in 1985, so that there is now only a monopoly on the first telephone set. Further sets can be bought privately or from the RTT.

Certain other areas of equipment supply are also outside the monopoly, such as PABXs with more than ten extensions or more than two exchange lines, modems above 2400 bit/s, teletex/videotex and facsimile terminals. The RTT is currently having discussions with the European Community with regard to further relaxation of the monopolies on telex and modem equipment. At the time of writing the position was that the RTT has agreed to extending monopoly relaxation to modems below 2400 bit/s, and to the first telex terminal, within the next three years.

All equipment connected to any RTT network must first be approved, approval procedures being carried out by RTT itself.

IV. CURRENT NATIONAL TRENDS AND DISCUSSIONS ON REGULATORY ISSUES

Telecommunications services are provided by the Régie des Télégraphes et des Téléphones (RTT) under two laws dating from 1930 [Loi du 19 juillet 1930 et Loi du 13 octobre 1930]. These laws, which confer a monopoly to operate telephone and telegraph services, form the legal basis of the operation of telecommunications services in Belgium. RTT's interpretation of this monopoly extends to the supply of a range of customer premises equipment. Telecommunications operations are characterised both by the RTT's broad interpretation of its monopoly, and by the legal constraints placed on the RTT through its statute, with regard to the management of its employees and the financing of its investments.

Regulatory control is not separate from telecommunications operation. The General Administrator of the RTT reports to the Secretary of State in the Ministry of Posts and Communications. Regulatory authority ultimately lies with the Ministry, but regulation of the network, frequency setting, type approval, standards and other regulatory activities are carried out by the RTT itself.

Use of leased lines for the exchange of messages is currently not allowed unless the users concerned belong to the same company or group of companies (with the exception of specific services provided by organisations such as SITA, SWIFT, GEISCO, IBM and Reuters). The longest-established of these networks (SITA) will soon be subject to usage-sensitive tariffs, information on usage being obtained primarily from the users. The other networks (SWIFT, Reuters, etc.) are currently subject to usage-sensitive tariffs.

The PTT has up until now been an organisation with wide-ranging monopoly powers run under close governmental supervision. However, it seems now to be widely recognised in Belgium that one of the effects of the tight controls on the RTT has been to restrict its ability to react to rapid technological developments.

It was for this reason that a special commission (the so-called "four wise men" commission, "Commission des Sages") was appointed to look into the possibility of transforming the RTT into an entity with a much greater degree of autonomy. The Commission reported at end of October 1986 [Rapport de la Commission chargée d'examiner la possibilité de doter la Régie des Télégraphes et des Téléphones d'une plus grande autonomie et créée par Madame P. D'Hondt-Van Opdenbosch, Secrétaire d'Etat aux Postes, Télégraphes et Téléphones, 28th October 1986].

The main findings of the Commission, with regard to the regulatory environment, are set out below.

Public network

The Commission's report takes the position that the basic infrastructure should remain under monopoly control, on the grounds that only a monopoly can ensure that the network is run efficiently and economically while at the same time achieving the necessary economies of scale. The monopoly would extend to, and include, the subscriber's access point.

The operation of the public infrastructure, as well as the infrastructure itself, would also remain under monopoly control, including telephone, telex and data transmission.

Terminals

Beyond the access point the Commission recommends that all terminal equipment, including modems, be subject to open competition. It foresees complete liberalisation of the Belgian terminal market over a period of three to five years.

It is foreseen by the Commission, however, that the RTT will be able to continue to offer all types of equipment for sale or rental in this sector. Prevention of cross subsidy would be achieved through the control of a 'Comité de Surveillance', through the creation of separate profit centres, and by setting up subsidiaries ('filiales').

Private networks

The Commission's report argues that the necessity of providing circuits on a universal basis (i.e., to all those who request them) means that the consequently heavy investment in the infrastructure must be recovered through means such as the payment of rental charges which are more closely related to the cost of provision and, in certain circumstances, usage-linked tariffs.

The Commission recommends that flat-rate fixed rental charges are applicable if a circuit is being used exclusively by the subscriber. However, the Commission recommends that it would be advisable to charge usage-based tariffs in return for authorising, for example, shared usage of circuits by third parties or use of the circuit to offer special services. This, it is argued, would prevent simple resale of capacity, while at the same time encouraging the development of "value-added" services. The report argues that unless such special tariffs are charged by RTT then parallel networks offering specific services at marginal cost will develop which would take away traffic which would otherwise be carried on the public network.

Proposed new structure of RTT

The Commission recommended that the RTT should, following a preliminary phase, be transformed into a public limited company (Société Anonyme d'Intérêt Public) with the status of a semi-governmental body (sui generis). It is envisaged that a single ministry will take responsibility for telecommunications services, although this ministry is not named.

In the interim phase, pending the creation of a limited company, a consultative committee (Conseil Supérieur Consultatif) would be set up.

Standards : A body charged with the responsibility for standardisation and equipment authorisation (Service pour la Normalisation et les Autorisations en matière des télécommunications - NAT) would be set up. This body, which would be autonomous although located within one of the ministries, would take over the standardisation and type-approval tasks currently carried out by the RTT.

Procurement : The RTT would in future have to be able to work out its investment programme autonomously, although in view of the strong impact of PTT purchasing on the Belgian economy this would have to be carried out within the framework of the government's overall industrial policy. It is recommended by the Commission that the RTT should be guided by the government as regards purchases in the area of the basic infrastructure, and by market forces in the area of terminals.

Regulatory control : A Government Commissioner would be responsible for exercising control over aspects of law, regulation and public interest.

As a consequence of the current discussions on regulatory issues and the future RTT investment programme concerning in particular network equipment ("Contrat du siècle"), it is likely that there will be changes in Belgium with regard to relations between the PTT and the government, PTT procurement and the rules pertaining to the provision of equipment and services.

REGULATORY DEVELOPMENTS IN DENMARK

I. REGULATORY BODY

Ministry of Public Works

II. TELECOMMUNICATIONS OPERATOR

The General Directorate of P&T executes the functions of the Ministry on a delegated basis in the Posts and Telecommunications Sector.

The regional concessionary enterprises, Copenhagen Telephone Company, Jutland Telephone Company, Funen Telephone Company and state enterprise South Jutland Telecom, are in charge of all regional telecommunications activities, including customer contact, each within its own geographical area.

Another state enterprise, Telecom Denmark, is responsible for international and nationwide telecommunications between the regional companies.

<u>Operator</u>	<u>% installed telephones</u>
Copenhagen Telephone Company (KTAS) 50% state-owned	49
Jutland Telephone Company (JTAS) 50 % state-owned	39
Funen Municipal Telephone Company (FKT) Co-operative owned by local authorities	8
South Jutland Telecom State enterprise (Part of P&T)	<u>4</u>
	100

Telecom Denmark

(Part of the PTT
responsible for
international services
plus the cables and
radio relay links
connecting the above
companies)

III. THE CURRENT SITUATION WITH REGARD TO EQUIPMENT AND SERVICES

Major services currently operated are as follows :

VOICE : Public Switched Telephone Network (PSTN)
 Mobile radio : the Nordic Mobile Telephone
 Service, NMT, (450 and 900 MHz automatic
 cellular service).
 Radio paging service (OPS) (non-voice)

TEXT : Telex network
 Facsimile (Telefax)
 Teletex service (2400 bit/s)
 Electronic mail service introduced in 1984

DATA : Circuit Switched Public Data Network (Datex)
 Packet Switched Public Data Network (Datapak)
 Datel services over the PSTN and leased
 circuits
 Videotex : Teledata, based on the Prestel
 standard.

VIDEO : Videoconferencing facilities are being
 operated and there are now 4 studios.

 Cable TV : 8000 local or municipal cable
 owners (MATV). The P&T and the concessionary
 companies provide a national infrastructure
 (Hybrid network).

Regarding "value-added" services, private operators may freely offer such services in the case of general (two-party) traffic, e.g. in connection with data processing bureau activities. If "value-added" services involve the transmission of third party traffic, private operators may offer such services provided the transmission takes place by means of the public switched networks. However, it is a condition that a licence should have been obtained. So far, licences have been issued to a number of firms transmitting telex messages for third parties. Regarding the use of leased circuits, these may not be used for the transmission of third party traffic. However, a licence permitting such transmission may be granted subject to specific stipulated terms and provided that certain conditions are met. Thus, licences to transmit third party traffic by means of leased circuits have been issued to, e.g., SWIFT, SITA and 13 Danish firms.

In general, the P&T and the concessionary companies have had a monopoly on the supply of main items of customer premises equipment in each of their own areas (i.e., without competing with each other). The P&T and the concessionaries, however, have relinquished their control of the market in recent years and now only retain the right to supply telephone sets, telex terminals, modems above 1200 bit/s and PABXs. These monopolies, too, are due to be relaxed within a few years.

Equipment approval is carried out by the Telecom Inspectorate (P&T State Enterprise).

The P&T and the concessionary companies either issue international calls for tender, using a qualified bidders list, or deal directly with a particular supplier. All carriers purchase equipment from foreign as well as domestic suppliers.

IV. CURRENT NATIONAL TRENDS AND DISCUSSIONS ON REGULATORY ISSUES

The statutory basis for public activities in the field of telecommunications is found in the Act on Telegraphs and Telephones and in acts known as the Concessionary Acts. The basic principle is that the State has a monopoly of public telecommunications; and that the Minister of Public Works may grant concessions to others for the operation of various telecommunications services. Accordingly, concessions have been granted to three telephone companies : the Copenhagen Telephone Company (KTAS), the Funen Telephone Company (Fyns Telefon), and the Jutland Telephone Company (Jydsk Telefon).

