

Prices and Quantities

**Proposals for quantitative indicators
in the telecommunication sector -
a German approach**

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I. The telecommunication sector in Germany after the 1989 postal structures reform

In accordance with Art. 87 I of the Basic Law, the Deutsche Bundespost (DBP) shall be managed as a federal administrative body with its own administrative substructure, meaning that - in keeping with the German Constitution - the state is in charge of setting up and operating telecommunication facilities. In recent years, it became increasingly obvious that this condition laid down in 1949 needed reforming. Without amending the Constitution, the so-called Postal Structures Reform Act of 8 June 1989 initiated a reform process with the aim to introduce competition in the telecommunication sector. For this purpose, the state monopoly has had to be restricted, services provided along entrepreneurial lines, and the "allmighty" ministry transformed into a supervisory and regulating body.

The major business and regulatory tasks of the Federal Ministry of Posts and Telecommunications (BMPT) are presented in the following chart.

Business tasks

- production of services
- research and development
- market research and advertising
- purchasing and staff recruitment
- financing
- cost accounting and drawing up balance sheets.

Regulatory tasks of the BMPT

- definition of monopoly and competition spheres (licensing)
- frequency assignment
- licensing of terminal equipment
- price and quality control
- definition of compulsory services.

1. Monopoly and competition spheres

After the 1989 postal structures reform, the monopoly reservation was maintained for the following spheres of the telecommunication sector:

- installation and operation of line-based transmission paths (network monopoly)
- installation and operation of radio facilities (radio system monopoly)
- voice communication services provided to third parties (telephone services monopoly),

while the following were declared competition spheres:

- all telecommunication services (excl. telephone services) which providers are obliged to give notice of
- selling of any kind of telecommunication terminal equipment.

In addition, the Federal Minister of Posts and Telecommunications was granted the exclusive right to authorize exceptions from the radio system monopoly by granting licenses, especially with regard to mobile radio and satellite communications.

2. Network-operating parties

Only the state-owned Deutsche Bundespost (DBP) Telekom is authorized to set up and operate line-based networks against payment. To meet their own requirements, however, several institutions may install and operate telecommunication facilities. These are, first of all, the German Railways (Deutsche Bundesbahn and Deutsche Reichsbahn), inland waterway transportation (waterways and shipping authorities), public utilities, the Federal Armed Forces, the Länder and communities. Also admissible are telecommunication facilities within the boundaries of properties of the same owner of up to 25 km.

In the radio traffic area, 36 mobile radio licenses and 30 satellite communications licenses were granted by the end of January 1993.

3. "Producers" of telecommunication services

Network and terminal services are provided both by Telekom and private businesses. The three types of services to be distinguished are monopoly services (Telekom telephone services), compulsory services and free services. Compulsory services are infrastructure services the businesses concerned have to provide for the benefit of the general public. These are

- providing information on telephone numbers
- handing out subscribers lists
- providing public telephone boxes
- providing the opportunity to make emergency calls from public telephone boxes
- transmission of telexes
- transmission of telegrams.

All other services in the telecommunication sector relating to

- information services (enquiry services, entertainment, recorded information services, advertising, etc.)
- security services (monitoring, telecommand, teleadjusting, teleindication)
- booking service, money transfer service, order service for banks, transportation firms, tour operators, mail-order houses, etc.
- switching services (call forwarding, teleconferences, etc.)

are regarded as free services.

Until mid-January 1993, 331 telecommunication services of 228 businesses were recorded.

II. Economic policy and businesses in need of official statistical data

To fulfill the economic-policy tasks of market regulation with regard to defining the monopoly, opening the market (e.g. by granting licenses), protecting the consumers, and attaining objectives in the field of infrastructure, the BMPT requires information on the market, such as

- number, kind, equipment and staff of business enterprises and local units
- number of subscribers who are or could be connected by type of telecommunication services
- additions and reductions in the number of subscribers
- number and average duration of connections
- turnover and costs by types.

The above information is also of great interest for the individual market participants for purposes of inter-firm comparisons, market share calculations, and the like. So far, however, data of this kind have not yet been collected by official statistics authorities. At present, there are considerations to create a legal basis to be founded upon the obligation to provide information. If, however, businesses are required to supply information, the costs of data collection must be offset by clear benefits. This aspect receives special attention in the process of preparing statistical legislation in Germany and is indispensable for taking a decision in Parliament.

1. Survey units

The survey units of which service data are collected can be either business enterprises, local units or kind-of-activity units and establishments. Since the present survey approach (see questionnaire enclosed) focussing on the collection of service data is at the same time meant to provide data on such economic variables as turnover, investments and employment which, in line with German statutory accounting requirements, must be available at the business enterprise level, the business as the smallest legal unit keeping books for reasons of commercial and/or fiscal law was used as survey unit. If in the future, however, an official statistical survey should be restricted primarily to service data, the establishment should be preferred as the probably more suitable survey unit.

2. Presently most suitable survey approach

As regards the approach to be used for the pilot surveys planned, among other things the question was considered whether only businesses mainly engaged in operating networks or providing telecommunication services or all businesses offering this kind of services in one way or another should be covered. The respective examination revealed that the first approach would cover a still very small group of respondents only (private

business activity has been admitted in this sphere since 1989 only so that the number of businesses concentrating on telecommunication services is still rather small).

Furthermore, the second approach was chosen not least because of the duties imposed on private businesses by the Postal Structures Reform Act. Pursuant to this act, the installation and operation of certain telecommunication facilities are subject to authorization. In addition, private network-operating parties which offer telecommunication services are obliged to inform the Federal Ministry of Posts and Telecommunications about starting, changing and ceasing the operation of a network. For the pilot survey, only the addresses of these businesses are available. Other address registers do not exist, anyway.

III. Quantitative indicators recommended

In view of the urgent demand existing both with regard to economic policy and on the part of businesses, the quantitative indicators suggested in the following will not be restricted to quantitative variables to constitute a unit as homogeneous as possible for constructing production and price indices. They rather include indicators describing the facilities offered (such as data on networks) since, similar to the transport branch, the kind and extent of the demand for telecommunication services largely depend on the services offered.

1. Problems of determining and measuring the services offered and demanded

The telecommunication sector was understood in a broader sense also when it came to determining the services to be included. To get a picture as comprehensive as possible, not only network services as the main services of switching centres (e.g. code, protocol and format conversion, adjustment of data signalling rates) are included, but also the so-called terminal services incl. information services offered via databases. So-called value-added services (VANS) can in the form of network services be offered by the network provider as his own services, by the party operating the network on leased lines, and also by third parties (service providers).

There is a problem of measuring with almost all services. Not only the technology for recording the data must be available, it must also be found out whether the request for data can be fulfilled in economic terms. This question will always be answered in the affirmative if there is an interest on the part of businesses.

2. Indicators for networks and their use

A network consists of points, called switching centres (also: network nodes), and connections between these points, called transmission paths.

2.1 Switching centres and cable length

The number of switching centres and length of cable (in km) are characteristic of the structure of the network used. In terms of economic policy, the distribution of switching centres and length of cable among the network-operating parties is of great importance. The length of his own and rented-out cable (in km) illustrates the provider's position in the market. Together with the digitization of switching, the optimum at present comprises cable based on glass-fibre technology (own line-based network).

2.2 Stations

The number of earth stations per business (broken down by kinds of radio network) is an indicator of the network size. Comparing the results of several surveys over time in combination with the number of access units allows conclusions about the extent to which line-based networks are replaced by radio networks.

2.3 Number of access units by kinds of network

This figure can be regarded as the smallest recordable unit reflecting the general demand for telecommunication services. The number of access units permits conclusions about the scope of so-called compulsory services demanded from all providers by German legislation (see II.3). The total number of access units is an indicator of the degree of supply, and the number of access units of a business indicates its position in the market.

2.4 Number of successful connections by kinds of network incl. connections with other networks

This figure is directly covered. For purposes of price statistics, an additional breakdown by distance zones, local or long-distance ranges, home and abroad, etc. must be aimed at.

The number of successful connections with other networks shows dependencies between market participants. The larger the share of connections with other networks in the total number of successful connections, the more the network operating party will depend on external services.

2.5 Average duration of connections by kinds of network

This variable which is also recorded indicates the average utilization of the individual kinds of network. For purposes of price statistics, a more detailed breakdown (as proposed under 2.4) will be required, too. The degree of network utilization can be determined via multiplication by the number of successful connections.

3. Quantitative indicators for online-databases and mailboxes

The following suggestions concern an area clearly showing the close relation between the actual use of telecommunication networks and the original motives of use, i.e. supply and demand of relevant information.

3.1 Registered users

The function of this indicator is similar to that of access units (cf. 2.3), i.e. it first of all indicates an interest in data. The additional information that a shared use by third parties is possible is an indicator of an existing network of databases and the access authorization.

3.2 Sessions and their duration

This information serves to determine the extent to which the services offered are used. The degree of utilization can be established by multiplying the average duration of sessions by the number of sessions. The degree of utilization thus obtained allows conclusions about the network capacities required. A further breakdown of data, e.g. by the number of data transmitted and data signalling rates, would be desirable.

IV. Quantitative indicators for additional services (value-added services)

The following suggestions concern above all the so-called value-added services, i.e. services comprising additional information services apart from the basic services of transmission and switching.

4.1 Individual network and terminal services offered

The services listed in this paragraph (see questionnaire) originally belonged to the scope of services offered by the network-operating party. However, many of these services are today provided by the terminal equipment on the user side (e.g. producing accounts of individual charges). It will be possible to show this change resulting from technological progress by breaking down the results recorded over time by network providers, service providers, etc.

4.2 Utilization of other additional services

This paragraph covers a great variety of services the utilization of which is recorded in an enumerative way.

The following services

- seat reservation, booking hotel rooms, and renting cars
- accepting orders
- opportunity to transfer money without the help of third parties
- producing accounts of individual charges, and
- breakdown service

have in common that they are added to a general service (e.g. selling of train or flight tickets by a travel agency), usually without extra payment, with the aim to gain a competitive edge. Hence these are marketing measures.

Remote control services, either permanent or non-permanent, are services allowing control and monitoring processes to be performed over long distances via the telecommunication medium. These services are rendered against payment.

V. Conclusion and outlook

The quantitative indicators proposed in this paper go beyond the framework of the "telecommunications" model survey agreed upon by the Voorburg Group. This is due to the liberalisation of the telecommunication sector in Germany, which was initiated by the 1989 postal structures reform.

So far experience has shown that the above-mentioned reform was not sufficient. Therefore, a second Postal Structures Reform Act is being discussed at present and scheduled to be passed before the end of 1994.

In the near future, the need for regulatory measures will continue to exist for transforming monopoly structures into a competitive order. Irrespective of whether these regulatory functions are performed by an independent supervisory body or a ministry, statistical data will urgently be needed, in particular for monitoring and analysing the entire telecommunication sector and its subsectors, e.g. mobile radio and satellite communications.

The question arises, whether the Voorburg Group should cooperate in this matter, thus exceeding the scope of the existing model surveys which have mainly served the purposes of national accounting.

1992 Telecommunications

Please return your completed questionnaire to:

Statistisches Bundesamt
VI C - 12

65180 Wiesbaden

Address of the enterprise:

Please let us know whom to contact if there should be any questions:

Mr./Ms.

Telephone

Information on the legal basis, purpose, type and scope of the survey, auxiliary variables and confidentiality are included in the Annex which is an integral part of this questionnaire.

How to complete this questionnaire:

- Please include all domestic local units but exclude local units abroad from the data for the enterprise.
- The reference year is the 1992 accounting year, the reference date for time-related data is 31 December 1992.
- Fill in the spaces in bold frames only.
- Enter a dash (-) for any item that does not apply.
- As for positions marked with a footnote, take note of the instructions given in the annex for completing this questionnaire.

Return: Please return the completed questionnaire to us within 3 weeks.

1. General information on the enterprise¹ as at 31 December 1992

1.1 Legal status

Sole proprietorship

Partnership (OHG, KG, GmbH and Co KG, civil-law association)

Company (AG, GmbH, KGaA)

other legal status (e.g. registered cooperative society, etc.)

Please specify

Please mark with X
or enter the in-
formation required

<input type="checkbox"/>	1	002
<input type="checkbox"/>	2	002
<input type="checkbox"/>	3	002
<input type="checkbox"/>	4	002

1.2 Year of foundation²

003

1.3 Please specify below main of activity of your enterprise

(by branch, e.g. communication, wholesale and retail trade, financial inter-
mediation, insurance sector, electricity, manufacturing, transport, etc.).

004

1.4 What telecommunication services³ are offered by your enterprise?

- Operation of a communication network⁴
- Operation of an online-database⁵
- Operation of a mailbox⁶
- Additional telecommunication services

Please mark with X

<input type="checkbox"/>	1	005
<input type="checkbox"/>	1	006
<input type="checkbox"/>	1	007
<input type="checkbox"/>	1	008

2. Telecommunication services and communication networks

2.1 Does your enterprise operate a

line-based and/or not line-based network ?

Yes

1

009

No

2

009

(Continue with question 3 if your enterprise does not operate a network)

2.2 Structure of the line-based⁷ network on 31 December 1992

How many switching centres are operated within the line-based network ?

Number

010

What length of cable (in km) between the switching centres

km

- of the line-based network is owned by your enterprise?

011

- of the line-based network is leased⁸ ?

012

- of your own and leased line-based network is rented out⁸ ?

013

What is the length of cable (in km) based on glass-fiber technology

between the switching centres of your own line-based network ?

014

2.3 Structure of the not line-based network on 31 December 1992

What is the number of stations of your radio network ?

Number

- Multiplex radio network⁹

015

- Cellular telephone service¹⁰

016

- Paging service¹¹

017

- Satellite communications¹²

018

2.4 Degree of supply and network utilization

Network operated	Number of access units ¹³ on 31 December 1992		Number of successful connections in 1992		Average duration of connection in minutes		Number of successful connections with other networks	
Telephone network		019		030		041		052
Mobile radio network of which								
- Cellular telephone service ¹⁴		020		031		042		053
- Paging service		021		032		043		054
- Multiplex radio network		022		033		044		055
Satellite communication network		023		034		045		056
IDN network ¹⁵		024		035		046		057
Direct data lines		025		036		047		058
ISDN basic access ¹⁶		026		037		048		059
ISDN primary rate access ¹⁷		027		038		049		060
Interactive videotex		028		039		050		061
Other networks, designation:								
...		029		040		051		062

2.5 Increase of network volume in the 1992 accounting year

2.5.1 How many access units were added in 1992¹⁸ ?

Number

- Telephone network

063

- Cellular telephone service

064

- IDN network

065

- ISDN network

066

2.5.2 How many applications for network connection are still due after 31 December 1992 ?

Number

- Telephone network

067

- Cellular telephone service

068

- IDN network

069

- ISDN network

070

3. Telecommunication services, online-databases and mailboxes

3.1 Does your enterprise operate one or several online-databases ? Yes ☐ 1 ☐ 071 No ☐ 2 ☐ 071

Does your enterprise operate a mailbox ? Yes ☐ 1 ☐ 072 No ☐ 2 ☐ 072

(Continue with question 4 if you operate neither an online-database nor a mailbox)

3.2 Degree of supply of online-databases and mailboxes

	Online-database	Mailbox
	Number	Number
3.2.1 Total of registered users ¹⁹ on 31 December 1992	<input type="text"/> 073	<input type="text"/> 081
- Users of a closed user group ²⁰	<input type="text"/> 074	<input type="text"/> 082
- Users of a closed user group and shared use by third parties ²¹	<input type="text"/> 075	<input type="text"/> 083
3.2.2 Users added ²² in the 1992 accounting year	<input type="text"/> 076	<input type="text"/> 084

3.3 Degree of utilization of online-databases and mailboxes in the 1992 accounting year

	Online-database	Mailbox
	Number	Number
Sessions of registered users in the 1992 accounting year	<input type="text"/> 077	<input type="text"/> 085
Sessions of "guests" ²³ in the 1992 accounting year	<input type="text"/> 078	<input type="text"/> 086
	Min.	Min.
What is the average time of a session ²⁴ ?	<input type="text"/> 079	<input type="text"/> 087
What is the daily average time of online operation of the database and mailbox ?	<input type="text"/> 080	<input type="text"/> 088

3.4 Information on the kind and number of access units to the communication network

Please indicate for each kind of access the number of access units establishing a connection between your online-database or mailbox and a communication network.

	Number
- ISDN basic access	<input type="text"/> 089
- ISDN primary rate access	<input type="text"/> 090
- Datex P access ²⁵	<input type="text"/> 091
- Datex L access ²⁶	<input type="text"/> 092
- Telephone access ²⁷	<input type="text"/> 093
- other kind of access	<input type="text"/> 094
Please specify	

3.5 Number of offered online-databases with direct access²⁸ 095

3.6 Number of gateways to online-databases outside the enterprise 096

4. Additional telecommunication services

4.1 Network and terminal services

Which services were offered by your enterprise during the 1992 accounting year ?

Please mark with X

Code, protocol and format conversion
Adjustment of data signalling rates
Transmission and deviation of information
Storing of information
Accounts of individual charges

<input type="checkbox"/>	1	097
<input type="checkbox"/>	1	098
<input type="checkbox"/>	1	099
<input type="checkbox"/>	1	100
<input type="checkbox"/>	1	101

4.2 Consultancy²⁹ and servicing³⁰ in the telecommunication sector³¹

What was the number of persons employed in consultancy and servicing in the telecommunication sector on 31 December 1992 ?

- in consultancy
- in servicing

Number

	102
	103

How many servicing orders were executed by your enterprise in the 1992 accounting year ?

	104
--	-----

How many servicing orders were executed by external enterprises in the 1992 accounting year ?

	105
--	-----

4.3 Additional services in the 1992 accounting year

Please specify the use of the following services by customers provided these services are offered by your enterprise.

Booking service
Money transfer services³²
Order service
Breakdown service
Telephone information services/Audiotex
Customer services³³
Permanent remote control services³⁴
Non-permanent remote control services³⁵
Others, if yes, which

Number

	106
	107
	108
	109
	110
	111
	112
	113
	114

Please specify

5. Turnover³⁶ of the enterprise in the 1992 accounting year

5.1 Total turnover (excl. VAT)

Rounded to full DM

	115
--	-----

of which:

Turnover outside the telecommunication sector

	116
--	-----

Turnover in the telecommunication sector

	117
--	-----

5.2 Breakdown of telecommunication turnover in percent

Thorough estimation is sufficient

- Operation of a communication network
- Operation of a database
- Operation of a mailbox
- Additional telecommunication services
- Production and trade in the telecommunication sector

%

	118
	119
	120
	121
	122

100

6. Persons employed³⁷ in the enterprise on 31 December 1992

	Number	
6.1 Total of persons employed.....	<input type="text"/>	123
6.2 Total of persons employed in the telecommunication sector.....	<input type="text"/>	124
of which:		
- Full-time employees (incl. apprentices) in the telecommunication sector.....	<input type="text"/>	125
- Part-time employees ³⁸ in the telecommunication sector.....	<input type="text"/>	126

7. Gross wages and salaries³⁹ in the 1992 accounting year

	DM	
7.1 Total gross wages and salaries.....	<input type="text"/>	127
7.2 Gross wages and salaries in the telecommunication sector.....	<input type="text"/>	128

8. Investments of the enterprise in the 1992 accounting year

	DM	
8.1 Total purchases and fixed production of tangible investment goods ⁴⁰ for use by the enterprise..... (e. g. furnitures and fixtures, furnishings, vehicles and machinery, land)	<input type="text"/>	129
8.2 Purchases and fixed production of tangible investment goods for use in the telecommunication sector.....	<input type="text"/>	130

9. Tangible investment goods leased by the enterprise in the 1992 accounting year

	Rounded to full DM	
9.1 Total value of new tangible investment goods leased or rented for the first time ⁴¹	<input type="text"/>	131
9.2 Value of new tangible investment goods leased or rented for the first time in the telecommunication sector.....	<input type="text"/>	132

10. Questions concerning the questionnaire

(If required, additional information can be supplied on a separate sheet.)

10.1 Did you have difficulty in answering the questions because e.g. a question appeared to be incomprehensible to you or the instructions were not sufficient?

If so, please specify the questions concerned and the type of difficulty.

10.2 How long did it take to answer this questionnaire?

Minutes

Thank you very much for your cooperation !

Annex to the questionnaire

Legal basis

Law on Statistics for Federal Purposes (Federal Statistics Law - BStatG) of 22 January 1987 (Bundesgesetzblatt I, p. 462, 565) as amended by Art. 2 of the Law of 17 December 1990 (Bundesgesetzblatt I, p. 2837). The survey is conducted pursuant to Art. 7, Para. 2 of the Law on Statistics for Federal Purposes.

Purpose, type and scope of the survey

The survey covers enterprises which are employed in the communication branch and, corresponding to the Law on Telecommunications Systems (FAG), pursuant to Art. 1, Para. 4 FAG in connection with Art. 1a FAG or Art. 2 FAG, operate telecommunications systems subject to registration, or pursuant to Art. 3 FAG, telecommunications systems not subject to licensing.

The survey is conducted on a voluntary and sampling basis. Its aim is to solve scientific and methodological questions.

Auxiliary variables, identification number and deletion

The name and address of the enterprise and also name and telephone number of the person to be contacted in the case of queries are auxiliary variables used exclusively for the technical operation of the survey. They will be destroyed together with the questionnaire upon completion of the completeness and plausibility checks. The identification number is a random number.

Confidentiality

All individual data collected are kept secret pursuant to Art. 16 BStatG and are used exclusively for statistical purposes. The questionnaire will be destroyed upon completion of the survey.

Instructions for completing this questionnaire

- 1 A **enterprise** is the smallest separate legal unit keeping commercial books for reasons of commercial and/or fiscal law.
- 2 Please specify the year in which the enterprise was founded in legal terms.
- 3 Included are activities serving a **nonmanual transmission and storage of information**, the aim of which is text, data and permissible language communication. **Telecommunication services** presuppose the communication of information via communication channels, switched or permanently connected lines to be part of enterprise relations. These activities are grouped as follows: operation of a database, operation of a mailbox, and additional telecommunication services. Operating a communication network is included, too.
- 4 A network comprises all the communication channels and switching systems. A **network is operated** provided it is used for communicating messages and at least one of the two components is the property of the operating party.
- 5 The operation of an **online-database** comprises the investigation, storage, processing and recovery of data which will be communicated to a restricted group of users or the general public via communication networks.
- 6 In a **mailbox system**, electronic mailboxes, in which primarily texts are filed, processed and communicated, are managed by a central computer.
- 7 Line-based networks also include integrated point-to-point directional radio connections.
- 8 Leasing and renting out cables of a line-based network also refers to communication channels and not only to physical cables. Logical and semi-permanently connected lines should be considered, too.
- 9 The **multiplex radio network** is a radio network permitting a connection to public telephone lines. A licence is required for its operation.
- 10 In the **cellular telephone system**, mobile terminals and the network are radio-connected. Please enter the number of stations of all networks used (B, C and D networks).
- 11 **Paging** stands for a unidirectional communication of a usually short message to a known recipient whose position however is unknown. Citycall and Eurosignal subscribers should be included.
- 12 In satellite communications, the earth stations primarily serve to communicate data and/or language. Radio and TV stations are not included.
- 13 Access units are the points at which terminals are connected to the network. Normally, the number of access units is larger than or equal to the number of subscribers.
- 14 Please indicate for the **cellular telephone service** the number of access units of all networks used (B, C and D networks).
- 15 **IDN** stands for Integrated Telex and Data Networks. Included are access units of line- and packet-switched data communication.

- 16 **ISDN** (Integrated Services Digital Network) is a digital network which, owing to its capacities, has integrated in one network services so far offered in several networks. ISDN basic access comprises two service channels.
- 17 ISDN primary rate access comprises 30 service channels.
- 18 The number of access units added is the number of access units registered on 31 December 1992 minus the number of access units registered on 31 December 1991.
- 19 **Users** are those customers who have direct access to the information and services offered. They have a specific access licence by which they are registered in the enterprise offering the information and services. Hence they are clearly identifiable.
- 20 As regards **users of a closed user group**, the database is managed within the enterprise or group concerned, e.g. in banks and insurance companies. Public access is not provided.
- 21 As regards **users of a closed user group and shared use by third parties**, services are offered through a public access channel to registered external parties, too.
- 22 The number of **users added** is the number of users registered on 31 December 1992 minus the number of users registered on 31 December 1991.
- 23 "Guests" are users who "test" a network. They use database services free of charge and without access licence and, in the case of approval, will join the user group.
- 24 Regarding a database or mailbox, a **session** is the time between logging in and logging out.
- 25 The **Datex P network** is a packet-switched digital data communication network.
- 26 The **Datex L network** is a line-switched digital data communication network.
- 27 The telephone access is used for operating a modem for data communication.
- 28 As regards direct access, the data are retrieved from the **own** database system.
- 29 **Consultancy** in the telecommunication sector covers first of all the provision of information, e.g. on equipment handling, reception, prices and other services. Furthermore, personal information services such as directory assistance are included, too.
- 30 **Servicing** in the telecommunication sector comprises the installation, maintenance and repairs of equipment.
- 31 In addition to the above telecommunication services, the **telecommunication sector** comprises the production of telecommunication equipment and computers, and also related wholesale and foreign trade.
- 32 **Money transfer services** stand for monetary transactions as typical banking services.
- 33 **Customer services** include among others wake-up, reminder and notification services.
- 34 **Remote control** covers indicating, measuring and, if applicable, switching operations across distances by telecommunication means. In **permanent remote control services**, the connection established is permanent.
- 35 There is no permanent connection in **non-permanent remote control services**. It rather depends on specific occasions. In the case of a fire alarm, for instance, connections will be established with the competent authorities.
- 36 **Turnover** is the total amount of charged supplies and other services provided for third parties. Please subtract customer discounts and other price reductions. Include the turnover obtained by trading with companies of the same group. **Do not include** extraordinary income, e.g. proceeds from sales of tangible assets and rental of real estate, interest received, dividends and the like.
- 37 **Persons employed** are working proprietors and unpaid family workers, and also all full-time and part-time wage and salary earners and apprentices who were employed by the enterprise on 31 December 1992. Temporarily absent persons (e.g. sick persons, persons on holiday, women on maternal leave, persons on leave for bringing up children, etc.) are also regarded as persons employed. **Do not include** persons doing their military or alternative service, persons employed abroad or persons receiving early retirement pensions. Neither include employees placed by other enterprises against payment at the disposal of the enterprise concerned for performing a job (temporary loan employment).
- 38 **Part-time employees** are all persons employed on 31 December 1992 who work less than the number of weekly hours of work typical in the area or the branch or enterprise concerned. Short-time work is not considered to be a form of part-time work.
- 39 The term **gross wages and salaries** refers to the total of gross earnings (compensation in cash and kind prior to the deduction of taxes and employee's social security contributions) **excl. employer's compulsory social security contributions**. Please include also the earnings of members of a partnership, members of a managing board and other managing staff in so far as they are regarded as earnings from dependent employment in terms of taxes. Any kind of special payment such as bonuses, contract conclusion premiums and employment benefits to encourage capital formation, etc. are also part of gross wages and salaries.
- 40 The category of **purchases and fixed production of tangible investment goods** comprises the gross additions of tangible investment goods entered on the assets side in the accounting year concerned (without VAT). Please do not indicate the total stock of tangible assets, but only the **gross additions**.
- 41 Please specify the purchase cost of new tangible investment goods (not entered on the assets side by the enterprise as lessee) leased or rented for the first time in the 1992 accounting year on the basis of medium or long-term lease or tenancy agreements (term of the lease at least one year). **Do not include** the leasing of used investment goods.