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A: Austria

A.1 Commercial information

A.1.1 Description of market players

The main players in the directory services market in Austria are the incumbent, Telekom Austria (which owns the unified directory database), its partner Herold, CLC and Conduit. Mobile operators such as max.mobil also offer directory enquiry services and Web-based directory services.

Telekom Austria

Telekom Austria is the incumbent operator and the leader of the directory services market in Austria. It maintains six telephone information call centres. Telekom Austria owns the unified directory database and makes it available within the framework of cooperation agreements. The company makes a concerted effort to utilise regional know-how and is also well known for its quick search results. It offers the following directory services:

National directory enquiry service – provides national information via the number 118 200. This includes most fixed-line and mobile numbers in Austria, apart from those that are ex-directory.¹ Supplementary services allow callers to allocate the appropriate

¹ Data is available from the following sources: COLT Telecom Austria GmbH, Connect Austria, CyberTron Telekom AG, CyberTron mit 1066 Telekom GmbH, European Telecom International AG, FaciliCom International GmbH, GHS GLOBAL HOME SYSTEM Telekommunikation, max.mobil., MCN, Mobilkom Austria, M.I.T., MultiKom Austria Telekom, Netway communications AG, Raiffeisen Datennetz GmbH, RSL COM Austria, Telekom Austria, Telekabel Wien, Teleport Consulting und Systemmanagement GmbH, Tele.ring Telekom Service, UTA Telekom.

name and address to a known telephone number (reverse search) and to match a telephone number to a known Austrian address. The service can also provide information by topic: for example, telephone numbers of international airports, Austrian embassies abroad and trade bureaus. Information can also be customised to the location of the caller, giving specific information on the area.

International directory enquiry service (via 118 202) – also offers information as to local times, and about dialling Austria from abroad. Information can be provided in various languages.

Internet based directory service – enables searches for residential and businesses numbers based on city, region or postcode. Also enables users to find a postcode given the name of the area. Information on the Internet is refreshed every day.

Printed white pages – published by Herold (see below). Also contains telephone numbers from alternative operators.

Other providers of directory enquiry services

CLC started to operate in Austria in 2000 and offers a white and yellow page directory enquiry service through the number 118 899. It maintains its own white page database of 4.2 million entries and has data on about 300 000 companies supplied by Herold. The company also offers Web-based white and yellow pages directory services (www.clc.at). Information from the directory services can be delivered by email and SMS. CLC includes in its Web portal information about weather and numerous links to health, travel and hot topic sites. It also includes a service that allows sending “e-cards” to other people.

Conduit was launched in January 2001 and offers directory enquiry services through 118 811. It offers both white page and yellow page services (from Herold’s database), as well as international directory enquiries.

Other providers of directory services

Herold Business Data AG (www.herold.at) is the main directory publisher in Austria. It publishes white pages using information from the unified directory database owned by its partner, Telekom Austria. Herold also publishes yellow pages based on its own business database. It resells yellow page data to other providers such as CLC. Herold offers the following services:

- *White pages* – published in paper and in CD-ROM formats. It can also be accessed via the Web (<http://www.otb.at/>), which offers the possibility of delivering the information requested via WAP. The directories, which include subscribers of alternative operators, provide information on name, address, fixed telephone number, mobile number (if available) and fax number (if available).
- *Yellow pages* (“Gelbe Seiten”) – offered in paper format, on CD-ROM, via the Internet (www.gelbeseiten.at/) and WAP. A special book is published only for Vienna.
- “*Super Pages*” – white pages and yellow pages by region. It is offered in paper format.
- *Business directory* (“Firmen A-Z”) – company information in alphabetical order. It is offered in paper format

Herold has also developed a business-to-business portal that allows searches by company and product. It also offers Web-design services.

Wer Liefert Was? (WLW) – an online business directory service that collects information on about 305 058 companies from ten countries as well as 101 730 export-orientated companies from Finland, France, Great Britain, Italy and Sweden.

Compass Gruppe GmbH specialises in directory services for businesses. It offers information on about 180 000 companies in Austria (including 50 000 fax numbers). Service is offered through the Internet (www.compnet.at), while data on 74 000 companies in Austria is available on CD-ROM.

A.1.2 Availability and pricing structures for users

Telekom Austria is obliged to offer directory services to end users as part of its USO (see below). Other operators with their own customers are obliged to offer directory enquiry services and to provide information about at least their own subscribers.

The following paragraphs show the pricing structures of the main suppliers for end users.

Austria Telekom's directory enquiry service is priced per second. Depending on the origin of the call it can cost between EUR0.8 and EUR1 per minute. Conduit and CLC charge between EUR0.8 and EUR1 depending on the network in which the call is originated and the location within the network. Austria Telekom charges EUR0.34 per entry per year for each new entry in the directory. New entries can be telephone numbers, email addresses or web pages.

Paper-based white pages are free. Herold sells the printed yellow pages directory for EUR36.16, EUR59.96 and EUR120.52 depending on whether the client is residential, business with two users or a business with five or more users. It also sells a yellow pages CD-ROM for EUR14.46.

Internet-based directory services are free.

A.1.3 Availability and pricing structures for other service providers

Operators are obliged to provide directory enquiry services and to exchange data on request with other operators and directory service providers. Tariffs for the exchange of information between operators are required to be at a reasonable price and cost-oriented, but they are not public.

A.1.4 Usage trends

Telekom Austria's directory service receives about 70 000 calls daily. Compass claims to receive 500 000 enquiries per month on its Internet service.

A.1.5 Competition

<i>Telephone directory enquiry services</i>	<i>Providers</i>
White pages	Telekom Austria, CLC, Conduit
Yellow pages	CLC, Conduit
International	Telekom Austria, Conduit

<i>Telephone directories</i>		<i>Publishers</i>
Paper	White pages	Herold
	Yellow pages	Herold
	International	No information available
CD-ROM	White pages	Herold
	Yellow pages	Herold, Compass
	International	No information available
Internet	White pages	Telekom Austria, CLC, Herold
	Yellow pages	CLC, Herold, Wer Liefert Was?, Compass
	International	No information available

Exhibit A.1: *Providers of directory enquiry services and publishers of directories in Austria*

Telekom Austria dominates the market for directory enquiry services and is considered as the best provider of such services. According to a survey by the independent association for consumer information (VKI), of the three providers Telekom Austria, CLC and Conduit, Telekom Austria's directory service "is often a few seconds faster" when looking up telephone numbers. It is also the only one able to find the desired telephone number despite incomplete references. Telekom Austria's directory service was "recommended" for special requests as well as for international numbers. Other providers of directory services in Austria have recognized Telekom Austria's prominence and tend to use its database rather than try to create their own.

In the printed directory segment, Herold is dominant, with little competition. There is some competition in the provision of online yellow pages services, although the owner of the most complete database and the company that provides the most complete set of products is Herold.

A.2 Regulatory information

A.2.1 Current and planned regulation

Austria set up the Telekom Control Commission in late 1997. The commission is an independent authority with the powers of a court, and the Rundfunk und Telekom Regulierungs GmbH (RTR) – the regulatory authority for telecommunications and broadcasting – serves as its operative arm.² The main regulation relevant to directory services is the Telecommunications Act, 1997.

A.2.2 Regulatory framework and market situation

The directory enquiry service market has been opened to competition and a 118XYZ numbering scheme is in operation. Providers need no licence to offer directory services but they need to be registered with the regulator to offer telephone directory enquiry services.

As part of the USO, Telekom Austria is obliged to offer directory services to end users that must include paper-based or web-based directory services and a directory enquiry service. Other operators with their own customers are obliged to offer directory enquiry services and to provide information about at least their own subscribers. All subscribers have the right to be part of the directory or to be ex-directory, and to request that their details not be used for direct marketing.

Telekom Austria maintains the unified directory database. Through the USO, it must provide its own numbers and those of other operators, including fixed line numbers, fax numbers and mobile numbers. All operators must make available their subscriber directory data to other directory service providers for an appropriate payment at least once a week in electronic form or online.

Regarding access to subscriber data, the regulator thinks there are two problems: payment flows and the fact that there is incomplete information for mobile subscribers. The problem

² RTR replaced Telekom-Control GmbH as of March 31, 2001.

with access to subscriber data is that when alternative operators send their subscriber data to Telekom Austria, they have to pay a charge to be included in the database, and then Telekom Austria sells the finished data to directory service providers. This problem has not gone unnoticed by the regulatory authorities, who see decoupling the service flows – communicating database data on the one hand and processing and including it in directories on the other – as a possible solution. This has also been communicated to the operators.

A.2.3 Tariffs

Tariffs for wholesale and retail services should be cost-orientated and no cross-subsidies are allowed. Retail tariffs are not regulated and range between EUR0.7965 and EUR1.0894 per minute (20% VAT included), depending on the chosen tariff option (e.g. for the standard tariff option it is EUR1.031 per minute). Wholesale tariffs should be cost oriented, but they are not published.

A.2.4 Data protection

Customers can opt not to be included in the databases at no charge. The information in the databases is allowed to be used only for the purpose of providing directory services.

A.2.5 Regulatory obstacles to competition

The Austrian directory services market is reasonably competitive. There is numbering parity (using the series 118XYZ). The retail tariffs of Telekom Austria and other providers are low, so new entrants find it difficult to enter the market by competing on price .

As incentives to competition the regulator has introduced a fair and transparent numbering regime and has made access numbers available to all operators.

A.2.6 Unified directory database

Under the terms of its USO, Telekom Austria maintains the unified directory database, which includes fixed, mobile and personal numbers. It does not include ex-directory numbers. All operators must make their subscriber directory data available to directory service providers on cost-based and non-discriminatory terms.

There is also provision in the regulations for operators to be required to provide subscriber data to the regulator free of charge – though this has not been implemented so far. This is intended to allow the regulator access to data for regulatory purposes – such as dispute resolution.

B: Belgium

B.1 Commercial information

B.1.1 Description of market players

Belgacom

Belgacom is the incumbent operator in Belgium and is obliged to provide public telecoms services throughout Belgium. As part of its USO, Belgacom maintains the database of subscribers from all telecoms operators (both fixed and mobile since May 2001), and guarantees that subscriber information is available for the directory enquiry service and the printed white pages. Belgacom's directory services include:

National directory enquiry services – White page information and (since October 2001) yellow page information is accessible via the numbers 1207 (for Dutch speakers), 1307 (French) and 1407 (English). Two searches are allowed per call. With the three mobile operators and all fixed operators interconnecting to this service, 1207/1307/1407 is a truly universal directory enquiry service. The yellow page information is provided by the publishers Promedia (see below). Belgacom's yellow page service provides not only the address and telephone number required, but also specific details of the service provided and whether that service is located near to the caller. Since February 2002, information is also available on doctors in service throughout the country. Direct connection with requested numbers has been possible since June 2000, and since March 2002, SMS-messaging was introduced for customers of Belgacom's mobile operator, Proximus. This service should soon be available for customers of the other two mobile operators (Mobistar and Base).

Other directory enquiry services from Belgacom are an **international directory enquiry service** (via 1204) and the ‘Sherlock’ **reverse-search directory enquiry service** (via 1408). This last service allows searches users to find the name and address behind a listed number.

Internet-based directory services. Skynet, a brand from Belgacom, offers white page searches (powered by Belgacom’s database) and yellow page searches (powered by Promedia).

Other operators

There are three mobile operators in Belgium: Proximus, Mobistar and Base. They all interconnect with Belgacom for the 1207 directory enquiry service. In addition, Mobistar has its own numbers: 5610 to obtain national numbers (fixed network customers only), and 5611 to obtain international telephone numbers (although this is not operational yet). The requested number appears on the mobile phone, so that instant calling is possible. Furthermore, Mobistar has an information line on 5620, where yellow page information can be requested; this also offers direct-connect capabilities.

Scout also offers directory enquiry services for Proximus subscribers (via 070 700 700 or 7007). This service offers yellow page information only. Charges are BEF7 (17.4 euro cents) per minute in peak hours and BEF3.5 (8.7 euro cents) per minute off-peak.

Other providers of directory services

Kapitol was established in 1995 with the objective of publishing telephone directories on CD-ROM for the Belgian market. In the same year, the company launched an Internet site, thus becoming the first company in the world to publish white page directories on the Web. Kapitol focuses on Western Europe, where it is active in Belgium, Denmark, France, Italy, Luxembourg and the UK. The company is planning to enter the German and other Scandinavian markets. Its product range (under the brand name Infobel) includes:

- *CD-ROM white and yellow pages*: including Telephone Guide Belgium, Business Belgium, Telephone Guide Benelux, and Europe Info Business.
- *Internet-based white pages*, including the facility to find an email and a reverse search based on telephone numbers.
- *Internet-based yellow pages*, including street maps and a local search enabling users to find a category of businesses within a range of up to 2 km.
- *Internet-based business directory services*, offering a wide range of information on businesses in Belgium, such as the legal status of a company, its turnover and gross profit, plus free credit advice on each company.
- *Internet-based international directory services*: yellow, white and business pages as well as additional services are available for Denmark, France, Italy, Luxembourg, Netherlands, Spain, the UK and the USA. For 187 other countries worldwide, directory information is available through partners.

Promedia, the largest Belgian publisher, prints the white and yellow pages, which it distributes together on a yearly basis.. The company was established in 1968 and since 1998 has been owned by VNU World Directories. VNU is also active in Belgium, Portugal, Ireland, South-Africa and Puerto Rico. Promedia obtains directory information from all operators via Belgacom. For the yellow pages, this information is validated and enriched with its own research. For the white pages, Promedia is not allowed to make any changes to the data. Its full product range includes:

- *Paper-based yellow pages*: 10 regional editions.
- *Paper-based white pages*: 28 regional editions. Mobile numbers have been included since May 2001.
- *Fax directory*: national edition of an alphabetical database of business fax numbers.
- *CD-ROM guide*: information from the yellow pages, white pages, fax directory and electronic addresses. Approximate searches are possible.
- *Internet-based yellow pages*: information is refreshed twice a month. Also available are street maps, a route-planner, links to advertisers' sites and e-shops, online videos of advertisers, a euro-converter and trade information (from Graydon).
- *WAP-based yellow pages and fax guide*. Also available are a route-planner for cars and pedestrians. The same searches are possible as for the CD-ROM and Internet-based services. Information is refreshed twice a month.

- *Local guides*: 21 local guides, provided in cooperation with municipalities, offering local information for residents.

Many online directory service providers offer a wide array of complementary services to increase their appeal to the public. Kapitool (Infobel) has a range of additional services, including: entertainment, shopping (including price comparison), employment, business (credit reports, stock chart, insurance, trade show, business news), classifieds (cars and real estate) and travel services (flight info, weather, travel guide). Promedia also offers 'yellow pages shopping', an online shopping mall with over 140 e-catalogues and e-shops in a secure environment.

TDL Belgium – Until 2002, TDL Belgium published Directo, a printed directory gathering together 40 local business directories and a national business-to-business guide. The company also offered an Internet-based national directory called Business Finder. TDL went bankrupt in March 2002 as a consequence of a slump in the advertising industry. Despite contacts with Telenor, Telia and Wanadoo, Directo's database of 550 000 addresses has so far not drawn attention from potential buyers.³

Scout – Apart from Belgacom (Skynet), Kapitool and Promedia there is also the Internet search engine, Scout, which is owned by Vivendi Universal and has directory services in the UK, Belgium, France and the Netherlands.

There are also many more Web sites that offer directory services, but these providers do not have their own database or search engines

B.1.2 Availability and pricing structures for users

Availability

Throughout 2000, BIPT examined to what extent Belgacom complied with its USO. As part of this review, the regulator considered Belgacom's obligation to offer universal

³ Source: EADP, March 2002.

directory services in print and over the telephone. In June 2001, Belgacom stated that it did comply with the USO for directory enquiry services.

Until 2002, information provided by Belgacom's directory services was restricted to the numbers of fixed-line subscribers of Belgacom, Telenet, KPN Belgium, Codenet and COLT, plus the mobile subscribers of Proximus. However, from March 2002, all operators in Belgium, both fixed and mobile, have agreed to cooperate with Belgacom and the publisher Promedia for the provision of white and yellow page information. Although this agreement has been made in theory, in practice not all subscriber data is included in Belgacom's database.

All regions in Belgium are covered by at least one directory service provider, and so this service is universally available. In combination with the availability of white pages (with data from Belgacom) and yellow pages (with data from Promedia and Kapitool) on CD-ROM and the Internet, directory service information is therefore widely available in Belgium.

Pricing

Most directory enquiry services are charged on a per-call basis. Belgacom's national service costs EUR1.12, the international service EUR2.18 and the Sherlock (reverse search) service EUR0.89 per call. Proximus's SMS service costs EUR0.15 per message. Two of the mobile operators use Belgacom's services, and charge at the same rates as the incumbent. Mobistar, the only mobile operator with its own enquiry service, charges EUR1.25 per call for its national service and EUR2.50 for its international service. Its information number is charged on a per-minute basis, at EUR0.62 per minute.

Paper-based yellow and white pages as well as Internet-based services are available free. CD-ROMs of directory information cost between EUR60 and EUR149.

B.1.3 Availability and pricing structures for other service providers

Belgacom is responsible for the maintenance of a unified directory database and all other operators (fixed and mobile) in theory provide it with their subscriber information, as required by the Telecommunications Law (see Section B.2 below). The price which Belgacom pays for this data is determined by commercial agreements, and since 1999 has been EUR0.15 for each piece of basic directory information, a rate suggested by Belgacom. Operators protested that this is below cost level for them, but eventually adopted this rate as it was approved by the BIPT. The regulator is now conducting a study into a new cost-based tariff, but this study will take another year and BIPT does not want to implement the new tariff until the Telecommunications Law has been modified in accordance with the new EC Directives.

B.1.4 Usage trends

National directory enquiry service. Despite a rise in the use of Internet-based services, traditional directory enquiry services continue to be used even more than before. 1207 received 40 million enquiries in 1999, 42 million in 2000 and around 40 million in 2001. 15% of enquiries come from mobile phones. On average, a subscriber uses this service 8 times a year.

Yellow pages. A recent study (by TNS Media in July 2001) revealed that 85% of Belgians older than 15 use the yellow pages. On a yearly basis, there are 200 million searches in the yellow pages (all formats). On a weekly basis, 920 000 users search the yellow pages.

Internet. Kapitol's Web site processes more than 12 million searches per month and receives more than 40 000 unique visitors per day.⁴

⁴ Source: Infobel, April 2002.

B.1.5 Competition

<i>Telephone directory enquiry services</i>	<i>Providers</i>
White pages	Belgacom, Mobistar (fixed subscribers only)
Yellow pages	Belgacom, Scoot
International	Belgacom,

<i>Telephone directories</i>		<i>Publishers</i>
Paper	White pages	Promedia
	Yellow pages	Promedia
	International	Promedia
CD-ROM	White pages	Kapitol, Promedia
	Yellow pages	Kapitol, Promedia
	International	Kapitol, Promedia
Internet	White pages	Belgacom, Kapital, Promedia
	Yellow pages	Kapitol, Promedia, Scoot
	International	Kapitol, Promedia

Exhibit B.2: *Providers of directory enquiry services and publishers of directories in Belgium*

There is little competition in the directory enquiry market, with only Mobistar offering a competing directory enquiry service to Belgacom's service. Moreover, Mobistar's service is only available for its own customers – and therefore does not create true competition.

With the bankruptcy of TDL Belgium in March 2002, there are two CD-ROM directory service providers left (Promedia and Kapital) and only one paper-based directory provider (Promedia). In terms of Internet-based services, there are three national online directories for white pages (Belgacom, Promedia and Kapital) and three for yellow pages (Scoot, Promedia and Kapital), with a multitude of Web sites referring to these databases and search engines.

B.2 Regulatory information

B.2.1 Current and planned regulation

BIPT (Belgisch Instituut voor Postdiensten en Telecommunicatie) is the national regulator of the post and telecoms sector in Belgium. The Belgian legislation relevant to directory services is summarised below:

- **Telecommunications Law** (March 1991) designates Belgacom as the USO operator with the obligation to provide printed directory services and a directory enquiry service.
- **Royal Decree** (September 1999) implements some changes in the legislation with regards to the production, publishing and distribution of telephone directories. These changes were necessary in order to bring the existing legislation into line with EC guidelines.

B.2.2 Regulatory framework and market situation

There is no numbering parity in the Belgian market and the Belgian regulator is not actively looking into implementing a 118XY numbering series.

Under the terms of its USO, Belgacom is required to make national directory enquiry services available to all of its subscribers. It is also obliged to publish a printed universal telephone directory (white pages) in areas of Belgium where no other provider publishes such a directory. Every subscriber connected to a telecoms operator (whether fixed or mobile) has the right to be included free of charge in the white pages and the 1207 national directory enquiry service, unless they have indicated that they wish to be ex-directory. Similarly, every business has the right to a free listing in the yellow pages.

All subscriber information should be restricted to the information necessary to uniquely identify the subscriber. A subscriber should be listed in every relevant category of a telephone guide, so operators in their contracts with subscribers are obliged to ask for details of any industrial or commercial activities undertaken by the subscriber, as well as

their inclusion in a number of other categories. Additional information can only be included when the subscriber has explicitly agreed to this. All this information has to be provided free of charge in printed directories.

In order to provide the national directory services required by the USO, Belgacom maintains the unified directory database, which (in theory) contains subscribers of all fixed and mobile telecoms operators. These operators are obliged by law to provide Belgacom with their subscriber data under reasonable and non-discriminatory technical, financial and commercial conditions approved by the BIPT. Further, the price of this data has to be based on cost.

Companies intending to publish a printed telephone directory are required to notify BIPT and provide information on the regions covered, so that BIPT can ensure the whole country is covered by such directories.

Publishers obtain subscriber information from operators under legislated conditions, and are obliged to guarantee a balanced treatment of this information in their directories. Subscribers must be ordered per region in alphabetical order (to guarantee the universal character). The listings should include both the fixed and mobile numbers of subscribers of all operators, unless they have expressed an explicit wish to be ex-directory. Certain criteria on format, advertising and neutrality should also be conformed to. Publishers of universal telephone directories should cover at least one telephone zone and at least 75 000 addresses. Directories should be distributed to all subscribers in the relevant zone free of charge, without them needing to request one. A directory may not be distributed on any other medium until the paper version has been distributed. A new version of a directory should be published at least once every 15 months.

When considering the requirement for ensuring universal availability of directories, an electronic directory (CD-ROM or Internet-based) is not considered a guide that covers a certain region.

If a publisher wishes to discontinue a directory, it has to notify BIPT six months after publishing the last edition, and BIPT has the authority to appoint another company to take over publication of this directory, which must be brought out within nine months. At present, this duty falls on Belgacom under the terms of its USO.

B.2.3 Tariffs

Wholesale tariffs

Belgacom has set a wholesale tariff of EUR0.15 per piece of directory information. The incumbent pays this price to the alternative operators for their directory data, and alternative directory service providers pay the same price to Belgacom. The regulator has approved this tariff, although operators complain it is too low and directory service providers find it too high. The regulator is conducting a study into a new cost-based tariff, but this study will take another year and BIPT does not want to implement the new tariff until the Telecommunications Law has been modified in accordance with the new EC Directives.

Retail tariffs

The retail tariff Belgacom charges for its directory enquiry service should be reasonable, and approved by the regulator. Paper-based telephone directories should be free of charge.

B.2.4 Data protection

The paper-based telephone guide may only include the name of people who wish to be included. As of the legislation in 14 September 1999, a change was made for mobile subscribers, who thus far were only included in a telephone guide on their explicit request (i.e. opt-in). This legislation introduced an opt-out policy for both fixed and mobile subscribers. A transition period of six months was instituted (ending March 2000), during which mobile operators were obliged to ask their customers whether they wish to be included in the telephone guide or not. This does not affect pre-paid mobile phone customers, who made up over 50% of the mobile users in Belgium in the last year.

Interestingly, Belgacom reports that only a very small number of mobile subscribers decided to be included in directory databases (even though this was free of charge). This shows that mobile phone users want to be reachable, but not by anyone: they consider their mobile number to be a confidential number for personal use.

Article 7 of the Royal Decree explains the rules through which costs for the maintenance of a list of ex-directory subscribers can be charged to these subscribers. The right to privacy implies that charges to ex-directory subscribers have to be cost-related and approved by the Ministry beforehand. Such charges should not be so high that they force ex-directory subscribers to change their status.

Article 5 of the Royal Decree states that directory information obtained by publishers of telephone directories may not be used for any purpose other than those directories: information may not be sold or passed on to third parties.

B.2.5 Regulatory barriers to competition

There are some regulatory barriers to competition in Belgium. The lack of numbering parity makes it very difficult for new entrants to enter the directory enquiry services market, but the Belgian regulator is not actively looking into implementing a 118XY numbering series. Access to Belgacom's database is regulated, though there are some discussions on the tariff set by the incumbent and the regulator may change this tariff after it completes its study.

B.2.6 Unified directory database

Belgacom under its USO is responsible for the maintenance of a unified directory database including fixed and mobile numbers of all telecom operators. Although Belgacom has agreements with all fixed and mobile operators, there is currently a disagreement about the tariff under which this subscriber information is collected by Belgacom. Therefore, Belgacom's directory database does not yet include all listed subscribers.

One alternative service provider, Kapitol, has started building up its own competing directory database. For this, it approaches a number of the operators in the market. This database is not universal yet either.

C: Denmark

C.1 Commercial information

C.1.1 Description of market players

TDC

TDC is the dominant player in the directory services market in Denmark. It is designated as having a USO for the purpose of directory enquiry services and provision of white page directories in Denmark. It provides directory services through two subsidiaries – directory enquiry services through incumbent operator Tele Danmark, and printed white pages and yellow pages through TDC Forlag A/S. Tele Danmark has two directory enquiry numbers, 118 (operator assisted) and 1811 (automated). They offer both white page and yellow page information. The company also offers an international directory enquiry service.

Directory information is also provided on CD-ROM. Tele Danmark does not offer Internet-based directory services.

Other directory service providers

Ahhaaa AB has emerged as a major independent provider of directory enquiry services in Denmark, with its own access number (1818). The operator Tele2 has an exclusive

agreement with Ahhaaa to provide directory assistance service to its customers by using 1818.⁵

TDC Forlag A/S (a subsidiary of TDC) is the market leader in directory products, publishing both white and yellow pages. Its main products are the following:

- *white pages* – published on paper
- *De Gule Sider* – Danish yellow pages, published on paper and through the Internet (<http://www.dgs.dk>).
- *Stortele Danmark* – a business-to-business service available online (<http://www.stortele.dk>) and on CD-ROM and paper.

Eniro Denmark A/S is the other major directory publisher. The company offers white, yellow, and ‘pink’ pages (business directory in alphabetical order). Its main customers are small and medium sized companies throughout the country. Its main directory products are outlined below:

- Paper directories – the *Contact* directory is published for major cities and their surrounding area. The first edition of Contact Copenhagen was published in 2000 and nearly one million copies were produced and distributed to all households. The *Mostrup* regional directory is published in 265 of the country’s 275 municipalities and is the sole directory for most municipalities.
- Internet directories – end users have free access to yellow pages, white pages and pink pages.⁶
- Telephone enquiry service – as mentioned above, the company offers a free enquiry service providing business information.

Eniro does not intend to provide these directories on CD-ROM. It is planning an SMS service but this has not yet been launched.

⁵ According to Hennent Sorensen of TeleDanmark, Tele2 customers can only use 1818 number for directory enquiry services.

⁶ Source: Jannik Hulten of Eniro Denmark A/S (telephone interview with Gautam Mahipal of Analysys on 14 May 2002)

KRAK offers white and yellow pages on paper, online (www.krak.dk), on CD-ROM and via SMS. The company is the largest provider of online directory services and, according to KRAK, its Web site is one of the most popular in Denmark, ranking number 16 in terms of hits and competing directly with Tele Denmark. Standard directory services are free for end users – a substantial proportion of the company’s revenue comes from business customers.

There are a number of small Internet-based players in the market, including:

- **Infobel** (<http://www.infobel.com/Denmark/>) – offers white page information for all of Denmark.
- **909** (www.909.dk) – online white and yellow pages
- **Kompass** – provides a business-to-business directory service, with a subscriber database of approximately 30 000 business contacts. The company procures its data through its own sales representatives appointed in different regions of the country.⁷

C.1.2 Availability and pricing structures for users

Calls to Tele Danmark’s 118 service cost approximately DKK10 (EUR1.4) per minute.⁸ Ahhaaa charges approximately 10% less for its enquiry service.⁹

Billing is carried out by the telecoms operators, and the revenue from the final consumer is passed on to the directory service provider (Tele Denmark or Ahhaaa) after deducting a certain percentage for billing and other administrative charges.

Paper-based yellow and white pages are distributed free of charge. KRAK’s standard online directory services are free.

⁷ Source: Telephone Contact with the company (Tel No. 00 45 45 46 09 10)

⁸ Set-up cost DKK1.75 + call charges DKK9.95 per minute during the day and DKK13 in evenings, averaging to DKK10 per minute. (Source: Sanne Kristiansen of Tele Danmark)

⁹ Source: Sanne Kristiansen of Tele Denmark.

C.1.3 Availability and pricing structures for other service providers

By law, all telecoms operators (fixed and mobile) in Denmark are obliged to provide access to their basic subscriber database to any company which wishes to provide directory service on a marginal cost basis.

Tele Denmark, in fact, does not pay anything to other operators for providing it with their subscriber information for the purpose of its directory enquiry service.¹⁰ The other operators seem to accept this arrangement because it is in their interest to provide this information. However, there is an ongoing discussion between the regulatory authority and the operators on this issue; no decision has yet been made by the regulator.¹¹

Because there is no unified database of subscriber information in Denmark, alternative directory service providers such as KRAK and Eniro have created their own databases, and have separate agreements with all the operators. In 2001, Tele Danmark charged other service providers approximately DKK120 000 (EUR16 000) per annum for access to its subscriber information, with a daily update facility.¹² At present, both KRAK and TDC are obtaining subscriber information from Tele Danmark, while Eniro and Ahhaaa buy the data from KRAK.

C.1.4 Usage trends

The number of directory enquiry requests from fixed-line subscribers is falling whereas requests from mobile users are slightly increasing. It is believed that the falling usage pattern for fixed-line subscribers is due to increasing use of Web-based directory services.¹³

¹⁰ Source: Hennen Tsorensen of Tele Denmark.

¹¹ Source: Hennen Tsorensen of Tele Danmark (telephone interview, May 2002)

¹² Source: Hennen Tsorensen of Tele Danmark (telephone interview, May 2002)

¹³ According to Sanne Kristiansen of Tele Denmark.

C.1.5 Competition

<i>Telephone directory enquiry services</i>		<i>Providers</i>
White pages		Tele Danmark, Ahhaaa
Yellow pages		Tele Danmark, Ahhaaa , Eniro
International		Tele Danmark

<i>Telephone directories</i>		<i>Publishers</i>
Paper	White pages	Eniro, TDC Forlag
	Yellow pages	Eniro, TDC Forlag
	International	no information available
CD-ROM	White pages	Tele Danmark
	Yellow pages	Tele Danmark, TDC Forlag
	International	no information available
Internet	White pages	Eniro, KRAK
	Yellow pages	Eniro, KRAK, TDC Forlag
	International	no information available

Exhibit C.3: *Providers of directory enquiry services and publishers of directories in Denmark*

TDC is the dominant player in the market for directory enquiry services and paper-based directories. Eniro and TDC Forlag A/S are the major players in the market for printed version of yellow pages and classified business directory services. KRAK has emerged as the major provider of Internet-based directory services.

The main reason for the limited competition in directory enquiry services is the existence of the 118 default code: other service providers are forced to use less convenient four-digit numbers (18XY).

C.2 Regulatory information

C.2.1 Regulatory framework and market situation

The Danish regulator, Telestyrelsen, has not yet withdrawn the three-digit default code (118) from service; new providers of directory enquiry service provide their service through four-digit numbers (18XY).¹⁴ According to some service providers, there has not been any serious discussion concerning withdrawing the 118 service, as has happened in some other European countries such as Ireland and the UK.

TDC has a USO to provide universal directory services. All telecoms operators (fixed and mobile) are obliged to provide directory enquiry services to their customers.

C.2.2 Tariffs

Telestyrelsen does not regulate the retail tariffs for directory enquiries services. The cost at which data is available from other operators is regulated and cost-based.

C.2.3 Data protection

There is an opt-out default option for both fixed and mobile subscribers in Denmark. Pre-paid mobile subscribers do not form part of directory enquiry databases, nor corporate subscribers (those with mobile phone provided by their company)¹⁵.

¹⁴ Numbers in the series 18XY are used for access to directory enquiry services and for provision of services that are of particular importance to society. Four-digit short codes are a very limited resource, and at the present time there are only few examples of these numbers being assigned for purposes other than directory enquiry services. In considering whether a service may be regarded as being of particular importance to society, it is essential that the service should be nationwide, widely informative and be used regularly. Source: Guide to the Danish Numbering Plan, April 2001, http://www2.tst.dk/uk/numbering_plan.doc

¹⁵ Source: Tele Denmark (Telephone interview between Hennen Tsoresen and Sanne Kristiansen of Tele Denmark and Gautam Mahipal of Analysys on 15 May 2002)

C.2.4 Regulatory barriers to competition

The market in Denmark is fairly competitive, although there is not yet number parity. The lack of a unified directory database also represents a certain barrier to competition.

C.2.5 Unified directory database

Tele Denmark has a USO to provide directory services in Denmark and maintains a physically unified directory database. Other operators (both fixed and mobile) are obliged to provide it with their subscribers' information. The cost at which data is available from operators is regulated and cost-based.

In the absence of any concrete directive from the regulator, *several* comprehensive databases are maintained by different service providers. For example, Eniro, KRAK and Ahhaaa all have their own databases. Eniro and KRAK both believe that they have a comprehensive database containing details of 95%–98% of fixed and mobile subscribers that have not explicitly opted to be ex-directory.

In order to have a completely comprehensive database, alternative providers of directory services in Denmark would need to enter into separate agreements with some 160 fixed and mobile operators. Although this is not practicable, because many operators are small, agreements with just the eight-to-ten largest operators are sufficient to allow a service provider to build a database covering approximately 80%–90% of subscribers.¹⁶

¹⁶ Source: Jannik Hulten of Eniro (telephone interview, May 2002)

D: Finland

D.1 Commercial information

D.1.1 Description of market players

Fonecta and Eniro are the largest directory service providers in Finland with market shares of approximately 50% and 30% respectively.¹⁷ Additionally, there are other small directory service providers in the market.

Fonecta

Fonecta (formerly Sonera Info Communications Ltd) provides the following services:

- **National directory enquiry services** via 118. This service is also provided through Fonecta's own independent number, 02 02 02 (operator-assisted) and 02 02 00 (automated). The service was launched six years ago and provides white page information for all fixed and mobile numbers in Finland, as well as yellow page information. The service also provides call completion and an SMS service.¹⁸ Fonecta has agreements with Sonera (the largest operator) and a number of other operators to provide their directory enquiry services. The company also provides a directory enquiry service in France.
- **International directory enquiry service.** Presently Fonecta is the only company which provides an international directory enquiry service in Finland.

¹⁷ Source: Interview with Mr. Mikko Raunio of Fonecta, May 2002.

¹⁸ Source: Sonera.com, Press releases, 28 November 2001.

- **White pages and yellow pages** – the company publishes these on paper and the Internet, and also offers the same information as a WAP or SMS service. Fonecta has not yet launched these services on CD-ROM.

On 22 April 2002, Fonecta and Findexa Oy (the provider of the 'Inoa' branded directory services) signed a co-operation agreement regarding their electronic directory services businesses. Findexa will sell advertising in the media while Fonecta takes care of service and production.

Eniro

The second largest service provider in Finland is Eniro, which offers directory enquiry services in twelve European countries. Through Kaupunki-info, the company offers regional directory services (paper-based yellow pages) in 28 local regions in Finland; this is popular among within the business-to-individual segment. Yritystele is a brand for national, regional and industry-specific directories for the business-to-business segment. Both these products are available through Internet.¹⁹ Besides this, the company also operates a nationwide white and yellow page directory enquiry service using the independent number 0100 100, and a 118 directory enquiry service for Elisa and Radiolinja subscribers. The company offers mobile services through sms.haku. In November 2001, Elisa, the second largest telecoms operator in Finland, sold off its stake (7%) in Eniro.

Other providers of directory services

The third largest player is Inoa (Findexa Oy) – see above – which publishes a Finnish yellow pages on paper and online (<http://www.inoa.fi/>). In the near future the company plans to offer the information on CD-ROM, via mobile telephone and through personal directory assistance.

In addition, there are some small players such as Interaktiiviset Keltaiset Sivut, which provides an Internet-based yellow pages directory service for Finland

¹⁹ Through www.kaupunki-info.fi and www.yritystele.fi

(<http://www.keltaisetsivut.fi/>), allowing searches by business name or business classification. In the directory enquiry segment, Aktivist has launched a yellow pages service with its own access code 0700 2400 and also publishes a printed business-to-business directory.

D.1.2 Availability and pricing structures for users

Retail pricing is based on upfront fees plus usage-based pricing. In addition to this, consumers are required to pay for value-added services such as call completion and SMS messaging. A typical directory enquiry call lasts 40 seconds, for which consumers pay approximately 70 euro cents (including VAT of 22%). With the call completion facility, the retail charges would increase to EUR1 per call. Retail charges do not vary significantly across service providers.

Retail pricing for international calls is EUR2.5 (including VAT) per call on average.

The service providers set the price for directory enquiry calls. The telecoms operators carry out the billing of the users: the billing charge is 5% of the price paid by the subscriber. This charge is regulated and is required to be based on a non-discriminatory basis.

D.1.3 Availability and pricing structures for other service providers

The unified directory database is owned by Suomen Numeropalvelu Oy, which act as a common clearing house. Fonecta and Finnet Group (representing 39 telecoms operators) own 40% and 60% respectively of the joint company.

According to Fonecta, the common clearing house does not have a USO as such, though the competition authority of Finland ensures that access to the database is available on a non-discriminatory basis to any company willing to provide a directory enquiry service in Finland. Newcomers can access the database without any problem at a set price based on a per-search basis. According to the Teleoperation Act, the telecoms operators have an obligation to publish their subscriber data in an updated format at least once a year (though a printed directory is only obliged to list numbers for fixed lines).

Generally the cost to access to the central database is 10 euro cents per piece of information, which is calculated on a no-profit, no-loss basis. According to Fonecta, the actual cost depends on the volume of information required by the service provider, and the access cost may go down some 50% within the next year. The charges cover the cost of database maintenance and update. The cost of the data itself is approximately 60% of the total access cost (i.e. 6 euro cents). The remaining 40% is for other services provided by Suomen Numeropalvelu Oy, such as the listing management system. In theory, therefore, if a service provider is willing to download the data to its own database and take care of the maintenance, not using Suomen Numeropalvelu's other services, the price for each access would be only 6 euro cents.

For international directory enquiry services, the cost to the service provider depends on whether the access is through "simultaneous call" or through "online connection". In the former arrangement, the data itself is completely free as it is covered by bi-lateral contractual arrangements between various international database owners. Service providers have to incur other costs, however, such as the cost of international calls. When access to the data is via online connection, the cost to the service provider varies from 2 to 20 euro cents per search, depending upon the country for which the information is required. Fonecta says it processes approximately 90% of its international directory enquiry calls (for 26 countries) through online connection. Although this method is costly, it is much quicker and therefore ensures good quality of customer service by minimising the call time.

D.1.4 Usage trends

There are approximately 55 million directory enquiry calls per year. According to Fonecta, international enquiries represent only 1.5% of all directory enquiry calls. Calls from fixed line networks are decreasing at 1% per annum whereas calls from mobile are slightly increasing.

D.1.5 Competition

<i>Telephone directory enquiry services</i>		<i>Providers</i>
White pages		Fonecta, Eniro
Yellow pages		Fonecta, Eniro, Inoa, Aktivist
International		Fonecta

Telephone directories		Publishers
Paper	White pages	Fonecta
	Yellow pages	Fonecta, Eniro (regional)
	International	no information available
CD-ROM	White pages	none
	Yellow pages	none
	International	no information available
Internet	White pages	Fonecta
	Yellow pages	Fonecta, Inoa, Interaktiiviset Keltaiset Sivut
	International	no information available

Exhibit D.4: *Providers of directory enquiry services and publishers of directories in Finland*

The Finnish market for directory enquiry services is fairly competitive, although the government has not embarked on withdrawing the default short code (118). Finland is very well penetrated with quality enquiry services and the pricing is reasonable. The major recent developments in directory enquiry services were the sale in 2001 of the incumbent operator's directory enquiry unit²⁰ (later re-branded as Fonecta) and the creation of an independent unified directory enquiry database. The printed directories market has two main players.

²⁰

In November 2001, Sonera, the incumbent operator in Finland, sold its directory enquiry business unit to Britain's 3i Group for EUR125 million in cash. This unit achieved a turnover of EUR53 million with a EUR6 million profit margin in the nine months ending September 2001. (Source: Total Telecom, 7 November 2001).

D.2 Regulatory information

D.2.1 Current and planned regulation

FICORA, the Finnish Communications Regulatory Authority, is the national regulator of telecoms in Finland. The main Finnish legislation relevant to directory services is the Teleoperation Act, and the Act on the Protection of Privacy and Data Security in Telecommunications.

D.2.2 Regulatory framework and market situation

118 is the commonly used number for providing directory enquiry service in Finland, but consumers can also call enquiry service providers direct on longer numbers.²¹ Operators have can choose to route directory enquiry calls either through their own call centres or through contracted service providers.

At the moment there is not number parity, though the 118 code is available to all service providers. Fonecto believes that the 118 access code might disappear altogether in the future, opening the market to competition.

There is no USO for any operator for any services in the Finnish market. The Telecommunication Market Act²² stipulates the following duties of telecoms operators in Finland:

- to ensure the availability of information of their subscribers in a publicly available up-to-date directory of subscribers, taking into account the provisions of the Act on the Protection of Privacy and Data Security in Telecommunications
- to submit their subscriber information for publication in a directory of subscribers in a appropriate format and under equal and reasonable terms, and on a cost-based basis.

²¹ OFTEL's consultation on access codes for directory enquiry services, November 2000.

²² http://www.mintc.fi/www/sivut/suomi/tele/saadokset/telecom/norms/1997_396.htm (Amendments 22.4.1999/566 and 6.4.2001)

All the operators, fixed and mobile, are obliged by their licences to provide their subscribers' information to the common database run by Suomen Numeropalvelu Oy.

D.2.3 Tariffs

Wholesale and retail tariffs are not regulated in Finland, though operators are obliged to provide their subscriber data on cost-oriented basis. The billing charge of 5% is regulated and should be based on a non-discriminatory basis.

D.2.4 Data protection

The Act on the Protection of Privacy and Data Security in Telecommunications²³ specifies that only such information as is necessary to identify a subscriber may be published in a subscriber directory or provided by a directory enquiry service, unless the subscriber has given their consent to the publication of additional information. Operators must also ensure that any demands and alterations by the subscriber are conveyed to the directory service provider.

There is an opt-out system for both fixed and mobile operators, but the scenario is likely to change with the proposed directive by the European Parliament for introducing an opt-in system in May 2002.

D.2.5 Regulatory barriers to competition

There has not been much regulatory intervention in the directory services market in Finland. Number parity has not been implemented, although the market is fairly competitive and there is one nationwide database available to all service providers.

²³

http://www.mintc.fi/www/sivut/suomi/tele/saadokset/telecom/norms/1999_565.htm

D.2.6 Unified directory database

All operators provide subscriber information to the unified database maintained by Suomen Numeropalvelu Oy, a company jointly owned by Fonecta (40%) and Finnet Group (60%). The Finnet Group comprises 39 Finnish telecoms operators (including mobile operator DNA Finland).

There are some 7 million subscribers in the database: 3.7 million for mobile and 3.3 million for fixed subscribers. The number of fixed listings is fairly stable whereas mobile listings are growing slightly. According to Fonecto, fixed listing might go down slightly in the future. At present, the database includes approximately 95% of mobile subscribers, a fact which contributes to high mobile usage within Finland. Fonecto believes this unusually high inclusion rate for mobile subscribers is due to both the obligation as well as the intention of the operators, which made the early decision to have the default option of “opt-out”.

Suomen Numeropalvelu provides access to its central database to all directory service providers. Operators update the database electronically every second day. According to Fonecto, the Finnish regulator is not directly involved in Suomen Numeropalvelu, but it has approved it as fulfilling the listing obligation.

E: France

E.1 Commercial information

E.1.1 Description of market players

France Telecom

France Telecom offers a **national directory enquiry service** (via the short code 12) which includes white page and yellow page information. This includes numbers from alternative fixed and mobile operators, though in France these represent only a small proportion of subscribers. France Telecom also offers an **International directory enquiry service** via 3212.

The incumbent provides printed white and yellow pages through Pages Jaunes. Pages Jaunes is a subsidiary of Wanadoo which itself is a subsidiary of France Telecom. In 1999 it had 75% of the directories business in France and in 2000 had a sales turnover of EUR741 million.²⁴ Pages Jaunes is now present in Belgium, Brazil, Lebanon, Luxembourg, Morocco, Netherlands and Salvador. With its partners, it also manages Indice Multimédia and the Kompass and Europages business-to-business directories in 36 European countries. Pages Jaunes services in France include:

- **Printed telephone directories:** white pages (L'Annuaire) yellow pages (Les Pages Jaunes) and Les Pages PRO (a directory of business information).

²⁴ Source: Wanadoo

- **Internet-based directory services**, including www.pagesjaunes.fr which has white and yellow page information for free, Les Pages PRO (www.pagespro.com) and an electronic (Minitel) telephony directory “Le 3611-Les Pages Zoom”.
- **Directories on CD-ROM**, including Le 3611-Les Pages Zoom (yellow pages).

France Telecom, through Wanadoo, also owns Kompass (see below).

Other providers of directory enquiry services

Annu is owned by Iliad which has a number of telecoms interests, mostly in France. It provides a telephone directory enquiry service using the short code 3217. This includes white and yellow pages, but currently does not have mobile numbers, although the company states that it will add these as soon as they are available. Annu provides Internet-based white and yellow pages for the whole of France (www.annu.com/), and also offers WAP-based services. The information it provides includes fax numbers.

Annu gets updated information from France Telecom every month and advertises the time of the last update on its Web site. Normal searching on the Web site is free but a reverse search, using a telephone number to get subscriber information, is charged via the French Minitel system.

IntraCall Centre claims to be the second operator to start a competing directory enquiries service, and was given the number 3211 in 2002. IntraCall Centre provides national and international directory services (fixed numbers only). It also offers a reverse search service. IntraCall centre is owned by Fonecta (the directories business of Finnish incumbent operator Sonera), which was bought by venture capital group 3i in 2001.

Scout provides a yellow pages directory enquiry service using the short code 32000 from fixed and mobile telephones (222 from SFR mobile). It also offers directory services via Minitel and the Internet (<http://www.scoot.fr/>). Scout is a 100% owned subsidiary of

Vivendi Universal.²⁵ Scoot France, which launched its operations in March 2001, has 150 employees and revenue objectives of EUR100 million by 2003.

Telephone directory publishers

Findexa was previously known as Telenor Media but was renamed after being bought by the Texas Pacific Group. It has operations in 11 European countries and claims to distribute 25 million printed directories each year, with a turnover of EUR204 million and 2400 staff. In France it publishes 38 regional yellow page directories, with 6.5 million copies distributed each year. Its operations are split between three separate businesses:

- **L'Annuaire Soleil** publishes 14 local yellow pages with 2.5 million copies delivered free to homes and businesses in the regions surrounding Paris. It also has an Internet site (www.annuaire-soleil.com). It was started in the early 90s and was bought by Telenor Media in 1998.
- **APE** publishes 12 local directories and distributes 2.5 million copies per year. At present it has no Web site.
- **Elitel** has 12 local yellow pages directories and distributes 1.5 million copies annually. It also has a Web site (www.elitel.com). Its operations are in the north west and south of France. It buys information on 160 000 companies from France Telecom.

Kompass is owned by Wanadoo. It provides business-to-business information on over 70 different countries through printed international directories, CD-ROMs and the Internet. As well as having international directories it also provides specific French business directories. Le Kompass National France has information on over 130 000 companies nationwide, and there are also individual Kompass directories for 19 different French regions. This information is available online (www.kompass.fr/). There is also a CD-ROM which contains information on over 150 000 companies. Kompass reports that it has over 1 million users worldwide

²⁵ Scoot Europe was a joint venture between Scoot and Vivendi. The 50% stake that Vivendi did not own was sold in July 2001 for the nominal sum of EUR1.

Eurédit is the publisher of Europages. Eurédit is based in Paris but is owned by the Italian company Seat Pagine Gialle. Europages are Europe-wide business pages, published on paper, CD-ROM and Internet. One million printed and CD-ROM versions are distributed every year in 33 European countries.

ABC France provides business-to-business directory information (principally online at www.abc-d.fr) and claims to have over 150 000 companies in its database. It was established in 1988 and is a part of the Bonnier international group, which has 50 companies in 17 countries and specialises in providing business-to-business information.

Infobel is a Belgian company that provides two specific French CD-ROM products. Infobel France is the white and yellow pages on CD-ROM, providing access to more than 22 million private and business addresses with various search and data export functions. Infobel Business France lists 2.2 million companies featured in the trading register, categorised into over 1000 fields of activity (main occupation codes) on a single CD-ROM.

1bis.com (www.1bis.com) is an online yellow pages company owned by Planfax. Planfax is a multimedia map publisher and the www.1bis.com Web site combines a directory service with a map service. 1bis.com services are also distributed over portals, engines and ISPs.

E.1.2 Availability and pricing structures for users

Recently, new directory enquiry service companies including Annu have entered the market and consumers are beginning to be aware of the alternative providers.

Directory enquiry services

In February 1999 France Telecom increased the charge for directory enquiry services from FFR3.71 (EUR0.57) to FFR4.50 (EUR0.69) per call and reduced the number of queries per call from three to two. In December 2001 the charge was further increased to FFR5.25 (EUR0.80). International directory enquiries cost EUR3 per call (maximum of two queries).

Annu charges EUR1.35 for connection and EUR0.34 per minute thereafter. Scoot's prices are EUR0.337 per minute from a fixed line and EUR0.84 per minute from an SFR mobile phone.

Internet/Minitel services

Reverse searches on Annu's Web site cost 30 euro cents.

France Telecom charges 11 euro cents for the first five minutes of a Minitel call.

Scoot charges 13 euro cents per minute during peak hours and 4 euro cents per minute in off-peak hours (including taxes).

To access the Kompass French directory online costs EUR1000 per year and includes 5 users.

CD-ROM

Kompass charges EUR1375 for its basic French CD-ROM package and EUR2400 for a package including statistical information and maps.

Infobel France costs EUR59 plus delivery (EUR18.59 for any delivery outside France).

Infobel Business France is priced at EUR149 plus delivery.

E.1.3 Availability and pricing structures for other service providers

There have been some problems for some directory service providers in obtaining information from France Telecom. In January 2002, ART fined France Telecom EUR5 million for failing to implement an ART ruling from November 2000 regarding access to France Telecom's network to provide a telephone information service.²⁶ This was the second time FT had been fined for issues relating to directory services. In 1998 the French Competition Commission had ruled that France Telecom must transmit its directory of telephone numbers that do not want marketing information (the so-called "Orange List") to a Filitech marketing services company and pay fines of EUR1.5 million for refusing to do so over the past decade. In 2001 the supreme court backed up this decision.

²⁶ The dispute was between Sonera France and France Telecom. France Telecom refused to implement the third party billing arrangement as decided by ART.

E.1.4 Usage trends

Data from the regulator on the size of the directory services market shows that in Q3 2001 the directory services industry had revenues 23% higher than in Q3 2000. This suggests that use of the service is growing. In 2000, Wanadoo's directories business grew 9% helped by new customer acquisitions and Internet-related revenues at Pages Jaunes, with page hits up 49% year on year.

Almost all directory enquiries are made by callers on France Telecom's network: the subscriber bases of alternative mobile and fixed-line operator are almost negligible, only amounting to around 0.5% of total subscribers.

E.1.5 Competition

<i>Telephone directory enquiry services</i>		<i>Providers</i>
White pages		France Telecom, Annu (fixed only), IntraCall
Yellow pages		France Telecom, Annu, IntraCall, Scoot
International		France Telecom, IntraCall

<i>Telephone directories</i>		<i>Publishers</i>
Paper	White pages	Pages Jaunes
	Yellow pages	Findexa, Kompass
	International	Kompass (business), Eurédit (business)
CD-ROM	White pages	Infobel
	Yellow pages	Pages Jaunes, Kompass, Infobel
	International	Kompass (business), Eurédit (business)
Internet	White pages	Pages Jaunes, Annu (fixed only)
	Yellow pages	Pages Jaunes, Annu, Scoot, Findexa, Kompass, ABC France, 1bis.com
	International	Kompass (business), Eurédit (business)

Exhibit E.5: *Providers of directory enquiry services and publishers of directories in France*

As can be seen from the table above, there is now considerable competition in the directory services market in France, with at least two companies providing each category of service (apart from printed white pages). For directory enquiries, competition started only very recently but there are already at least three competitors. The advance of competition is likely to be inhibited by the fact that at present France Telecom has a preferential number (12) for directory enquiries.

E.2 Regulatory information

E.2.1 Current and planned regulation

The national telecoms regulator in France is l'Autorité de Régulation des Telecommunications (ART). The ministry in charge of telecoms policy is the Direction générale de l'Industrie, des Technologies de L'information et des Postes (DiGITIP), which is part of the Minister of Economics, Finance and Industry. The main legislation relevant to directory services is the Telecommunications Act, 1996.

The government launched a consultation on directory services in May 2001 but the results of this exercise have yet to be published. ART has responded but the Ministry is still compiling responses from interested parties. The decree is likely to be published at the end of the year.

In July 2001 ART updated telecommunications regulation so that one organisation should be made responsible for keeping a unified national database. This is expected to be France Telecom, which will then have the obligation to make this information available on a non-discriminatory basis to any company that wishes to use it for the purpose of directories. Other operators are obliged to provide subscriber information to France Telecom on a cost-orientated basis.

France Telecom uses the number 12 for directory enquiries, while other companies use 32XY. Several companies have requested numbers, including Sonera, 123 Multimedia, IntraCall Centre 3211, Pages Jaunes and Annu. ART has launched a consultation process on the numbering scheme used for directory services.

E.2.2 Regulatory framework and market situation

There is no need for a licence to provide directory services.

According to the Telecommunications Act, the USO includes “the provision of an information service and a telephone directory in both printed and electronic form”. It also states that all telecommunications licences are granted subject to “the provision of the information required to establish and manage the universal directory”. The same Act also states: “The provision of public telecommunications services other than the telephone service shall be unrestricted, on condition that there is conformity with the essential requirements and with national defence and public security requirements.”

E.2.3 Tariffs

The tariffs for both wholesale access to and interconnection with France Telecom’s database are decided by France Telecom. There is presently a dispute between France Telecom and the other directory service providers; according to ART, the tariffs are high compared to other European countries.

When the consultation process is finished, the Ministerial Decree is likely to give ART the responsibility of regulating the price of access to a unified national directory database, which should be cost-orientated. Regulations with regard to the universal database are not considered to refer to France Telecom at the moment because such a unified database will contain all fixed and mobile numbers whereas France Telecom’s existing national database has mostly fixed-line phone numbers.

E.2.4 Data protection

At present mobile phone subscribers have to opt-in to the national telephone directory, as do fax numbers. Normal fixed lines are opt-out and operators are obliged to pass this information on to the keeper of the national database, France Telecom. The Ministry is at present proposing a charge for going ex-directory.

With the Filitech case, consumer rights groups were predicting that the end of the Orange List would lead to an increase in unwanted telephone soliciting, forcing consumers to have to specifically request that their personal data be taken out of marketing databases. Whereas previously, under the Orange List system, an opt-out approach was allowed, the new decree will specify that operators will have to say whether subscribers are on the Orange List. It is not clear whether this will lead to less unwanted telephone soliciting since marketing companies need to see the Orange list in order to exclude them from their direct marketing campaigns.

E.2.5 Regulatory barriers to competition

The guidelines on directory services are still to be published. At present Pages Jaunes (France Telecom) is at an advantage in the provision of directory enquiry service: it has a preferential short code (12) and it also controls the pricing for access to the largest subscriber database.

E.2.6 Unified directory database

France Telecom has a physical database but this has mostly fixed line information and is not universal. Although other operators are obligated to provide France Telecom with their subscriber information, in practice it appears that some are reluctant to do this; hence the database is not universal at the moment.²⁷

Mobile numbers can be added to the national directory by calling an 0810 number (at the price of a local call). From 2002, all mobile subscribers should be given the option to be listed in a telephone directory when they subscribe to the service.

At present the French government has not put in place the EC Directive that obliges operators to make their subscriber databases freely available to the providers of directory services.

²⁷ Source: European Commission, 7th Report on the Implementation of the Telecommunications Regulatory Package.

The forthcoming decree is likely to say that, as the operator with USO, France Telecom will maintain the universal directory. Other universal directory providers will also be allowed, but they will not be compensated by the USO fund.

F: Germany

F.1 Commercial information

F.1.1 Description of market players

Deutsche Telekom

The German directory enquiries market was liberalised in 1999, though Deutsche Telekom is still the dominant player, claiming to handle around 80% of German telephone enquiries. The incumbent provides the following services:

- **National directory enquiry services** via the number 118 33. This includes white page and yellow page information.
- **International directory enquiry service** (via 118 34). Includes white and yellow page information.
- **Printed white page and yellow page directories** are published through Deutsche Telekom's subsidiary DeTeMedien (see below)
- **Internet directory services**, including white page and yellow page information, are provided by DeTeMedien and partners (see below).

Since the directory enquiries market is so competitive, service providers attempt to differentiate themselves by providing value-added services. For example, since January 2001, Deutsche Telekom has been offering the latest traffic news through 118 33 in conjunction with Tegarom Telematics. This service is charged at the standard directory enquiry rate. Tegarom Mobility also provides information on school holidays, ferry connections, highway tolls and holiday weather forecast. T-D1 mobile phone customers can receive this information using the number 2526.

Other operators

40 companies in particular areas of Germany have been assigned '118' prefixes for the provision of national directory enquiry services. These include mobile operators (e.g. Vodafone) and cable operators (e.g. ISH). 11 companies have been assigned 118 prefixes for the purpose of offering international directory enquiry services. Alternative operators handle over 100 000 calls per day. Telegate is the second biggest player in the market, followed by BT Ignite. Services are available in German, English and Turkish.

Telegate claims to be the world's largest independent directory services firm and to have a market share in Germany of over 20%. In addition to its 118 80 directory enquiry services, it provides value-added services such as financial and weather news, SMS alert services. It sells on its services to fixed and mobile network operators which wish it to provide directory enquiry services for their customers. It also operates a portal (www.11880.com) offering national and international directory searches, and also maintains a database of business information (including business type, location, size, etc.) from which customised selections of data can be purchased for marketing purposes. It has a large presence in Italy (providing directory enquiry services to Telecom Italia Mobile, the mobile subsidiary of Telecom Italia) and Spain (where it offers domestic and international directory services, among others).

BT Ignite – In May 2000, Viag Interkom (now BT Ignite), in a joint venture with the Norwegian incumbent Telenor, formed a directory enquiry services provider in Germany.

Telephone directory publishers

DeTeMedien is the market leader in the highly competitive directory publishing market. The company is a 100%-owned subsidiary of Deutsche Telekom and provides subscriber information to all the other directory publishers from its own national directory database. DeTeMedien also has about one hundred so-called co-operative partners, each of which has a contract with DeTeMedien covering the production and distribution of local directories. The companies pay DeTeMedien a fee in return for access to certain brand names, databases and distribution facilities within specific geographic areas. These companies have their own proprietary customer databases and are responsible for sales, billing and

product development. All sales and customers activities are carried out in the name of the publishers.

DeTeMedien has three major distribution channels:

- *Das Telefonbuch* is a directory available on paper (delivered to over 35 million households), online (www.telefonbuch.de) and on CD-ROM. It includes name, address and email listings for residential subscribers and businesses. The online version allows for searches by name and location. Yellow pages (*Das GelbeSeiten*) can also be accessed from the Telefonbuch Web site. There are 125 different editions all over Germany, totalling 33 million copies. Most editions are published by DeTeMedien in cooperation with approved publishing houses. In Berlin, Hamburg and Munich, DeTeMedien is the sole publisher. Directories are provided for every household, free of charge. This makes the directory an ideal medium for companies to advertise, or simply making themselves more easy to find by having an entry in larger print.
- *GelbeSeiten* (Yellow Pages) provides business and residential information and is available online (www.gelbeseiten.de), on CD-ROM and as a paper copy (50 million copies in circulation, published annually). The online version allows for searches by name, address, postcode, location, street, house number and keyword.
- *Das Örtliche* provides localised business and residential information and is available online, on CD-ROM and on paper.

In addition, there is often an independent local directory, for example the *Stadtadressbuch*, which provides local business and residential information, and is available as a book and on CD-ROM. These directories are published by local partners of DeTeMedien.

As a result of all this directory publishing activity, every household receives at least three directories per year, while some receive as many as five. There are also several independent companies competing with DeTeMedien. The two main players are Windhager Mediengruppe and Wer liefert was? (WLW). In December 2000, the Swedish company Eniro acquired these two companies, making Germany Eniro's second largest market.

Windhager Mediengruppe is the market leader in the Wurttemberg and Leipzig areas (population approximately 11.5 million), where it publishes local and regional white and yellow pages. Its product portfolio consists of 38 different directories with a total circulation of more than 5.8 million. Windhager's contracts with DeTeMedien have been terminated and the company will now continue to develop its products independently.

Wer liefert was? (WLW) is one of Europe's leading companies in the area of business-to-business information, with significant market positions in Germany and Austria as well as a presence in a further 11 European countries. Online services were introduced in 1995 and during 2000 the company moved from printed directories to information solely on CD-ROM and over the Internet. Its services include a database on CD-ROM for direct marketing which includes product and services information from companies in 10 European countries. This is published biannually and costs EUR920.

Other providers of directory services

There are many other directory service providers, most of which provide local directory information. International directory services providers are also active in the German market, highlighting the fact that the market is open to new entrants. Some of these offer customisable listings matched to the needs of businesses.

There are a number of online sites that unify Das Telefonbuch, GelbeSeiten and Das Örtliche and also provide an email directory. Web sites of this type include www.t-info.com and www.teleauskunft.de.

Industry organisations

VDAV (the German Information and Directory Media Association) is the trade association of media companies with directory publishing activities in Germany. Its prime role is defending the interests of publishers of city guides, telecoms directories and trade directories. VDAV claims that its member companies have been among the most important pioneers and technical innovators in the field of directory services, being the first to adopt alternative mediums of delivery like CD-ROM and the Internet.

F.1.2 Availability and pricing structures for users

Directory enquiry services – There is between 25% and 30% variation in the prices charged for access to services. In March 2001 new rates for calls to Deutsche Telekom's international directory enquiry service (118 34) came into effect. All calls are now charged at DEM1.089 (EUR0.557) for each 20-second interval, regardless of the time. For the most important European countries and the USA there is also a direct connect service which automatically dials the requested number.

Internet and paper-based directories are free. Publishers cover their costs through advertising and from businesses.

CD-ROMs – prices vary from publisher to publisher. For example, Wer liefert was? charges EUR79 for a CD-ROM. Average prices are around EUR50.

F.1.3 Availability and pricing structures for other service providers

In 1999 the Cartel Office (Bundeskartellamt) investigated claims that Deutsche Telekom was abusing its dominant market position when providing its competitors with directory information. The incumbent was refusing to give certain data (e.g. extension numbers) to its competitors and was also charging at above cost for the data. As a result, the incumbent was forced to make all subscriber information available on a non-discriminatory basis and to provide it at cost price. Other providers of directory enquiry services have thus been able to set up their own databases along economic lines and need no longer depend on the Deutsche Telekom database.

Deutsche Telekom charges other directory enquiry service providers EUR0.15 for each access of its directory database. In August 2001, RegTP began an investigation whether these charges are too high – they cost Telegate, for example, about DEM32.6 billion (EUR16.67 billion) a year.

F.1.4 Usage trends

At present, 516 million people access Das Telefonbuch each year, and the number is rising. In 1999 Deutsche Telekom (with around 80% of the market) answered 323 million directory enquiry calls. At the end of 2001, VDAV (the German Information and Directory Media Association) commissioned a user survey from IPSOS. This showed that 82% of the population in Germany make regular use of directory services.²⁸ Printed media still dominate, though electronic media are increasingly important, especially for businesses. Of those surveyed, 65% use printed directories, 39% directory enquiries and 7% the Internet. When use of directory services was broken by private and business use, printed directories still dominated: 80% of private users and a surprising 76% of business users turned to printed directories. With electronic media, only 6% of private users also made use of CD-ROMs and the Internet, compared to 26% of business users using CD-ROMs and 23% accessing the Internet.

F.1.5 Competition

There are a large number of players in the German market, especially in the provision of directories: there are over a hundred providers, with products ranging from small-scale local directories to large regional ones. The following table presents only the major players.

<i>Telephone directory enquiry services</i>	<i>Providers</i>
White pages	Deutsche Telekom, Telegate and four others with small market shares (e.g. BT Ignite Germany)
Yellow pages	Deutsche Telekom, Telegate and four others with small market shares (e.g. BT Ignite Germany)
International	Deutsche Telekom, Telegate and four others

²⁸ This is even more than the usage of daily newspapers, which reach 78% of the population. Since the questionnaire did not cover use of the extensive additions to modern directories, such as city maps and sections with city information, the true user percentage could be even higher.

<i>Telephone directories</i>		<i>Publishers</i>
Paper	White pages	DeTeMedien with 100 affiliated companies; competition in some regions
	Yellow pages	DeTeMedien with 100 affiliated companies; competition in some regions
	International	DeTeMedien with 100 affiliated companies
CD-ROM	White pages	Deutsche Telekom, klickTel plus one other small player
	Yellow pages	Deutsche Telekom, klickTel plus one other small player
	International	No information available
Internet	White pages	Deutsche Telekom
	Yellow pages	Deutsche Telekom
	International	Deutsche Telekom

Exhibit F.6: *Providers of directory enquiry services and publishers of directories in Germany*

With liberalisation, several large directory publishers have emerged, although these are more or less dominated by DeTeMedien – despite the fact that DeTeMedien is obliged to provide its database information to all directory service providers under the same conditions.

F.2 Regulatory information

F.2.1 Current and planned regulation

RegTP (Regulierungsbehörde für Telekommunikation und Post) is the national regulator of the post and telecoms sector in Germany. The main legislation relevant to directory services is the Telecommunications Act (July 1996).

F.2.2 Regulatory framework and market situation

Directory enquiry services

The directory enquiry services market was fully liberalised in 1999 and a 118XY numbering system introduced. Allocation of directory enquiry numbering is regulated by RegTP, while other aspects of the directory enquiries market are regulated by the Cartel Office (Bundeskartellamt).

Directory enquiry access codes begin with 118 and service providers can be allocated five or six digits (the last two being the service provider identifier). Any company which is able to offer a national or international directory enquiry service can apply for an access code, which will cost EUR2600. A maximum of five codes can be allocated per service provider (affiliated companies are allowed a maximum of seven codes). RegTP reserves the right to withdraw any access code if certain conditions are violated.

118 prefixes have been assigned to 40 companies for the provision of directory enquiries services in particular areas of Germany. These include mobile operators (e.g. Vodafone) and cable operators (e.g. ISH). 11 companies have been assigned 118 prefixes for the purpose of offering international directory enquiry services.

Under the terms of its USO, Deutsche Telekom is under the obligation to maintain or guarantee a complete directory service in Germany. Those operators offering a national directory enquiries service must provide the numbers of the subscribers of all the national networks (fixed-line and mobile), unless these have requested to be ex-directory. To support this, all operators are obliged to provide their subscriber information to directory service providers on non-discriminatory and cost-based conditions.

Directory publishing

The market for printed directories is regulated by the Cartel Office (Bundeskartellamt). In general there are no licensing requirements for directory publishers. Deutsche Telekom, however, is under an obligation to publish local directories in regions where no other publisher fulfils this role (the purpose of this requirement is to guarantee a complete

directory service throughout the country). It does this (via DeTeMedien) in Berlin, Hamburg and Munich, where the costs of directory production exceed proceeds from advertising.

There are no further obligations or commercial barriers to competition in this market. Any company is allowed to enter this market as a private directory publisher. There are no regulations about the format, shape or design.

F.2.3 Tariffs

Under competition law, since 1999 companies with dominant market power have been prohibited from offering goods or services below cost price unless there is an objective justification for doing so. In 2000, the Cartel Office drafted principles for interpreting this law in the market for directory services, stating that it will not interfere in the determination of retail prices when there is fair competition, and will not introduce price regulation as it claims this to be incompatible with free economic structures. Price or price-cap agreements between Deutsche Telekom and the regulatory authority only cover the wholesale prices paid by other providers for database services. Prices for other services are determined by private contracts between DeTeMedien the other directory service providers.

F.2.4 Data protection

Customers can freely opt in to or opt out from fixed and mobile directory databases.

According to RegTP, directory enquiry services must have the sole purpose of providing subscribers' numbers, names and addresses, and certain additional data (profession, business sector, type of access and co-users).

F.2.5 Regulatory barriers to competition

There are no significant regulatory barriers to competition in the German market.

F.2.6 Unified directory database

Deutsche Telekom has a physically unified directory database in Germany. It includes all fixed numbers and to a certain degree mobile numbers. All operators are obliged to provide their particular directory information, though only those subscribers who want to be listed are included in the unified database. The Telecoms Law distinguishes between carrier services and other services, whereby carrier services get access to the database based on 'cost of efficient provision' (i.e. a cost-oriented basis), whereas non-carriers get access on the basis of 'appropriate cost' (including a profit fee). The anti-trust law, however, does not make this distinction and ruled in January 1999 that all data should be provided on a cost-oriented basis.

G: Greece

G.1 Commercial information

G.1.1 Description of market players

InfOTE

InfOTE is the leading provider of directory and business information services in Greece. It was created in April 2001 as a spin-off of the directory services division of the incumbent OTE. InfOTE maintains the national directory database using subscriber information from OTE and CosmOTE, and provides a range of directory services using this database, including directory enquiry services (via the number 131) and printed telephone directories. In more detail, InfOTE's product range includes:

National directory enquiry service (via 131) – Provides white page and yellow page information on all OTE's fixed subscribers, as well as mobile subscribers of its subsidiary CosmOTE (unless subscribers explicitly request to be ex-directory). Mobile subscribers from the other two mobile operators (Telestet and Vodafone) are only included if their subscribers specifically agreed to this (opt-in).

InfOTE does not offer an international directory enquiry service.

In total, InfOTE publishes on an annual basis a total of 23 directories: four yellow pages and six white pages in the areas of Athens and Thessaloniki, 11 miscellaneous directories (including residential and business information) in the rest of Greece, one blue pages

directory (including contacts for the tourism sector) and a business-to-business directory (coming out in September 2002).

White pages – InfOTE publishes 6 directories that cover Athens and Thessaloniki and 11 directories that cover the other geographical regions of the country. White pages are published every two years and they include the telephone numbers of 5.5 million OTE subscribers. A CD-ROM version is published annually, containing all the numbers listed in the printed directories (5.5 million subscribers). Searches are possible on profession, town, name, telephone number, address and postal code, or on any combination of these keys.

Yellow pages – business directories including 3717 professional categories. Three directories cover the Athens area, one the Thessaloniki area and 11 cover the rest of Greece. Yellow pages are issued every 12 months and are distributed free of charge to all OTE subscribers. A CD-ROM version is produced annually, with similar search features to the white pages CD-ROM.

Business-to-business yellow pages – This is a new product that will appear in September 2002 with the aim of promoting business-to-business relationships. It will cover the whole of Greece and will include all companies offering products or services to business customers. It will be published annually and will be distributed free of charge to businesses and public sites.

Blue Pages – These directories are designed to promote the Greek tourism sector. They are written in English and distributed free of charge to all large hotels in Greece, to Olympic Airways, Greek embassies and a number of travel agencies throughout the world.

InfOTE also operates national white page and yellow page services on several Web sites under the brand names 'xo' and 'hellasyellow'. Yellow and white page subscribers can opt to be included free of charge in the online directories.

Other operators

At the moment, alternative fixed operators, including Forthnet (the first operator to launch a carrier selection telephone service in Greece, in January 2001), do not provide any kind of directory services.

There are three mobile operators in Greece: OTE's subsidiary CosmOTE, Telestet and Vodafone. All of these offer their own national directory enquiry services, but none offer international directory enquiry services .

CosmOTE offers the same service as OTE, giving access to all fixed subscribers as well as its own mobile subscribers through 131 if a subscriber calls from their mobile, or 097 1000131 from another phone.

Vodafone also provides information on OTE's fixed customers plus its own mobile customers through 131 (from a Vodafone mobile phone) and 094 4400 131 (from any other phone).

Telestet provides similar directory enquiry services using the numbers 1261 (from a Telestet mobile phone) and 093 560 1261 (from another phone). It also offers a direct-connect service which automatically dials the requested number.

Other directory service providers

There are two alternative directory service providers operating in Greece: Bell Atlantic and ICAP. Their product portfolios consist mainly of information on businesses, and are described below.

Bell Atlantic Information Services Hellas S.A., Greece is part of Bell Atlantic, which claims to be the world's largest publisher of yellow pages. In Greece, Bell Atlantic distributes the following directories, with a total circulation of almost 2 million copies:

- SuperGuide Bell Atlantic (yellow pages)

- Yperodigos Bell Atlantic, a national directory of professionals, published in cooperation with ICAP
- 12 local business directories.

According to sources in the industry, Bell Atlantic in Greece is in financial difficulties and may cease operation.

ICAP publishes specialised company information on specific sectors, focussing mainly on financial information. ICAP owns a large database of businesses in Greece and produces a directory in association with Bell Atlantic. Established in 1964, it is the most important database and market research company in Greece. ICAP is privately owned and in 2000 had a turnover of EUR17 million. Its product range includes:

- *Greek Financial Directory* – comprising six volumes (according to business sector) and including 20 000 Greek enterprises. The directory is published annually on paper, CD-ROM and the Internet. It is in Greek and English and for every enterprise it gives the basic commercial data (name, address, activity, etc.) as well as financial data for the last two years.
- *Telephone-based directory services (ICAP Phone and ICAP Line)* – Commercial and financial data on enterprises, including directory data, can be requested by telephone. Replies are given by telephone, fax, email, or through the Internet as well as online through the ICAP Line network.
- *Specialised directories* – ICAP also issues periodically a number of sectoral, regional and specialised publications, such as the Thessaloniki Business Directory or the Greek Export Directory.

G.1.2 Availability and pricing structures for users

InfOTE provides a very wide range of yellow and white page directory services. Besides an enquiry service, telephone directories are available throughout the country in three formats: paper, CD-ROM and Internet. The paper-based and Internet-based directories are provided free of charge. White pages as well as yellow pages on CD-ROM cost EUR30.

Directory enquiry services are charged at 5 euro cents per call by OTE. The enquiry service from the mobile operators is free of charge when accessed through the 131 number, whereas when the alternative number is used (from another network) the service is charged per-minute at the standard call rates.

G.1.3 Availability and pricing structures for other service providers

There is no unified national directory database (see below). For directory enquiry services, OTE has an agreement with each of the mobile operators whereby the mobile operators have access to directory data on OTE's fixed subscribers, while in return OTE has access to the data of those mobile subscribers that have agreed to be in OTE's database. These agreements are not regulated in any way, and the regulator even does not seem aware of them. Details on pricing arrangements are not available.

The regulator is not aware of any disputes or discussions between the national directory database owner (InfOTE) and alternative directory service providers. This is largely due to the fact that InfOTE is in fact the only provider of white page directory services: alternative providers have mainly concentrated on yellow page information and for this, they have their own databases of business information.

G.1.4 Usage trends

Information for 2002 will become available from the regulator in the first months of 2003. Currently, no data is available.

G.1.5 Competition

<i>Telephone directory enquiry services</i>	<i>Providers</i>
White pages	InfOTE, CosmOTE, Teletet, Vodafone
Yellow pages	InfOTE, CosmOTE, Teletet, Vodafone, ICAP
International	no information available

<i>Telephone directories</i>		<i>Publishers</i>
Paper	White pages	InfOTE
	Yellow pages	InfOTE, Bell Atlantic, ICAP
	International	no information available
CD-ROM	White pages	InfOTE
	Yellow pages	InfOTE, ICAP
	International	no information available
Internet	White pages	InfOTE
	Yellow pages	InfOTE, ICAP
	International	no information available

Exhibit G.7: *Providers of directory enquiry services and publishers of directories in Greece*

There is very little competition in the Greek market for directory services. InfOTE is the only provider of white page information. Directory enquiry services, however, are also provided by all mobile operators; two of the three operators use the same prefix (131) as OTE. In the yellow page market, OTE faces competition from two organisations that cooperate in the publication of their yellow page directories – Bell Atlantic and ICAP.

The regulator, EETT, does not believe the market can sustain an alternative directory service provider, in whatever form this provider would deliver services. Proof for this is provided by the fact that Bell Atlantic's yellow pages business is in a bad financial condition and it is likely to stop publication in the near future. Apart from this operator, there has been no interest in Greece by any service provider in setting up a directory services company.

G.2 Regulatory information

G.2.1 Current and planned regulation

EETT (the National Telecommunications and Post Commission) is the national regulatory authority for the telecoms and postal sectors in Greece.

The EETT is in the process of setting up a regulatory framework for the provision of directory services. In this framework, the EETT has included the provision of phone directories services in the Universal Service regulation. The framework is scheduled for publication between June and September 2002 and the regulator is certain that the universal service regulation will be finished by the end of this year.

From September to October 2001, the regulator carried out consultations with ten organisations, including all the main telecoms operators (OTE, CosmOTE, Stet, Panafon Vodafone). The main issues considered were:

- inclusion in the directory of all the fixed telephony numbers, mobile numbers and email addresses of every national telecoms provider
- the directory enquiry services (131, provided by OTE) to serve queries regarding fixed and mobile telephony subscribers and email addresses
- the cost of directory enquiry services, under the assumption this service was provided by an efficient operator

G.2.2 Tariffs

Prices are not regulated at present – the regulatory framework for directory services is currently being drafted.

G.2.3 Data protection

Fixed subscribers are automatically included in OTE's white pages and directory enquiry service (opt-out). Mobile subscribers are only included in OTE's services if customers specifically requested this (opt-in). They are, however, automatically included in the directory enquiry service of their own mobile operator (except for CosmOTE, where mobile customer are also automatically included in OTE's 131 directory enquiry service).

G.2.4 Regulatory barriers to competition

There are significant regulatory barriers to competition in the Greek market, as no regulatory framework is currently in place to allow for competition. As InfOTE owns the national directory database and does not share this information with other companies, there is little chance for competition in white page information services.

G.2.5 Unified directory database

No regulatory efforts have been made so far to allow for a unified directory database. This situation may change, depending on the outcome of EETT's regulatory framework. With increasing mobile phone penetration, InfOTE's directory database is becoming less and less universal, and there is increasing need for regulation that allows for the creation of a unified database.

H: Iceland

H.1 Commercial information

H.1.1 Description of market players

Siminn

Siminn (Iceland Telecom) is the incumbent operator and maintains the only national subscriber database. It offers directory enquiry services and publishes white and yellow pages both on paper and on the Internet.

National directory enquiry services (via short code 118). Siminn provides the only directory enquiry service in Iceland. It sells this white and yellow page service to the other operators, though it does not offer them any discount on the retail rate since Siminn says that it is losing money on this service. Subscribers with only a mobile phone are not included in the directory – it is, however, possible to include a subscriber's mobile number with their fixed line information.

International directory enquiry service (via 114).

White and yellow pages – Siminn publishes printed white and yellow pages in the same volume. There are only two editions: one for the capital and one for the rest of the country. An online white pages service (at www.simaskra.is) was launched in June 1998; there is also a yellow pages service on this site.

Other operators

Islandissimi is the leading alternative fixed operator and also holds a GSM licence. It uses the incumbent's 118 directory enquiry services but since Siminn offers no wholesale discount, Islandissimi has to charge more to its customers. Islandissimi does the billing and then pays the incumbent.

TAL is principally a mobile operator but has a fixed line business as well. It no longer offers an independent directory enquiry service, though in 1998 it did start such a service using the number 1414. This was free for its own customers. The call volume for directory services was higher than expected – over 50% of calls to the call centre were for directory information – and from November 1999 TAL's directory services were outsourced to a telemarketing company. The service used the number 1818 and offered directory information to all users at the same price as the incumbent. However, the telemarketing company went bankrupt and TAL had to decide whether to run the service itself. It believed that the Icelandic market was too small to offer the service on its own and approached another telemarketing company, but found that the business case was no better than the previous one. Siminn offered to run the service for TAL and reached an agreement that it would have access to TAL subscriber information but could only use it for directory services and not for marketing purposes.

Other providers of directory services

Midlun publishes yellow pages on paper and the Internet (at www.gulalanan.is), and also has a call centre with yellow page information. The service is mostly paid for by companies, which pay an average of ISK80 000 (EUR940) to be in the directory. Midlun uses information from its own database which it updates by, for example, annual visits to customers. As such, it does not need to get wholesale information from Siminn.

The directory enquiry service uses the access code 1444. Users can get as much information as they want during each call. Midlun claims that this is the only yellow page directory enquiry service in Iceland. Printed yellow pages are distributed free to all homes and companies in the capital. Midlun has been publishing the directory for six years and now distributes 90 000 copies.

H.1.2 Availability and pricing structures for users

Printed directories are free to subscribers and the cost for this is accounted for in the USO. Subscribers can have one name in the directory for no charge but to put another person in costs approx ISK500 (EUR5.9). At present there is no charge for being ex-directory, though Siminn is considering charges.

For directory enquiry calls, Siminn customers pay ISK27 (EUR0.32) for connection and ISK49 (EUR0.57) per minute. Islandissimi customers pay ISK33 (EUR0.39) for connection and ISK58.9 (EUR0.69) per minute. TAL customers pay around ISK80 (EUR0.94) for the first minute and ISK50 (EUR0.59) thereafter.

Midlun customers pay a fixed fee of ISK70 (EUR0.82) per call for the yellow page enquiry service.

There is presently no charge for Siminn's online service, but Siminn is considering introducing one as a lot of time is spent on the service. Midlun's Web site is also free and Midlun says that it is not thinking about charging for it as it considers the site to be a service to the companies that pay to advertise with it.

H.1.3 Availability and pricing structures for other service providers

The alternative operators pay Siminn to provide their subscribers with national directory enquiry services. TAL and Islandissimi are charged retail rates for this service and therefore have to charge their customers more than Siminn. The other operators do not believe this to be fair, although they have not taken the issue up with the regulator.

There appear to have been problems with access to the national directory database. As mentioned above, until last year TAL offered a directory enquiries number through an outsourcing agreement with a telemarketing company. TAL claims that when it tried to negotiate a price for access to Siminn's database, the incumbent was not prepared to negotiate but wanted to charge far too high a price.

Siminn appears to be the only directory enquiry service provider, but it states that it provides information on a per-query basis to the mobile operators. Data could also be provided for a fixed fee for the whole database.

Siminn can provide access to its database for ISK150 000 (EUR1760) + VAT per month . There are updates to the database every morning. There is also access on a per-query basis for ISK3 (EUR0.035).

H.1.4 Usage trends

In 1998 Siminn received an average of 600 000 calls per month to the 118 directory enquiry number. In 1999 there were over 700 000 calls and by 2000 over 725 000 calls per month. Siminn prints 230 000 white and yellow page directories per year (up from 220 000 in 1999). Midlun produces 90 000 copies of its directory each year. In January 1999 there were under 400 000 online searches per month on Siminn's directory services Web site, by 2000 there were around 1 300 000 and by 2001 around 1 700 000 per month.

H.1.5 Competition

<i>Telephone directory enquiry services</i>	<i>Providers</i>
White pages	Siminn
Yellow pages	Siminn, Midlun
International	Siminn

<i>Telephone directories</i>		<i>Publishers</i>
Paper	White pages	Siminn
	Yellow pages (Reykjavík only)	Midlun, Siminn
	International	no information available
CD-ROM	White pages	no information available
	Yellow pages	no information available
	International	no information available
Internet	White pages	Siminn
	Yellow pages	Midlun, Siminn
	International	no information available

Exhibit H.8: *Providers of directory enquiry services and publishers of directories in Iceland*

It appears that competition in this market is difficult in Iceland. As already mentioned, TAL tried unsuccessfully to launch its own directory enquiries number. The telemarketing company that was providing directory enquiries services for TAL went bankrupt and although another telemarketing company wanted to take over the service, its business plan did not appear significantly different from that of the previous provider. TAL decided that the Icelandic was too small for it to set up the service itself. (It is worth noting that the incumbent Siminn had a well-recognised number 118 whilst TAL was using the 1818 number; this may have had an effect on take-up of the service. There was also some difficulty in negotiating an economically feasible price for access to Siminn's database.)

In the telephone directories market, there is competition only in the yellow pages segment.

H.2 Regulatory information

H.2.1 Current and planned regulation

The Post and Telecom Administration is the national regulator of the telecoms and postal sectors in Iceland. The main legislation relevant to directory services is the Telecommunications Act No. 107, December 1999.

H.2.2 Regulatory framework and market situation

According to the Telecommunications Act, operators should provide a directory enquiries service to their customers and make arrangements so that their customers appear in the directory if they have not expressed opposition to being listed. Directories including fixed, mobile and personal numbers shall be made available to users in a form approved by the Post and Telecom Administration.

At present a company must have a telecoms licence to provide directory enquiry services. There is presently a dispute between a non-telecoms organisations and the incumbent about provision of directory information. The incumbent has no obligation to give them the directory information, though the Post and Telecom Administration ensures that all telcos meet all reasonable requests by other telcos to make available the relevant subscriber information in an agreed format on terms which are fair and cost-oriented.

H.2.3 Tariffs

Retail tariffs should be cost orientated and the incumbent's price is regulated. Siminn claims that there is no profit made on the service. According to legal provisions in force, the Post and Telecom Administration can set a cap to price schedules for the directory enquiry service if it is out of line with neighbouring countries. Tariffs have been rebalanced to make them similar to costs to allow competition in the provision of directory information.

Tariffs for wholesale access to the database are not published but according to regulation should be cost-orientated. There have been disputes between alternative operators and the incumbent about the prices that the incumbent charges for this access.

H.2.4 Data protection

According to the Telecommunications Act, subscribers have the right to examine registered information on themselves and, if necessary, request correction or removal of an entry. Subscribers have the right not to be registered in the directory database, but may be

required to pay a fee corresponding to the cost of removing them. TAL and Islandissimi have an opt-in policy and ask subscribers if they want to be part of a directory. Both operators only pass on subscriber information if the customer wishes to appear in the directory. Siminn subscribers have to sign up for directory services. They can choose if they want their information only in the printed directory or on the internet. Siminn includes ex-directory numbers in its database but the numbers are not revealed

Personal data listed in directories and with directory services must be limited to the data necessary to identify the subscriber, unless the subscriber has given their express authorisation for more data to be listed. Data may not be used for other purposes than publishing telephone directories or for directory enquiry services. The provisions of this article also apply to parties who receive telephone directory information. A subscriber may request that their data not be used for direct marketing purposes, or that their address be partially or fully deleted. In the printed directory there is a symbol that signifies that the individual does not want to be approached by direct marketing companies, and such companies are required to respect these wishes.

H.2.5 Regulatory barriers to competition

As yet there is no regulatory structure for pricing and access to Siminn's national directory database and companies have to negotiate commercial agreements. The lack of a clear regulatory framework on the provision of directory services both at the wholesale level and at the retail level may be a deterrent to competition. Indeed, there is a non-telecoms organisation²⁹ that wants to provide directory enquiry services that has a dispute with the incumbent about access to its database. Under present legislation, Siminn does not have to provide this information to a company that does not hold a telecoms licence. The regulator is reviewing the situation.

²⁹ The name of the company is not publicly available.

H.2.6 Unified directory database

Siminn maintains the only national subscriber database. All telecoms operators, fixed and mobile, are required to give information for subscribers who wish to appear in the directory to Siminn. If a subscriber only has a mobile phone, then they are not included in the directory unless the mobile subscriber specifically requests this. It is, however, possible to include a subscriber's mobile number with their fixed line information. There is no initiative by the regulator to create a single unified national database

I: Ireland

I.1 Commercial information

I.1.1 Description of market players

The directory enquiry service market in Ireland was opened to full competition in May 2000, but at the moment only two companies (eircom and Conduit) are providing services through their own call centres.

Eircom

Eircom, the incumbent operator, provides the following directory services:

- **National directory enquiry service** (through 118 11) – this includes white pages information for fixed and mobile subscribers to the extent that the information is available.
- **International directory enquiry service** (through 118 18).
- **White pages** – eircom publishes white page directories on paper.
- **Internet-based directory services** – eircom provides white page and yellow pages services on the Internet.
- **CD-ROM** – white page data is published on CD-ROM.

Conduit

Conduit plc, the information and directory enquiry division of Conduit Europe, is the second largest directory enquiry service provider in Ireland, with a market share of 35%–45%.³⁰ The company also has operations in the UK, Austria, and Switzerland. In Ireland it provides a national directory enquiry service through the number 118 50, offering both white page and (since October 2000) yellow page information. An international directory enquiries service is also provided via 118 60.

The company does not provide products on paper, CD-ROM or online

In May 2001, the company launched a traffic and travel service. In the future, Conduit is planning to launch location-based services.³¹

Golden Pages

Golden Pages dominates the yellow page market in Ireland. Until recently, Golden Pages was a majority-owned subsidiary of eircom. In May 2002, eircom sold its 63% stake in Golden Pages to VNU, a media and information company which already had a stake in the company.³²

Golden Pages publishes yellow page directories on paper and CD-ROM. Its Web site (www.goldenpages.ie) allows users to search by both business name and category (the site also offers a white pages service). Golden Pages provides a national yellow page telephone directory enquiry service (via 118 11) using eircom's call centres.

³⁰ Source: Conduit Annual Accounts, 2001.

³¹ Location based services are value-added services whereby offerings will be customised based on the location of the consumer. This will enable subscribers to request services without needing to specify their location.

³² www.eircom.ie. (press release of May 2002)

Other providers of directory services

Alternative telecoms operators in Ireland purchase directory enquiry services from eircom or Conduit. The operators mmO², esat and Vodafone also provide directory enquiry services through their own independent numbers using the call centre facilities of either eircom or Conduit.

There are no other significant providers of directory services in Ireland.

I.1.2 Availability and pricing structures for users

The retail pricing for directory enquiry services in Ireland is regulated by ODTR. In April 2000, eircom increased its price for national directory enquiry calls from IEP0.285 to IEP0.38 (EUR0.36 to EUR0.48) per minute, and for international directory enquiry calls from IEP0.285 to IEP0.76 (EUR0.36 to EUR0.96) per minute.³³ The increase was due to the action against eircom initiated by Conduit charging that eircom was cross-subsidising its directory assistance operations, which was contrary to EU law.

I.1.3 Availability and pricing structures for other service providers

Section 10 of Statutory Instrument S.I. No. 71 of 1999 outlines the obligation on licensed operators to provide access to their subscribers' information (name, address, and telephone number) to a provider of directory enquiry services on a fair, cost-oriented and non-discriminatory basis.³⁴ Eircom should pay the same conveyance and data provision charges for this service as other licensed operators.³⁵

³³ Conduit plc. Annual Accounts (2001), page 14.

³⁴ The Market for Directory Information Services and Products in Ireland – Report on Consultation, Document No. ODTR 01/19, March 2001.

³⁵ Source: The Market for Directory Information Services and Products in Ireland – Consultation Paper, Document No. ODTR 00/87, 16 November 2000.

Eircom's reference interconnect offer has the following wholesale rates³⁶ for directory enquiry services:

	<i>National</i>	<i>International</i>
Directory enquiry	IEP0.34 (EUR0.43) through access code 118 11 (maximum of 3 listings per enquiry). This represents about 90% of the retail tariff.	IEP0.66 (EUR0.83) through access code 118 18 (maximum of 3 listings per enquiry) – approx 86% of the retail tariff.

Exhibit I.9: *Eircom's wholesale prices for directory enquiry services*

According to the code of practice document³⁷, a national directory database provider will investigate all complaints within 10 days. Any complaints relating to an operators' refusal to supply information can be referred to the Director of Telecommunications Regulation and complaints relating to data protection issues may be referred to the Data Protection Commissioner.

I.1.4 Usage trends

There are approximately 60 million directory enquiry calls per annum, one third of which are generated by mobile subscribers. Calls from fixed line networks are fairly constant, while calls from mobile networks are increasing slightly.³⁸

I.1.5 Competition

<i>Telephone directory enquiry services</i>	<i>Providers</i>
White pages	eircom, Conduit
Yellow pages	eircom, Conduit
International	eircom, Conduit

³⁶ Reference Interconnect Offering from eircom, September 2001.

³⁷ Code of Practice on the Fair Processing of Personal Data in the National Directory Database, July 2001.

³⁸ Source: interview with Conduit.

<i>Telephone directories</i>		<i>Publishers</i>
Paper	White pages	eircom
	Yellow pages	Golden Pages
	International	no information available
CD-ROM	White pages	eircom
	Yellow pages	Golden Pages
	International	no information available
Internet	White pages	eircom, Golden Pages
	Yellow pages	eircom, Golden Pages
	International	no information available

Exhibit I.10: *Providers of directory enquiry services and publishers of directories in Ireland*

The operator assisted directory service market is dominated by eircom whereas Golden Pages dominates the yellow page market. Conduit has emerged as a major competitor for eircom in directory enquiries, with a market share of 35%–45%.³⁹

I.2 Regulatory information

I.2.1 Current and planned regulation

The Office of the Director of Telecommunications Regulation (ODTR) is the national telecoms regulator in Ireland. The main legislation relating to directory services is:

- European Communities (Voice Telephony and Universal Service) Regulations, 1999
- Statutory Instrument S.I. No. 71, 1999.

³⁹ Source: Conduit plc annual accounts, Period ending March 2001.

I.2.2 Regulatory framework and market situation

The directory enquiry service market was opened to competition on 25 May 2000, and the default access code 119X was withdrawn and replaced with 118XY codes.

Under the terms of their licences, operators are obligated to provide access to directory enquiry services to their subscribers through at least one directory information service provider. Eircom bears the USO with respect to directory enquiry services⁴⁰, and must ensure that subscriber information is available to users of the public telecoms networks. It is also obliged to maintain and operate the unified directory database. Its service must provide the numbers of subscribers of all telecoms operators (both fixed and mobile), except for subscribers who have requested to be ex-directory.

All operators are obliged to maintain a complete and accurate database of their customers' numbers and make this information available on request to the organisation (namely eircom) designated by ODTR as having an obligation to provide directory services.⁴¹ The data should include the name, address and telephone number of each subscriber, and should be provided in an agreed format on terms which are fair, cost oriented and non-discriminatory.

Subscribers have the right to have a free entry in publicly available telephone directories. These white pages directories are published by eircom, which is required to update them at least once in each year.⁴² Subscribers also have the right to verify and if necessary correct or request the deletion of that entry.⁴³ Subscriber information can be provided by operators for the sole purpose of facilitating provision of directory information services.

⁴⁰ In accordance with the European Communities (Voice Telephony and Universal Service) Regulations, 1999.

⁴¹ The Market for Directory Information Services and Products in Ireland – Report on Consultation, Document No. ODTR 01/19, March 2001.

⁴² The Market for Directory Information Services and Products in Ireland – Report on Consultation, Document No. ODTR 01/19, March 2001.

⁴³ The Market for Directory Information Services and Products in Ireland – Report on Consultation, Document No. ODTR 01/19, March 2001.

I.2.3 Tariffs

Retail tariffs are not regulated, though ODTR has the right to intervene in any complaints submitted by the service providers on tariff-related issues. For example, in early 2000, ODTR resolved the issue of cross-subsidising allegation from Conduit, by directing eircom to increase its retail tariffs for both national and international directory enquiry services.

All operators are obliged to provide eircom with their subscriber data on a cost oriented and non-discriminatory basis. The price is not regulated: ODTR believes that the terms and conditions under which subscriber data is provided is a matter best left to contractual arrangements between the operator and the directory information provider.

I.2.4 Data protection

In Ireland, data protection directives through the European Data Protection Directive (Directive 97/66/EC) have yet to be transposed into the national legislation. At present, protection is afforded by the Data Protection Act, 1988. In relation to directory services, under the provision of operators' licences, operators may use or disclose information on their subscribers only for the purpose of providing directory information services, unless specifically authorised by the person disclosing the information.⁴⁴

An opt-in regime is in place. Subscribers are generally offered three choices⁴⁵ with respect to how their details are held and disclosed:

- Listed – number is listed in directories and disclosed through directory enquiry services
- Unlisted – number is only disclosed through directory enquiry services, and is not published in a directory
- Ex-directory – the number is excluded altogether.

⁴⁴ The Market for Directory Information Services and Products in Ireland – Report on Consultation, Document No. ODTR 01/19, March 2001.

⁴⁵ Source: The Market for Directory Information Services and Products in Ireland – Consultation Paper, Document No. ODTR 00/87, 16 November 2000.

Many operators have procedures in place to safeguard their customers from direct marketing companies and subscribers can usually request their data not to be made available to such companies. The code of practice is currently being reviewed by the Directory Information Services Forum, a body created by the ODTR.

I.2.5 Regulatory barriers to competition

There do not seem to be any regulatory barriers to competition. According to one of the largest service providers, most of the regulatory issues have been resolved and providers are satisfied with the present system. There is number parity, a unified directory database and cost-based charges for access to data. However there is an issue of the database not being fully comprehensive – this is being dealt with by an independent forum established the regulator.

I.2.6 Unified directory database

There is a national directory database, maintained by eircom under the terms of its USO. This includes data on all fixed and mobile subscribers in Ireland, apart from those who are ex-directory. Other operators are obliged to provide their subscribers' directory data to eircom in order to keep the database comprehensive and up to date.

In 2000, ODTR carried out a consultation on directory services, which identified some concerns in the industry regarding the efficiency of the national database.⁴⁶ As a result of this, a Directory Information Services Forum was created to examine the operation and maintenance of the database. No other significant bottlenecks or technical difficulties were identified during the consultation.

⁴⁶ Consultation paper "The Market for Directory Information Services and Products in Ireland", document No. ODTR 00/87, 16 November 2000.

J: Italy

J.1 Commercial information

J.1.1 Description of market players

Telecom Italia

The incumbent, Telecom Italia, provides a **national directory enquiries** service using the number 12 and an **international directory enquiries** service via 176. The national directory enquiry service provides both white page and yellow page information. Telecom Italia also offers other directory information services (including printed white pages and yellow pages) via its subsidiary Seat Pagine Gialle.

Seat Pagine Gialle

Seat is one of the major players in the European directory services industry and owns a number of the major brands. During 2000 and 2001, Seat consolidated its position acquiring many of the well-known brands to create a Europe-wide directory services business. Of particular importance for the Italian market was the purchase of Telegate and Consodata, both of which have Italian operations (Consodata, for example, owns Giallo dat@). Seat owns a range of European brands including TDL Infomedia (Thomson Directories), Eurédit (Europages), Kompass Italia, Italbiz and Eurodirectory, Telegate, Giallo Voice and the *Pronto Pagine Gialle* 892424 (yellow pages directory enquiry service).

Seat publishes a number of printed products, including the following:

- white pages (*Pagine Bianche*)
- yellow pages for the residential market (*Pagine Gialle Casa*)
- business-to-business directories (*Pagine Gialle Lavoro* and *Pagine Gialle Professional*).

It also offers white page and yellow page services online.

Telegate Italia

Telegate Italia was the main competitor to Seat in the provision of directory enquiries services, but was bought by Seat in 2001. It presently provides all the directory enquiries services of Telecom Italia Mobile (TIM), the mobile arm of the incumbent:

- the TIM 4884 service is a free service that gives information on other Telecom Italia Mobile subscribers
- the TIM 4040 (*TrovaTutto*) service allows subscribers to get national white and yellow page information for both fixed-line and mobile numbers, as well as providing an international directory enquiries service. It also provides a call completion service and will send the requested information to a subscriber's mobile phone via SMS. The same number can be used to find out what is on at local cinemas or to use an SMS dictation service.

Other providers of directory services

Mobile operators offer their own directory service numbers but these are significantly more expensive than the fixed line service.

Wind provides a directory enquiries service (*Infowind*) for its mobile and fixed subscribers using the number 412. The Wind fixed subscribers from Infostrada cannot access the national enquiry 12 number. The Wind service, launched in May 2002, gives national white and yellow page information and will shortly be giving the email addresses of @wind.it subscribers who sign up to the database. It includes a call completion and SMS reply service.

Kompass Italia (which is owned by Seat) publishes an Italian business directory that is available on CD-ROM or in printed format. It has details of 54 000 companies.

There are no national players that compete with Seat in the field of paper-based national telephone directories, although there are a number of local white and yellow pages producers, which Seat states are strong competitors on a local level. One of these is the Mondadori Group. Its subsidiary Pagine Utili publishes printed yellow pages, and its database is also available in the Internet

There is a large range of Internet directories. This is because Seat is required to provide wholesale access to the national directory database free of charge.

J.1.2 Availability and pricing structures for users

Directory enquiry services and printed directories are available to everybody in Italy although there is limited choice apart from online white and yellow page directories. Printed directories are provided free on an annual basis.

The retail price of directory enquiry services is regulated. According to Deliberation 217/01/CONS, Telecom Italia can charge ITL840 + VAT (EUR0.52 incl. VAT) per minute for directory enquiries services. The operator had wanted to charge ITL200 (EUR0.33) for connection plus ITL635 (EUR0.33) per minute for automatic calls or ITL1500 (EUR0.77) per minute for operator-assisted calls. Prior to this Deliberation the service had been priced at ITL635 (EUR0.33) per minute and had been fixed since 1992.

Pronto Pagine Gialle (talking pages) cost EUR0.82 per minute. Calls to Telecom Italia Mobile's 4040 *TrovaTutto* service cost EUR1.18 (VAT included) for the first minute and EUR0.3098 (VAT included) for subsequent minutes. Customers can receive unlimited information. Calls to Wind's 412 *Infowind* service cost EUR1.50 (VAT included). Any customer who receives the wrong information can call 412 again within 10 minutes at no extra cost.

Kompass's business directory on CD-ROM costs EUR1200; the printed directory costs EUR310.

J.1.3 Availability and pricing structures for other service providers

According to the regulator, AGCOM, wholesale access to the national subscriber database is free.

J.1.4 Usage trends

In 2001, Seat produced 29 million copies of its Italian directories (in 102 local editions). Wind's 412 service has received on average 6200 calls per day in its two first months of operations. There is little up to date information on usage trends.

J.1.5 Competition

<i>Telephone directory enquiry services</i>		<i>Providers</i>
White pages		Telecom Italia, Telegate Italia, Wind, mobile operators
Yellow pages		Seat, Telegate Italia
International		Telecom Italia, Telegate Italia, Wind

<i>Telephone directories</i>		<i>Publishers</i>
Paper	White pages	Seat
	Yellow pages	Seat Pagine Utili (Mondadori Group)
	International	Eurédit
CD-ROM	White pages	no information available
	Yellow pages	Kompass
	International	no information available
Internet	White pages	Seat, many other providers
	Yellow pages	Seat, Pagine Utili (Mondadori Group), many other providers
	International	no information available

Exhibit J.11: *Providers of directory enquiry services and publishers of directories in Ireland*

Since Seat acquired its main competitor Telegate Italia in 2001, there is little competition in the Italian directory services industry beyond local directory publishers and small payers

in the online directories sector. In the online directories sector there are many players and competition appears to be intense.

J.2 Regulatory information

J.2.1 Current and planned regulation

L'Autorità per le Garanzie nelle Comunicazioni (AGCOM) is the Italian regulator. The main legislation relating to directory services is Deliberation 36/02/CONS, 2002.

There is not yet numbering parity in the directory enquiries service market. Telecom Italia provides directory enquiries using the number 12 and is the only provider using a two-number short code. However, AGCOM has been reviewing this situation and a new numbering system will be announced by 30 July 2002.

J.2.2 Regulatory framework and market situation

AGCOM recently published Deliberation 36/02/CONS that outlines the regulation for directory services and the changes required in Telecom Italia's USO. The main conclusions of the deliberation are as follows.

Every telephone subscriber has a right to receive telephone directories that must contain information about the subscribers of all operators, fixed and mobile (apart from those who have chosen to be ex-directory) . Numbers for directory enquiries must be displayed such that no operator receives preferential treatment. The regulation prohibits the symbol of any operator on the front page; the logos of all the operators that have numbers in the directory must be treated equally. The provision of local phone directories will be open for competition on conditions that AGCOM will decide by 30 July 2002.

Directory enquiry services are to be open for competition and providers may be chosen by auction or other selective procedure (AGCOM will decide the exact method by 30 July 2002). Presently the number 12 is used as the national directory enquiries number but

AGCOM is deciding on a new numbering system; this will be announced by 30 July 2002. The legislation with regards to directory enquiries is similar to that for phone directories and states that there should be fair presentation of all operators, with no discrimination. Mobile numbers must now be included in directory enquiry services and the mobile operators have until 31 December 2002 to implement this. All telecoms operators have to provide access to directory enquiry services to their subscribers. In order to be a directory enquiry service provider, an operator needs to get an appropriate licence from AGCOM. By 30 July 2002 all fixed operators must establish the following:

- interconnection for the update of the national directory database
- the quality and integrity of the database
- prices and conditions for interconnection
- prices and conditions for wholesale access, for periodical updating
- appropriate technical methods for guaranteeing the security of personal information
- procedures for updating the database in the case of number portability.

The same applies to all mobile operators, but they have until 31 December 2002 to implement the regulations.

Operators must also put a clause into their service contracts informing subscribers that they will be entered into a telephone directory database, and give them the option of refusing to be listed (opt-out). For number portability the receiving operator must tell the moving subscriber that their number will appear in the directory and give them the option of refusing to enter the list. Operators must provide resources for keeping directory information up to date, accurate and complete.

J.2.3 Tariffs

Wholesale data provision should be cost-orientated, though due to the Seat-TIM merger, it is provided free.

J.2.4 Data protection

Deliberation 36/02/CONS requires operators to change their service contracts so that subscribers are given the option not to appear in the directory database. With number portability, the new operator must give a moving subscriber the chance to opt out of the database.

Operators must guarantee the protection of personal data in the collection and processing of information for the universal database. They must also follow the wishes of people who have requested not to have their information used without their agreement for example, for direct marketing purposes. This is covered under Law no. 675 of December 1996.

J.2.5 Regulatory barriers to competition

With other operators able to get free access to the unified national directory database, and with the regulation recently passed by AGCOM, the sector appears to be well opened up to substantial competition.

J.2.6 Unified directory database

A unified directory database should be in operation by the end of 2002, though it has not been confirmed that Telecom Italia will maintain it. If Telecom Italia does take on this responsibility, it will be required to provide data to the other directory service providers on fair, cost-orientated and non-discriminatory terms. Deliberation 36/02/CONS also allows the operators to enter into a mutual agreement to manage the universal database together, or to get a third party to do this for them.

K: Liechtenstein

K.1 Commercial information

K.1.1 Description of market players

Telecom FL

Telecom FL is the incumbent operator in Liechtenstein and is the main player in the directory services market – in fact, no other operator offers directory enquiry services. It is 100% owned by Swisscom, which used to offer all telecommunication services in Liechtenstein prior to the market liberalisation in January 1999. Telecom FL directory services are operated directly by Swisscom and cover not only Liechtenstein but also Switzerland. The company that owns the databases and sells the products is Swisscom Directories AG. Telecom FL offers the following directory services:

- **Directory enquiry services** through the numbers 111, 1155, 1151, 1152, 1153, 1154, 1159, giving information on Liechtenstein, Switzerland, Austria, Germany, France, Italy or other countries respectively. If the call is made from another network, the enquirer should dial 1010 as a prefix.
- **White pages** (*Weisse Seiten*) offered on paper and CD-ROM and through the Internet. The Internet directory encompasses over 5 million entries of private phone lines in Switzerland and Liechtenstein and is updated daily. It also provides cartographic information and a customisable address book (intended for business use). The service also offers the possibility of making telephone calls directly from a PC (PC-to-phone).
- **Yellow pages** published on paper and available through the Internet. This comprises about 1.8 million entries for businesses in Liechtenstein and Switzerland. The

information is updated daily. Searches can be made by name, business classification, postal code or address.

- **Email search** – Swisscom also offers an online service that allows searches for email addresses through the Web.

Telecom FL accompanies its online directory services with other services such as weather information, traffic and links to relevant sites in Liechtenstein.

Other providers of directory services

There are two other regional companies, RVA and Gutten Park Trück, which offer white page and yellow page directory services just for Liechtenstein in paper format. These companies buy the database information from Swisscom.

K.1.2 Availability and pricing structures for users

Telecom FL charges for directory enquiry services and any additional copies of paper-based directories through the telephone bill. There is no regulation about pricing but tariffs should be cost oriented. Prices for subscribers are as follows:

- **Directory enquiry services** – a set-up charge of CHF1.6 (EUR1.09) and an additional CHF0.25 (EUR 0.17) per minute.
- **Internet-based directory services** – White pages and yellow pages are free. The electronic telephone book for businesses costs CHF250 (EUR170) per month. This allows for up to 12 500 queries per month; extra queries are charged between CHF0.18 and CHF0.25 (EUR0.12 to EUR0.17) each depending on the volume.
- **CD-ROMs** – Swisscom sells its telephony directory on CD-ROM for CHF69 (EUR47).
- **Printed white pages directories** are free and are delivered once per year. Each extra copy costs CHF10.75 (EUR7.31).

K.1.3 Availability and pricing structures for other service providers

Telecom FL is obliged to provide its database information to other service providers upon request. There is no regulation in place about pricing but tariffs should be cost oriented; prices are subject to individual agreements. Service providers can buy the database information directly from Swisscom and not from Telecom FL.

K.1.4 Usage trends

No information is available.

K.1.5 Competition

There is little competition in the directory services market in Liechtenstein. The only telecom operator that provides directory enquiry services is Telecom FL. There are only two other regional companies that deliver paper-based directories just for Liechtenstein; they buy the data from Swisscom.

The low level of competition may be largely due to the small size of the market. The regulator confirms that no dispute has taken place in Liechtenstein regarding directory services (such as difficulty in access to information, high charges, etc.).

K.2 Regulatory information

K.2.1 Current and planned regulation

Amt für Kommunikation is the national telecoms regulator in Liechtenstein. As part of its licence conditions, Telecom FL is obliged to provide a national directory enquiry service to its customers and those of other operators (e.g. mobile operators). Otherwise, there is no regulation in place concerning directory services apart from the recommendation that prices should be cost oriented. Nor is there a regulated numbering system for enquiry services, as Telecom FL is the only service provider. A data protection law will be established in the second half of 2002.

In order to provide retail directory information services, service providers must have a licence. This obliges the provider to allow other directory service providers with access to its database information. Mobile and other operators can voluntarily provide information about their own customers to Telecom FL but they are not obliged to do so.

K.2.2 Tariffs

Wholesale and retail tariffs are not regulated but should be cost oriented.

K.2.3 Data protection

There is no data protection regulation in Liechtenstein at the moment, but a data protection law will be issued in the second half of 2002. Customers can choose whether or not to be included in the directory databases (with a default opt-in system) and the information should be used solely for the provision of directory information and, if agreed by the customer, for marketing purposes.

K.2.4 Regulatory barriers to competition

The regulator is not actively promoting competition. A barrier to competition may lie in the fact that operators are not obliged to provide their directory information to Swisscom, resulting in an incomplete national directory database.

K.2.5 Unified directory database

There is a single national directory database in Liechtenstein, owned by Swisscom. Although this includes mobile numbers, it is incomplete because many mobile subscribers do not agree to be included. Both Telecom FL and regional directory service providers buy their information from Swisscom.

L: Luxembourg

L.1 Commercial information

L.1.1 Description of market players

Editus (EPT)

The incumbent operator, Entreprise P&TLuxembourg (EPT), is the only telecom operator providing a directory enquiry service, using the numbers 118 16 for national enquiries and 118 17 for international enquiries. It does this through its subsidiary Editus. The national enquiry service includes both white page and yellow page information. Mobile numbers are included when subscribers explicitly request this.

Under a variety of brands, Editus offers directory services on paper, CD-ROM and the Internet, both for white page and yellow page information. Its different brands include:

- **Editus** – the Internet portal for Luxembourg, displaying links to, yellow pages, white pages, inter-regional and international phone and business directories, and to the Luxweb directory of Web sites (see below). The international directory provides links to the yellow and white pages of a selection of other European countries.
- **Allo.lu** – provides online searches in yellow and white pages. Also offers other useful number information.
- **Luxweb**: Internet-based and paper-based directory of Web sites in Luxembourg. The paper-based version appears twice a year (in French and German), includes nearly 5000 websites, and is free of charge. The Internet-based service offers searches in the

Luxweb directory, as well as yellow pages, white pages and business pages (linking to inter-region.com).

- **Inter-region.com** – offers paper-based and Internet-based yellow pages for the region SaarLorLux (parts of Germany, Belgium, France and Luxembourg). Internet-based searches are possible on keyword, trademark, activities and number of employees. Both formats are free of charge.
- **Annuaire** – publishes paper-based and CD-ROM-based white and yellow pages.

On top of this interlinking maze of branded Web sites, Editus also offers direct marketing services. Access to 30 000 business addresses can be obtained, with searches possible according to 15 criteria. Editus also has an array of complementary services to increase its appeal.

Other providers of directory services

Kapitol is the only alternative directory service provider in Luxembourg that is not connected with EPT. Kapital was established in 1995 with the objective of publishing telephone directories on CD-ROM. In the same year, the company launched an Internet site, thus becoming the first company in the world to publish white page directories on the Web. Kapital focuses on Western Europe, where it is active in Belgium, France, the UK, Denmark, Luxembourg and Italy. The company is planning to enter the German and other Scandinavian markets. Its product range (under the brand Infobel) includes:

- CD-ROM: including a Benelux telephone guide and European white and yellow pages
- Internet-based white pages
- Internet-based yellow pages, including street maps and a local search allowing users to particular types of businesses within a range of up to 2km.
- Internet-based international directory services: yellow, white and business pages as well as additional services are available for France, the UK, Spain, Denmark, Belgium, the USA, Netherlands and Italy. For 187 other countries worldwide, directory information is available through partners.

Kapitol offers a list of additional services under its brand Infobel, including: entertainment (games, horoscope, greetings), shopping (including price comparison), employment, business (credit reports, stock chart, insurance, trade show, business news, etc), classifieds (cars and real estate) and travel services (flight info, weather, travel guide).

L.1.2 Availability and pricing structures for users

Directory services are available in Luxembourg in a range of media – Internet, paper and CD-ROM – and there is also a directory enquiry service. The information contained in the directory database is quite complete, as little competition has been introduced into the telephony market. Although the incumbent does not have a USO to provide directory services, the regulator is of the opinion that this is not necessary as acceptable directory services are already provided.

Paper-based and Internet-based directory services are provided by Editus and Kapitol free of charge. Editus charges EUR42 for its yellow-page CD-ROM. Kapitol charges EUR79 for its Benelux yellow pages, EUR99 for its European yellow pages and EUR149 for its European white pages.

L.1.3 Availability and pricing structures for other service providers

It is only since 2001 that talks have started between Editus and alternative operators on the provision of directory information. Editus maintains EPT's directory database for this purpose. In 2001, the alternative operators Codenet and Tele2/Tango requested to be included in this database. As no legislation is active which forces Editus to include these numbers, a dispute arose. Editus refused to pay these alternative operators for the inclusion in the directory database because, as Editus reasons, it does not pay EPT to include its subscriber information. An overall agreement has been reached, with the occasional involvement of the regulator (ILR), that in return for the inclusion of their directory

information in Editus' database, the alternative operators obtain advertising space in Editus' directories.⁴⁷

The ILR is of the opinion that this is an acceptable agreement, for the time being, as there are so few telephone numbers from alternative operators included in Editus' database. However, as more mobile subscribers opt-in to be included in this database, further problems may arise. It is questioned whether Editus will cooperate and include these numbers in its services. Reasons for not doing so have been quoted as being 1) there are problems with printing if the number of pages exceed a maximum, and 2) there are problems with searching the database if there is a mobile and fixed number from the same customer, but from a different provider.

Currently, there are still discussions between Editus and alternative operators on specific access conditions to the directory database. It seems that, over time, a more stable solution needs to be found. Though the ILR refuses to speculate on the nature of this solution, it seems likely that the currently inactive law on the USO will have to become applicable to EPT.

L.1.4 Usage trends

No information on usage trends is available.

L.1.5 Competition

<i>Telephone directory enquiry services</i>	<i>Providers</i>
White pages	Editus
Yellow pages	Editus
International	Editus

⁴⁷ Source: interview with Mr. Kohll of ILR, May 2002.

<i>Telephone directories</i>		<i>Publishers</i>
Paper	White pages	Editus
	Yellow pages	Editus
	International	Editus
CD-ROM	White pages	Editus, Kapitol
	Yellow pages	Editus, Kapitol
	International	Editus, Kapitol
Internet	White pages	Editus, Kapitol
	Yellow pages	Editus, Kapitol
	International	Editus, Kapitol

Exhibit L.12: *Providers of directory enquiry services and publishers of directories in Luxembourg*

There is no competition in the directory enquiry services market. Moreover, although the market for electronic directories may appear to be reasonably competitive at first glance, given the variety of brands on the Internet offering directory services, a closer look reveals that most brands belong to the incumbent. The only real competitor is Kapitol, which provides Internet-based directory services and CD-ROM products that cover Luxembourg. Therefore, the directory services market in Luxembourg is still in its infancy, and no real competition has been introduced.

L.2 Regulatory information

L.2.1 Current and planned regulation

The national regulator in Luxembourg, responsible for the telecommunications and post sector, the Institut Luxembourgeois de Régulation (ILR). The main legislation relevant to directory services is:

- **Telecommunications Law, March 1997** – regulates telephone directories and directory enquiry services.
- **Règlement grand-ducal, May 1998** – USO regulation and data protection.

- **Règlement grand-ducal, July 1998** – conditions governing access to the national directory database.

At the moment the USO regulation is inactive because no operator has been nominated as responsible for fulfilling the USO. It seems likely, however, that this law will have to become applicable to EPT.

L.2.2 Regulatory framework and market situation

In December 1998, the ILR established the number series 118XY for directory enquiry services. An access code can be requested by any company seeking to provide directory enquiry. So far only three numbers have been requested, though only two of these – both for the incumbent – is actually active. Companies looking to provide directory services have to apply for an SN07 licence with the ILR. Such an authorisation costs around EUR100 and gives ILR insight into the number of players in the field. Although five players currently are in possession of such a licence, the ILR believes only two are actually active (Editus and Kapitol).

There are no active licence conditions concerning directory services, and the incumbent operator EPT has no obligation to provide directory enquiry services or printed directories. The fact that it does indeed do this, according to the ILR, is solely for historical reasons and because the services are profitable.

The Règlement grand-ducal, May 1998, states that telephone subscribers to all networks have the right to access to a national directory enquiry service. The provider with the USO must electronically maintain a database with standard directory information of any person connected to the telephony service, accessible on request by any subscriber. This provider must provide subscriber data on request to any company authorised to offer a telephone directory enquiry or assistance service. Data should only be provided for subscribers that have accepted the publication of their personal data. Information should be easily and quickly usable by the service provider and electronic access should be allowed for. The ILR determines the conditions under which directory-related activities can be undertaken, in particular the commercial and financial conditions and techniques for access to the

necessary data. Conditions have to be equitable, reasonable and non-discriminatory, and should take into account the commercial value of the data.

Article 2 of the Règlement grand-ducal, May 1998, states that telephone subscribers also have the right to obtain a printed telephone directory free of charge. This must be published and distributed by the USO provider, with an updated version at least once per year. This directory should include an alphabetical list of standard directory information of all subscribers, allowing the identification of the number of a subscriber. The standard information includes the name, address, profession and/or title of the subscriber.

L.2.3 Tariffs

Because there is no designated USO provider, currently none of the tariffs are regulated. However, should EPT be designated as USO provider, according to the Règlement grand-ducal, July 1998, its directory database would have to be accessible under reasonable and non-discriminatory conditions, and the tariffs would have to be cost-oriented. The ILR is entitled to advise on the conditions and tariffs in case of a dispute..

There have been disputes between alternative operators and EPT on the tariffs and other conditions. Although ILR has been involved in these disputes, the parties concerned have to find a solution between themselves as the ILR decided not to activate the above-mentioned USO regulation. Further information on this dispute is not public.

L.2.4 Data protection

Currently, fixed subscribers have an opt-out option, whereas mobile subscribers still have to opt-in. According to the ILR, there are very few mobile subscribers that decide to have their mobile directory information listed.

The inactive Règlement grand-ducal, May 1998, has some references to the data protection law, which must be taken into account by any telephone operator maintaining a subscriber database. According to article 7, each subscriber has the right to appear, free of charge and with the standard directory data, in the telephone directory. Also, each subscriber has the

right to remain ex-directory. Subscribers determine the wording of their personal data, taking into account the right of the public authorities to obtain all the information available on the subscribers. In case of an error, the subscriber has the right to proof from the telephone operator that the error has been corrected.

L.2.5 Regulatory barriers to competition

There seem to be significant regulatory barriers to competition. The incumbent, which holds the majority of the subscriber information in its directory database, is not subject to a USO and therefore is not obliged to provide directory services to end-users or to give access to alternative service providers. The latter find it difficult to penetrate this market, without any firm regulation from the ILR on this topic. As disputes between the incumbent and alternative telecom operators continue, the ILR may decide eventually to enforce more restrictive regulation.

L.2.6 Unified directory database

There is no provision in the legislation for the creation of a unified directory database. The ILR however finds the current situation acceptable, whereby the incumbent maintains its own directory information and allows the two alternative mobile operators to include their subscribers. However, as there are very few listed mobile subscribers, as well as very few CPS fixed subscribers from alternative operators, there is currently no significant problem including these subscribers in the database. However, this business model is unlikely to be sustainable. Even though currently the incumbent database is reasonably universal, a problem will certainly arise when more telephone users subscribe with alternative operators, and wish to be listed.

M: Netherlands

M.1 Commercial information

M.1.1 Description of market players

KPN

KPN is the incumbent operator in the Netherlands. It owns the largest customer database, and provides directory services under its USO. KPN's service offering includes:

National directory enquiry services – there are two types of services: operator-assisted directory enquiries (via 0900 8008) allowing for a maximum of six searches, and an automated service (via 118) allowing only one search and requiring the name and address of the person. Searches on both white page and yellow page information are possible.

Under the terms of its USO, KPN should provide a universal telephone and directory enquiry service that includes all numbers in the Netherlands – fixed, mobile (including prepaid if subscriber details are known by the providers) and personal numbers – unless subscribers have requested not to be included. In practice, inclusion of mobile numbers depends on the agreements between KPN and the individual mobile operators (see Section M.1.2 below). Pre-paid numbers are not automatically included in the telephone guide, as no contract exists which registers directory information.

Subscribers' basic directory information will be included automatically in the directory enquiry service and free of charge in the white pages (paper-based and CD-ROM). KPN defines as basic directory information: name, address, city, telephone number and

postcode. This information is also provided to alternative universal directory service providers. There are three types of additional information that residential and business subscribers can add in KPN's white pages exclusively: extra name on same address, extra address for same person and an extra line of information. Commercial information is not automatically provided to alternative directory service providers. Information is refreshed on a daily basis.

International directory enquiry service – KPN offers an international directory enquiry service via the number 0900 8418.

Printed white and yellow pages are distributed in a single book free of charge. They are updated yearly.

CD-ROM-based directories include yellow and white page information: email and Internet addresses, fax numbers, mobile numbers, maps and a route-planner. Approximate searches are available. Information is refreshed annually for the consumer version and four times a year for the business version.

Internet-based directory services – enabling searches for residential and businesses numbers in the Netherlands based on city, region or postcode. Information available includes mobile and fax numbers, email and Internet addresses. Reverse searches for businesses are possible, but not for residents (for reasons of privacy protection). There is also an international directory service providing information on national and regional prefixes, and links to online telephone guides for all countries. Information on the Internet is refreshed weekly.

Other operators

Cable operator UPC offers a telephone service but does not provide any directory enquiry services itself – its subscribers have access to KPN's 118 service. Of the four mobile operators in the Netherlands, only Vodafone and Dutchtone offer their own 118 national directory enquiry service, whereas the other mobile operators have an interconnection agreement with KPN and use its 118 service. Vodafone uses the same database as KPN and offers the same search functionality, including white page and yellow page information.

Dutchtone, however, only has access to KPN's database via E.115 protocol, and can therefore only carry out white page searches. Vodafone also offers the possibility to reach its service from most foreign countries, either via 118 or +31 654 500200. In addition to 118, Vodafone offers *115 connect*, a directory enquiry service with a direct connect facility. This service is available from selective foreign countries.

None of the alternative operators offer an international directory enquiry service.

Other directory service providers

Denda Multimedia was the first company in the Dutch market that tried to offer a universal directory service in the CD-ROM format. It encountered many problems with KPN (see Section M.1.3 below) during 1997–1999 while attempting to launch this service. Currently, Denda offers directory services on CD-ROMs in the UK, Canada, Germany and Belgium. Its CD-ROM white pages product, branded *Belles*, includes fixed and mobile numbers from almost all operators (KPN, KPN Mobile, Vodafone, Ben, Essent, Debitel, UPC, Talkline, Telfort and Dutchtone) as well as email and Internet addresses. Very recently, in June 2002, Denda's Internet branch was declared bankrupt; the future of this company is as yet uncertain.

Gouden Gids (yellow pages) – Gouden Gids became active in the Netherlands in 1964 and is owned by VNU World Directories. VNU is also active in Belgium, Portugal, Ireland, South-Africa and Puerto Rico. Gouden Gids has its own business database. It provides yellow pages on paper and the Internet, and recently via mobile. On the Internet, searches are available on business classification, name, address, region, telephone or fax number and postcode. Approximate searches are possible. Links to company Web sites are available. 'Yellow pages worldwide' provides links to international yellow pages. The Gouden Gids is also available on all large WAP portals. There are 200 mobile categories and WAP-phone users can be connected directly with a selected address.

Other publishers. There are a number of other publishers of printed yellow page directories. Regiogids Limburg focuses on one province in the Netherlands, whereas Wegener prints a number of municipality guides.

National Telephone Guide – a national directory service, available on the Internet, CD-ROM and via mobile. It has been published by Gouden Gids since January 2000. Consumer directory information is obtained from KPN, UPC and BEN, and talks with alternative fixed and mobile operators are ongoing. Business information comes from the Gouden Gids database. The CD-ROM and Internet-based service includes a route planner at the postcode level, business email addresses and Internet addresses. It allows approximate searches. Since 2002, KPN also provides limited commercial information (an extra name at the same address). The National Telephone Guide also offers an international Internet-based directory service. The mobile service is available on all large WAP portals. Searches are available at a national, regional and city level. An input of three letters of a name or place will lead to a list of possibilities. A WAP-phone user can be connected directly with the selected address.

Scoot Netherlands was established in 1997, and is owned by Vivendi Universal. Scoot has directory services in the UK, Belgium and France. In the Netherlands, it provides a telephone-based and Internet-based directory service for business information. Searches are possible on sector, business activity and company name. The number 0900 07007, costing EUR1 per call, replaced the free 0800 number in March 2001. In May 2001, an SMS service was introduced, sending a mobile user an SMS with the search results (company name and phone number) within one minute. Recently, Scoot has been in financial difficulties.

Kapitol (Infobel) – Kapital provides Internet-based directory services, including white pages and yellow pages, under the brand Infobel. It also has links to a variety of international telephone directories. Infobel claims to have a complete database of white page information through contracts with every Dutch operator.

Several directory service providers have additional services available to make a stronger business proposition. Gouden Gids for example has many links on its Web site to informative sites and a business guide. Scoot has additional theatre and film information. It also enriches its business directory with information such as the availability of childcare.

Other online directory service providers – Many other Internet sites have links to directory services powered by one of the above alternative service providers. Ilse is the

main Internet-based search engine in the Netherlands, and offers directory services powered by the Gouden Gids and the National Telephone Guide.

M.1.2 Availability and pricing structures for users

Availability

In 2000, the regulator concluded that KPN was not adhering to its USO to provide a universal telephone and directory enquiry service that included all directory numbers. A number of mobile operators – BEN, Telfort and Dutchtone – had refused to supply KPN with subscriber data because the incumbent was trying to charge them for publishing the information. In June 2001, OPTA ruled that there was no legal ground for KPN to ask for these charges, and that KPN should rather recoup the cost of the universal database from end users. Threatened with heavy fines for not providing universal directory services, KPN quickly solved the problems with the mobile operators.

Pricing

Internet-based directory services and printed directories are free. The inclusion of additional information in KPN's directory services costs EUR6.35 per extra line in the white pages and between EUR38.57 and EUR61.26 for an extra address for the same name.

KPN's directory enquiry services are priced per call. Customers dialling 0900 8008 for a live operator pay EUR0.90 per call, and customers dialling 118 pay EUR0.41 per call (the international service costs EUR1.13 per call). Scoot's directory enquiry service costs EUR1 per call. Vodafone charges EUR0.90 per call plus the usual per-minute call costs for its 118 service. Vodafone's direct connection service costs even more: EUR1.25 per call, plus a EUR0.05 start tariff, plus the usual call cost per minute.

The CD-ROM telephone guides of all three operators cost around EUR18. KPN also offers corporate membership, including a free technical helpdesk and four yearly updates. A single user pays EUR224.50 per year and a multi-user pays EUR898.45 per year.

M.1.3 Availability and pricing structures for other service providers

According to article 43 of the Telecommunications Law, operators are obliged to provide their subscriber data to providers of universal directory services under cost-orientated and non-discriminatory conditions. Further, since KPN has a monopoly on the directory services database, the Competition Law also obliges it to supply information to third parties on cost-oriented and non-discriminatory conditions.

In 1998, the regulator OPTA received a complaint by directory service provider Denda Multimedia about the price that KPN was charging. At 38 euro cents per piece of information, this resulted in a total charge of EUR2.7 million per year for the whole database. Also, KPN demanded restrictive conditions on the use of the information – reverse searching was forbidden, for example. There was also disagreement on the content of the information, as KPN wanted to exclude postcodes.

In September 1999, OPTA agreed with Denda, and ruled that KPN had to pay EUR7400 each day that it was late to supply the data. OPTA defined a price of less than 0.25 euro cents per piece of basic directory information (equivalent to the marginal costs). This only applies to alternative providers that offer universal directory services. Furthermore, KPN has to supply this information in the same fashion and under the same conditions as to itself. This implies KPN cannot make demands with regards to the purpose for which the information will be used, but it can demand that this information is not used for reverse searches as this is not possible in its own CD-ROM telephone guide.

M.1.4 Usage trends

KPN's Internet-based telephone guide is in the top five of the most-visited sites in the Netherlands, and in the last 6 months of 2001, users viewed 16.8 million pages per month.⁴⁸ Scoot has 11 000 searches daily via the Internet or telephone. 75%–80% of the phone searches come from mobile phones. The age of most users is between 20 and 50 years.

⁴⁸ Source: NedStat/Search IT, December 2001

M.1.5 Competition

<i>Telephone directory enquiry services</i>		<i>Providers</i>
White pages		KPN, Vodafone, Dutchtone
Yellow pages		KPN, Vodafone, Scoot
International		KPN

<i>Telephone directories</i>		<i>Publishers</i>
Paper	White pages	KPN
	Yellow pages	KPN, Gouden Gids, Regiogids Limburg, Wegener
	International	none
CD-ROM	White pages	KPN, Denda Multimedia, National Telephone Guide
	Yellow pages	KPN, National Telephone Guide, Scoot
	International	none
Internet	White pages	KPN, National Telephone Guide, Kapitol
	Yellow pages	KPN, Gouden Gids, National Telephone Guide, Kapitol
	International	KPN, National Telephone Guide, Kapitol

Exhibit M.13: *Providers of directory enquiry services and publishers of directories in the Netherlands*

There is considerable competition in the Dutch market, with multiple providers for most types of service (except for printed white pages). KPN as well as Vodafone and Dutchtone offer a white page directory enquiry service, although all operators use KPN's database for this information. Scoot has provided a competing telephone service for business information since 1997, and has recently started charging for this service, as the company is in financial difficulties.

In printed white pages there is little competition, with KPN offering the only printed white pages. More companies are active in the printed yellow page market, with KPN and the Gouden Gids as the most recognised names.

In the CD-ROM market, Denda Multinational was the first to enter this market. The company had trouble establishing a position, as KPN was reluctant to share its database. A ruling from OPTA in 1999 changed this situation, and a regulated wholesale tariff of 0.25

euro cents per piece of information has given an impulse to this market. Now, there are several CD-ROM offers from KPN, Denda and the National Telephone Guide. All three provide residential and business information and compete head-on. The absence of a unified directory database means that Denda, the National Telephone Guide and Infobel to have to enter into discussion with a large number of telecom providers and form their own directory databases.

On the Internet, there is a wide array of sites offering search engines for directory services. However, there is only a limited number of providers of these search engines: KPN (white and yellow pages), Gouden Gids (yellow pages), The National Telephone Guide (white pages), Scoot (yellow pages) and Infobel (white and yellow pages).

M.2 Regulatory information

M.2.1 Current and planned regulation

Onafhankelijke Post en Telecommunicatie Autoriteit (OPTA) is the regulator of the postal and telecommunications market in the Netherlands. The main regulation relevant to directory services is the Telecommunications Law, December 1998.

M.2.2 Regulatory framework and market situation

KPN uses 118 for its automated directory enquiry service. There is no initiative to change this number so that alternative operators can provide directory enquiry services on an equal footing. KPN and Scoot also use 0900 numbers for their directory enquiry services.

KPN has the USO and as such has to offer a universal directory enquiry service and a telephone guide. These have to include data (numbers, name, address, city) for all subscribers of all fixed and mobile operators in the Netherlands – unless the customer has requested not to be included. Fixed, mobile and personal numbers are part of this information. The telephone directory has to appear in a format approved by the regulator (paper or electronic), and has to be updated once a year.

KPN is also obligated to supply other companies with information from its national directory database for the purpose of providing directory or other information services. This information should be supplied on cost-oriented and non-discriminatory conditions.

Alternative operators (both fixed and mobile) are obliged to provide subscriber information to providers of universal directory services, in an agreed format and on cost-orientated and non-discriminatory conditions.

M.2.3 Tariffs

Retail tariffs

In September 1999, OPTA implemented a price-cap for a range of telephony services for the next three years, including the telephone-guide and directory enquiry services. Tariffs for a basket of telephone services should decrease by 5.3% per year. KPN is allowed to include the costs of the maintenance of the universal directory database in calculating its end-user tariffs. The Ministry of Traffic and Waterworks monitors these tariffs and can define a price-cap for such charges, but this has not happened yet.

Wholesale tariffs

KPN pays operators a cost-oriented tariff for providing their subscriber information for its database. This tariff varies per operator, as their individual cost-basis is likely to vary as well. KPN tried to charge operators for publishing this information, but OPTA ruled that KPN had no legal ground to do so.

Following a complaint from Denda Multinational, in September 1999 OPTA reduced the tariffs that KPN was charging directory service providers from 38 euro cents to 0.25 euro cents per piece of basic directory information.

M.2.4 Data protection

There is a default opt-out regime in the Netherlands. Contracts with mobile operators allow customers to view and correct personal information. If a customer wishes to be ex-directory, they have to alert their telecom provider, which is obligated to ensure that the customer's information remains undisclosed. KPN offers three options:

- listed – included in the telephone guide and registered for directory enquiry services
- not listed – not included in the telephone guide but registered for directory enquiries
- ex-directory – unavailable to both directory services.

Complaints about the disclosure of ex-directory information should be directed towards the supplier. Customers can also consult the 'Registratiekamer' – an independent supervisory authority that monitors the application of the legislation concerning the processing of personal data. Also, OPTA can handle complaints. This overlap in responsibilities between the Registratiekamer and OPTA has caused both institutions to work together on many complaints. The flow of complaints has been constant over the years, and complaints are mostly related to privacy issues (secret numbers, etc).

KPN's database does not provide any means for subscribers to prevent direct marketing companies from using their data. However, subscribers that do not want to be approached by such companies can call the DMSA, which is a independent organisation for direct marketing companies. All the main marketing companies are members of this organisation and have promised to exclude numbers on DMSA's list from their marketing databases.

Ownership of directory information lies with the telecom operator, and directory service providers or users of directory services cannot change this data. The operator cannot make demands with regards to the purpose for which the information will be used by other directory service providers, but can demand that this information is not used for reverse searches, nor copied without limit. Reverse searches are still not allowed by KPN, according to OPTA, although some private initiatives in Taiwan have cracked KPN's CD-ROM and started offering this capability.

There has never been a dispute over what data should be included in the universal directory database. There have been some guidelines related to privacy issues: for example, the

gender of a subscriber should not be indicated by default – unless requested. Email addresses can be included for extra cost. These addresses are currently too fluid to include automatically.

M.2.5 Regulatory barriers to competition

The price cap of 0.25 euro cents per piece of directory information from KPN has removed a major barrier to competition. However, the absence of a unified database from which all directory service providers can purchase all directory data will hinder competition. Competition in the directory enquiry services market is also hampered by the absence of numbering parity, as no 118XY numbering scheme has been introduced.

M.2.6 Unified directory database

KPN is the only operator that is obliged to collect all directory information under its USO obligation. However, its national directory database is not complete yet. Further, because KPN will not give alternative providers access to information it holds from other telecoms operators, providers such as Denda, the National Telephone Guide and Infobel have to enter into agreements with multiple telecoms operators to build up their own ‘universal’ directory databases. It can be expected therefore that in a few years time perhaps there will be four universal directory databases.

N: Norway

N.1 Commercial information

N.1.1 Description of market players

Telenor (Findexa)

Telenor is the incumbent operator in Norway and the dominant player in the market for national directory enquiry services (through the access code 1881). In September 2001, Telenor sold its directory business unit (Telenor Media, later renamed Findexa) to Texas Pacific Group of the USA for NOK5.8 billion (EUR722 million) in cash, but retained its directory enquiry service business.

Findexa is the leading directory service provider in Norway, mainly with products on paper, CD-ROM and the Internet. It has approximately 90% market share of the printed directory segment.⁴⁹ Findexa's reported revenues for 2000 were NOK1655 million (EUR204 million). In addition to Norway, the company also provides directory services in ten other European countries.⁵⁰ The company as a whole employs 2000 people of whom 900 are employed in Norway. The main products and services of Findexa in Norway are outlined below.

Printed directories – Findexa is Telenor's official directory publisher and produces white pages, yellow pages (Gule Sider), pink pages (directories of companies listed in alphabetical order) and business-to-business directories (bizkit).

⁴⁹ Source: Joan Evar Andersen of Findexa, Norway (telephone interview with Gautam Mahipal of Analysys on 14 May 2002)

⁵⁰ Including France, Poland, Finland, Russia, Ukraine, the Baltic States and the Czech Republic (Source: www.findexa.no)

CD-ROMs – Findexa also has a CD-ROM offering for certain products (such as the business-to-business directory).

Internet-based services – the company offers Norwegian white pages, yellow pages (searchable both by business category and business name) and business-to-business directories through Internet.⁵¹

Business directory enquiry service – Findexa provides an operator assisted directory enquiry service (via 090 90), offering business information only. The company also provides an SMS service for its pink and yellow pages directories.

Other providers of directory services

After the market was opened to competition in February 2002, four additional players have entered the market for directory enquiry services. They are:

1. EasyConnect (via 1890)
2. Current (via 1880)
3. Phonec (via 1888)
4. Sol's (via 1850) – routed to EasyConnect's 1890 service.

There are also various small players in the Internet market, primarily serving the business segment. A few small players providing specialised directory services are outlined below:

- Eurocall (www.eurocall.no) – online business directory, which facilitates searches by brand name
- gul.no (www.gul.no) – an online catalogue for business customers
- Kompass Norge A/S (www.kompass.no) – online business directory, plus CD-ROMs including all countries in Scandinavia.

⁵¹ <http://www.gulesider.no> and <http://www.bizkit.no>

N.1.2 Availability and pricing structures for users

As part of its USO, Telenor provides white page directories to all subscribers in Norway. This is carried out through Findexa, which acts as official directory publisher for the incumbent. In addition to this, Telenor's USO includes the provision of access to national directory enquiry services.

The cost of Telenor's directory enquiry service varies in a range of NOK10–12 (EUR1.3–1.6) per minute. This does not vary significantly across the different service providers.⁵² The telecoms operators conduct billing for the directory enquiry services.

N.1.3 Availability and pricing structures for other service providers

Telecoms operators are obligated to provide access to their basic subscriber data to any provider of directory services. Tariffs for this data should be based on the cost of the actual transmission of the data, and should not include the operator's cost of handling the data. As an indication of the level of the tariffs, Findexa pays approximately NOK50 000 (EUR6500) per year to the mobile operator NetCom for its basic subscriber information.⁵³ Similarly Telenor must also provide access to its subscriber database on a cost-oriented and non-discriminatory basis to every provider of directory services.

Operators without their own enquiry service bill their customers then pay the directory enquiry service provider after deducting an administrative charge. EasyConnect gets approximately NOK8.50 (EUR1.16) per minute for directory enquiry services, which represents approximately 85% of the amount charged to the end users.⁵⁴

⁵² Source: Mr. Gosgein Michaelsen of EasyConnect, May 2002.

⁵³ Source: Tommy Stadsvik of Findexa, May 2002.

⁵⁴ Source: Mr. Gosgein Michaelsen of EasyConnect, May 2002.

N.1.4 Usage trends

There are a total of some 70 million directory enquiry calls per year and the total directory enquiry market is worth approximately NOK400–500 million (EUR52–65 million) per year.⁵⁵ In January 2002, Telenor announced that two of its twelve call centres that provide directory enquiry services in Norway would be closed down because of a falling demand for enquiry services.

N.1.5 Competition

<i>Telephone directory enquiry services</i>		<i>Providers</i>
White pages		Telenor, EasyConnect, Current, Phonec
Yellow pages		Telenor, Findexa
International		Telenor

<i>Telephone directories</i>		<i>Publishers</i>
Paper	White pages	Findexa
	Yellow pages	Findexa
	International	none
CD-ROM	White pages	none
	Yellow pages	Findexa, Kompass
	International	Kompass
Internet	White pages	Findexa
	Yellow pages	Findexa, Eurocall, gul.no, Kompass
	International	Kompass

Exhibit N.14: *Providers of directory enquiry services and publishers of directories in Norway*

The directory enquiry service market was only opened to competition in February 2002. Since then four players (in addition to Telenor) have entered the market for directory enquiry services with their separate access code numbers. Telenor remains the dominant player in the market for directory enquiry services, while the other leading player, Findexa,

⁵⁵ Source: Mr. Gosgein Michaelsen of EasyConnect, May 2002.

is the dominant player in the market for printed, CD-ROM and Internet-based directory services.

Although the regulator has reserved fifty numbers for directory enquiry services, according to one of the service providers the scale of the Norwegian market is likely to lead to merely three players in two years' time, each with their own independent database.

N.2 Regulatory information

N.2.1 Current and planned regulation

The Norwegian Post and Telecommunications Authority is the regulator for directory services in Norway and ensures the competitiveness of the market. The main regulation relevant to directory services is the Telecommunications Act, 1995.

N.2.2 Regulatory framework and market situation

As part of its USO, Telenor provides white page directories to all subscribers in Norway. In addition to this, Telenor's USO includes the provision of access to national directory enquiry services.

The directory enquiry service market was opened to competition in February 2002. This included withdrawal of Telenor's 180 and 181 numbers (from 30 April 2002) and the introduction of four-digit (18XY) numbers for directory enquiry services. The regulator has reserved 50 telephone numbers (1850–1899) for this purpose.

Section 2.7 of the Regulations on Public Telecommunications Networks and Public Telecommunications Services⁵⁶ states that all operators must maintain a database of their subscribers' names, addresses and telephone numbers, and must make this information available to all directory service providers, except when a subscriber is ex-directory. Data is to be provided on non-discriminatory terms.

⁵⁶ Source: <http://www.npt.no/eng/regulations/regulations/alle/1997/E9971259.htm>.

Directory enquiry service providers must make sure that their directory enquiry system is kept up to date, and is in conformity with the data protection legislation.

At the moment access to information on subscribers of other operators has to be agreed between the operators involved. An order may be made to establish a universal directory database. If so, all operators will be obliged to provide up-to-date subscriber information to the database. They may also be instructed to contribute to the funding of the system.

N.2.3 Tariffs

Retail tariffs are not regulated. According to Findexa and EasyConnect, companies have discretionary power to determine the price for directory enquiry services. Wholesale tariffs should be based on the cost of the actual transmission of the data, and should not include the operator's cost of handling the data.

N.2.4 Data protection

There does not seem to be any regulation with respect to whether the default option is opt-in or opt-out for fixed and mobile subscribers. Different operators have a different approaches, but in general fixed-line subscribers have a default opt-out option while mobile subscribers have a default opt-in option.⁵⁷

As per the section 2.7 of the Regulations on Public Telecommunications Networks and Public Telecommunications Services, directory service providers must make sure that their systems conform with the data protection legislation and that information is not provided in contravention of secrecy requirements.⁵⁸

⁵⁷ Source: Mr. Joan Evar Andersen of Findexa, May 2002.

⁵⁸ Source: <http://www.npt.no/eng/regulations/regulations/alle/1997/E9971259.htm>.

N.2.5 Regulatory barriers to competition

There are no significant regulatory barriers to competition in the market as there is numbering parity, and access to subscriber information is available on a cost-oriented and non-discriminatory basis. However, the fact that there is no unified directory database is still an issue.

N.2.6 Unified directory database

At the moment there is no unified directory database in Norway, nor is there an initiative to create one. A number of directory service providers – Telenor, Findexa and EasyConnect – have their own databases which include some but not all mobile numbers. Providers have to make individual agreements with all the operators in order to have comprehensive databases. The cost at which data is available from operators is regulated and cost based.

An order may be made to establish a universal directory database. If so, all operators will be obliged to provide up-to-date subscriber information to the database. They may also be instructed to contribute to the funding of the system.

O: Portugal

O.1.1 Commercial information

O.1.2 Description of market players

PT Comunicações

Portugal Telecom Comunicações SA, the incumbent, maintains the national directory database and provides national directory enquiry services via 118. These offer both white page and yellow page information (maximum of two enquiries per call). An international directory enquiry service is available via 177. PT Comunicações publishes printed directories through its subsidiary Páginas amarelas. The company has 26 products in its range: 2 white pages, 2 yellow pages, 13 combined white/yellow, 8 *Concelhos* yellow pages and a fax directory. In 2001 it published 8 million copies of its directories.

The company also offers white and yellow page online directory services.

Other operators

Short codes in the series 18XY have been provided to 13 other telecoms operators for directory enquiry services, although a number of these do not yet provide any directory enquiry service.⁵⁹

⁵⁹ Novis Telecom, Refer Telecom, Univertel, HLC, Jazztel, Oni Telecom, Global One, Coltel, Cabovisão, Madem, Telecel, Optimus, Oni Way.

Other providers of directory services

Kompass Portugal provides business-to-business information on paper, CD-ROM, printed and the Internet. The 10 000 most significant Portuguese companies are listed by region and by 20 000 products and services. It also produces a yellow pages directory for Lisbon, Algarve, Madeira, Oporto and Estoril Coast. Kompass also has information on 70 other countries. Kompass is owned by Wanadoo.

Telelista has a database of over 600 000 companies in Portugal and provides directory services to businesses and consumers via Internet, WAP, telephone and printed directories. Its yellow pages enquiry service is available to all fixed and mobile users using the number 707 222 707. Telelista was founded in 2000 by Grupo Media Capital, bringing together Jovipresse (a directories business) and Informação Telefónica Nacional. Grupo Media Capital also owns IOL, one of the biggest ISPs in Portugal.

O.1.3 Availability and pricing structures for users

The national directory enquiries service costs EUR0.32 per call. The international service costs EUR0.78 for the first minute and EUR0.64 thereafter. White pages and yellow pages are distributed free.

Telelista's yellow page directory enquiry service is charged at EUR0.08 for connection and the first 15 seconds plus EUR0.07 per minute at peak times (or EUR0.035 at off-peak) thereafter. Kompass Portugal's printed directories cost EUR250 and EUR300 on CD-ROM. An annual subscription to the complete Kompass international online directory cost EUR450.

O.1.4 Availability and pricing structures for other service providers

All alternative operators use the national directory enquiry service provided by PT Comunicações. They bill their customers for this service and remunerate PT Comunicações with 65% of PT Comunicações's retail price, as defined in the incumbent's reference

interconnect offering. Mobile operators must provide a free directory enquiry service listing their own subscribers.

O.1.5 Usage trends

In 2001 PT Comunicações published 8 million copies of its directories.

O.1.6 Competition

<i>Telephone directory enquiry services</i>	<i>Providers</i>
White pages	PT Comunicações
Yellow pages	PT Comunicações, Telelista
International	PT Comunicações

<i>Telephone directories</i>		<i>Publishers</i>
Paper	White pages	Páginas amarelas
	Yellow pages	Páginas amarelas, Kompass, Telelista
	International	no information available
CD-ROM	White pages	no information available
	Yellow pages	Kompass, Telelista
	International	Kompass
Internet	White pages	PT Comunicações
	Yellow pages	PT Comunicações, Kompass, Telelista
	International	no information available

Exhibit O.15: *Providers of directory enquiry services and publishers of directories in Portugal*

Competition is still relatively immature in Portugal, with Telelista only starting operations in 2000. There is some competition for printed and Internet-based white pages and yellow pages, and also for yellow page directory enquiry services. However, there does not appear to be any competition in printed white pages or directory enquiries – here the market is dominated by PT Comunicações, which has the only comprehensive directory database and also has a preferential short code. This issue is yet to be resolved by the regulator.

O.2 Regulatory information

O.2.1 Regulatory framework and market situation

The Autoridade Nacional de Comunicações (ANACOM) is the Portuguese regulator.

As part of its USO, PT Comunicações has an obligation to provide a universal directory enquiry service. It is responsible for maintaining the unified directory database, and from April 2002 all other operators (fixed and mobile) are obliged to supply it with subscriber information in an agreed format, under fair, non-discriminatory and cost-based conditions. In turn, PT Comunicações is obliged, if requested, to supply directory enquiry services on their behalf. All the alternative operators do in fact purchase this service. Tariffs are regulated, being set at 65% of the retail price charged by the operators. The incumbent is also required to provide data from its directory database to any operator or other directory service provider, and to do so on non-discriminatory and cost-based conditions.

Mobile operators must provide a free telephone directory containing information for their subscribers (only for subscribers that have expressly requested this) and must also provide a directory enquiry service providing access to the same data.

Only licensed telecoms operators are allowed to provide directory enquiry services. The national numbering plan allocates the preferential short code 118 to PT Comunicações. There are no plans to implement a 118XY numbering system.

PT Comunicações also has an obligation to publish and make available white pages directories, in paper or electronic format, containing the numbers of fixed and mobile telephone service subscribers that have authorised dissemination of their personal data.

ANACOM has stated that any losses that PT Comunicações incurs in maintaining the national directory database and providing directory services are to be financed by the USO fund.

All subscribers have the right to be part of the national directory and to be listed in directories, or to be ex-directory. Subscribers can request that their details not be used for direct marketing.

O.2.2 Tariffs

The retail price of directory enquiry services is not regulated. The wholesale price which PT Comunicações can charge other operators for providing a directory enquiry service on their behalf is regulated and set at 65% of the incumbent's retail price. Data from the national directory database should be provided on a cost-orientated basis to any directory service provider that requests it. ANACOM is to make a statement on the USO costs of producing the telephone directories and providing the enquiries service. All other operators (fixed and mobile) are obliged to supply PT Comunicações with subscriber information in an agreed format under fair, non-discriminatory and cost-based conditions.

O.2.3 Data protection

Act 69/98 of 28th October 1998 and Act 67/98 of 26th October govern data protection under Portuguese law. All fixed and mobile operators must inform their subscribers that their information will appear in a universal directory. Subscribers have the option to choose not to be part of this (i.e. opt-out). Only data strictly essential to the provision of telephone directories and directory enquiry services should be collected.

O.2.4 Regulatory barriers to competition

Competition has yet to develop in the Portuguese market. PT Comunicações dominates the market (especially for white page information) and has a preferential short code for directory enquiries. There are no plans to move to a 118XY system. Moreover, only telecoms operators are allowed to request a short code, further hampering competition in the market.

O.2.5 Unified directory database

Portugal is implementing a unified directory database, though this process is not yet complete. Under the provision of its USO, PT Comunicações maintains the national directory database; legislation is in place to ensure that all fixed and mobile operators in Portugal will provide their subscriber information, and that data from this database will be available to directory service providers on suitable terms. Technically, the initial proposal was for a logically but not physically unified database, but ANACOM has recently decided that a physically unified database would be the best approach, offering advantages in terms of cost and flexibility. This may require some changes in the agreed format of the data.

P: Spain

P.1 Commercial information

P.1.1 Description of market players

Telefónica

Telefónica is the incumbent operator in Spain and at present has the only comprehensive national directory database. It provides national directory enquiry services as well as publishing printed white pages and yellow pages (through its subsidiary Telefónica Publicidad e Información). Telefónica provides the following directory services:

National directory enquiry services – Telefónica has its own white pages directory enquiries arm and offers a national service using the number 1003 and a yellow pages service called “*Páginas Amarillas Habladas*” using the number 906 365 024 . Telefónica is the largest provider of these services in Spain.

International directory enquiry service (via 025).

Printed directories – Yellow pages (*Páginas amarillas*) and white pages (*Páginas blancas*) are published by Telefónica Publicidad e Información (TPI) and are available in paper copy, distributed free of charge throughout Spain. Additional copies can be bought over the Internet (the price varies with the edition that you want).

Online directory services – TPI has an Internet site which combines yellow pages, white pages and maps of different cities. In December 2001 TPI launched a “new technologies

channel” on this Web site, aimed at providing users with access to TPI content in new media formats (PDA, WAP, SMS).

Other providers of directory services

Telegate claims to be the only competitor to Telefónica in national and international white pages directory enquiry services. This service is currently available to mobile phone users. It was allotted the short code 1616 in January 2001 but since Telefónica refused to supply a billing service, Telegate was at first forced to use a premium-rate nine-digit number instead. The regulator decided that this was not satisfactory and Telegate is presently using 1616 until the introduction of the 118XX numbering scheme. Telegate is owned by Seat, which is majority owned by Telecom Italia. Telegate has an interconnection agreement with Spain’s second biggest fixed line operator, Retevisión.

Vodafone offer a yellow page directory enquiry service using 121. It also offers a free number (103) to find the phone number of another Vodafone subscriber. The Web site advertises that customers can request to become ex-directory.

Índice Multimedia (Wanadoo) – Indice Multimedia was started in 1998 and provides Internet-based yellow pages under the brand “*QDQ la guia util*”. The company reports that its over 70 guides were accessed 89 739 000 times in 2001 and estimates that it generated commercial traffic valued at nearly EUR6.9 billion. Indice Multimedia wants to add white pages information and recently won a dispute against Telefónica, which did not want to provide it with subscriber information. Indice Multimedia was bought for EUR360 million in 2000 by Wanadoo, which is a subsidiary of France Telecom.

Tú distrito (Findexa) – Tú distrito was formed in 1994 and provides local telephone directories (yellow and white pages) with street maps and general information. It was bought by Telenor Media in 1996. Telenor Media was sold to Texas Pacific Group in 2001 and now operates under the name Findexa.

Infobel has an Internet-based white pages service and sells one specifically Spanish CD-ROM product and one electronic Europe-wide product that includes Spain.

- *Infobel España 2001* is a CD-ROM containing the details of the 15 million telephone subscribers in Spain. You can search on name, telephone or fax number (if available), street, street number, municipality, postcode (or interval of 100 postcodes) and business activity, or on any combination of these.
- *Euro Info* claims to be the first Europe-wide directory of companies and private individuals on DVD-ROM, with more than 130 million address and telephone details for both private individuals and companies. It contains information from Belgium, Denmark, France, Germany, Italy, the Netherlands, Luxembourg, Spain and the UK.

Kompass is owned by France Telecom and has a business directory for Spain. This contains 33 400 companies and is available in CD-ROM.

P.1.2 Availability and pricing structures for users

Directory services are available to everybody in Spain and in regions where Tú Distrito and Índice Multimedia operate there is substantial choice for the consumer. Printed yellow and white pages are distributed free of charge.

Directory enquiries in Spain are charged on a per minute basis with an initial connection fee. Telefónica charges EUR0.299 for connection for national directory enquiries (for one piece of information) and EUR 0.11 for connection and EUR0.33 per minute (peak rate) for its yellow pages service. The international directory enquiry service costs EUR1.387 per call. Telegate's prices for directory enquiries from mobile phones are EUR0.12 for connection and between EUR0.90 and EUR0.98 per minute (peak rate), depending on the network.

An *Infobel España 2001* CD-ROM costs EUR149 plus delivery charges (EUR18.59 for any delivery outside of Belgium and EUR12.64 within Belgium). Kompass's CD-ROM costs EUR1200 and its printed directory EUR275.

P.1.3 Availability and pricing structures for other service providers

Under the terms of its USO, Telefónica is responsible for keeping a national directory database and providing a directory enquiry service and printed directories. There have been

a number of recent disputes over access to the information in this database, and the price of data.⁶⁰ Telefónica's wholesale price was between 32.5 and 45 ptas (EUR0.19–0.27) per transaction, but the regulator ruled that the cost should not be above 7.5 ptas (EUR4.5). In 2002, following a dispute with Índice Multimedia, the regulator reiterated that Telefónica should provide information on its subscriber database to alternative service providers under fair, transparent and non-discriminatory conditions.

P.1.4 Usage trends

There continues to be substantial use of national directory enquiry services in Spain, with Telefónica receiving 220 million calls in 2001.⁶¹ In the same year, its online yellow pages service recorded 452.4 million page hits from more than 19.9 million visits. For printed directories, Índice Multimedia distributed around 17 million copies to homes and businesses in 2001, while in 1999 Tú Distrito had planned to print 4.5 million copies.

P.1.5 Competition

<i>Telephone directory enquiry services</i>	<i>Providers</i>
White pages	Telefónica, Telegate, Vodafone
Yellow pages	Telefónica, Vodafone
International	Telefónica, Telegate

⁶⁰ In 2001 Telegate and Sonera both launched complaints procedures with the CMT. Sonera's complaint was dismissed because it did not have a type A license and Telegate's complaint was upheld with the CMT judging that Telefónica had no justification for withholding subscriber information.

⁶¹ Source: Telegate

<i>Telephone directories</i>		<i>Publishers</i>
Paper	White pages	Telefónica Publicidad e Información, Findexa (local)
	Yellow pages	Telefónica Publicidad e Información, Findexa (local)
	International	Telefónica Publicidad e Información (contributes to Europages)
CD-ROM	White pages	Infobel
	Yellow pages	Kompass (business directory), Infobel
	International	Infobel
Internet	White pages	Telefónica Publicidad e Información, Infobel
	Yellow pages	Telefónica Publicidad e Información, Índice Multimedia
	International	no information available

Exhibit P.16: *Providers of directory enquiry services and publishers of directories in Spain*

There has been limited competition for directory enquiry services, with Telegate being the first operators offering competition to Telefónica. Telegate was initially unable to use the short code allocated to it because Telefónica had refused to provide a billing service. Directory enquiries are only recently being opened up to free competition and Telefónica is now obligated to provide billing services (as it already does for premium numbers) to other providers. There are several companies that believe that this can be a profitable enterprise.

There is substantial competition for white pages, with Tú Distrito and Telefónica having competing products. There appears to be substantial room for competition with yellow pages and Telefónica already has competition from Índice Multimedia (QDQ) and Tú Distrito.

P.2 Regulatory information

P.2.1 Current and planned regulation

The Comisión del Mercado de las Telecomunicaciones (CMT) is the national regulator in Spain and the Ministerio de Ciencia y Tecnología (MCYT) is the government ministry in charge of telecommunications. The main regulations relevant to directory services are:

- General Telecommunications Law 11/1998, April 1998
- Royal Decree 1736/1998
- MCYT order, March 2002.

P.2.2 Regulatory framework and market situation

Under the terms of its USO, Telefónica is obligated to provide a national directory enquiry service and to publish directories.

The Royal Decree of 1998 decided that directory enquiry services should only be free for payphones, and that the ministry can decide what information is presented in phone directories, which should be distributed for free. It also said that operators should provide subscriber information to the CMT for the purpose of creating a unified directory database which would make data available to directory providers for free. This last was not implemented, however.

In March 2002, the ministry decided that directory enquiries numbers will be replaced by 118XX numbers, with a one year transition period to the new numbering scheme. It also decreed that all operators must provide their subscriber data to the CMT, which will centralise the information and supply it to the providers of directory services. In the meantime Telefónica has to make its directory information available on a cost-oriented and non-discriminatory basis to all operators with Type A (telecoms operator) licences. Telefónica also has to provide billing on a cost-orientated basis.

Also in March 2002, a new licence, Type D, was introduced for companies that wish to supply directory services without themselves being telecoms operators. Companies that wish to also provide a call-completion service will need a public telephony licence A or B.

P.2.3 Tariffs

Retail: The regulator has been contacted and this information is presently being sought.

Wholesale tariffs for access to directory information should be on a cost-orientated basis.

P.2.4 Data protection

Through the General Telecommunications Law, the provision of subscriber information is subject to the data protection act as laid out in the “Organic” Law 5/1992, of November 1992. Personal subscriber data cannot be used for purposes other than those for which they were obtained (namely the provision of directory services).

P.2.5 Regulatory barriers to competition

Regulatory barriers to competition have been removed with the ministry’s decision in March 2002 to replace the present numbering with a 118XY system by March 2003, and to give the CMT the responsibility for distributing directory information.

P.2.6 Unified directory database

At present, Telefónica has the only national directory database (it owns more than 96% of the lines in the country). The March 2002 ministerial order gives the CMT the responsibility of distributing subscriber data free to all service providers that are licensed to provide telephone guides or directory enquiry services. All operators are obliged to provide the CMT with their subscriber data free; they may be allowed to charge directory service providers for the cost of providing the information – such as costs for materials – but not for the information itself.

Q: Sweden

Q.1 Commercial information

Q.1.1 Description of market players

Respons AB

Respons AB, owned by the incumbent Telia (49%) and Industry Kapital (51%), is the largest directory enquiry service provider in Sweden. It offers an operator-assisted directory enquiry service using the access code “118 118” and an automatic service through “118 888”. These include both white page and yellow page information. An international directory enquiry service is also available. Respons publishes the printed white pages. The company does not provide directory services on CD-ROM or the Internet.

The company is now entering the location-based services market by offering its customers route guidance. Callers can receive routes by SMS, WAP, email or fax.

Eniro

Eniro, previously a wholly owned business unit of Telia, is the largest yellow pages directory service provider in Sweden. Eniro distributes information through a number of media channels such as printed directories, fixed and mobile Internet, voice-mediated, CD-ROM and digital TV. The company also provides an yellow pages directory enquiry

service through “118 767” (for business-to-consumer only). The company’s main product offerings are listed below⁶²:

- *Gula Sidorna* – a yellow pages directory providing listings by business categories and names, which is available through both offline (paper, CD-ROM) and online (Internet⁶³, Digital TV, and voice mediation). The service is available both in English and Swedish and also provides regional information. In April 2002, the company also began to provide white pages directory services through the same Web site. Eniro is the only company offering white pages service through Internet.
- *DinDel* – provides local information and is accessible both online and offline. (<http://www.dindel.se>)
- *Emfas Internet* (<http://www.emfas.com>) – This is primarily business-to-business product, which is distributed to about 250 000 companies in Sweden.

Ahhaaa AB

The third largest operator in Sweden is Ahhaaa AB, which provides the only independent directory enquiry service through its own access code “118 100” (launched in December 1999). This provides both white page and yellow page information. In addition to this, the company has signed an agreement to utilise Conduit’s international directory enquiry service to provide directory information to callers on Ahhaaa’s 118 100 service.⁶⁴

Other providers of directory services

Other directory service providers are:

- **Mobile operators** offer a national directory enquiry service; some mobile operators are believed to have their own national directory databases.

⁶² Source: Eniro Annual Accounts 2001.

⁶³ www.gulasidorna.se

⁶⁴ <http://www.conduitsoftware.com/invest/invest-pr12.html> (Press release of 10 November 2000)

- **Bizbook** – detailed Swedish business directory, listing staff within companies in Swedish (<http://www.bizbook.se/>).
- **Lokaldelen** – local white page telephone directories published by Lokaldelen i Norden AB in paper copy.
- **Teleadress Information AB** (once part of Telia) has a comprehensive directory database of both fixed and mobile numbers and sells subscriber information to other directory service providers, but does not itself provide directory services. Currently Eniro and Respons AB purchase information from Teleadress.⁶⁵

Q.1.2 Availability and pricing structures for users

Presently Respons's 118 118 service is charged at SEK11.50 (EUR1.25) per minute.⁶⁶ The prices of other providers are not significantly different.

Q.1.3 Availability and pricing structures for other service providers

All the telecoms operators are obliged to provide directory enquiry service providers with access to their subscriber information on fair, cost-based and non-discriminatory terms. The price of the data depends on the particular commercial agreement between the service provider and the telecoms operator. According to Mr. Joran Tufegdzcic of Eniro, there have been some disputes with respect to accessing the information (for example, operators did not want to provide access to their subscribers information on a bulk basis), but these have largely been resolved and there are now no major disputes over access to subscriber data.⁶⁷

Q.1.4 Usage trends

The total number of calls for directory enquiry services (118XYZ) from the fixed network in Sweden amounted to approximately 29 million in the first half of 2001. 52% of these came from business customers. The total revenue from directory enquiry services in 2000

⁶⁵ Source: Joran Tufegdzcic of Eniro (telephone interview on 21 May 2002)

⁶⁶ From 6AM to 10PM (Source: www.respons.net)

⁶⁷ Telephone interview with Mr. Joran Tufegdzcic of Eniro on 21 May 2002.

stood at approximately EUR68 million, and EUR32 million in the first half of 2001. 52% of the total revenue accrued from the business segment.⁶⁸

In the beginning of 2001, Telia reported that Respons AB received 1 million calls to 118 118 every week (from a population of nearly 9 million).⁶⁹

Q.1.5 Competition

<i>Telephone directory enquiry services</i>		<i>Providers</i>
White pages		Respons
Yellow pages		Respons, Eniro, Ahhaaa
International		Respons, Ahhaaa

<i>Telephone directories</i>		<i>Publishers</i>
Paper	White pages	Respons, Lokaldelen
	Yellow pages	Eniro
	International	No information available
CD-ROM	White pages	No information available
	Yellow pages	Eniro
	International	No information available
Internet	White pages	Eniro
	Yellow pages	Eniro, Bizbook
	International	No information available

Exhibit Q.17: *Providers of directory enquiry services and publishers of directories in Sweden*

The competition in the Swedish directory service market is limited and restricted primarily to three main players, in spite of the fact that the market was opened to competition in 1999. Directory enquiry services are provided via numbers in the series 118 XYZ. Respons (49% owned by Telia) is the market leader in directory enquiries, while Eniro is the market

⁶⁸ Source: The Swedish telecommunications market first half-year 2001, 22 November 2001, No. 01-19841.

⁶⁹ Source: www.telia.com - press release of 12 February 2001.

leader in the printed directory segment, with about 75% market share.⁷⁰ Ahhaaa AB has emerged as the only independent service provider of directory enquiry services.

In November 2001, Telia and Elisa Communications have sold their stakes (25.5% and 7% respectively) in Eniro to institutional investors.⁷¹ This resulted in 100% private ownership of Eniro, which was until October 2000 a wholly owned subsidiary of Telia⁷².

Q.2 Regulatory information

Q.2.1 Current and planned regulation

Post- och Telestyrelsen (PTS) is the regulator of the post and telecoms sectors in Sweden. The main regulation relevant to directory services is the Telecommunication Act, 1993 (modified July 2001).

Q.2.2 Regulatory framework and market situation

The Swedish market was opened up to competition in 1999, when a 118 XYZ numbering system was introduced.

In respect of implementing article 6 of the EC's Voice Telephony Directive (98/10/EC), PTS has proposed that subscriber information shall be released by operators on terms and conditions which are fair, cost based and non-discriminatory. Operators shall be compensated for costs incurred in the release of subscriber information, and for infringement of intellectual property rights.⁷³

⁷⁰ Eniro's Annual Accounts 2001.

⁷¹ Total Telecom, 28 November 2001.

⁷² On 10 October 2001, the company was listed on the OM Stockholm Exchange.

⁷³ Directory Services Summary, December 2000, Source: www.pts.se

According to Section 15 of the Telecommunication Act⁷⁴, fixed and mobile operators are obliged to publish on reasonable terms their own telephone directory information (subject to obligations of confidentiality), and to provide operator assisted directory enquiry services on reasonable terms. Subsection 7 of section 23 puts a further obligation on operators to provide information about subscribers with any other party.⁷⁵

Section 23 (6) of the Act obliges operators to provide their subscriber data for individuals or businesses (subject to the obligation of confidentiality) to any party for the purpose of providing enquiry services on fair, cost based and non-discriminatory terms.

Until recently, Sweden had an “opt-out” option for inclusion of subscribers information in directory databases, but in May 2002, the Government legislated to change the system to “opt-in”. This new system is scheduled to be effective from 1 June 2003.⁷⁶

In 2000, the regulator proposed that a unified database should be set up in Sweden (see below).

Q.2.3 Tariffs

Retail tariffs for directory enquiry services are set by the service providers and are currently not regulated. Access to subscriber data for service providers is regulated, cost-based and non-discriminatory.

Q.2.4 Data protection

No information is available.

⁷⁴ Telecommunications Act (1993:597) (with amendments up to SFS 2001:166 – 1 July 2001) – Source: www.pts.se

⁷⁵ Telecommunications Act (1993:597) (with amendments up to SFS 2001:166 – 1 July 2001) – Source: www.pts.se

⁷⁶ Source: Joran Tufegdzcic of Eniro (telephone interview on 21 May 2002)

Q.2.5 Regulatory barriers to competition

The regulator opened up the directory enquiry service market to competition in 1999, assigning numbers in the series 118 XYZ to directory enquiry services. There are therefore no regulatory barriers to providing directory enquiry services or providing directory services through other media such as paper, CD-ROM or the Internet.

Q.2.6 Unified directory database

Currently there is no unified directory database, although the regulator has suggested that one be created. Companies wanting to provide directory enquiry services can have their own database (by having agreements with operators or service providers) or can buy the information from independent companies such as Teleadress which provide comprehensive listings of all subscribers in Sweden.

In December 2000, PTS released a document entitled “Directory Services Summary” proposing a new section (23c) that obliges an operator to maintain a subscriber database and release subscriber information from it for the purposes of directory services.⁷⁷ PTS also proposed that it be authorised to intervene in the event of disputes over access to subscriber information and be able to issue and take decisions in conjunction with such disputes.

In respect of the national directory enquiry service, PTS proposed for the authorisation to be introduced for the procurement of a complete national telephone directory enquiry service and directory in the event the market does not provide such. In this context, it is proposed that the services may be financed through fees levied on telecommunication operators.⁷⁸

⁷⁷ Directory Services Summary, December 2000, Source: www.pts.se

⁷⁸ Directory Services Summary, December 2000, Source: www.pts.se

R: United Kingdom

R.1 Commercial information

R.1.1 Description of market players

BT (the incumbent operator) is the dominant player in the market for directory enquiry services and printed white pages. Its former subsidiary yell.com is the major provider of yellow page directory services. There are many companies providing online directory services.

BT Group plc

BT provides the following services:

- **National directory enquiry services** using the access code 192. This is a white page service only.
- **International directory enquiry service** (via 153).
- **White pages.** BT is the sole provider of printed white pages, which are distributed free to all the households in the UK.
- **Internet-based directory services** – BT provides a white pages service through the Internet (www.bt.com).

BT does not provide directory data on CD-ROM.

Other providers of directory enquiry services

There are a number of independent service providers which provide directory enquiry services to alternative operators through their own call centres. They generally use the same access code as BT, namely 192 (callers who dial 192 on the alternative operator's network are routed to the call centres of the alternative service provider).

Conduit plc provides a white page directory enquiry services for the operators Orange and Telewest (via 192) under long-term contractual agreements (it signed a four-year contract with Telewest in December 2000). It also provides an international directory enquiries service. In January 2001, the company set up its own call centre, which employs almost 400 people, and has plans to expand its operations to include further UK centres over the next three years. The company is the largest independent provider of directory enquiry services in the UK, though as of 31 March 2001 the company had only approximately 8% of the total directory enquiry market. The company become profitable in the quarter ending 31 December 2001.

Conduit purchases directory data from BT (through BT DirectorySolutions). The company has applied for its own "118XYZ" access code.

Cable & Wireless – provides a white page directory enquiry service (via 192). In April 2002, C&W launched a new call centre in Birmingham to offer branded operator and directory enquiry services to other operators and service providers, in addition to its own business customers. To date, 29 companies have asked Cable & Wireless to apply to OFTEL for '118XYZ' numbers on their behalf, with a view to contracting to its directory enquiry service.⁷⁹

Telegate AG, one of the largest directory enquiry service providers in Europe, set up a call centre in Dumfries (Scotland), which became fully operational in April 2001. It also provides directory enquiry services via 192, and has applied for its own 118 access code.

⁷⁹ http://www.cw.com/th_05.asp?ID=mc_531apr1802

Scoot.com provides a directory enquiry service through “0900 2 192 192”. This provides only yellow page information, which Scoot buys from BT. It has applied for its own 118 access code. Scoot also provides an Internet-based yellow page service.

Yell.com provides a free yellow pages directory enquiry service – see below.

Yell.com

In May 2001, Hicks Muse Tate & Furst (a private equity firm in USA) and Apax Partners (a private equity firm in the UK) bought BT's Yell directory business for GBP2.14 billion (EUR 3.38 billion).⁸⁰ Yell.com publishes the yellow pages directories which are delivered free to homes and businesses throughout the UK (approximately 28 million copies). The company also provides an online yellow pages directory service through www.yell.co.uk and mobile WAP. In addition to the yellow pages directories, the company offers the following additional services:

- *Business Pages* – a printed business-to-business directory which covers six major cities and regions in England and Scotland.
- *Directory enquiry service* (through 0800 600 900) providing free details of products and services from businesses based anywhere in the UK.

Yell.com buys its basic data from BT and enriches it to create its own database.

Other providers of directory services

There are many companies providing online directory services. Examples are:

192.com – free search of residential and business numbers (fixed line numbers only). The information is tied into aerial photographs and street maps for the whole country. The company offers a number of CD-ROM products.

⁸⁰ Total Telecom (28 May 2001).

Thompson Directories provides an online yellow page directory service (searchable either by business name or business type). The company also publishes local business directories, which are distributed free.

Infobel – provides both white and yellow pages directory service through the Internet. The company has operations in other European countries such as Belgium, France, Spain, Denmark, Luxembourg, Italy and Netherlands. Directories for a number of European countries (though not the UK) are also available on CD-ROM.

R.1.2 Availability and pricing structures for users

Under the USO, customers of all telephone operators should have access to directory enquiry services and directory information.⁸¹ The retail price of directory enquiry services is not regulated. Calls to 192 cost GBP0.4 (EUR0.624) per call, while calls to international directory enquiries (153) cost GBP0.015 (EUR0.023) per minute.⁸² Scoot's directory enquiry service costs GBP0.5 (EUR0.78) per minute.

According to OFTEL, billing for directory enquiry services is via the primary operator, except for CPS where it will be from the line rental provider.⁸³

Consumer related complaints and follow-up procedures yet to be decided on and are currently under discussion within the regulator's Billing and Interconnect Sub Group (see below).⁸⁴

⁸¹ OFTEL document "A statement issued by the Director General of Telecommunications", 30 August 2001.

⁸² Minimum call charge is GBP0.015. Thereafter it is charged on per second basis at GBP0.015 per minute with a ceiling of GBP6. The service is free for BT customers who are registered as blind or disabled, via the access code 195.

⁸³ Directory Enquiries (DQ) Consumer Issues Sub-Group Meeting 1, Thursday 7 February 2002.

⁸⁴ Directory Enquiries (DQ) Consumer Issues Sub-Group Meeting 1, Thursday 7 February 2002.

R.1.3 Availability and pricing structures for other service providers

Wholesale prices for provision of directory data are not regulated at present (see below). BT's price list is laid out in the price list of BT DirectorySolutions. BT pays 0.66 pence (1.03 euro cents) per electronic transaction to other licensed operators for entry in the unified directory database ("OSIS"). Orange does not appear to be providing its subscriber information.⁸⁵

Presently BT DirectorySolutions has over 20 licensed users of its data, including Conduit, BT, eircom, 192.com, Infobel, Scoot and Yell.⁸⁶ The annual charges are GBP25 000 (EUR39 000) (with an update facility and in lieu of usage) and GBP2500 (EUR3900) (for localised use whereby the licensee has access only to 10 000 subscribers).⁸⁷ BT has published the following price list for alphabetical (A-Z) and yellow page products or services (effective from 1 October 2001).

	<i>GBP pence</i>
Alphabetically listed printed telephone directories, per book	28.8
Alphabetically listed voice or voice activated directory information services, per search	0.76 (utilising ex-directory information) 0.50 (not utilising ex-directory information)
Alphabetically listed other uses, per search (including all electronic machine-readable formats, for example, Internet applications and single or multiple user applications)	0.50 (utilising ex-directory information) 0.38 (not utilising ex-directory information)
Classified listed printed telephone directories, per book	3.75
Classified voice or voice activated directory information services, per search	0.19

Exhibit R.1: *BT price list for alphabetical (A-Z) and yellow page products or services [Source: BT DirectorySolutions price list, Ref. No. 005, 3 September 2001]*

⁸⁵ BT Directory Solutions Price List, Issue No. 2.14, 30 April 2002,. (Source: <http://www.btinterconnect.com/pricing/diu/diu.htm>)

⁸⁶ <http://www.btwholesale.com/onlinedirectory/directoriesolutions/>

⁸⁷ Source: BT DirectorySolutions department through telephone (0800 085 3127)

R.1.4 Usage trends

The UK is the largest directory enquiry market in Europe, with approximately 700 million calls to national directory enquiry services annually⁸⁸. International directory enquiries generate around 25 million calls per annum. 10% of the total national directory enquiry calls come from mobile networks. Demand for national directory enquiry calls is roughly constant, falling slowly from fixed networks but growing at around 10% per annum from mobile networks. Demand for international directory enquiry services is rising slowly.⁸⁹

R.1.5 Competition

<i>Telephone directory enquiry services</i>		<i>Providers</i>
White pages		BT, Conduit, Cable & Wireless, Telegate, Scoot
Yellow pages		Yell.com
International		BT, Conduit

<i>Telephone directories</i>		<i>Publishers</i>
Paper	White pages	BT
	Yellow pages	Yell.com, Thompson Directories
	International	no information available
CD-ROM	White pages	192.com
	Yellow pages	192.com
	International	no information available
Internet	White pages	BT, 192.com, Infobel
	Yellow pages	Yell.com, 192.com, Thompson Directories, Infobel
	International	no information available

Exhibit R.2: *Providers of directory enquiry services and publishers of directories in the UK*

⁸⁸ There are currently some 640 million national directory enquiry calls per annum from the fixed networks and some 60 million per annum from the mobile networks (Source: OFTEL, 2000).

⁸⁹ Consultation on access codes for directory enquiry services, November 2000 (Source: OFTEL.gov.uk)

Competition in the directory enquiry service market has so far been restricted in the UK. There is virtually no competition in directory enquiry services at the consumer (retail) level – subscribers to most networks call a 192 number, even though the actual provider of the directory enquiry service may vary between networks. However, Conduit has emerged as the largest alternative service providers, with a market share of approximately 8%

With the allotment of new 118XYZ access codes (scheduled for the end of May 2002), competition is likely to grow: over 80 companies have applied for numbers.

There is a fair amount of competition in paper based and online directory services. However, yell.com is still the dominant player in the market.

R.2 Regulatory information

R.2.1 Current and planned regulation

The Office of Telecommunications (OFTEL) is the regulator in the UK. The main regulation relevant to directory services is the Telecommunications Act, 1984.

R.2.2 Regulatory framework and market situation

On 1 March 2002, OFTEL announced that new six-digit numbers (118XYZ) for directory enquiry services will be allocated by the end of May 2002. On 21 May 2002, the regulator reported that over 80 companies have applied for the new six-digit numbers. The current 192 and 153 numbers will operate in parallel until August 2003, after which they will be withdrawn from use altogether.⁹⁰ OFTEL explained that the new 118 services would be white pages services. Additional value-added services such as yellow pages services could

⁹⁰ www.OFTEL.gov.uk

be offered on top of the standard services, but not on a stand-alone basis if a 118 code was used.⁹¹

All public telecoms operators are required to provide their subscribers with a directory enquiry service. Some operators provide the directory enquiry service directly, whereas others choose to outsource the service to wholesale service providers (for example, BT or Cable & Wireless). There is therefore virtually no competition in directory enquiry services at the consumer (retail) level.

Competition in the other forms of directory services (such as the Internet and printed media) has increased over the years, with the emergence of many new players in the market.

R.2.3 Tariffs

Retail pricing of directory enquiry services is not regulated. According to OFTEL, it is unlikely to cap the retail price as this could stifle the development of competition.⁹²

BT has published a price list for access to its central database by other operators or service providers (see Section R.1.3 above). Although wholesale tariffs are not currently regulated, data has to be provided on a fair, cost-oriented and non-discriminatory basis.

R.2.4 Data protection

There does not seem to be any regulation on “opt-in” and “opt-out” with respect to inclusion of subscribers’ information in directory databases.

A document published by the Data Protection Registrar in December 1998 sets out a code of practice for companies wishing to receive directory information from BT.⁹³ The code applies to any personal data used to provide a directory information service or product, no

⁹¹ Directory Enquiry working Group meeting (Source: OFTEL)

⁹² Directory Enquiries (DQ) Consumer Issues Sub-Group Meeting 1, Thursday 7 February 2002.

⁹³ Telecommunications Directory Information – Code of Practice, December 1998 (Available from: http://www.n-i.nhs.uk/dataprotect/guidance/Index/guidance/compliance_advice/telecomms/telcom3.pdf)

matter where the information is sourced from. It also covers the processing of personal data derived from publicly available directory services or products – for example, a company could not without consent use such data to derive the address from a telephone number from which a call is made.

Furthermore, BT is entitled to refuse to supply subscriber information, if a person requesting them does not undertake to comply with data protection legislation and any relevant Codes of Practice issued by the Data Protection Registrar.

R.2.5 Regulatory barriers to competition

The regulator has already opened up the competition in the directory enquiry service market in the UK. Furthermore, in order to promote effective competition, OFTEL has established four separate working sub-groups for directory enquiry services, they are:

- DQ implementation working group (master group)
- DQ numbering sub-group
- DQ billing & interconnection sub-group
- DQ consumer issues sub-group.

OFTEL has also made significant changes to the directory market by allowing non-telecom companies (such as Conduit and Scoot.com) access to directory information, thus introducing more competition into the wholesale directories market.

R.2.6 Unified directory database

There is a unified directory database (called “OSIS”) run by BT DirectorySolutions, an operating unit of BT Wholesale. BT maintains this database as part of its USO. According to OFTEL, this database contains all available data on phone numbers – though at present not all mobile operators pass on their customer details.⁹⁴ Data is available to directory service providers at wholesale rates.

⁹⁴ Directory Enquiries (DQ) Consumer Issues Sub-Group Meeting 1, Thursday 7 February 2002.