.

Federal Communications Commission (ComCom)

2004 Activity Report

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Federal Communications Commission (ComCom)

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Foreword by the retiring president

After seven very exciting years as ComCom president, I am leaving the Commission with satisfaction concerning the result of the liberalisation of telecommunications – with a smile but also with a few tears in my eyes.

In fact everyone has reason to smile: despite what are – measured by EU standards – very limited instruments for market regulation and consumer protection, after the opening-up of the market in 1998, telecommunications has (for some time) developed splendidly. Consumers benefit from lower prices, a broader range of offerings and the continual introduction of new technologies. The telecommunications companies are investing enormous sums in Switzerland, but also have an opportunity to make headway in the booming markets. The job losses at Swisscom have been offset by positions with the new providers. Nor have early fears about the universal service been realised: the peripheral regions are and remain qualitatively well provided for. In short: liberalisation of the telecommunications market has been an all-round success!

Let's take a brief look back: in 1996, when parliament forced through the PTT reform with four new laws in only 9 months, it was precisely the time at which commercialisation of the World Wide Web was beginning. The still novel buzzword "internet" was associated with ever more exciting promises for the future. In addition, we were just witnessing the computer revolution, the course of which was difficult to predict.

Against this background, the parliament pronounced itself in favour of a technology-neutral framework law, in order to allow flexible reactions to rapid technological developments. In accordance with the legislature's wishes, in the case of leased line prices and unbundling ComCom accordingly tried to draft the Law on Telecommunications in a future-proof manner which would promote competition. Unfortunately, the Federal Court in each case found that the legal basis for this was not adequate.

It speaks wonders for the vitality of the Swiss economy that continually small providers appear as new trendsetters, giving wings to the telecommunications market thanks to the competitive pressure which they generate.

However, experience also clearly shows that those who feared Swisscom's downfall as a result of the liberalisation of the market were wrong. Small internet providers explored the market and then Swisscom came along and became the largest ISP. In the case of WLAN, too, a small provider took the first steps – and then Swisscom came, saw and conquered. Cablecom and a few smaller cable TV networks were the first to offer broadband connections, and then along came Swisscom. In the case of mobile telephony, the initial situation was different: Swisscom already had well over

a million customers when the other providers entered the market. Subsequently, however Swisscom alone won almost as many new customers as sunrise and Orange combined.

It is apparent that the combination of financial clout, know-how and good management makes Swisscom a difficult target, even though serious challenges are not thin on the ground, either now or in the future.

Technological developments always conceal new insecurities for operators. Examples include the new radio standards such as WLAN, WiMAX or Mobile Broadband Wireless Access, as well as, in particular, Voice over IP (VoIP) – especially because of their effects on prices. These are challenges, however, which will also hit Swisscom's competitors – possibly even harder than the market leader.

Against the background of these dramatic and constant changes, in my personal view it is worrying that the authorities lack the instruments which would allow flexible intervention in a market which is still far from being "mature", that the revision of the LTC is dragging on and that in the process we might miss the chance to set out adequate guidelines in a converging environment which is developing like wildfire.

Should Swisscom – as is occasionally demanded – be put on a shorter political leash? My answer is clear: no! Let us leave Swisscom the liberty and responsibility of a company which is exposed to competition in the free market. However, the regulator must also be provided with effective instruments to be able to combat distortions of the market and to promote competition in the long term.

I would like to thank not only the Commission, our secretariat and OFCOM but also the telecommunications industry for their respectful, expert – and often friendly – cooperation. To you all, and in particular to the newly constituted Commission under President Marc Furrer, I wish every success and confidence in helping to mould the consumer-orientated future of telecommunications.

Bellinzona, March 2005

Dr. Fulvio Caccia,
President of ComCom until the end of 2004

I. SUMMARY AND OUTLOOK

In telecommunications every year is a year of awakening – change is a constant.

For consumers in such a dynamic environment it is important to have the security of the universal service which guarantees them a high-quality, low-cost basic offering of telecommunications services in all cases. The universal service, as laid down in the LTC, is guaranteed throughout Switzerland.

Another constant is the continuous growth of the telecommunications sector. In its annual report on telecommunications[1], the EU Commission wrote that the one-sided focus on debt reduction was over and that more investment is taking place. For the 25 EU states, growth in the telecommunications sector is estimated at 4.6 percent – higher, therefore, than the growth in GDP. The driving forces are broadband services and mobile communications.

1. The broadband market

The broadband market in Switzerland continued to grow vigorously in 2004, achieving a penetration rate of 15.7% by the end of the year (ADSL ans CATV together). However, despite the growth in the number of broadband connections, customers cannot yet benefit from increasingly attractive and innovative offerings as in some neighbouring countries, where the unbundling of the local loop is taking off. In the wake of an aggressive European policy, unbundling progressed by more than 110% between summer 2003 and summer 2004.

To counter this situation, the National Council has expressed its willingness to introduce unbundling of the local loop in Switzerland. The Law on Telecommunications (LTC), currently being revised by the parliament, which will allow this major advance for the Swiss market, is expected to be examined by the Council of States in the 2005 summer session.

Indeed, within the framework of unbundling, the possibilities of offering a range of additional services increase considerably, as the other operators can free themselves from the diktat imposed by the historic operator. The example of France is very significant in this respect, even though that country is not one of the leaders in terms of broadband penetration. The size and configuration of the country partially explain the less advantageous position of the large European countries (France, Germany…) in this market. However, in 2004 France made considerable progress in an increasingly competitive broadband market. This development is confirmed in particular by unbundling offers[2] in the residential market, where three major trends can be discerned:

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1 Communication from the EU Commission: “European Electronic Communications Regulation and Markets 2004“ (the tenth EU Telecoms Report), COM(2004) 759, 2 December 2004, p. 2.

2 In France, the total number of unbundled lines increased by a factor of 6 in the course of 2004. At the end of 2004, out of a total of 6.1 million ADSL lines, there are 1.6 million unbundled lines (representing 25% of the total).

Higher speeds, lower prices:
First of all, one observes in France a remarkable increase in speeds thanks to internet access providers (IAPs) which are taking advantage of unbundling to offer very high-speed access, for prices much lower than those charged in Switzerland (8 Mbit/s on average from most IAPs at the end of 2004, from 14.90 €, or 23.00 CHF); these offers most often include national telephone calls.

This competition from the IAPs, moreover, forces the “classic” telephone operators (France Télécom, Cégétel…) also to propose similar high-speed offerings in the French residential market.

Innovation through unbundling:
Following the introduction of unbundling in France, the Internet Access Providers (Free, Neuf Telecom…) also started offering telephone services using VoIP technology and television via ADSL. The comprehensive “triple play” formulas (internet access, IP telephony and television/video streaming via ADSL) which they are offering are particularly attractive. Video-on-demand services also make it possible to access a very wide choice of archived TV programs, films, cartoons, documentaries, etc.

Apart from these combined offers, a number of other innovative services have appeared in several European countries. Thus there are offerings tailor-made for certain groups of users, notably occasional users, who want the benefits of substantial bandwidth without having to pay high fixed charges. These offerings allow them, for example, to opt for the high-speed access of their choice on each connection and to pay on the basis of their usage.

The arrival of new players:
Finally, it is worth noting that the potential of the broadband market and convergence of the technologies are also attracting providers of media content: in spring 2004, again in France, the Canal Plus group, which has 20 years’ experience in the production and distribution of television programmes, launched triple play offerings combining television, high-speed internet and telephony, thanks to partnerships with France Télécom, Neuf Telecom and Free.

The experience being acquired by our neighbours demonstrates the numerous positive effects of unbundling for customers: In an ever more competitive market, they benefit from a wider choice of providers, more differentiated offerings, often highly innovative and better adapted to the customers needs; they also benefit from ever more attractive prices for ever larger bandwidths, whilst receiving a single bill for all of these services.

The challenge of Voice over IP

Voice over IP (VoIP) has been a long time coming and it is still a niche product. However, the general trend behind this is clear: more and more ordinary telephone networks (PSTN) are being replaced by versatile digital IP networks.

It is still difficult to estimate the time frame and extent of this migration. In this context, British Telecom's announcement in June 2004 that by 2008 it would be migrating PSTN services for a majority of customers to a fully IP-based network is worthy of note.

So it is undisputed that VoIP has enormous potential. It is also difficult of foresee, how quickly and in what way VoIP will develop. Today's offerings can be roughly divided into two forms of VoIP: telephony via the internet and digital telephony over the fixed network of a specific provider.

Cablecom, for example, offers the latter with its "digital phone" via the cable TV network. This form of IP telephony is still heavily orientated towards the usual telephone offering. In the future, however, VoIP solutions will extend far beyond the possibilities of traditional telephony. Today this is already apparent in the area of internet telephony, which is now being marketed by various providers in Switzerland (Econophone, e-fon, green.ch). Well-known international providers are Vonage and Skype. Here the same telephone number can be used worldwide – i.e. independently of location – via any broadband internet connection. But this does beg the question of what the regulatory requirements should be for VoIP providers. To date, for example, number portability, free access to emergency services numbers and localisation of an emergency call have been demanded of telephony. The European regulatory authorities are currently dealing with these questions.

For business customers in particular, VoIP is especially attractive, as it promises not only substantially lower costs but also greater flexibility in relation to application development and changes to business processes.

In general, VoIP is expected to have a dynamic effect on both the fixed network and the mobile telephony market, as internet telephony (e.g. via WLAN) should be possible in the future from appropriately equipped portable terminals.

2. The mobile telephony market

The mobile telephony market remains a motor for the growth of the telecommunications industry: all three mobile telephony operators were also able to win many new customers in 2004 and announced an impressive growth of their sales (between 5 and 10%).

However, the market shares of the three mobile telephone operators have hardly changed since 2003 (cf. the chapter on "Key statistical values"). Market penetration for mobile telephony in Switzerland continued to increase and was around 87.4% at the end of 2004. However, this notable figure is no better than average in a comparison with the EU states.

For mobile telephony, 2004 was a milestone, as the previously rather disillusioning UMTS technology is now on the market also in Switzerland. The first provider was Swisscom Mobile

with a UMTS offering for business customers, and then in November 2004 for private customers too. Apart from the well-known features of GSM, UMTS offers some new services such as videotelephony, live TV and various video clips. Internet surfing would also be possible, but unfortunately there are only a few internet sites which can be appropriately displayed on small screens.

At the end of 2004 Swisscom Mobile quoted a population coverage of almost 90%, Orange over 50% and sunrise about 60%.[3] OFCOM carried out a survey in early 2005 and concluded that these three providers are meeting the coverage obligation of at least 50% of the Swiss population for UMTS services. Since 3G Mobile (Telefónica) as the fourth licensee has not met this requirement, a surveillance procedure has been initiated by OFCOM.

In the EU too, many new UMTS networks were launched in 2004: in the autumn, according to the EU Commission, 30 of a total of 75 licensed UMTS operators were already offering commercial services, and 21 further networks were in the pre-commercial phase.[4]

There was major investment in UMTS in 2004; resources were also put into establishing WLAN hotspots and upgrading the GSM network with the EDGE standard (Enhanced Data rates for GSM Evolution). EDGE speeds up date transmission in GSM networks; this is a particular benefit above all in the peripheral regions without UMTS coverage.

From WLAN to WiMAX

WLAN technology[5] makes it possible to simply and rapidly set up local wireless networks in order to network stationary equipment and for fast internet access. Major advantages of a WLAN include the relatively low set-up costs and the high data rates of 11 to 54 Mbit/s.[6] The WLAN systems currently on offer work in two frequency ranges 2.4-GHz[7] and 5-GHz[8]. On the one hand these frequencies are freely available, so no radio licence is required to use them. On the other hand, however, there is no protection from interference by other WLANs.

Not only are private individuals and businesses making greater use of WLANs, but there are more and more public WLANs, known as "hotspots“. All three mobile telephone operators –

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3 Swisscom Mobile press release, 16.11.2004, Orange press release, 12.11.2004, TDC/sunrise press release, 23.12.2004.

4 Cf. 10th EU Telecoms Report, 2 December 2004, p. 5.

5 WLAN: Wireless Local Area Network (also known as WiFi).

6 The speed of internet access, however, does not depend on the WLAN itself but on the capacity of the line from the WLAN to the internet provider.

7 Frequency range available in Switzerland: 2400-2483.5 MHz; permissible EIRP transmission power max. 100 mW. Usual standards: IEEE 802.11b and IEEE 802.11g (plus Bluetooth for wireless data exchange between devices). For more detailed information see the OFCOM website www.ofcom.ch.

8 Available frequency range: 5150-5350 MHz (for in-house use only); permissible EIRP transmission power max. 200 mW. Possible standards: IEEE 802.11a/h, HiperLAN2.

sometimes in partnership with specialist companies – include several hundred hotspots in their offerings (at highly-frequented locations such as stations, hotels, airports and conference centres). Swisscom's international subsidiary Eurospot has also grown and operates more than 2000 hotspots in 12 European countries.

A new standard for a point-to-multipoint system outside buildings and with greater range has been established under the name WiMAX or "Wireless Metropolitan Area Network" (IEEE 802.16a).[9] Even though this standard has not yet been fully defined, pilot trials are already running in France, England and the USA; in Switzerland the first test licences have been granted. In 2005 ComCom will decide on the question of whether frequencies can be assigned for this purpose.

[9] IEEE 802.16: http://grouper.ieee.org/groups/802/16

II. THE COMMISSION AND ITS SECRETARIAT

1. The Commission

ComCom is an independent extraparliamentary commission, which has been active since the end of 1997 as the licensing authority and market regulator in the telecommunications sector. In its decisions the Commission is therefore not subject to instructions from the Federal Council or the Department.

The most important tasks of the Commission are:

- granting licences for telecommunications and licences for the use of radio communication frequencies.
- award of the universal service licence.
- laying down the conditions for interconnection when service providers fail to reach an agreement.
- approval of the national frequency allocation plan and national numbering plans.
- fixing the terms of application for number portability and carrier selection.
- it also takes measures in the event of violation of the applicable law and, where appropriate, revokes the licence.

In accordance with the LTC the Commission consists of five to seven members who must be independent experts, nominated by the Federal Council. After seven years service, three members of the Commission stepped down at the end of 2004: the President Fulvio Caccia, the Deputy President Gian Andri Vital and the economist Heidi Schelbert-Syfrig. The Commission would like to thank the retiring members for seven years of excellent cooperation and for their unfailing dedication.

OFCOM's director of many years standing, Marc Furrer, was chosen by the Federal Council in October 2004 as the new President of the Commission. In February 2005 the Federal Council nominated professor of law Christian Bovet as Deputy President and filled the two open seats on the Commission by appointing the Ticino entrepreneur Monica Duca Widmer and the professor of economics Reiner Eichenberger.[10]

In 2004 the Commission met for a total of eleven days of sessions. The time spent by all the Commission members is considerable: to the Commission sessions must be added a whole series of decisions taken by way of circulation, which have to be carefully prepared. In addition, it is necessary to include the preparation time for the various sessions spent by the Commission members (1 to 2 days per session).

[10] Cf. Appendix I: The members of the Commission. Further information on the Commission and its members is available on the ComCom website: www.fedcomcom.ch

2. The Secretariat

The Commission has its own Secretariat, which is responsible for co-ordinating affairs, organising the work of the Commission and providing the public with information.

The Secretariat comprises the manager of the Secretariat, a scientific officer and webmaster and an administrative assistant. During the reporting year there were no changes to the Secretariat's personnel.[11]

In 2004 a new disabled-friendly HTML version of the ComCom website (www.fedcomcom.ch) went live. This variant of the website is generally suitable for access using screen readers and browsers without a Flash plug-in.

[11] See Appendix II: The Secretariat employees.

III. ACTIVITIES OF THE COMMISSION

1. Interconnection (IC)

What does the term “interconnection” mean?

The term “interconnection” covers two levels.[12] On the one hand, it designates the interconnection of telecommunications networks with each other and on the other hand the resulting possibility of linking telecommunications services.

With regard to the obligation to guarantee interconnection, article 11 of the LTC makes a distinction between two approaches: on the one hand, the providers of services forming part of the universal service are obliged to provide interconnection in order to guarantee the possibility of communication between all users of these services (interoperability of networks and services). Thus, for example, it must be guaranteed that a customer of any provider can call the customers of all other providers.

On the other hand, a market-dominant provider must offer interconnection under special conditions, i.e. at cost-based princes and in a non-discriminatory manner. This temporary instrument was introduced by the legislature to facilitate market access for new providers and therefore to establish effective competition.

How are cost-based interconnection prices calculated?

The Decree on Telecommunications Services (DTS) states that since the year 2000 cost-based prices have had to be established using the internationally recognised "LRIC" ("Long-Run Incremental Costs") method. This is intended to prevent a market-dominant provider from obstructing competition through its pricing policy. The LRIC method leads to fair prices which promote competition, in that competitors of the market-dominant provider only have to bear the costs actually attributable to the services in question.

This method of calculation also takes into account, in addition to the costs related to interconnection, a portion of overhead costs and the capital costs which are customary in the industry. The capital costs include both the costs for external capital and the expected return on internal sources of capital and therefore prices also include a profit element.

This method of calculation leads to a price level which would establish itself in a functioning competitive environment.

How is an interconnection procedure implemented?
The primacy of negotiations is laid down in the LTC. Before the Commission can decide on the prices and conditions for interconnection, the providers must first attempt to reach an agreement via negotiations. If no interconnection agreement can be reached within three months, the provider may lodge a request with the Commission for an interconnection decision to be taken. The matter is then investigated by OFCOM. When there is a question as to whether one provider occupies a dominant position in the market, it is necessary to consult the Competition Commission (Comco). Before the Commission lays down interconnection prices

[12] LTC art. 3 e and art. 11.

and conditions, the parties to the procedure have another chance to reach an amicable agreement within the framework of conciliation negotiations. However, right from the start of the procedure the Commission may impose precautionary measures in order to guarantee interconnection during the procedure.[13]

In contrast with the regulatory authorities in the EU countries, here ComCom cannot intervene independently but must be requested to do so by a provider. Furthermore, the prices laid down by this so-called “ex-post regulation” apply only to the applicant from the time at which the request was submitted. All the other players on the market only benefit from the prices laid down much later – from the time the decision enters into force.

Ex-ante regulation as practised in the EU allows the authorities to take measures independently, flexibly and at an early stage if competition is not effective. This early intervention leads to equal outline conditions and prices for all providers from the outset and therefore stimulates competition.

1.1. Prices according to the "Long-Run Incremental Costs" (LRIC) calculation model

On 6 November 2003, ComCom ended two long drawn-out and very complex procedures relating to the determination of interconnection prices based on the “Long-Run Incremental Costs” (LRIC) method of calculation. At that time, ComCom decided to reduce the prices of various interconnection services by 25-35% with retroactive effect for the years 2000 to 2003. However, these decisions did not become effective in law, as all the parties submitted objections to the Federal Court.

In its decision of 1 October 2004 the Federal Court noted two fundamental deficiencies in the procedure. On the one hand its decisions should be issued in a uniform version, i.e. not in a decision with confidential secrets, and in a version in which the latter are hidden.

On the other hand, the Federal Court is certainly of the opinion that in the normal run of things the parties should not have access to OFCOM’s decision proposal to ComCom. In this special case, however, there is a difference: In view of the – quite legitimate – use of external consultants, however, the procedure is said to have become less transparent for the parties. Since the Federal Court "assumes" that some of these consultants may have acted as experts, the parties should “exceptionally be given the right” to comment on OFCOM’s decision proposal to the Commission.

In this decision, the Federal Court additionally states that ComCom’s LRIC decisions would have a “high technical content”. The Federal Court refrains from substantive examination of such a decision by a specialist body. It directs its attention primarily to compliance with procedural legal rules.

OFCOM has reopened the procedures accordingly to the Federal Court’s prescriptions and will invite the parties to give their views on a new decision proposal.

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[13] On the interconnection procedure, see art. 11, para. 3, LTC and art. 49-58 DTS.

1.2. Different forms of unbundling and leased lines

In February 2003, the Federal Council wanted to introduce unbundling of the local loop without delay. To achieve this, the Federal Council revised the Decree on Telecommunications Service (DTS) and brought the shared line access and full access, plus bitstream access and leased lines under the interconnection regime. The Federal Council was of the opinion at that time that the legal basis was sufficient for introducing unbundling at the decree level.

After the basic interconnection offering had been extended in this way, in July 2003 the TDC company submitted three applications to oblige Swisscom to unbundle and charge cost-based leased line prices.[14]

In the interconnection procedure concerning unbundling of the local loop, in February 2004 ComCom took a decision on the fundamental question of the legal basis. In its decision ComCom followed the Federal Council's appraisals: The law currently in force does represent a sufficient legal foundation for the introduction of the shared line access and full access variants of unbundling the local loop.

The Federal Court upheld Swisscom's appeal against ComCom's decision. In its decision on 30 November 2004 the Federal Court determined that the unbundling obligation anchored in the Federal Council's decree did not have the necessary formal basis in the Law on Telecommunications (LTC). It should be noted that in this context the Federal Court was not dealing with the substantive question of unbundling but only with a fundamental legal question. TDC's application for shared line access and full access was therefore rejected on the grounds of an inadequate legal basis.

The other two procedures are very similar from a legal viewpoint. On the basis of the Federal Court's jurisdiction, at the end of February 2005 ComCom had to reject the applications for bitstream access and cost-based leased line prices. It is now up to parliament, as part of the current revision of the LTC, to establish the necessary legal foundations for unbundling the local loop and promoting competition.

1.3. New interconnection applications

In 2004, ComCom received the following new interconnection applications:

- **LRIC prices:** Several companies were unable to agree on interconnection prices for 2004 and subsequently they each submitted an IC application to ComCom. However, these procedures were suspended by OFCOM pending a legally valid decision on the above-mentioned LRIC procedures.
- **Number portability:** Another provider submitted an application requesting examination of whether the charges for porting numbers to another provider are actually cost-based. OFCOM is currently investigating this case.
- **Billing for the content of added-value services:** It is undisputed that there is an interoperability obligation for access to added-value services – it must be possible to dial the corresponding 090x number. In this new interconnection application, however, the question

[14] For further details, see 2003 Activity Report.

was whether billing of the content provided via an 090x number also came under the interconnection obligation. ComCom answered this question in the negative in January 2005, as billing for the content of added-value services is not an interconnection service as defined by the law. Consequently the application was rejected.

2. Licences

The Commission, as the licensing authority, is in principle responsible for granting all licences. However, according to the LTC, the Commission may delegate some tasks to OFCOM. This has happened in the case of the following types of licence:[15] licences for telecommunication services which are not subject to a tender procedure (fixed services, for example), and radiocommunication licences which are not intended for the provision of telecommunication services (for example, radio licences for amateur radio operators or for transport companies' private radio links). In the following section we shall deal only with those licences granted directly by the Commission.

2.1. Additional GSM frequencies

In November 2004, on the basis of consultations with interested parties, ComCom decided to award almost all the remaining free frequencies for mobile radio based on the GSM (Global System for Mobile Communications) standard. The award relates to a bandwidth of approximately 2x10 MHz in the range of the GSM 1800 MHz band. The three providers who are already operating a national network in Switzerland, Swisscom Mobile, sunrise and Orange, are each to receive about one third of this bandwidth.

With this award, ComCom wishes to facilitate nation-wide coverage in Switzerland for broadband mobile data services without the need to construct a new infrastructure for this purpose in less densely populated areas. These companies would have more capacity so that in particular they will be able to integrate the EDGE data transmission standard (Enhanced Data rates for GSM Evolution) into their networks which will allow higher data transfer rates across the whole of Switzerland.

The GSM operators additionally obtained the opportunity to optimise frequency utilisation. If the operators so wish, they can submit a proposal to ComCom not only regarding distribution of the new frequencies but also regarding the possible exchange of existing frequencies which are in use. ComCom has imposed some conditions on this so-called "refarming" of GSM frequencies so that the frequency distribution remains equitable and the efficiency of frequency utilisation is improved.

The Commission will take the final decision on the award of these remaining frequencies in the spring of 2005.

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[15] LTC art. 5 para. 1 and Decree of the Federal Communications Commission concerning the Law on Telecommunications art. 1 para. 1 (SR 784.101.112).

2.2. UMTS licences

According to the UMTS licences, licensees must provide at least 50% of the Swiss population with UMTS services on the basis of their own network infrastructure by the end of 2004.

Examination of the construction of the UMTS networks in Switzerland by OFCOM has shown that the mobile telephone operators Orange, sunrise and Swisscom Mobile had complied with the coverage obligation of their licence by 31 December 2004. They are in the position to be able to provide at least 50% of the Swiss population with UMTS services according to the minimum requirements.

The fourth licensee 3G Mobile (Telefonica), however, has not fulfilled the obligation. It has been necessary to open a surveillance procedure against the company due to infringement of the licence conditions.

In the EU too, 2004 saw the launch of many new UMTS networks: according to the EU Commission, 30 out of a total of 75 licensees were already offering commercial services, whilst 21 further networks were in the pre-commercial phase.[16]

2.3. WLL licences[17]

As the supervisory authority, OFCOM regularly checks whether the minimum operational obligation of the licences is being complied with; otherwise OFCOM initiates a surveillance procedure which may lead to the licence being revoked.

2.4. Universal service

The Commission is responsible for awarding the universal service licence, but the content of the universal service is laid down by the Federal Council.[18]

The universal service licence was granted to Swisscom Fixnet AG until the end of 2007.[19] The licensee is obliged to provide services defined as forming part of the universal service to all categories of the population in all the regions of the country. These services include an analogue or digital telephone connection, additional services (such as call diversion or a bar on outgoing calls), emergency call numbers, entries in subscriber directories, public call boxes and services for the visually and hearing impaired.

The number of public telephones, which are part of the universal service, remained practically constant in 2004. According to the DTS, every political municipality is entitled to a public telephone. Improvements in disabled access to telephone kiosks are in preparation.

Providing the population with a high-quality, reasonably-priced basic offering of telecommunications services is fully guaranteed everywhere in Switzerland.

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16 Cf. 10th EU Telecoms Report of 2 December 2004, p. 5.

17 Wireless Local Loop.

18 The content of the universal service is laid down in detail in art. 19ff. DTS.

19 Cf. Activity Report 2002 of the Commission.

3. Numbering Plan

ComCom adopted the new “closed” numbering plan (the same format for local and national calls) in March 2000 in order to guarantee a sufficient quantity of addressing resources and also to establish the necessary conditions for the introduction of geographical number portability. To be able to do this, it is preferable to provide subscriber numbers of identical length throughout Switzerland. This is the aim of the final step of the numbering plan, which involves the migration of 01 numbers to the same 044 numbers in the Zurich numbering zone. The 7 digits of the individual number remain unchanged; similarly, numbers already allocated with 044 or 043 codes will not change.

In order to ensure the best preparation for this transition, from 2003 onwards OFCOM launched an information campaign in collaboration with various telecommunication services providers.

At the beginning of 2004, OFCOM also produced a brochure to announce the commencement of parallel operation of the 01 and 044 codes; it was sent to all subscribers along with their telephone bill for January and February 2004.

In addition a free information hotline, 0800 210 210, as well as an internet website, www.ofcom.ch/044, were set up. Finally, an informative mailing was also sent to the municipalities in the 01 number zone and to the main Swiss associations.

Since 1 March 2004, telecommunication services providers are operating the 01 and 044 codes in parallel. This parallel operation will run for a period of 3 years, until 31 March 2007. During this period, it will be possible to reach all the numbers in the 01 area by dialling either the 01 code or the 044 code.

Since parallel operation of 01 and 044 is guaranteed over a long period, businesses and individuals will have enough time to plan the necessary changes to their equipment and printed matter (telephones, business cards, etc…).

The next stage of the migration concerns the effective change of users’ calling line identification (CLI). From March 2005, service providers will have reprogrammed 01 numbers to 044 in their subscriber exchanges, and former 01 numbers will be displayed as 044.

4. National Frequency Allocation Plan

In Switzerland, the frequency spectrum is administered by OFCOM, pursuant to article 25 of the LTC. It is the job of the Commission to approve changes to the national frequency allocation plan. This plan specifies the different frequency bands allocated in Switzerland and provides an overall view of the use of the frequency spectrum in the country, indicating the current or planned mode of use of each band.

The 2005 edition of the frequency allocation plan was approved by ComCom in November 2004.

5. Carrier Selection

Carrier selection of the fixed network operator is an important instrument for promoting competition. This freedom of choice was introduced in Switzerland in 1999 and has been operating since then without any problems.

In the fixed network there are two possibilities for choosing one's desired carrier:[20]

- **call-by-call** (or manual) carrier selection: Whenever a customer likes to make a call, he can decide which provider will carry this call and bill for it. To do this, the consumer has to be registered with the provider of his choice. This registration is generally free of charge and is possible with multiple providers simultaneously. To make a call, you simply dial the five-digit access code of the chosen provider before you dial the telephone number (for example **107xx** 031 323 52 90). A full list of access codes in available at www.e-ofcom.ch.
- **Carrier preselection** (or automatic selection): In this case the access code of the chosen carrier is programmed directly in the network and must not therefore be dialled for every call. Even if a user has opted for preselection, it is still possible to use a different provider by using the call-by-call selection method.

Note that if users are no longer sure with which telecommunication service provider they are preselected, they have the possibility at any time of checking the preselection status by dialling the test number 0868 868 868.

6. Measures in surveillance procedures

As the supervisory authority, OFCOM monitors compliance with the provisions of the law, decrees and licences. If an infringement of licences or violation of the applicable law is suspected, OFCOM initiates a surveillance procedure. Where applicable, OFCOM makes a proposal to the Commission which then decides on the measures which are necessary.[21] If licences or decisions are not complied with, the Commission may additionally impose administrative penalties.[22]

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[20] Detailed information is available on the OFCOM website: http://www.bakom.ch/en/service/tc/preselection/index.html

[21] If the Commission has delegated OFCOM the authority to grant certain licences, OFCOM may decide on its own which measures are to be taken. Cf. art. 58 LTC.

[22] Cf. art. 60 LTC.

In several cases in 2004 the Commission was obliged to impose administrative sanctions. It was decided to impose sanctions on ten companies which had not provided data for the 2002 telecommunications statistics and which had subsequently ignored a surveillance decision by OFCOM.

7. Study trip by the Commission

The Commission constantly follows the latest developments and future trends in telecommunications. In order to educate itself further about this lively sector, the Commission maintains contacts with research centres, the telecommunications industry and providers at home and abroad.

On the one hand, in 2004 the Commission several times was kept abreast of trend-setting developments in mobile telephony. On its study trip to France and England, it was mainly concerned with developments in broadband. The visit to alternative providers, which are themselves unbundling the former monopolist's lines, showed that opening up the last mile promotes competition. In France, in addition to very powerful yet low-cost internet access, television services are being offered via telephone lines. In addition to such "triple play", in England the Commission also saw, at the pioneering company Video Networks, an impressively versatile, on-demand entertainment offering, which ranges from archived TV broadcasts through an enormous selection of films to sports, children's and educational programmes (HomeChoice in London).[23] This insight into the research and developments beyond the Swiss borders shows that the broadband revolution is only just beginning and will also lead to major changes within one's own four walls in the area of home entertainment.

[23] Another impressive pioneering company is Fastweb in Italy.

IV. Evolution of the market: key figures and statistics

The quantified data below constitute a brief overview of the evolution of the telecommunications market in Switzerland. Most of the figures published below come from sources available within OFCOM[24] and from data published by the main telecommunication services providers in Switzerland.

The number of **telecommunication services providers** in Switzerland experienced its strongest growth for four years. At the end of 2004, there were 399, i.e. 42 more than at the end of 2003 (+11.8%). Of these, 209 (+44) are subject to the obligation to register, 129 (+3) have a licence and 5 (+2) have a GSM mobile licence. Finally, at the end of 2004 the total number of interconnection agreements remained at the same level as last year (64).

With regard to the **fixed telephony** infrastructure, the gradual reduction in the number of analogue connections is continuing (-1.4%) whilst the number of ISDN connections hardly grew at all (+0.1%), again due to the strong growth in forms of broadband access (DSL and cable) which offer better performance in terms of speed.

The growth in Swiss **mobile telephony** continued this year, achieving a penetration rate of around 87.4% at the end of 2004. At the end of September 2004, the weight of the historic operator was still considerable in the mobile telephony market: despite a drop of about 0.8%, Swisscom still occupied a very strong position, with a 61% share of the market. It was followed by sunrise[25] which strengthened its second place with a 21.3% market share, up 0.8% in a year, whilst the market share of Orange remained stable at 17.7%. Moreover, each of the three operators again recorded an increase in the number of its subscribers over the past year (fig. 1).

[24] According to the law, OFCOM is responsible for compiling official telecommunications statistics every year. However, gathering and processing the data obtained from all the telecommunication services providers do not permit an analysis to be provided during the same year. For more detailed information, refer to the OFCOM website (http://www.bakom.ch/en/medieninfo/statistiken/index.html).

[25] Because of the change in the definition of an active user by sunrise, the figures are not directly comparable with those for preceding years (press release sunrise 23.2.2005).

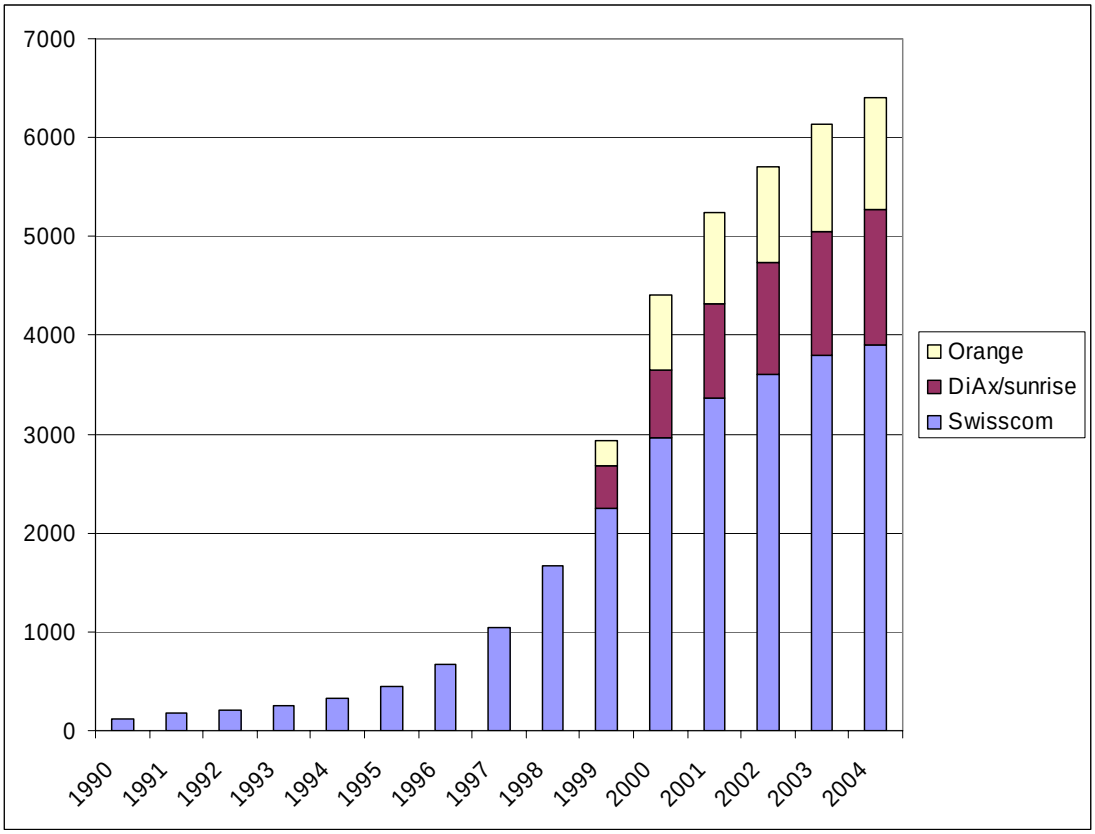

Fig. 1: Mobile telephone connections in Switzerland (in thousands)

Finally, concerning the **development of the internet** in Switzerland, we note first of all that the percentage of the population with a personal computer, a necessary condition for the development of the information society, again increased in the year 2004. The number of units increased from 5.43 million at the end of 2003 to 6.1 million at the end of 2004; this was the largest increase (12%) in five years. With an equipment rate of about 83 per 100 inhabitants, Switzerland is still one of the best equipped countries in the world [26].

2004 confirmed the amazing plethora of **broadband internet access** offerings observed for the past three years. The broadband market continued to grow, despite the fact that 2004 saw neither a substantial increase in speeds as in some neighbouring countries, nor a drop in prices, nor the emergence of innovative service offerings.

The broadband penetration rate was approximately 15.7% at the end of 2004; it was a mere 2.2% of the population at the end of 2001.

[26] Sources: Robert Weiss, Weissbuch 2005

In a European comparison made at the end of the third quarter of 2004, Switzerland was in third place behind Holland and Denmark (cf. fig. 2).

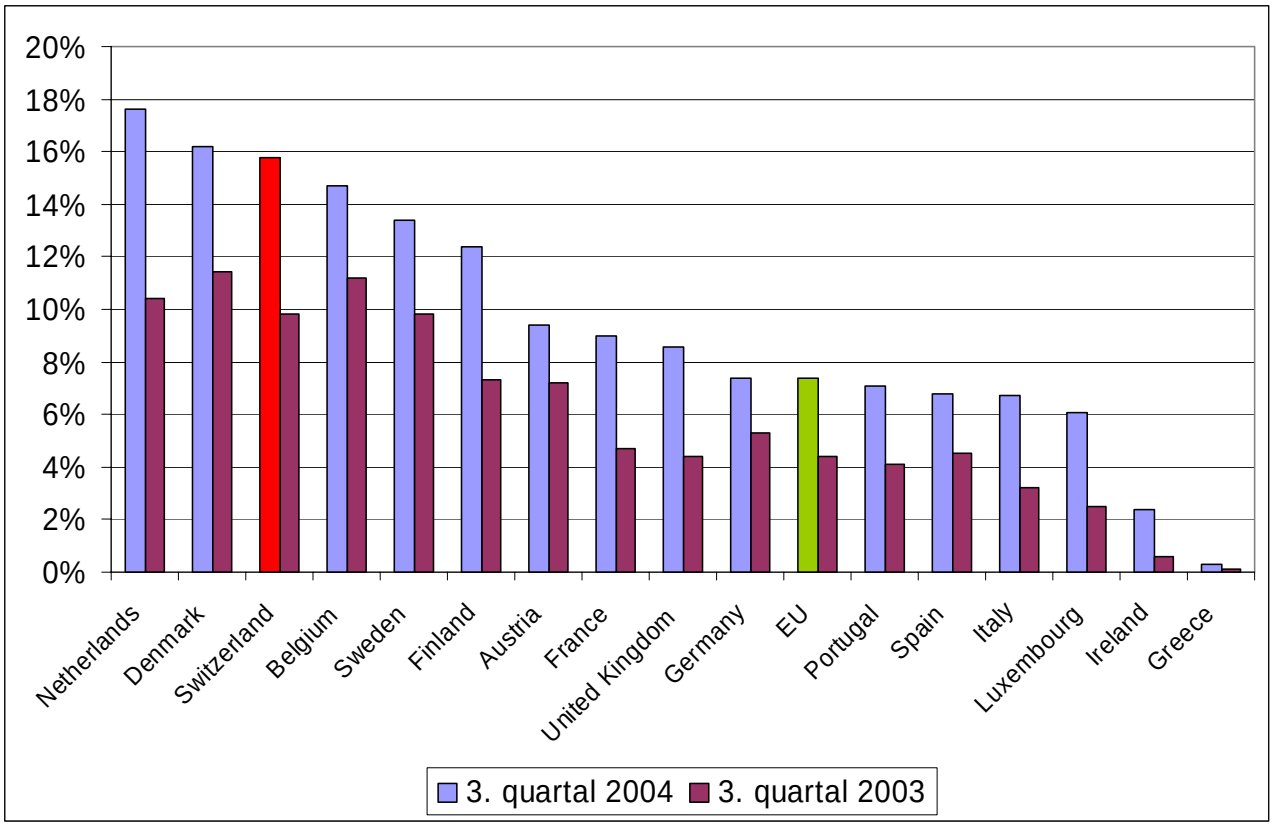

Fig. 2: Broadband connections in Europe and Switzerland (penetration in % of population)[27]

Although there were already 850,000 broadband connections in Switzerland on 31 December 2003 (ADSL and CATV), the total number of connections again increased by 50% in a year, reaching 1,282,000 at the end of 2004. From the technological viewpoint, the gap continues to grow between ADSL, which now covers almost 2/3 of the market, and TV cable modem, which had for a long time dominated this market. At the end of 2004, the split was 62.6% for ADSL and 37.4% for cable modem (fig. 3).

[27] Sources: Telecom Markets, March 8, 2005

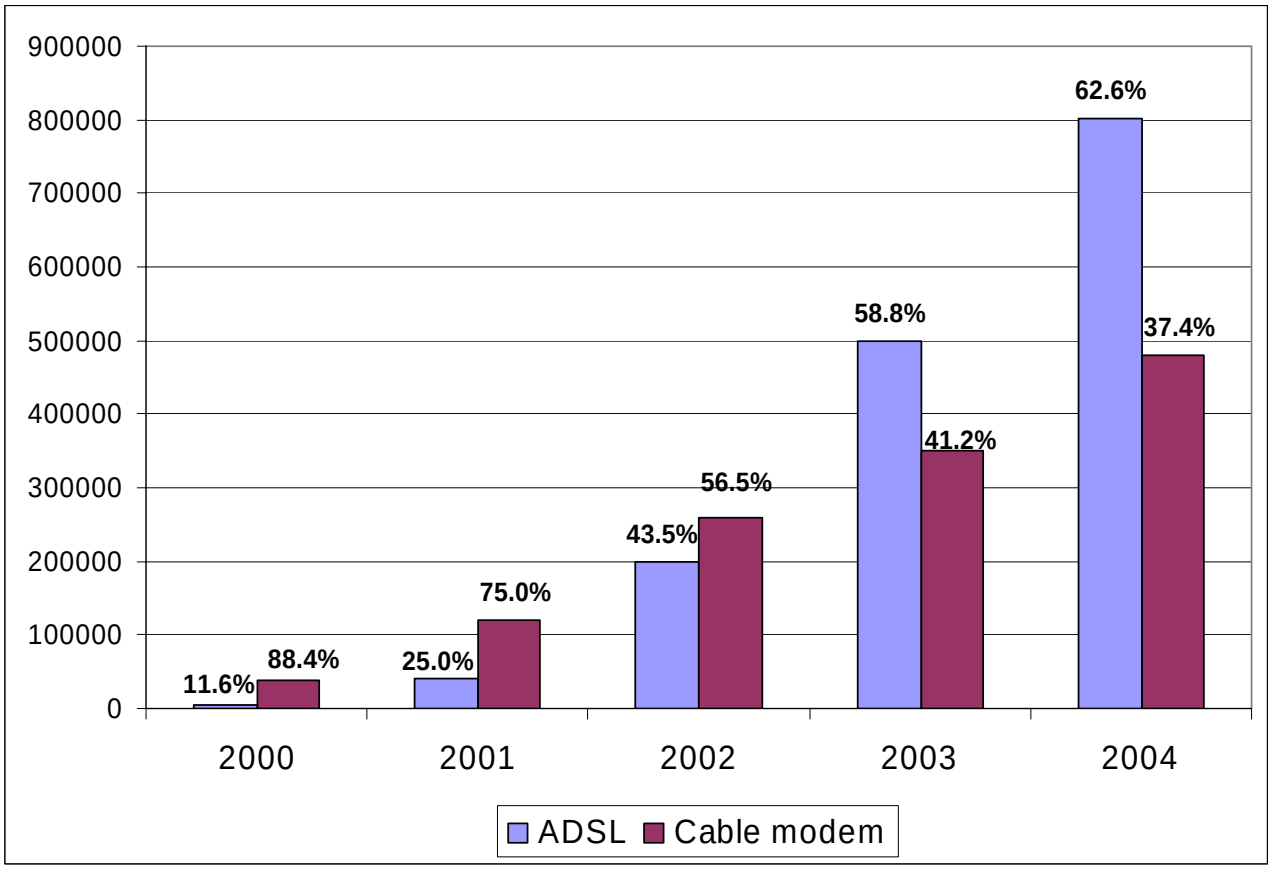

Fig. 3 : Broadband access in Switzerland: ADSL vs. cable modem

It is even more interesting to note the continuing and growing preponderance of the historic operator's subsidiary company in the ADSL market. Bluewin's share has continued to grow, reaching 60.1% at the end of 2004 (fig. 4). Sunrise remains the most important competitor, with only an 18.5% market share, whilst all the other service providers split the remaining 21% market share between themselves. Bluewin still benefits from the absence of genuine competition in this market. In the absence of unbundling, the other providers are not in a position to offer anything better than those products offered by Swisscom.

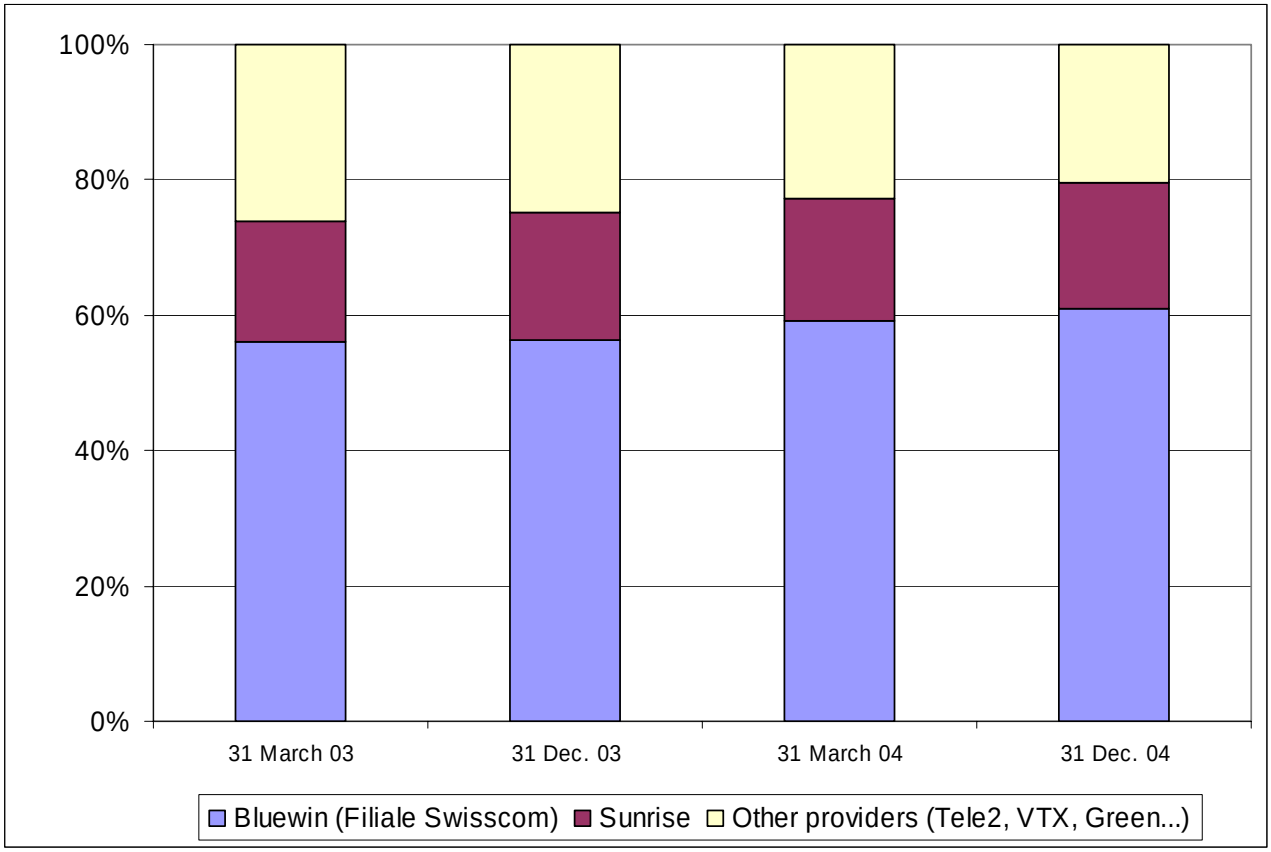

Fig. 4: ADSL market share in Switzerland: Swisscom subsidiary Bluewin and wholesale

Approved by the Commission
Berne, 11 April 2005

V. Summary of the activities of the Commission

Interconnection procedures

Unbundled access to the local loop	⇨	In February 2004 ComCom confirmed that an adequate legal basis existed for unbundling the local loop. At the end of November the Federal Court came to the opposite conclusion and annulled ComCom's decision.
Procedures according to the "Long-Run Incremental Costs" (LRIC) calculation model	⇨	In these interconnection procedures, a number of additional procedural stages were necessary because of a decision of the Federal Court. ComCom is expected to be able to conclude the procedures in the spring of 2005.
Billing for the content of added-value services	⇨	ComCom rejected this interconnection application in January 2005, as billing for the content of added-value services is not an interconnection service as defined by the law.

Licences

GSM	⇨	In November 2004, the Commission decided that it wished to assign virtually all of the remaining free frequencies for GSM mobile telephony to Swisscom Mobile, sunrise and Orange.
UMTS	⇨	The mobile operators Orange, sunrise and Swisscom Mobile have fulfilled the coverage obligation of 50% of the population as of 31 December 2004. A surveillance procedure has been initiated against 3G Mobile, because it has not met this requirement.
Universal service	⇨	The full extent of the universal service is guaranteed throughout Switzerland.
Numbering	⇨	The migration of 01 numbers to 044 is proceeding according to plan. Since March 2004, subscribers in the Zurich area can be reached using both 01 and 044 (so-called parallel operation).
National Frequency Allocation Plan	⇨	The Commission approved the frequency allocation plan for 2005 in November 2004.

APPENDIX I: The members of the Commission

President:

Fulvio Caccia (until 31.12.2004)

Marc Furrer (since 1.1.2005)

Vice President:

Gian Andri Vital (until 31.12.2004)

Christian Bovet (since 2.2.2005)

Members:

Christian Bovet

Pierre-Gérard Fontolliet

Beat Kappeler

Heidi Schelbert-Syfrig (until 31.12.2004)

Hans-Rudolf Schurter

Monica Duca Widmer (since 2.2.2005)

Reiner Eichenberger (since 2.2.2005)

APPENDIX II: The employees of the secretariat

Secretary General of the Commission: Peter Bär

Scientific officer and webmaster: Pierre Zinck

Administrative secretary: Verena Verdun