2007 Activity Report

by the Federal Communications Commission (ComCom)

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Foreword

At first sight, everything looks good in the Swiss telecoms market in 2007: prices continue to spiral downwards and the quality is right. Compared with other European countries, though our telecom services are among the most expensive, we are not more expensive than other Europeans based on purchasing power. We have a high broadband penetration, with almost one person in three having a broadband connection – making us number 3 in Europe. In addition, more than 60% of Swiss people use the internet practically every day.

Last year also saw many new telecom products and innovations launched on the market.

Yet the positive sheen might be deceptive: Swisscom, as the market leader, is building up its market shares to such a degree (between 50 and 90%) that in some sectors genuine competition is practically impossible. The new Law on Telecommunications (LTC) generated much disquiet and brought ComCom many new procedures.

In this regard, there is a lot of nervousness in the market – and some parties are already calling for a revision of the LTC just one year after it entered into force on 1 April 2007.

All this should come as no surprise. Parliament's much-vaunted compromise on the LTC rejected technology-neutral access regulation – so the highly topical and quite fundamental issues of the optical fibre connection remain unresolved.

Ex-post regulation has also been retained, instead of replacing it by the ex-ante regulation. The result: delays and considerable legal uncertainty, associated with repayments by Swisscom to its competitors.

In addition, there is no possibility of intervention on roaming, so we are fully dependent on the major operators and the EU.

ComCom has to accept this situation and must use the existing instruments to establish clear general conditions for the Swiss telecommunications market.

Great demands were made on the Commission in 2007 – amongst other things in relation to determination of interconnection prices and the bitstream decision – and these will become even greater in 2008 with the implementation of the new LTC, e.g. regarding unbundling prices.

In this context, the call for regulation in the telecom market has been louder than ever recently – and, interestingly, from all sides. This call was and remains a commitment for us.

Marc Furrer, President

March 2008

I. Summary and outlook

It is hard to believe that the commercial internet was still in its infancy at the beginning of the liberalisation of telecommunications in 1998. Today, the internet has become a natural, indispensable part of our everyday lives. This internet 'revolution' – along with computers in general – coincided closely with the opening-up of the telecommunications market, and not just on a technical level. Within a few years, completely new forms of communication (e-mail, SMS, instant messaging, etc.) and new ways of obtaining information changed our lives forever – and this is just the beginning.

There can be no doubt: private customers throughout Switzerland have benefited greatly from the opening-up of the telecommunications market 10 years ago. However, liberalisation was also extremely beneficial to business customers, thanks to the strong competition in this sector. In many cases consumers now have a choice of different providers, whether telephoning from home or on the move, surfing the internet or accessing data. Unfortunately, most providers are not genuinely free to define their products as they wish, as they are dependent on Swisscom's resale offerings.

Consumer prices for telecommunications services in Switzerland, viewed in total since 1998, have fallen by more than 40%; fixed-network telephone calls are actually 63% cheaper and international calls have fallen by more than 75%. Since at the same time many more telecommunications services are being consumed, *per capita* expenditure on telecommunications is increasing – as is generally the case in Europe. In addition, because many tariffs in Switzerland are among the highest internationally, Swiss per capita expenditure is the highest in Europe. The Swiss telecommunications market accordingly grew strongly until 2004; since then total sales have stagnated.

Furthermore, a wide range of offerings have been developed to meet many different customer needs and the universal service is fully secured, with a basic offering of affordable, high-quality telecommunications services throughout Switzerland.

The opening-up of the telecommunications market has therefore largely met legislators' expectations and free competition, in conjunction with a good universal service, is essentially the right path to follow. However, we are still a long way from achieving the goal of long-term effective competition which would render interventions in the market to stimulate competition superfluous. A more balanced distribution of market shares and, if possible, more providers would be desirable in order to ensure such a consolidation of competition.

Concerns in the run-up to liberalisation about quality of services, loss of jobs and pressure on Swisscom from major international corporations did not materialise. In their majority, services are of very high quality. After a few ups and downs, there are just as many people working in the telecommunications sector today as there were in 1998 and Swisscom occupies a very strong position in virtually all markets.

The downside of successful liberalisation is that the 1998 opening-up of the market took place a few years too late and was not as comprehensive as it could have been. In the light of the major social importance of information and communication technologies, it is to be hoped that in future Swiss policy will attempt to react flexibly to new challenges (e.g. ensuring the countrywide coverage of optical fibre networks).

1. Weaknesses of the Swiss regulation system

With the revised Law on Telecommunications (LTC), which entered into force on 1 April 2007, Switzerland is taking important steps towards simpler market access, greater competition and better consumer protection:

- Introduction of unbundling and other forms of access: the revised LTC cites five new forms of access to the infrastructure and services of a market-dominant provider: billing of fixed-network connections, leased lines, access to cable ducts, bitstream access and, of course, full unbundling of the local loop.
Also included is the important **subloop unbundling**: the subloop is the 'last half mile', i.e. the section between the street cabinet and the house connection. Only with access to this copper cable will alternative providers be able to compete with Swisscom's VDSL offerings and offer competitive high-bandwidth broadband products in the future (e.g. Triple Play, VoD, HDTV).

- Improved consumer protection: the establishment of an ombudsman for consumer issues, the introduction of upper price limits for value-added services and regulations governing notification of prices, measures to combat spam.

- There is no longer an obligation for telecommunications service providers to obtain a licence.

From ComCom's viewpoint, the revised LTC has two main weaknesses, which are currently, for example, causing delays in implementing unbundling and therefore leading to undesirable insecurity in the market. Moreover, in ComCom's view the regulatory instruments are too inflexible to be able to react to future challenges in good time without changes to the legislation.

Unwieldy *ex-post* regulation

In technological terms, the telecommunications market is in constant flux. Understandably, providers in such an environment require a degree of security under the law in order to be able to make investment decisions. ComCom is attempting, for example, to take account of this concern by consistent practice in the retroactive determination of interconnection prices.

Nonetheless: this is where Swiss '*ex-post* regulation' has a general weakness. The authorities cannot take action independently, but only at the request of a provider. Consequently prices or access conditions can only be fixed retroactively, which may lead to uncertainties in the market and does not correspond to the requirements of dynamic markets.

This is why ComCom is calling for *ex-ante* regulation: this system enables intervention at an earlier stage – when market dominance of a provider is proven – and leads to equal access conditions and prices for all providers from the outset
With its quicker procedures, *ex-ante* regulation leads to greater legal and investment security, which benefits Switzerland as a business location.

A lack of technological neutrality

Instead of introducing a technologically neutral access regime, in the revised LTC parliament has quite explicitly laid down which forms of access are possible. This is regrettable, since in ComCom's opinion only an open access regime is future-proof. Only a technologically-neutral formulation of the law would guarantee that flexible and timely intervention is possible if new monopolies or bottlenecks threaten competition when new technologies are introduced.

An example: there is currently a discussion about the general conditions which – in the interests of Switzerland's future competitiveness – should accompany the establishment of at least one

national optical fibre network (FTTH). In ComCom's opinion, it is important that the competition which has been achieved should not be restricted by such a new, high-speed network and that customers retain the right of carrier selection. However, the authorities lack the instruments to intervene flexibly in the event of market failures or in order to protect consumers.

2. Development of the mobile telephony market

In the case of mobile telephony, records continue to be broken on a regular basis: for example over 100 million greetings were sent by SMS and MMS in Switzerland to mark the new year in 2008 – in just a few years mobile communication from any location has become a permanent component of the lifestyle of a large part of the population.

In that period, global penetration of mobile devices reached 50% of the world's population and in summer 2007 Switzerland broke through the 100 percent mark. At the end of 2007, there were over 8 million mobile telephone connections in Switzerland and in January 2008 Swisscom celebrated 5 million mobile customers.

Today many users have more than one mobile device with a mobile radio connection – e.g. notebook or PDA – in addition to their mobile phone. However, in European terms, the penetration rate of about 106% at the end of 2007 merely positions Switzerland just below the average. The European front-runners are Italy, Greece, Spain, Great Britain and Ireland.

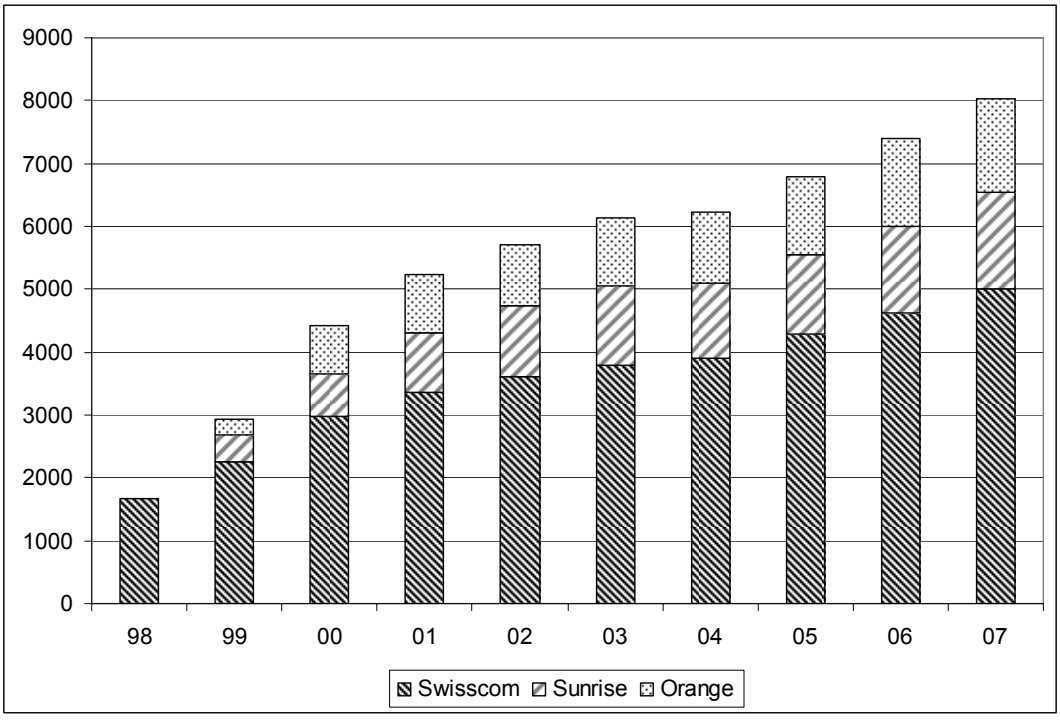

Fig. 1: Mobile phone connections in Switzerland [in 1,000]
(Sources: Swisscom, Sunrise, Orange, OFCOM)

Customer numbers for the three national GSM providers also increased considerably in 2007 (cf. figure 1). Here Swisscom again managed to win more than half of new customers for itself – as has been the case for several years.
Measured by customers, market shares have been 'carved in stone' for five years now – even

Tele2, as the fourth network operator, has not been able to make much of an impression. Swisscom Mobile has a very high market share of 62%. Orange and Sunrise were each able to secure approximately 19% of the market. No figures are known for the fourth network operator Tele2, but its market share is below 1%.

Movement on prices

In the case of mobile telephony, Switzerland continues to be an island of high prices.

In the 10 years since liberalisation of the market, however, two phases were observed in which end-user prices fell in mobile telephony (cf. figure 2): Firstly, prices fell from 1998 to 2001 with the entry into the market of the network operators diAx (now Sunrise) and Orange.

Furthermore, new market entrants and partnerships (Tele2, Migros, Coop, Cablecom, Mobilezone and Yallo) in 2005 and 2006 led to greater competition and real reductions in prices. The reduction in mobile termination charges by Swisscom in the summer of 2005, and then by Sunrise and Orange, also had an effect. Mobile termination charges will indeed continue to fall in the next few years. However, they are also clearly above the European average (see fig. 8). End-user prices also continued to fall in 2007, but less markedly.

It should be added that in the mobile market some of the competition takes place via the acquisition of new customers by cheap offers.

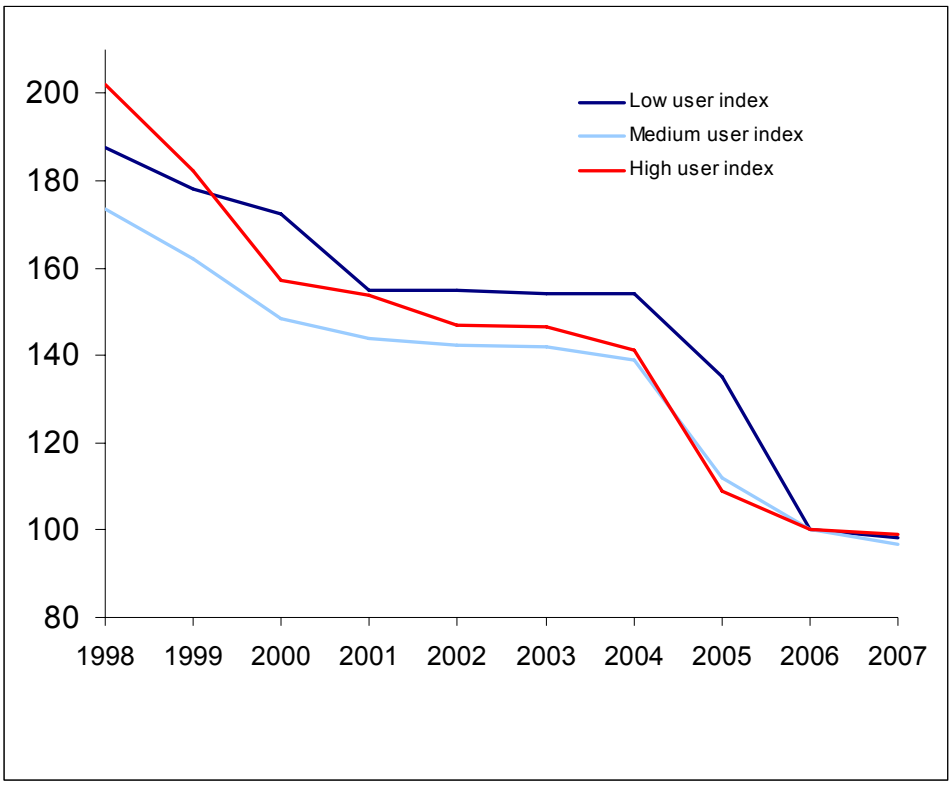

Fig. 2: Development of end-user prices on the Swiss mobile market
[index of the costs of mobile phone services for the user profile, 100 = period 2006]
(Source: OFCOM, Kosten der Mobilfunkdienste, Nov. 2007)

The flip side of the coin for providers is that sales of mobile telephone services have been stagnating or even falling since 2004; in particular, the fall applies to sales per user. The example of Swisscom Mobile shows that revenue from voice services and basic charges has

been falling for three years, whilst sales of data services have been growing steadily. The proportion of turnover represented by data services is apparently some 20%.

Mobile providers are accordingly continuing to invest in their networks so that in future they can continue to meet users' high expectations in terms of quality.

UMTS and mobile internet on the up and up

Coverage of the 3 national GSM networks in Switzerland is approximately 100% of the population and 85% of the surface area of the country.

Responding to the high data access speeds on the fixed network, however, the UMTS technology, with its distinctly faster data transfer, is becoming increasingly important.
It can therefore be expected that UMTS will completely replace the GSM network in the medium term as the follow-on technology.

In any event, Orange and Sunrise are achieving UMTS coverage of over 60%. The clear leader, however, is the financially powerful Swisscom, which today already covers 90% of the population with UMTS.

All three UMTS licensees have acknowledged the significance of fast data transfer for the success of mobile internet access and are investing heavily in the extension of UMTS known as HSDPA. This means that mobile surfing will become a pleasurable experience, as this transmission technique enables data access at a speed of several megabits per second. HSDPA is already available in the larger Swiss towns and cities.

Even today, thanks to a combination of second and third generation mobile telephone technologies, operators can offer mobile internet access almost everywhere – though at different speeds according to the user's location.

Mobile TV and "made for mobile" content

Apart from SMS, MMS and accessing business data, mobile internet access will undoubtedly become much more important – thanks also to cooperative Web 2.0 applications and the launch of multifunctional large-screen devices such as the iPhone. However, the "made for mobile" content currently on offer (e.g. TV programme services, special news) does not seem to be a genuine gold mine.

In the case of mobile TV, however, even modern mobile technology such as UMTS is rapidly coming up against capacity limits. Broadcasting technologies such as DVB-H, for example, are better suited to this purpose.

This is why in 2007 ComCom awarded a licence for mobile TV broadcasting (DVB-H) to Swisscom Broadcast. The licensee is committed to launching mobile TV in time for the European football championships in June 2008 (see below).

Universally available mobile internet access and the reception of radio and TV programme services on mobiles are rapidly becoming a reality.

3. Fixed-network telephony

Considerable price reductions in fixed-network telephony also followed the liberalisation of the market in 1998: depending on usage behaviour, by 2006 costs fell by 31 - 42%, with prices falling the most in the first two years – when carrier selection became possible. Afterwards,

prices continued to fall only slowly. Between 2006 and 2007, prices fell by about 3%, as a result of falling mobile termination charges.

Overall, telephone traffic in Switzerland increased from 1999 to 2006 by about half a billion minutes to approximately 25 billion minutes. Despite a major switch of telephone traffic to mobile telephony, people continue to use the fixed network to make more calls. Although there are more than twice as many mobiles as fixed-network connections, 56% of calls and approximately 70% of telephone minutes are accounted for by fixed-network connections.

The fixed-network telephone tends to be used more for longer calls; at around three and a half minutes on average, the duration of calls on the fixed network is twice as long as mobile calls.

Swisscom continues to retain approximately 92% of telephone connections (3.7 million connections); however, 27% of these are diverted to another provider by means of a permanent pre-selection code. Sunrise, for example, reported that it has 457,000 fixed-network customers at the end of 2007 – a downward trend.

With its own network, Cablecom achieved a market share of just 7% of all telephone connections (approximately 288,000) and the other cable network operators offering digital telephony (e.g. Wasserwerke Zug or InterGGA) amount to about 0.8% of connections.

Voice telephony based on the internet protocol (VoIP) is also booming, particularly with business customers. However, this development – like the boom in internet telephony – cannot be measured accurately.
Two trends are clear: The long-serving telephone networks will sooner or later be replaced by very powerful optical fibre networks and all fixed-network telephony will switch to Voice over IP on these “New Generation Networks”.

4. Development of the broadband market

Since liberalisation of the telecommunications market in 1998, the **broadband market** in Switzerland has grown considerably.

After an initial attempt at marketing by cable modem in 1996, which only really took off in 1999, broadband then really boomed with the first high-speed ADSL offerings launched in 2000.

Hardly 2 years later, there were 460,000 broadband connections in Switzerland at the end of 2002. With a penetration rate of 4.5% of the population, Switzerland was already well above the European average (2.9%). Since then, it has continued to figure in the nations with the best high-speed internet connections. The penetration rate very quickly reached 17.4% by the end of 2004, then almost 23% by the end of 2005 – and finally 27% by the end of 2006.

By mid-2007, with more than 30% of the population having broadband internet access, via either ADSL or the cable network, Switzerland further improved its position and was ranked third among the OECD countries, just behind Denmark (34.3%) and the Netherlands (33.5%). It is now ahead of Korea (29.9%), Norway (29.8%) and Iceland (29.8%), countries which have long been ahead of Switzerland in this ranking. The average for the OECD countries is 18.8% and the figure for the 27 countries of the EU is 18.2% (cf. figure 1).

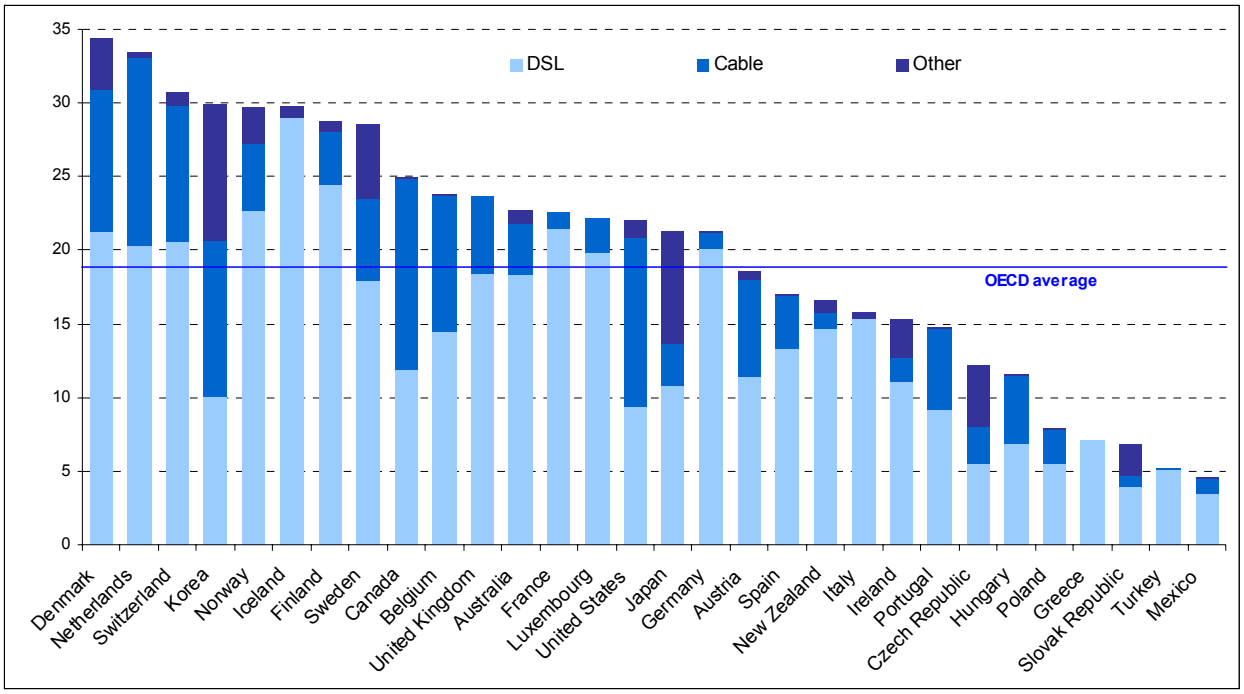

Fig. 3: OECD broadband penetration, June 2007 (as % of population)
Sources: OECD

Switzerland among the best for high-speed connections?

However, this idyllic picture does not tell the whole story and it is useful to mention, for example, an American study by the ITIF (Information Technology and Innovation Foundation) produced in June 2007. This study of 30 countries, which examined why the United States is lagging behind in terms of high-speed connections, produced a classification of the best high-speed pioneers.

Although Switzerland was well-placed in terms of broadband penetration, the results were rather less flattering with regard to connection speeds and prices (cf. figure 2).

Though Switzerland was 13th in the overall classification as a result of its excellent penetration rate, in terms of speed alone it ranked 22nd and in terms of prices alone it was 24th. The top five in this table were Korea, Japan, Iceland, Finland and the Netherlands (ITIF, “The Case for a National Broadband Policy", June 2007, www.itif.org).

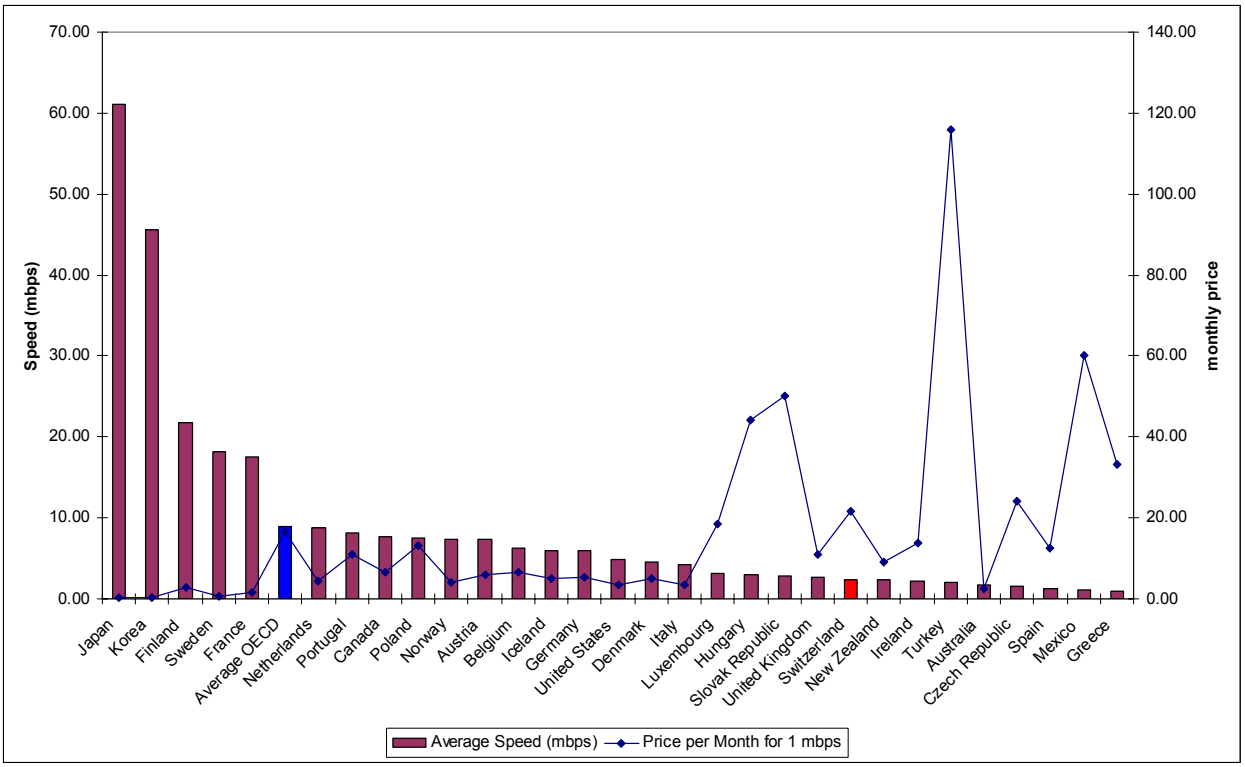

Fig. 4: Average speed and price of broadband by country, June 2007
Sources: ITIF, www.itif.org

Indeed, according to a recent study of Swiss OFCOM, broadband access prices have remained practically unchanged since 2004 and the price differences between the various operators currently remain very small. After initially competing on price, from 2004 onwards the operators then entered into competition on increasing speeds.

But even though speeds increased markedly in the same period (+56% between 2004 and 2007), they are still well below those found elsewhere.

A greater need for very high speeds

Now it seems clear that the future belongs to the new generation networks such as optical fibre – already enjoyed by 75% of the population in Japan, for example, with average speeds of 60 Mbit/s for minimal cost – which are best able to encourage the emergence of new generations of applications with greatly enhanced functionality.

Apart from applications such as high-definition video or interactive television and video-on-demand (VOD) which immediately come to mind, it is likely that more and more applications which were previously run on computers will run directly online.

Nor should we forget more numerous and more popular multimedia and participatory Web 2.0 applications such as streamed audio and video, particularly from video-sharing platforms such as YouTube and Dailymotion or Deezer for music.

We should also mention the growing interest in photo-sharing sites such as Flickr (Yahoo!), Picasa Album Web (Google), or online digital photo development sites, and finally the incredible craze for social networking sites (Facebook) or communities, whether virtual (Second Life) or intended for exchanges (MySpace).

Management and ease of use of these ever larger applications and associated content place ever greater demands on broadband performance.

ADSL in Switzerland: and the winner is…

In the ADSL market alone, there was an overall increase of 234,000 customers in Switzerland in 2007. Of this total, Swisscom enjoyed a substantial increase of around 228,000 customers. This is over thirty times the increase recorded for Sunrise, which gained an additional 7,000 customers in 2007 and is therefore the only other provider to significantly increase its customer base at all. All the other providers gained hardly a thousand new customers on average over the same period.

As last year, Bluewin (a subsidiary of the historic operator Swisscom) is therefore once again the only provider to increase its market share, which increased from 64% at the end of 2005 to 68.4% in 2006 and to almost 73% by the end of 2007.

Even Sunrise, which is still its biggest competitor in the ADSL market, is suffering a continuing fall in its market share, which dropped from 16.4% at the end of 2006 to 14.5% at the end of 2007.

In the absence of effective unbundling in the ADSL market, the alternative providers who are still unable to offer anything other than Swisscom's resale products cannot compete against the historic operator and are falling inevitably – and worryingly – behind.

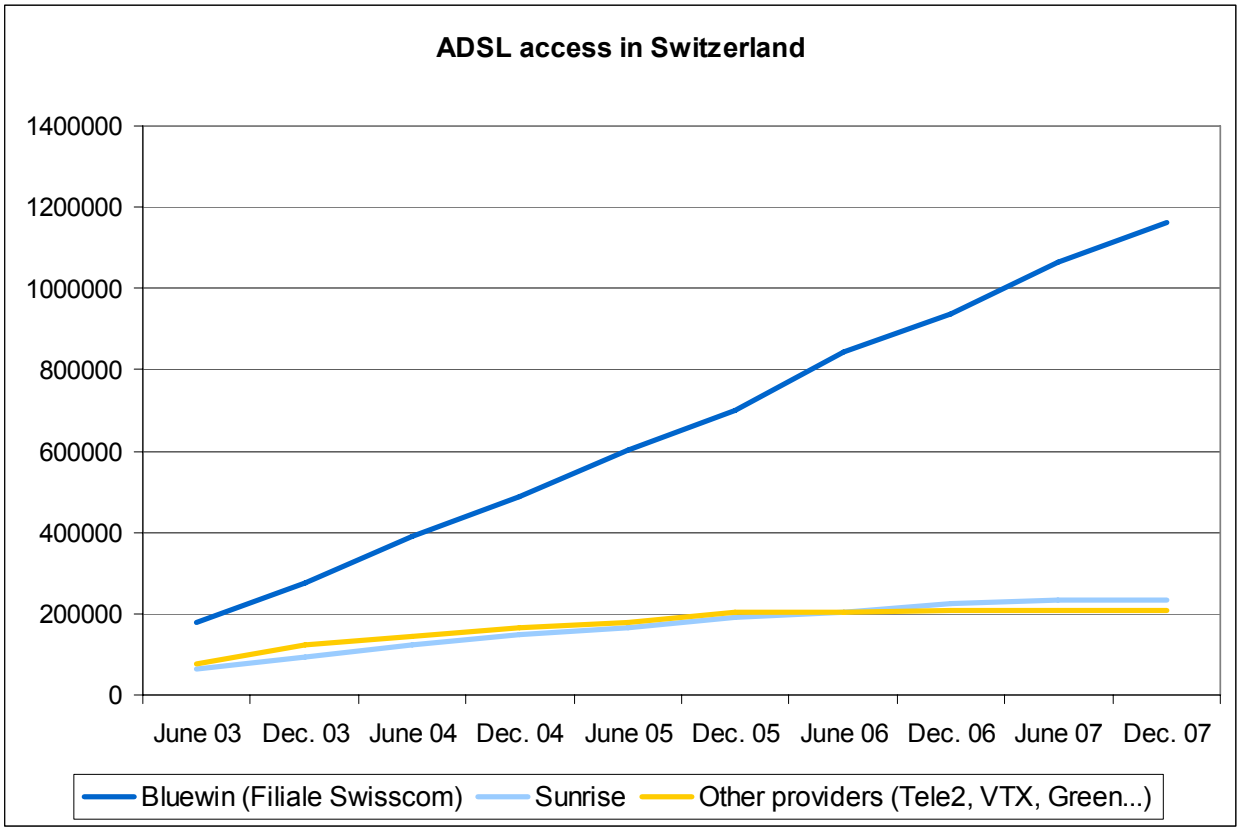

Fig. 5: ADSL connections in Switzerland
Sources: Swisscom, Sunrise

ADSL vs. CATV: limited competition on infrastructures

From the viewpoint of the access technologies employed, ADSL access via a telephone line is still growing distinctly more rapidly than internet access via cable TV. Whereas hardly five years ago cable dominated this market segment with more than 56% market share at the end of 2002, the market split at the end of 2007 was 69.3% for ADSL (1,602,000 connections) and 30.7% for cable TV (710,000 connections; cf. figure 5).

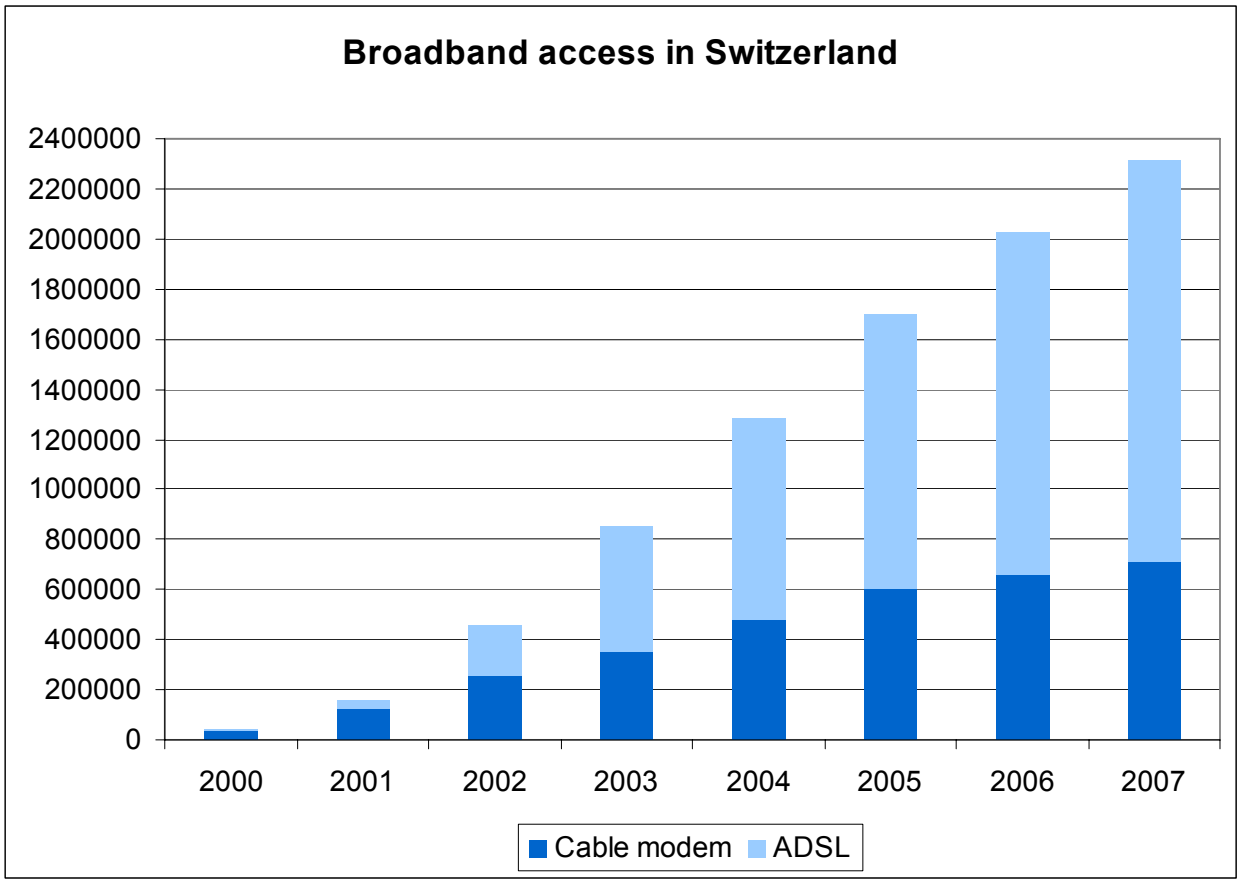

Fig. 6: Broadband via ADSL or CATV in Switzerland, Dec. 2007
Sources: Swisscom, Swisscable

If one looks at the entirety of the players on the broadband market in Switzerland, Swisscom's market share (50%) is more than twice that of Cablecom (approximately 20%), and 5 times that of Sunrise (10%; cf. figure 7).

In terms of an international comparison, it is not rare for a historic operator to enjoy such a share of the market – the European average was around 46.5% in June 2007. But since 2003, this average has continued to fall, from 58.7% to 46.5%, and the trend is therefore counter to that observed in the Swiss market, where Swisscom is the only player to continue gaining market share.

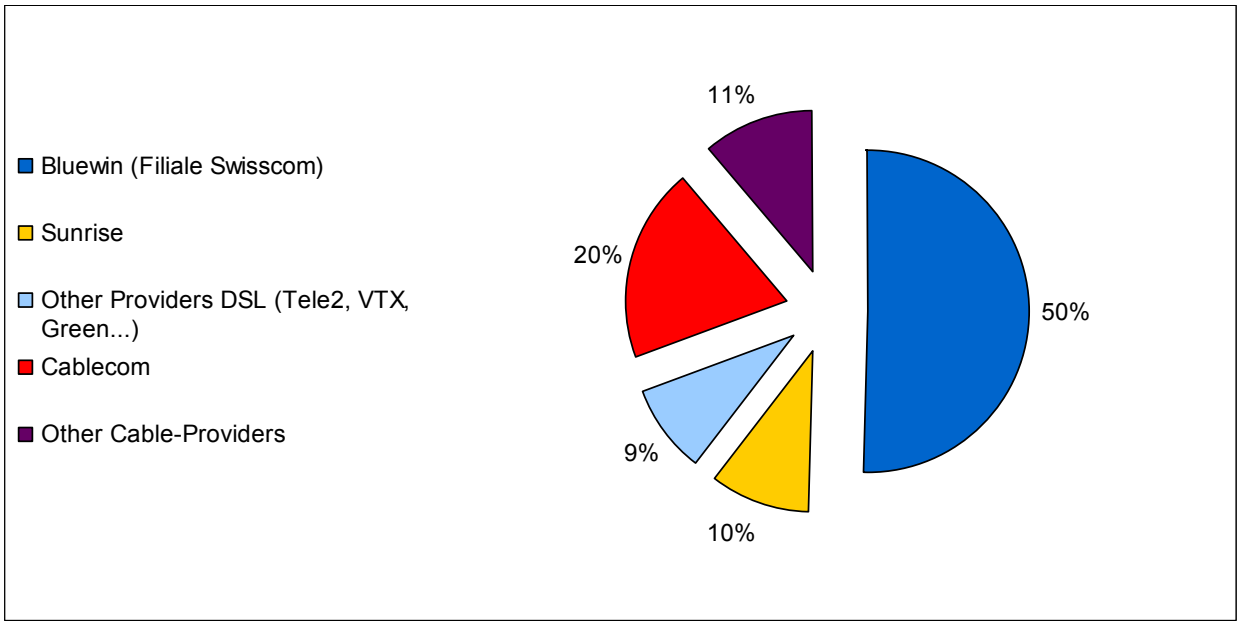

Fig. 7: Market shares of broadband connections in Switzerland, Dec. 2007
Sources: Operators, ComCom

Such a gap, which continues to widen between the dominant provider and its main competitors, is a continuing concern.

On the one hand, the cable operators appear to exercise insufficient pressure on the broadband market. It is worth noting that not even the 250 cable networks together do cover the whole of the country and that only a proportion of the cabled lines are suitable for high-speed internet. Cablecom, for its part, as the main cable operator, has roughly 55% share of the cable TV market.

On the other hand, without unbundling, Swisscom remains the master of the copper network and continues to impose its conditions regarding prices and speeds on its competitors in the ADSL market; moreover, this means that it is always able to stay ahead of the game.

It is therefore all the more important for unbundling of the local loop to become a reality in Switzerland if we wish to keep a number of providers, and with them competition, in the market.

Access to the last mile in sight

However, after the bright prospects of early 2006 because of parliament's decision to open up the last mile, there was disappointment for customers since the implementation of local loop unbundling seemed destined to take some time.

The Telecommunications Act and the ordinances which govern its application entered into force on 1 April 2007 and Swisscom published its basic offering as early as March 2007.

In reality, Swisscom made offers only in those sectors in which it considered itself market-dominant: it proposes fully unbundled access at CHF 31.00 per month to its competitors, which all the providers judge to be too high. Swisscom also published offers for billing for the connection, the use of cable ducts and co-location.

Otherwise, considering that it was not acting as a dominant provider in the broadband market, Swisscom chose not to offer bitstream access, and made only partial offerings for leased lines.

So, since the dominant operator and the alternative operators were not able to agree on access prices and conditions, ComCom will have to determine in several cases the prices and conditions for access (see page 19), which can only delay its implementation.

But despite the legal uncertainty which prevails in the market because of the disputed prices, some providers have begun to roll out their network and equipment in Swisscom exchanges in order to be able to provide their own services to the population. At the end of 2007, according to Swisscom there were 160 equipped sites in around a hundred telephone exchanges, and negotiations were apparently in progress with some twenty providers.

The first exchange was unbundled at the end of July in Sion by the VTX company, which is, moreover, demonstrating its independence by relying on ADSL 2+ to roll out its network. The first unbundled monthly offerings for private customers proposed by VTX include, for example, 8 Mbits at CHF 47 and 20 Mbits at CHF 67 – not counting the CHF 23.25 connection charges now levied by VTX. Other regional internet service providers (e.g. Solnet and Cyberlink) have also begun to provide their customers with services based on unbundled access.

We should also note Sunrise's telephone connection rebilling offering in early January 2008, which can also, to a certain extent, free customers from the historic operator through the provision of a single bill. Sunrise in turn also announced the launch of new unbundled access services as part of the expansion of its own infrastructure during the first half of 2008 and a target coverage of 35% of households by the end of 2008.

Although unbundling is reaching the market after a substantial delay, we can, however, justifiably expect major changes in the high-speed market in the coming months. One might also wonder if some new resale or retail offerings, such as DSL 20000 at CHF 69 from Swisscom, for example, are not already an indirect effect linked with unbundling of the local loop.

5. Current developments in the EU

Looking beyond our borders, we see the EU in motion and in discussion.

EU Roaming Directive

The European Commission had repeatedly urged mobile operators to lower the charges for using mobile phones in other European countries, though without success. According to EU calculations, charges for international roaming were on average four times higher than charges for national mobile calls.

At the instigation of European Commissioner Reding, a Eurotariff was introduced by the Roaming Regulation No 717/2007, which operators were obliged to offer by the end of July 2007. Since then, mobile roaming charges may not cost more than €0.49 for making calls and €0.24 for receiving calls (excluding VAT).

Subsequently the European Regulators' Group (ERG) monitored the market and came to the conclusion that roaming charges have in fact clearly dropped. However, the European Commission is still concerned about the high prices for SMS and for data services used abroad – and here too regulatory measures might result.

As early as summer 2007 the ComCom President had intervened within the framework of the ERG to ensure that Switzerland is treated the same as the EU countries.

Now Swiss customers using their mobile phones in EU countries are also able to enjoy falling prices. At the beginning of 2008, however, only Swisscom was charging standard roaming tariffs at the EU level; in the case of Orange and Sunrise, consumers benefit from tariffs similar to EU tariffs only if an additional option, which is subject to a charge, is selected.

In the ongoing **revision of the legal framework for electronic communications**, the European Commission presented its proposals on 13 November 2007. At the same time the new recommendation on the “relevant markets” entered into force. These are markets in which the EU considers *ex ante* regulation to be necessary. The EU has reduced the previous 18 markets to only 7. This decision is leading to distinct deregulation in end-user markets and in the area of international roaming. The national telecom regulators can in fact intervene exceptionally even in the markets which have been removed from the list, but surveillance of these markets is primarily the job of the competition authorities.

The national telecom regulators are supposed to concentrate on those markets in which, according to the European Commission, effective competition does not yet prevail. In this context, apart from interconnection services and mobile termination, the emphasis is on technology-neutral unbundling and the reselling of broadband access.

In November 2007, the European Commission submitted the following main proposals concerning the reform of the legal framework for telecommunications to the European Parliament:
- Strengthening the independence of the national regulatory authorities (NRAs) and simplifying the market review procedures.
- Extending regulatory instruments: the European Commission sees **functional separation** as a new remedy for NRAs to tackle persistent competition problems. This refers to the separation within a market-dominant company of the infrastructure and services divisions. As a result, all market players should be able to use this infrastructure under the same conditions. However, this new regulatory instrument is to be applied only in exceptional cases. Currently, concrete experience has been acquired in Great Britain, with the voluntary internal separation of British Telecom’s “Openreach” division. Consideration is also being given at present to functional separation in Sweden, Italy and Poland.
- More security through better combating of spam, viruses and other electronic attacks on computers and networks.
- Improvements for consumers: such as the right to switch telecoms operators within 1 day, transparent and comparable price information, improved RFID data protection.
- European Telecom Market Authority (EECMA): this new authority is intended to improve coordination among the national regulatory authorities, monitor uniform regulation in the EU countries and prepare for regulation in trans-national markets.
In this regard there is a risk of Switzerland being excluded from European cooperation between regulatory authorities. In contrast with the existing ERG, in the case of the EECMA Switzerland could only be admitted as an observer if it would adopt the EU legal framework in full.
Most national telecom regulators, however, area clearly against this new, centralised authority, as it would bring their independence into question and would not take account of the still primarily national structure of the many telecom markets.

Coordination among the European regulators should take place via the existing ERG and the Independent Regulators Group (IRG).

According to the European Commission, the "Telecoms Reform Package" is expected to become law by the end of 2009.

Attempts are currently being made in many European countries to find solutions to prevent future restrictions on competition which might arise as a result of the costly construction of new national high-speed networks (FTTH, NGN). At the same time, investment incentives are to be provided.

The EU is clearly of the view that unbundling must be maintained and that new optical fibre networks must also be made openly accessible at a fair price by market-dominant providers. Thus the European Commission is opposing a temporary waiver of regulation (so-called “regulatory holidays”).

In France, under the heading of “mutualisation”, a special solution is being proposed for “local monopolies” which might arise: the company which is the first to construct an optical fibre network inside a building must – regardless of the question of market dominance – guarantee access to this network for other providers. In addition, this is to apply for a transitional period to the subloop, i.e. the optical fibre cable from the street cabinet to the building.

II. The Commission and its Secretariat

1. The Commission

The most important tasks of ComCom as the independent Swiss licensing and regulatory authority in the telecommunications sector are:

- granting licences for the use of radio communication frequencies,
- awarding the universal service licence,
- laying down the access conditions when service providers fail to reach an agreement,
- approving the national numbering plans,
- fixing the terms of application for number portability and carrier selection,
- taking measures in the event of violation of the applicable law and, where appropriate, revoking the licence.

The Commission consists of seven members who must be independent experts, nominated by the Federal Council.

On 24 January 2007, the Federal Council appointed a new member to the Commission, a proven expert in telecommunications technology: Jean-Pierre Hubaux, professor of the School of Computer and Communication Sciences at the Swiss Federal Institute of Technology Lausanne (EPFL).

At the end of 2007, two of the original members resigned from ComCom in accordance with their own wishes: Beat Kappeler and Hans-Rudolf Schurter. As advocates of open competition with extensive expert knowledge, they have left their mark on the work of the Commission over a period of ten years. ComCom would like to thank the two members who are resigning for their tireless commitment to liberalisation of the market and for their distinguished collaboration.

In 2007, the Commission met for a total of 9 sessions and on the occasion of a three-day study trip. The Commission members' commitment in terms of time, including extensive preparations for meetings and decisions taken by way of circulation, amounts to some 20 days a year.

The Commission members in 2007:

- **Marc Furrer, President**, Attorney and notary
- **Christian Bovet, Deputy President**, Dr. iur., Professor of Law at the University of Geneva
- **Monica Duca Widmer**, Dr., dipl. Chem. Ing. ETH, entrepreneur with SME in the environment sector
- **Reiner Eichenberger**, Dr. oec. publ., Professor of Economics at the University of Fribourg
- **Jean-Pierre Hubaux**, electrical engineer, Prof. EPFL Lausanne **(since 24.1.2007)**
- **Beat Kappeler**, Dr. h.c., lic. ès sc. pol., publicist **(until 31.12.2007)**
- **Hans-Rudolf Schurter**, Attorney, entrepreneur in the electronics sector **(until 31.12.2007)**

2. The Secretariat

ComCom has its own Secretariat, with three employees. It is responsible for co-ordinating affairs, organising the work of the Commission and providing the public with information.

The Secretariat cooperates in most of the cases with the Federal Office of Communications (OFCOM). OFCOM prepares the dossiers for the Commission and implements its decisions.

New internet site for mobile terminals: www.comcom-ch.mobi

In parallel with its official internet site, ComCom has developed a site designed specifically for use with mobile telephones. ComCom has launched a site with the top level domain ".mobi", the aim is to facilitating fast access from anywhere to the latest information from the Commission.

Despite developments in mobile technologies and constantly increasing data transfer rates, mobile telephones do not allow web surfing in the same way as a computer. To improve websurfing functionality on a mobile terminal, it is therefore essential for internet sites to be adapted to these terminals.

Sites with a ".mobi" extension must guarantee optimal display of web content on mobile devices: pages which are small in size, with more concise content and a lower screen resolution.

Available in four languages, the site allows access to ComCom's latest press releases and also provides an introductory page as well as a "contacts" page.

Site for mobile terminals: www.comcom-ch.mobi

Official site: www.comcom.admin.ch

The employees of the secretariat are at your disposal for any queries:

- Peter Bär, secretary general of the Commission (100%)
- Pierre Zinck, scientific officer and webmaster (70%)
- Maya Stampfli, administrative secretary (70%)

III. Activities of the Commission

Both the revised Law on Telecommunications (LTC) and the new Law on Radio and Television (LRTV) transfer new tasks to ComCom.

For example, ComCom now decides not only on interconnection but also on all applications for access to the infrastructure and services of a market-dominant provider. In a concluding enumeration, the LTC lists the following forms of access:

- Full unbundling of the local loop
- Bitstream access (for four years)
- Billing for fixed network subscriber connections
- Interconnection
- Leased lines
- Access to cable ducts, in so far as these have sufficient capacity

According to the new RTVA, ComCom is now also responsible for awarding radio communication licences which are intended for the transmission of radio and television programme services. However, the Department of the Environment, Transport, Energy and Communications determines the concrete frequency utilisation details for such licences and then makes ComCom responsible for awarding the frequencies.

On the other hand, since 1 April 2007 it is the task of the Federal Council to approve the national frequency allocation plan.

1. Access procedures

By the end of 2007, 5 companies had submitted a total of 10 access applications under the revised LTC. Some of the applications relate to different access variants.

In terms of content, all the new forms of access are involved: full unbundling, bitstream access, charging for connections, leased lines and access to cable ducts. In several cases, on the one hand it is a matter of clarifying the question of market dominance and deciding on specific access conditions. On the other hand, prices are being disputed in practically all the procedures.

ComCom and OFCOM are keen to press ahead with these procedures as quickly as possible. In view of the quantity and in some cases the complexity of the procedures, however, the authorities are coming up against limits due to available resources.

In 2007, depending on the access variant, between three and eleven alternative providers concluded an access agreement with Swisscom Fixnet (cf. the OFCOM website). However, various agreements were concluded with reservations concerning prices and individual contract conditions; this then led to access applications to ComCom. In principle, these companies therefore have the possibility of becoming active on the market. Furthermore, the access agreements concluded with Swisscom in 2007 contain in general a third-party clause.

ComCom has already decided on two applications: it did not deal with one because the relevant preconditions did not apply. In the case of bitstream access, ComCom has decided on the issue of market dominance.

1.1. Bitstream access must be offered by Swisscom

With regard to bitstream access, Swisscom did not propose any offering in March 2007. Swisscom justified this by maintaining that in its view it was not dominant in the market. For this

reason, Sunrise submitted an access application to ComCom in April 2007 with the aim of clarifying the issue of market dominance.

In its first decision on unbundling, ComCom came to the conclusion that Swisscom is market-dominant in relation to wholesale bitstream access. ComCom based its decision on a report which the Competition Commission produced in the course of the procedure (www.weko.admin.ch). In view of its market dominance, Swisscom is being obliged to offer wholesale bitstream access for four years – as envisaged by legislators – and to submit a basic offering at cost-based prices. If the providers cannot reach agreement in price negotiations, these prices may in turn be contested with ComCom.

Bitstream access enables alternative providers to take a step towards full unbundling for a limited investment and to provide their customers with an attractive broadband offering. Bitstream access should therefore stimulate competition – particularly in peripheral regions with few competing offerings.

Why is Swisscom dominant in the market?

ComCom concluded that Swisscom is dominant in the market since in the area of bitstream access it is able to behave largely independently of its rivals. Alternative providers are dependent on access to Swisscom's national access network in order to be able to offer broadband services countrywide. In ComCom's opinion, the competition from cable TV network operators active on a regional basis which offer broadband services is not sufficient to place Swisscom under adequate competitive pressure in the wholesale market. The cable network operators cannot be obliged to offer bitstream access as well, since the Telecommunications Act only provides for unbundling of Swisscom's copper cable.

In January 2008, Swisscom submitted an appeal against this decision to the Federal Administrative Court.

1.2. Interconnection prices 2004 - 2006 lowered

In 2004, COLT Telecom and Verizon Switzerland had applied, through separate submissions, for ComCom to determine interconnection conditions.

Since at that time a Federal Court decision on interconnection prices for the years 2000 - 2003 was pending, the new procedures were suspended. They were resumed in August 2006, after the Federal Court had approved the official procedure for setting prices for the years 2000 - 2003.

In two decisions, ComCom came to the conclusion that in the years 2004 to 2006, Swisscom Fixnet charged its contractual partners excessively high prices for various interconnection services. On the basis of calculations using the LRIC method, ComCom reduced Swisscom's interconnection prices for the years 2004 to 2006 by an average of 15 to 20 percent.

In the procedure, it was not disputed that Swisscom Fixnet is dominant in the market for the services in question. It is obliged to guarantee access for other providers in the form of interconnection to its equipment and services. For these, Swisscom is allowed to charge so-called cost-oriented prices. These are based on the costs which an efficient provider would incur under competitive conditions for providing the corresponding services. Swisscom is allowed to charge competitors only the actual costs incurred by the required services.

Corrected prices

In the course of examining the prices charged by Swisscom, ComCom established that the prices did not fully comply with the statutory regulations.

1) Operating costs: Swisscom claimed irrelevant costs which have no causal relationship with national interconnection (for instance costs for leased lines). ComCom therefore disallowed these costs.

2) In comparison with the cost-based evidence for the years 2000 - 2003, Swisscom had shortened the depreciation periods in relation to switching technology. ComCom considered this reduction in depreciation periods as inappropriate and set values which it had already applied in previous price-setting procedures.
With regard to cable ducts and manholes, Swisscom itself had provided different information. ComCom therefore examined these depreciations in greater detail. On the basis of a comparison with foreign telecommunications networks and other infrastructures in Switzerland, ComCom increased the depreciation period for cable ducts and manholes to 40 years.

3) With regard to return on equity, Swisscom did not give sufficient consideration to inflation. For this reason, ComCom harmonised inflation rates, leading to a slight fall in the equity interest rate.

The amendments to the costs which have been decreed by ComCom have different effects on different prices. The decisions mean a reduction of the order of 15 to 20 percent with regard to prices for usage-dependent interconnection services and about 5 to 15 percent for non usage prices. The latter relate to one-time implementation services, which are of much less consequence (primarily the technical installations for interconnection).

Now, on the basis of these decisions, the applicants can demand reimbursement of excess payments from Swisscom. Other providers can benefit from the decision if they have included a corresponding third-party clause in their contract with Swisscom.

In two other procedures, ComCom will also set the prices for the years 2007 and 2008. In a recent judgement, the Federal Administrative Court confirmed ComCom's competence for this period and rejected Swisscom's appeal concerning this point.

1.3. Mobile termination charges

A total of eight applications for reductions in mobile termination charges were submitted to ComCom in 2006. The applications were for prices based partly on costs and partly on market levels.

As part of the legal procedure, the Competition Commission was asked for an expert report on the question of market dominance. At the end of November 2006, it found that Swisscom Mobile, Orange and Sunrise each occupied a market-dominant position for the termination of calls in their mobile telephone network.

Therefore ComCom would have laid down cost-based prices. But as the parties found common solutions in bilateral negotiations, the pending interconnection applications were withdrawn and ComCom had to close the procedures.

Stepwise price reductions from the previous 20 centimes to 15 centimes by 2009 (-25%) for Swisscom and from the previous 29.95 centimes to 18 centimes by 2009 (-40%) for Orange and Sunrise were agreed between Sunrise, Orange, Swisscom Mobile and Swisscom Fixnet.

In view of their market-dominant position, Swisscom Mobile, Orange and Sunrise are obliged under the Law on Telecommunications (LTC) to offer cost-based prices. The extent to which the charges that have now been negotiated actually meet this requirement cannot be assessed because to date no cost analysis could be performed.

The average of the charges negotiated for 2007 is about 30% above the European average for mobile termination charges in 2007 (cf. figure 8). In addition, it must be assumed that mobile termination charges will generally continue to fall in the European Union.

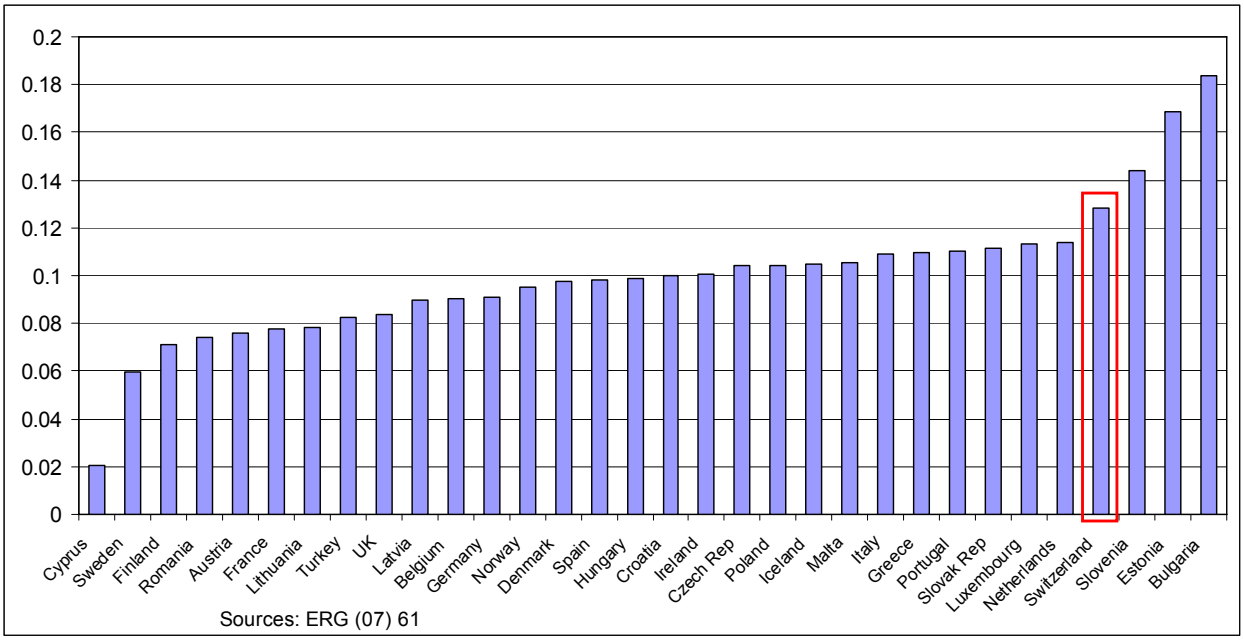

Fig. 8: Mobile termination in Europe, June 2007
Source: ERG (07) 61 Rev1, www.erg.eu.int

The LRIC method of calculation

The Telecommunication Services Ordinance (TSO Art. 45) states that since the year 2000 cost-based prices have 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 capital resources (equity capital). Therefore the LRIC prices also include a profit element.

Further information on the LRIC method can be found on the ComCom website:
http://www.news-service.admin.ch/NSBSubscriber/message/attachments/2089.pdf

How is an access procedure carried out?

The primacy of negotiations is laid down in the LTC. Before the Commission can decide on the prices and conditions for interconnection or access, the providers must first attempt to reach an agreement via negotiations. If no access agreement can be reached within three months, the provider may lodge a request with the Commission for an access 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 ComCom lays down access/interconnection prices and conditions, the parties to the procedure have another chance to reach an amicable agreement within the framework of conciliation negotiations (cf. LTC Art. 11a and DTS Art. 64-74).

This procedure is also known as “ex-post regulation”. In contrast, “ex-ante regulation”, which does not recognise the primacy of negotiation, is practised in the EU. The regulatory authorities in the EU countries can intervene independently and at an early stage in markets in which competition is not effective.

2. Licences

In accordance with the Law on Telecommunications (LTC), ComCom awards licences in the telecommunications sector.

ComCom may delegate some tasks to OFCOM. This has happened in the case of the following types of licence: radio communication licences for telecommunication services which are not subject to a tender procedure (for example, licences for radio amateurs or company radio) and licences which are intended to be fully used for the transmission of radio and television programme services.

Below you will find an overview over the licences issued by ComCom.

2.1. Licence for mobile TV

Within the framework of a competition based on criteria, the Federal Communications Commission (ComCom) is awarding the national licence for DVB-H to Swisscom Broadcast AG.

Two companies, Mobile TV Schweiz AG and Swisscom Broadcast AG, had submitted bids for the national mobile TV licence which had been put out to tender. The two bids were subjected to a thorough examination within the framework of a competition based on criteria. Swisscom Broadcast submitted the better bid and has received therefore the licence.

In view of its existing sites and its experience of TV broadcasting in Switzerland, Swisscom Broadcast is better able to guarantee a fast rollout of this new technology. The aim is to be able to receive TV transmissions on mobiles during the 2008 European Football Championship, in the host cities of Basle, Berne, Zurich and Geneva.

Award by means of a criteria-based competition

The licensee was selected by means of a competition based on criteria. The licence was therefore awarded to the candidate submitting the best application. Analysis of the individual bids was based on criteria published in the invitation to tender.

In a detailed evaluation procedure, the quality of the two bids was assessed by applying the criteria defined in the invitation to tender. Swisscom Broadcast achieved higher marks for the following criteria: "Coverage/Rollout", "Concept/Implementation", "Coherence and Credibility of

the Bid" and "Business and Service Plan". Mobile TV Schweiz did better on the criterion of "Contribution to Media Diversity". Swisscom Broadband therefore submitted the better bid.

The licence

The licence is being awarded for a ten-year term and includes 12 coverage areas which in total cover the whole of Switzerland. In each coverage area, the licensee receives an 8 MHz broadcast channel to transmit TV programme services.

The licence does not include any guidelines concerning the standard to be applied. However, since the DVB-H standard allows the most efficient use of the available frequencies, ComCom is recommending the use of DVB-H.

The licence also includes the following obligations:

- By the end of May 2008, Swisscom Broadcast must achieve the 44% population coverage specified in the bid and approximately 60% by the end of 2012.

- At least 70% of the transmission capacity must be used for the transmission of radio and television programme services.

- Swisscom Broadcast is obliged to provide all TV broadcasters and telecommunication service providers with equal access to this broadcasting platform under equitable and non-discriminatory conditions (in accordance with article 51 of the Law on Radio and Television).

- With regard to network construction, the regulations concerning area planning and protection of the environment and landscape, as well as the non-ionising radiation protection Ordinance must be complied with. On the basis of the Swisscom Broadcast bid, it is expected existing antenna sites will predominantly be used.

What is mobile TV?
The licence for mobile TV which was put out to tender enables a licensee to operate a platform for mobile TV and to broadcast digital programme services nationwide. These TV programme services are optimised for reception on special handheld terminals (e.g. mobile telephones). Depending on the chosen technology, more than 25 channels can be transmitted via a single platform.

2.2. BWA licences

In the 3.41-3.6 GHz frequency range, in addition to Swisscom Mobile the company Cablecom has had a WLL licence (2 x 28 MHz) since the year 2000.

In December 2006, OFCOM put two national BWA licences out to tender. By the deadline, OFCOM had received just one application from the company Inquam Broadband GmbH (Cologne). Examination of the candidature indicated that Inquam satisfied all the conditions for the award of a licence.

In accordance with the tender conditions, ComCom has therefore decided to award Inquam the larger of the two BWA licences put out to tender (2 x 21 MHz) for the minimum price of CHF 5.8 million.

In order to ensure that the frequencies allocated will be used for the benefit of consumers, the licence includes minimum conditions concerning the construction of the network. The licensee is obliged to start commercial operation by 30 September 2008 at the latest and to operate at least 120 transmission/reception units by the end of September 2010. This condition allows the licensee largely to determine for itself a level of network construction which is reasonable with a

view to the market. With regard to the construction of networks, the non-ionising radiation protection Ordinance must be complied with.

Wireless broadband at regional level

Since October 2007, the frequencies which have not been awarded before can be assigned on application for local use. Information about the licensing procedure can be found at the website of Swiss OFCOM (see press release from 30.10.2007, www.ofcom.ch).

What is Broadband Wireless Access (BWA)?

BWA is a generic term for various wireless access technologies such as WLL (Wireless Local Loop), FBWA (Fixed Broadband Wireless Access) or MBWA (Mobile Broadband Wireless Access). Various standards can be grouped together under BWA (e.g. IEEE 802.16x and HiperMAN). In the public discussion, the term “WiMAX” is currently generally used instead of BWA, even though this is a brand name or rather an association of equipment and component manufacturers (the WiMAX Forum).

2.3. GSM licences

All operators are complying with the GSM licences. GSM mobile telephone coverage in Switzerland is approximately 100% of the population and 85% of the surface area of the country (OFCOM, 2005 official telecommunications statistics, February 2007). This is also the case of Tele2 as they have concluded a national roaming agreement with Sunrise.

For both Sunrise and Swisscom, the entire GSM network is equipped with EDGE in order to speed up data transfer. This allows data transfer rates of approximately 200 kbit/s. In the Orange GSM network GPRS is installed, allowing data transfer rates of about 50 kbit/s. Responding to the high speeds of data access via the fixed network, however, the successor technology UMTS, with its significantly faster data transfer, is becoming increasingly important (see below).

Renewal of GSM licences

In February 2007, ComCom decided to renew for 5 years the Orange, Sunrise and Swisscom Mobile GSM mobile telephony licences which expire at the end of May 2008. With this action ComCom wanted to achieve harmonisation with the Tele2 and In&Phone GSM licences, which will also remain valid till the end of 2013.

This would also allow ComCom to re-assess the general market situation up to the end of 2013 and determine the interests of all licensees and then to take appropriate measures.

In making its decision, ComCom has also taken technological development into account and wanted to allow the licensees in the future to operate UMTS systems also within the allocated GSM spectrum. In order to ensure that all three licensees can operate UMTS within the technically advantageous 900 MHz range (UMTS900), ComCom is planning to re-allocate some frequencies. Orange would therefore receive some additional 900 MHz frequencies, to the detriment of Sunrise and Swisscom. This would be offset in the 1800 MHz frequency range, where Orange would have to hand over frequencies to Sunrise and Swisscom Mobile.

Unfortunately, this decision was contested by a company which was not directly involved and the implementation of the planned licence renewal was therefore not possible in 2007. If the

situation were to remain blocked, at the beginning of 2008 ComCom would consider a temporary extension of the current licences, thereby ensuring GSM coverage.

2.4. UMTS licences

All three UMTS licensees are meeting the terms of their licence, in particular the coverage obligation which is included in it. Orange and Sunrise, with a coverage of over 60%, are clearly exceeding these requirements. Swisscom, however, is the clear front-runner, with 90% coverage.

All the UMTS licensees are also investing in the HSDPA extension to UMTS, which allows mobile internet use at 1.8 Mbit/s and enhances the broadband experience. All three operators are planning to equip large parts of their UMTS network with HSDPA. HSDPA is already available in the larger Swiss towns and cities.

Consultation on the use of free UMTS frequencies

Since ComCom revoked the UMTS licence from 3G Mobile AG (Telefonica) in April 2006, frequencies with a bandwidth of 30 MHz have been freely available in the UMTS core band (the 2 GHz frequency band). In addition, another 190 MHz will be available as of 1 January 2008 in Europe in the 2.5 GHz band (the UMTS extension band) for the provision of mobile broadband services.

With regard to a possible invitation to tender for free frequencies, in autumn 2007 OFCOM carried out a public consultation in order to clarify the requirements. ComCom will decide on further action in the course of 2008.

2.5. WLL licences

In the case of the WLL licences, there were now changes. As the supervisory authority, OFCOM as a rule regularly checks whether the minimum operational obligation of the licences is being complied with. If this is not the case, OFCOM initiates a supervisory procedure which may lead to the licence being revoked.

2.6. Universal service

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

In September 2006, the Federal Council modified the content of the universal service to changing social needs:

- In particular, the Federal Council included a broadband connection (600/100 kbit/s) as well as additional services for the disabled in the universal service.
Two new measures to promote the social integration of disabled people were incorporated into the list of services forming the universal service. The first consists of the provision of an SMS relay service – in addition to the existing transcription service – for the hearing impaired. The second is the expansion of the directory and switching service to people with limited mobility, who cannot dial telephone numbers.

- In addition to the normal subscriber connection, the universal service also includes access to emergency services, barring of outgoing calls and an adequate number of public callboxes. At present, there are some 4850 public payphones in the municipalities of Switzerland which are part of the universal service.

- The directory enquiries service, call diversion and advice of charge have been removed from the obligations of the universal service. These services will continue to be provided in Switzerland on the open market by numerous providers.

In October 2006, ComCom launched the tender for the new universal service licence which includes all the services forming part of the universal service. Only Swisscom applied for this licence.

In June 2007, ComCom awarded Swisscom the universal service licence for a ten-year term from 1 January 2008.

Swisscom has refrained from applying for financial compensation for the first five years of the licence. However, it may ask for such compensation for the following years. The Commission would then examine a potential application and determine the compensation based on the effective costs.

What is the universal service?

The universal service consists of a basic offering of telecommunications services which, according to the Law on Telecommunications (LTC of 30.4.1997), must be provided nationally to all sectors of the population, in good quality and at a reasonable price. The universal service therefore ensures from the outset that any possible regional or social disadvantage does not prevent access to the most fundamental means of social communication.

It is within the remit of the Federal Council to adapt the content of the universal service periodically to social and economic needs as well as to technological developments. ComCom is obliged by the LTC to periodically put the licence for universal service in telecommunications out to tender and to award it on the basis of a competition based on criteria.

3. Numbering plan E.164/2002

Migration of 01 numbers: from 1 April 2007, only 044 will exist

In March 2000, ComCom had already adopted the “closed” numbering plan E.164/2002 (the same number format for local and national calls) 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 telephone numbers to the same 044 numbers in the Zurich numbering zone. In addition, the creation of the new 043 area code greatly increases the number range for the Zurich region.

The first and most important stage of the numbering plan took place on 29 March 2002: since then, it has been necessary to use the area code for both local and national calls. Apart from the fact that the area code became a fixed part of the number, all the previous numbers and area codes remained unchanged.

On 1 April 2007, the final stage of the numbering plan was finally completed: since then it has been necessary to dial 044 instead if 01, as the parallel operation which was guaranteed since March 2004 ended.

This migration of 01 numbers to 044, which was 10 years in preparation, was accomplished without any problems, thanks to extensive communication on the part of OFCOM and providers.

4. Carrier Selection

Carrier selection 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.

However, the number of customers who have set up carrier preselection on their line has not increased since 2002, and has even begun to fall slightly. In 2006, approximately 27% of lines had preselection with an alternative provider. There are many reasons for this: both customer acquisition by Swisscom and the TV cable operators and the emergence of Voice over Internet. In addition, more and more people are also replacing their fixed-network connection with a mobile connection (fixed-to-mobile substitution).

Improving consumer protection from abuses in relation to unwanted changes of the carrier preselection

In order to provide customers with better protection from an unwanted change of fixed-network provider, the Commission has amended the regulations for carrier preselection. The Commission wants to prevent preselection being activated on a telephone line without the subscriber's explicit consent. The new arrangements entered into force on 1 April 2007 (Annex 2 to the ComCom Ordinance).

From now on, preselection applications, made either in writing or by telephone, must include a description of the services offered, confirmation that the applicant is actually the subscriber of the connection, an authorisation empowering the provider to arrange preselection on the subscriber's connection and an indication by the customer of a period during which he can withdraw from the contract.

Telephone canvassing

Preselection applications made by telephone must be recorded. During this recording, the customer must not be influenced in any way and must expressly agree to the verbal conclusion of the contract. ComCom also specifies that in the case of a preselection application following a "cold call" the entire commercial conversation preceding the actual preselection application must be recorded.

In order to enable customers to challenge a preselection more easily, ComCom additionally requires providers, in the event of a dispute, to present proof of the preselection application within 10 days, where applicable including the recording of the commercial conversation relating to the telephone canvassing.

Verification of preselection status

Finally, ComCom would like to make it easier for consumers to verify the preselection status of their telephone connection. Therefore, the preselection test number 0868 868 868 will be free of charge from now on. When a call is made to this number, a recorded message indicates the name of the current preselected fixed-network carrier.

5. Supervisory measures and sanctions

If an infringement of licences awarded by ComCom is suspected or the applicable laws are violated, OFCOM initiates a surveillance procedure. If OFCOM determines fallible behaviour, ComCom decides on the measures which are necessary (LTC Art. 58). If licences or decisions are not complied with, ComCom may impose administrative penalties (LTC Art. 60).

In 2007, ComCom did not have to impose either mandatory supervisory measures or sanctions.

6. The most important activities at a glance

Interconnection procedures	
Cost-based interconnection prices (LRIC)	ComCom reduced interconnection prices for 2004-2006 by an average of 15 to 20 percent
Bitstream Access	ComCom considered that Swisscom is dominant in the market and obliged Swisscom to offer bitstream access at cost-based prices.
Mobile termination charges	All eight procedures were terminated, as the parties were able to agree on lower charges.
Licences	
Mobile TV (DVB-H)	The first licence for mobile TV was awarded to Swisscom Broadcast. Operation must commence in May 2008 with 44% coverage.
BWA	In May 2007, ComCom awarded a BWA licence to Inquam Broadband GmbH.
GSM	In 2007, ComCom prepared the temporary extension of the GSM licences of Swisscom, Orange and Sunrise.
UMTS	ComCom will decide in 2008 what is to be done with the free UMTS frequencies. OFCOM carried out a public consultation on this issue in autumn 2007.
Universal service	ComCom awarded the universal service licence valid from 1 January 2008 for ten years to Swisscom.
Numbering	The migration of 01 numbers to 044 was accomplished without any problems in April 2007.
Carrier Selection	In order to provide customers with better protection from an unwanted change of fixed-network provider, ComCom amended the regulations for carrier preselection.

Abbreviations

ADSL = Asymmetric Digital Subscriber Line

BWA = Broadband Wireless Access (WiMAX/WLL)

CATV = Cable Television

ComCom = Swiss Federal Communications Commission

CSC = Carrier Selection Code

DTS = Decree on Telecommunications Services (SR 784.101.1)

DVB-H = Digital Video Broadcasting for Handheld Terminals

EDGE = Enhanced Data rates for GSM Evolution

ERG = European Regulators Group

GPRS = General Packet Radio Services

GSM = Global System for Mobile Communications

HDTV = High-definition television

HSDPA = High Speed Downlink Packet Access

IC = Interconnection

IP = Internet Protocol

IPTV = Internet Protocol Television

ISDN = Integrated Services Digital Network

ISP = Internet Service Provider

LRIC = Long Run Incremental Costs

LRTV = Law on Radio and Television (SR 784.40)

LTC = Law on Telecommunications (SR 784.10)

MMS = Multimedia Messaging System

OFCOM = Swiss Federal Office of Communications

PSTN = Public Switched Telephone Network

SMS = Short Message System

UMTS = Universal Mobile Telecommunications System

VoD = Video on Demand

VoIP = Voice over IP

WiMAX = Worldwide Interoperability for Microwave Access (association of equipment and component manufacturers)

WLL = Wireless Local Loop