Activity report
of the ComCom
2024

Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

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CONTENT

EDITORIAL

This is my last annual report as President of ComCom. The past few years have been very rewarding for me, and I'm extremely thankful for the valuable experience and all the inspiring conversations I've had along the way. Unfortunately, my professional commitments no longer allow me to give this office the time and attention it deserves, so I have decided with a heavy heart to step down at the end of March 2025.

The world around us is changing at a rapid pace. Geopolitical tensions, trade conflicts and shifting alliances are all impacting the global environment. At the same time, supply chains are being reconfigured and access to key technologies such as high-performance processors (GPUs) and advanced semiconductors is becoming increasingly difficult. For Switzerland, too, these developments represent enormous challenges, whether in terms of politics, economics or for us as a society.

Our long-term prosperity will depend heavily on whether we are able to play a leading role in future technologies such as artificial intelligence, quantum computing, the Internet of Things and blockchain technologies. The competition in these fields is tough – but Switzerland is well placed to lead from the front.

Our technical universities are among the best in the world and produce many highly educated young professionals. Not only that, our digital infrastructure also ranks among the global elite: copper, HFC and fibre networks are undergoing continuous expansion and have already achieved a very high performance level.

Even basic provision includes legally stipulated 80 Mbps broadband, and the mobile networks of the three providers receive awards as the best in Europe every year. Switzerland also boasts state-of-the-art data centres with ample capacity, not to mention a stable economic environment – all of which represent firm foundations for playing a leading role in key digital technologies. With capital for innovative ideas readily available, Switzerland remains a magnet for top international talent.

Nevertheless, one central question remains: why, in spite of these excellent conditions, are we not leading the way in various future technologies?

One decisive factor is our attitude toward technological innovation. While other societies focus on the opportunities and benefits of new technologies, the focus in Switzerland is all too often on the potential risks. Of course data protection, security and regulatory aspects are important, but if we approach innovation primarily through this legal lens, we run the risk of falling behind.

This mindset is not simply a theoretical concern either – it has very real consequences. During the pandemic, a Swiss COVID app was developed in record time, but its roll-out was delayed for months because of data protection concerns. For years, we have been discussing an electronic ID system, yet we are still waiting for a practical solution. The same goes for digital patient records, online voting and digital planning permission applications.

Even our driving licences still exist exclusively as a physical card, and a digital version is probably still years away. Politicians prefer to talk about the ratio of women on management boards rather than focus on how essential AI expertise is going to make its way into our leadership circles. Cloud adoption is another area where Switzerland continues to lag behind internationally. In this respect, a powerful cloud infrastructure is the foundation for data-driven innovation and artificial intelligence.

We need to strike a new balance for dealing with future technologies. Yes, it is important to address risks, but it is just as important to recognise opportunities, promote innovation and make bold decisions. Rather than picking apart new technologies right from the outset, we should focus on their potential for our economy, our prosperity and our future. Our joint aim must be to ensure that the next 'DeepSeek' originates in Switzerland – not in China or the USA.

Switzerland has everything it needs to remain a leading hub for innovation in the decades to come. Yet the future of transformative innovation – and its application – is digital. And this is precisely where our attitude must change. Let's recognise the opportunities we have in front of us and put them to good use!

Christian Martin, President

March 2025

I. An overview of the telecoms market

The first section of this report provides a selection of data giving an overview of how the Swiss and international telecommunications markets are developing.

For its statistical data, ComCom relies primarily on the figures released by the major telecommunications providers, as well as on publications by the OECD, EU and professional bodies or specialised research institutes such as Gartner and IDC. It also draws on a range of data sets and analyses from the Federal Office of Communications (OFCOM),[1] and uses estimates where necessary. Further information on the latest developments in the Swiss fixed network and mobile telephony market is available on the ComCom website under 'Facts and figures'.

1. Development of mobile networks

The now saturated mobile telecoms market has remained more or less stable in recent years. With a mobile penetration rate of 129% at the end of 2024, growth in customer numbers has slowed down (+2.4%).

At the end of 2024, Swisscom had 6,331,000 mobile customers in Switzerland, up 0.9% or 54,000 compared to the previous year. It gained 110,000 new contract customers (postpaid plans) but lost 56,000 prepaid customers. Sunrise recorded growth of 3.7% over the same period. This operator had 3,132,000 mobile customers at the end of 2024, having gained 159,000 postpaid customers yet lost 48,000 in the prepaid segment. The number of Salt customers also increased, now standing at 2,120,000 (+7.2%). This operator added some 142,000 postpaid subscriptions during the year, plus 1,000 customers in the prepaid segment. The data available to us indicates that Swisscom had a market share of around 54% at the end of 2024, while Sunrise had 26.5% and Salt 18%. Cable network operators (CATV) continue to account for just 1.5% of the market (see Fig. 1).

For over ten years now, the market dynamic has been driven largely by the contract segment. Users of prepaid offers have increasingly been switching to contracts, with the proportion of contract customers thus increasing from 59% in 2014 to almost 86.5% in 2024. The proportion of contract customers has continued to rise at each of the three network operators in recent months, and now stands at 89.6% at Sunrise, 86.2% at Swisscom and 82.3% at Salt.

Together, the operators gained more than 410,000 new postpaid customers in 2024. In this segment, Swisscom held some 54% of the market, Sunrise 27.5%, Salt 17% and CATV operators 1.5%.

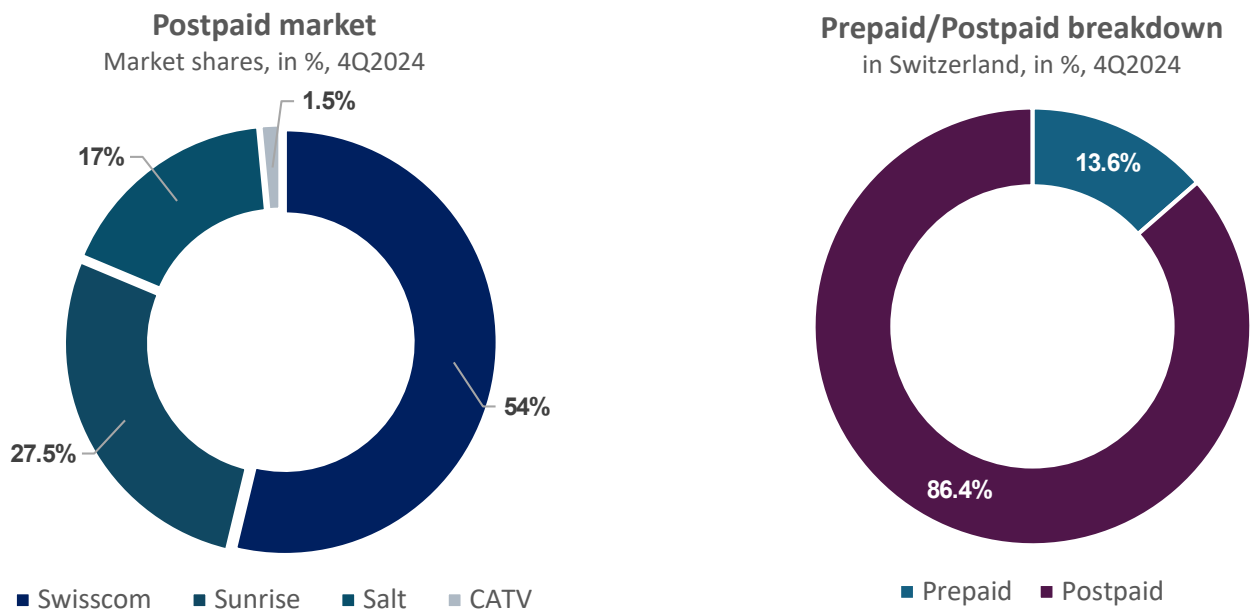### Development of the smartphone market

There were almost 8.7 billion mobile subscriptions worldwide at the end of 2024, according to the Ericsson Mobility Report published in November 2024. This is a year-on-year increase of more than 2%.

Likewise, the number of smartphone subscriptions continues to grow. At the end of 2024, they accounted for more than 82% of all mobile subscriptions, amounting to almost 7.2 billion – an increase of 3.3% compared to the previous year. According to forecasts in the Ericsson Mobility Report, this number is expected to increase by a further 3% annually over the coming years, reaching 8.3 billion smartphone contracts by 2030.

After three years of decline, global smartphone sales picked up again in 2024, confirming the first signs of recovery that had already emerged in the second half of 2023. New smartphones equipped with generative AI (GenAI) are driving growth in the premium segments, while in other segments, customers are waiting for more affordable products. Competition in the folding smartphone market has also intensified with new devices and new entrants.

Meanwhile, growth is essentially being driven by 5G. The operators are continuing to expand their networks and are extending 5G technology coverage, which was expected to be available to

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1 All sources used are listed at the end of the report.

Fig. 1: Market shares of mobile telephony providers in Switzerland, 2024

Postpaid market
Market shares, in %, 4Q2024

- 1.5%
- 17%
- 54%
- 27.5%

■ Swisscom ■ Sunrise ■ Salt ■ CATV

Prepaid/Postpaid breakdown
in Switzerland, in %, 4Q2024

- 13.6%
- 86.4%

■ Prepaid ■ Postpaid

Sources: Operators

55% of the world's population by the end of 2024. The number of 5G subscriptions is also increasing. According to Ericsson estimates, almost a quarter of mobile phone contracts worldwide were 5G at the end of 2024, amounting to some 2.1 billion contracts.

Figures from the International Data Corporation (IDC), published in mid-January 2025, show that global smartphone sales increased by 6.4% year-on-year in 2024, reaching 1.24 billion units. An IDC release from November 2024 had already predicted this marked growth after two years of sharp decline. This development was driven by pent-up demand from the last two years and growth in regions with lower smartphone penetration. Despite the strong recovery in 2024, growth is expected to slow again in the coming years, with an annual growth rate of 2.6% forecast between 2023 and 2028. The increasing spread of smartphones, longer device life cycles, and the rapid growth of the refurbished smartphone market are all factors contributing to this slowdown.

Finally, IDC reports that GenAI smartphones are yet to have a significant impact on demand; however, as they become established in the high-end segment, they are expected to move into lower price ranges and could capture around 70% of the smartphone market by 2028.

Continued increase in smartphone recycling

While the market for new smartphones is slowly recovering, the market for refurbished phones continues to flourish and is growing faster than the market for new devices.

Refurbished smartphones are proving increasingly popular among consumers worldwide. This marks a shift that would have seemed unthinkable just a few years ago, when smartphones were perceived as an expression of individual personality or even a symbol of social identity, linked to the need to always own the latest model. Most studies agree that the market for second-hand smartphones will continue to grow over the coming years.

The latest IDC report from the end of September 2024 estimates global used smartphone sales at almost 195 million units in 2023, representing an increase of 6.4% compared to 2022 and a market value of almost USD 73 billion. This growth is expected to continue, and sales of used smartphones will increase to 260 million units by 2028. An annual growth rate of 5.7% is forecast for the period 2023 to 2028, compared to less than 3% for new smartphones over the same period.

However, according to IDC, this market too is showing signs of a downturn. Just like the market for new smartphones, the second-hand market is being affected by the global economic situation,

inflation and lower consumer spending. Moreover, the stocks available in the second-hand market are subject to high demand pressure because new phones are no longer being replaced as quickly as they once were – in most of the developed markets, replacement is after 40 months or longer.

In Switzerland, too, more and more consumers clearly intend to use their mobile phones for longer.

Based on data published by digitec Galaxus in spring 2024, sales of refurbished smartphones increased by 43% between May 2023 and May 2024, with demand from January to April 2024 actually twice that of the same period the previous year. The release also points out that refurbished devices are especially popular among consumers over the age of 35. Another release from the online sales platform in November 2024 confirmed that while prices for new smartphones were falling, it was the younger generations who remained most willing to spend more money on a mobile phone.

According to the latest Comparis smartphone study published in early February 2025, smartphones are now being used for longer, with interest in buying new devices declining and ownership of second-hand phones continuing to rise.
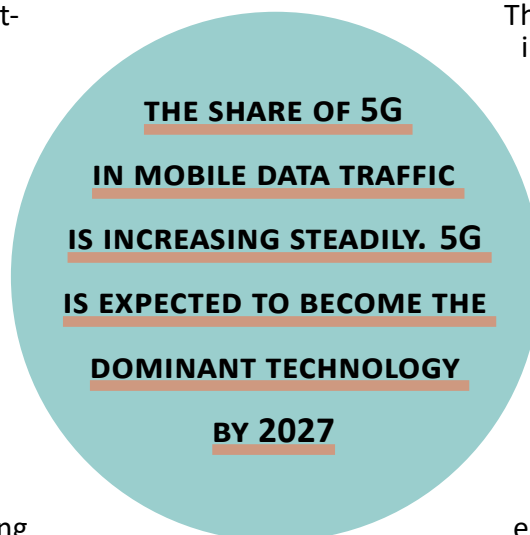
In 2024, only 38.4% of consumers planned to buy a new smartphone within the next twelve months (down from 46.9% in 2020). In addition, 14.1% of respondents had owned their device for four or more years (up from 8.8% in 2020) and the proportion of people using the same smartphone for at least three years increased from 22% in 2020 to over 31% in 2024. Lastly, over the same period, the number of second-hand devices had also increased from 8.3% in 2020 to 10.2% in 2024.

Growth in mobile data traffic

Mobile data traffic continues to grow globally, mainly due to subscribers switching to newer generations of mobile technologies.

However, according to the Mobility Report published by Ericsson at the end of November 2024, the annual growth rate for mobile data traffic has been declining for several quarters and is expected to fall further, from 21% in 2024 to 16% in 2030, which corresponds to an average rate of 19% over the entire period.
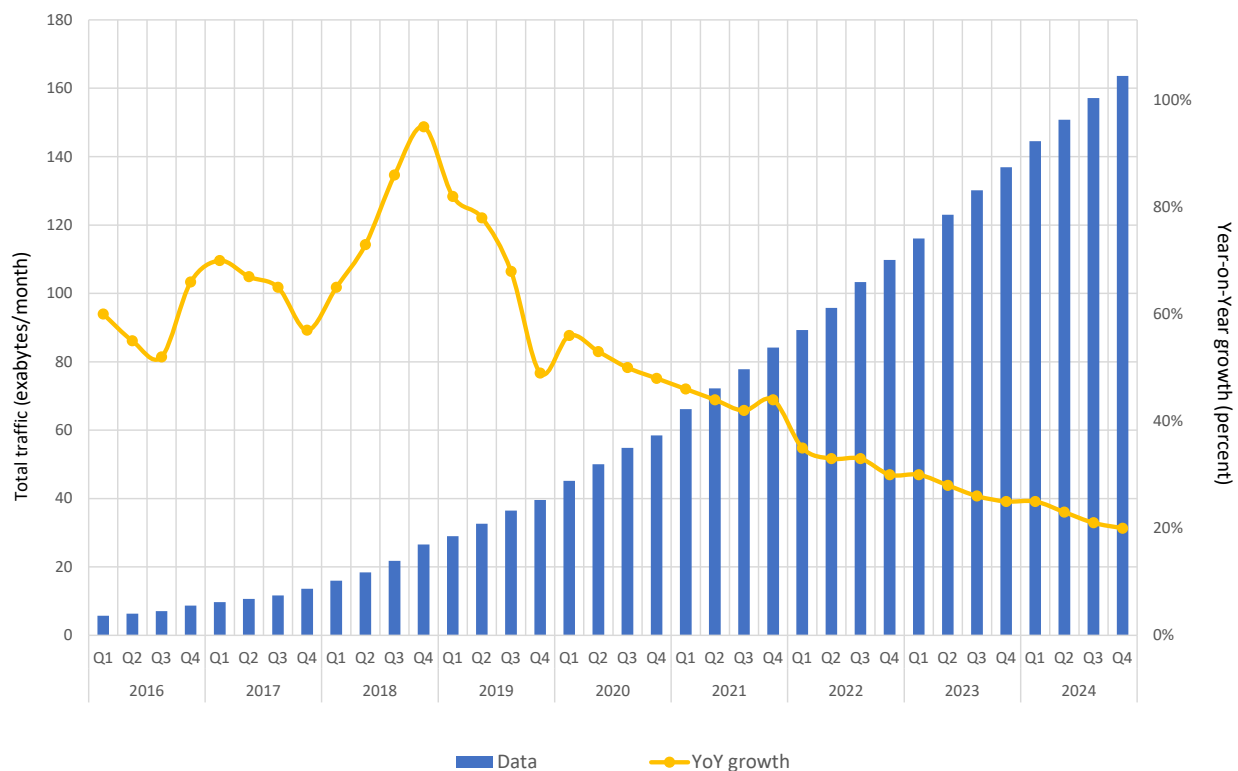
Excluding traffic generated by fixed wireless access (FWA), this figure stood at 126 exabytes (EB) per month (126 billion billion bytes) at the end of 2024. Global mobile data traffic is set to increase two and a half times by 2030, reaching 303 EB per month. If the traffic generated by FWA is included, the monthly data volume at the end of 2024 was 164 EB and is expected to triple to 473 EB by 2030. In the third quarter of 2024, this volume was 157 EB, an increase of 21% over the previous quarter (cf. Fig. 2).

THE SHARE OF 5G IN MOBILE DATA TRAFFIC IS INCREASING STEADILY. 5G IS EXPECTED TO BECOME THE DOMINANT TECHNOLOGY BY 2027

The reasons for the strong growth in mobile data traffic are the rising number of smartphone mobile subscriptions and also the increase in data volume, which is mainly in demand because of rising video consumption. According to Ericsson, video consumption is expected to account for 74% of global mobile network data traffic by the end of 2024.

The lion's share of mobile data traffic is still absorbed by earlier-generation networks, but the number of 3G and 4G subscriptions continues to fall, and 2G and 3G network shutdowns are progressing worldwide. Transition schedules vary from country to country and from operator to operator, but at the global level, 3G networks are expected to disappear faster than 2G networks in the next few years. Meanwhile, the share of 5G in mobile data traffic is increasing steadily. It accounted for 34% at the end of 2024 (up from 25% at the end of 2023) and it is expected to make up as much as 80% of global mobile network data traffic by 2030.

5G coverage continues to expand. At the end of 2024, over 55% of the world's population had access to 5G and by the end of 2030, it is expected to be 85%. Similarly, 5G subscriptions increased in 2024. According to Ericsson, by the end of 2024 there are expected to be 2.1 billion 5G subscriptions worldwide, representing about a quarter of all mobile subscriptions. This strong

Fig. 2: Mobile data traffic worldwide, 2016-2024

Mobile network data traffic also includes traffic generated by fixed wireless access (FWA) services

Source: Ericsson (February 2025)

momentum is expected to continue unabated. It is anticipated that the number of 5G subscriptions worldwide will reach 6.3 billion by 2030, covering 67% of all mobile subscriptions. As a result, 5G is expected to become the dominant technology by 2027 – exceeding earlier forecasts, which had projected 4G to remain dominant until 2028.

FWA is also becoming increasingly popular worldwide, growing in terms of service providers, connections and traffic volumes. More than 80% of mobile operators now offer FWA products, and over half of them (54%) provide FWA services over 5G. At the end of 2024, 19% of global mobile data traffic was transported over the total of 160 million FWA connections. By 2030,

the volume of data carried via FWA is expected to double, with 350 million connections, 80% of which use 5G.

Network coverage

Switzerland enjoys almost complete mobile coverage with state-of-the-art 4G and 5G technologies.

While operators have already shut down their 2G networks, their 3G networks are also being gradually phased out. This is a global trend. According to a report published in December 2024, the Global Mobile Suppliers Association (GSA) found that 254 operators in 77 countries and regions had either already decommissioned their 2G and 3G networks, were in

the process of doing so, or had announced plans to do so by the end of 2024. Of these, 67 operators in 35 countries had already shut down their 3G networks. Europe is leading this transition, accounting for almost half (47.2%) of all 2G and 3G shutdowns worldwide.

However, an analysis published by Opensignal in December 2024 shows that some countries remain dependent on 2G and 3G networks, with a variety of strategies in place. Some countries, for example, are shutting down 3G networks before 2G. On average, European users are still connecting to a 2G or 3G network for 5.5% of their network time. In Switzerland, this proportion is only 2.8%.

Swisscom announced that it would decommission the 3G network in Switzerland at the end of 2025, while Sunrise will no longer support the 3G standard from the middle of 2025. Salt has still to announce a date for its 3G network shutdown.

The capacity that this frees up can be used for the latest-generation 4G and 5G. The ComCom process for awarding mobile frequencies is technology-neutral. In other words, the licensee is free to decide which technologies to use with their frequencies.

At the end of 2024, almost 100% of the population was covered by LTE (4G), which was launched in Switzerland over ten years ago. All carriers also report high mobile coverage and high download speeds with LTE Advanced technology (4G+) and 5G.

Including all network generations, Salt claims to cover 99.9% of the population. By aggregating 3G, 4G and 5G signals, the Salt network offers transfer rates of up to 750 Mbps when 4G+ and 5G services are available, and up to 1.7 Gbps in regions with 5G+ coverage.

By the end of 2024, Swisscom reached 99% of the population with 5G and transfer rates of up to 1 Gbps, and 86% with 5G+ and transfer rates of up to 2 Gbps. Swisscom is aiming to reach 90% coverage with 5G+ by 2025. Sunrise covered over 99% of the population with 5G and transfer rates up to 1 Gbps, plus 79% of the population with 5G and transfer rates up to 2 Gbps.

In relation to the speeds indicated by the operators, it is important to bear in mind that mobile networks have a cellular structure and the transfer rates are shared between users within a cell.

Network quality

The 2025 edition of the independent test published by German trade magazine Connect at the end of November 2024 compared mobile networks in Germany, Austria and Switzerland. Once again, the test results confirm the excellent quality and high reliability of all Swiss mobile networks.

The three network operators Swisscom, Sunrise and Salt all received the rating 'outstanding', with the differences between them becoming ever smaller.

For the seventh time in a row, Swisscom was awarded best in test, despite scoring four points fewer than the previous year. However, the magazine highlighted Swisscom's progress in expanding 5G – not just in cities, but also in rural areas.
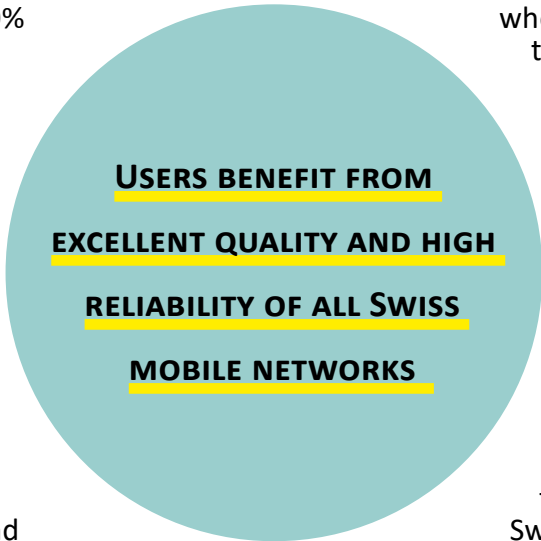
Sunrise impressed in the categories of voice services and 5G in urban areas, where the operator is in competition with Swisscom. In other categories too, Sunrise remains a strong competitor, while Salt is catching up quickly thanks to its top performance in the data and voice categories.

The operators' most significant improvement was achieved in the data category, with measured peak data rates in large cities greater than 900 Mbps for Sunrise and 1 Gbps for Swisscom, rates that are achieved by bundling four or even five LTE frequency bands in combination with 5G technology. Salt, which introduced its 5G network somewhat later and has yet to complete its expansion, is lagging slightly behind, but thanks to a powerful LTE network can still offer quite remarkable speeds.

The Swiss mobile networks also have a very high voice category performance level. Thanks to the expansion of voice over LTE (VoLTE) technology, the three operators provide very high quality voice services in terms of availability, call set-up times and call quality – both in large cities and in smaller towns and villages.

The three operators also provide a very similar level of service on Swiss roads, where their performance is almost as good as in urban areas. The test results for telephony while travelling by train are also at a very high level and exceed those of neighbouring countries.

Finally, crowdsourced measurements – that is, those taken by users themselves – confirm the test results and underline the high quality of Swiss mobile networks in terms of telephony, cov-

Users benefit from excellent quality and high reliability of all Swiss mobile networks

erage and download speeds. According to Connect, an analysis of the crowdsourced data also shows that very few customers still use 3G networks in Switzerland. The majority use 4G, while 5G usage is significantly higher than in Germany and Austria; in the Sunrise network, the numbers of 4G and 5G users are now nearly equal.

Data transfer rates

Mobile communications users in Switzerland enjoy high and ever-faster transfer rates.

Ookla's Speedtest Connectivity Report for Switzerland, which was published in early February 2025, analyses network bandwidths and quality based on user measurements collected in the second half of 2024 and confirms the high performance of Swiss mobile operators.

According to this report, Swisscom was the fastest mobile operator in Switzerland with download speeds of 131 Mbps, all technologies combined, followed by Salt with 108 Mbps and Sunrise with 99 Mbps. On 5G networks specifically, Swisscom achieved average download speeds of 153.6 Mbps, while Salt and Sunrise recorded 123 Mbps and 105.6 Mbps respectively.

Among the largest cities in Switzerland, Bern comes first with an average download speed of 142 Mbps, followed by Zurich (135.25 Mbps) and Basel (133.25 Mbps), while Lausanne has the lowest average of 91 Mbps.

According to Ookla's latest Speedtest Global Index, a ranking of the speed of mobile phone connections that was published in December 2024, Switzerland ranked 26th by international comparison, with average speeds rising significantly over the last twelve months, reaching 97.7 Mbps in 2024 compared to 83.10 Mbps in the previous year. Ranked in top position is the United Arab Emirates, where users enjoy average download speeds of over 453 Mbps, whereas the global average stands at 62.8 Mbps.

MOBILE COMMUNICATIONS USERS IN SWITZERLAND ENJOY HIGH AND EVER-FASTER TRANSFER RATES
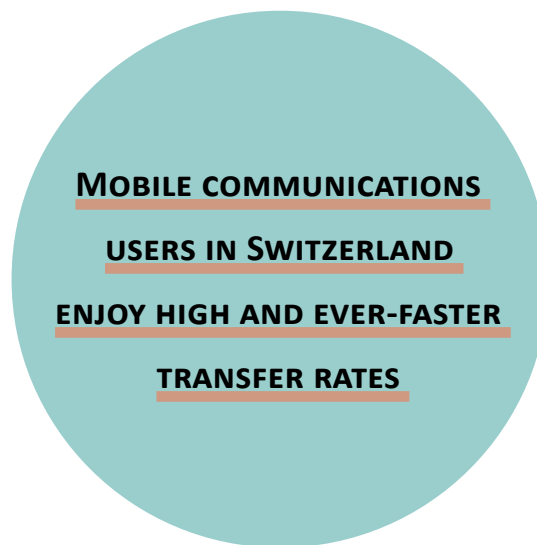
In the ranking of the major cities, Zurich is in 39th place with a transfer rate of 127 Mbps and Geneva in 65th place with 92 Mbps. The ranking is dominated by the Gulf states: Abu Dhabi (527 Mbps) and Dubai (424 Mbps) in the United Arab Emirates and Ar-Rayyan in Qatar (417 Mbps). The European cities with the fastest internet speeds are Copenhagen (5th place with 275 Mbps), Sofia (6th with 267 Mbps) and Oslo (8th with 238 Mbps).

Finally, a country ranking can also be found in Opensignal's Global Network Excellence Index, which was published in mid-February 2025. Based on user experience from the fourth quarter of 2024, the index evaluated the availability, quality and speed of 4G and 5G downloads across 137 markets.

In this ranking, which is dominated by the Nordic countries (Denmark 1st, Finland 3rd, Norway 4th) and Korea (2nd), Switzerland also comes out quite well, occupying 18th place. The availability of 4G/5G, which measures the proportion of time users are connected to these networks, reaches 96.4%. The average 4G and 5G speeds are 59.1 Mbps and 197 Mbps respectively, which means that Switzerland is ranked 15th and 38th respectively in these two specific categories.

Mobile communications pricing

According to the National Consumer Price Index issued by the Federal Statistical Office (FSO), which measures price trends on the basis of a basket of the principal consumer goods and services purchased by Swiss households, the general index for telecommunications services rose by 0.9% between 2023 and 2024, which was slightly below average inflation of +1.1% in 2024. The index for mobile telephone communications rose last year (1.8%) (cf. Fig. 3). After several years of sharp decline, prices for combined fixed and mobile services, which are becoming increasingly popular with customers, remained stable between 2023 and 2024 (+0.1%).

The mobile telephony prices covered by OFCOM's Statistical Observatory, which are based on the lowest rates offered by providers on the Swiss market, reveal considerable differences, however.

Fig. 3 : Consumer Price Index. Fixed and mobile networks communications

Fixed network Mobile network Combined offers for fixed and mobile networks
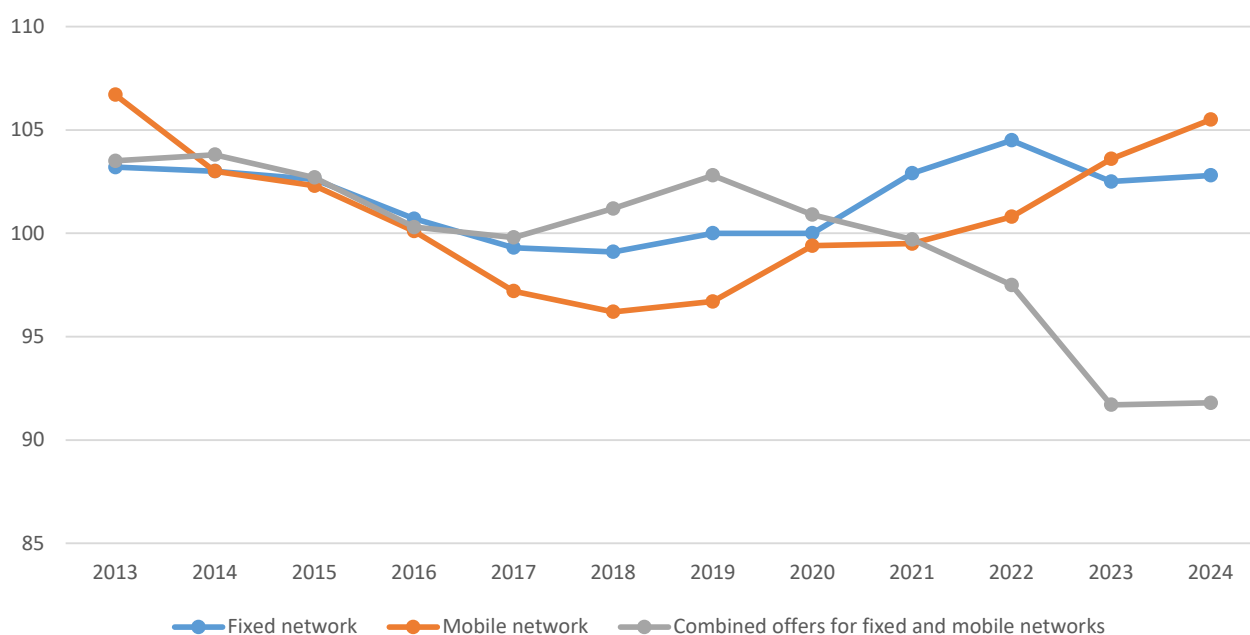
Base December 2020 = 100

Source : Federal Statistical Office

Regardless of the basket under consideration, the cheapest offer can be more than two to three times less than the most expensive.

The best offer for light phone users in 2024 (30 calls, 500 MB) was CHF 12 per month at M-Budget, which was about half the cost of the most expensive monthly offer, from Swisscom at CHF 23. For medium usage consumers (100 calls and 2 GB of data), the cheapest Salt offer at CHF 17 is almost 2.5 times cheaper than the equivalent Swisscom offer at CHF 39.90. For customers with high usage requirements (unlimited calls and 20 GB data), there is a difference of almost CHF 41 between Yallo's cheapest offer of CHF 19.50 and M-Budget's offer of CHF 60.40 (3 times more expensive).

Mobile telephony prices in Switzerland are still among the highest internationally for the medium basket. This is confirmed by the Teligen price baskets published by the market research company TechInsights, which are based on OECD methodology and take into account the most competitive products offered by the largest carriers in each country.

The baskets for Switzerland factor in the three network operators Salt, Sunrise and Swisscom, as well as the secondary and tertiary brands Yallo and M-Budget. These include products and service options from both the prepaid and contract segments. In August 2024, users in Switzerland paid CHF 5.50 more for an average basket of voice and data connections than the OECD-wide average (CHF 17 versus CHF 11.50). Measured in respect of the cheapest offer, Switzerland ranks 31st and thus falls within the top third of the more expensive countries. Only six countries have higher prices.

In respect of small usage requirements (30 calls and 500 MB of data), Switzerland ranks 33rd, i.e. among the third most expensive OECD countries. In 2024, Swiss customers paid CHF 3.70 more than the OECD average.

Users in Switzerland paid almost CHF 4.40 less per month for a large basket than the average of OECD countries (CHF 19.50 versus CHF 23.90). This places Switzerland 16th in the rankings, among the mid-range of countries.

2. Development of fixed networks

2.1. Access networks

For fixed network telephony, Switzerland has several backbone networks as well as high-quality access networks. Swisscom's access network is available nationwide.

The cable television (CATV) networks are well developed and offer fixed network connections in much of the country. Just over 80% of Swiss households have a CATV network connection.

Several market players have also been constructing optical fibre networks for over fiften years. In addition to Swisscom and the CATV operators, these are also the public utility companies that use these networks for themselves or make them available to other providers so that they can market their own telecom services.

2.2. Fixed network telephony

At the beginning of 2020, Swisscom's last fixed network connections were switched to All-IP – a technology that uses Internet Protocol (IP). The replacement of traditional fixed network telephony with IP technology is a global trend. Today, practically all data, including voice communication, is transported via IP-based networks.

Given the continuing boom in mobile telephony, the downward trend in the number of fixed network telephone lines in Switzerland continues. The number and duration of calls over the fixed network have been declining for many years now. According to the figures in OFCOM's 2023 statistical data collection, the number of connections made has fallen by 74% in the last ten years, from 3.4 billion calls (2013) to less than 890 million (2023), while during the same period the total connection time dropped by almost 65% from 12 billion minutes (2013) to 4.2 billion minutes (2023). After an 11% increase in 2020, resulting from the COVID-19 crisis (lockdown, working from home, etc.), the call duration in the three years since 2021 fell again by an average of 17% each year.

Fixed network telephony services via VoIP technology have been offered for many years by telecommunications service providers and CATV operators. Almost all fixed network subscribers now use a VoIP connection.

The number of customers who make calls via the fixed network using a telecommunications provider's VoIP connection (DSL, CATV, etc.) has tripled in the last ten years and almost reached the 3 million mark at the end of 2023 (2,874,255). In line with the trend described above, between 2022 and 2023, the number of customers accessing services via a VoIP connection fell by almost 4%, while the number and duration of connections via a VoIP connection fell by 16.1% and 15.6% respectively over the same period.

## 2.3. Broadband market on the fixed network

Switzerland has a high-performance broadband infrastructure. The economy and the population benefit from competition between different infrastructure providers and services thanks to a wide range of products.

Penetration rates

Switzerland has a high number of broadband contracts for connections over the fixed network. At the end of 2023, 46.2% of the Swiss population had broadband internet access (regardless of the technology used). Switzerland thus strengthened its position as one of the first three countries in the OECD-wide comparison, only lagging behind France (47%) and South Korea (46.6%). During the same period, the average for OECD countries was 35.8% (see Figure 4).

In contrast, Switzerland cannot claim to be the world leader in respect of direct fibre to the home connections (FTTH/B): According to OECD data, at the end of 2023, only 13.9% of the Swiss population had a fibre-optics contract. This puts Switzerland in the middle of the ranking – slightly below the OECD average (15.2% of the population), but still a long way below countries such as South Korea, which has a fibre-optic penetration of 41.8% of the population, Iceland (33.9%) and Norway (33.8%).

Fig. 4: Broadband penetration, top OECD countries, 2008-2023

per 100 inhabitants
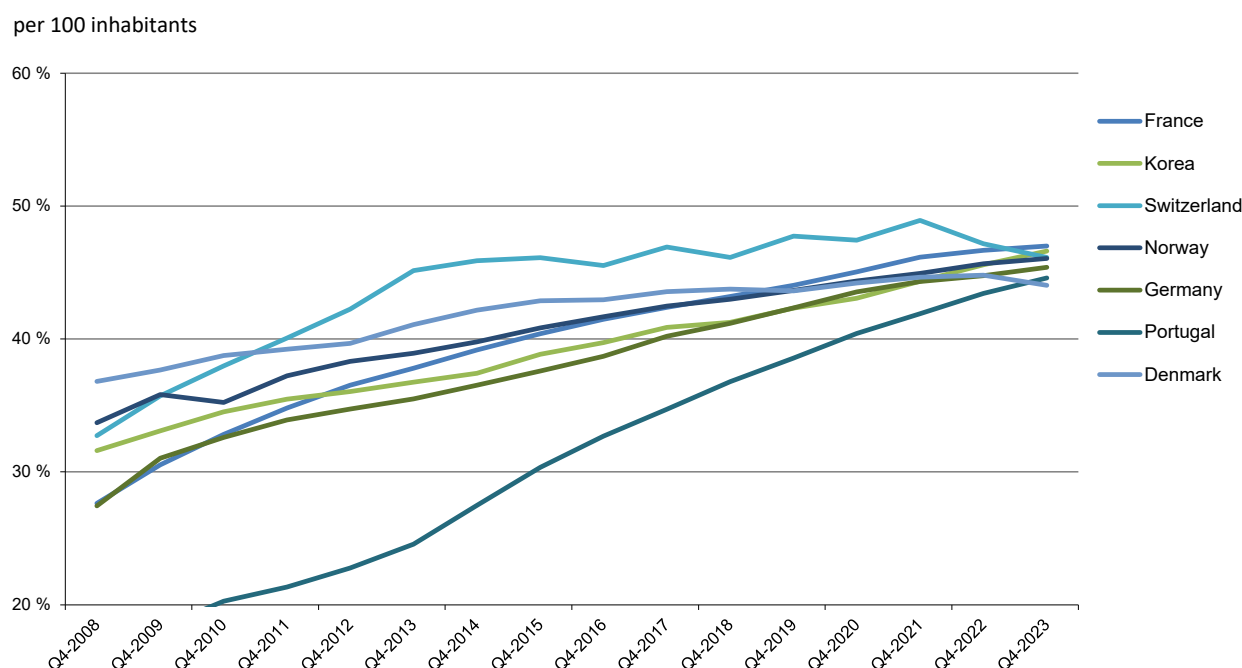
Source: Broadband Portal - OECD

Data transfer rates

The German trade magazine Connect has also investigated the quality and performance of fixed networks in Switzerland. The latest assessment of broadband networks in Switzerland, published at the end of August 2024, demonstrates a very high level of performance. For this purpose, the crowdsourced data – i.e. the performance and quality actually experienced by the customers – provided by the test partner 'Umlaut' was used.

Connect divides the operators into two categories: nationwide, such as Swisscom and Sunrise, and regional, such as Salt, Quickline and Netplus. Regardless of the category in question, the competition was at the highest level, as also demonstrated by the rarely awarded 'outstanding' grade, which was awarded to the five operators under consideration. In addition, in contrast to Germany and Aus-

tria, it is even possible to obtain connections with a nominal data rate of 10 Gbps over the Swiss fibre-optic network.

The high scores and the 'outstanding' rating for the two nationwide operators confirm the extremely high overall performance level. Sunrise achieves average download rates of 278.5 Mbps and Swisscom 220 Mbps. Sunrise offers users a maximum speed of 618 Mbps and Swisscom 539 Mbps.

Among the regional operators, Salt clearly sets itself apart from the other two operators, which nevertheless offer a very high level of service. The average download rates are: for Salt 331 Mbps, Netplus 168 Mbps and Quickline 149 Mbps The corresponding maximum values are 722 Mbps, 360 Mbps and 316 Mbps, respectively.

Switzerland's performance by international comparison is relatively good, varying according to the tool or method used. According to data collected by Ookla in December 2024 based on user tests, Switzerland ranks 10th in its classification with data transfer rates of 237 Mbps. The average (median transfer rates of 181 countries) is 96.5 Mbps.

Among Switzerland's neighbouring countries, only France, in 4th place, performs somewhat better with average data transfer rates of 279 Mbps. Austria and Germany are ranked far behind, occupying 49th place with 99 Mbps and 57th place with 94 Mbps respectively. Italy, with 90.5 Mbps, is ranked 63rd.

According to M-Lab data published by Cable.co.uk in July 2024, which measured the performance of users' internet connections in 220 countries and

territories between June 2023 and June 2024, Switzerland ranks 13th, with average transmission speeds of almost 162 Mbps. This means that our country has improved enormously, as over the last three years, Switzerland has typically been in around 40th place. Even in 2023, the average transfer rate was still only 75 Mbps. Home to nine of the top ten countries with the fastest broadband internet, Western Europe remains clearly ahead in this category. Iceland is the league leader with average data transfer rates of almost 280 Mbps, followed by Jersey in second place (273.5 Mbps), Liechtenstein (ranked 4th with 223 Mbps) and Denmark (ranked 5th with 210 Mbps). Macao (3rd with 235 Mbps) was the only non-European country to make it into the table of the ten fastest countries in the world. Moreover, all Western European countries belong to the top half of the ranking and together achieve the highest average data transfer rate (141 Mbps) at regional level; the average speed worldwide is just less than 55 Mbps.

It is worth noting that the major providers in Switzerland have since September 2021 provided customers with a standardised instrument for measuring the quality of their own internet access. This is available at www.networktest.ch and in the app shops for mobile devices.

Prices

According to the National Consumer Price Index issued by the Federal Statistical Office (FSO), prices for fixed-network communication services rose by just 0.3% between 2023 and 2024.

The prices of broadband services offered by the main service providers also tended to increase – often with significant price differences between the highest and lowest service offerings. This is confirmed by tracking the communications prices that are covered by OFCOM's Statistical Observatory. These are based on the lowest rates offered by providers on the Swiss market.

Irrespective of the type of basket, the cheapest offers are all provided by Salt for CHF 52.70 per month, while Swisscom offers are consistently

THE PRICES OF BROAD-BAND SERVICES OFFERED BY THE MAIN SERVICE PROVIDERS TENDED TO INCREASE

the most expensive. For small and medium baskets, Swisscom products are 18% more expensive and cost CHF 62.40 in both cases. Swisscom is also the most expensive provider for a large basket, costing CHF 74.90 or 42% more than that of Salt.

OFCOM has since 2020 published the survey of prices of product bundles on fixed and mobile networks on its Statistical Observatory website. These products meet the needs of a growing number of consumers who want to purchase all telecommunications services from the same provider. Further information can be found on the OFCOM website.

Prices for broadband services in Switzerland remain higher than the OECD-wide average. According to the Teligen price baskets published by TechInsights, which for Switzerland take into account only Swisscom, Sunrise, Salt and Quickline, the lowest-cost product for medium usage offers a transfer rate of at least 100 Mbps and 120 GB for around CHF 52.70 per month.
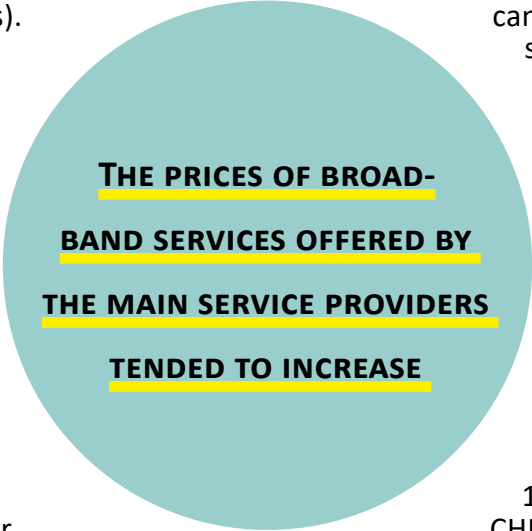
In September 2024, such a medium-usage basket cost almost CHF 24 per month more than the OECD-wide average (CHF 28.60). A small basket (60 GB and a transfer rate of at least 25 Mbps) cost Swiss consumers CHF 26.50 more (CHF 52.70 vs CHF 26.20). For these two baskets, Switzerland is one of the five most expensive countries.

Among baskets with a data volume of 300 GB and a transfer rate of at least 1 Gbps, Switzerland still occupies 27th place in the ranking. Prices are only higher in eight other countries. With a price of CHF 52.70 for a large basket, Swiss customers still paid CHF 11.40 more in 2024 than the OECD-wide average (CHF 41.30).

Structure of the broadband market

Looking at broadband providers as a whole (CATV, DSL and FTTx), Swisscom remains far ahead of its closest competitors, with a market share of around 45% at the end of 2024.

The market share of Sunrise was close to 30.5%, that of the CATV operators around 11% (including

Quickline with 4%), while the market share of other telecom operators was 7.5% and of Salt 6%.

The number of domestic fibre-optic contracts (FTTH/B) in Switzerland is gradually increasing, with the broadband market almost saturated at around 4.4 million connections. Growth of the fibre-optic segment is primarily the result of DSL subscribers switching to this fibre optic technology. At the end of 2024, the estimated number of fibre-optic connections amounted to around 32% of total broadband connections in Switzerland, or around 1.4 million.

By international comparison, the growth in fibre-optic subscriptions in Switzerland (+7.5% between December 2022 and December 2023) is only half the OECD average (+14%) and well below that of its neighbours. Austria recorded growth of +38.9%, Italy +26.9%, Germany +24.8% and France +18.2%.

In terms of fibre-optic usage, Switzerland still lags behind the rest of the world by 30%: in the OECD countries, fibre-optic penetration in broadband was over 42.5% at the end of 2023. Although Switzerland is better positioned than most neighbouring countries, such as Italy (24.3%), Austria (11.2%) or Germany (11.2%), only France has a relatively high share of fibre-optic contracts (66.3%), making it one of the 15 OECD countries whose share exceeds 60% (cf. Fig. 5).

For OECD countries, it should be noted that fibre-optic connections (42.5% at the end of 2023) have outperformed cable connections since 2022 (29.6%) and that fibre optics has become the most important technology for fixed broadband connections. Copper-based DSL technology, which is steadily losing importance, accounted for just 20.3% of broadband contracts at the end of 2023. In Switzerland, too, the share of fibre-optic lines (30%) is higher than that of CATV (24.9%), although DSL (43.9%) remains the dominant technology.

Expansion of ultra-fast broadband networks
In contrast to its superior ranking in the provision of broadband services via hybrid fixed networks, Switzerland is not a world leader when it comes to Fibre to the Home (FTTH).
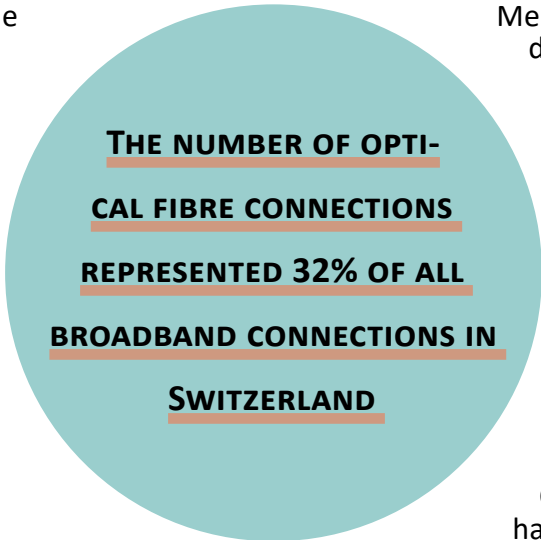
Most EU countries have a state ultra-fast broadband strategy; the expansion of fibre optics is therefore continuously supported by the state. The EU itself has set the target of 2030 – the end of the 'digital decade' – as the date by which all households in Europe should have gigabit connectivity. The EU approved the new Gigabit Infrastructure Act in spring 2024 and it came into force in May 2024. The Act updates the regulations to make the roll-out of gigabit networks faster, cheaper and easier. Measures for this include: coordinating construction work, sharing infrastructure and simplifying administrative procedures with the aim of reducing development costs.

For the last 15 years, various players in Switzerland have also been investing considerable sums of money in rolling out the use of fibre optics in the access network. Since 2008, over CHF 1 billion a year on average has been invested in the renewal of the fixed network infrastructure (cf. OFCOM's telecommunications statistics). Exact figures on the FTTH rollout are not yet available. For example, in its 2024 annual report, Swisscom revealed an investment of CHF 714 million in the fixed network access area (more specific fibre-optic expansion figures were last reported by Swisscom for 2023: investment of CHF 466 million).

The infrastructure competition has also played an important role in fibre-optic expansion over the last 15 years, as cable TV network operators have also invested in the modernisation of their connections based on the DOCSIS 3.1 specification. In the meantime, the CATV operators are partially replacing their coax connections with fibre-optic connections into the home. According to the Suissedigital association, very fast data transfer at up to 1 Gbps can be offered over around 90% of CATV connections. These hybrid fibre coax (HFC) networks thus achieve speeds that are only otherwise achieved using fibre optics in telecom networks.

THE NUMBER OF OPTICAL FIBRE CONNECTIONS REPRESENTED 32% OF ALL BROADBAND CONNECTIONS IN SWITZERLAND

For more than 15 years, fibre-optic lines have been routed to homes in numerous cities and regions by local energy supply companies (distribution network operators, DNOs) – often in cooperation with Swisscom (FTTH). As part of these cooperative ventures, the partners work together to build a local FTTH network.

Some of the cooperative ventures started in 2008 have now been completed (e.g. Basel, Bellinzona, St Gallen, Yverdon and Zurich), while others are likely in their final phases. The larger cities, as well as many smaller towns and communes, have been connected based on cooperative ventures such as these. As far as it has been made public, new fibre-optic cooperation projects between Swisscom and local energy suppliers or cable networks continue to emerge (as was recently the case with GAGNET in the Seeland or in Sennwald, Benken and Volketswil). However, there are far more communes in which Swisscom is investing alone in fibre-optic expansion (see below).

There are other market participants in Switzerland who are investing in new fibre optic infrastructure and stimulating competition in the fibre-optic sector:

Swiss4net independently invests in local fibre-optic networks. It plans, builds and finances FTTH networks in Point-to-Point (P2P) architectures in locations where it can share use of the necessary piping systems of the commune or the DNO over the long term (cf. www.swiss4net.ch). Swiss4net is investing in at least eight local fibre-optic networks in all parts of the country. Various telecom providers deliver their services via the networks operated by Swiss4net.

In contrast, Swiss Fibre Net AG (SFN) is an association of energy suppliers that cooperate in marketing their local fibre-optic networks. It comprises five shareholders – the utility providers for the cities of Bern, Lucerne and St Gallen, plus the network carriers Danet (Upper Valais) and Didico (Meilen-Herrliberg). The SFN association is growing continuously and currently includes 66 network partners.

SWITZERLAND IS NOT AMONG THE MOST ADVANCED COUNTRIES IN TERMS OF FIBRE OPTIC CONNECTIONS IN HOUSEHOLDS (FTTH)

SFN offers service providers from all over Switzerland that do not have their own access networks (e.g. Init7, iWay.ch, GGA Maur, Salt, Sunrise and VTX) the opportunity to use a shared platform to source standardised FTTH products for resale. It also offers mobile operators fibre-optic connections for mobile communications antennas.

In recent years, however, SFN has evolved: it no longer focuses solely on the marketing of FTTH connections from the network partners via the 'Alex' ordering platform, which dates back to the ComCom FTTH round table. Instead, it is increasingly dedicated to the planning, implementation and operation of FTTH networks in regional partnerships, and founded the subsidiary Swiss FibreCo to this end in 2024.

In many places, Swisscom is investing in the modernisation of its fixed network without a collaborating partner. For a long time, it primarily relied on a technology mix of copper cable and fibre (FTTC or FTTS). Since about 2020, Swisscom has increasingly been routing fibre directly into households. It has done so using Point-to-Multipoint (P2MP) network architecture.

In December 2020, however, the Swiss Competition Commission (COMCO) opened an investigation into whether this network architecture favoured by Swisscom was permissible under competition law. Through precautionary measures, COMCO has prohibited Swisscom 'from denying competitors access to continuous lines when expanding the fibre-optic network' (COMCO press release dated 17/12/2020). Swisscom was no longer allowed to market the connections that it had already built in P2MP architecture.

During the ongoing COMCO process, Swisscom announced in October 2022 that it intends to 'largely implement new connections in point-to-point architecture (P2P) and partially convert existing P2MP connections to P2P' (Swisscom media release of 27 October 2022).

On 25 April 2024, COMCO published its decision on Swisscom's FTTH network construction strategy. According to COMCO, Swisscom began to

Fig. 5: Percentage of fibre connections in total fixed broadband, December 2023
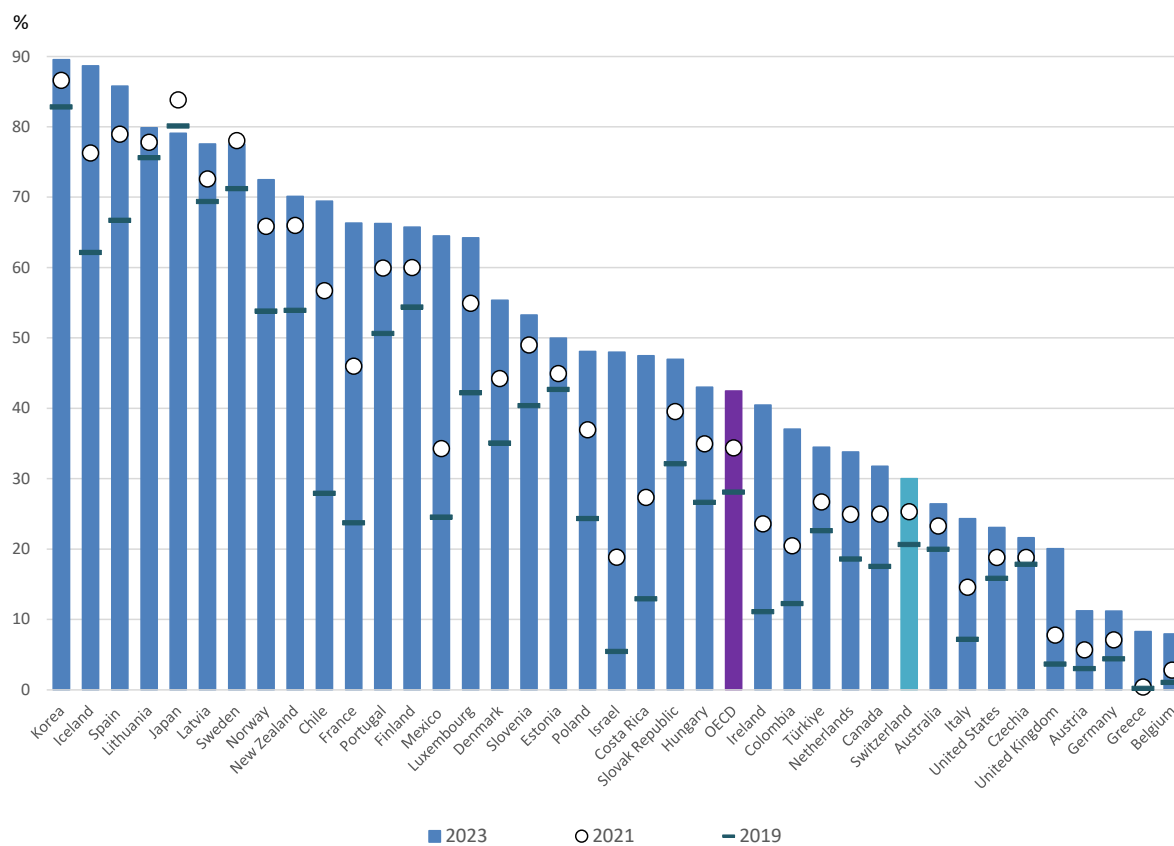
Source: Broadband Portal - OECD

build fibre-optic networks using the P2MP architecture from the start of 2020, meaning other providers could no longer lease fibre. As a result, competitors were 'largely deprived of their business opportunities,' and Swisscom 'created a de facto monopoly for itself' (COMCO press release of 25 April 2024). COMCO fined Swisscom around CHF 18 million and set it targets for expanding the fibre-optic network. This notably includes an obligation for Swisscom to expand the fibre-optic network in such a way that its competitors can lease dark fibre and provide their own services ('layer 1 access'). Swisscom has filed an appeal with the Federal Administrative Court (FAC) against this decision.

By the end of 2024, Swisscom had connected 52% of homes in Switzerland using fibre and was planning to increase coverage to around 57% by the end of 2025. Likewise, according to its 2024 Annual Report, Swisscom plans to provide 75 to 80% of households and businesses with FTTH connections by 2030. Swisscom also states as its final goal that 'virtually the entire population should have internet access with bandwidths in the gigabit range by 2035' (see Swisscom Annual Report 2024, p. 81).

This network expansion also forms the basis for Swisscom's plan to gradually phase out the old copper telephone network over the next few years. In the medium term, the copper network is to be replaced by fibre

before being taken out of service. According to Swisscom, decommissioning the copper network will reduce the complexity of the networks and systems and save around 100 GWh of electricity annually, which corresponds to the annual consumption of a town with 20,000 inhabitants (see Swisscom Annual Report 2024, p. 22).

The Federal Council's Gigabit strategy

In spite of all the development goals, it will ultimately not be economically viable to connect a certain number of households. If fibre or gigabit bandwidths are to be available everywhere, then political will is needed to support the rollout of financially unviable connections.

So far, FTTH expansion has largely been market-driven, without financial support from the federal government. To date, there have been no politically defined provision targets and no financial support models in Switzerland. This is unlike EU countries, which have been promoting broadband development for some time under national strategies.

The market-driven development of optical fibre provision has led to impressive results in many regions, especially central and commercially attractive ones. But it is becoming ever more clear that there are many peripheral areas that are unlikely to ever be profitably developed by private companies using fibre optics.

In April 2021, the Commission for Transport and Telecommunications adopted a postulate calling for the development of a 'federal very high-speed broadband strategy' (Po. 21.3461 of 27 April 2021). The fact that this proposal was accepted by a clear majority in the National Council shows that politicians have recognised the need to promote fibre-optic expansion in peripheral areas.

In June 2023, the Federal Council presented a report with proposals for a Swiss very high-speed broadband strategy and subsequently announced its 'gigabit strategy' in December 2023. This aims to achieve nationwide coverage of at least 1 Gbps. From ComCom's point of view, this is also an important target which will allow both businesses and the general public throughout Switzerland to benefit from digitalisation.

In December 2023, the Federal Council presented a rough outline of what this gigabit strategy should look like. Companies will be encouraged to invest in unprofitable regions through a temporary subsidy programme in which the federal government finances the 'profitability gap'. This federal funding for network expansion is to be financed primarily with the income from the next two mobile frequency awards, for which ComCom is responsible.

On 14 March 2025, the Federal Council opened the consultation procedure on the new 'Broadband Promotion Act' (BPA), which further details

COMCOM WELCOMES THE POLITICAL COMMITMENT TO SUPPORT THE ROLLOUT OF FINANCIALLY UNVIABLE FTTH CONNECTIONS

the gigabit strategy. The subsidy programme stipulates that the initiative for the development projects to be supported must come from the communes. The cantons should also play an important role in this process by examining whether the expansion projects are eligible for funding. The cantons and the federal government each contribute half of the required funding. In addition, the federal government intends to cover a maximum of 25% of the eligible costs incurred as a result of the expansion and the operation of passive infrastructure (Art. 6 E of the BPA).

Communes are eligible for funding if they include areas in which no expansion is planned for the coming years and in which network expansion is demonstrably financially unviable. The subsidy programme will run for 7 years and can be extended once by 3 years. The funding is limited to a maximum of CHF 730 million, of which the federal government will pay up to CHF 365 million. As already announced in December 2023, these federal funds will be covered through revenues from mobile frequency allocations.

According to the estimates in the consultation document, this subsidy programme could affect up to 10 per cent of homes and businesses (about 650,000 locations) in around 700 communes. The focus is on fibre-optic access, but a small fraction of the sites where expansion with fibre optics would be particularly expensive could also be connected via fixed wireless access (FWA; radio connection).

2.4. DIGITAL TELEVISION IN SWITZERLAND

The market for digital television is evolving under the pressure from streaming platforms and consumers' changing habits.

The telecommunications providers active in the digital TV market are facing growing competition because there are more and more players with combined broadband/phone/TV offers and also more and more offers from streaming platforms.
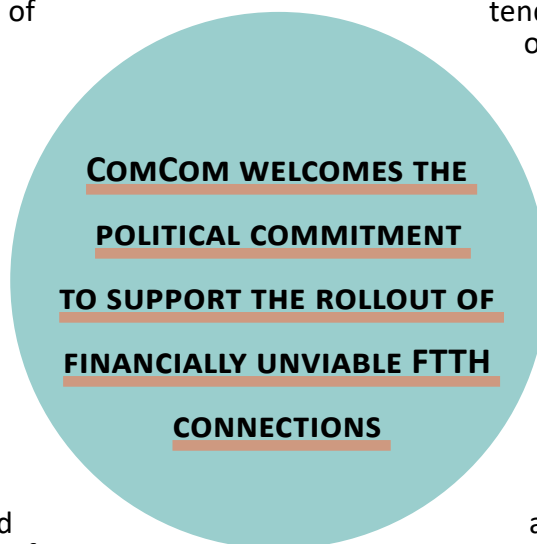
According to the IGEM Digimonitor study on media use in Switzerland, published at the beginning of September 2024, streaming services are gaining in importance, but traditional television remains by far the most important medium in Switzerland and is still watched by a large part of the population: 5.9 million people watch it regularly, with 3.5 million watching it daily (56% of the population). The study indicates that the 2024 results are not comparable to those of previous years because of a change in methods.

Among the market leaders in video streaming, YouTube has 5 million users in Switzerland (79% of the population), and thus is ahead of Play SRF/RTS/RSI (3.6 million, 57%) and Netflix (3.4 million, 54%). However, these media are used less frequently than television, with YouTube for example recording 1.76 million viewers per day (28% of the population) and Netflix 1 million (16%).

On average, Swiss people use six electronic devices for media consumption. With 6 million users (96% of the population), the smartphone is the most frequently used device, closely followed by the television (5.7 million people, 91%) and the laptop (5.4 million, 86%).

Consumption habits and patterns are becoming more and more diverse and are evolving not only under the influence of trends – such as live consumption, time-shifted viewing via streaming, or the use of a range of devices, such as TVs and mobile devices – but also under the influence of economic factors such as inflation and increasing subscription prices.

Against this particular background, the telecom providers have witnessed a decline in TV customer numbers over a number of years. Between 2023 and 2024, this decline was 40,000 customers (-1%).

The Sunrise/UPC merger in 2021 changed the balance of power between the main players in this market segment, although it has yet to have a significant impact on the market structure. Sunrise was able to maintain its customer numbers and market share at the 2021 level, while Swisscom lost 1.5 percentage points over the same period. On the other hand, Salt – the last company to enter the broadband internet and fixed network TV market, in 2021 – was the only operator to record significant growth, with an increase of more than 2.5 percentage points over the same period.

With just over 2 million digital television customers, CATV operators remain the market leaders in Switzerland with a market share of around 53%, even though they are steadily losing customers in their core business, recording a loss of 36,000 customers in 2024, a decline of 1.8%.

But considering the providers individually, Swisscom was able to maintain its leading position even in the difficult economic situation. Despite losing 44,000 customers in 2024 (-2.9%), Swisscom still had almost 1.5 million digital TV subscribers; by the end of 2024, its market share had fallen slightly to 39.5%.

During the same period, Sunrise (including UPC) gained around 1500 customers (+0.1%) and was able to maintain its market share of 26.5%.

Quickline, the association of several CATV operators, has seen a slight upturn in the number of its TV customers (+800 or +0.3%). With just over 300,000 customers at the end of 2024, Quickline's market share remained consistent at around 8%. The market share of the other CATV operators reached about 19% and that of Salt, which gained more than 42,000 customers in 2024 (+19%), increased to 7% (see Fig. 6).

Fig. 6: Market shares of digital TV in Switzerland in 2024
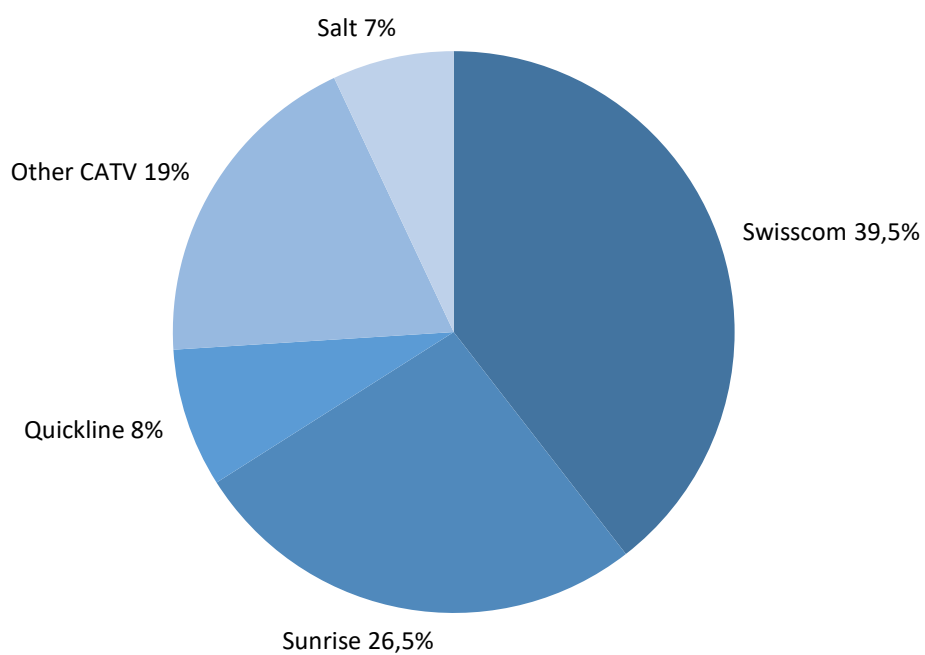
Sources: Operators, SUISSEDIGITAL
excluding satellite/terrestrial

II. Commission and secretariat

1. Commission

ComCom is an independent extra-parliamentary commission tasked with licensing and market regulation in the telecommunications sector.

Under the Swiss Telecommunications Act (TCA), ComCom's main tasks are:

- Granting licences for the use of radio frequencies (Art. 22a TCA)

- Awarding the universal service licence (Art. 14 TCA)

- Determining access prices and conditions when service providers fail to agree among themselves (Art. 11a TCA)

- Determining conditions of access to the building entry point and the joint use of installations within buildings in the event of disputes between providers (Art. 35b TCA)

- Imposing measures and sanctions in the event of violations of the law in connection with a licence granted by ComCom (Art. 58 TCA).

The Commission comprises seven independent experts appointed by the Federal Council.

In 2024 its members were as follows:

- **Christian Martin**, President, Electrical Engineer (School of Engineering), Managing Director and Owner of Martin Engineering AG

- **Stephanie Teufel**, Vice-President, Ph.D in Computer Science, independent scientific consultant, Emeritus Professor at the International Institute of Management in Technology at the University of Fribourg

- **Christine Benesch**, Dr. oec., Product and Project Manager, frentix GmbH, Zurich, Head of the Economics Degree Programme and Lecturer at the Zurich University of Applied Sciences in Business Administration (HWZ)

- **Matthias Grossglauser**, Ph.D in Computer Science, Professor at the Swiss Federal Institute of Technology Lausanne (EPFL)

- **Patrick Krauskopf**, Dr. iur., Professor and Head of the Center for Competition Law and Compliance at Zurich University of Applied Sciences (ZHAW)

- **Jean Christophe Schwaab**, Dr. iur., Member of the Communal Council of Bourg-en-Lavaux

- **Flavia Verzasconi**, Lawyer and Notary, President of the Administrative Court of the Canton of Ticino.

At its meeting on 22 November 2023, the Federal Council appointed Christian Martin, a member of the Commission since 2018 and Vice-President since 2021, as President of ComCom with effect from 1 January 2024, succeeding Adrienne Corboud Fumagalli. In addition, the Federal Council appointed Stephanie Teufel, member of the Commission since 2017, as Vice-President of ComCom.

On 22 November 2023, the Federal Council also held the general elections to the extra-parliamentary bodies for the period 2024–2027. All the members of ComCom were re-elected. At the same meeting, the Federal Council appointed the economist Christine Benesch, who has a PhD in media economics, as a new member from 1 January 2024, ensuring that ComCom once again has a full complement of members.

The list of members of the non-parliamentary bodies for the 2024–2027 term of office is available under: https://www.admin.ch/gov/de/start/dokumentation/ausserparlamentarische-kommissionen/gesamterneuerungen.html (for ComCom see p. 210, only available in French).

The Commission normally meets once a month. In addition, its members spend a lot of time preparing the meetings and issuing statements by circulation. The Commission also met for a two-day internal seminar in the spring.

2. Secretariat

The Commission is assisted by its Secretariat, which is responsible for business management and public relations. The Secretariat coordinates the Commission's activities with OFCOM, which prepares ComCom's business matters and generally implements its decisions.

The Secretariat comprises a Commission secretary (90%), a research associate and webmaster (80%) and an administrative secretary (70%).

The Members of the Secretariat will be happy to provide you with any information you might require:

- ◆ **Peter Baer**, Secretary of the Commission

- ◆ **Pierre Zinck**, Scientific Collaborator and Webmaster

- ◆ **Jacqueline Fischer Pulfer**, Administrative Assistant.

The 2024 Commission (from left to right): Flavia Verzasconi, Stephanie Teufel (Vice-President), Matthias Grossglauser, Christian Martin (President), Patrick Krauskopf, Christine Benesch and Jean Christophe Schwaab (*Photo: Sandra Stampfli)*

III. Activities of the Commission

The following sections provide an overview of ComCom's activities in 2024.

1. Access cases

To facilitate competition in the telecoms market, the Telecommunications Act (TCA) requires dominant telecoms service providers to provide other operators with access to their infrastructure and services in certain areas in a transparent and non-discriminatory manner at cost-based prices.

The four areas remaining since the last revision of the Act in 2019 in which such access must be granted are listed in Article 11 paragraph 1 TCA:

1. Full local loop unbundling (only applies to copper lines)
2. Interconnection
3. Leased lines
4. Access to cable ducts, provided these have sufficient capacity.

In the 2019 revision of the TCA, parliament decided not to introduce technology-neutral network access regulation. However, the new Article 3a TCA requires the Federal Council to present an evaluation report on the development of the telecoms market every three years and submit proposals to promote effective competition where necessary.

In March 2024, the Federal Council submitted its first evaluation report to Parliament. In this report, the Federal Council stated that Switzerland has a reliable and affordable universal service and that the overall competitive situation is stable. Only in the area of fibre-optic connections to homes (FTTH) has the situation become more dynamic.

However, the evaluation report also states that the expansion of fibre optics is mainly confined to profitable parts of the country. Supply gaps in rural areas continue to exist. To ensure that very high bandwidths become available nationwide for fixed network connections in the longer term, the Federal Council mandated the development of a gigabit strategy in December 2023. Ultimately, the Federal Council has decided not to propose any legislative amendments to promote competition pursuant to Article 3a TCA at this time.

ComCom supports the Federal Council's plan to adopt a gigabit strategy to promote nationwide connection with very high bandwidths. If, in the near future, Parliament deals with this strategy or with a forthcoming revision of the TCA, from ComCom's point of view, it should look more closely at the types of instrument that could be used in the future to ensure that all providers have access to the new fibre-optic infrastructure and that end customers thus have a wide range of competing offers.

The following section briefly describes the access cases involving ComCom in 2024.

1.1. Interconnection and other forms of access pursuant to Art. 11 TCA

In February 2019, ComCom had decided in rulings on disputed access prices in the following cases:

a. Sunrise vs Swisscom concerning prices for interconnection, unbundling, leased lines and cable ducts for the years 2013–2016
b. Salt vs Swisscom concerning the prices for interconnections and leased lines for the years 2014–2016.

In two judgments dated 16 July 2021 on the appeals filed by the parties, the Federal Administrative Court confirmed the approach taken by ComCom on many points, but it also referred a number of points of contention back to ComCom for reassessment (A-1286/2019 and A-1496/2019; cf. www.bvger.ch).

The points raised by the court were addressed in the instruction by OFCOM. The majority of them concerned the further examination of certain aspects relevant to price calculations or with gave more detailed reasons for individual decisions.

In April 2023, ComCom once again ruled on the disputed access prices for the years 2013 to 2016. Since one party had again challenged these decisions, an exchange of documents relating to the appeal took place before the Federal Administrative Court in the summer of 2023.

The price calculations from 2017 onwards can be resumed once a final decision has been taken and thus a stable basis for the price calculations has been obtained.

1.2. Interconnect peering

In the access case between Init7 and Swisscom regarding peering, ComCom rejected Init7's application in July 2018. ComCom had assumed that competition in peering was functioning properly (see 2018 ComCom activity report).

However, Init7's appeal against this decision was upheld by the Federal Administrative Court on key points and referred back to ComCom for a new decision (judgment of the Federal Administrative Court of 22 April 2020, A-5235/2018). With regard to the period from 2013 to January 2016, the court judged Swisscom to be a dominant undertaking in terms of Article 4 paragraph 2 Cartel Act. The court called for the question of market dominance in the period thereafter to be clarified.

The Competition Commission (COMCO) was subsequently invited to prepare an expert opinion on the question of market dominance from 2016 onwards. In its expert opinion of 25 October 2021, COMCO concluded that 'because of the non-customary combination of two standard market contract types (peering and transit) with DTAG' (Deutsche Telekom AG), Swisscom held market dominance over those providers who are not in a position to enter into a peering agreement with DTAG (see COMCO's publication series RPW, 2022-2, p. 545ff.).

OFCOM then resumed the proceedings and, following complex clarifications and extensive correspondence, submitted a draft decision to ComCom in autumn 2024.

As a result of the investigations and the market dominance established by COMCO, ComCom ordered a 'zero settlement peering' arrangement between Init7 and Swisscom in December 2024. In a 'zero settlement peering' arrangement, both contracting parties bear their own costs, irrespective of the amount of data transferred in either direction.

For example, peering traffic from a content provider to the end customers of an internet service provider (ISP) occurs when the end customers retrieve specific content via the internet.

End customers pay the ISP a subscription fee for their internet connections and, in return, receive worldwide access to websites and content providers. According to the ComCom decision, this internet subscription also covers the transport of the data requested by the end customers via the network of their ISP.

Any additional costs incurred in the ISP's network by providing end customers with access to the internet are assigned to the internet subscription service. ComCom concluded that the peering between Init7 and Swisscom thus leads to no relevant additional economic costs that are not already covered by the end customers' fees for their internet connections.

As Swisscom holds a dominant market position, it must offer Init7 peering in a non-discriminatory manner at a price of CHF 0.00 ('zero settlement peering').

This decision by ComCom is not yet final, as it has been challenged by a party before the FAC.

1.3. Access to the building entry point and installations within buildings

During the last revision of the Telecommunications Act, a new Article 35b was inserted. This specifies: 'Every telecommunications service provider shall have a right of access to the building entry point and of joint use of the installations within the building intended for telecommunications transmission provided this is technically justifiable and there is no other good cause for refusal' (Art. 35b para. 1 TCA). This provision has been in force since 1 January 2021.

In February 2023, a telecommunications service provider made a request for access to the building entry point and to the installations in a building built by a fibre-optic network operator. The latter considered that it was not subject to the provision of

Art. 35b TMA because it did not offer any tele-communications services itself.

For reasons of procedural economy, OFCOM proposed to ComCom that the fundamental question of the obligation to offer access be clarified first, before any complex price calculation was undertaken.

ComCom decided in a partial ruling in December 2023 that the applicant was liable to offer and had to grant access to the building entry point and to the installations in the building. This ruling was contested and the proceedings have since been pending before the Federal Administrative Court.

2. LICENCES

Under the Telecommunications Act, ComCom is responsible for granting radio communications licences for the provision of telecommunications services (Art. 22a TCA) and the universal service licence (Art. 14 TCA).

ComCom has permanently delegated to OFCOM the task of awarding radiocommunications licences that do not use a scarce frequency spectrum and are therefore not subject to a public tender (e.g. licences for private companies' radio networks). Information concerning licences awarded by OFCOM can be found on the www.bakom. admin.ch website.

The following overview deals only with those licences awarded by ComCom itself.

2.1. UNIVERSAL SERVICE

The universal service comprises a basic range of telecoms services of a good standard which must be offered throughout the country at an affordable price to all sections of the population. These services are designed to allow all sections of the population to participate in social and economic life. The universal service also includes special services that enable people with disabilities to communicate.

The provisions that are part of the universal service are periodically adjusted by the Federal Council to meet social and economic needs as well as the state of the art. The services includ-

ed in the universal service and the price ceilings were last redefined by the Federal Council in the Ordinance on Telecommunications Services at the start of 2024 (see Art. 15 and Art. 22 OTS).

Since the beginning of 2024, the universal service licensee has had to offer the following telecom services throughout Switzerland (Art. 15 OTS):

◆ Services for people with disabilities:

  ▪ For people with hearing disabilities, a round-the-clock transcription service, which also covers emergency calls, and an SMS intermediary service. Moreover, since 2018, there has been a daytime relay service for sign language users via video telephony.

  ▪ For the visually impaired and people with reduced mobility, there is a round-the-clock directory enquiries and operator service which guarantees access to the directory data of customers of all providers at all times, using the 1145 number.

◆ A telephone line with a telephone number (at the price of CHF 23.45 per month excl. VAT).

◆ A directory entry (each household can request a second entry free of charge).

◆ An internet connection in two variants:
a) with 10 Mbps download and 1 Mbps upload speed (for CHF 45 per month excl. VAT),
b) with 80 Mbps download and 8 Mbps upload speed (for CHF 60 per month excl. VAT).

The new broadband internet access option with 80 Mbps, available as part of the universal service since the beginning of 2024, is unique within Europe. Implementation is technology-neutral, meaning the universal service licensee can provide customer access either via a physical line or, if required, using mobile or satellite-based solutions. In addition, the licensee can claim a contribution towards costs exceeding CHF 12,700 in the case of particularly expensive infrastructure.

A subsidiarity principle also now applies to the universal service: if the market already provides an equivalent alternative at a particular location, the universal service obligation is considered to

be fulfilled in that location and the licensee does not have to provide a universal service offering. This protects investments already made and prevents duplication of coverage at unprofitable locations.

Universal service licence

The universal service licence is awarded by ComCom by means of an invitation to tender and a criteria-based competition if there are several interested parties (Art. 14 TCA and Art. 12 OTS). If no – or only one – interested party comes forward, ComCom designates the licensee (in accordance with Art. 14 para. 4 TCA).

In May 2023, ComCom awarded Swisscom the universal service licence for 8 years. This new licence runs from 1 January 2024 to 31 December 2031.

In principle, the licensee is entitled to financial compensation for any uncovered costs of providing the universal service. The TCA provides for the establishment of a fund for this purpose. However, as Swisscom has not claimed any uncovered costs so far, this fund has not yet been activated.

The Federal Council has defined quality criteria for universal service provision in Article 21 OTS, which the licensee must fulfil. As the market supervisory authority, OFCOM checks annually (on the basis of reports from Swisscom) whether the licensee is providing the universal service to the required standard. Swisscom has consistently fulfilled these quality criteria, including in 2024.

2.2. Mobile network licences

In 2012, all mobile frequencies available at the time were reallocated in an auction for CHF 996 million. Seven years later, newly available frequencies in the 700 MHz, 1400 MHz and 3500–3800 MHz bands were auctioned for mobile communications use for CHF 380 million (see the 2012 and 2019 activity reports for more information on these auctions).

ComCom awarded these frequencies on a technology-neutral basis. This means that operators can decide for themselves which internationally recognised technologies they want to use. Similarly, network operators are independently responsible for deciding when they want to decommission older, less efficient technologies (such as 2G or 3G) and for informing their customers in good time (for more on the 3G shutdown, see section I.1 above).

Salt, Sunrise and Swisscom are more than fulfilling the coverage obligations set out in the mobile network licences. For example, these network operators offer good mobile coverage extending far beyond inhabited areas (see chapter I.1 for more information).

Preparations for the reallocation of mobile frequencies

In 2012, ComCom auctioned off the core of the frequency spectrum, which has since been used in mobile communications for over 20 years, to the three network operators. These mobile network licences will expire at the end of 2028 and the frequencies being released will have to be reallocated. Of particular interest here are the important frequency bands of

800 MHz, 900 MHz, 1800 MHz, 2100 MHz and 2600 MHz.

Experience shows that preparing and implementing a frequency allocation procedure takes several years. OFCOM therefore launched a public consultation on behalf of ComCom at the end of 2023 to identify the needs of the mobile communications sector and other stakeholders in these frequency ranges. This firstly related to the above-mentioned frequency bands that are due to be reallocated. Secondly, it also included questions on frequencies in the new 6 GHz, 26 GHz and 40 GHz ranges, which until now have been used for applications other than public mobile communications.

OFCOM received 33 statements from network operators, industry and trade associations, blue light organisations, private individuals, and federal and cantonal authorities. Since the OFCOM website contains both a detailed summary of the submissions and all the individual statements (see www.bakom.admin.ch, 'Consultations'), only a few selected aspects are mentioned here:

◆ The mobile communications sector wants to retain the 2012 frequency allocation without an invitation to tender and, in its statements, advocates extending the licences that are due to expire. Before allocating new frequencies (i.e. 6 GHz, 26 GHz or 40 GHz), the framework conditions would have to be clarified.

◆ The authorities and organisations in charge of rescue and safety highlight the need for frequencies for a future mobile security communications system from 2030. However, the Federal Council would have

to allocate such frequencies in the national frequency allocation plan.

◆ Other statements indicate a fundamental scepticism about mobile communications and reject the use of millimetre waves.

◆ Another group of statements focuses on safeguarding satellite communications and using the 6 GHz band. From the mobile communications sector's point of view, these are important frequencies for the future, while others primarily demand licence-free use with Wi-Fi in the 6 GHz band.

Only existing frequencies to be allocated

After evaluating the statements, ComCom has decided that only the frequency bands allocated in 2012 will be included in the next mobile frequency allocation. The allocation of new spectrum in the ranges 6 GHz, 26 GHz or 40 GHz will not go ahead, as there is currently only limited interest in these frequencies and they are still partly in use for other purposes (see www.comcom.admin.ch, media release of 9 July 2024). To enable the use of these frequencies for mobile communications, the Federal Council would also have to approve related changes to the National Frequency Allocation Plan. In addition, the environmental regulatory framework must still be developed.

Allocation by invitation to tender

In summer 2024, ComCom also announced that it would invite tenders for the mobile frequencies in a transparent and open procedure for all interested parties. The aim is to ensure an efficient and competitive allocation of scarce frequency resources.

In an invitation to tender, the interested companies must apply to participate in the award procedure. Once the bidders are admitted to the procedure, if the demand for frequencies is greater than the supply, the frequencies will be awarded by auction. ComCom intends to conduct the invitation to tender and the auction in 2026 and 2027.

3. INTERNATIONAL RELATIONS

Article 64 of the Telecommunications Act, which came into force in 2021, states that ComCom 'shall carry out the tasks within the scope of its responsibilities at an international level and shall represent Switzerland in the related international organisations'.

For example, ComCom represents Switzerland in the 'Réseau francophone de la régulation des télécommunications' (FRATEL), the Independent Regulators' Group (IRG) and the European Union's Body of European Regulators for Electronic Communications (BEREC).

At BEREC, ComCom and OFCOM have unfortunately not been able to participate in all activities for several years as they no longer have observer status. However, OFCOM and ComCom were again authorised to participate in various expert groups and on certain topics in 2024.

At the IRG, which includes the independent regulators of all European countries, ComCom is a founding member and participates in all events.

4. OUTLOOK FOR 2025

The following activities will form the focus of ComCom's activities in 2025:

1. **Mobile frequencies:** As mentioned above, ComCom began preparing in 2024 for the new allocation of the mobile frequencies last auctioned in 2012. In 2025, ComCom, together with OFCOM, will work on the specific design of the allocation procedure.

2. **Access cases**: In 2025, the focus in this area will be on the exchange of submissions in the appeals before the Federal Administrative Court (FAC).

3. **International affairs**: ComCom and OFCOM will continue to contribute to the Independent Regulators Group (IRG) and to selected working groups under the aegis of the Body of European Regulators for Electronic Communications (BEREC). ComCom is also expected to participate in FRATEL events. Together with OFCOM, ComCom also regularly exchanges experience and know-how with the regulatory authorities of the other German-speaking countries.

IV. FINANCES

Regulators from various infrastructure sectors report for administrative purposes to the Federal Department of the Environment, Transport, Energy and Communications (DETEC). Since 2012 ComCom has formed part of the Infrastructure Regulatory Authorities (RegInfra) administrative unit alongside the Federal Electricity Commission (ElCom), the Postal Services Commission (PostCom), the Rail Transport Commission (RailCom) and the Independent Complaints Authority for Radio and Television (ICA). DETEC's General Secretariat provides services to RegInfra in various administrative areas. In particular, it supports ComCom with regard to budget and accounting. However, this does not compromise ComCom's abilities to conduct its activities independently.

ComCom collaborates very closely with OFCOM, which prepares most of ComCom's business and instructs it on legal proceedings. Costs incurred by OFCOM for ComCom are also given below to permit an overview of the overall income and expenditure of the telecoms regulator.

OFCOM's costs in connection with its activities for ComCom totalled CHF 3.110 million in 2024. The additional expenditure compared to the previous year is due to preparations for the next mobile frequency allocation. On the revenue side, OFCOM invoiced administrative fees in the amount of CHF 200,000 in 2024. Administrative fees connected with ongoing legal proceedings and invitations to tender can only be billed once the cases concerned have reached a legally binding conclusion.

The expenditure of the Commission and its Secretariat amounted to CHF 1.04 million in 2024 (information on RegInfra is published in the budgets and state financial statements of the federal government; cf. www.efv.admin.ch).

ABBREVIATIONS

5G = Fifth generation mobile radio

ADSL = Asymmetric Digital Subscriber Line

BBCS = Broadband Connectivity Service (commercial wholesale offering from Swisscom)

BEREC = Body of European Regulators for Electronic Communications

CATV = Cable television

COMCO = Competition Commission

ComCom = Federal Communications Commission

DETEC = Federal Department of the Environment, Transport, Energy and Communications

DOCSIS = Data Over Cable Service Interface Specification (technology for high bandwidths on coaxial cable)

DSL = Digital Subscriber Line

ESC = Energy supply companies

FAC = Federal Administrative Court

FDD = Frequency Division Duplex (two radio channels are needed for one connection)

FTTB = Fibre to the Building

FTTC = Fibre to the Cabinet

FTTH = Fibre to the Home

FTTS = Fibre to the Street

FWA = Fixed Wireless Access

G.fast = Gigabit fast access to subscriber terminals (technology for bandwidths up to 500 Mbps on copper cable)

GSM = Global System for Mobile Communications (standard for second-generation mobile radio networks)

HDTV = High-definition television

HFC = Hybrid Fibre Coaxial

HSDPA = High Speed Downlink Packet Access (UMTS technology)

IC = Interconnection

ICT = Information and communication technologies

IMD = Institute for Management Development

IP = Internet Protocol

IPTV = Internet Protocol Television

IRG = Independent Regulatory Group

ISP = Internet Service Provider

LRIC = Long Run Incremental Costs (model for calculation of interconnection prices)

LTE = Long Term Evolution (standard for fourth-generation mobile radio networks/3.9G standard)

LTE-A = LTE-Advanced (standard for fourth-generation mobile radio networks)

MEA = Modern Equivalent Asset

NFC = Near Field Communication

NGA = Next Generation Access Network

OECD = Organisation for Economic Co-operation and Development

OFCOM = Federal Office of Communications

SMS = Short Message System

SVOD = Subscription Video on Demand

TCA = Telecommunications Act (CC 784.10)

TDD = Time Division Duplex (bidirectional communication on only one radio channel)

TSO = Telecommunications Services Ordinance (CC 784.101.1)

UMTS = Universal Mobile Telecommunications System (standard for third-generation mobile radio networks)

VDSL = Very-high-bit-rate DSL

VoD = Video on Demand

VoIP = Voice over IP

VoLTE = Voice over LTE

WEF = World Economic Forum Wifi = Wireless Fidelity (wireless local area networks, WLAN)

WLAN = Wireless Local Area Network

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