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Swiss Entertainment and Media Outlook
2012–2016

*Revenues, trends
and developments in
the Swiss entertainment
and media industry.*



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Contents

Editorial	5	5 Music	49
Executive Summary	6	Executive Summary	50
1 Internet Access Spending: Wired and Mobile	15	Market Overview	50
Executive Summary	16	Digital Distribution	53
Market Overview	18	Physical Distribution	53
The Swiss Internet Access Market Compared to Western Europe	24	The Swiss Music Market Compared to Western Europe	54
2 Internet Advertising: Wired and Mobile	26	6 Filmed Entertainment	55
Executive Summary	27	Executive Summary	56
Market Overview	28	Market Overview	57
The Swiss Internet Advertising Market Compared to Western Europe	32	Box Office/Cinema	58
3 TV Subscriptions and Licence Fees	33	Physical distribution	60
Executive Summary	34	Electronic distribution	61
Market Overview	34	The Swiss Filmed Entertainment Market Compared to Western Europe	64
Subscription Households and Spending	37	7 Video Games	65
Mobile TV	39	Executive Summary	66
Public TV Licence Fees	40	Market Overview	66
The Swiss TV Subscriptions and Licence Fee Market Compared to Western Europe	41	Console/Handheld Market	67
4 Television Advertising	42	Online Games	69
Executive Summary	43	Wireless Games	71
Market Overview	44	PC Games	72
The Swiss Television Advertising Market Compared to Western Europe	47	Video Game Advertising	72
		The Swiss Video Game Market Compared to Western Europe	73
		8 Radio	75
		Executive Summary	76
		Market Overview	76
		The Swiss Radio Market Compared to Western Europe	80

9	<i>Out of Home</i>	81	12	<i>Methodology and Fair Use</i>	104
	Executive Summary	82			
	Market Overview	83		13	<i>Glossary</i>
	The Swiss Out-of-Home Market Compared to Western Europe	86			106
				14	<i>Contacts</i>
					111
10	<i>Consumer Magazine Publishing</i>	87			
	Executive Summary	88			
	Market Overview	88			
	Consumer Magazine Circulation	90			
	Consumer Magazine Advertising	91			
	The Swiss Consumer Magazine Publishing Market Compared to Western Europe	93			
11	<i>Newspaper Publishing</i>	94			
	Executive Summary	95			
	Market Overview	95			
	Newspaper Advertising	98			
	Newspaper Circulation	99			
	The Swiss Newspaper Publishing Market Compared to Western Europe	102			

Editorial

November 2012

To our clients and friends both in and beyond the entertainment and media industry:

Welcome to the third annual edition of PwCs' Swiss Entertainment and Media Outlook, covering the forecast period of 2012–2016. The Swiss country edition is complementary to the Global Entertainment and Media Outlook, which was published in June 2012 for the 13th consecutive time, and provides you with further insights into the technological, political, social and economic trends and developments driving revenues in the Swiss entertainment and media market. Our forecasts and analyses for this third Swiss edition comprise 11 major entertainment and media (E&M) industry segments:

1. **Internet Access Spending: Wired and Mobile**
2. **Internet Advertising: Wired and Mobile**
3. **TV Subscriptions and Licence Fees**
4. **Television Advertising**
5. **Music**
6. **Filmed Entertainment**
7. **Video Games**
8. **Radio**
9. **Out of Home**
10. **Consumer Magazine Publishing**
11. **Newspaper Publishing**

In contrast to 2010, 2011 saw slow growth in Swiss E & M spending. This was partly driven by the slowing in economic growth. We expect the slowdown, which has had significant negative impact on advertising spending in 2012, to continue through 2013 before the economy recovers in 2014. Nevertheless, the continuing consumer appetite for broadband capacity, combined with the proliferation of smartphones and tablets, is spurring investment in digital content and ecosystems.

These are only few of the findings of the third Swiss Entertainment and Media Outlook from PwC.

The Swiss Entertainment and Media Outlook was produced by our Swiss team of entertainment and media experts. Please refer to the contacts section for contact details.

We wish you exciting and interesting reading.



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Executive Summary

The end of the digital beginning: Entertainment and media (E&M) companies reshape and retool for life in the new normal

The overall direction of change in the global entertainment and media (E&M) industry has remained consistent. Over the coming five years, we will see digital technologies continuing to increase their influence across the industry. And, changes in technologies and in consumer behaviour will continue across all E&M segments. The Outlook shows that the upward trend in digital E&M spending will persist and will significantly outstrip growth in non-digital spending during the forecast period, 2012–2016. While the pace of progress varies by country and segment, these trends will see digital spending accounting for 67 percent of all growth in spending during the next five years globally, with growth at 12.4 percent compounded annually through 2016, compared to a compound annual growth rate (CAGR) of just 2.8 percent for non-digital spending. This trend will also be observed in Switzerland.

However, behind the headlines, an even more important milestone for the E&M industry is emerging: the onset of the digital new normal. Digital is now embedded in “business as usual”. And, as digital moves to the heart of many media companies and begins to present the greatest opportunities for growth, what previously looked like an immense gap between old media models and new ones is being bridged.

In the process of digital becoming the new normal, what now matters for companies is how they can capitalise on and operate within it.

Thus, companies are planning and executing their strategies to transition to the new normal and with that, we are hearing clearer and more consistent language from industry CEOs as they articulate the new landscape.

PwC’s 15th Annual Global CEO Survey, published in 2012 (see information panel), shows that the initial uncertainty triggered by digital migration is giving way to a sharper focus on identifying, choosing, and executing the business models, organisational structures, and skill sets that will harness the new consumer behaviours to deliver rising future value in the changed environment.

While experimentation will continue, the way forward is becoming clearer as companies focus on identifying, choosing and executing the right business models, organizational structures and developing the skill sets to understand consumer behaviours and motivations in their connected, multi-screen environments.

PwC’s E&M CEO Survey 2012

E&M CEOs think their businesses’ future growth depends – crucially – on responding to consumer change through innovation in areas from products to business models. Collaboration within and across the digital ecosystem will be vital to achieving this. The key element currently lacking is the right skill set – a shortcoming they are determined to address.

E&M CEOs’ confidence in growth remains resilient, despite the challenging economic outlook. 84 percent of E&M CEOs are “somewhat” or “very” confident about revenue growth over the coming years.

E&M CEOs are concerned about shifting consumer spending and behaviours. 74 percent of E&M CEOs said they are concerned about shifts in consumer spending and behaviours, and 43 percent anticipate changes to their technology investments over the next 12 months to meet consumers’ rapidly evolving demands.

E&M CEOs see collaboration as a key element of future strategies, and success in a digital world demands innovative new business models. 64 percent of E&M CEOs are planning new strategic alliances or joint ventures in the next 12 months and 79 percent of them are planning to increase the emphasis on new business models in their innovation portfolio – the highest proportions in any sector.

Meeting with customers is a priority for E&M CEOs. More than 75 percent of E&M CEOs wish they could spend more time with their customers.

In this industry overview, we aim to define the context for the detailed forecasts in the Outlook.

In **part one**, we summarise our projections for all Swiss entertainment and media industry segments covered.

In **part two**, we outline key issues at the heart of industry developments from the perspective of the consumer and entertainment and media companies.

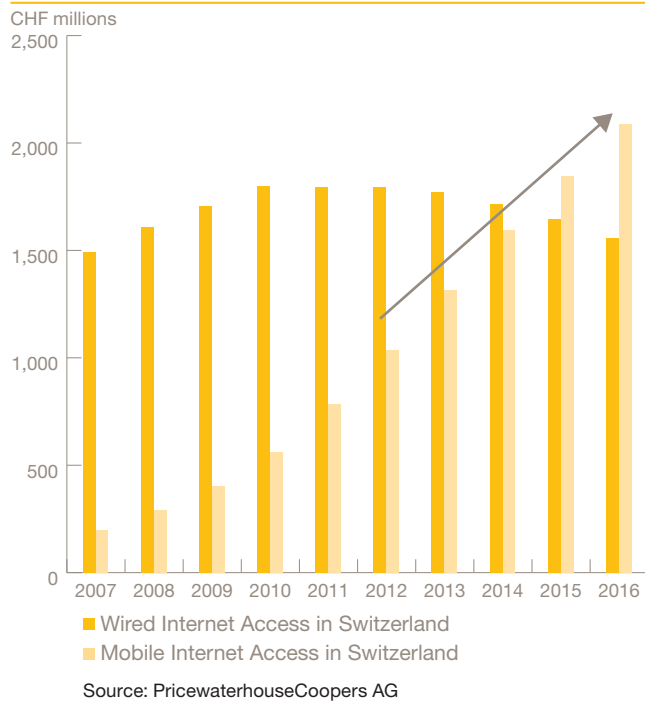
In **part three** we present digital transformation as the larger frame for all of the mentioned trends and changes within the E&M industry, and identify strategies for the rapid pace of change we believe will facilitate each organisation’s transition to its optimal place in the new digital normal.

Part one: Swiss Entertainment and Media Industry Revenues

The Swiss economy bounced back to growth in 2010, with a GDP of a convincing 3.0 percent. The slight upward trend held in 2011, resulting in a GDP of 1.9 percent. The renewed economic growth had – and will continue to

have – a positive effect on E&M spending, particularly on advertising, the component with the greatest sensitivity to economic conditions. Consumer spending on entertainment and media and Internet access maintained positive growth rates. Overall, we expect spending in the selected Swiss E&M sectors to grow by a CAGR of 2.3 percent, from CHF 12.6 billion in 2011 to CHF 14.1 billion in 2016.

Switzerland: Internet Access Spending

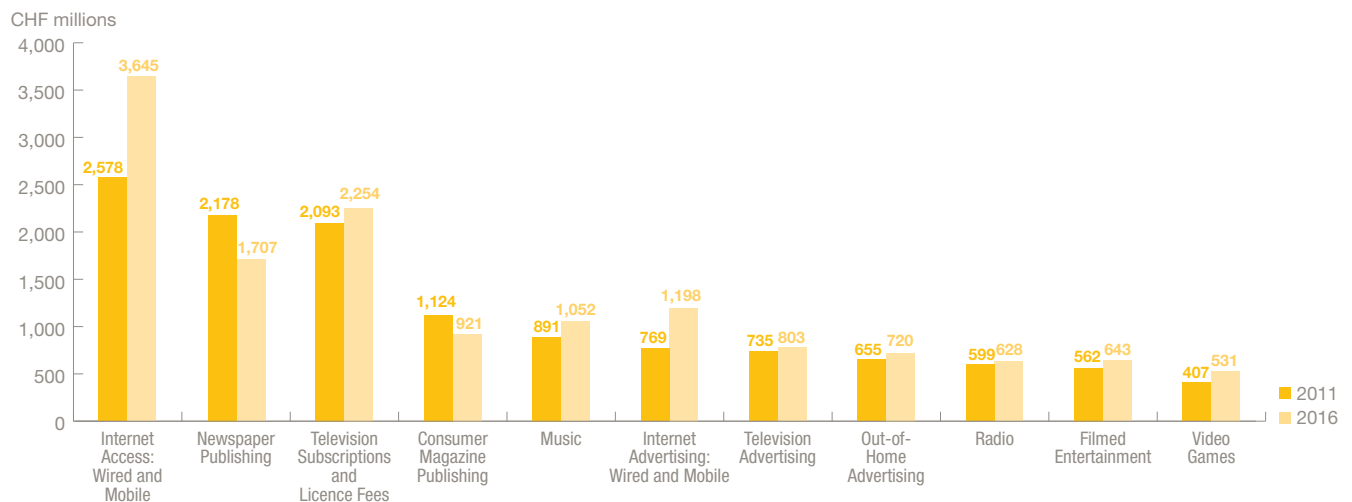


The main drivers of this upward trend are the sectors “Mobile Internet Access” and “Internet Advertising”. Revenues generated by mobile Internet access are expected to increase by 21.6 percent annually, growing from CHF 784 million in 2011 up to CHF 2.1 billion in 2016. Thus, about 80 percent of the projected growth in Swiss entertainment and media spending will be generated by the sector “Mobile Internet Access”.

Overall, we noted the following shifts within the Swiss E&M industry and expect them to continue to play out and strengthen through 2016.

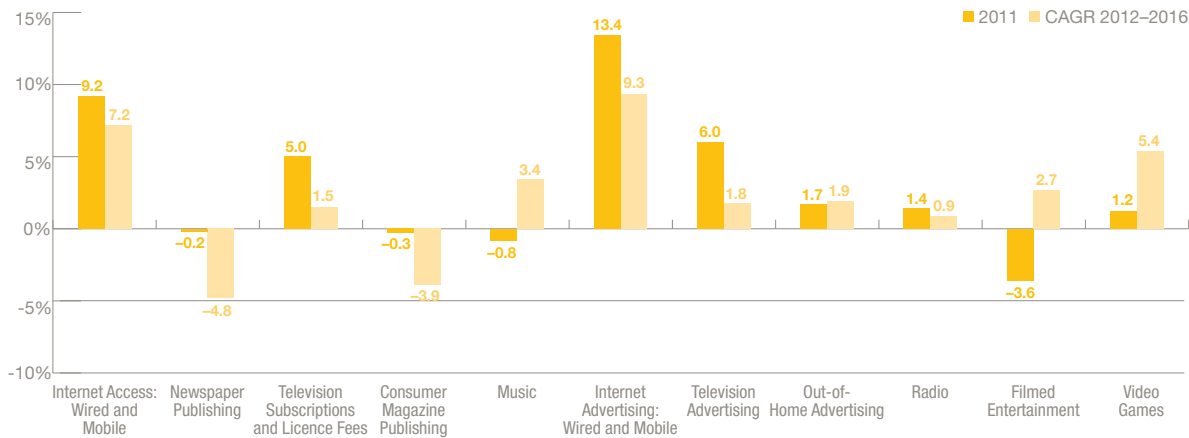
- **From print to digital:** For example, digital circulation of newspapers and consumer magazines are expected to show high growth rates, at 99 percent and 80 percent respectively, starting from a low level of one million each.
- **From fixed to mobile-driven consumption:** Mobile Internet access increased from 12 percent of total Internet access spending in 2007 to 30 percent in 2011 – and will account for 57 percent in 2016.
- **The emergence of “freemium” models:** For example, the basic offers of online newspapers, music, games or TV can be consumed for free with an option to pay for premium services (e.g., high-definition quality, unlimited access, more channels).

Swiss Entertainment and Media Market, per sector (CHF millions)



Source: PricewaterhouseCoopers AG

Swiss Entertainment and Media Market Growth, per sector (in percentages)

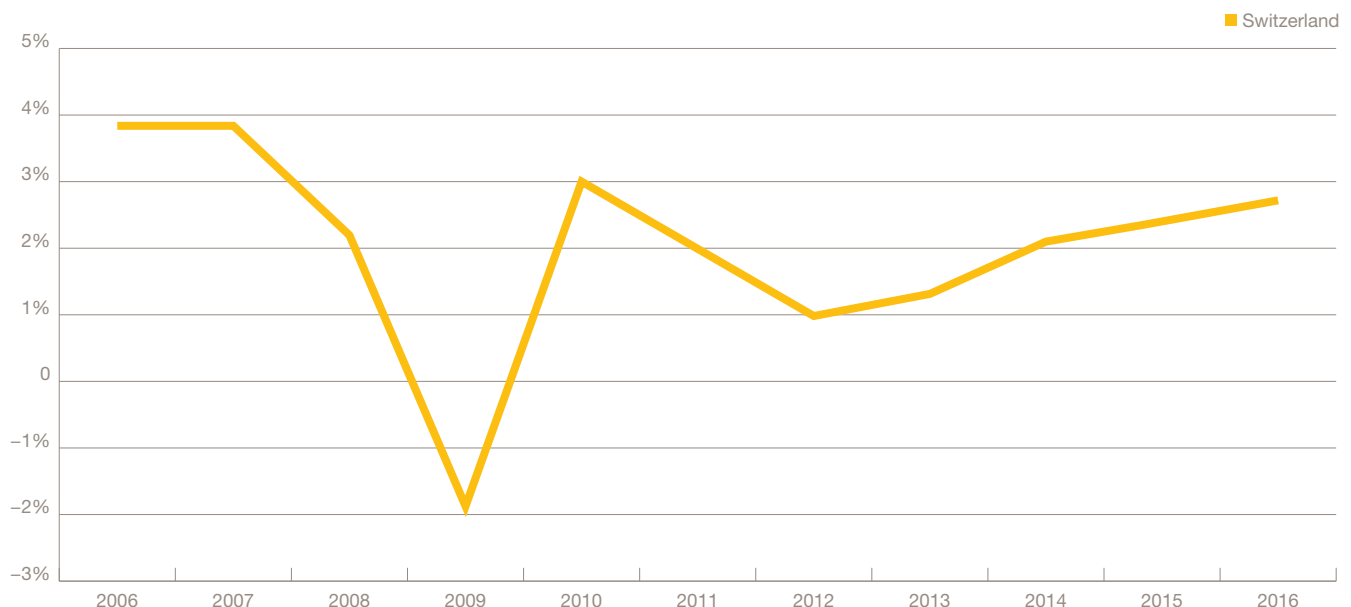


Source: PricewaterhouseCoopers AG

However, growth in the Swiss E&M sectors is fragile, due to the current uncertainties with respect to the deficits of several countries in the eurozone, the corresponding pressure on the exchange rate of the Swiss franc, and the risk of deteriorating consumer confidence. In September 2012, BAK Basel Economics AG, already reduced its prognosis for growth in GDP for 2013. We assume a real GDP of 1.0 percent for 2012 and expect a higher real GDP of 1.3 percent in 2013.

In the long run, we expect the economic climate to improve, which will lead to faster growth in E&M spending during the next five years compared to the 2008–2011 period. Nevertheless, the growing transition from traditional media to digital media will limit growth in consumer spending within the E&M industry because end-user prices for digital content are generally lower than prices for physical content. For example, online newspapers can be read for free or on a subscription basis. Their prices are, on average, below the prices of physical newspapers. Music can be downloaded for a low price, compared to a physical CD, and video-on-demand access costs less than physical DVDs or Blu-ray discs.

Real GDP Growth, Switzerland



Source: SECO; KOF; BAK; SNB; PricewaterhouseCoopers

Part two: Developments at the Heart of the Entertainment and Media Industry

The reshaping of the E&M industry will take place based on the perspectives of the following two groups.

1. **Consumers** want more connected, more mobile, time-shifted and increasingly shared media experiences.
2. **Advertisers and value chain partners** need to design new business models to reinvent and expand the value proposition of advertising and media content through innovation.

1. The connected consumer

Today's consumer behaviour is both pervasive and accelerating— and entertainment and media is in the front line of that change. PwC's 15th Annual Global CEO Survey finds that (combined) 74 percent of CEOs in E&M are "somewhat concerned" or "extremely concerned" about a permanent shift in consumer spending and behaviour. Other Swiss PwC research bears out the scale of the shifts in progress: more than 80 percent of respondents to PwC's multichannel shopper survey now research their purchases online before buying electronics, computers, books, music, and movies.

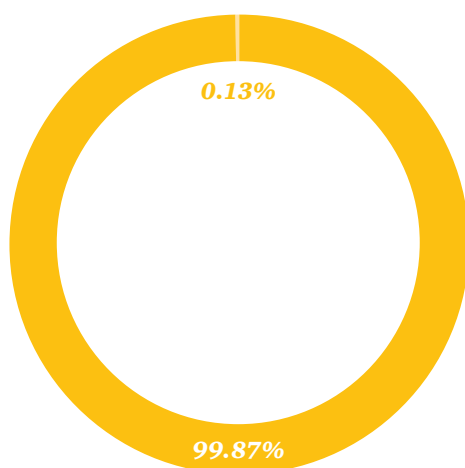
Demanding immersive, socialised experiences

Today's consumers want to:

- Watch, read, or listen to what and whenever they want to – shifting from "now" to "in my own good time".
- Access and consume content simultaneously via multiple devices and connections: TV, smartphone, tablet, apps, and social media.

As the Outlook highlights, these changes reflect an underlying and ongoing migration in consumer behaviour and spending toward digital consumption and digital experiences. Different segments are at different stages of this industry-wide journey. In Switzerland, recorded music – which already has a well-developed digital market – digital revenues surpassed physical revenues in the first half of 2012. In contrast, other segments are at the start of the journey: in the newspaper circulation market, digital paid circulation accounted for 0.1 percent of total circulation spending in 2011. But during the next five years, digital spending will surge at 98.7 percent CAGR, accounting for 4.7 percent of total circulation spending by 2016.

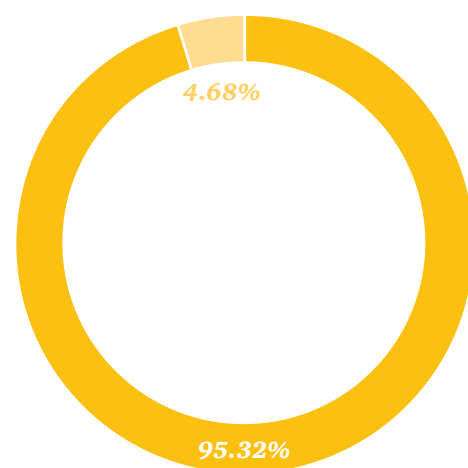
Swiss Newspaper Publishing Market 2011



■ Digital Circulation ■ Print Circulation

Source: PricewaterhouseCoopers AG

Swiss Newspaper Publishing Market 2016



■ Digital Circulation ■ Print Circulation

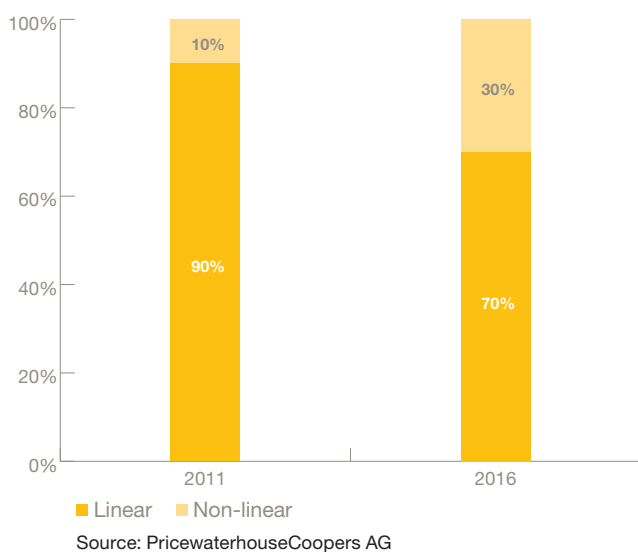
Consequently, digital has – to date – had less impact on print than on music and video games. Physical print media is already portable. And, except for timely updates and video features, this means that digital content is little different from physical content.

However, this will change as tablets provide the consumer with an acceptable lean-back experience conducive to paid digital circulation, and therefore create a better platform for video ads than the PC. So, as 2016 approaches, the revenue balance will clearly be shifting toward digital. As a result, a major challenge for consumer magazine and newspaper publishers is how to optimally benefit from the migration of readership from print to, especially, tablet applications and other formats delivering online content.

Trend to time-shifted media consumption – watching videos and listening to radio at any time consumers want to

In this year’s Outlook, we identified an upward trend in consumption of time-shifted TV shows and videos. Online TV providers, such as Zattoo and Wilmaa, and IPTV providers, with their video-on-demand offerings and streaming services allow consumers to watch movies and TV shows at any time they want to. Recording of content with set-top boxes or through premium packages offered by online TV providers for later viewing is another driver of this trend.

Linear and Non-linear TV in Switzerland



Smart devices – spearheading change across broadcast and print media

Despite ongoing economic uncertainty, the past year has seen global sales of tablets and smartphones reach record levels once again – thus underlining the growing revenue opportunities in the digital delivery of E&M content and advertising to increasingly connected and mobile customers.

Since the launch of the first generation iPad, in April 2010, tablets have brought mobile delivery of media to consumers’ homes. In Switzerland the number of tablets increased by 669 percent from 54,000 in 2010 to 415,000 in 2012, and the smartphone penetration rate grew up to 43 percent. This upward trend in mobile devices is propelling spending in mobile Internet access – the main driver of the overall Swiss E&M industry.

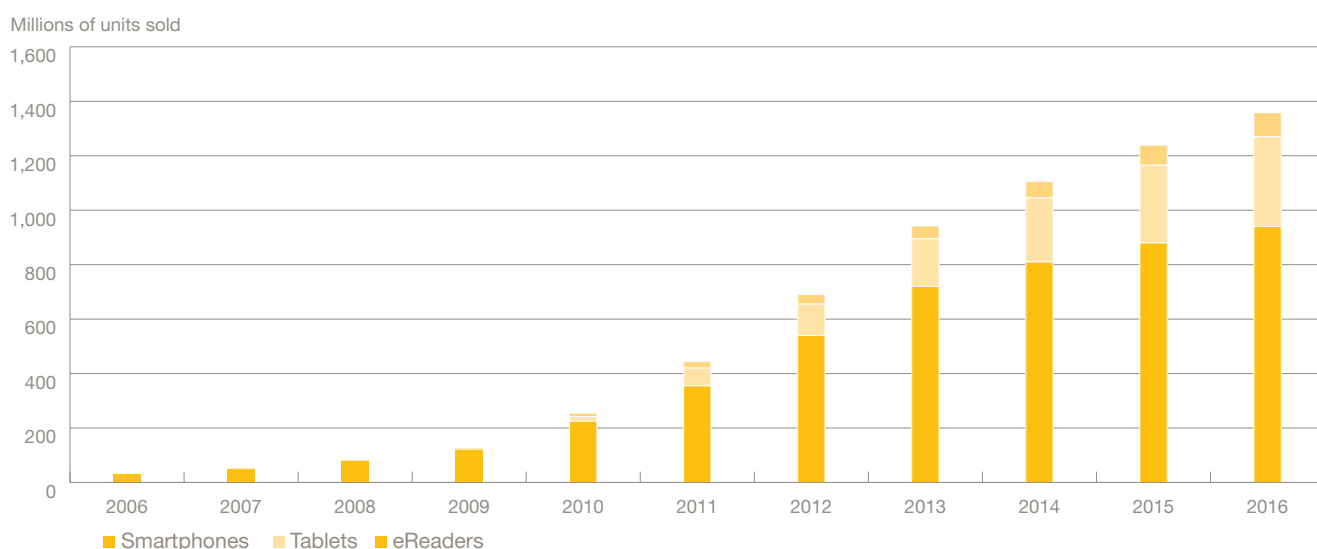
Users became willing to consume always-available mobile video and non-video content on tablets and on smartphones, combining connectivity and information immediacy. Why? Portability, access to content, on-demand capability, high resolution, and acceptable screen size – all of these previously conflicting goals – have finally been reconciled.

Smart devices also bring transformational opportunities across E&M segments. For example, TV companies could give consumers a customisable tablet/smartphone app that brings up a consumer’s personal “My Media” on the TV, with the consumer’s favourite shows, movies, and apps.

Tablets are also enabling print publishers to present consumers with a value proposition previously lacking in those publisher’s online products, thus convincing consumers to pay for additional premium content. As a result, Swiss publishers are expanding into digital services. This involves creating digital editions for tablets and smartphones on the one hand, and acquiring stakes in digital platforms on the other.

With the growing penetration of smart devices, a new technology, so-called “second screen”, has emerged. Several studies have identified the trend for using smart devices while multi-tasking with other media. According to a Google consumer survey, 82 percent of the respondents use their smartphone while multitasking with media like TV, Internet, video games, movies etc. Second screen means an additional electronic device (e.g., tablet, smartphone) enabling a television subscriber to interact with the content, such as TV shows, movies, music, or video games, he or she is consuming. Applications on the second screen are designed to give the consumers extra data that is displayed on a portable device synchronised with the content being viewed on television. It enables media companies to interact with consumers in another way and simultaneously sell additional advertising content. With previously

Global Smart Device Sales



print-based media, such as magazines and newspapers, launching smart-device apps, these forms of content could also become part of an overall media package, accessed via connected screens.

Social media – globally connected consumers

Unlike previous generations, today's consumers function in a world of globally connected social media. They are still passionate about media experiences, such as television, live concerts, radio, games, newspapers, and so on, but nowadays consumers are increasingly integrating a variety of content and connected devices into their media consumption mix.

This means a trend toward a multichannel, multi-content future. As a result, an increasing mass of media content will be available at a fixed price on all devices, whereas the live experience – whether music festival or FIFA World Cup football or Lady Gaga in concert – becomes the premium form of content. In Switzerland consumers see live entertainment as special and different enough so that they are willing to pay extra for it.

With social media (e.g., Facebook, Twitter) integrated into the E&M industry, consumers are now enabled to take the logical next step from watching “everything whenever and wherever I want” to having friends and family log in to share the experience with them in real time. A PwC survey has revealed this trend in Switzerland: 30 percent of all respondents use some form of social media every day, whether Twitter, Facebook or similar social networks. Spotify (music) and Zynga (games) are two successful firms within the Swiss E & M industry that offer different content through the prominent social media platform Facebook, via which various media content can be shared.

2. Devising new business models to reinvent and expand the value proposition of E&M content

The core challenge for E&M companies now lies in how to remain relevant to consumers and business customers in a way that differentiates them from their competitors.

The reinvention of advertising

Advertisers are also focusing on using digital platforms and online tools to engage with and measure the ever-changing behaviour of consumers – who are more sophisticated about their use of technology than ever before.

In this industry, more than any other, therefore, embracing a strategic, forward-looking digital business model is critical to survival – and success.

Regardless of differences across markets, the trend across the world is that consumers' engagement with connected digital experiences is continuing to grow. As this happens, it's increasingly evident that people's time and, by extension, the data generated through the ways they spend it, are currencies that can be monetised. While this has always been the case, the addition of digitally derived insights to the mix is now redefining advertising – and expanding its value proposition.

Due to the shift from print to digital ads, advertisers want more information and more verifiable return on investment (ROI) from their ad spend. Advertisers are increasingly demanding transparent, verifiable evidence that they are hitting the right segments with the right messaging via the right platform, and thereby generating a good return on their ad spend. Until recently, the natural choice for an advertiser looking to reach, say, potential car buyers might have been to advertise on the major automobile Web sites. Now, by applying analytics to individuals' browsing behaviours, ad agencies and networks can identify specific, so-called auto-intenders who have the highest propensity for buying a car in the next 12 months. Thus, messages can be directed, for example via behavioural targeting, to specific individuals. Such developments allow better insight into the effects and impact of advertising, as well as increased efficiency in placing advertising, and thus will further boost online advertising spending. Use of display and banner ads is reducing. Advertisers would rather pay a premium for clearly demonstrated target demographics, a proven track record of engaged consumers, or solid revenues from click-throughs. Similarly, the focus is shifting from display inventory to the value inherent in behavioural factors and drivers, such as location.

Another trend that affects the advertising business is time-shifted TV and radio consumption. Recording of content with set-top boxes for later viewing is one of the main challenges for television advertising, because these services enable consumers to implement ad-skipping (of ads which are showed through linear TV). As a result, new advertising formats, such as channel-switch ads or start-up ads, are delivered through online TV providers, such as Zattoo and Wilmaa, and these cannot be skipped.

Disintermediation of distribution channels within the E&M industry

The evolution of the value chain over the next five years will see new roles emerging across the E&M industry, reflecting growing clarity about the business models that will generate value in the new landscape. Already, some content companies that have traditionally operated on a B2B model are starting to build direct relationships with consumers, thereby disintermediating their existing distribution channels. The underlying agenda here is transformation into a consumer-focused and connected company. For example, global music or film production companies can directly offer their media to consumers all over the world via the Internet. Another example: video on demand (VOD) is likely to result in a disintermediation of the film industry with the elimination of traditional movie rental stores and retailers.

The change in models for monetising media content

There is continuing change in the models that are attempting to monetise media content. As we noted in the previous edition of the Outlook, consumers will pay for privileged access to content they want, such as being able to consume content ad free, either ahead of other people or early after market launch. However, in cases when they want to try out content to find out whether they like it, they generally do not want to pay for new content the first time they try it. This tendency may in part be driven by – or reflect – the move toward freemium business models, whereby people can receive a free, ad-supported “sample” before upgrading to the premium, paid-for variant.

An additional factor is that consumers generally appear to be moving toward wanting to rent content rather than owning it outright. While people could see some value in building up VHS, CD, or DVD libraries on their shelves, they do not perceive the same kind of value in building digital content libraries.

As a result, we see the Swiss physical music and filmed entertainment market strongly decreasing; consumers prefer to rent the media electronically for a lower price than buying it physically. Taking music as an example, the models currently in use range from the iTunes-style concept of paying per transaction to own a specific piece of content, to the Spotify subscription model which gives the right to stream content from a library.

Change in pricing models

The trend toward differentiated pricing can be seen in various sectors with the emergence of a wide array of segmented pricing models. These include free or paid for options, with or without ads; payments in virtual currency; micropayments to buy bolt-on “packs”; and rental models charging cash or virtual currency over social networks.

The interactive game sector – particularly the mobile sector – has established itself as a leader in innovative price segmentation, creating flexible models wherein consumers can choose an ad-supported version, a “lite” version, or a premium, ad-free version. The free-to-play business model includes micro-transactions, which are generating a boom in revenues for the game industry. Game providers often offer the consumer the option of purchasing virtual goods to get an in-game bonus, such as an extra item, character, points, etc.

Overall, the trends highlight the need for flexibility in the way that different types of content are priced and delivered.

Part three: Digital Transformation – Strategies for the Rapid Pace of Change

The trends identified key within the E&M industry clearly show that digital technologies have become a matter of course in consumers’ daily life. These trends – even-more digital, ever-more mobile – will accelerate markedly in the years to come.

Digital technology is routine in this day and age. Tablets and smartphones are altering people’s patterns of consumption and communication, and will continue to do so, radically. People post on Facebook, share content via Dropbox, shop online and have access to the Internet, anywhere and anytime. This acceleration in the digital world affects companies in all industries, opens up new possibilities, and calls into question the classic business models.

Fit for the future with integrated solutions

All trends illustrated in the Outlook are key drivers of digital transformation. This means companies must complete their transformation from the conventional to the digital business model quickly and appropriately. The step into the digital area is not just a matter of getting a company’s face on Facebook, or developing tailor-made apps, it has an impact on a company’s entire business model. To grow revenues in the new normal, companies need to initiate the right measures. We support your digital changeover from analysis and strategy through to implementation. And we back you with one clear goal: to create sustainable values for your digital future.

Social media and collaboration

One key trend shown within the Outlook is an ongoing shift in consumers’ behaviour toward social media and collaboration. Today, consumers demand, consume, and function in a world of globally connected social media. In Switzerland, 30 percent of respondents use some form of social media every day, be that Twitter, Facebook or similar social networks.

For companies, it means much more than just new advertising channels. Social technologies make it possible to network, communicate and cooperate with customers and partners as never before. Digital channels are also usable internally, to boost commitment and enhance productivity. Success depends on getting it right: in innovation, strategy and governance.

Multi-channel and mobile

More and more consumers access and consume content simultaneously via multiple devices and connections. The shift from fixed to mobile driven and multi-channel consumption affects the entire Swiss E&M industry and brings transformational opportunities across E&M segments. Currently, global sales of tablets and smartphones have reached record levels once again, and by 2014, more people will be using mobile Internet than desktop computers.

For companies, the art is not to merely use those channels, but to connect them in a smart way. The goal is a higher level of interaction in the dialogue with customers, staff, suppliers and other stakeholders to create a unique customer experience across all channels.

Topic-based Service Packages

	Social media and collaboration	Multi-channel and mobile	Analytics and insights	New market and technology	
Strategy-based Service Packages	Business model	What opportunities does the digital landscape create for your business			
	Customer engagement	How do you engage with customers across different channels?			
	Employee and network engagement	How do you facilitate knowledge sharing and collaboration across your external organisation?			
	Technology, infrastructure and security	What technology model will underpin enhanced business agility, efficient performance, and adequate security?			
	Supply chain and process enhancement	What opportunities does digital transformation create for optimising processes and how are supply chains affected?			
	Legal, compliance and tax	How do you ensure that digital transformation projects comply with regulations? What effect would these projects have on your tax structures and how would you oversee them?			

Source: PricewaterhouseCoopers AG

Analytics and insights

In the past, trends were identified and companies tried to react. Currently it is essential to look ahead and try to scout future trends by having a finger on the customers' pulse. Companies need more than ever to understand consumer behaviours and motivations in order to engage with and immerse consumers in their connected multi-screen environment. The raw material required to gain insights – based on big data of consumers' activities, lifestyles, behaviours, and transactions – is now available at a previously inconceivable scale and depth. For example, social networks represent a rich source of consumer data.

Growing numbers of digital channels are increasing the flood of market and customer data. This poses a challenge, but also offers potential. Only those who use data efficiently, recognise trends and personalise offers, can respond promptly to changes in the market and in consumer behaviour.

Analysing data to gain insights about consumers needs to be well designed. Such tools may be triggering fears over consumers' privacy. Avoiding this will require a shift of industry mindset from customer "ownership" to customers "in control". Giving consumers control over how their personal data is used delivers higher benefits back to consumers, encouraging them to volunteer even more information, as well as providing better value for advertisers and higher rewards for media owners.

Businesses need to aim for win-win models that will enable companies to turn consumers' attention and engagement into revenues.

New market and technology opportunities

Digital transformation opens up unimagined possibilities – as long as they are recognised and successfully used. The new technology calls for a flair for developments and trends. An understanding of local and global processes and sequences is also essential. To invest in the right solution at the right time requires thorough industry and sector know-how, the optimum digital strategy and a distinctive culture of innovation.

For example, technologies like cloud computing or big data and trends like second screen give companies an additional way to interact with their customers, and new markets, like digital newspaper circulation, are potential means of income for companies within all industries.

All industries are subject to digital transformation, albeit not at the same time and not in the same ways. Such transformation often requires very high investment. It takes sound know-how and a distinct culture of innovation to invest in the right solution at the right point in time.

Byte by byte to the digital business model

As pointed out, the overall change within the E&M industry causes various challenges for companies within all industries. Thus the digital transformation challenge should be tackled jointly with a partner who has the know-how and resources to provide holistic advice. We're here to help you manage the conflict between the priorities your traditional business and stakeholder goals and your need to be nimble in adapting to the fast-changing digital world. PwC has divided this shared journey towards digital transformation into three stages:

Recognise: the digital pulse

Through observation and analysis, companies can take the pulse of digital transformation in their industry and learn what the impact is. Increasing mobility and digital solutions change customers' behaviour and expectations. Knowing what their needs are likely to be in the years ahead forms the basis for the necessary adaptations.

Develop: the digital incubator

This phase involves developing, testing and learning more – with the goal of commercialising the new concept. It can very well be that realisable ideas and approaches are already available. Others need to be developed from scratch and translated into an overall concept. And frequently, even the existing corporate structures have to be adapted.

Decide and introduce: the digital transformation

Digital transformation makes a company fit for the future. But it is also accompanied by an abundance of new technological, financial and legal issues as well as exacting security requirements. In this phase, the concept is transformed into a business model. The infrastructure, IT, processes and corporate culture all need to bear up under this new model – and under circumstances be changed or further developed in order to accommodate it.

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1 Internet Access Spending: Wired and Mobile

Index

Executive Summary	16
Market Overview	18
Wired Internet	20
Mobile Internet	21
The Swiss Internet Access Market Compared to Western Europe	24



Executive Summary

Definition

- Internet access revenues consist of fees paid by consumers for wired and mobile Internet access. Wired Internet access revenues are paid to Internet service providers (ISPs) for broadband and dial-up access. Mobile Internet access revenues are received by wireless carriers for Internet access via mobile devices, whether provided as a stand-alone service or as part of a service bundle. Internet access revenue figures do not include the purchase of content, such as music, or spending on entertainment content downloaded over the Internet or through mobile phones, which are included in the respective content chapters. Internet access fees for phones provided by corporations including access to the corporate network are also not included.
- Internet access is a key driver of entertainment and media advertising and content spending in most segments.

Market size and growth in Switzerland

- We expect the Swiss wired and mobile Internet access market to increase at a compound annual growth rate of 7.2 percent from CHF 2.6 billion in 2011 to CHF 3.6 billion in 2016.
- In comparison, we project that the overall Western European market will grow by 6.6 percent compounded annually and revenues will increase from CHF 69.6 billion in 2011 to CHF 95.8 billion in 2016.

- Switzerland has the highest broadband penetration per 100 inhabitants (39.9 percent) in Europe as per 31.12.2011.
- Mobile data volume in Switzerland quadrupled during 2010 and more than doubled in 2011. It is generally expected that mobile data traffic will continue to double every 7 to 8 months, driven by the rapidly increasing number of smartphones and developing machine-to-machine market.

Market size and growth by component

- The total addressable market for wired broadband Internet connections is expected to increase at an average annual growth rate of 0.9 percent, from 3.47 million households in 2011 to 3.64 million in 2016.
- Wired broadband access is the largest component at CHF 1.8 billion in 2011, and is projected to decline at a 2.7 percent compound annual rate to CHF 1.6 billion in 2016.
- Dial-up Internet access is expected to completely disappear from the market by 2016, at the latest. Revenues in 2011 were already insignificant, compared to the wired broadband or mobile Internet access markets, and did not exceed CHF 6 million.
- Mobile Internet access spending, which totalled CHF 784 million in 2011, is expected to exceed wired Internet access spending in 2015, to reach a total of CHF 2.1 billion in 2016. This corresponds to a 21.6 percent compound annual growth rate.

Total Number of Households (millions)

Switzerland	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2012–16 CAGR
Households	3.32	3.36	3.40	3.44	3.47	3.51	3.54	3.58	3.61	3.64	0.9
Growth (%)	1.3	1.2	1.2	1.2	0.9	1.2	0.9	1.1	0.8	0.7	0.9

Source: Swiss Federal Statistical Office – SCENARIO 2005–2030

Internet Households and Mobile Broadband Subscribers by Component (millions)

Switzerland	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2012–16 CAGR
Wired											
Broadband	2.38	2.56	2.74	2.91	3.06	3.23	3.38	3.48	3.57	3.62	3.4
Dial-up	0.42	0.20	0.11	0.08	0.06	0.04	0.02	0.01	0.01	0.00	-41.8
Total Wired	2.80	2.76	2.85	2.99	3.12	3.27	3.40	3.49	3.58	3.62	3.0
Mobile	1.28	1.73	2.24	2.93	3.80	4.79	5.78	6.68	7.36	7.92	15.8
Total Wired and Mobile	4.08	4.49	5.09	5.92	6.92	8.06	9.18	10.17	10.94	11.54	10.8

Source: PricewaterhouseCoopers AG; Wilkofsky Gruen Associates; OFCOM; ComCom; OECD Broadband Portal; Swisscom; Sunrise; Orange; upc cablecom; Swisstable

Internet Households and Mobile Broadband Subscribers Growth by Component (%)

Switzerland	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2012–16 CAGR
Wired											
Broadband	14.4	7.6	7.0	6.2	5.2	5.6	4.6	3.0	2.6	1.4	3.4
Dial-up	-32.3	-52.4	-45.0	-27.3	-25.0	-33.3	-50.0	-50.0	0.0	-100.0	-41.8
Total Wired	3.7	-1.4	3.3	4.9	4.3	4.8	4.0	2.6	2.6	1.1	3.0
Mobile	41.8	35.2	29.5	30.8	29.7	26.1	20.7	15.6	10.2	7.6	15.8
Total Wired and Mobile	13.3	10.0	13.4	16.3	16.9	16.5	13.9	10.8	7.6	5.5	10.8

Source: PricewaterhouseCoopers AG; Wilkofsky Gruen Associates; OFCOM; ComCom; OECD Broadband Portal; Swisscom; Sunrise; Orange; upc cablecom; Swisscable

Principal drivers

- Continuing heavy investment in optical fibre networks and mobile broadband infrastructure supports the consumer's increasing appetite for high bandwidth services, such as video.
- The increasing demand for bandwidth lets customers choose more expensive products and means only slightly decreasing revenues for ISPs at increasing bandwidths.
- Broadband Internet alone no longer makes consumers happy. A rapidly increasing number of subscribers demand triple play or even quadruple play services.
- With more than 3 million broadband subscribers, Switzerland is approaching broadband saturation. This will lead to slower growth in broadband households. With increased availability and a growing number of bundled offers, ongoing but small declines in pricing will result on a like-for-like basis.
- Dial-up Internet access will further decline in importance.
- Increasing market penetration of smartphones and tablets is boosting the market for mobile broadband Internet access.
- Carriers will be rolling out fourth-generation (4G) wireless networks to provide faster speeds and to accommodate surging data traffic. Wireless network upgrades, enabled by improved wireless technologies and high-bandwidth cell site backhaul, will sustain mobile access growth.
- A developing machine-to-machine market (e.g., connected cars, automatic sprinklers, etc.) will increase mobile data subscribers and thus future data revenues.

Length and type of media Approximate size Download speed

		Broadband			Dial-up
		20 Mbit/s	5 Mbit/s	1 Mbit/s	56K modem
4-minute song	4 MB	1–2 seconds	4–5 seconds	20–30 seconds	About 10 minutes
5-minute video	30 MB	8–10 seconds	30–40 seconds	About 3 minutes	About 1 hour, 10 minutes
9-hour audiobook	110 MB	30 seconds	2 minutes	About 10 minutes	About 4 hours, 15 minutes
45-minute TV show	200 MB	About 1 minute	3–5 minutes	15–20 minutes	About 7 hours, 45 minutes
45-minute HDTV show	600 MB	3–5 minutes	10–15 minutes	About 45 minutes–1h	n/a
2-hour movie	1.0–1.5 GB	4–6 minutes	18–24 minutes	About 1.5–2 hours	n/a
2-hour HD movie	3.0–4.5 GB	About 15 minutes	54–72 minutes	About 4.5–6 hours	n/a
iPod game	10–60 MB	About 7–15 seconds	About 30–70 seconds	About 3–6 minutes	About 1–2 hours

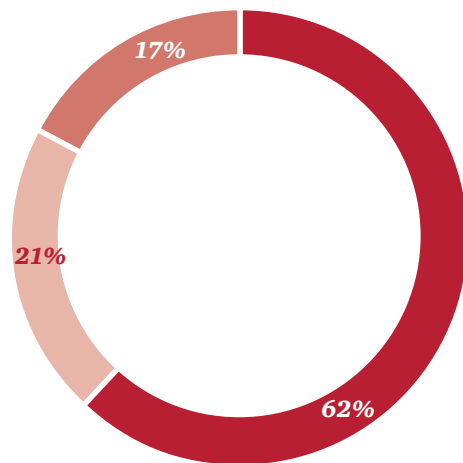
Source: PricewaterhouseCoopers AG; Wilkofsky Gruen Associates; OFCOM; ComCom; OECD Broadband Portal; Swisscom; Sunrise; Orange; upc cablecom; Swisscable

Market Overview

Swiss Internet access market

- The Swiss Internet access market is dominated by four companies: Swisscom, Sunrise, Orange and upc cablecom. Together they constitute 85 percent of the wired and 100 percent of the mobile Internet access market.
- Swisscom and Sunrise offer wired and mobile Internet access, whereas upc cablecom offers only wired and Orange offers only mobile Internet access.
- The vast majority of mobile subscribers are Swisscom customers, followed by Sunrise and Orange.

Mobile Subscriber Market Share 2011 – Switzerland



■ Swisscom ■ Sunrise ■ Orange CH

Source: PricewaterhouseCoopers AG; ComCom; BAKOM; Swisscom; Sunrise; upc cablecom

- In July 2011, Orange and upc cablecom announced their cooperation based on a mobile virtual network operator (MVNO) agreement. But by the end of summer 2012 upc cablecom still had no mobile offering available. Migros, with the M-Budget offering, and Coop, with CoopMobile, are examples of MVNO agreements on the market today.
- Competition between cable companies and telcos is increasingly moving towards triple (telephony, Internet access and TV) and even quadruple play offerings (telephony, Internet access, TV and mobile). Swisscom, for example, launched Vivo Tutto, the first nationwide bundled offering to also include mobile, in August 2011. Sunrise announced its IPTV offering in May 2011, but it took 8 months until it was launched, in January 2012.
- By the end of 2011, a total of 613,000 Swisscom customers were using triple or quadruple play bundled offerings. In comparison, according to OFCOM, the total number of Swiss triple play bundle subscribers in 2010 was 510,588. We estimate the total number of triple play offerings to have reached 970,000 in 2011 and to have grown to 1,469,000 in 2012, driven by a large number of analogue television subscribers converting to digital technology.

Internet Access Market by Component (CHF millions)

Switzerland	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2012-16 CAGR
Wired											
Broadband	1,464	1,575	1,685	1,790	1,788	1,788	1,767	1,712	1,646	1,559	-2.7
Dial-up	31	36	19	9	6	5	2	1	1	0	-82.4
Total Wired	1,494	1,610	1,705	1,798	1,794	1,793	1,769	1,713	1,647	1,559	-2.8
Mobile	200	291	403	563	784	1038	1315	1596	1846	2086	21.6
Total Wired and Mobile	1,694	1,901	2,108	2,361	2,578	2,831	3,085	3,309	3,494	3,645	7.2

Source: PricewaterhouseCoopers AG; Wilkofsky Gruen Associates; OFCOM; ComCom; OECD Broadband Portal; Swisscom; Sunrise; Orange; upc cablecom; Swisscable

Internet Access Market Growth by Component (%)

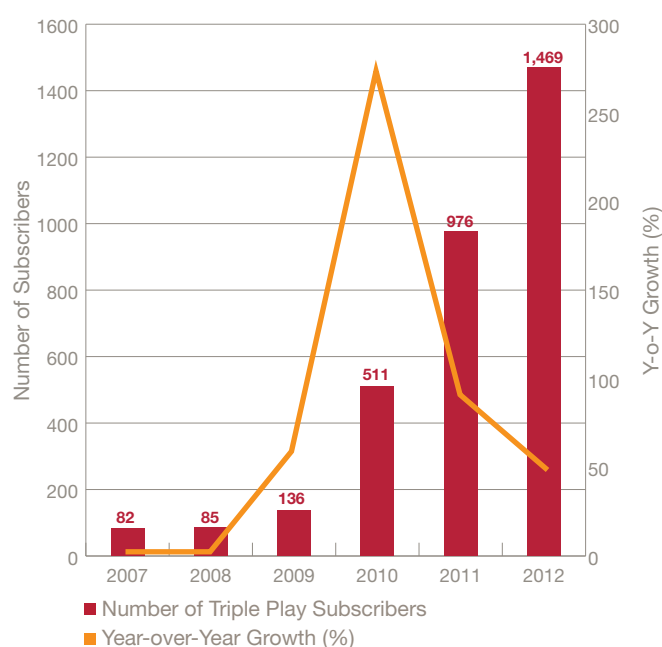
Switzerland	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2012-16 CAGR
Wired											
Broadband	9.2	7.6	7.0	6.2	-0.1	0.0	-1.2	-3.1	-3.9	-5.3	-2.7
Dial-up	2.4	16.2	-45.2	-55.5	-30.6	-25.0	-50.0	-55.6	-50.0	-99.8	-82.4
Total Wired	9.2	7.7	5.9	5.5	-0.3	-0.1	-1.3	-3.2	-3.9	-5.3	-2.8
Mobile	52.2	45.6	38.7	39.5	39.4	32.3	26.7	21.4	15.7	13.0	21.6
Total Wired and Mobile	11.1	12.2	10.9	12.0	9.2	9.8	9.0	7.3	5.6	4.3	7.2

Source: PricewaterhouseCoopers AG; Wilkofsky Gruen Associates; OFCOM; ComCom; OECD Broadband Portal; Swisscom; Sunrise; Orange; upc cablecom; Swisscable

Bundled offerings

- On July 28th, 2011, France Télécom announced its intention to sell Orange Switzerland, after the Swiss Antitrust Authorities (WEKO) denied approval for the acquisition of Sunrise on April 22, 2010. France Télécom was expecting to generate at least EUR 1.5 billion for its Swiss branch.
- On February 17, 2012, the Swiss Antitrust Authorities announced its approval of the sale of Orange Switzerland to Apax Partners LLP. The transaction volume was in line with FT management's expectations: CHF 1.83 billion, excluding further payments for the use of the Orange brand.
- In November 2011, Sunrise acquired NextiraOne (Switzerland), as a strategic means to enhance its cloud services offering.
- On the network front, Huawei has successfully placed itself at the core of Swiss telecommunications network technology. After already having signed contracts with Swisscom, Huawei, as of April 2012, has also been supplying wired and mobile network technology to Sunrise.

Bundled Offerings, Switzerland



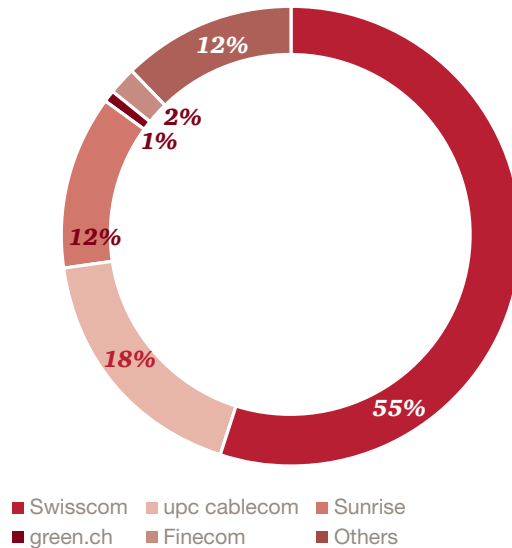
Source: BAKOM

Wired Internet

Wired Internet access: xDSL vs. Cable

- The main wired Internet access players who compete for the 3.5 million Swiss households are Swisscom and Sunrise via xDSL and upc cablecom via its cable network. Together they provide service to 85 percent of the total number of wired broadband Internet connections in Switzerland.
- Increasing competition and a saturated broadband household market, combined with triple and quadruple play offers, results in decreasing wired Internet access revenues.
- The national broadband plan, part of the universal service obligation since 2008, is expanding broadband availability and boosts broadband penetration. As a result of this, and because of the increasing penetration of mobile Internet access, we expect dial-up Internet access to completely disappear from the Swiss Internet access market by 2016.
- In Switzerland, xDSL is the dominating technology with respect to wired broadband Internet access. At the end of 2011, approximately 70 percent of households were connected through xDSL, versus around 28 percent of households through cable. The remaining 2 percent can be attributed to satellite, powerline connections and FTTH.

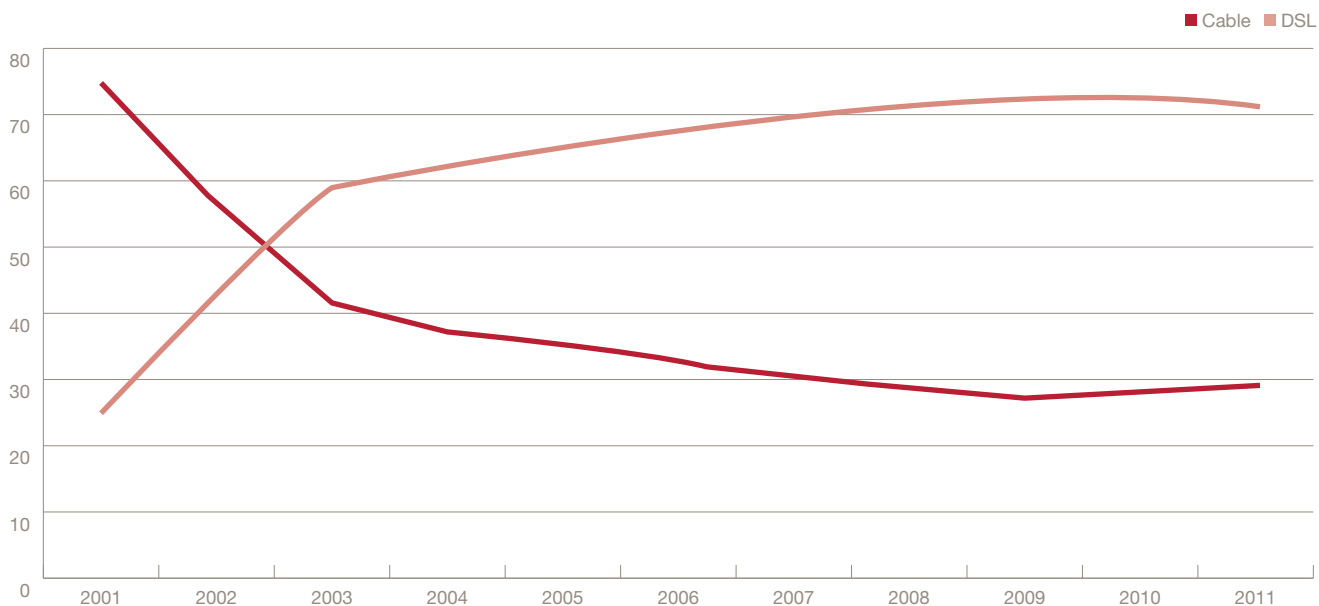
Broadband Internet Access Market Share 2011 – Switzerland



Source: PricewaterhouseCoopers AG; ComCom; BAKOM; Swisscom; Sunrise; upc cablecom

- The rate of decline in market share in broadband Internet access for Swiss cable providers has decreased over the past years. Actually, 2011 was the second consecutive year where cable was able to attract more broadband subscribers than xDSL, showing growth of 9 percent. Broadband Internet access via cable modem has the advantage of offering higher download speeds than xDSL.

Cable vs. xDSL Broadband Internet Access Market Share – Switzerland (%)



Source: ComCom

- However, with Sunrise recently also offering quadruple play services, the Swiss market for broadband Internet access has certainly become more competitive.
- At the end of 2011, 237 cable providers were registered as members of Swisscable. We project ongoing consolidation of the market during the upcoming years. The reasons for this are increased competition and high investment needs for the upgrading of networks and to fulfil market demand for content and telephony service offerings.

Wired Internet access: optical fibre

- Today, FTTx plays a minor role in terms of revenue in the Swiss wired Internet access market. However, this will change.
- In June 2008, the Swiss Federal Communications Commission (ComCom) launched the Round Table on fibre networks. Its aim was to discuss issues relating to the provision of households with fibre networks. ComCom wanted to prevent the creation of monopolies in this sector, which would impede access for other telecommunications providers and obstruct competition. At the same time, construction of the network should be as efficient as possible, in order to allow economically feasible investment. Approximately 12 leaders of Swiss companies that are investing in fibre networks – amongst them Swisscom, Sunrise and upc cablecom – participated in nine round table meetings.
- In January 2012, at the ninth Round Table, the participants declared that the expansion of fixed and mobile radio networks providing very high bandwidths, such as VDSL, cable networks, fibre, and soon LTE, is continuing to progress positively. Within the framework of the Round Table and Federal Office of Communications (OFCOM) industry working groups, it has been possible to achieve practical results, which will positively influence the future development of the wired Internet access offering (mainly FTTH) in

Switzerland. For example, by having set the foundation for application of a uniform technical standard for domestic FTTH installations, and for the development of a common platform for orders and customer migration in the fibre sector, which allows consumers to easily switch providers in the future. Based on the results, it was decided to abolish the Round Table.

- Swisscom is building a fibre network jointly with the larger utility companies. It has concluded cooperation agreements with municipal electricity providers, such as IWB, AMB, EWB, SIG, EWL, EWM, SGSW and EKT. These municipal electricity providers aim to provide FTTH for approximately 30 percent of all Swiss households by 2013 and for approximately 80 percent by 2020. Through these cooperations and its own efforts, Swisscom expects to pass the 1 million household mark, or nearly one-third of the Swiss population, by 2015. By the end of 2011, 364,000 households and businesses had been equipped with a fibre-optic link.
- upc cablecom is upgrading its network to EuroDOCSIS 3.0 in order to compete with the fibre rollout of Swisscom and the utility companies.
- By 2017, we expect that around 90 percent of all Swiss households will be able to connect to the Internet with download speeds exceeding 100 Mbps.

Mobile Internet

Growing importance of smartphones

- In Switzerland, providers of telecommunication services have been able to continue to attract subscribers with a combination of attractive handset pricing, SMS bundles, data packages and flat rates. Swisscom, for example, in 2011 was able to grow its mobile pre- and post-paid subscriber base by 3.8 percent to reach 6.0 million. The majority of these, 4.6 million subscribers, are residential customers.

Total Number of Mobile Subscribers

Switzerland	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2012–16 CAGR
Subscribers (millions)	8.04	8.68	9.03	9.41	9.78	10.27	10.78	11.32	11.87	12.48	5.0
Growth (%)	8.8	8.0	4.0	4.2	3.9	5.0	5.0	5.0	4.9	5.1	5.0

Source: PricewaterhouseCoopers AG; Swiss Federal Communications Commission

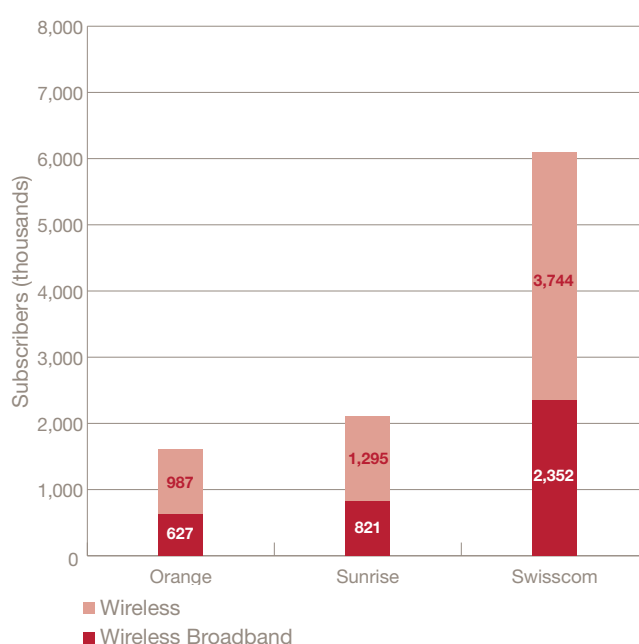
Internet Households and Mobile Broadband Subscribers Penetration by Component (%)

Switzerland	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2012–16 CAGR
Wired											
Broadband (as compared to total households)	71.7	76.2	80.6	84.6	88.2	92.0	95.5	97.2	98.9	99.5	2.4
Dial-up (as compared to total households)	12.7	6.0	3.2	2.3	1.7	1.1	0.6	0.3	0.3	0.0	-43.3
Total Wired (as compared to total households)	84.3	82.1	83.8	86.9	89.9	93.2	96.0	97.5	99.2	99.5	2.0
Mobile (as compared to total subscribers)	15.9	19.9	24.8	31.1	38.9	46.6	53.6	59.0	62.0	63.5	10.3
Total Wired and Mobile	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Source: PricewaterhouseCoopers AG; Wilkofsky Gruen Associates; OFCOM; ComCom; OECD Broadband Portal; Swisscom; Sunrise; Orange; upc cablecom; Swisscable

- Wireless broadband is becoming increasingly important to both providers of telecommunication services and cable operators, because mobile Internet access may become a substitute for wired access in the future. Swisscom, for example, increased its revenues from mobile data services in 2011 by CHF 50 million (an 11.5 percent increase on 2010), to reach a total of CHF 485 million. This is equivalent to an ARPU (Average Revenue per User) for mobile data of approximately CHF 17 on a monthly basis.
- Of the total of 9.8 million mobile subscribers in Switzerland, approximately 3.8 million are wireless broadband subscribers.
- The ratio of wireless subscribers to wireless broadband subscribers, as shown in the following figure, is equivalent to the smartphone penetration rate. At 43 percent in the first quarter of 2012, Switzerland has one of the highest smartphone penetration rates in Europe. We expect this rate to increase sharply over the coming years, given the fact that in 2011 already 60 percent of all new phones sold were smartphones.
- In a number of European countries, the rise of the smartphone has led to erosion of SMS use among mobile subscribers towards IP-based texting and instant messaging.
- In Switzerland, Swisscom was the first to show a reaction to this trend. In June 2012, Swisscom announced new flat-rate subscriptions, making their customers pay for speed instead of data quantity. Shortly after, Sunrise also launched flat-rate subscriptions.
- After years of decline, we expect the number of public WLAN locations to increase, starting in 2013. Driven by growing demand for a seamless mobile customer experience, we expect total locations to reach almost 2,800 in 2016.

Wireless (Broadband) Subscribers in Switzerland, 2011



Source: PricewaterhouseCoopers Team Analysis based on ComCom and OECD Broadband Portal reports

Total Number of Public WLAN Hotspots

Switzerland	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2012–16 CAGR
Public Wireless-LAN Hotspots	1,640	2,534	2,697	2,382	2,324	2,265	2,378	2,497	2,622	2,753	3.4
Growth (%)	25.9	54.5	6.4	-11.7	-2.4	-2.5	5.0	5.0	5.0	5.0	3.4

Source: PricewaterhouseCoopers AG; OFCOM; Swisscom

New mobile technology

- The rapid growth of data traffic on mobile networks continues, driven by the use of smartphones, laptops and other devices. Today, wireless access to both data services and the Internet via browsers or apps is considered a “must”. As a result, we observe a continuous flow of innovations and strong appetite, especially by providers of telecommunication services, for investment in technologies, such as the new Long Term Evolution (LTE).
- LTE is the latest step in moving forward from cellular 3G services (i.e., GSM to UMTS to HSPA to LTE or CDMA to LTE) to 4G services. LTE is based on standards developed by the 3rd Generation Partnership Project (3GPP).
- LTE networks are intended to bridge the functional data exchange gap between fixed, very high data rate wireless Local Area Networks (LAN) and very high mobility cellular networks. They provide a significant increase in data rates on the downlink of up to 100 Mbps, and up to 50 Mbit/s on the uplink via 20 MHz channel bandwidth.
- One example of the high pace of innovation: just a year ago, Ericsson demonstrated the world’s first commercially available 42 Mbps HSPA technology. Operators are currently rolling this out across the world. At the Mobile World Congress in Barcelona, which took place in February 2012, Ericsson demonstrated its newest commercially available 84 Mbps HSPA technology.
- The Nordic telecoms operator, 3 Scandinavia, was the first to choose the 84 Mbps HSPA technology, quadrupling its mobile broadband network speeds from 21 Mbps to 84 Mbps throughout selected areas in Denmark and Sweden.
- The three main Swiss mobile operators, Swisscom, Sunrise and Orange, are also currently upgrading their networks with 84 Mbps HSPA technology. After having successfully tested 42 Mbps HSPA LTE technology across seven tourism destinations in Switzerland, Swisscom also plans to rollout LTE across Switzerland. In order to be able to do so, Swisscom is currently upgrading its 6,000 mobile sites with the corresponding hardware and software. This should be completed by mid-2014. The approximately 300 new sites that Swisscom adds to its infrastructure each year are already equipped with the new technology.
- Critics of the continuing investment in ever-faster networks often indicate that only a few people actually cause the increase in traffic. Today, heavy users can still make intensive use of Internet access, without being charged additional fees. Newbury, England-based mobile operator consulting company Arieso, for example, found in a study that just 1 percent of consumers generate half of all traffic. The top 10 percent of users consume 90 percent of wireless bandwidth. Arieso documented the statistical gap when it tracked 1.1 million customers of a European mobile operator during a 24-hour period in November 2011.
- The gap between extreme users and the rest of the population is widening, according to Arieso. In 2009, the top 3 percent of heavy users generated 40 percent of network traffic, versus 70 percent today. The majority of traffic is generated through viewing video online.
- Interestingly, but not surprisingly, iPhone 4S users are the “hungriest” data consumers, making use of twice as much data as iPhone 4 users and three times as much as iPhone 3G users.

Swiss Mobile Radio Frequencies Auction Result – February 2012

Frequency Band	Orange	Sunrise	Swisscom
800 MHz	20 MHz	20 MHz	20 MHz
900 MHz	10 MHz	30 MHz	30 MHz
1,800 MHz	50 MHz	40 MHz	60 MHz
2.1 GHz FDD	40 MHz	20 MHz	60 MHz
2.1 GHz TDD	0	0	0
2.6 GHz FDD	40 MHz	50 MHz	40 MHz
2.6 GHz TDD	0	0	45 MHz
Auction price	CHF 154,702,000	CHF 481,720,000	CHF 359,846,000

Source: OFCOM

FDD: Frequency Division Duplex => Two radio channels are needed for a connection
TDD: Time Division Duplex => Only one radio channel is needed for a connection

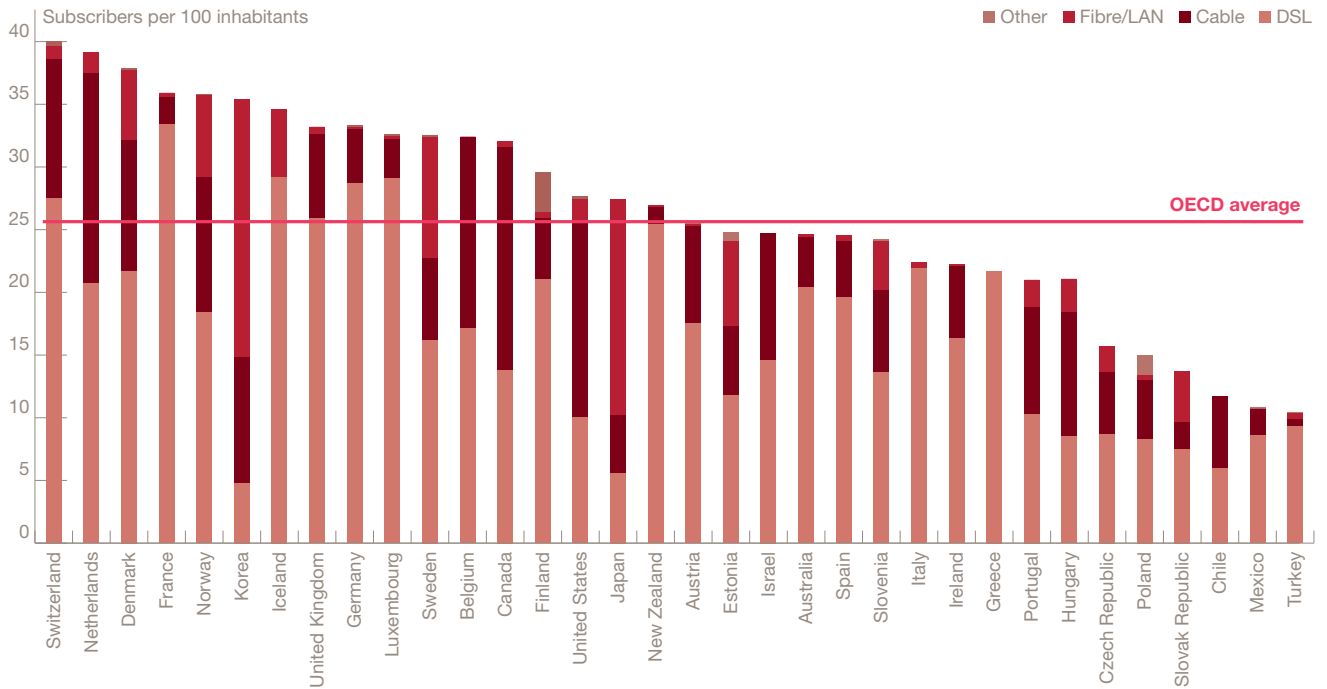
Regulation for mobile radio frequencies in Switzerland

- In February 2012, the auction procedure for mobile radio frequencies for 2013 to 2028 was completed. In&Phone, Orange, Sunrise and Swisscom had applied to take part in the auction. In&Phone did not satisfy the admission criteria and was therefore not allowed to participate in the auction. The other three companies all secured frequencies for a total sum of CHF 996,268,000.
- At first sight, it appears Sunrise paid a lot more than Swisscom and Orange in the process. However, all three providers said they were satisfied with the outcome of the auction. Usually, the frequencies, especially in the 800 MHz and also the 900 MHz ranges, are of particular interest because of their good propagation characteristics (e.g., wider range and better home reception), which results in lower antenna costs, and is especially beneficial in rural areas. In the 800 MHz range, all three providers reached equal shares, whereas in the 900 MHz range, Swisscom and Sunrise clearly left Orange behind. Sunrise was also able to win a total of 10 MHz more in the 2.6 GHz band than the other two providers, allowing, in combination with the lower frequency ranges, for a somewhat improved data network coverage with LTE.

The Swiss Internet Access Market Compared to Western Europe

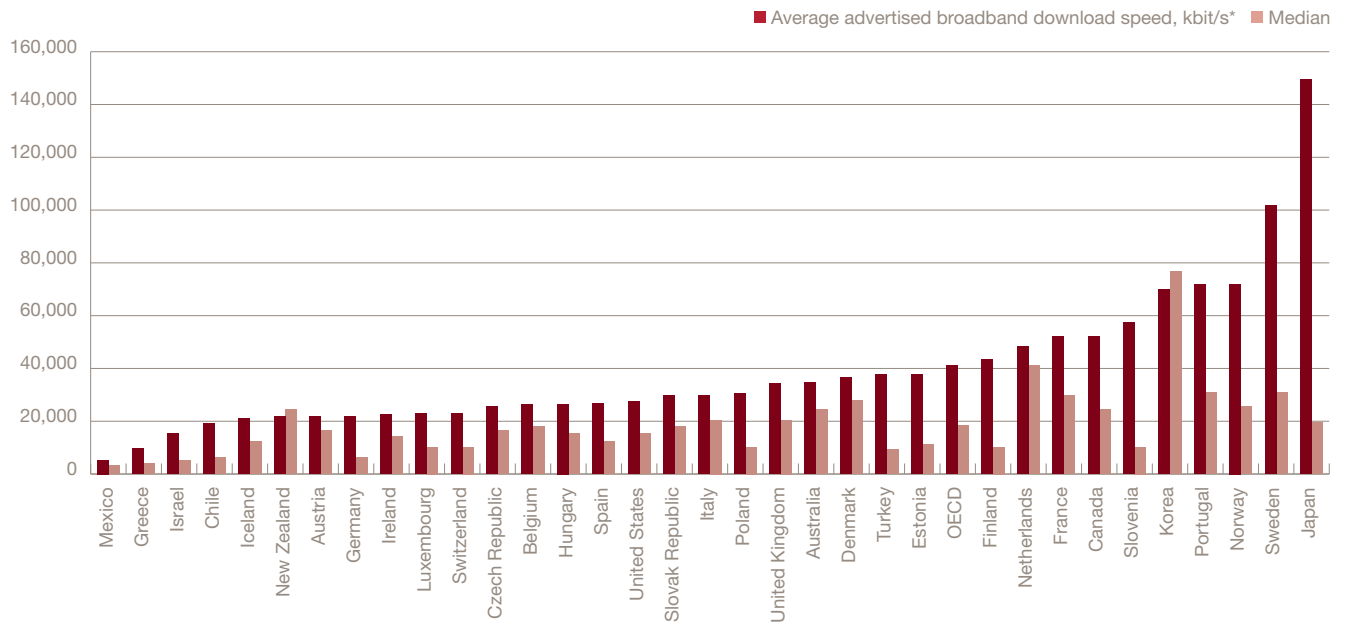
- In December 2011, Switzerland ranked first in the OECD listing of broadband subscriptions per 100 inhabitants. In Switzerland, DSL still is the dominant technology, with a share of 27.5 percent, followed by cable (11.1 percent). Fibre optics and other technology still only count for 1.4 percent of all broadband subscriptions per 100 inhabitants.
- Despite heavy investment in optical fibre infrastructure, as of September 2011, with 22 Mbps to 42 Mbps, Switzerland still ranked below the OECD average of advertised download speed for wired Internet access. It is no surprise, then, that those countries that invested early in optical fibre technology top the list today, namely Japan and Sweden.

OECD Fixed (Wired) Broadband Subscriptions per 100 Inhabitants, by Technology, December 2011



Source: OECD

Average Advertised Broadband Download Speed, by Country, kbit/s, September 2011



Source: OECD

2 Internet Advertising: Wired and Mobile

Index

Executive Summary	27
Market Overview	28
The Swiss Internet Advertising Market Compared to Western Europe	32



Executive Summary

Definition

- Internet advertising – wired and mobile – consists of spending by advertisers on paid search, banner/display, classified, video, and other online formats as well as advertising delivered to mobile devices via formats designed for mobile devices.
- The Internet advertising category includes online and mobile television, newspapers, consumer magazines, trade magazines and directory publishing advertising that is also included in the respective components.

Market size and growth in Switzerland

- We expect the Swiss wired and mobile Internet advertising market to increase at a compound annual growth rate of 9.3 percent, from CHF 769 million in 2011 to CHF 1,198 million in 2016.
- In comparison, we expect the Western European market to grow by 11.2 percent annually, from revenues of CHF 22.3 billion in 2011 to CHF 38.0 billion in 2016.

Market size and growth by component

- Total wired Internet advertising is expected to increase at an annual compound growth rate of 8.1 percent, from CHF 753 million in 2011 to CHF 1,111 million in 2016.
- In 2011 search advertising accounts for around 55 percent of total wired Internet advertising spending. It is expected to increase at a compound annual growth rate of 11.1 percent, from CHF 362 million in 2011 to CHF 614 million in 2016.
- The second largest contributor to total wired advertising – classified advertising – will grow at a 12.6 percent compound annual rate from CHF 176 million in 2011 to CHF 319 million in 2016.
- The third largest category contributing to total wired Internet advertising – banner/display advertising – is expected to decrease at a 11.8 percent compound annual growth rate, from CHF 176 million in 2011 to CHF 94 million in 2016.
- Affiliate advertising is expected to show growth of 11.2 percent compounded annually, to advance from CHF 10 million in 2011 to CHF 17 million in 2016.

- Mobile advertising continues to be on the rise. We expect mobile Internet advertising to increase at a 40.3 percent compound annual growth rate from CHF 16 million in 2011 to CHF 87 million in 2016.

Principal drivers

- Swiss Internet providers are constantly increasing bandwidth, especially through advanced deployment of Fibre to the Home (FTTH) and EuroDOCSIS 3.0, and this is expected to substantially drive wired Internet advertising over the coming years.
- Mobile access growth, especially through increased HSPA network upgrades, and increased smartphone and tablet penetration will drive mobile Internet advertising.
- The use of wireless LAN, combined with the huge proliferation of smartphones and tablets in Switzerland, drives overall time spent on the Internet. Although a large number of tablets sold in Switzerland are 3G-enabled, many of these tablets are only used within the home environment, or when travelling to destinations that have WLAN access, such as hotels, resorts, airports or major railway stations.
- Growing traffic on social networking sites, such as Facebook, Twitter, Xing, LinkedIn and others, is attracting banner/display advertising.
- Online classified advertising will continue to benefit from the migration of print to digital, as well as the growing number of highly specialised Internet offerings, which in turn allow for a more precise targeting of advertising messages, boosting overall attractiveness as an Internet advertising medium.
- In Switzerland, there still is a large gap in advertising budget allocation between traditional media and Internet advertising. Whereas the use of the Internet as a medium to consume content continues to rise sharply, advertising budgets are still not allocated to the Internet in the same proportions. We believe this gap will be closed in the next four to six years.

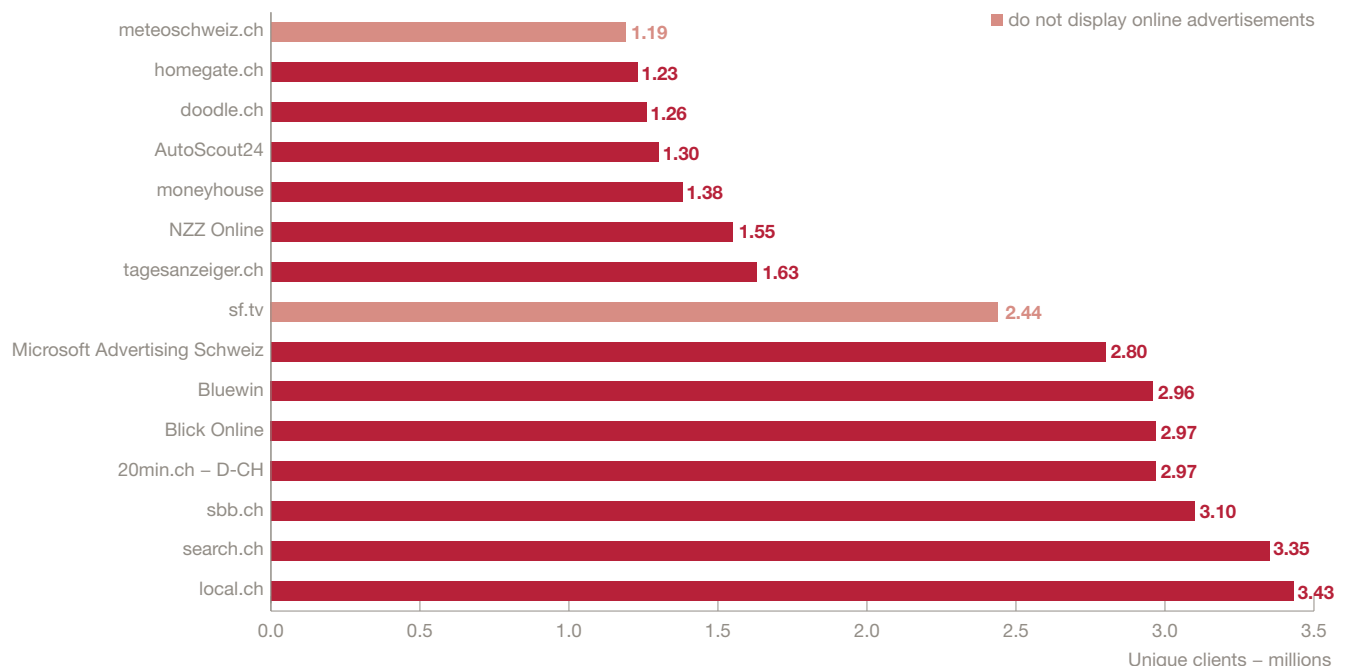
Market Overview

- Across the globe, digital media has become an important component of every advertiser's marketing mix. However, digital advertising measurement has not kept pace. The transactional focus has been on measurement of gross impressions delivered, as opposed to those that were actually seen by consumers in a particular target group. As a result, marketers have been limited in their ability to understand how online advertising works, especially when compared to other media channels. This lack of understanding has resulted in reluctance by many marketers to fully embrace digital advertising. From publishers to ad networks and from marketers to agencies, key players in the space are calling for more transparency and greater accountability as it relates to online ad delivery.
- To respond to this challenge, the Interactive Advertising Bureau (IAB), the American Association of Advertising Agencies (4As) and the Association of National Advertisers (ANA) – each representing a key constituent group in the advertising market – jointly launched an initiative called, Making Measurement Make Sense (3MS). 3MS's goal is to improve, standardise and simplify digital media measurement.
- In order to reach this goal, 3MS has published guidelines and is conducting research to help address issues surrounding ad delivery, measurement and validation. These guidelines encompass five key principles. The following provides an overview of these principles, as published by the IAB¹:
 - Principle 1 – Move to a “viewable impressions” standard and count real exposures online.
 - Today we count “served impressions” as recorded by ad servers. Often, ad units (the space taken by a particular ad) cannot be viewed by the end-user or fail to fully load on the screen – potentially resulting in substantial over-counting of impressions. Viewable exposures are increasingly the norm across other media and better address the needs of brand marketers.
 - Principle 2 – Online advertising must migrate to a currency based on audience impressions, not gross ad impressions.
 - Brand marketers target specific audiences. Marketers need to understand the quality and number of exposures against their target audiences – and the respective reach and frequency of such exposures. The existing digital currency makes this extremely difficult. Moreover, the practice of selling ad impressions makes cross-media comparisons extremely difficult, if not impossible.
 - Principle 3 – Because all ad units are not created equal, we must create a transparent classification system.
 - Unlike traditional media, which have a limited number of inventory types (e.g., a 30-second spot, full-page back cover), digital has a myriad of units. Making Measurement Make Sense advocates a transparent classification system, adhered to by all publishers. Such a system will enable marketers to identify and highlight the best offerings for brand building, and for other marketing objectives.
 - Principle 4 – Determine interactivity “metrics that matter” for brand marketers, so that marketers can better evaluate online's contribution to brand building.
 - Currently, the industry is awash in digital interaction metrics. However, these metrics are not necessarily relevant for brand marketers. Aside from click-throughs, there are few standards enabling reliable comparison across sites. The industry must identify and define the specific metrics most valuable to brand marketers and define and implement reliable standards for existing metrics.
 - Principle 5 – Digital media measurement must become increasingly comparable and integrated with other media.
 - Measurement solutions must facilitate cross-media platform planning, buying and evaluating of marketing and media. This is a substantial issue that hampers analysis and decision making throughout the ecosystem.

1 Source: IAB: http://www.iab.net/insights_research/mmms

- Responding to these developments in online advertising measurement, in January 2012 Comscore published the results of a charter study with 12 of the world's leading marketers (e.g., Ford, Kraft Foods, Kellogg's, etc.). According to the initiators of the study, the findings from this vCE Charter Study could help to pave the way for a more accurate measure of campaign delivery that relies on validated impressions, rather than served or gross impressions, which are currently the established currency for online ad measurement.
- The Comscore vCE methodology to measure the impact of online advertising is based on five key criteria. The key findings along these criteria are listed below:
 - In-view – can the ad be seen?
 - On average, only 69 percent of ads were in-view, meaning 3 out of 10 were never seen.
 - Target audience – does the ad reach the desired audience?
 - 73 percent of audience-targeted placements used data beyond basic socio-demographics such as age, gender and household income.
 - Geography – does the ad show in the right geography?
 - Up to 15 percent of impressions were served outside the desired geography.
 - Brand safety – is the environment safe for brand awareness?
 - 72 percent of campaigns had ads running in environments that were not considered brand safe (e.g., on sites associated with copyright theft, explicit adult content or malware).
- Fraud – to what extent can the results of a campaign be trusted?
 - Despite the best intentions of the majority of the industry, a number of players in the advertising ecosystem place single pixels on a screen, allowing for alleged measurement of hundreds of advertisements, that in reality never had a chance to be seen. Antifraud measures thus need to be taken into consideration when placing inventory.
- Better insights into the effects and impact of advertising, as well as increased efficiency in placing advertising inventory, will boost further online advertising spending. On Facebook alone, for example, US online advertising reached CHF 1.5 billion in 2011, and CHF 3.1 billion globally. Facebook is expected to generate more than CHF 5 billion in global banner/display advertising in 2012.
- In September 2012, the most popular websites in Switzerland, based on NET-Matrix-Audit unique clients analysis, were local.ch, search.ch and sbb.ch. Swiss publishing websites and portals are also well-visited: amongst the top fifteen websites are search.ch, 20minuten.ch (Tamedia), blick.ch (Ringier) and nzz.ch (NZZ Gruppe). Two among the top fifteen, sf.tv and meteoschweiz.ch, do not display online advertisements.

Top 15 Swiss Websites, September 2012



Source: PricewaterhouseCoopers AG; NET-Matrix-Audit

Internet Advertising Market by Component (CHF millions)

Switzerland	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2012–16 CAGR
Wired											
Search	178	205	244	314	362	401	434	486	546	614	11.1
Classifieds	150	137	136	160	176	195	219	249	281	319	12.6
Banner/Display	52	86	119	159	176	145	126	111	100	94	-11.8
Affiliate	8	8	9	9	10	12	13	14	16	17	11.2
Video	8	16	20	24	29	34	41	49	57	67	18.2
Total Wired	396	452	528	666	753	787	833	909	1,000	1,111	8.1
Mobile											
Mobile ²	2	4	8	12	16	18	24	34	53	87	40.3
Total Wired and Mobile	398	456	536	678	769	805	857	943	1,053	1,198	9.3

Source: PricewaterhouseCoopers AG; Wilkofsky Gruen Associates; Media Focus; Google; Microsoft; Yahoo!; Morgan Stanley; KPCB

² Gross data

Internet Advertising Market Growth by Component (%)

Switzerland	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2012–16 CAGR
Wired											
Search	42.4	15.2	19.0	28.7	15.3	10.8	8.2	12.0	12.3	12.5	11.1
Classifieds	56.3	-8.7	-0.7	17.6	10.0	10.8	12.3	13.7	12.9	13.5	12.6
Banner/Display	11.1	65.4	38.4	33.6	10.7	-17.6	-13.1	-11.9	-9.9	-6.0	-11.8
Affiliate	50.0	5.0	7.1	4.4	6.4	20.0	8.3	7.7	14.3	6.3	11.2
Video	102.4	100.0	25.0	20.0	20.8	17.2	20.6	19.5	16.3	17.5	18.2
Total Wired	44.9	14.2	16.7	26.2	13.0	4.5	5.8	9.1	10.0	11.1	8.1
Mobile											
Mobile	100.0	100.0	100.0	50.0	33.3	12.5	33.3	41.7	55.9	64.2	40.3
Total Wired and Mobile	45.0	14.7	17.4	26.6	13.4	4.7	6.5	10.0	11.7	13.8	9.3

Source: PricewaterhouseCoopers AG; Wilkofsky Gruen Associates; Media Focus; Google; Microsoft; Yahoo!; Morgan Stanley; KPCB

Search

- Wired Internet advertising is dominated by search advertising. Search advertising in Switzerland currently is estimated to account for 47 percent of total wired and mobile Internet advertising. We expect this share to remain constant and to reach 51 percent in 2016.
- The search advertising market is largely dominated by Google. In the USA, for example, in February 2012, Google handled more than 68 percent of all search queries (approximately 66 percent on Google and 2 percent on AOL). Microsoft's Bing is number two, with a combined 26 percent (15 on Bing and 11 on Yahoo!). Ask still holds an estimated 3 percent.
- The consolidation process in the search engine space is about to come to an end: on July 29, 2009, Microsoft and Yahoo! announced that they had made a 10-year deal in which the Yahoo! search engine would be replaced by Bing. Yahoo! will get to keep 88 percent of the revenue from all search ad sales on its site for the first five years of the deal, and has the right to sell ads on some Microsoft sites. Yahoo! Search will still maintain its own user interface, but will eventually feature "Powered by Bing™" branding. Yahoo! has transitioned to Microsoft-powered results in the USA and Canada; additional markets followed throughout 2011, including Japan. All global customers and partners will have been transitioned by mid-2012.

- Google is the clear market leader in search advertising, with an estimated 90–95 percent market share in Switzerland, followed by Microsoft’s Bing and Tamedia’s search.ch. Despite this relatively small market share, search.ch has developed very positively in 2011. Compared to 2010, Tamedia has increased the number of employees by 75 percent in 2011, and continues to position the platform as a Swiss content site. Its homepage has been designed for mobile devices, addressing shifting consumer interest towards mobile devices.
- Unlike in other Western European countries, Microsoft’s search engine, Bing, only plays a minor role in Switzerland. We expect Microsoft will try to challenge Google’s dominant position in the Swiss market.

Classifieds

- Classified Internet advertising was positively influenced by the improving economic conditions. After a flat growth rate in 2009, this sector rebounded and showed a healthy 17.6 percent growth in 2010 and a robust 10 percent growth in 2011.
- For 2011 and beyond, we expect growth to continue, because there is also growing interest in classified advertising other than in the top three sectors of jobs, real estate and cars in Switzerland. Other areas are, for example, friends, motorcycles, sailing boats, yachts, fashion, children’s toys, car components, etc.
- Classified Internet advertising in 2011 accounted for 23 percent of total wired and mobile Internet advertising in Switzerland. We expect this share to remain more or less constant and to reach 27 percent in 2016.
- The 2011 results of Switzerland’s leading online jobs portal, jobs.ch, are illustrative of the positive environment for classified advertising. In 2011, jobs.ch posted record figures in all indicators relevant for industry comparison: incoming orders, number of visitors, reach. jobs.ch reported a 54 percent rise in customer orders against the previous year, to CHF 55.6 million. The number of visits to the website increased by 29.2 million in 2011, a rise of about 23 percent against the previous year. This also applied to the number of advertised positions, which increased by about 27 percent compared to the previous year. In 2011, the company created 25 new jobs and increased its number of employees in Zurich and Lausanne to about 100.

Banner/display

- Banner/display advertising is a fixed part of many online advertising campaigns. The overall share of banner/display advertising, as a percent age of total

wired and mobile advertising, reached 23 percent in 2011. This share will strongly decrease to 8 percent by 2016.

- Corporations are starting to discover the full potential of advertising on social media platforms. In order to respond to this trend, jobs.ch and XING joined forces in that, as of October 2010, jobs.ch took on responsibility for the marketing of job classifieds and recruiter memberships on the XING platform in Switzerland. Through the cooperation, XING members get access to a larger number of vacancies, whereas recruiters can also now reach those profiles that are not actively looking for a new position. This measure, as well as others, contributed to the strong year-on-year growth of the platform.
- On March 1, 2012, the Swiss Premium Publisher Network (PPN) went online. PPN Schweiz – a subsidiary of Norwegian technology provider cXense – is a joint operation of NZZ Mediengruppe, Ringier and Tamedia, and received full clearance by the Swiss Antitrust Authorities (WEKO) in January 2012. The PPN network is open to all media agencies, publishers and advertisers. PPN seeks to bundle the online advertising inventory of its founding partners in order to become more attractive to advertisers, and to strategic partners such as Google. According to NetMetrix Profile, in September 2012 the network reached approximately 82 percent of all Swiss Internet users on a monthly basis.

Affiliate

- We expect the practice of affiliate marketing to continue growing, albeit at a very low level. A business rewards one or more affiliates for each visitor or customer brought by the affiliate’s marketing efforts with cash or gifts for the completion of an offer and the referral of others to the site. Growth will occur as advertisers seek to differentiate themselves from the vast Internet advertising inventory.
- Voucher-code and cash-back sites, such as DeinDeal or Groupon, drive growth in affiliate advertising. In Switzerland, the share of affiliate advertising is expected to remain constant at approximately 1 percent of total wired and mobile advertising over the period 2011–2016.

Mobile

- Growth in mobile Internet advertising is soaring across the world. Driven by continuous innovation in smartphones and tablets, the share of mobile Internet advertising in Switzerland is expected to grow from 2 percent of total wired and mobile Internet advertising to 7 percent by 2016.

- Mobile Internet advertising is starting to become an integrated part of Swiss media agencies' advertising and communication mix. Mobile applications, especially, are considered attractive for Swiss media agencies and Swiss advertisers.
- Mobile TV (mainly on tablets), local search and mobile access to social networks are the main drivers in mobile advertising.
- Beyond social networking, mobile devices are also increasingly being used as the primary source of entry for Internet services. For example, in 2011, jobs.ch registered 10 percent of the traffic on its main portal, jobs.ch, from mobile devices, the majority of which from smartphones. iOS devices, such as iPhones, iPads or iPods, form the largest share. For 2011 alone, jobs.ch reports 43,000 downloads of its iPhone app and 4.2 million search requests for job offers using the iPhone app. A completely renewed version of the iPhone app became available in February 2012. New apps for iPads and Android devices as well as a Web application for all other smartphones will follow in the course of 2012.
- Internet search advertising is expected to show the highest relative growth in Finland, with a compound annual growth rate of 15.1 percent over 2011–2016. Unsurprisingly, the lowest relative growth is expected in Greece, with, on average, only 2.1 percent until 2016.
- Together, in 2011 Germany and the United Kingdom constituted more than 60 percent of total Western European search advertising revenues. In comparison, Swiss search advertising revenues in 2011 constituted 2 percent.
- Banner/display advertising is expected to grow most strongly in Finland, followed by Italy and Spain, with average annual growth rates of 18.7, 14.7 and 14.5 percent over the forecast period 2012–2016 respectively. The lowest average annual growth rates until 2016 are expected in Switzerland, Greece and Denmark. The overall average Western European growth rate is forecast at 10.8 percent.
- The Internet classified advertising sector again experienced high growth in Finland, but also in Ireland and Austria, with compounded annual growth rates of 15.4, 15.1 and 14.3 percent respectively. The Swiss growth rate of 12.6 percent is clearly above the Western European average of 8.1 percent for this segment.
- After exceptionally strong growth in Portugal, with a compound annual growth rate of 71.9 percent over the forecast period 2012–2016, mobile Internet advertising growth is expected to be highest in the United Kingdom, with, on average, 35.8 percent annually until 2016. The Western European average is 31.6 percent.

The Swiss Internet Advertising Market Compared to Western Europe

- With an estimated average annual growth rate of 11.3 percent, the Western Europe Internet advertising market is expected to outpace the Swiss compound annual growth rate of 9.3 percent over the forecast period 2012–2016.

Swiss Internet Advertising Market Compared to Western Europe (CHF millions)

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2012–16 CAGR
Switzerland	398	456	536	678	769	805	857	943	1,053	1,198	9.3
Western Europe	13,645	16,315	17,257	19,718	22,336	24,859	27,714	30,988	34,497	38,198	11.3

Source: PricewaterhouseCoopers AG; Wilkofsky Gruen Associates; Media Focus; Google; Microsoft; Yahoo!; Morgan Stanley; KPCB

Swiss Internet Advertising Market Growth Compared to Western Europe (%)

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2012–16 CAGR
Switzerland	45.0	14.7	17.4	26.5	13.4	4.7	6.5	10.0	11.7	13.8	9.3
Western Europe	22.4	19.6	5.8	14.3	13.3	11.3	11.5	11.8	11.3	10.7	11.3

Source: PricewaterhouseCoopers AG; Wilkofsky Gruen Associates; Media Focus; Google; Microsoft; Yahoo!; Morgan Stanley; KPCB

3 *TV Subscriptions and Licence Fees*

Index

Executive Summary	34
Market Overview	34
Subscription Households and Spending	37
Mobile TV	39
Public TV Licence Fees	40
The Swiss TV Subscriptions and Licence Fee Market Compared to Western Europe	41



Executive Summary

Definition

- The TV subscription and licence fee market consists of revenues generated by distributors of television programmes to viewers. It includes spending by consumers on subscriptions to basic and premium channels accessed from cable operators, satellite providers, telephone companies, over-the-top (OTT) providers and other distributors, as well as TV distributed to mobile phones on a subscription basis. In Switzerland, Public TV licence fees as well as royalties for audio-visual works are also included.
- Video-on-demand (VOD), pay-per-view (PPV) and television programmes delivered over the Internet and through TV providers are not included. These spending streams are included in Filmed Entertainment.

Market size and growth in Switzerland

- We project that the Swiss TV subscription and licence fee market will increase from CHF 2.1 billion in 2011 to CHF 2.3 billion in 2016, a compound annual growth rate (CAGR) of 1.5 percent.
- In comparison, the Western European market is expected to grow by 3.8 percent compound annually. Up from CHF 66.9 billion in 2011, Western Europe will reach revenues of CHF 80.7 billion in 2016.

Market size and growth by component

- Subscription spending is the principal component of the market, with revenues of CHF 1.2 billion in 2011, which represents 57.6 percent of all spending on TV subscriptions and licence fees. We expect an increase of 1.8 percent in CAGR to CHF 1.3 billion in 2016.
- Public TV licence fees and royalties for audio-visual works, the second largest component, with a market share of 42 percent, are expected to show a 1.1 percent increase in CAGR. We expect public TV licence fees and royalties revenues to increase from CHF 880 million in 2011 to CHF 928 million in 2016.
- Mobile TV subscription spending is expected to grow very moderately at a 2.1 percent increase in CAGR from CHF 6 million in 2011 to CHF 7 million in 2016. It represented a market share of approximately 0.3 percent in 2011.

Principal drivers

- Continuing migration from analogue to digital TV fuels digital TV spending, driven by the digitalisation of the TV signal.
- In particular because of strong growth in IPTV households (IPTV will be the fastest-growing subscription technology in Switzerland) and current subscriptions overlap, we expect a strong increase in the number of households cancelling cable subscriptions. IPTV will increase due to the strong growth of Swisscom TV with its packages that combine TV with broadband Internet access and the upcoming OTT services, such as Zattoo, Wilmaa or Teleboy, which present cheaper TV offers on average. As a result, there will be a shift from cable TV to IPTV.
- The decline in analogue cable subscription revenue is the main reason for a lower growth rate in the Swiss TV subscription market than anticipated in last year's outlook. However, we still predict that about 40 percent of new IPTV users will be dual users, thus Swiss TV will grow slightly, by 1.8 percent, during the forecasted period.
- Growth in Public TV licence fees can be attributed to a continuing moderate increase in the number of households, combined with regulatory changes with respect to the number of households and businesses that are liable to pay TV licence fees.
- Despite strong growth in the mobile TV subscriber base, we do not expect revenues to increase significantly. Instead, we expect, in the short term, a continuing shift from subscriber-funded to advertising-funded mobile TV business models and, in the medium to long term, we expect mobile TV to become an integrated element of digital TV subscription packages, for which no additional fees will be charged.

Market Overview

- TV household penetration is defined as the ratio of TV households with at least one TV, compared to the total number of households. In 2011, a total of 3.26 million TV households were counted in Switzerland out of 3.47 million households overall, which represent a TV household penetration of 94 percent.
- Subscription TV household penetration is defined as the ratio of cable (analogue and digital) and IPTV subscription households to total TV households in Switzerland. TV subscription households in Switzerland

will increase at a 1.5 percent CAGR, from 3.5 million in 2011 to an estimated 3.8 million by 2016. In 2011, Subscription TV household penetration was at 109 percent.

- In 2011, the total subscription TV market grew by 8.4 percent, due to strong growth in IPTV and digital cable TV. We expect the market to continue to grow until 2014, before turning negative, due to the cancellation of analogue connections, which can no longer be compensated by growth in digital cable TV and IPTV subscriptions.
- On the one hand there is a shift from analogue to digital cable TV. This shift will be driven additionally by Switzerland's largest cable operator upc cablecom, which will offer unencrypted digital TV as of January 2013, so that set-top boxes are no longer needed.
- On the other we expect total cable TV to decline by 4.3 percent over the forecasted period due to an increasing number of households switching to IPTV. In 2011, declines in analogue cable TV subscriptions were still compensated by growth in digital cable TV. However, in the future, the decline in analogue cable TV households is expected to accelerate, while more and more users are expected to switch from cable TV to IPTV subscriptions, which are cheaper on average, and thus cannot compensate the lost revenues of analogue cable TV. As a result, subscription TV spending is estimated to grow only slightly, at 1.8 percent over the period 2012-2016.
- We expect strong growth of IPTV (including OTT services, such as Zattoo, Wilmaa, Teleboy). Growth will be driven by attractive packages offered by telecom providers such as Swisscom and Sunrise and, increasingly, OTT services, which offer TV reception for free and cheap premium subscriptions. Thus OTT providers have a differential advantage compared to cable TV.
- Further growth in digital TV is expected due to more attractive premium packages and more HD channels on the one hand, and ease of use on the other. As of 2013 upc cablecom will offer unencrypted digital TV (55 channels and 2 Mbit/s fast Internet access) so that set-top boxes or DigiCards are no longer needed. We project a compound annual growth rate of 13.2 percent until 2016 in digital subscription TV spending. In general, triple play and even quadruple play packages are making subscription TV more appealing by combining it with broadband Internet access and fixed line and mobile telephone at an implicit discount for each component when purchased together. This has become even more the case since Sunrise entered the TV market in 2012.
- Satellite TV in Switzerland predominantly consists of free-to-air (FTA) services. Satellite TV households acquire the necessary equipment once and, aside from the mandatory public TV licence fee, they do not incur recurring expenses. Satellite TV subscriptions (e.g., specific language packages) are insignificant in the Swiss market.
- Despite political discussions, the public TV licence fee rate for TV households is expected to remain stable over the next years. The federal government decided not to increase these fees over the period 2011–2014. A modest 1 percent growth in public TV licence fee revenues is expected, resulting from an overall increase in TV households and an improved collection process.
- BILLAG, the Swisscom subsidiary responsible for public TV licence fee collection on behalf of the federal government, has a contract to do so until the end of 2014.
- Several mobile TV providers (e.g., Swisscom) have already shifted to an advertiser-supported model, thus we expect that, in the future, mobile TV revenues will be generated by specialised premium offers for sports, movies and other premium programming that people are willing to pay for.

TV Subscriptions and Licence Fee Market by Component (CHF millions)

Switzerland	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2012–16 CAGR
Television Subscriptions											
Cable											
Analogue	745	715	685	630	538	433	316	213	117	36	-41.7
Digital	155	193	223	281	376	463	543	599	657	699	13.2
Total Cable	901	909	909	911	914	896	859	813	774	735	-4.3
IPTV	27	69	127	201	293	378	467	525	561	584	14.8
Total Digital Cable and IPTV	182	262	350	482	668	841	1,010	1,125	1,218	1,283	13.9
Total Television Subscriptions	927	978	1,035	1,112	1,206	1,274	1,326	1,338	1,335	1,319	1.8
Public TV Licence Fees and Royalties											
Public TV Licence Fees	801	810	828	827	833	844	851	860	867	874	1.0
Royalties for Audio-visual Works	44	49	46	46	47	50	52	53	54	54	2.8
Total Public TV Licence Fees and Royalties	845	859	874	873	880	894	903	913	921	928	1.1
Mobile TV	0	7	9	8	6	8	8	8	8	7	2.1
Total TV Subscriptions and Licence Fees	1,772	1,844	1,918	1,993	2,093	2,175	2,237	2,259	2,264	2,254	1.5

Source: PricewaterhouseCoopers AG; Wilkofsky Gruen Associates; OFCOM; Swisscom; Sunrise; upc cablecom; Swisscable; Suissimage; Swiss Federal Office of Economic Affairs

TV Subscriptions and Licence Fee Market Growth by Component (%)

Switzerland	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2012–16 CAGR
Television Subscriptions											
Cable											
Analogue	-4.6	-4.0	-4.2	-8.1	-14.6	-19.5	-27.1	-32.4	-45.1	-69.2	-41.7
Digital	40.4	24.7	15.3	26.0	33.6	23.1	17.3	10.4	9.6	6.4	13.2
Total Cable	1.0	0.9	0.0	0.3	0.3	-2.0	-4.1	-5.3	-4.8	-5.1	-4.3
IPTV	189.2	157.6	83.4	58.9	45.6	29.2	23.6	12.4	6.8	4.1	14.8
Total Digital Cable and IPTV	52.7	44.2	33.2	37.9	38.6	25.8	20.1	11.3	8.3	5.3	13.9
Total Television Subscriptions	14.6	5.4	5.8	7.5	8.4	5.6	4.1	0.9	-0.2	-1.2	1.8
Public TV Licence Fees and Royalties											
Public TV Licence Fees	4.5	1.2	2.3	-0.1	0.7	1.2	0.9	1.1	0.8	0.8	1.0
Royalties for Audio-visual Works	7.3	11.4	-6.1	0.0	2.2	6.4	4.0	1.9	1.9	0.0	2.8
Total Public TV Licence Fees and Royalties	4.7	1.7	1.8	-0.1	0.8	1.5	1.0	1.1	0.9	0.8	1.1
Mobile TV	0.0	100.0	20.0	-12.5	-14.3	16.7	7.9	2.9	-5.7	-9.1	2.1
Total TV Subscriptions and Licence Fees	3.7	4.1	4.0	3.9	5.0	3.9	2.7	1.0	0.3	-0.4	1.5

Source: PricewaterhouseCoopers AG; Wilkofsky Gruen Associates; OFCOM; Swisscom; Sunrise; upc cablecom; Swisscable; Suissimage; Swiss Federal Office of Economic Affairs

Subscription Households and Spending

- The subscription market in Switzerland competes with free services, including free digital terrestrial television (DTT) and especially with free-to-air (FTA) satellite services. The availability of a large selection of channels on free services does not hold down subscription penetration. But, even when the economy improves, free services will remain a competitive threat to subscription services. To combat competition from free services, cable and IPTV providers are enhancing their offerings with HD channels, thematic and/or linguistic packages and an increasing base of VOD offerings, and, of course, triple or quadruple play packages.
- With increasing bandwidths and Internet consumption, and improved quality and stability in the viewing signal, over-the-top (OTT) TV providers, such as Zattoo, are now delivering a higher-quality TV service to customers at favourable prices and thus attracting new viewers.
- We still predict that about 40 percent of new IPTV subscribers will be dual users. Households with multiple subscriptions usually keep their cable subscription in addition to, for example, satellite or IPTV. One reason is that today, the analogue package still encompasses approximately 40 TV stations, including those that are being viewed most by the Swiss population. Many households prefer to make use of digital technology in the living room, but do not want to install more set-top boxes/CI+ cards (and thus incur more costs for renting the devices) in the other rooms. Another reason could be that many people are simply not aware of the fact that they also have an analogue cable subscription in addition to their other means of viewing, as these analogue TV subscription costs usually are not charged directly to the customer but fall under the additional costs payable to, for example, property management. However, we expect strong declines in analogue subscriptions due to upgrades to digital cable and a shift to IPTV. Overall, we expect the analogue signal to be shut down by January 1, 2017 at the latest. According to our prognoses, the earliest shutdown of analogue according to the Swiss Federal Office of Communications (OFCOM) criteria – at least 80 percent of households have to view digitally – can be achieved as early as in mid-2014. We also expect that by the end of 2016, there will still be some 100,000 households that have not yet terminated or upgraded their analogue subscription. This will give digital TV another one-time boost in 2017.

Analogue and digital cable TV subscription households

- On the one hand, the shift from analogue cable to digital cable households will gain in pace. We project the digital cable household universe to grow at a 15.5 percent CAGR, from 1.05 million digital cable households in 2011 to 2.16 million in 2016.
- On the other, the overall cable TV subscription household base is facing severe competition from IPTV (including OTT) as well as from a stagnating subscription satellite and free DTT subscriber base.
- As a result, every year, the number of analogue subscriptions cancelled increases, due to both digitalisation of the TV signal and increasing competition from IPTV. In Switzerland, we therefore expect to see a compound annual decline of a negative 4.3 percent with regard to the overall cable TV subscription spending over the period 2011–2016, as growth in digital TV cannot fully compensate declines in analogue cable TV.
- Thus, we expect the overall cable universe to decline from 2.84 million in 2011 to a projected 2.28 million households in 2016.
- Growth in the cable TV subscription market in Switzerland is expected to decrease from CHF 914 million in 2011 to CHF 735 million in 2016.
- Our prediction strongly correlates with the number of households that have multiple subscriptions. We expect a growing number of households to switch to IPTV and cheaper OTT offerings and only a portion of the users to simultaneously cancel their cable TV subscription. However, it should be noted that human decisions are hard to predict, and could change.
- To compete with IPTV providers, upc cablecom, Switzerland's largest cable provider, entered into the mobile market by obtaining a Mobile Network Code (MNC) with the Swiss Federal Office of Communications (OFCOM). upc cablecom will render services as a mobile virtual network operator in cooperation with Orange, Switzerland's third largest provider of telecommunication services. Such cooperation provides upc cablecom with the opportunity to complement its landline portfolio with additional mobile products via the Orange network, such as it already offers under the "Take Two" product offering in Austria.
- Furthermore, upc cablecom announced it would offer unencrypted digital TV as of January 2013. The new package will include 55 digital channels, of which 19 channels will be transmitted in HD quality along with 2 Mbit/s fast broadband Internet access at a price of CHF 28.40 per month. This new offering might additionally push growth in digital cable TV.

Cable Market by Component (CHF millions)

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2012–16 CAGR
Analogue	745	715	685	630	538	433	316	213	117	36	-41.7
Digital	155	193	223	281	376	463	543	599	657	699	13.2
Total Cable	901	909	909	911	914	896	859	813	774	735	-4.3

Source: PricewaterhouseCoopers AG; Wilkofsky Gruen Associates; OFCOM; Swisscom; Sunrise; upc cablecom; Swisscable; Suissimage; Swiss Federal Office of Economic Affairs

Cable Market Growth by Component (%)

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2012–16 CAGR
Analogue	-4.6	-4.0	-4.2	-8.1	-14.6	-19.5	-27.1	-32.4	-45.1	-69.2	-41.7
Digital	40.4	24.7	15.3	26.0	33.6	23.1	17.3	10.4	9.6	6.4	13.2
Total Cable	1.0	0.9	0.0	0.3	0.3	-2.0	-4.1	-5.3	-4.8	-5.1	-4.3

Source: PricewaterhouseCoopers AG; Wilkofsky Gruen Associates; OFCOM; Swisscom; Sunrise; upc cablecom; Swisscable; Suissimage; Swiss Federal Office of Economic Affairs

Internet protocol television (IPTV) subscription households

- IPTV can be defined as television transmitted over the Internet. On the one hand providers of telecommunication services use their broadband infrastructure to offer IPTV in triple (or even quadruple) play packages that combine TV with broadband Internet access, voice, and, increasingly, also mobile (e.g., Swisscom Vivo Tutto) services. On the other hand, OTT TV providers, such as Zattoo, Wilmaa and Teleboy, have also entered the Swiss IPTV market.
- To date, Swisscom TV dominates the Swiss IPTV market. However, on May 26, 2011, Sunrise, Switzerland's second largest provider of telecommunication services, announced it would launch its own IPTV offer toward the end of 2011. It took 8 months until Sunrise effectively launched its IPTV offering, in January 2012. As of June 2012, Sunrise has been offering approximately 40 stations in HD quality and the number of subscribers is estimated at 22,000.
- Quadruple play is also a valid approach for Sunrise. For example, at Sunrise customers who also have a Sunrise mobile subscription benefit from a discount compared to those customers who order an Internet and TV package without a mobile subscription. With increasing bandwidths and Internet consumption, and improved quality and stability in the viewing signal, OTT TV providers, such as Zattoo, are now delivering a higher-quality TV service to customers at favourable prices and thus attracting new viewers.
- For example, in early 2012, Zattoo in collaboration with VideoWeb, launched a set-top box, called Video Web TV Box. And, just before the beginning of the UEFA 2012 European football championship in Poland/Ukraine – traditionally a busy time for OTT providers – Zattoo increased the total number of HD channels to 19 for its premium subscribers (available at CHF 5.40 per month) and doubled the resolution for all free viewers. In Switzerland, Zattoo counts more than 2.5 million registered users. Zattoo's free TV offering includes over 100 TV channels in German, French and Italian and the option to record and store TV content for 30 days.
- Teleboy, another Swiss OTT provider, announced that it would collaborate with Samsung. Teleboy's OTT TV offerings will be integrated in Samsung's Smart TVs via an application that will be installed during Samsung's TV production. This creates new competition in the TV subscription market.
- In addition, YouTube will compete with the traditional TV market with its newly launched theme channels (*Spartenprogramm*).
- We anticipate IPTV households in Switzerland to more than double over the forecasted period. This growth is driven by different developments. Firstly, IPTV benefits from clients who cancel their analogue cable TV. Secondly, attractive triple or even quadruple play packages offered by telecommunications providers (e.g., Swisscom and Sunrise) attract new clients. Furthermore, upcoming OTT providers with their cheap offerings and increasing quality, as well as a high percentage of dual users (expected), who use IPTV services in addition, are pushing the IPTV market.

IPTV Market by Component (CHF millions)

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2012–16 CAGR
IPTV Spending	27	69	127	201	293	378	467	525	561	584	14.8
IPTV Households	0.06	0.16	0.29	0.47	0.70	0.92	1.16	1.33	1.45	1.54	17.1

Source: PricewaterhouseCoopers AG; Wilkofsky Gruen Associates; OFCOM; Swisscom; Sunrise; upc cablecom; Swisscable; Suissimage; Swiss Federal Office of Economic Affairs

IPTV Market Growth by Component (%)

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2012–16 CAGR
IPTV Spending	189.2	157.6	83.4	58.9	45.6	29.2	23.6	12.4	6.8	4.1	14.8
IPTV Households	195.0	162.7	87.1	62.1	48.5	31.8	26.1	14.7	9.0	6.2	17.1

Source: PricewaterhouseCoopers AG; Wilkofsky Gruen Associates; OFCOM; Swisscom; Sunrise; upc cablecom; Swisscable; Suissimage; Swiss Federal Office of Economic Affairs

- We expect a 14.8 percent compound annual increase in IPTV subscription revenues from CHF 293 million in 2011 to CHF 584 million in 2016. The share of OTT services within IPTV is expected to increase, thus driving down the average price of IPTV services. As a result, revenues will not grow in correspondence to the increasing number of IPTV households.
- Overall we expect IPTV to increase its share of wallet of the total Swiss TV subscription market from 24 percent in 2011, to 44 percent in 2016.

Mobile TV

- Mobile TV was originally envisioned as a subscription-based service through which new revenues could be generated in a saturated market. However, low take-up rates have led some providers to shift to an advertiser-supported model, which we had not anticipated in last year's outlook. In essence, people are looking to access FTA programming on their mobile phones.
- As a result, a great number of European providers changed, or even discontinued, their existing or planned mobile TV subscription services in 2011, including Mobilkom and Orange in Austria, Virgin Mobile in France, Mediaset and TIM in Italy, KPN in

the Netherlands and Swisscom in Switzerland. Additionally, OTT providers (e.g., Zattoo, Teleboy, Wilmaa) compete with the mobile TV subscription market with their free apps for Android and iOS.

- For example, Swisscom launched its free Mobile TV offering "Swisscom TV air easy" financed by advertisements. It allows users to watch 80 TV channels for free on a smartphone, tablet or personal computer. Additionally, videos on demand and live sport events can be purchased for CHF 3.50 and CHF 5.50 each respectively. Swisscom's mobile TV subscription, without additional advertisements, is still available for mobile phones. It costs CHF 9 per month.
- While we expect most mobile TV users to access the service for free, we believe a specialised premium market exists for sports, movies and other premium programming that people will be willing to pay for, as well as the ability to access TV content on any mobile device as an add-on to the normal TV subscription.
- We expect the number of mobile TV subscribers to increase strongly from 60,000 in 2011 to 120,000 in 2016. However, mobile TV subscription spending totalled CHF 6.4 million in 2011, down from CHF 7.6 million in 2010. We project total spending to very slightly increase to CHF 7.2 million by 2016, a 2.1 percent compound annual increase, despite a doubling of the number of mobile TV users over the same time period.

Mobile TV Market by Component

Switzerland	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2012–16 CAGR
Mobile TV Spending (CHF millions)	0	7	9	8	6	8	8	8	8	7	2.1
Subscribers (millions)	0.00	0.05	0.06	0.07	0.06	0.07	0.08	0.10	0.11	0.12	14.9

Source: PricewaterhouseCoopers AG; Wilkofsky Gruen Associates; Swisscom; Orange

Mobile TV Market Growth by Component (%)

Switzerland	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2012–16 CAGR
Mobile TV Spending Growth	0.0	100.0	20.0	-12.5	-14.3	16.7	7.9	2.9	-5.7	-9.1	2.1
Subscribers Growth	0.0	100.0	20.0	16.7	-14.3	16.7	14.3	25.0	10.0	9.1	14.9

Source: PricewaterhouseCoopers AG; Wilkofsky Gruen Associates; Swisscom; Orange

Public TV Licence Fees

- Public TV licence fees are the second largest component in the market. The aim of the public TV licence fee is to support and finance public and private licenced TV channels. On behalf of the Swiss federal administration, BILLAG executes the collection process of the radio and TV levy. As per January 2011 BILLAG changed its collection process by sending out annual invoices. The change is meant to reduce collection costs compared to the quarterly collection process of prior periods.
- Public TV licence fees are subject to Swiss VAT, currently at 2.5 percent. Total revenues amounted to CHF 833 million (including VAT) in 2011.
- Licence fees for private TV households currently total CHF 462.40 per year, of which CHF 169.15 is for radio and CHF 293.25 for private TV use. Companies are charged between CHF 612.40 and CHF 1,408.60 per year, depending on the number of radios and TV sets. Radio fees vary from CHF 223.85 to CHF 514.90 per year, TV licence fees range from CHF 388.55 to CHF 893.70 per year for companies.
- On June 18, 2010, the Swiss federal government decided not to further increase the public TV licence fee for the financing period 2011–2014. Future revenue growth is based on the increase in total TV households and as a result of overall household development and an improved fee collection process for businesses.
- In May 2012, the Swiss federal government, decided, however, to review the Radio and Television Act (RTVA). With some exceptions, all households and companies are to pay a new universal radio and TV fee. In addition, increased flexibility and a simpler licensing procedure are planned for private radio and TV stations. The Federal Council has passed draft legislation and a consultation period from 10 May 2012 until 29 August 2012 was commissioned by the Federal Department of the Environment, Transport, Energy and Communications (DETEC).

Public TV Licence Fees and Royalties Market by Component (CHF millions)

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2012–16 CAGR
Public TV Licence Fees	801	810	828	827	833	844	851	860	867	874	1.0
Royalties for Audio-visual Works	44	49	46	46	47	50	52	53	54	54	2.8
Total Public TV Licence Fees and Royalties	845	859	874	873	880	894	903	913	921	928	1.1

Source: PricewaterhouseCoopers AG; BILLAG; Suissimage; OFCOM; Swiss Federal Office of Economic Affairs

Public TV Licence Fees and Royalties Market Growth by Component (%)

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2012–16 CAGR
Public TV Licence Fees	4.5	1.2	2.3	-0.1	0.7	1.2	0.9	1.1	0.8	0.8	1.0
Royalties for Audio-visual Works	7.3	11.4	-6.1	0.0	2.2	6.4	4.0	1.9	1.9	0.0	2.8
Total Public TV Licence Fees and Royalties	4.7	1.7	1.8	-0.1	0.8	1.5	1.0	1.1	0.9	0.8	1.1

Source: PricewaterhouseCoopers AG; Wilkofsky Gruen Associates; OFCOM; Swisscom; Sunrise; upc cablecom; Swisscable; Suissimage; Swiss Federal Office of Economic Affairs

- The partial revision of the Radio and Television Act (RTVA) focuses on the replacement of the current reception fee by a universal radio and TV fee. It is to be paid by every household and business and will no longer be linked to the existence of a particular reception device. The reason for the change is that today, devices such as smart phones, computers and tablets allow radio and TV reception. What constitutes a reception device is thus no longer clear. As a result, each household is able to benefit from public radio and TV and as a consequence is obliged to pay licence fees.
- Recipients of supplementary benefits will be exempt from the universal radio and TV fee. A new rule is that businesses with an annual turnover of less than CHF 500,000 do not have to pay the universal fee. This is the case with approximately 70 percent of all Swiss businesses. The threshold of CHF 500,000 approximately corresponds to the limit for mandatory accounting according to the new accounting legislation.
- According to OFCOM, the new legislation does not intend to maximise total licence fees revenues. It rather aims at a wider spread of fees payable across the population. OFCOM estimates that the current licence fees per household of CHF 462.40 per year may diminish to around CHF 400 within a few years.
- Today, the vast majority of licence fees are distributed to SRG SSR. It is expected that any additional cost savings are to be of benefit to public TV as well, preventing future increases in licence fees.
- We expect total public TV licence fees in Switzerland to increase at a 1.0 percent compound annual rate, cor-

responding to the expected overall household development, to CHF 874 million (including VAT) in 2016.

- In Switzerland, Suissimage is the body that looks after the copyrights and fair remuneration for authors of audio-visual works. Royalties collected through Suissimage from the users of audio-visual works amounted to CHF 47 million in 2011. Historically, the development of these royalties is positively correlated with the overall economic development in Switzerland. We project that the royalties for audio-visual works will increase at a 2.8 percent compound annual growth rate to reach CHF 54 million in 2016.

The Swiss TV Subscriptions and Licence Fee Market Compared to Western Europe

- In 2011 the entire Western European TV subscriptions and licence fees market amounted to CHF 66.9 billion. The largest contributors in 2011 were France at CHF 12.4 billion, the United Kingdom at CHF 11.2 billion, and Germany at CHF 11.1 billion. We project that the market will grow at a 3.8 percent compound annual rate to reach revenues of CHF 80.7 billion in 2016.
- Compound annual growth rates for TV subscriptions and licence fees range from 0.5 percent in Spain to 6.1 and 6.3 percent in Norway and Portugal respectively. Switzerland's total contribution to European revenues is minor and its compound annual growth rate of 1.5 percent is one of the lowest in the Western European spectrum.

Swiss TV Subscriptions and Licence Fee Market Compared to Western Europe (CHF millions)

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2012–16 CAGR
Switzerland	1,772	1,844	1,918	1,993	2,093	2,175	2,237	2,259	2,264	2,254	1.5
Western Europe	54,723	57,721	60,582	62,849	66,900	69,857	72,832	75,206	77,776	80,700	3.8

Source: PricewaterhouseCoopers AG; Wilkofsky Gruen Associates; OFCOM; Swisscom; Sunrise; upc cablecom; Swissscale; Suissimage; Swiss Federal Office of Economic Affairs

Swiss TV Subscriptions and Licence Fee Market Growth Compared to Western Europe (%)

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2012–16 CAGR
Switzerland	3.7	4.1	4.0	3.9	5.0	3.9	2.7	1.0	0.3	-0.4	1.5
Western Europe	8.9	5.5	5.0	3.7	6.4	4.4	4.3	3.3	3.4	3.8	3.8

Source: PricewaterhouseCoopers AG; Wilkofsky Gruen Associates; OFCOM; Swisscom; Sunrise; upc cablecom; Swissscale; Suissimage; Swiss Federal Office of Economic Affairs

4 *Television Advertising*

Index

Executive Summary	43
Market Overview	44
The Swiss Television Advertising Market Compared to Western Europe	47



Executive Summary

Definition

- The television advertising market consists of advertiser spending within, before and after TV programmes broadcast over the air (terrestrial) or through cable, satellite, telephony company (IPTV) or other distribution service. Online TV advertising consists of display ads on TV websites, video ads within, before and after programmes that can be streamed over the Internet, as well as ads within, before and after mobile TV broadcasts via mobile TV services. The television advertising figures are shown as net revenues and do not include agency commissions and discounts.

Market size and growth in Switzerland

- We expect the Swiss net television advertising market to increase from CHF 735 million in 2011 to CHF 803 million in 2016, a compound annual growth rate of 1.8 percent.
- In comparison, Western European television advertising is expected to increase from CHF 29 billion in 2011 to CHF 34.4 billion in 2016, a compound annual growth rate of 3.5 percent.

Market size and growth by component

- The principal component of television advertising in Switzerland, broadcast television advertising, is expected to decrease from CHF 649 million in 2011 to 647 million in 2016, which corresponds to a negative 0.1 percent compound annual growth rate. The relative share of broadcast television advertising, as compared to total Swiss television advertising, is expected to decline from 88 percent in 2011 to 80 percent in 2016.
- Broadcast television sponsoring is expected to increase by 4.3 percent annually, from CHF 55 million in 2011 to CHF 68 million in 2016. The relative share of broadcast television sponsoring as compared to total Swiss television advertising is expected to remain stable between 7 percent and 8 percent.

- The fastest growth is expected from online television advertising spending, with an average yearly growth of 23.6 percent until 2016. Total online television advertising revenues are expected to increase from CHF 31 million in 2011 to CHF 88 million in 2016. The relative share of online television advertising as compared to total Swiss television advertising is expected to grow strongly, from 4 percent in 2011 to 9 percent in 2016.

Principal drivers

- Television advertising continues to prove to be crisis resistant. In times of turbulence, advertisers seek to reach as large as possible an audience through proven mechanisms.
- To many advertisers, television advertising is the preferred medium for brand building. Again, in times of turbulence and lower overall budgets, TV advertising seems to be the sure bet in the advertising mix.
- Television viewing is increasing, which is having a positive effect on television advertising. Rising HD penetration is contributing to viewing growth.
- Increasing investment in broadband infrastructure, resulting in enhanced mobile and wired bandwidth capacity will further spur investments in mobile and online television media offerings, as well as consumer spending on such media, including the necessary hardware, such as smartphones, tablets and connected TVs.
- Popular online TV providers, such as Wilmaa and Zattoo, offer access to TV content on mobile devices, and catch-up services (making available time-independent viewing following initial programme broadcast) are boosting online viewing and providing advertising that cannot be skipped.
- Growth in online television advertising is also stimulated by the shift from subscriber-supported to advertiser-supported services, including a growing number of TV widgets for connected TVs, which expands the overall online television advertising market.

Television Advertising Market by Component (CHF millions)

Switzerland	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2012–16 CAGR
Broadcast Advertising and Sponsoring											
Broadcast	581	565	542	615	649	636	611	611	625	647	-0.1
Sponsoring	56	63	54	53	55	57	59	62	65	68	4.3
Total Broadcast Advertising and Sponsoring	637	628	596	668	704	693	670	673	690	715	0.3
Online and Mobile Television Advertising	8	17	21	25	31	36	45	59	73	88	23.6
Total Television Advertising	645	645	617	693	735	729	715	732	763	803	1.8

Source: PricewaterhouseCoopers AG; Wilkofsky Gruen Associates; Stiftung Werbestatistik Schweiz; Media Focus; Publisuisse; Goldbach Media; Ringier

Television Advertising Market Growth by Component (%)

Switzerland	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2012–16 CAGR
Broadcast Advertising and Sponsoring											
Broadcast	3.8	-2.8	-4.1	13.5	5.5	-2.0	-4.0	0.0	2.4	3.5	-0.1
Sponsoring	3.7	12.5	-14.3	-1.9	3.8	3.6	3.5	5.1	4.8	4.6	4.3
Total Broadcast Advertising and Sponsoring	3.7	-1.4	-5.1	12.1	5.4	-1.6	-3.4	0.4	2.6	3.6	0.3
Online and Mobile Television Advertising	95.1	106.3	27.3	19.0	22.0	18.0	25.0	31.1	23.7	20.5	23.6
Total Television Advertising	4.4	-0.1	-4.3	12.3	6.0	-0.7	-2.0	2.4	4.3	5.2	1.8

Source: PricewaterhouseCoopers AG; Wilkofsky Gruen Associates; Stiftung Werbestatistik Schweiz; Media Focus; Publisuisse; Goldbach Media; Ringier

Market Overview

- The Swiss television advertising market can be divided into three main sectors: broadcast, online TV, and mobile TV. In broadcast, the television companies sell the advertising slots and collect the resulting income. These encompass the Swiss TV channels in all regions, and the TV companies from abroad with dedicated Swiss advertising windows.
- In 2011, SRG SSR generated the highest net advertising revenues of CHF 428 million. The second largest net revenues, of CHF 249 million, were generated by foreign TV channels with Swiss advertising windows followed by private Swiss-wide channels. The regional broadcasters, such as Tele24, TV3 until the end of 2001, 3+ since 2006, TeleZüri, and TeleBärn, took revenues of approximately CHF 86 million. About half of the revenues generated by Swiss advertising windows within foreign channels (e.g., RTL, ProSie-

ben, Sat.1) remain in Switzerland. These revenues, for example, go to Swiss media agencies, Swiss cable and IPTV operators, etc., as illustrated in a study on behalf of Goldbach Media.

- In contrast to the SRG SSR channels, the foreign channels are not regulated by Switzerland, i.e., they are not bound by public service stipulations. Sponsoring – despite the loosening of regulatory requirements – plays a minor role due to the additional effort that usually is required to ensure the sponsoring does not violate regulations (e.g., the content of the sponsored item may not conflict with the sponsoring itself).
- One of the main challenges for television advertising is time-shifting, recording of content on personal digital video recorders (DVR) for later viewing and competition from social media. All of these are able to effect ad-skipping. However, in many cases the ability to watch a certain item at the preferred time also leads

Broadcast Advertising Market Share Switzerland, by Channel Origin



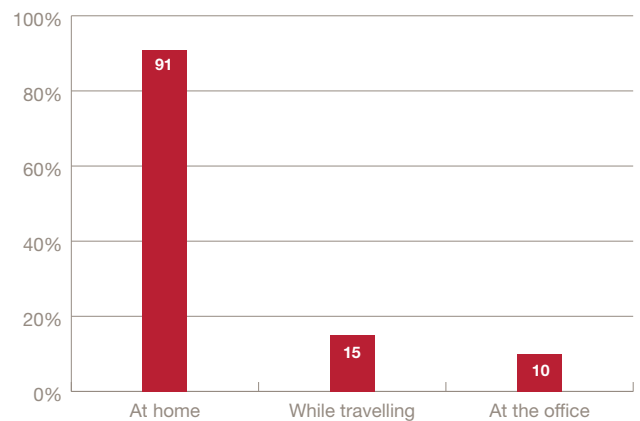
Source: Goldbach Group

to the podcast actually attracting more viewers than the original broadcast, and the integrated advertising reaches a larger audience than originally anticipated.

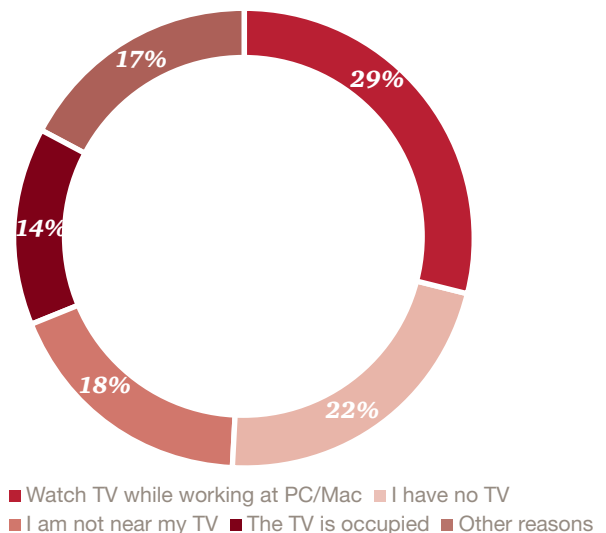
- Social media is often used in parallel to other media. This is also often the case for online TV offerings, such as via Zattoo. According to Zattoo, 29 percent of users use Zattoo while working on their PC. At the same time it was also found that a stunning 91 percent of their users use Zattoo at home.
- Zattoo's business model is financed by start-up or channel-switch ads, which users cannot skip. Zattoo entered the market in 2006 and counted 2.5 million users in 2011. Zattoo offers over 100 live TV channels and their app was one of the most downloaded from the iTunes store in Switzerland in 2011.
- Two players – Goldbach Media and Publisuisse – dominate the Swiss television advertising market. The former established itself as the marketer for all Swiss advertising windows of private TV stations; the latter markets the advertising space for SRG SSR. Number three in the market, Ringier, entered the Swiss TV advertising market in 2011 and markets the Swiss advertising windows of France's TF1.

- Joiz, the first nationwide Swiss youth channel, started its programming on March 28, 2011, and was awarded must-carry status by the Swiss Federal Court. Joiz combines broadcasting with direct interaction with the audience through social media. Over the period January – March, 2012, for example, some 125,000 questions were asked during the topics broadcast, in some cases as many as 12,000 in one hour. The combination of youth, mobile and social media supports its position for youth focused cross-media campaigns, including television advertising.
- In May 2011, two additional foreign TV stations, the French station W9 – a subsidiary of M6 – and Luxembourg TV channel AB1, which is linked to RTL9, announced they aimed to start their own Swiss TV advertising window in 2011. Goldbach Media has been asked to market both channels.

Where Online TV Is Used – Example Zattoo 2012



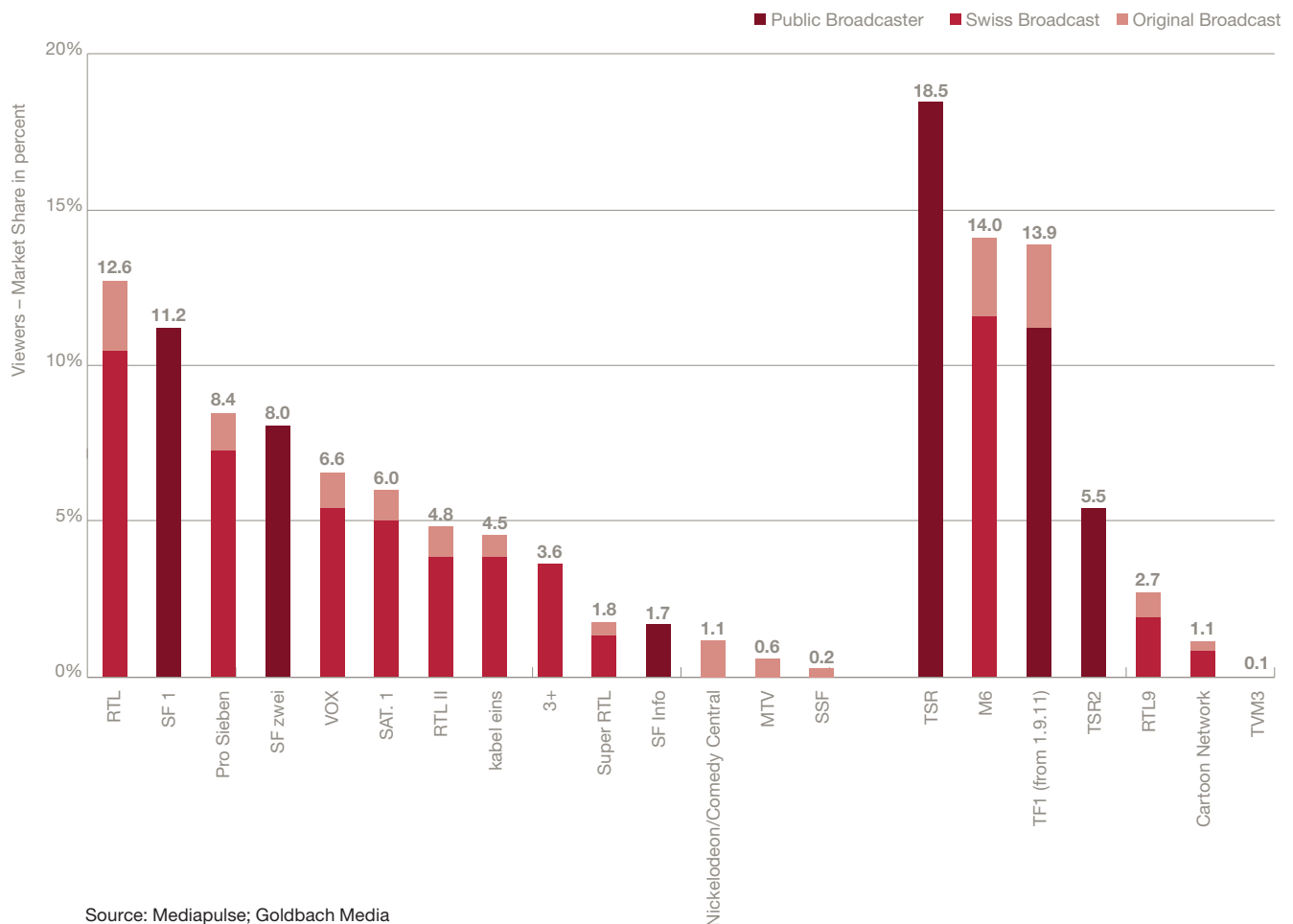
Reasons to Use Online TV – Example Zattoo 2012



Source: Zattoo

- In 2011, for the first time, RTL was the most popular channel in the German-speaking part of Switzerland in the important 15 – 49 year-old age bracket, followed by SF1 and ProSieben. In the past, the public channel SF1 of SRG SSR had always achieved first place. RTL reached a market share of 12.6 percent versus 11.2 percent for SF1. Number three, ProSieben, reached 8.4 percent market share. Swiss private station 3+ ranked ninth, with a market share of 3.6 percent.
- In the French-speaking part of Switzerland, SRG SSR was able to keep its leading position with 18.5 percent market share for its channel TSR1, followed by M6, with 14.0 percent of viewership in the 15 – 49 demography.
- Mediapulse, the Swiss TV audience company, will replace the Telecontrol television audience software Media Reporter TV as of January 1, 2013, with the InfoSys+ platform of Kandar Media, the media division of WPP. New is that Internet usage will also be included in the audience statistics, reflecting current trends and developments.
- Sports are of major importance in television and viewer access to sports programming has a direct impact on television advertising. Infront Ringier Sports & Entertainment Switzerland AG (in short: Infront Ringier), which commenced operations on July 1, 2011, secured all marketing and sponsoring rights for the Swiss Football League from 2012/13 onwards.
- Early on, however, SRG SSR secured the exclusive radio, television and online broadcasting rights for Switzerland for the FIFA World Cup 2018 in Russia and 2022 in Qatar. SRG SSR was able to achieve this through its membership in the European Broadcasting Union (EBU), which is based in Geneva. The EBU has concluded extensive rights for a total of 37 smaller member states. The rights for large nations, such as Germany, Italy, France, United Kingdom and Spain, are being negotiated by FIFA on a case-by-case basis.

Swiss TV Viewers – Market Share 2011



- The advertising formats used by online TV providers are usually “start-up” ad spots, switch ads and banner ads. Typically, commercials are shown when accessing the programme, and when switching channels. While viewing, the customer is exposed to the TV channel’s advertising, as when watching linear TV.
- Custom ad formats used by online TV providers are frame ads, where the content is shown within a branded frame, sponsoring (similar to “regular” television) and branded channels, comparable to the sponsored newspaper or magazine sections (in German these are known as “Publi-Reportagen”).
- Online TV presents an opportunity to market products to a considerably younger customer age group. Typically, the younger generations are quick to adapt to new technologies. For example, 40 percent of Zattoo viewers are under 30 years old. In contrast, the largest category of Wilmaa viewers is in the age group 35 – 49, followed by 50+.

The Swiss Television Advertising Market Compared to Western Europe

- With an average annual growth of 1.8 percent by 2016, we project below average growth in the Swiss television advertising market compared to Western Europe (3.5 percent). In Switzerland, the television market, compared to other forms of media, such as print advertising, has long been relatively underdeveloped. With the continuing digitalisation of TV households, the number of (HD) channels available also increases, which in turn positively influences overall viewing.
- Whereas the total Western European broadcast advertising market in 2011 only increased by 1 percent, the Swiss market showed high growth at 5.5 percent.
- Across Europe, the growth rates vary greatly, not least in direct correlation to current economic developments in the eurozone. In Germany, for example, broadcast advertising increased in 2011 by 2.9 percent, whereas all of the PIIGS states (Portugal, Ireland, Italy, Greece, Spain) showed strong decreases, ranging from 3.0 percent in Italy to a dramatic 16.8 percent in Greece.

Swiss Television Advertising Market Compared to Western Europe (CHF millions)

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2012–16 CAGR
Switzerland	645	645	617	693	735	729	715	732	763	803	1.8
Western Europe	30,366	29,405	26,238	28,615	29,012	29,606	30,178	31,776	32,791	34,440	3.5

Source: PricewaterhouseCoopers AG; Wilkofsky Gruen Associates; Stiftung Werbestatistik Schweiz; Affichage Holding; Clear Channel Outdoor; JC Decaux; Goldbach Group; Neo Advertising; Livesystems

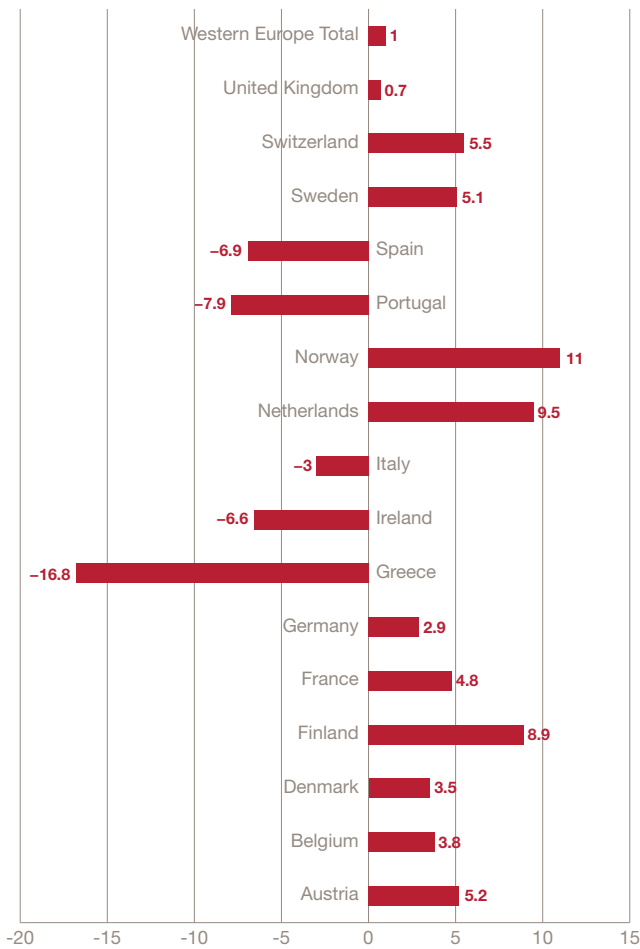
Swiss Television Advertising Market Growth Compared to Western Europe (%)

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2012–16 CAGR
Switzerland	4.4	-0.1	-4.3	12.3	6.0	-0.7	-2.0	2.4	4.3	5.2	1.8
Western Europe	3.2	-3.2	-10.8	9.1	1.4	2.0	1.9	5.3	3.2	5.0	3.5

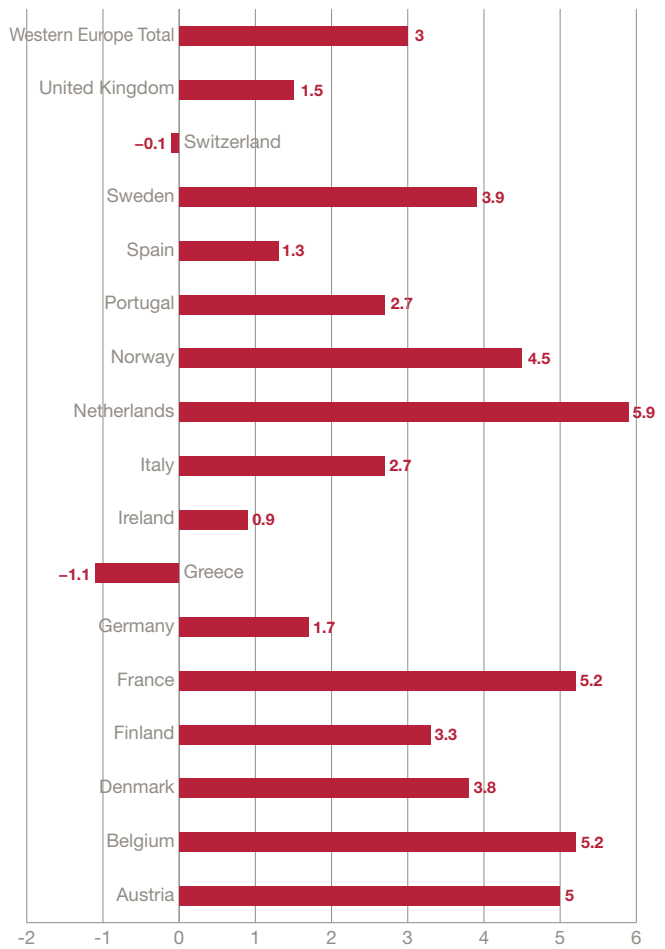
Source: PricewaterhouseCoopers AG; Wilkofsky Gruen Associates; Stiftung Werbestatistik Schweiz; Affichage Holding; Clear Channel Outdoor; JC Decaux; Goldbach Group; Neo Advertising; Livesystems

- Looking ahead, we expect most economies to find a solution to the sovereign debt crises. As a result, broadcast advertising spending will improve.
- In 2011, the largest Western European broadcast television advertising market was Italy, at CHF 5.2 billion, followed by Germany at CHF 5.0 billion, and the United Kingdom at CHF 4.9 billion.
- The size of the Swiss broadcast television advertising market can be compared to that of Sweden. The Belgian market is approximately 30 percent larger, whereas the Austrian market is approximately 30 percent smaller.

Broadcast Advertising Growth in 2011



Broadcast Advertising 2012-16 CAGR



Source: PricewaterhouseCoopers; Wilkofsky Gruen Associates

5 Music

Index

Executive Summary	50
Market Overview	50
Digital Distribution	53
Physical Distribution	53
The Swiss Music Market Compared to Western Europe	54



Executive Summary

The music market consists of recorded music and live music. This year, we have added the category Live Music to our report, which is included in this chapter.

- Recorded music comprises spending on physical formats – albums, single sound recordings and music videos – and digital distribution. Digital distribution consists of music distributed to mobile devices and music downloaded from the Internet through licenced services or app stores. Revenue from subscription and advertiser-supported streaming services is also included.
- Live music consists of concerts and music festivals, which comprises end-user spending on tickets and sponsorships.
- The recorded music market does not include subscription fees paid to satellite radio providers, or advertising generated by Internet radio services, nor does it include revenues from music publishing.
- Spending is measured at retail, which can be substantially higher than the wholesale or trade value revenues that are often reported.

Market size and growth in Switzerland

- We expect the Swiss music market to increase from CHF 891 million in 2011 to CHF 1,052 million in 2016. This corresponds to a compound annual growth rate of 3.4 percent.
- In comparison, the Western European market is expected to increase by 2.6 percent compounded annually. Western European music revenues will increase from CHF 16.3 billion in 2011 to CHF 18.5 billion in 2016.

Market size and growth by component

- We expect physical distribution revenues to continue their rapid decline. Physical distribution revenues will decline from CHF 138 million in 2011 to CHF 92 million in 2016. This corresponds to an average annual decline of 7.8 percent.
- Digital distribution is expected to grow from CHF 127 million in 2011 to CHF 225 million in 2016, a compound annual growth rate (CAGR) of 12.1 percent. Digital revenues surpassed physical revenues in the first half of 2012.

- Another strong contributor to music market growth is the segment of concerts and music festivals. We expect this segment to increase by a yearly average of 3.3 percent, from CHF 626 million in 2011 to CHF 735 million in 2016.

Principal drivers

Key drivers for the evolution of the Swiss music market are influenced by

- Piracy, which remains an issue. However, the closure of numerous download and file-sharing platforms encourages users to turn to legal forms of music title and album acquisition.
- Changes in business models and related technical innovations in general, e.g., penetration of streaming music services rather than buying units (songs) for personal storage, continuous improvement in the convenience of digital stores and volume changes rather than price changes.
- Market building companies such as Apple, with its cloud services in the new iOS6, and Google with its music service.
- Stronger declines in the physical market as many people – principally in the expanding over 45-years-of-age demographic – who used to want to own music in a physical format, now also start to embrace digital.
- A larger than ever supply of affordable consumer electronics for a range of digital music formats drive the continuing digitalisation and consumption of music (e.g., portable docking sound stations for MP3 players and iPod/iPhone/iPad).
- As a result of the decline in physical unit sales music companies are shifting attention to live acts, where there is intensified focus on the entire value chain, involving, for example, artist management, ticketing, concert organisation and radio promotion, rather than isolated elements. This value chain approach positively influences revenues at festivals and live concerts.

Market Overview

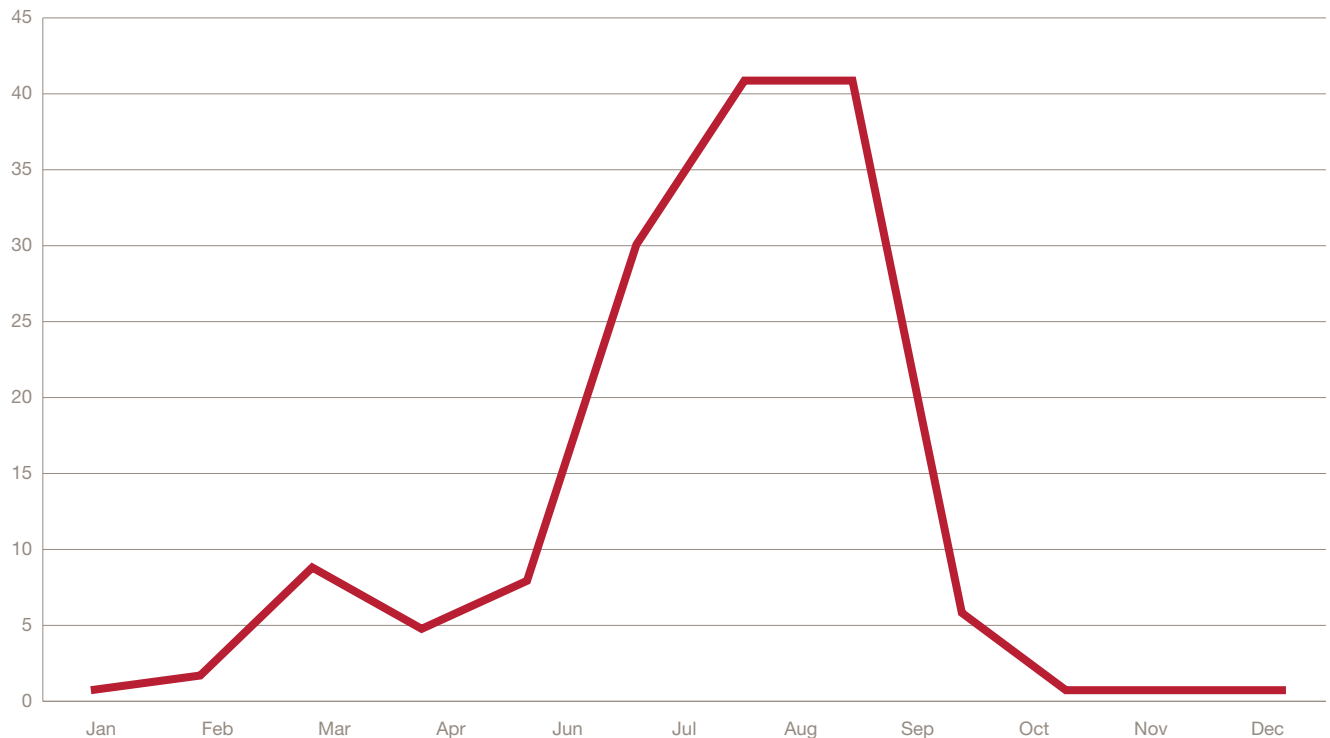
- The outlook for music in Switzerland can be split into two trends. On the one hand, physical formats of recorded music are being replaced by digital formats. This shift took place in the first half of 2012. And, with the emergence of digital music, the total recorded music market also started to grow again in 2012.

- The other element of the market is the growing importance of live acts. Switzerland is home to a large number of music festivals, such as the Montreux Jazz Festival, which is probably one of the most prominent ones. Other examples of internationally well-respected festivals are the Lucerne Blue Balls festival, Zermatt Unplugged or Locarno's Moon and Stars festival. The Zurich Street Parade techno festival counts globally among the largest of its kind. Lucerne is also home to the Lucerne Festival, which is held in the Culture and Convention Centre Lucerne (KKL). Over the past few years, the festival market was hurt by the recession and is now rebounding. In 2011, a number of international artists toured Switzerland, including artists ranging from Herbert Grönemeyer, Lenny Kravitz and Elton John to Fedde le Grand, Carl Cox and Paul van Dyk.
- By the end of 2012, close to 150 music festivals will have taken place. Peak season is from June till August, with 30, 41 and 41 festivals respectively. Openair pop/rock festivals are mainly organised in the months of May, June and July.
- With regard to downloads, the Swiss legal framework is not as strict as that of other European countries (e.g., downloading copyrighted content for personal purpose

is not illegal per se, whereas France and the UK have enacted new regulations to fight piracy). This framework is not expected to change significantly in the next few years. In that context, the collaboration with Internet service providers (ISPs) appears key but has yet to be proven as a sustainable mechanism to deter piracy. In the case of France, for example, the “three strikes and you’re out” graduated response approach yet has to prove that its merits are worth the costs. In September 2010, the Swiss Federal Court ruled that it was illegal for private companies mandated by copyright associations to monitor and identify fraudulent peer-to-peer downloads of copyrighted content. In August 2011, the Swiss government released its official viewpoint against additional measures to fight piracy, stating that technological advances require new business models.

- In 2012, the Congressional International Anti-Piracy Caucus called attention to copyright piracy problems in Switzerland by setting Switzerland on a “Watch List” together with four other countries. They noted that there is insufficient copyright protection in Switzerland, and that the law is inadequate, making the country a home for rogue sites the clear purpose of which is to facilitate and enable massive unauthorised availability of pirated material.

Number of Music Festivals in Switzerland, 2012



Source: festivals.ch

- Piracy impacts repertoires in a different way. World music, Swiss folk music and classical music have been less affected to date. The audience for these genres is typically more senior. These customers prefer to buy physical units. This will, however, change over time as younger generations enter this segment, and as the traditional buyers also start to turn to digital formats.
- The evolution of competition in digital distribution continues. The success of the Apple iTunes store has been tremendous. With their new products iCloud and iOS6, Apple adds complementary products to its ecosystem. However, with Google entering the music market, another company with a strong financial background wants to participate in the market. For smaller companies it will be difficult to take root in a market where margins are tight and critical mass is a key success factor. The ability of Apple and possibly Google to build-up, maintain, or strengthen their positions will have an impact on the entire market, globally. And then there are an increasing number of digital playlist providers, such as Spotify, that have successfully entered the scene.
- The Swiss music industry is, as in any other country, largely influenced by the music charts. In the case of Switzerland, these charts are compiled by Media Control, based on data provided by the members of IFPI (International Federation of the Phonographic Industry). The charts are presented by SRF, Swiss Radio and Television (DRS3), by Tamedia's "20 Minuten" and on hitparade.ch as the official Swiss hit parade. In March 2012, IFPI had a total of 31 members.
- However, in June 2011, the Swiss Antitrust Authority (WEKO) announced it had opened an official investigation on the Swiss chapter of IFPI and its members (amongst which are the majors, such as EMI, Sony and Universal Music). In a preliminary-investigation in April 2011 by the WEKO there appeared to be reason to believe that parallel imports had been hindered (e.g., CDs), certain music labels had been denied access to the association and, as such, the creation of representative Swiss music and download charts had been made impossible. In July 2012, the Swiss Antitrust Authority (WEKO) imposed a fine of CHF 3.5 million on IFPI. The investigation has shown that parallel imports were hindered by members of IFPI.

Music Market by Component (CHF millions)

Switzerland	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2012-16 CAGR
Physical Distribution	261	229	204	179	138	125	115	107	99	92	-7.8
Digital Distribution	57	77	96	109	127	145	165	185	205	225	12.1
Total Recorded Music	318	306	300	288	265	270	280	292	304	317	3.6
Concert/Music Festival	610	620	630	610	626	645	665	685	710	735	3.3
Total Music Market	928	926	930	898	891	915	945	977	1,014	1,052	3.4

Source: PricewaterhouseCoopers AG; Wilkofsky Gruen Associates; IFPI

Music Market Growth by Component (%)

Switzerland	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2012-16 CAGR
Physical Distribution	-11.2	-12.3	-10.9	-12.3	-22.9	-9.4	-8.0	-7.0	-7.5	-7.1	-7.8
Digital Distribution	46.2	35.1	24.7	13.5	16.5	14.2	13.8	12.1	10.8	9.8	12.1
Total Recorded Music	-4.4	-3.8	-2.0	-4.0	-8.0	1.9	3.7	4.3	4.1	4.3	3.6
Concert/Music Festival	0.8	1.6	1.6	-3.2	2.6	3.0	3.1	3.0	3.6	3.5	3.3
Total Music Market	-0.1	-0.2	0.4	-3.4	-0.8	2.7	3.3	3.4	3.8	3.7	3.4

Source: PricewaterhouseCoopers AG; Wilkofsky Gruen Associates; IFPI

Digital Distribution

- Digital distribution comprises music distributed to mobile phones and music downloaded or streamed from the Internet. With the growing ability to connect to the Internet via mobile devices, and with new cloud offerings from companies such as Apple (e.g., iCloud), Google or Amazon, the distinction between these segments is disappearing.
- Although yearly growth will slow down compared to 2007–2011, nevertheless there will be double-digit yearly growth. We predict digital distribution to grow at an average of 12.1 percent a year between 2011 and 2016, effectively increasing by CHF 18–20 million every year.
- Digital sales overtook physical sales in the first half of 2012. Digital sales will have more than doubled compared to 2010, reaching CHF 225 million by 2016. This trend will also be observed globally.
- Streaming services are continuing to gain traction; they have shown strong growth since the beginning of 2012. One reason for this development is the market entry of Spotify, a music streaming service, in November 2011. Spotify offers free, digitally restricted streaming of selected music (from approximately 15 million songs) from a range of major and independent record labels, including Sony, EMI, Warner Music Group, and Universal. Total users in all countries, where the service is available, reached 15 million by August 2012, 4 million of them paying monthly. As of 2011, there are three Spotify account types, “Spotify Free”, “Spotify Unlimited” for CHF 6.45 per month, and “Spotify Premium” including premium features for CHF 12.95 per month. Spotify is funded by paid subscriptions, advertisements on the Spotify player for non-subscribers, and music purchases from partner retailers.
- In the long run, streaming, together with other cloud solutions, will become more important. People aged 40 and over are used to buying CDs in stores and “owning the music”. Younger generations have developed, or will develop, a different attitude towards owning the music. They are less used to physically owning content and will more easily accept storing content in the cloud or even not owning it at all, i.e., streaming only.
- Currently, according to IFPI, there are 18 legal downloading and/or streaming platforms in Switzerland, compared to 13 in 2009. The number of legal actors in the market is unlikely to increase significantly. Margins on digital titles are small and therefore require large volume to be profitable, making it difficult for new platforms to emerge if not implemented on a large scale.

Physical Distribution

- The physical distribution segment consist of distribution via physical formats, such as CD, music video DVD/Blu-ray, and VHS, and tape and vinyl, the latter formats having almost disappeared from the Swiss market.
- Physical distribution will continue to decline due to competition from legitimate digital distribution and from piracy.
- However, the decline in physical distribution will slow down to minus 7.1 percent in 2016, compared to minus 22.9 in 2011, as the market begins to approach a baseline level. Many people in the expanding over-40 demographic still prefer music in a physical format. Physical distribution is much more expensive than digital distribution, which puts the physical market at a long-term disadvantage and is reflected in the higher unit prices.

The Swiss Music Market Compared to Western Europe

- The Swiss music market is significant if one takes the relatively small size of the country into consideration. In 2011, Switzerland represented 5.5 percent of the overall Western European music market. This share is expected to increase very slightly to 5.7 percent by 2016. This high share can mainly be attributed to the relatively large size of the Swiss concert and music festival market.
- Recorded music sales appear to have better resilience in Switzerland than in the rest of Western Europe. Between 2007 and 2011 the Swiss market shrank annually, on average, by 0.8 percent, whereas the Western European market fell at a rate of 3.1 percent, on average, per year. However, in 2011, the Swiss recorded music market declined by 0.8 percent, versus a 0.3 percent increase in Western Europe. In Switzerland, growth in digital formats could not compensate for the losses in physical formats as was the case in Western Europe. The reasons for this are that, on the one hand sale of physical formats declined more strongly in Switzerland than in Western Europe, and, on the other, digital formats in Western Europe grew faster than in Switzerland. In Western Europe, losses in physical formats were compensated to a larger extent by growth in digital than was the case in Switzerland.
- For the period 2011–2016, both the Swiss and the Western European music markets will grow, with the Swiss music market increasing at an average 3.4 percent CAGR, and the Western European music market at an average 2.6 percent CAGR. Total Western European revenues are expected to grow from CHF 16.3 billion in 2011 to CHF 18.5 billion in 2016.
- In 2011, the United Kingdom and Germany had the largest markets in Western Europe, at CHF 3.8 billion and CHF 3.6 billion, respectively. The UK decreased 1 percent in 2011 due to a double-digit decline in physical spending, which offset a 15 percent increase in digital spending and a 3 percent gain in concert and music festival spending. In contrast, Germany rose 2.2 percent in 2011, the largest gain in Western Europe. This increase was mainly driven by a growth of 28.9 percent in digital spending.
- In 2011, France was the third largest market in Western Europe at CHF 1.9 billion. Together, these three countries represented 58 percent of total spending.

Swiss Music Market Compared to Western Europe (CHF millions)

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2012–16 CAGR
Switzerland	928	926	930	898	891	915	945	977	1,014	1,052	3.4
Western Europe	18,587	17,765	17,423	16,210	16,258	16,486	16,857	17,339	17,875	18,507	2.6

Source: PricewaterhouseCoopers AG; Wilkofsky Gruen Associates; IFPI

Swiss Music Market Growth Compared to Western Europe (%)

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2012–16 CAGR
Switzerland	-0.1	-0.2	0.4	-3.4	-0.8	2.7	3.3	3.4	3.8	3.7	3.4
Western Europe	-2.5	-4.4	-1.9	-7.0	0.3	1.4	2.3	2.9	3.1	3.5	2.6

Source: PricewaterhouseCoopers AG; Wilkofsky Gruen Associates; IFPI

6 *Filmed Entertainment*

Index

Executive Summary	56
Market Overview	57
Box Office/Cinema	58
Physical Distribution	60
Electronic Distribution	61
The Swiss Filmed Entertainment Market Compared to Western Europe	64



Executive Summary

Definition

(new definition compared to the SEMO 2011–2015)

- The filmed entertainment market consists of out of home and in-home components. Out of home includes consumer spending at the box office for theatrical motion pictures. In home consists of physical home video and electronic home video of films. Physical includes spending on rentals of videos at video stores and other retail outlets along with DVD-by-mail services (the physical rental market) and the purchase of physical home video products (the physical sell-through market). Compared to last year's outlook there is a new definition of the electronic home video market: it consists of spending on video on demand (VOD) and pay per view through TV subscription providers (last year illustrated in the chapter "TV Subscriptions"). It also includes over-the-top/streaming services the filmed entertainment content of which is accessed via a broadband or wireless Internet connection and can be viewed on a PC, a TV, a tablet, or any other device and which bypasses TV subscription providers.
- The figures do not include music videos (which are counted in the "Music" segment). They also do not include ancillary revenues earned by cinemas, such as cinema advertising and sales of beverages and refreshments as well as accessory sales (such as 3D glasses).

Market size and growth in Switzerland

- The total sum of the filmed entertainment market in Switzerland amounted to CHF 562.4 million in 2011. The Swiss market will reach CHF 643.4 million in 2016, averaging 2.7 percent compounded annual growth between 2011 and 2016.
- In comparison, the Western European market will grow at a projected compound annual growth rate of 2.1 percent. Western European revenues will increase from CHF 19.55 billion in 2011 to CHF 21.69 billion in 2016.

Market size and growth by component

- The physical sell-through and box office markets still generate the largest revenues for the Swiss filmed entertainment industry. Box office spending will increase from CHF 230.8 million in 2011 to CHF 256.1 million in 2016, a 2.1 percent compound annual increase. Physical sell-through will fall at a 6.4 percent compound annual rate from CHF 268.9 million in 2011 to CHF 193.2 million in 2016.

- Physical rental spending will decline from CHF 12.9 million in 2011 to CHF 6.1 million in 2016, a 13.9 percent compound annual decrease. The overall physical home video market will fall to a total of CHF 199.3 million in 2016, down 6.7 percent on a compound annual basis from CHF 281.8 million in 2011.
- Electronic spending through over-the-top (OTT)/streaming will increase at a 53 percent compound annual rate to CHF 23 million in 2016, globally overtaking spending through TV subscription providers in 2012. The total electronic home video market will reach CHF 188 million in 2016 from CHF 49.8 million in 2011, a 31.1 percent increase compounded annually, including VOD spending.
- Overall home video spending will increase at a projected 3.2 percent compound annual rate from CHF 331.6 million in 2011 to CHF 387.3 million in 2016.

Principal drivers

- Moderate price growth and growth in 3D screens will stimulate the box office market, although the incremental impact of 3D is diminishing. A shortening home video release window and experiments in modification of the current windowing structure (e.g., premium VOD purchase soon after cinema release) will benefit electronic video.
- Competition from electronic platforms will adversely affect the physical home video market, leading to spending declines. Growth in the Blu-ray platform will limit declines in physical home video during the forecast period. Nevertheless, the Blu-ray market is growing more slowly than anticipated in last year's Outlook, leading us to project ongoing decreases for physical sell-through.
- Emerging OTT/streaming services and growth in digital cable and telephone company TV subscription services that promote VOD will boost electronic distribution at a predicted annual growth rate of 31.1 percent over the forecast horizon. The availability of content on tablets and other devices as well as Internet-connected TVs will foster growth in electronic distribution and a strongly expanding digital TV household universe will drive the VOD market.
- Piracy will continue to limit spending; piracy is still one online video services' biggest competitors.
- Major factors affecting the market in any given year are the quality of releases and their appeal to consumers, a development we cannot predict.

Market Overview

- When it comes to viewing movie content, today's digitally connected environment is driving profound changes in the way consumers rent, purchase, and watch films. The digitisation of films has an influence on the entire filmed entertainment industry and value

chain. We expect the Swiss entertainment market to increase by an average of 2.7 percent a year between 2011 and 2016, growing from CHF 562.4 million to CHF 643.4 million. The growth in this segment is primarily driven by the electronic home video market, which has cut into the physical market.

Filmed Entertainment Market by Component (CHF millions)

Switzerland	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2012-16 CAGR
Out-of-Home Video											
Box Office (Cinema)	201.1	208.4	229.5	228.7	230.8	235.6	239.9	245.6	251.3	256.1	2.1
Physical Home Video											
Sell-through	323.9	307.2	315.5	309.6	268.9	257.3	243.5	227.5	209.7	193.2	-6.4
Rentals	17.4	16.3	15.2	14.0	12.9	11.1	9.6	8.2	7.1	6.1	-13.9
Total Physical Home Video	341.3	323.5	330.7	323.6	281.8	268.4	253.1	235.7	216.8	199.3	-6.7
Electronic Home Video											
Over-the-Top/Streaming	0.8	1.2	1.8	2.2	2.8	4.8	8.0	12.0	17.0	23.0	53.0
VOD & PPV through TV Subscription Providers	2.0	6.0	13.0	29.0	47.0	70.0	98.0	120.0	149.0	165.0	29.3
Total Electronic Home Video	2.8	7.2	14.8	31.2	49.8	74.8	106.0	132.0	166.0	188.0	31.1
Total Home Video	344.1	330.7	345.5	354.8	331.6	343.2	359.1	367.7	382.8	387.3	3.2
Total	545.2	539.1	575.0	583.5	562.4	578.8	599.0	613.3	634.1	643.4	2.7

Source: PricewaterhouseCoopers AG; Wilkofsky Gruen Associates; Swiss Videogram Association; Swiss Federal Statistical Office

Filmed Entertainment Market Growth by Component (%)

Switzerland	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2012-16 CAGR
Out-of-Home Video											
Box Office (Cinema)	-15.5	3.6	10.1	-0.3	0.9	2.1	1.8	2.4	2.3	1.9	2.1
Physical Home Video											
Sell-through	-10.0	-5.2	2.7	-1.9	-13.1	-4.3	-5.4	-6.6	-7.8	-7.9	-6.4
Rentals	-11.1	-6.3	-6.7	-7.9	-7.9	-14.0	-13.5	-14.6	-13.4	-14.1	-13.9
Total Physical Home Video	-10.2	-5.2	2.2	-2.1	-12.9	-4.8	-5.7	-6.9	-8.0	-8.1	-6.7
Electronic Home Video											
Over-the-Top/Streaming	46.7	50.0	50.0	22.2	27.3	71.4	66.7	50.0	41.7	35.3	53.0
VOD & PPV through TV Subscription Providers	243.8	200.0	116.7	123.1	62.1	48.9	40.0	22.4	24.2	10.7	29.3
Total Electronic Home Video	165.7	157.1	105.6	110.8	59.6	50.2	41.7	24.5	25.8	13.3	31.1
Total Home Video	25.6	-3.9	4.5	2.7	-6.5	3.5	4.6	2.4	4.1	1.2	3.2
Total	10.1	-1.1	6.7	1.5	-3.6	2.9	3.5	2.4	3.4	1.5	2.7

Source: PricewaterhouseCoopers AG; Wilkofsky Gruen Associates; Swiss Videogram Association; Swiss Federal Statistical Office

Box Office/Cinema

- Box office spending increased slowly, by 0.9 percent, from CHF 228.7 million in 2010 to CHF 230.8 million in 2011. We expect that spending will increase by 2.1 percent compounded annually over the forecast period up to CHF 256.1 million in 2016, providing that blockbusters (box office hits) are released over the period. The predicted growth will be driven by premium prices to watch 3D films. Cinemagoers are willing to pay premium prices for 3D films. Kitag, for example, charges a premium of CHF 2 and an additional CHF 3 for the special glasses.
- The number of digital screens increased from 142 (25%) in 2010 to 315 (56%) in 2011, whereby 216 were equipped with digital and 3D technology. Thus, the number of digital screens more than doubled during the last year, which is considerable growth.
- The Federal Office for Culture (BAK) supports cinemas that upgrade theatres with digital technology and counter the consolidation within the box office market. Nevertheless, the fund is not sufficient to help all small cinemas with financial problems, thus the number of single screen cinemas decreased from 211 cinemas in 2010, down to 199 cinemas in 2011. Consolidation has slowed down; the number of cinemas with four or more auditoriums, and cinemas with eight or more auditoriums (multiplex cinemas) has been stable since 2010. The number of screens slightly decreased from 558 to 547 and the number of seats from 110,420 to 106,642.
- Furthermore, a shrinking release window will lead to marketing synergies between box office and home video releases and help to reduce illegal downloading of films. Most major studios have considered making movies available to VOD services shortly after their theatrical release, at a premium price. For example, Twentieth Century Fox Film Corporation, one of the most important film studios in the US, is about to pry open the window for digital film sales. Studio executives announced that an early sales system would be introduced simultaneously in about 50 countries around the world. They said the studio's recent films, such as "Abraham Lincoln: Vampire Hunter," "The Watch" and "Ice Age 4," will all be available digitally at about USD 15, in advance of their release on discs. Making content available early after release helps fight piracy, which, on global level, is still one of the major threats to filmed entertainment, but it will negatively affect box office spending.

Admissions

- Admissions increased slightly, by 0.9 percent, from 14.8 million in 2010 to 14.9 million in 2011. 9.8 million were counted in the German part of Switzerland, which represents 65.5 percent of the overall admissions in 2011. The French part accounted for 4.7 million and the Italian part 0.4 million admissions.
- In 2011, the most successful movies in Switzerland still came from the United States of America, "Harry Potter 7: The Deathly Hallows", "Hangover Part II" and "Pirates of the Caribbean: On Stranger Tides Part 4". However, 44.5 percent of all the movies released in Swiss cinemas in 2011 were produced in Europe, mainly in Germany or France. "The King's Speech" and "Intouchables" were the most successful movies among them. 27.2 percent of cine films came from the United States, followed by Swiss films at 15.6 percent.
- Over the upcoming five years, we predict admissions will rise at a modest rate of 0.7 percent. We expect the Swiss will continue going to cinemas, because they see it as a social event, but growth is limited because of the booming electronic home market.
- These forecasts reflect our analysis of underlying trends. They do not take into account the performance of the slate of prospective releases, which can significantly enhance or offset admissions in any given year.

Admission prices

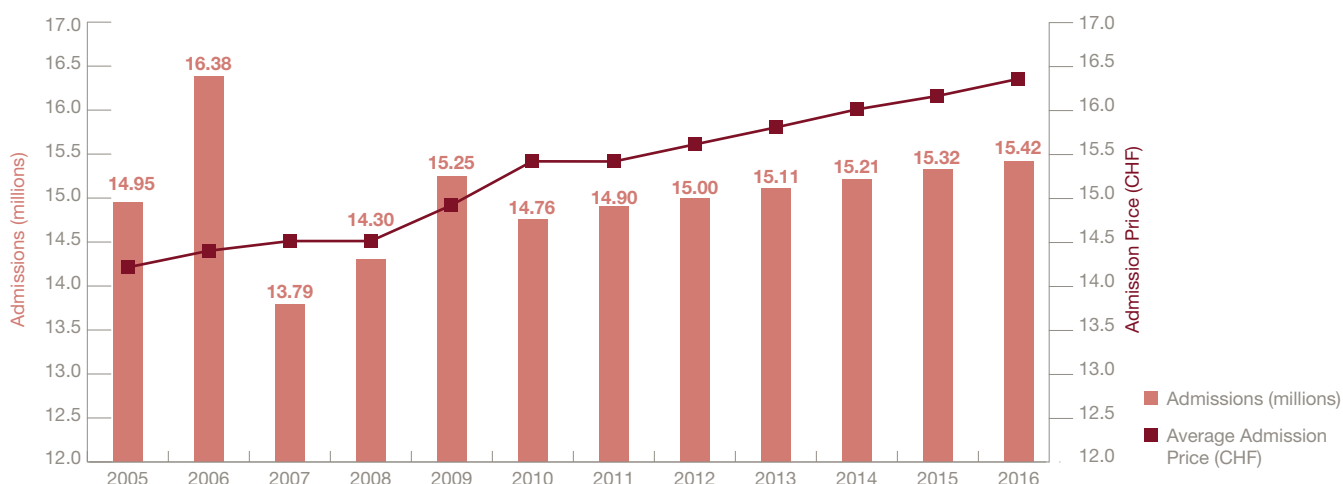
- Admission prices in 2011 averaged CHF 15.50 in Switzerland, compared to CHF 8.77 in Western Europe. The large difference can be mainly ascribed to the exchange rate development and the higher price level in Switzerland.
- Compared to the average admission price in 2010 of CHF 15.50, the price remained stable, due to the EUR/CHF exchange rate, which caused pricing pressure.
- We expect average prices to rise slowly up to CHF 16.45 in 2016 by a compounded annual growth rate of 1.2 percent over the forecast period as the share of 3D films increases, although the incremental impact of 3D will moderate. In addition, low forecasts of the consumer price index in Switzerland until the end of 2013, pricing pressure due to the current economic development and, with it, unstable customer mood will decelerate mark-ups.

Box office (Cinema)

Switzerland	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2012–16 CAGR
Spending (CHF millions)	201.1	208.4	229.5	228.7	230.8	235.6	239.9	245.6	251.3	256.1	2.1
Growth (%)	-15.5	3.6	10.1	-0.3	0.9	2.1	1.8	2.4	2.3	1.9	2.1

Source: PricewaterhouseCoopers AG, Wilkofsky Gruen Associates, Swiss Federal Statistical Office

Development of Admissions and Admission Prices in Switzerland



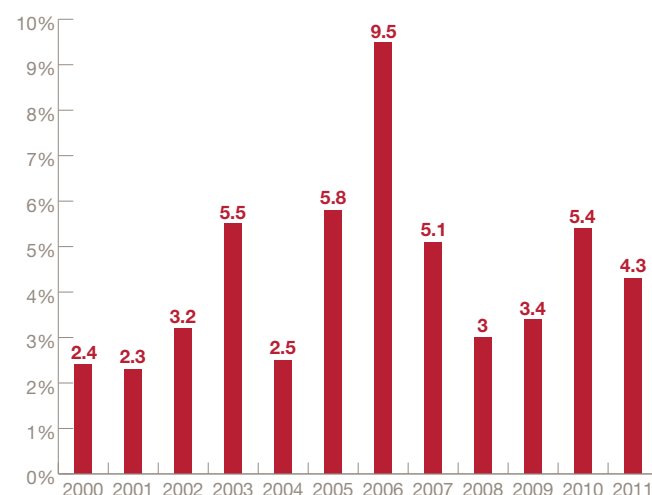
Source: PricewaterhouseCoopers AG; Wilkofsky Gruen Associates; Swiss Federal Statistical Office

Swiss films

- The Swiss Federal Office for Culture (BAK) has a priority focus on Swiss films and strongly promotes Switzerland as a country of film production and culture. In 2010, BAK had a budget of about CHF 26.8 million to support Swiss film producers.
- Despite the investments in Swiss films, the market share of Swiss films – measured by admissions – could not be increased over the last years. The market share ranged from 2.3 percent to 9.5 percent between 2001 and 2011 and was highly dependent on the success of individual Swiss films. The highest market share was achieved in 2006 due to the successful release of five different Swiss films³.
- The most successful Swiss film in 2011 achieved a high number of admissions. The film, “Verdingbub”, counted 188,891 admissions. It reached a market share of 27 percent of all the admissions of Swiss movies in 2011. The second most successful Swiss film, “Hoselupf”, counted 31’511 admissions.
- Overall, the market share of Swiss films compared to the total number of films released in the cinema was 15.6 percent in 2011.

3 “Die Herbstzeitlosen” (374,749 admissions), “Grounding” (370,957 admissions), “Handyman” (196,037 admissions), “Vitus” (179,325 admissions) and “Jeune Homme” (92,609 admissions)

Market Share of Swiss Films (%)



Source: PricewaterhouseCoopers AG; Wilkofsky Gruen Associates; Swiss Federal Statistical Office

Physical Sell-through

Switzerland	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2012–16 CAGR
Spending (CHF millions)	323.9	307.2	315.5	309.6	268.9	257.3	243.5	227.5	209.7	193.2	-6.4
Growth	-10.0	-5.2	2.7	-1.9	-13.1	-4.3	-5.4	-6.6	-7.8	-7.9	-6.4

Source: PricewaterhouseCoopers AG; Wilkofsky Gruen Associates; Swiss Videogram Association

Physical distribution

Physical Sell-through

- The Swiss physical home video market decreased strongly by 12.9 percent in 2011. Sales of DVD and Blu-ray discs decreased from 14.1 million in 2010 to 12.86 million in 2011, while goods imported into Switzerland increased 14 percent during the same period.
- The sharp decline in sales quantity was mainly due to the lower consumer demand for back catalogue titles, compared to a stable demand for new products, which had just suffered a decline of 2.3 percent. With CHF 268.9 million sales revenues in 2011 (previous year 309.6 million), the Swiss market lost 13.1 percent with the sale of film on DVD and Blu-ray, caused by the strong Swiss franc. To work against shopping tourism, prices were driven down 4.7 percent, which led to a decline in total revenues in 2011. For example, the average DVD price decreased 6 percent compared to the previous year; as a result, it was slightly below CHF 20 for the first time. We expect that prices for DVD and Blu-ray discs will fall further in the coming years, which might have a positive impact on the sales volume of physical discs, but will negatively affect total revenues.
- The bright spot in physical sell-through is high-definition Blu-ray; the sales volume of Blu-ray discs increased significantly by 45.6 percent (2011: 1.92 million discs) compared to the previous year (2010: 1.3 million discs), so every sixth disc sold was a Blu-ray disc.
- In 2011 more Blu-ray players were sold than DVD players, and we predict that in 2012 more than twice as many Blu-ray players than DVD players will be sold. The DVD market can be seen as mature and the Blu-ray market as progressing.
- However, the growth rate of the Blu-ray market in 2011 was below the growth rates of the previous two years (2009: 242 percent, 2010: 76 percent). In addition, the

DVD sales market stagnated: sales quantity fell from 12.8 million discs in 2010 down to 10.94 million discs in 2011. Thus the Blu-ray platform will limit declines in physical home video during the forecast period. Nevertheless, the Blu-ray market is growing more slowly than anticipated in last year's Outlook, leading us to project ongoing decreases for physical sell-through. Further factors such as piracy, the exchange rate (EUR/CHF), good weather and missing blockbusters such as "Avatar" or "Twilight" negatively affected total sales in 2011.

- Owning a physical copy still has some appeal, especially for consumers who want to build their film library, acquire movies with unique content, or watch a particular movie again and again. Content quality that enhances the viewing experience, such as Blu-ray, may also motivate consumers to carry on purchasing a physical disc.
- Overall, we expect the revenues of physical sell-through to decline by 6.4 percent during the forecast period, mainly due to advances in electronic delivery, which will cut into the physical market. Shorter windows between a film's box office release and home video release might support the physical home video market, but it will not stop the downturn.

Physical Rental

- The in-store rental market in Switzerland has been declining since 2006 and continued to fall in 2011. Spending has declined by 25.9 percent since 2007, including a 7.9 percent decrease in 2011.
- As of June 2012, the press officer of the Swiss Videogram Association counted approximately 80 rental stores. The number of rental companies declined over the past year from 120 stores mid-2011 down to 80 stores mid-2012.

Physical Rental

Switzerland	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2012–16 CAGR
Spending (CHF millions)	17.4	16.3	15.2	14.0	12.9	11.1	9.6	8.2	7.1	6.1	-13.9
Growth	-11.1	-6.3	-6.7	-7.9	-7.9	-14.0	-13.5	-14.6	-13.4	-14.1	-13.9

Source: PricewaterhouseCoopers AG; Wilkofsky Gruen Associates

- The availability of films on television either on television for free or on a video-on-demand basis has taken business from the physical rental market. With new streaming services becoming available, we expect the physical rental market to continue to decline by 13.9 percent compounded annually to CHF 6.1 million in 2016, accompanied by a substantial drop in the number of rental stores in Switzerland. Online rentals, through DVD by mail services (e.g., DVDFly) may limit the decline in the overall physical rental market, but will not stop the downturn.

Electronic Distribution

- This segment is split into the segments of over-the-top/streaming and video-on-demand services through TV subscription providers.

Over-the-top/streaming

- Over-the-top/streaming consists of content that can be accessed over the Internet on a subscription or an “à la carte” pay basis that bypasses TV subscription providers.
- The Internet has created a global film market, and the number of sites offering streaming video content is increasing. Videos can be obtained directly via the Internet through digital downloads, streaming services and through online rental subscriptions.
- The ability to stream or download content to any device, including tablets such as the iPad, makes

electronic delivery an attractive option. Consumers are changing the way they watch, rent, and buy movies. We predict a trend whereby consumers will want to access and view content on-demand, whenever, wherever and on whatever device they choose.

- Furthermore, the availability of web-enabled TV sets (e.g., Apple TV, Samsung Smart TV) will accelerate the video streaming market by making it easier to download a movie from the Internet and watch it on television.
- Since March 2012, the iTunes Store has featured thousands of current and classic movies and TV episodes in HD quality. It is possible to rent or buy HD movies and TV shows. The iTunes Store automatically downloads the highest-resolution video the device will support to offer the best possible picture. Furthermore iCloud, a storage service from Apple, lets the public watch these movies and TV shows at any time and on different devices, thus it is possible to begin watching on one device and finish on another.
- Netflix, the world’s leading Internet streaming service that counts more than 27 million streaming members globally, offers a catalogue of 100,000 titles and ships two million DVDs per day. In the United States market researchers predict a larger number of movies downloaded from online rental stores (e.g., Netflix, Amazon), compared to physical discs such as DVD and Blu-ray for 2012. In Switzerland we anticipate the same trend, but with a time lag of some years. Netflix and Google TV entered the European market (United Kingdom and Ireland) in 2012 and Netflix is planning to launch services in Scandinavia before the end of the year.

Over-the-Top/Streaming

Switzerland	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2012–16 CAGR
Spending (CHF millions)	0.8	1.2	1.8	2.2	2.8	4.8	8.0	12.0	17.0	23.0	53.0
Growth	46.7	50.0	50.0	22.2	27.3	71.4	66.7	50.0	41.7	35.3	53.0

Source: PricewaterhouseCoopers AG; Wilkofsky Gruen Associates

- Acetrax, a Swiss start-up company, founded in 2006, also competes in this global market. Acetrax's strategy has been to bet on the future of smart TV, signing partnership deals with most of the major television manufactures, including Samsung, Panasonic, Toshiba and LG, to embed its Acetrax VOD app on sets sold across Europe. Acetrax currently reaches 80 million broadband customers in seven European territories, and it forecasts it will have 60 million embedded Smart TV apps across Europe by 2015. Acetrax's videos can be seen via all types of devices (TVs, Blu-ray disc players, set-top boxes, personal computers, tablets, mobiles).
- Additionally, some Swiss news websites, such as 20min.ch and blick.ch, as well as TV providers (e.g., SF TV, 3plus) offer a videoportal where videos and missed TV shows can be seen via the Internet. Thus, viewers can watch TV shows and movies independent of the day and time of their original broadcast.
- Overall, the global market shows that mass adoption of Internet video has already taken place – 86 percent of all Internet consumers in the US now watch videos online. In August 2012, 185 million people watched 42 billion videos for 17 hours according to ComScore, a global market research firm. However, electronic home videos are still at a disadvantage compared to physical videos. The quality of videos obtained over streaming services (e.g., YouTube) is lower than that from HD DVD or Blu-ray discs and the range of videos is not as large as in physical rental stores. Additionally, the usability of online rental services needs to be improved. These are factors that confirm our projection that the electronic home video market (OTT/streaming) is a disruptive technology that will change the Swiss filmed entertainment market over the coming years.
- Online video advertising enabled the video streaming industry to evolve. For video producers it was very hard to build a profitable business model within the OTT video market. But with the possibility of selling advertising, such as start-up ads (a short spot before a video), channel switch ads, TV side ads, etc., video producers in this segment will be able to generate profits.
- Instant streaming has begun to steal a measurable portion of the home video market share. In 2011 the Swiss OTT/streaming video market showed a high growth rate of 27.3 percent. It allows for a disintermediation of traditional TV broadcasters and could accelerate

the decline in physical media sales and rental volume. However, launching a market leading service has many challenges, such as film rights, three national languages in Switzerland, content quality, and Internet speed. The race to scale has started, and is shaping the future of the Swiss filmed entertainment industry.

- Moreover, it should be noted that, in the OTT/streaming market, many streaming services, such as movie2k.to or kinox.to, exist within legal limbo. They offer films without any agreements with the holders of rights. In Switzerland it is legal to download movies from these services, but it is forbidden to upload or share them according to Swiss law (copyright).
- Despite this, we do not expect that the current OTT television offerings will lead to cord-cutting in Switzerland, but rather that OTT services will be used as additional services. However, with more content on offer and increased usability and content quality, this may change over time, especially with the Internet generation.

Video on Demand (VOD) and Pay per View (PPV) through TV Subscription Providers

- VOD is available in all Internet households, as well as in digital cable and IPTV households. VOD is only available as a bandwidth and storage-intensive push VOD service for satellite personal video recorder (PVR) subscribers. Growth in broadband Internet households, digital cable and the IPTV universe is expanding the potential market.
- VOD spending is heavily influenced by both the increase in digital TV households and the proliferation of broadband. We expect the total number of VOD households to increase by, on average, 27.8 percent over the period 2011–2016, from 0.5 million in 2011 to 1.6 million households in 2016. VOD and PPV spending is projected to rise sharply at a 29.3 percent compound annual growth rate, from CHF 47 million in 2011 to CHF 165 million in 2016.
- There is still significant growth potential in the VOD segment. Currently, we estimate that approximately 20 percent of digital TV subscribers actively make use of VOD. Users tend to watch about two films per month.

Video on Demand (VOD) and Pay per View (PPV) through TV Subscription Providers⁴

Switzerland	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2012-16 CAGR
Spending (CHF millions)	2.0	6.0	13.0	29.0	47.0	70.0	98.0	120.0	149.0	165.0	29.3
Growth	243.8	200.0	116.7	123.1	62.1	48.9	40.0	22.4	24.2	10.7	29.3

Source: PricewaterhouseCoopers AG; Wilkofsky Gruen Associates; OFCOM; Swisscom; Sunrise; upc cablecom; Swisscable; Suissimage; Swiss Federal Office of Economic Affairs

Video on Demand (VOD) and Pay per View (PPV) through TV Subscription Providers⁴

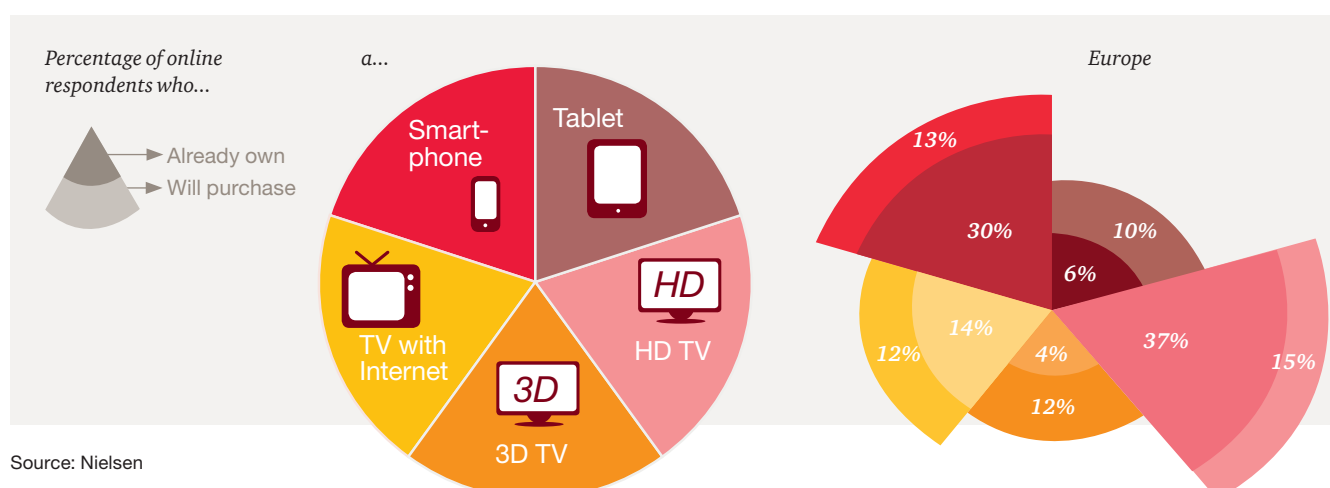
Switzerland	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2012-16 CAGR
Housholds (millions)	0.04	0.13	0.19	0.30	0.47	0.67	0.95	1.17	1.40	1.59	27.8
Growth	300.0	201.0	51.8	57.7	53.1	44.2	41.0	24.1	19.6	12.9	27.8

Source: PricewaterhouseCoopers AG; Wilkofsky Gruen Associates; OFCOM; Swisscom; Sunrise; upc cablecom; Swisscable; Suissimage; Swiss Federal Office of Economic Affairs

⁴ The market figures are not fully comparable with last year's Outlook, because of changes in the basis for calculation.

- According to Nielsen, a global information and measurement company, the hype around 3D seems to have slowed down. In research conducted in 2011, Nielsen found that only 4 percent of European consumers currently own a 3D TV set and 12 percent plan to buy one. However, today, 14 percent own a connected TV and another 12 percent intend to buy a connected TV in 2012.
- Growth in the underlying VOD household base will expand the potential market for VOD over the next five years. In 2011, there were approximately 470,000 households in Switzerland actively accessing VOD. We expect total VOD households to more than triple at a 27.8 percent compound annual growth rate during the next five years, to 1.59 million in 2016.
- In general, the expanding digital subscriber base, i.e., digital cable plus digital satellite plus IPTV, will expand the PPV market. However, as cable and IPTV providers market their VOD services more heavily than PPV, we do not expect further growth in the Swiss PPV market. We therefore project the PPV market in Switzerland to remain flat at CHF 3 million annually through 2016.
- Continuous increase in available bandwidth blurs any possible distinction between VOD offerings from cable and IPTV service providers (namely upc cablecom and Swisscom) and from OTT players, such as Acetrax, Amazon Instant Video, Teleboy or Apple TV. From a technical viewpoint, streaming in HD quality already is available with as low a bandwidth as 4 Mbit/s.
- Overall, we expect total spending on electronic home video to grow by a compounded annual growth rate of 31.1 percent during the next five years. The electronic home video market is the major driver of growth in the Swiss filmed entertainment market.

Device Penetration



Source: Nielsen

The Swiss Filmed Entertainment Market Compared to Western Europe

- Switzerland represented 2.9 percent of the overall Western European filmed entertainment market in 2011. The share is expected to remain stable until 2016. At 2.7 percent annual growth, Switzerland is slightly above the average Western European growth rate of 2.1 percent. This difference is mainly driven by the high growth rate of the electronic home video market.
- The size of the Swiss filmed entertainment market is approximately the same as that of the markets of Nordic countries, such as Sweden and Norway.
- The United Kingdom is the largest market in the region, at CHF 5.3 billion in 2011. The five biggest territories, the United Kingdom, followed by France, Germany, Italy and Spain constitute 76 percent of filmed entertainment spending in 2011 in Western Europe.
- In 2011, the UK market decreased 0.3 percent as declines in physical home video offset gains in box office and electronic distribution. France grew by 2.5 percent and Germany by 2.3 percent, caused by an increase in box office spending and expanding electronic markets. Italy and Spain recorded steep declines of 8.4 percent and 6.5 percent, hurt by a weak economy and declines in box office and home video spending.

Swiss Filmed Entertainment Market Compared to Western Europe (CHF millions)

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2012–16 CAGR
Switzerland	545.2	539.1	575.0	583.5	562.4	578.8	599.0	613.3	634.1	643.4	2.7
Western Europe	19,897	19,512	19,586	19,716	19,545	19,540	19,828	20,335	20,988	21,690	2.1

Source: PricewaterhouseCoopers AG; Wilkofsky Gruen Associates; Swiss Videogram Association; Swiss Federal Statistical Office

Swiss Filmed Entertainment Market Growth Compared to Western Europe (%)

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2012–16 CAGR
Switzerland	10.1	-1.1	6.7	1.5	-3.6	2.9	3.5	2.4	3.4	1.5	2.7
Western Europe	-0.6	-1.9	0.4	0.7	-0.9	0.0	1.5	2.6	3.2	3.3	2.1

Source: PricewaterhouseCoopers AG; Wilkofsky Gruen Associates; Swiss Videogram Association; Swiss Federal Statistical Office

7 Video Games

Index

Executive Summary	66
Market Overview	66
Console/Handheld Market	67
Online Games	69
Wireless Games	71
PC Games	72
Video Game Advertising	72
The Swiss Video Game Market Compared to Western Europe	73



Executive Summary

Definition

- The video games market comprises consumer spending on console games (including hand held games), personal computer (PC) games, online games, wireless games and video game advertising.
- The figures in this chapter exclude spending on the hardware and accessories used to play the games. Retail purchases of a game are included in either the PC or console game categories. If these games are played online for a subscription fee, the subscription fee is counted in the online game category.

Market size and growth in Switzerland

- We expect the Swiss video game industry to increase by an average of 5.4 percent a year between 2011 and 2016, growing from CHF 407 million to CHF 531 million.
- In comparison, the Western European market will grow by a projected 4.2 percent compounded annually. Western European revenues will increase from CHF 14 billion in 2011 to CHF 17 billion in 2016.

Market size and growth by component

- Console/handheld games, the largest category, at 171 million in 2011, will slightly increase at a 1.3 percent compound annual rate to CHF 182 million in 2016.
- Online games and wireless games will be the fastest-growing end-user categories, with compound annual increases of 10.3 percent and 6.5 percent, respectively. Online games will reach CHF 235 million in 2016, and wireless games CHF 52 million. As a result, online games will replace console games as the largest gaming category in 2016.
- PC games sales will continue their sharp fall from previous years and decrease from CHF 30 million to CHF 24 million, at a 4.1 percent compound annual rate.

Principal drivers

- The market for PC games will continue declining as consumers turn their attention to newer technologies. Piracy of PC games, which is prevalent in certain markets, has also hampered the growth of the segment. The growth of the massively multiplayer online games (MMOGs), which usually require retail purchase of a PC game, continues to support the retail PC game market.

- The increasing number of smartphones and tablets, such as the iPad, with improved graphic capabilities, is enabling developers to produce more advanced wireless games and will push demand for those games. Smartphones and tablets, aided by an intuitive-touch interface, are fast becoming the devices of choice for casual game players. At the same time, new application stores that make the purchase of games more user friendly will increase the number of people willing to purchase games. The growth of advanced wireless networks, with their faster speeds, will enable wireless games to approach the quality of console games.
- The shift to online and wireless games will affect the console game market negatively in the near term, although new games, with improved motion-sensory technology, marketed for the current generation of consoles, will limit declines. The Wii U is the only next-generation console that has been officially announced, though next-generation consoles from the other competitors are likely to be introduced over the forecast period, boosting the sales of games that take advantage of new technologies. The latest handheld devices – the Nintendo 3DS and the PlayStation Vita, which are primarily gaming consoles – will also continue supporting the market for console/handheld games.
- Video game advertising is emerging as an additional revenue stream. The growth of social network games (e.g., Facebook) and free games is driving an increase in video game advertising.
- Increased broadband penetration and, with it, the growing digital distribution of content will drive the growth of the online market. The migration of many MMOGs from their subscription models to a free-to-play business model is increasing the number of players worldwide. The free-to-play business model includes microtransactions, which are generating a boom in revenues for the industry. Casual games and social network games are important components of the online market, helping expand the demographic base and stimulating spending.

Market Overview

- Video games continue to be one of the most dynamic segments in the Swiss entertainment and media industry. We expect the Swiss video game industry to increase by an average of 5.4 percent a year between 2011 and 2016, growing from CHF 407 million to CHF 531 million.

Video Games Market by Component (CHF millions)

Switzerland	2007	2008	2009	2010	2011	2012	2013	2014	2015	2015	2012–16 CAGR
Console/Handheld Games	172	209	204	190	171	166	162	166	172	182	1.3
Online Games	77	100	114	123	144	162	183	199	218	235	10.3
Wireless Games	22	29	31	33	38	40	43	46	49	52	6.5
PC Games	40	37	34	34	30	28	27	26	25	24	-4.1
Video Game Advertising	11	15	17	22	25	28	30	33	36	38	8.7
Total Video Games	322	390	400	402	407	424	445	470	501	531	5.4

Source: PricewaterhouseCoopers AG, Wilkofsky Gruen Associates, SIEA

Video Games Market Growth by Component (%)

Switzerland	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2012–16 CAGR
Console/Handheld Games	16.2	21.5	-2.4	-6.9	-10.1	-2.8	-2.4	2.5	3.6	5.8	1.3
Online Games	30.5	29.9	14.0	7.9	17.1	12.5	13.0	8.7	9.5	7.8	10.3
Wireless Games	46.7	31.8	6.9	6.5	15.2	5.3	7.5	7.0	6.5	6.1	6.5
PC Games	-4.8	-7.5	-8.1	1.0	-13.9	-5.3	-3.6	-3.7	-2.0	-5.8	-4.1
Video Game Advertising	37.5	36.4	13.3	29.4	13.6	12.0	7.1	10.0	9.1	5.6	8.7
Total Video Games	18.4	21.1	2.6	0.6	1.2	4.1	5.0	5.6	6.5	6.1	5.4

Source: PricewaterhouseCoopers AG, Wilkofsky Gruen Associates, SIEA

Console/Handheld Market

- On the one hand, turnover of the console/handheld market was stable in 2011 due to numerous innovations (especially Nintendo 3DS). On the other, revenues dropped within the whole market. In 2011, sales of console games decreased marginally by 3.8 percent, but total revenues decreased by 10.1 percent; similarly, with console and handheld devices the number of sales was stable, but total sales fell by 18.1 percent in 2011 due to a drop in prices.
- This development was driven by the decrease in consumer confidence and the impact of the strong Swiss franc in 2011, which affected the market negatively. Furthermore the console/handheld market is being hurt by the shift to online and mobile gaming, which is driven by the growth of social online gaming and increased digital distribution of content.
- However, we expect a fairly stable console/handheld market over the forecasted period, driven by next-generation consoles and, with them, new games taking advantage of advanced technologies. We do not expect

such high growth rates as occurred when the current generation of consoles debuted, as there is increased competition from other gaming platforms.

Console hardware

- Overall, 234,202 home consoles were sold in Switzerland in 2011, a 10.3 percent reduction compared to the previous year. Total sales dropped by 26.3 percent, a significant loss of sales due to the fall in prices.
- The current generation of consoles – consisting of the Xbox 360 from Microsoft, the Wii from Nintendo, and the PlayStation 3 from Sony – began to be introduced in 2005.
- In December 2011, Microsoft redesigned its Xbox Live, a multiplayer gaming network, social network, and media suite. The new generation of Xbox Live provides offerings such as Last.fm, the worlds largest online music catalogue, and the Zune video rental service, to encourage the perception that the Xbox 360 is an entertainment device that also plays games. There is a

free version that has limited capabilities, but for multiplayer gaming and accessing social networks (e.g., Facebook and Twitter) a subscription fee is required. As a result, the games represent only 60 percent of activity on the Xbox 360. Since December 2011, Xbox Live is also available as an application for Apple iOS – and since June 2012 also for Android smartphones. However, in Switzerland total revenue for Microsoft Xbox 360, decreased by 45 percent in the third quarter of 2011 compared to the same period in 2010.

- In February 2012, Microsoft introduced Kinect for Windows worldwide, enabling the device to be used with PCs. The Windows version works with a variety of applications, enabling other companies to integrate it into their programmes.
- Lastly, there are rumors about the next Xbox console that many have termed Xbox 720. This device, which has not been announced officially, is expected to integrate with the Windows Phone. It is expected that the device will include a much faster processor and Blu-ray technology. The device is not likely to be released before the end of 2013.
- Among the major consoles, the PlayStation 3 (PS3) has the highest market share in Switzerland. The PS3 is marketed as the most advanced home entertainment center, with a Blu-ray player and DVR capabilities. Sony's motion controller Move was introduced in October 2010. The company said there would be no announcement at the 2012 Electronic Entertainment Expo regarding a new PlayStation console. Price reductions helped spur sales of the PS3 consoles in the latter part of 2011.
- Nintendo Wii, the most popular console worldwide, is marketed mainly as a game machine, as opposed to the Sony and Microsoft Machines, promoted as media centres for home entertainment. In May 2011, Nintendo introduced its second price cut to boost device sales. The Wii is not as technologically advanced as its competitors, and does not display in a high-definition format. As a result, Nintendo was the first of the three major manufacturers to introduce its next-generation console, the Wii U, at the Electronic Entertainment Expo in June 2011. Its market launch in Switzerland is scheduled for November 2012, in time for Christmas shopping. The Wii U is expected to be only slightly technologically superior to its current competitors, but features, such as an integrated app store and the ability to act as an eReader, will provide new revenue streams for the company.

Handheld devices

- In March 2011, Nintendo introduced 3DS to the European markets, the most anticipated new gaming device of the year. The device enables users to play games in 3D without the need for special glasses. But sales of the 3DS were disappointing due to a limited number of titles, an incomplete online environment at the time of launch, and poor battery life. At the end of July 2011, Nintendo announced a worldwide 3DS price cut and supplied free games to gamers who purchased the device at full price. As a result, sales jumped worldwide, making it the top-selling device in the world in 2011. Nintendo 3DS had the highest market share in Switzerland in 2011; we expect sales to remain strong in 2012 with the release of several new games.
- The other major competitor in the handheld market is the Sony PSP (PlayStation Portable), featured with a proprietary optical Universal Media Disc (UMD). The PSP was launched in Europe in 2005; since then, a number of different models have been introduced. In February 2012, the PS Vita was launched worldwide. PS Vita is a touch-interface, motion-sensitive, handheld device with high definition capabilities and improved graphics that is a successor to the PSP. It has a memory card for physical software as well as the ability to download game apps via the PlayStation Network.
- Furthermore, Sony Ericsson introduced the Xperia PLAY in 2011, an Android-based smartphone that is part of the PlayStation Certified programme, meaning that it can play PlayStation suite games.
- The market for dedicated handheld devices is facing growing competition from the rapidly increasing capabilities of smartphones and tablets. Though, in aggregate, the dedicated devices have advantages: the quality of the games is superior to those on a smartphone and they have a controller-type feel to them. We expect considerably fewer people will be willing to pay the relatively high prices for the games when they can purchase much cheaper games for their smartphones.
- In general, the overall gaming experience is enhanced by the linking of different gaming platforms. For example, Xbox Live allows PC gamers to interact with Xbox gamers. Additionally, technology advances are enabling smartphones to act as controllers for some of the consoles.
- In Switzerland, in the fourth quarter of 2011, a significant increase in console/handheld sales was driven by handheld devices (especially Nintendo 3DS), which compensated losses in previous quarters. As a result, sales of portable consoles increased by 20 percent during 2011.

Console/Handheld Games

Switzerland	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2012–16 CAGR
Spending (CHF millions)	172	209	204	190	171	166	162	166	172	182	1.3
Growth (%)	16.2	21.5	-2.4	-6.9	-10.1	-2.8	-2.4	2.5	3.6	5.8	1.3

Source: PricewaterhouseCoopers AG, Wilkofsky Gruen Associates, SIEA

Console/handheld games

- The games software market in Switzerland was affected by pricing pressure and a downturn in consumer inclination to purchase in 2011. Revenues decreased by approximately 10.1 percent in 2011, whereby the turnover remained stable.
- “Call of Duty: Modern Warfare 3” was the most popular title in Europe in 2011, as it was worldwide. The game broke several worldwide records, including reaching the billion-dollar level in 16 days.
- Console game sales far outweigh handheld game sales: in Switzerland in 2008, almost 2 console games were sold for each handheld game sold. In the third quarter of 2011, this moved to 3 to 1. Total units of handheld games sold fell strongly by 30 percent compared to the slight decrease in console games of 7 percent in the third quarter of 2011. We anticipate this trend to accelerate as mobile devices become more and more user-friendly, i.e., with larger screens and enhanced display quality, and thus we expect wireless gaming to take an increasing share of the handheld console market.
- Furthermore, Nintendo DS, is threatened by widespread piracy. Illegal flash cards allow DS owners to run third-party software and copied games. These illegally copied Nintendo DS games also run on the new Nintendo 3DS, the main handheld device in the Swiss market, because the games for the two devices are compatible. However, the new 3DS software has not yet been hacked. Nintendo is fighting hard against piracy. In June 2012, Nintendo won a lawsuit, whereby sellers of illegal flash cards were convicted and fined EUR 1 million.
- Overall, we expect a slight upturn in the console/handheld game market with an average yearly growth of 1.3 percent during the forecast period. We anticipate slow

growth up until the end of the forecast period, when a new generation of consoles (e.g., Wii U at the end of 2012; new Xbox) should be introduced, and with them new games to take advantage of their enhanced capabilities. A limited dip in sales is to be expected because some consumers will wait for the next generation of consoles. However, during the generational transition period other consumers will continue to buy games for their existing consoles, which are already equipped with improved motion-sensory technology.

Online Games

- With an average yearly growth of 10.3 percent, we predict the online game segment to be the biggest contributor to growth in the video games market. The segment is expected to move from CHF 144 million in 2011 to CHF 235 million by 2016.
- In 2002, Sony and Microsoft introduced online capabilities for their consoles. Each of the consoles in the current generation has an online environment from which to download content to enable competitive play over the Internet. If there is any area where Nintendo really lagged behind Sony and Microsoft, it has been in capitalising on the connectivity that the Web offers game designers and game players. With the newly announced console Wii U, this lack of multiplayer functionality will be reduced.
- Digital distribution of content is emerging as an important segment of the market. The most dramatic impact is seen in the collapse of the retail market for PC games in favour of digital distribution, which is shifting sales from the PC category to the online category.

Online Games

Switzerland	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2012–16 CAGR
Spending (CHF millions)	77	100	114	123	144	162	183	199	218	235	10.3
Growth (%)	30.5	29.9	14.0	7.9	17.1	12.5	13.0	8.7	9.5	7.8	10.3

Source: PricewaterhouseCoopers AG, Wilkofsky Gruen Associates

- Social gaming on sites such as Facebook, Myspace, and Google+ is growing exponentially. In Switzerland, more than 34 percent (2.73 million) of the Swiss population have a Facebook account (9.8 percent growth in 2011) and online game editors are naturally turning to this large new audience. Social games are free, widely available, load in a few seconds, and require only a few minutes at a time to play. They use a business model known as freemium, whereby games are provided free, and developers gain revenues through microtransactions as well as advertising. The games grow virally because users can invite all of their contacts to join them in playing the game.
- Zynga, the major game developer on Facebook, is credited with introducing the social game, Zynga Poker, in July 2007. Zynga's Farmville, which was launched on Facebook in June 2009, was the fastest growing game of all time, with, at its peak, more than 84 million monthly users globally. Zynga, the world's leading provider of social games with 153 million monthly unique users in Q4 2011, generated revenues of USD 1.14 billion in 2011, up 91 percent year-over-year; the company began trading on NASDAQ on December 16, 2011. Originally priced at USD 10, ZNGA shares reached a price of USD 14.50 in March 2012, but have fallen steadily since that time, hitting USD 3 in July 2012.
- Another segment of online games is massively multiplayer online (role-playing) games (MMO[RP]Gs), which are usually role-playing games that take place in fantasy worlds or medieval worlds and can be played over long periods of time. Many massively multiplayer online games (MMOGs) shifted from their subscription models to a free-to-play business model, increasing the number of players worldwide. While subscription fee revenues are decreasing due to the new business model, revenues of micro-transactions associated with MMOG show huge growth. Thus micro transactions are expected to be the major drivers of online gaming revenue growth.
- World of Warcraft is the leading MMOG in EMEA and is expected to maintain its position with its new expansion pack – World of Warcraft: Mists of Pandria – which was launched in September 2012.
- Another segment of the online market consists of casual gamers who go to a Web site and play strategy games or puzzle games. Most of them are free to play, supplying the requisite revenues with advertising. Sites such as RealGames.com or King.com reach two-thirds of European gaming households, and will expand the demographics of gamers in the future.
- Another trend in the game market is cloud computing. In June 2010, OnLive introduced a gaming-on-demand service based on cloud computing in the US. They offer an on-demand service that maintains the processing of the games on its servers and enables users to play the games via cloud computing. This service levels the playing field for all players regardless of the computer they are playing on. Players can try the games for free on any connected device, and then purchase the games, which are streamed to a PC or tablet.
- We expect this service to add more casual gamers to the market but it does not replace consoles or a high-end PC for hardcore gamers. In December 2011, OnLive introduced an app for Apple and Android phones, enabling them to run full versions of games. Thus, gamers can switch between playing the games on a PC or a mobile device because the games are based in the cloud. OnLive expanded to the UK in September 2011 and plans to make its service available in the rest of Europe as well. The service is supported by major publishers, such as Ubisoft, which has a branch in Switzerland.
- We expect cloud gaming to boost online gaming revenues. However, excellent broadband connectivity is required to drive cloud gaming. In this respect, Switzerland already has an excellent basis for the uptake of cloud gaming, with an increased number of broadband subscribers in Switzerland up to nearly 3.2 million in mid-2012 (an increase of 8.2 percent since 2010).

Wireless Games

Switzerland	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2012–16 CAGR
Spending (CHF millions)	22	29	31	33	38	40	43	46	49	52	6.5
Growth (%)	46.7	31.8	6.9	6.5	15.2	5.3	7.5	7.0	6.5	6.1	6.5

Source: PricewaterhouseCoopers AG, Wilkofsky Gruen Associates

Wireless Games

- We expect sales of wireless games to grow at an average yearly rate of 6.5 percent in the forecast period, with a strong start in 2011 and then a softening as the market matures. Overall, we expect the wireless game segment to move from CHF 38 million in 2011 to CHF 52 million by 2016.
- The wireless market is being driven by the explosion of smartphones and tablets that enable an enhanced gaming experience. Smartphones and tablets, aided by an intuitive-touch interface, are fast becoming the devices of choice for casual game players, driving the demand for wireless games.
- With a strong wireless telephone subscriber base, the availability of high-speed wireless data technology in most parts of the country, a smartphone penetration of 43 percent in the first quarter of 2012, and one of the highest per capita rates of iPhone users in the world, we expect strong take-up of wireless games in Switzerland. Furthermore, we expect the iPhone 5 with improved graphic capabilities (4-inch Retina Display) and a more powerful processor, to accelerate the growth of the wireless game user base. Although the iPhone 4S is already a vital gaming device, advances in the new iPhone, which increase the visual impact of wireless games, could strengthen the smartphone game market.
- The Swiss tablet market exploded with a growth rate of approximately 310 percent in 2011. Sales increased from 110,000 units to 452,000 units during 2011. Apple, the Swiss market leader, launched the new iPad in October 2012. With its enhanced graphic capabilities, we expect the new iPad and other tablets to drive the growth of wireless gaming from 2011 onwards. In addition to the iPads many Android tablets, such as the Samsung Galaxy Tab 10.2 and the Sony Xperia Tablet S, provide a unique game experience.
- With the emergence of the app stores, such as for Apple and Android devices, the market for wireless games has exploded. The stores offer a huge variety of games available for download and by offering better descriptions, user reviews and free trials, the buying experience has improved. Apple Inc. will drive a significant portion of the growth in this market. The Apple store has the world's largest collection of mobile apps, including over 100,000 games available for download.
- Casual games (e.g., Tetris) continue to dominate the market. They are easy to learn and play. In addition to casual games, more and more sophisticated games are being developed for the wireless market. In fact, there are cloud gaming companies that are delivering console-quality games to wireless devices. At the moment, these games are more expensive than typical wireless games, but the decreasing development costs of these games will create pressure on the wireless game market.
- Augmented reality combines computer-generated graphics with real video, and is a promising wireless game technology. Real video makes a game more realistic, while the augmented-reality component allows any scenario to be played out in a game situation. Use of this application has boomed during the past years and is now available for every Android smartphone and Apple iPhone.
- Another very important development in the wireless game market is the changing business model. Originally, the market consisted of a one-time payment for a game download. But, currently, a growing number of games are being offered for free, with microtransactions and advertising providing the requisite revenues for publishers. With this model, they can expand the number of players and acquire revenues from microtransactions. For example, Angry Birds, an undeniably successful game with more than one billion downloads up until May 2012, gained more followers as a free, advertiser-supported game than as a paid download.
- As Switzerland is close to saturation in wireless penetration, future growth in wireless game revenues is expected through an increasing number of players paying for games, for example, through microtransactions.
- Concluding, we predict a growing number of mobile gamers, both because of the increasing penetration of smartphones and because the games are significantly cheaper to develop and hence cost much less than console games. Furthermore, we expect that the launches of new phones (e.g., iPhone 5) and tablets, more user-friendly app stores and advanced networks will foster growth.

PC Games

Switzerland	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2012–16 CAGR
Spending (CHF millions)	40	37	34	34	30	28	27	26	25	24	-4.1
Growth (%)	-4.8	-7.5	-8.1	1.0	-13.9	-5.3	-3.6	-3.7	-2.0	-5.8	-4.1

Source: PricewaterhouseCoopers AG, Wilkofsky Gruen Associates, SIEA

PC Games

- PC game revenues reflect the retail sales of packaged PC games and do not include online distribution of game content or subscription fees to play PC games online, both of which are covered in online games.
- Total revenues of PC games declined in 2011 by 13.9 percent to CHF 30 million. The digital distribution of PC games through online services continues to chip away at retail sales of the games as consumers turn their attention to newer technologies. Revenues are expected to continue their long-term decline, decreasing to CHF 24 million in 2016, a 4.1 percent compound annual decrease.
- Deteriorating retail sales of games are hurting retail stores. If this pattern causes some retailers to close, it would further exacerbate the decline in the market for console and PC games. The growth in MMOGs, which usually require retail purchase of a PC game, continues to support the retail PC game market. However, in 2016 we expect that PC games will only represent 4.9 percent of overall video game sales in Switzerland.
- Piracy of PC games, which is prevalent in certain markets, has also hampered the growth of the segment. Reinhard Blaukovitsch from Sony DADC says that up to 80 percent of all PC games are illegal copies. This has led a number of game developers specialised in this segment to move away from PC games and to focus on consoles.

Video Game Advertising

- We expect revenue from game advertising to grow to CHF 38 million by 2016, at an average of 8.7 percent compounded annually. By 2016, more revenue will be generated through game advertising than through PC game sales. As the number of video game players continues to increase, advertisers are turning to games as a means of reaching specific demographics because games offer a unique level of engagement missing in other advertising media.
- A number of different segments make up the video game advertising market: static ads, dynamic ads, advertising on game portals, advertising before and during games on social networks, and adver gaming.
- Initially, video game advertising consisted primarily of static ads that were hard coded in games when the games were developed. There are different ways advertisers can make their product an integral part of games so they can reap additional benefits. For example, billboards that appear in the background of sporting events or product placements within the game. However, such ads have a few shortcomings: they have to be planned in advance during the development of the game, they cannot be changed once inserted and advertisers have no measure of how often the ads are seen.
- A more advanced type of advertising became possible with the emergence of online gaming. These ads can be changed dynamically via the Internet. For example, a billboard prompting a movie could be updated as new movies are distributed to theatres. Thus, advertis-

Video Game Advertising

Switzerland	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2012–16 CAGR
Spending (CHF millions)	11	15	17	22	25	28	30	33	36	38	8.7
Growth (%)	37.5	36.4	13.3	29.4	13.6	12.0	7.1	10.0	9.1	5.6	8.7

Source: PricewaterhouseCoopers AG, Wilkofsky Gruen Associates

ing can be geographically targeted and it is possible to track the number of times a gamer is exposed to the ads and the amount of time the ads appear on-screen. Nevertheless, in-game dynamic advertising has not grown as quickly as expected.

- In-game advertising is only appropriate in games that are set in the contemporary real world, such as sports games. In games set in medieval times or fantasy worlds, advertisers can reward players with extra levels of play or with additional content by presenting ads to players before a game begins.
- Another segment within the video advertising market is adver gaming. This is the practice of using a video game to promote brands, products, or organisations. These games are often played for free on corporate Web sites. For example, the Swiss Federal Railways, SBB, launched its adver game “Tricky Track” in 2012, to encourage younger individuals to use the railways. Other popular adver games in 2012: “LEGO Harry Potter” developed by LEGO to promote its toys and “Kart Fither”, sponsored by Red Bull.
- Banner advertising that appears within social games, primarily drive the growth of free social network games. Similar banner ads also appear on casual game Web sites.
- Overall, video game advertising is emerging as an additional revenue stream. The growth of social network games and free games is driving an increase in video game advertising. While we predict video game advertising to grow, virtual good’s sales will still bring in the most income, with nearly 60 percent of total revenue. This could cause more branded virtual goods to appear within social games in the future.

The Swiss Video Game Market Compared to Western Europe

- Switzerland represents approximately 3 percent of the overall Western European video game market. This share is expected to remain stable up until 2016. The Swiss market will grow at a slight faster pace, 5.4 percent average annual growth, compared to the average growth rate in the Western European market of 4.2 percent.
- At CHF 3.3 billion in 2011, the United Kingdom is the largest video game market in Western Europe and an important game development centre, for the development of major games, such as “Batman”, “Little Big Planet” and “Grand Theft Auto”. The UK has special-

ist expertise, such as a strong visual effects industry, which is important in the final production of games. But in 2011, some game publishers moved to Canada, which provides more beneficial tax incentives, because the UK government did not include tax breaks for the gaming industry as announced in March 2010. However, the UK is expected to maintain its dominance in EMEA, with annual growth of 4.4 percent to CHF 4.1 billion in 2016.

- France, the second-largest video game market in Western Europe, reached a level of CHF 3 billion in 2011 and is expected to grow 3.6 percent on a compound annual basis to CHF 3.5 billion in 2016. France is the home of Vivendi (majority owner of Activision Blizzard) and Ubisoft Entertainment, two of the top five video game publishers worldwide. Additionally, two of the primary producers of mobile games are based in France, Gameloft and Zenops. Significant tax benefits for the development of games are provided, so that many international game developers have established their studios in France.
- Germany, the third-largest video game market, is unique in comparison to the other major markets. Its PC game market is relatively strong compared to the console game market because of the relatively low levels of penetration of console hardware. Supported by its own voluntary industry board called the USK, Germany has strict laws regarding violence in video games. In contrast to the majority of countries in Europe, they do not follow the Pan-European Game Information rating system.
- In Germany about 10,000 people work in the game industry, at large international publishers, such as Sony, Ubisoft, and Electronic Arts, as well as at local companies, such as Bigfoot and Gameforge. Furthermore, Germany is at the forefront in the development of free-to-play online games, the fastest-growing segment of the online market. As a result, the German market is expected to expand from CHF 2.4 billion in 2011 up to CHF 2.9 billion in 2016, a 3.5 percent compound annual increase.
- Italy and Spain are also important game markets in Western Europe, at CHF 1.3 billion and CHF 1.1 billion respectively in 2011. A number of small game operations are located in Italy, many of which are subsidiaries of larger foreign companies. The Italian local market has been hampered by piracy: Italy has the highest rate of pirated games in Europe. However, the Italian game market is expected to grow at the highest annual growth rate in Western Europe with 6.2 percent.

Swiss Video Games Market Compared to Western Europe

Switzerland	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2012–16 CAGR
Western Europe (CHF millions)	12,247	14,473	13,928	13,937	14,013	14,325	14,722	15,426	16,270	17,207	4.2
Western Europe growth (%)	23.3	18.2	-3.8	0.1	0.5	2.2	2.8	4.8	5.5	5.8	4.2
Switzerland (CHF millions)	322	390	400	402	407	424	445	470	501	531	5.4
Switzerland growth (%)	18.4	21.1	2.6	0.6	1.2	4.1	5.0	5.6	6.5	6.1	5.4
Console/Handheld Games											
Western Europe (CHF millions)	7,808	9,465	8,696	8,276	7,947	7,774	7,639	7,850	8,165	8,598	1.6
Western Europe growth (%)	29.2	21.2	-8.1	-4.8	-4.0	-2.2	-1.7	2.8	4.0	5.3	1.6
Switzerland (CHF millions)	172	209	204	190	171	166	162	166	172	182	1.3
Switzerland growth (%)	16.2	21.5	-2.4	-6.9	-10.1	-2.8	-2.4	2.5	3.6	5.8	1.3
Online Games											
Western Europe (CHF millions)	1,622	2,046	2,294	2,568	2,823	3,151	3,517	3,847	4,208	4,545	10.0
Western Europe growth (%)	28.3	26.1	12.1	11.9	9.9	11.6	11.6	9.4	9.4	8.0	10.0
Switzerland (CHF millions)	77	100	114	123	144	162	183	199	218	235	10.3
Switzerland growth (%)	30.5	29.9	14.0	7.9	17.1	12.5	13.0	8.7	9.5	7.8	10.3
Wireless Games											
Western Europe (CHF millions)	736	926	1,032	1,124	1,234	1,349	1,474	1,599	1,732	1,865	8.6
Western Europe growth (%)	26.8	25.8	11.4	8.9	9.8	9.3	9.3	8.5	8.3	7.7	8.6
Switzerland (CHF millions)	22	29	31	33	38	40	43	46	49	52	6.5
Switzerland growth (%)	46.7	31.8	6.9	6.5	15.2	5.3	7.5	7.0	6.5	6.1	6.5
PC Games											
Western Europe (CHF millions)	1,838	1,716	1,545	1,544	1,504	1,473	1,449	1,426	1,399	1,377	-1.7
Western Europe growth (%)	-2.7	-6.6	-10.0	-0.1	-2.6	-2.1	-1.6	-1.6	-1.9	-1.6	-1.7
Switzerland (CHF millions)	40	37	34	34	30	28	27	26	25	24	-4.1
Switzerland growth (%)	-4.8	-7.5	-8.1	1.0	-13.9	-5.3	-3.6	-3.7	-2.0	-5.8	-4.1
Video Game Advertising											
Western Europe (CHF millions)	244	319	361	426	505	578	643	704	767	822	10.2
Western Europe growth (%)	47.7	30.7	13.2	18.0	18.5	14.5	11.2	9.5	8.9	7.2	10.2
Switzerland (CHF millions)	11	15	17	22	25	28	30	33	36	38	8.7
Switzerland growth (%)	37.5	36.4	13.3	29.4	13.6	12.0	7.1	10.0	9.1	5.6	8.7

Source: PricewaterhouseCoopers AG, Wilkofsky Gruen Associates, SIEA

8 Radio

Index

Executive Summary	76
Market Overview	76
The Swiss Radio Market Compared to Western Europe	80



Executive Summary

Definition

- The radio market consists of advertiser spending on radio stations, radio networks and public radio licence fees. Advertising spending is net of agency commissions.

Market size and growth in Switzerland

- We expect the radio market to increase from CHF 599 million in 2011 to CHF 628 million in 2016, an average annual growth rate of 0.9 percent.

Market size and growth by component

- In 2011, the larger part of the total radio market could be attributed to public licence fees: CHF 437 million, or 73 percent. We expect public radio licence fee totals to reach CHF 453 million in 2016, a compound annual growth rate of 0.7 percent.
- Private radio licence fees accounted for 3.5 percent of total 2011 revenues, or CHF 21 million. As with public radio licence fees, we expect these revenues to grow annually by 0.7 percent to reach CHF 22 million in 2016.
- Radio advertising generated CHF 103 million in 2011. We expect radio advertising to grow, on average, by 1.7 percent to reach CHF 112 million in 2016.
- Radio sponsoring continues to play only a minor role in Switzerland. In 2011, sponsoring reached a total of CHF 38 million, which corresponds to 6.3 percent of total radio market spending. We expect radio sponsoring to grow by slightly lower rates than radio advertising, due to regulatory limitations and the additional effort required of sponsors. Sponsoring spending is expected to reach CHF 41 million in 2016, an average annual growth rate of 1.5 percent.

Principal drivers

- On June 18, 2010, the Swiss government announced a moratorium on radio and TV reception fees for the period 2011–2014. As a result, additional revenue from this source will be achieved by natural growth in the number of households and a stronger focus on fee collection, in particular from companies that are obliged to pay reception fees. Furthermore, the possible introduction of a device-independent collection system (beginning in 2015) as well as the political pressure on the fee structure could have a sustainable negative impact on reception fee revenues.

- The traditional driver in the radio advertising market is a mix of music, information and presentation that is able to attract a clearly defined target audience. A radio station with a clear mix of well-chosen components has considerable appeal for advertisers as it facilitates the positioning of advertising messages geared toward specific target groups.
- The availability and constant improvement of data and product analytics support spending in radio advertising as the return-on-investment can be better forecasted.
- With respect to digital radio, the key drivers are availability and penetration of low-cost reception devices and adoption of the technology by households and the automotive industry. Installation of digital radios as a standard feature in cars might provide a strong boost to DAB+ or HD radio. Digital automobile radios are available at electronics shops in Switzerland, although they are only starting to be considered standard when manufacturing cars. However, a growing number of car manufacturers are starting to offer DAB+ or HD radio as optional equipment in their cars (e.g., BMW and Ford).

Market Overview

- The radio market is to a large extent governed by the Swiss Federal Act on Radio and Television (hereinafter RTVA). Among other things, this act specifies that, in order to broadcast their programmes, radio stations must either be registered with the Federal Office of Communications (OFCOM) or hold a licence. These stations are subject to the requirements and service specifications laid down in the RTVA. Licenced radio stations are allocated funds from the pool of radio reception fees. They have underlying guidelines with regard to content, advertising and sponsoring, including regulations governing programme interrupting commercials and advertisements for alcoholic products. Switzerland is divided into 34 licensing territories, with licences awarded by OFCOM.
- The Swiss radio market is based on a dual broadcasting system marked by competition between a public service broadcasting institution and private stations. SRG SSR, the public service provider, operates fourteen general programme services and three themed stations (pop, jazz and classic) across all language regions, plus an English-language service called World Radio Switzerland. The private market consists of more than 50 radio stations with a local or regional focus. Most of them broadcast on the FM band, cable or the Internet. In addition, a limited number of national radio stations offer web-based reception only. The market share of

the public service provider, SRG SSR, amounts to approximately 60 percent versus 40 percent for private stations. We include publicly funded foreign stations (e.g., German station SWR) in the 40 percent.

- In Switzerland, anyone who listens to the radio or watches television must, basically, pay the reception fee. This fee has to be paid irrespective of what broadcasts have been watched or listened to and whatever the means by which they are received. Reception fees for radio/television programmes are billed and collected by Billag AG, based in Freiburg. Billag AG is also the contact point for any queries, changes of address, registrations and deregistrations, and applications for exemptions.
- For cost optimisation reasons, and possibly in some ways also as a response to the “Bye-bye Billag” movement, the collection system was changed in 2011 from a quarterly collection period to an annual collection period. The cost-savings are passed on to the publicly funded broadcasters, and should help prevent of an increase in licence fees. For logistical reasons, the process of switching from quarterly to annual payments has been spread over 12 groups of households, rather than attempting an “all at once” switch.
- Private radio stations include Energy Zürich, Radio 1, LoRa, Radio 105, Radio Zürisee and Radio 24 (Zurich), Radio Basel, Radio X and Radio Basilisk (Basel), Radio BeO, Energy Bern, RaBe and Capital FM (Bern), Radio Fribourg (Fribourg), Radio Pilatus, Radio 3fach and Radio Sunshine (Lucerne), Radio Top (Eastern Switzerland), Toxic.fm (St. Gallen), Kanal K, Radio Argovia (Aargau), Radio 32 (Solothurn), Radio Emme (Emmental), Radio RaSa (Schaffhausen), Canal 3 (Biel), Radio BNJ FM (Jura), Rouge FM (Romandie), Radio Lausanne FM, Fiume Ticino, Radio Rottu (Valais), Radio Cité (Geneva) and Radio Grischa (Grisons).
- Several of the above-mentioned radio stations (LoRa, Radio 3fach, RaBe, Kanal K, Radio X, RaSa, toxic.fm, cite) are non commercial and offer a broad spectrum of cultural and music programmes, in contrast to the mostly commercial content provided by the other private radio stations. The members of this group are known as UNIKOM (a German acronym for “Union of Non-commercially-driven Local Radio Stations”).
- In the German-speaking part of Switzerland, the SRG SSR radio stations DRS3, DRS4 and DRS Musikwelle lead in total number of listeners, with 1,357,000, 334,000 and 309,000 listeners from Monday through Sunday, respectively. One of the main reasons for this lead is the availability of these channels throughout the entire region. Of the private stations, which are restricted in their broadcasting area, Radio 24 kept its number-one position in the second half-year of 2011. From Monday through Sunday each week, the average number of listeners choosing Radio 24 amounted to 309,000. In the greater Zurich area this put Radio 24 right before Energy Zürich (270,000 listeners) and Radio Zürisee (208,000). The largest non-Zurich station is Radio Argovia (241,000). Over the period Monday through Friday, Radio 24 has also been able to attract listeners for the longest period of time in the greater Zurich area: 60.1 minutes, versus 52.9 minutes for number two in duration, Radio 1.
- In the French-speaking part of Switzerland, the SRG SSR stations La Première, Couleur3 and Option Musique lead the pack, with 591,000, 221,000 and 196,000 listeners Monday through Sunday, respectively. Of the private stations, Rouge FM, with 130,000 listeners Monday through Sunday, took over the lead from Radio BNJ FM, which had 123,000 listeners over the same period.
- In the Italian-speaking part of Switzerland, SRG SSR stations Rete Uno, with 145,000 listeners, Rete Tre, with 90,000 listeners and Rete Due lead, with 30,000 listeners Monday through Sunday. However, both private stations 3i and Radio Ticino, were able to attract more listeners in the second half of 2011 than Rete Due, with 38,000 and 31,000, respectively.
- Radio advertising revenues can only be generated by private stations, since the state-owned channels are excluded from this type of revenue. The public stations, however, are allowed to make use of sponsoring.
- One of the main Swiss radio advertising marketers, Goldbach Media, launched two new planning and analytics tools in 2010 (GRP Monitor and Spotauditor). Both tools aim at advising advertisers on the optimal advertising mix and types of radio advertising. As a result, Goldbach Media was able to increase its radio advertising revenues in 2011 by 26 percent to CHF 43 million.

Radio Advertising Market by Component (CHF millions)

Switzerland	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2012-16 CAGR
Radio Advertising	109	105	108	101	103	105	107	108	110	112	1.7
Radio Sponsoring	30	29	30	38	38	39	39	40	40	41	1.5
Licence Fees (Public Radio)	404	406	415	431	437	442	446	447	450	453	0.7
Licence Fees (Private Radio)	17	21	21	21	21	22	22	22	22	22	0.7
Total Radio Market	560	561	574	591	599	608	614	617	622	628	0.9

Source: PricewaterhouseCoopers AG; Wilkofsky Gruen Associates; Billag; SRG SSR; Publica Data; Goldbach Group; Tamedia; Ringier; Südostschweiz Medien; AZ Medien; Stiftung Werbestatistik Schweiz

Radio Advertising Market Growth by Component (%)

Switzerland	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2012-16 CAGR
Radio Advertising	1.9	-3.7	2.9	-6.5	2.0	1.9	1.9	0.9	1.9	1.8	1.7
Radio Sponsoring	-11.8	-3.3	3.4	26.7	0.0	2.6	0.0	2.6	0.0	2.5	1.5
Licence Fees (Public Radio)	-2.2	0.5	2.2	3.9	1.4	1.1	0.9	0.2	0.7	0.7	0.7
Licence Fees (Private Radio)	112.5	23.5	0.0	0.0	1.3	1.2	0.9	0.4	0.5	0.6	0.7
Total Radio Market	-0.4	0.2	2.3	3.0	1.4	1.4	1.0	0.5	0.8	1.0	0.9

Source: PricewaterhouseCoopers AG; Wilkofsky Gruen Associates; Billag; SRG SSR; Publica Data; Goldbach Group; Tamedia; Ringier; Südostschweiz Medien; AZ Medien; Stiftung Werbestatistik Schweiz

Radio usage

- In the German and French-speaking regions of Switzerland, radio usage decreased very slightly compared to the previous year: in the German-speaking region, 88.8 percent (versus 89.2 percent in the previous year) of listeners aged 15 or older listened to the radio for an average of 128 minutes a day (previous year: 130 minutes). Both reach and consumption of the medium are slightly lower in the other language regions: 85.6 percent (previous year: 86.6 percent) of listeners in the French-speaking territory listen to the radio for about 115 minutes (previous year: 121 minutes a day) while 87.7 percent (previous year: 87.5 percent) of those aged 15 or older consume some 123 minutes (previous year: 120 minutes) of radio per day in the Italian-speaking region.
- The duration of average daily usage of radio increases with age. In the German-speaking part of Switzerland the over-60-year-old age group, on average, listens to the radio twice as long as the age group '15-29-years-old'. In the French- and Italian-speaking parts similar differences between the ages groups and radio usage duration appear.

- Males and females aged 15 or older differ insignificantly regarding duration of daily radio usage. The tendency is that males listen, on average, a little more frequently to the radio per day. The same insignificant differences (regarding the difference between men and women and radio usage) are found in the French and Italian parts of Switzerland.

Digital radio

- Since 2006, the total number of digital radios in Switzerland has increased significantly, from 15,000 devices in 2006 to almost 900,000 in 2011. In the year 2011 alone, 230,000 digital radio devices were sold. As a result, an estimated 2.1 million people, or 25 percent of all Swiss households, make use of digital radio.
- Consequently, the vast majority of radio stations are upgrading their technology for digital broadcasting. However, there is at present no agreement about a national standard. SRG SSR and various private radio stations are currently distributing some 20 to 30 services through Digital Audio Broadcasting (DAB/DAB+).

DAB+ is expected to fully substitute DAB by the end of 2012. To ensure a smooth transition, parallel operation of both technologies will be ensured up until the end of 2015.

- In addition to the DAB+ offerings of the public broadcaster SRG SSR, SwissMediaCast AG – owned by a consortium of private radios, publishing, media, technology, and telecoms companies – coordinates the integration of several radio stations who want to broadcast in DAB+. In its German-language region (layer D02), SwissMediaCast broadcasts via 18 stations. Another 12 programmes are planned for independent regional networks (e.g., Schaffhausen, Grisons, etc.). SwissMediaCast also plans to offer its own broadcasting multimedia services.
- In order to determine demand for transmission capacity for digital radio programme services, the Federal Office of Communications (OFCOM) has been gauging interest in a third, regionally configurable, DAB coverage for German-speaking Switzerland. Companies that would like to construct and operate a transmission network according to the DAB+ standard, of which there are eight regional allotments, had until the end of February 2012 to register their interest with OFCOM.

Internet radio

- Digital radio is faced with competition from the increasing consumption of cable and mobile Web radio. The streaming of radio programmes on the Internet by both traditional radio broadcasters and Internet-only broadcasters is on the rise as people listen to the radio on their computers and mobile devices.
- New technology is releasing Internet radio from the computer, allowing it to become more portable and thereby reaching more people. Wi-Fi radios will enable those consumers who are unwilling to pay for satellite radio, but who want more than the limited selection on terrestrial radio, to access Internet stations. A number of apps are available that enable consumers with smartphones, such as iPhones or BlackBerrys, and tablets, such as the iPad or the ASUS Eee Pad Transformer, to listen to Internet radio on their device.
- Consumers have access to innovative technologies, such as Pandora via the Internet. Internet radio competes with the traditional Swiss radio stations and could become popular, especially among young consumers. Pandora is a leading Internet radio broadcaster that patented its MusicGenome Project, which establishes playlists of songs it feels are compatible with songs consumers requested. Pandora's active users reached a record 47 million in the first quarter of 2012, growing 62 percent year-over-year. Its total

revenues over the full fiscal year were USD 274.3 million, growing 99 percent year-over-year. Pandora boasts a 69.8 percent market share of the top 20 US Internet radio services. This share, however, still only reflects a 5.55 percent market share of total US radio listening, indicating the upside potential of these services. In the first half year of 2011 Pandora went public and announced that it plans to expand beyond the US as well as to add news and sports to its content. So far, it has added comedy to its content offerings. Today, however, Pandora still unable to allow access for listeners outside of the USA, due to licencing constraints.

- Another very successful US radio service is Spotify. Currently, however, Spotify is also restricted in its geographic reach. It is available in the USA, the UK, Spain, and parts of Europe at this time. Spotify differentiates itself from iTunes and Pandora by behaving as a massive external hard drive (i.e., it plays full songs and albums as if you owned the CD). With respect to recommendation and discovery tools, Spotify reads listeners own music collection and playlists from hard drives, and then suggests new releases, top 10 lists, and friends' music lists. The service is free and unlimited for six months. After that, users can continue to receive free music with some limitations on the number of hours, or they can subscribe for about USD 5 per month.
- Other services, such as Soundcloud or Shazam, offer music and sound identification and sharing services. Soundcloud, for example, is the world's leading social sound platform where anyone can create and share sounds. Users can upload and share recordings with friends or publish them onto blogs, Web sites and social networks (especially Facebook, Foursquare, Tumblr and Twitter). Different (premium) subscriptions allow for a larger upload volume as well as access to a number of premium services, such as user statistics or customised players.
- Over the years, Shazam has become the de-facto standard for mobile social discovery (e.g., finding out which music friends are listening to). Today, is live in 200 countries and can boast some 180 million users. Shazam has developed a music recognition technology that enables anyone with a mobile phone to identify the title and artist for music that is currently playing. The app makes use of the smartphone's built-in microphone and links the live recording to the Shazam database of more than 15 million tracks to find an exact match. The application has been further developed to include content, such as music recommendations, lyrics, and tour information, as well as the opportunity to watch the video or buy the track. Today, Shazam is used in a variety of ways: users use it to discover new music,

search for a specific interest, buy a range of music products, mark a track to buy it later, or just to create a collection and even pass it on to friends and family through the Shazam Friends feature. In selected areas, Shazam for TV enables customers to tag their favourite shows or commercials to access exclusive content, contests and other information.

- Despite the fact that the Swiss telecommunications companies (Swisscom, Orange, and Sunrise) are upgrading their mobile networks with 4G, allowing for continued heavy usage of Internet services on mobile devices (e.g., web-streaming), the phenomenon of Internet radio still has not really caught on in Switzerland.
- On the streaming and media player technology front, many stations still stream in MP3 or Windows Media Player formats. However, an increasing number of stations have migrated to the AAC+ standard, which is twice the quality of an MP3 or Windows Media stream and is compatible with almost any device.
- A typical development in media players is the incorporation of listener-interactive and social media features. Many of these new features are advertising-centric, created to monetise listener traffic. Ad delivery networks that, for example, display audio, video, and banner ads from local, national and international advertisers share these ad impression revenues with the radio station. Stations are also able to run their own ad campaigns for local advertisers and sponsors, and fill the rest of the schedule automatically from these ad delivery networks.

- Mobile applications have the advantage that advertisements are displayed at the top of the app, and thus cannot go unnoticed. Furthermore, the ads are geo-targeted, based on the app user's location. If more information on the individual app user is available, these ads can also become further personalised.

The Swiss Radio Market Compared to Western Europe

- In 2011, the aggregate volume of the radio market in Western Europe amounted to CHF 13.2 billion. The biggest contributors (only nations with more than CHF 1 billion in total radio spending) were Germany (CHF 4.2 billion), France (CHF 2.1 billion) and the United Kingdom (CHF 1.9 billion). In Germany, 79 percent of total spending in 2011 was generated by public licence fees.
- The Western European radio market is expected to grow, on average, by 1.5 percent per year until 2016, versus 0.9 percent for Switzerland. The slower dynamics in the Swiss market can be attributed to the lack of nationwide radio stations and growing foreign competition in the form of Internet radio. In some areas, there are strong spillover effects from foreign stations, especially for commuters using DAB+ technology who are listening to these non-Swiss stations.
- The volume of the Swiss radio market can be compared to the markets in Austria, Belgium and Sweden. Astonishingly though, it is significantly larger than the Dutch radio market, with only half the population.

Swiss Radio Market Compared to Western Europe (CHF millions)

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2012-16 CAGR
Switzerland	560	561	574	591	599	608	614	617	622	628	0.9
Western Europe	13,295	13,276	12,940	13,246	13,192	13,329	13,608	13,789	13,991	14,219	1.5

Source: PricewaterhouseCoopers AG; Wilkofsky Gruen Associates; Billag; SRG SSR; Publica Data; Goldbach Group; Tamedia; Ringier; Südostschweiz Medien; AZ Medien; Stiftung Werbestatistik Schweiz

Swiss Radio Market Growth Compared to Western Europe (%)

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2012-16 CAGR
Switzerland	-0.4	0.2	2.3	3.0	1.4	1.4	1.0	0.5	0.8	1.0	0.9
Western Europe	-0.1	-0.1	-2.5	2.4	-0.4	1.0	2.1	1.3	1.5	1.6	1.5

Source: PricewaterhouseCoopers AG; Wilkofsky Gruen Associates; Billag; SRG SSR; Publica Data; Goldbach Group; Tamedia; Ringier; Südostschweiz Medien; AZ Medien; Stiftung Werbestatistik Schweiz

9 *Out of Home*

Index

Executive Summary	82
Market Overview	83
The Swiss Out-of-Home Market Compared to Western Europe	86



Executive Summary

Definition

- The Out-of-Home (OOH) advertising market comprises the net advertising expenditure (excluding agency costs) for OOH media, such as poster advertising (paper placards of various formats), neon installations, advertising on public transport (leaflet holders, lettering and painting of rolling stock, banners, etc.) sports and stadium advertising as well as ad screens and large electronic advertising boards.

Market size and growth in Switzerland

- For the OOH market, we expect a modest average annual growth of 1.9 percent until 2016. We expect OOH advertising expenditure to increase from CHF 655 million in 2011 to CHF 720 million in 2016.

Market size and growth by component

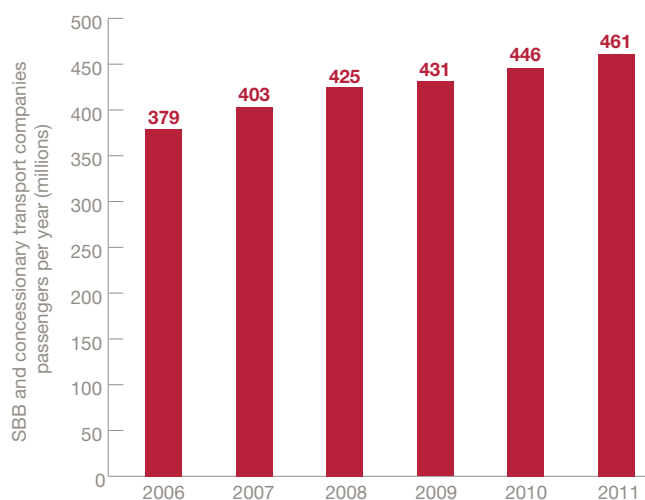
- The physical OOH segment is expected to decrease by 0.7 percent annually, from CHF 641 million in 2011 to CHF 618 million in 2016.
- The Digital OOH segment (DOOH) is expected to contribute heavily to the overall anticipated growth. We forecast an average annual growth rate for DOOH advertising of 48.8 percent, up from CHF 14 million in 2011, to CHF 102 million in 2016. DOOH advertising is expected to cross the 10 percent landmark in 2015 and reach 14.2 percent of total OOH spending by 2016.

Principal drivers

- The OOH market is being transformed by the deployment of digital billboards, other forms of digital screens and the expansion of captive video networks. Through these captive video networks, advertisers seek to target specific audiences and to reach consumers in locations that are not accessible to other forms of media. Although digital technologies still account for a relatively small proportion of the OOH market, they are generating a large proportion of the growth.
- The cost of installing a DOOH infrastructure continues to decrease. This is one of the reasons the DOOH segment will grow strongly. Furthermore, digital signage solutions of optimised quality, combined with greater flexibility in showing sequential ads, daypart bookings, pricing schemes based on effective audience, interactivity and enhanced measurability of advertising impact spur investment in digital OOH.

- Advertisers are becoming increasingly aware of the value of OOH advertising as improved measurement techniques provide reach and frequency data comparable to those of other media. Thus, advertisers can more easily measure the cost effectiveness of OOH to other media and integrate it into their media plans.
- The increased fragmentation of other media makes OOH appealing to advertisers who want to reach a mass audience.
- OOH also goes hand-in-hand with increased mobile ad spending as advertisers seek media to reach people away from home and when they are shopping. People will be able to interact with OOH advertising campaigns using their mobile phones or smart phones, combining two of the fastest growing advertising mediums in the world. The combination of mobile and digital OOH is already leading to instant interaction, digital coupons, branded content, games and apps as well as search. All of which will ultimately result in more engagement and will more effectively stimulate people to purchase products. Typical interactions are a call to action via SMS, votes, polls, sweepstakes, competitions and promotions, call-back requests and text-for-info, as well as mobile coupons, rich content such as ringtones, mobile Internet sites and social interaction via mobile.
- Quick Response (QR) codes are mainly used for interacting with OOH media, but near-field communication and location-based marketing all have a greater potential through the digital channel.
- The worldwide tendency towards increased urbanisation, leading to megacities or large agglomerations, also stimulates increased spending on OOH, as a larger audience can be reached, increasing the return-on-investment for advertisers.
- In Switzerland, for example, the population in the canton of Zurich – Switzerland's largest canton in terms of population – reached 1.38 million inhabitants in 2011, up from approximately 1.21 million in 2000. Eighty percent of the population of the canton of Zurich live in and around Zurich. A prognosis by the Statistical Office of the Canton of Zurich estimates the population to reach close to 1.6 million inhabitants by 2030. This corresponds to a compound annual growth rate of 0.7 percent over the period 2010–2030.

Railway Passenger Frequency in Switzerland



Source: Swiss Federal Statistical Office

- In Switzerland, railway passenger frequency is increasing. In 2011, the SBB and concessionary transport companies counted 461 million passengers. In the case of Zurich, around half of all commuters use public transport to get to Zurich – e.g., every day 40,000 people travel with the “S-Bahn” from Winterthur to Zurich – and the trend is increasing. To keep pace with the demand, the Swiss Federal Railways (SBB CFF FFS) are heavily expanding their capacity by investing in new S-Bahn rolling stock, underground tunnels and railway station infrastructure. The “Durchmesserlinie” project alone (projected total investment volume: CHF 2.1 billion) seeks to expand railway capacity to be able to meet the estimated 50 percent traffic growth up until 2015. Investment in public transport infrastructure usually is good news for OOH media, as especially railway stations, with crowds of people waiting and willing to be distracted, preferably by moving images, are prime locations for this type of advertising.
- One of the main drivers of spending on OOH is thus the increased mobility of the Swiss population: research indicated that, on average, a person in Switzerland travelled a total of an additional 15,000 kilometres over the last 10 years and is expected to travel a total of 130,000 kilometres per year by 2020. The mobility rate of the Swiss population exceeds 90 percent.
- Despite the fact that the main OOH media operators reported positive results in 2011, we believe net advertising prices will continue to be under strong pressure, resulting in larger discounted volumes to prevent empty screens.

Market Overview

- After a significant decline of 12 percent in 2009, the Swiss OOH market recovered in 2010 and, boosted by the national elections and increasing number of digital ads, showed a slight growth of 1.7 percent in 2011.
- We expect digital OOH advertising to show a strong annual growth rate of 48.8 percent in the market segment of digital advertising and digital signage up until 2016. Up from 2.1 percent in 2011, it will attain a relative share of the OOH market of 14.2 percent by 2016.
- The great advantage of DOOH, or digital signage, is that it allows for individual solutions per screen and time of day, whilst ensuring real-time display flexibility. This is especially appealing to advertisers who want to attract distinct groups of consumers at different times of the day at, for example, airports and train stations.
- 2011 was a moderately successful year for the Swiss DOOH market. The APG profit centre, e-Advertising, specialised in the operation and marketing of digital advertising, set a new milestone with its new ePanel (digital advertising space in full HD quality). The ePanel, with an 82-inch screen, enables OOH advertising in high quality. By the end of June 2012, 41 displays in this new format were in operation in several SBB stations, such as Zurich main station, Bern, Basel, Geneva, Lausanne and Lucerne. Furthermore, a new eBoard (LED screen in HD quality) was installed at the Zurich main station.
- The ability to make use of streaming video increases DOOH's attractiveness as an advertising medium, in addition to television, online and cinema advertising formats. The only constraint is that DOOH usually cannot make use of sound, a disadvantage compared to the other formats. Nonetheless, it allows advertisers to reach young urbanites through an additional channel.
- Improved measurement of the OOH audience provides advertisers with information to evaluate the impact of purchases by making comparisons with other media and facilitating the incorporation of OOH as part of advertising and marketing campaigns. As a result, improved audience measurement is generally associated with increased spending, both in total and to justify price premiums.

- Switzerland's poster advertising market continues to be fundamentally dominated by two companies (APG|SGA AG and Clear Channel Outdoor). There are also a number of smaller players, especially in the DOOH segment, of which Neo Advertising, Goldbach Group and Livesystems are among the largest.
- Switzerland's telecoms and cable operators are largely absent from the Swiss OOH market, this in contrast to some other European countries (e.g., Deutsche Telekom in Germany), who take advantage of their investments in fibre optics networks to connect and deploy a digital OOH network.
- In Switzerland and around the world, the OOH market is undergoing significant transformation from conventional poster advertising, also referred to as "sneaker-net", towards large-surface digital billboards and higher investment allocation in digital networks (such as narrowcasting). As an intermediate solution, many conventional billboards will be replaced by back-lit display installations and, later on, by full digital screens, as the cost of such screens comes down.
- In total, it is estimated that, today, Switzerland has approximately 27,500 digital OOH screens. Germany has approximately 80,000 digital screens, spread across a large number of operators. Among the bigger operators is Ströer. Neo Advertising is also active in Germany – it owns and operates, amongst others, 1,500 screens in 270 Edeka supermarkets and one screen at all 32 Mobilcom Debitel outlets at Karstadt.
- Overall, Switzerland's non-digital OOH market is considered saturated. Outdoor advertising carriers (poster panels, poster stands, advertising columns, building megaposters or other suitable public surfaces) are a fully exploited opportunity governed by regulations. OOH advertising companies are thus very keen on acquiring further inventory space from private individuals or investors (e.g., on a building, in business centres or in a privately-owned car park).

Out-of-Home Advertising Market (CHF millions)

Switzerland	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2012–16 CAGR
Physical Out of Home	696	716	628	634	641	643	642	636	619	618	-0.7
Digital Out of Home	6	7	8	10	14	24	36	55	83	102	48.8
Total Out of Home	702	723	636	644	655	667	678	691	702	720	1.9

Source: PricewaterhouseCoopers AG; Wilkofsky Gruen Associates; Stiftung Werbestatistik Schweiz; Affichage Holding; Clear Channel Outdoor; JC Decaux; Goldbach Group; Neo Advertising; Livesystems

Out-of-Home Advertising Market Growth (%)

Switzerland	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2012–16 CAGR
Physical Out of Home	11.0	2.9	-12.3	1.0	1.1	0.3	-0.2	-0.9	-2.7	-0.2	-0.7
Digital Out of Home	500.0	16.7	14.3	25.0	40.0	71.4	50.0	52.8	50.9	22.9	48.8
Total Out of Home	11.9	3.0	-12.0	1.3	1.7	1.8	1.6	1.9	1.6	2.6	1.9

Source: PricewaterhouseCoopers AG; Wilkofsky Gruen Associates; Stiftung Werbestatistik Schweiz; Affichage Holding; Clear Channel Outdoor; JC Decaux; Goldbach Group; Neo Advertising; Livesystems

Main players:

- APG|SGA AG is the market leader in Switzerland in the poster advertising segment. APG|SGA AG operates some 154,000 advertising locations, of which approximately 107,000 are poster locations, covering amongst others the cities of Basel, Bern, Geneva, Lausanne, Lucerne, Zug and Zurich, all SBB railway stations, over 4,200, or more than 90 percent of public transport and postal vehicles, almost 90 percent of all ski lifts, the international airport of Geneva, Lugano airport, city centre parking locations, and a number of shopping centres, such as the largest shopping centre in the Romandie, Balaxert in Geneva.
- Clear Channel Outdoor is APG|SGA's main competitor. Clear Channel Outdoor is active in city centres and can boast a leading position in Zurich. Its over 20,000 OOH locations are spread across Switzerland. Clear Channel Outdoor owns and operates 5,300 screens in 800 shopping centres, covering 90 percent of all Coop Megastores and 70 percent of all Migros MMM centres. It owns and operates screens in the international airports of Zurich and EuroAirport Basel-Mulhouse-Freiburg at prime locations, such as the baggage claim area or on the flight information screens. Its 1,000 petrol station locations span petrol stations operated by Shell, Tamoil, Coop, Migrol, Agip and Avia. Its kiosk network spans 1,600 kiosk locations. Clear Channel Outdoor is active in a number of exhibition centres, such as the OLMA in St. Gallen or "Messe Bern" in Bern, and since January 1st, 2011, Clear Channel Outdoor has also been operating 100 vehicles of the public transport organisation of Geneva. Out of Clear Channel Outdoor's city networks, totalling some 7,500 locations, 4,500 can be found in Zurich, another 2,000 in Basel, Bern, Lausanne and Geneva, and the remainder in Zug, Lucerne, Lugano, St. Gallen and Winterthur. Clear Channel Outdoor offers Switzerland's largest poster format with its "megaposter" offering. Clear Channel Outdoor locations were home to a large number of 3D campaigns.
- Neo Advertising, a division of the Neo Media Group, added a further 18 screens to the 40 screens at the international airport of Geneva and operates 616 screens in 48 shopping centres spread across Switzerland – 19 in the German-speaking part of Switzerland, 28 in the French-speaking part and 1 in the Italian-speaking part. These shopping centres are home to 39 Coop stores, 9 Migros, 11 Denner, 28 Interdiscount, 15 Import Parfumerien, and 21 Fust stores and cover 22 major cities. Neo advertising operates 172 TV screens in more than 75 percent of all Coop Pronto locations, positioned above the cashier area. Other locations are the two major exhibition centres Palexpo in Geneva and Forum Fribourg in Fribourg, where it owns 80 screens spread across both sites. In the Geneva area, Neo Advertising owns a further 6 screens in major business centres, which are operated under the Luxury TV brand, and 73 screens in 4 shopping centres (La Praille, Eaux-Vives 2000, Les Cygnes, Thônex). Neo advertising furthermore operates mobile screens, mainly targeted at on-the-spot B2C campaigns. These screens are actually worn by hosts and hostesses, in the form of a rucksack. Approximately 400 screens are installed in Geneva's trams, buses and trolley buses. Besides Switzerland, Neo Advertising is also active in Germany, Spain, Canada and the USA.
- Goldbach Media, a division of Goldbach Group, markets a total of 5,400 screens at 27 Media Markt and Saturn retail outlets (approximately 200 screens per outlet), 550 screens at 80 Migrolino shops at Migros/Shell petrol pump stations, 37 screens in the cashier area of 37 Migrolino shops, 408 mainly petrol pump screens at 77 Tamoil petrol stations and 360 screens at 234 post offices. In conjunction with Neo Advertising, Goldbach Media markets 656 screens at the weighing machines in the food section of 33 Manor department stores. In conjunction with PRW Public Relations & Werke AG, it markets 61 screens at 17 (in winter: 69 at 20) waiting areas for mountain railways. In conjunction with Monzoon Networks, Goldbach Media markets 21 screens, or so-called All-Media Towers, at Mövenpick Marché or Cindy's Diner Restaurants motorway service areas and 65 advertising screens that are integrated in the All-Media Towers at 29 Swiss military bases. In conjunction with Livesystems, Goldbach Media markets 1,029 OOH advertising screens at 20 public transport areas. Furthermore, Goldbach Group also operates the advertising for in-store radio at Coop and Coop Pronto, as well as at a number of parking areas. In 2011, it also added Valora, the owner of Kiosk, to its client base and now markets a total of almost 13,000 so-called Impulse Screens and almost 12,000 so-called Infotainment screens at 101 Kiosk, 53 avec and 18 Press&Books outlets throughout Switzerland.
- Livesystems owns and operates 1,029 public transport screens under the brand "passenger TV" at 20 cities spread across 9 regions throughout Switzerland. For example it counts, the public transport organisations of the cantons of Aargau, St. Gall and Lucerne as its customers. The airport buses of Zurich Airport make use of Livesystem's digital signage solutions. More than 50 percent of its screens are located in Eastern and Central Switzerland. Most screens are also marketed through Goldbach Group and PubliGroupe. Livesystems does not want to exceed the 25 percent advertising mark to ensure advertising is able to gain appropriate and effective attention.

- A number of smaller players occupy niches. Since 2009 Excom Media, for example, has owned and operated its own Healthcare & Beauty in-store TV network at 325 points of sale (275 pharmacies and 50 drugstores).
- Under the name “IG Adscreen” (IG = Interessengemeinschaft, in English: interest community adscreen), a number of digital signage operators, hardware and software vendors and advertising agencies have bundled their efforts in order to develop technical and economical standards for the use of digital screens, develop a common understanding of the measurement of success and impact of digital advertising campaigns, conduct research and, finally, to support the positioning and protection of adscreen as an advertising medium and as a brand in Switzerland. Goldbach Media, the Swiss Post and Neo Advertising are among the members, as are MMD Monitors & Displays and PC-WARE Systems (Switzerland).
- Within Western Europe, there are significant variations between the countries. Strongest relative growth is expected in Norway, with an average annual growth rate of 5.1 percent during the forecast period.
- Unsurprisingly, the lowest growth is expected to occur in Greece, where the anticipated growth rate of –1.4 percent clearly demonstrates the country’s current economic woes. A similar growth rate to Switzerland’s is only expected to occur in Portugal.
- France was the largest market in Western Europe in 2011, with OOH revenues of CHF 1.5 billion dollars. Metrobus installed 400 screens in major Paris Métro subway stations and plans to roll out 800 screens in railway stations across the country. Giant billboards were banned from the centre of the city in 2011, resulting in the removal of many large billboards. Although digital billboards are not as developed in France as in the UK – the second-largest OOH market in Western Europe – they are expected to increase in number over the next few years. The UK is the leading market for digital OOH advertising in Western Europe and is expected to continue expansion of digital signage to aid growth.
- Germany, the third-largest market in Western Europe, is expected to increase at a 2.2 percent compound annual rate to CHF 1.1 billion in 2016. Ströer, the market leader, is installing a network of 1,000 screens in its OOH Channel network in 200 railway stations across the country, in addition to its Infoscreen network, with over 250 screens at railway and underground stations.
- Overall OOH revenues within Western Europe are expected to reach CHF 7.4 billion in 2016, up from CHF 6.6 billion in 2011.

The Swiss Out-of-Home Market Compared to Western Europe

- The Swiss OOH market is highly developed. Today, OOH advertising can already boast a relative market share of 15 percent of the total advertising mix. This clearly exceeds European averages, which range from 5–10 percent.
- The Swiss OOH market will, therefore, grow less rapidly than the Western European average. It is expected that Switzerland will show an average annual growth rate of 1.9 percent versus 2.6 percent for Western Europe.

Swiss Out-of-Home Market Compared to Western Europe (CHF millions)

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2012–16 CAGR
Switzerland	702	723	636	644	655	667	678	691	702	720	1.9
Western Europe	7,220	7,182	6,248	6,520	6,557	6,706	6,869	7,057	7,243	7,443	2.6

Source: PricewaterhouseCoopers AG; Wilkofsky Gruen Associates; Stiftung Werbestatistik Schweiz; Affichage Holding; Clear Channel Outdoor; JC Decaux; Goldbach Group; Neo Advertising; Livesystems

Swiss Out-of-Home Market Compared to Western Europe (%)

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2012–16 CAGR
Switzerland	11.9	3.0	–12.0	1.3	1.7	1.8	1.6	1.9	1.6	2.6	1.9
Western Europe	4.8	–0.5	–13.0	4.4	0.6	2.3	2.4	2.7	2.6	2.8	2.6

Source: PricewaterhouseCoopers AG; Wilkofsky Gruen Associates; Stiftung Werbestatistik Schweiz; Affichage Holding; Clear Channel Outdoor; JC Decaux; Goldbach Group; Neo Advertising; Livesystems

10 Consumer Magazine Publishing

Index

Executive Summary	88
Market Overview	88
Consumer Magazine Circulation	90
Consumer Magazine Advertising	91
The Swiss Consumer Magazine Publishing Market Compared to Western Europe	93



Executive Summary

Definition

- The consumer magazine publishing market comprises spending by advertisers on consumer print magazines, on magazine Web sites and magazine mobile sites, including tablets and smartphones. Consumer magazine publishing includes spending by readers to purchase magazines via subscriptions or at retail outlets and kiosks, as well as paid online and mobile subscriptions, including tablet and smartphone applications.
- Magazines published under contract, known as customer magazines or custom publishing, are also included in the print advertising component.
- Figures do not include licencing or other ancillary revenues. Trade magazines are not included.

Market size and growth in Switzerland

- We expect the Swiss consumer magazine market to decrease from CHF 1,124 million in 2011 to CHF 921 million in 2016, a 3.9 percent compound annual rate of decline.
- In comparison, the Western European market will decline by a projected compound annual rate of 0.3 percent, from CHF 25.6 billion in 2011, resulting in revenues of CHF 25.2 billion in 2016.

Market size and growth by component

- Spending on print advertising will drop from CHF 667 million in 2011 to CHF 527 million in 2016, a 4.6 percent compound annual decrease.
- Spending on digital advertising will continue to grow strongly. Spending on digital advertising will increase from CHF 22 million in 2011 to CHF 29 million in 2016, a compound annual growth rate of 5.5 percent.
- Spending on consumer magazine print circulation will decrease from CHF 434 million in 2011 to CHF 347 million in 2016, a 4.4 percent compound annual decrease.
- Spending on consumer magazine digital circulation, a whole new market, is estimated to reach revenues of CHF 19 million in 2016, whereas today's revenues are virtually nothing.

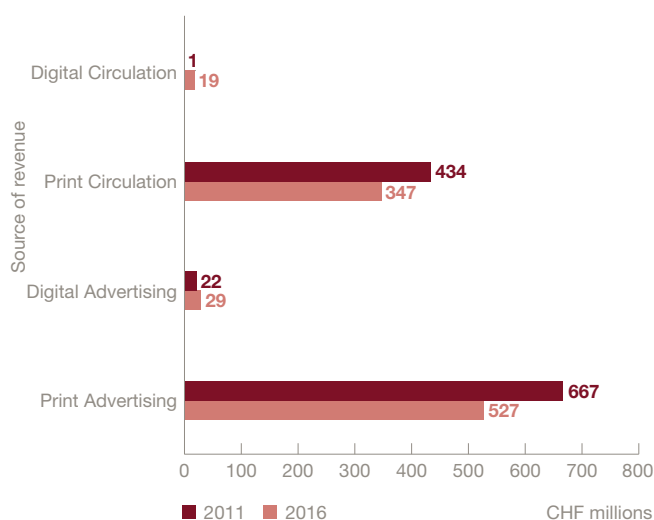
Principal drivers

- Improved economic conditions in 2014 will have a positive impact on both advertising and circulation spending; as a result of the current economic conditions we expect a negative impact for 2012 and 2013 with improving economic conditions during the latter part of the forecast period resulting in a moderate decrease.
- Growth will be muted by declining readership, as consumers shift to online and digital sources and reduce their consumption of print magazines. Smartphone and tablet applications, especially, will substitute print subscriptions and readership, but at the same time new formats also provide opportunities to attract new readers. News and gossip titles will be most vulnerable to migration to the Internet as information available online reduces demand for print. Special interest titles will be less vulnerable to online competition.
- Despite the trend to digital advertising, we believe that print advertising will remain the main source of income during the next years.
- A major challenge for consumer magazine publishers is on how to optimally benefit from the migration of readership from print, especially to tablet applications and other forms of online content.

Market Overview

- The consumer magazine market is divided into spending for advertising and spending on circulation. Both sections can be further split into print and digital. In Switzerland, the ratio of advertising to circulation is about 60 to 40.
- The print advertising market share will slightly decrease from 59 percent in 2011 to 57 percent in 2016.
- The digital advertising market share will increase from 2 percent in 2012 to 3 percent in 2016.
- The consumer magazine print circulation market share will slightly decrease from 39 percent in 2011 to 38 percent in 2016.
- Consumer magazine digital circulation is expected to reach a 2 percent market share in 2016.
- The consumer magazine market (advertising and circulation) in Switzerland fell by 12.8 percent in 2009 and a further decline of 0.8 percent was projected for 2010, considering the forecasted outlook for the European and Swiss economies. Instead, the market developed very positively, profiting from renewed consumer optimism and a robust Swiss economy. In 2010, the Swiss consumer magazine market grew by 4.7 percent, driven by

Consumer Magazine Publishing Market



Source: PricewaterhouseCoopers AG; Wilkowsky Gruen Associates; WEMF; Stiftung Werbestatistik Schweiz; Media Focus, Swiss Media Association

an increase in print advertising revenues of a remarkable 7.9 percent. In 2011, the Swiss consumer magazine market almost achieved the same revenue as in 2010.

- Nevertheless, as the economic woes are not yet over, we project a decline for the coming years at an annual compound rate of 3.9 percent, mainly driven by a drop in revenues expected in 2012 and partly in 2013.
- Just a few publishers dominate the consumer magazine market in Switzerland. The main publishers are Ringier AG (Schweizer Illustrierte, l'Hebdo, Bolero, etc.), Tamedia AG (Schweizer Familie, Annabelle, 20 Minuten Friday, etc.), Axel Springer Schweiz AG (Beobachter, Tele, Bilanz, etc.) and Reader's Digest AG. The TV programming magazine "TV täglich", covering the programming of 40 television and radio channels, is a joint publication of Ringier and Tamedia.
- The ageing of Swiss society is considered beneficial to the consumer magazine industry. Nevertheless, overall circulation is declining, with the exception of a few titles, such as those mentioned above. When compared to circulation in 1990, the top thirteen today have significantly lower readership.
- The current investments in bandwidth will continue to push readers online, either on websites or via mobile applications. Growing consumer magazine Web site and app traffic will drive digital advertising.

Consumer Magazine Publishing Market by Component (CHF millions)

Switzerland	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2012-16 CAGR
Print Advertising	722	730	607	659	667	595	560	548	538	527	-4.6
Digital Advertising	9	15	15	20	22	21	20	23	25	29	5.5
Total Advertising	731	745	622	679	689	616	580	571	563	556	-4.2
Print Circulation	470	467	452	448	434	417	400	384	365	347	-4.4
Digital Circulation	0	0	0	0	1	2	3	6	13	19	80.2
Total Circulation	470	467	452	448	435	419	403	390	378	366	-3.4
Total Advertising and Circulation	1,201	1,212	1,074	1,127	1,124	1,035	983	961	941	921	-3.9

Source: PricewaterhouseCoopers AG; Wilkowsky Gruen Associates; WEMF; Stiftung Werbestatistik Schweiz; Media Focus; Swiss Media Association

Consumer Magazine Publishing Market Growth by Component (%)

Switzerland	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2012-16 CAGR
Print Advertising	6.0	1.1	-20.3	7.9	1.2	-10.7	-6.0	-2.0	-2.0	-2.0	-4.6
Digital Advertising	28.6	40.0	0.0	25.0	9.1	-5.0	-2.0	10.0	12.0	14.0	5.5
Total Advertising	6.3	1.9	-19.8	8.4	1.5	-10.6	-5.9	-1.6	-1.4	-1.3	-4.2
Print Circulation	2.0	-0.6	-3.3	-0.9	-3.2	-4.0	-4.0	-4.0	-5.0	-5.0	-4.4
Digital Circulation	n/a	n/a	n/a	n/a	100.0	100.0	50.0	100.0	116.7	46.2	80.2
Total Circulation	2.0	-0.6	-3.3	-0.9	-3.0	-3.8	-3.7	-3.2	-3.1	-3.2	-3.4
Total Advertising and Circulation	4.5	0.9	-12.8	4.7	-0.3	-7.9	-5.0	-2.3	-2.1	-2.1	-3.9

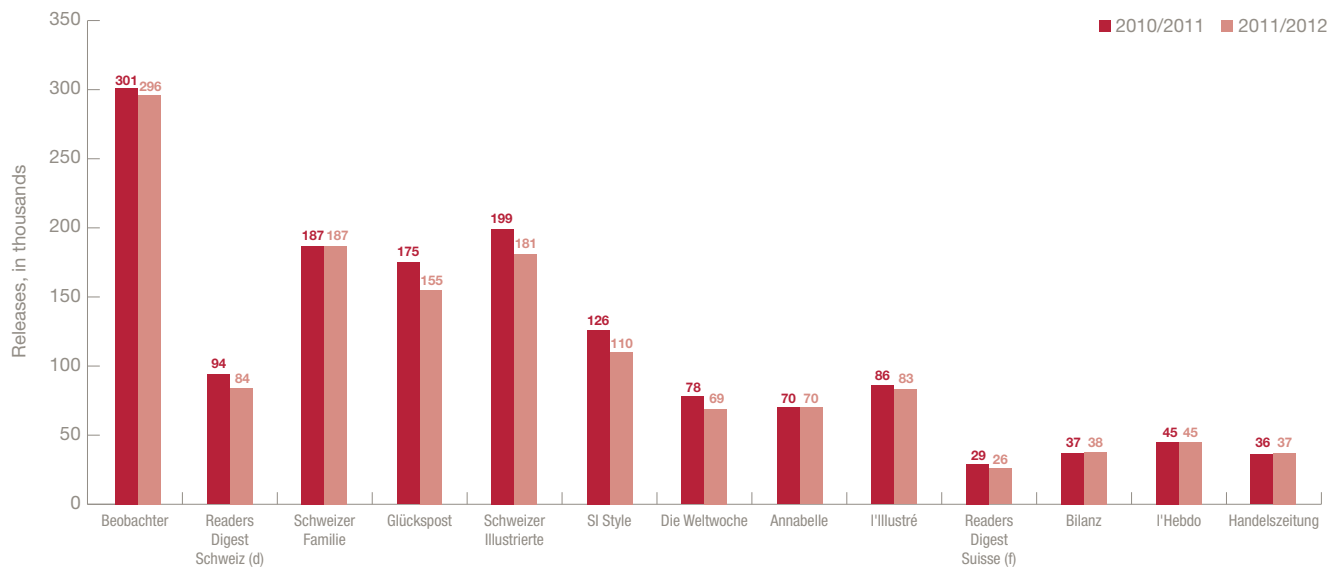
Source: PricewaterhouseCoopers AG; Wilkowsky Gruen Associates; WEMF; Stiftung Werbestatistik Schweiz; Media Focus; Swiss Media Association

Consumer Magazine Circulation

- Circulation spending (print and digital) in Switzerland fell by 0.9 percent in 2010 and continued to decline at 3.0 percent in 2011. We expect total circulation to decrease from 2012 to 2016 by 3.4 percent annually. We expect print circulation revenues to decrease from CHF 434 million in 2011 to CHF 347 million in 2016. Losses in print circulation will not be fully compensated by digital subscriptions partly because the digital circulation price is lower than the print circulation price. It will take some time before the digital circulation segment really becomes substantial.

- In 2012, circulation figures for the top three titles of the popular, financial and economic press were the “Beobachter”, with a paid circulation of 296,707 in 2011/2012 (–1.7 percent compared to 2010/2011) and “Schweizer Familie” with a circulation of 186,594 in 2011/2012 (+0.0 percent compared to 2010/2011). The former number two, “Schweizer Illustrierte”, with a circulation of 181,480 in 2011/2012 (–9.0 percent compared to 2010/2011) lost its spot to “Schweizer Familie”, which was able to maintain its level of paid circulation compared to the year prior.

Consumer Magazine Paid Circulation 2010/2011, 2011/2012



Source: WEMF; Swiss Media Association

- Competition from the Internet is immense, especially for commoditised information. Tablets are very popular, and penetration is growing rapidly. Tablets represent an effective platform for magazines because they provide both a good viewing experience and mobility. People are more willing to pay for content on mobile devices than for content online. Where available, paid subscriptions are gaining traction. In order to capitalise on this, magazines are increasingly shifting their attention from the pure transmission of information to more value-adding services, such as the interpretation and structuring of such information.
- Growth in digital paid unit circulation, both stand-alone and as a component of bundled sales, will drive digital circulation spending.
- But not all new media launches are digital. In April 2011, Ringier launched “Landliebe”, a Swiss family magazine dedicated to combining urban life with traditional values, nature and photography. In each edition, both knitting and hiking are covered. The paid circulation was 100,112 copies. Currently, the magazine appears five times a year and, starting in 2013, will appear six times a year at an annual subscription price of CHF 39. Over the past years, the German magazine “Landlust” has demonstrated that this market segment reflects the current zeitgeist.

- The average selling price for individual copies of popular, financial and economic publications increased from CHF 5.80 in 2007 to CHF 5.83 in 2012, a compound annual growth rate of 0.1 percent. Over the same period, average yearly subscription prices increased, from CHF 143.28 in 2006 to CHF 159.77 in 2011, a compound annual growth rate of 2.2 percent.
- The price per copy for the technical press decreased from CHF 13.97 in 2007 to CHF 11.11 in 2012, a compound annual decrease of 4.5 percent. Subscription prices decreased from CHF 124.71 in 2007 to CHF 120.98 in 2012, a compound annual decline of 0.6 percent.
- Lastly, price per copy for special-interest publications increased from CHF 7.64 in 2007 to CHF 8.67 in 2012, a compound annual growth rate of 2.6 percent. Subscription prices decreased from CHF 73.11 in 2007 to CHF 71.04 in 2012, a compound annual rate of decline of 0.6 percent.

Consumer Magazine Circulation Market (CHF millions)

Switzerland	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2012–16 CAGR
Print Circulation	470	467	452	448	434	417	400	384	365	347	-4.4
Digital Circulation	0	0	0	0	1	2	3	6	13	19	80.2
Total Circulation	470	467	452	448	435	419	403	390	378	366	-3.4

Source: PricewaterhouseCoopers AG; Wilkowsky Gruen Associates; WEMF; Stiftung Werbestatistik Schweiz; Media Focus; Swiss Media Association

Consumer Magazine Circulation Market Growth (%)

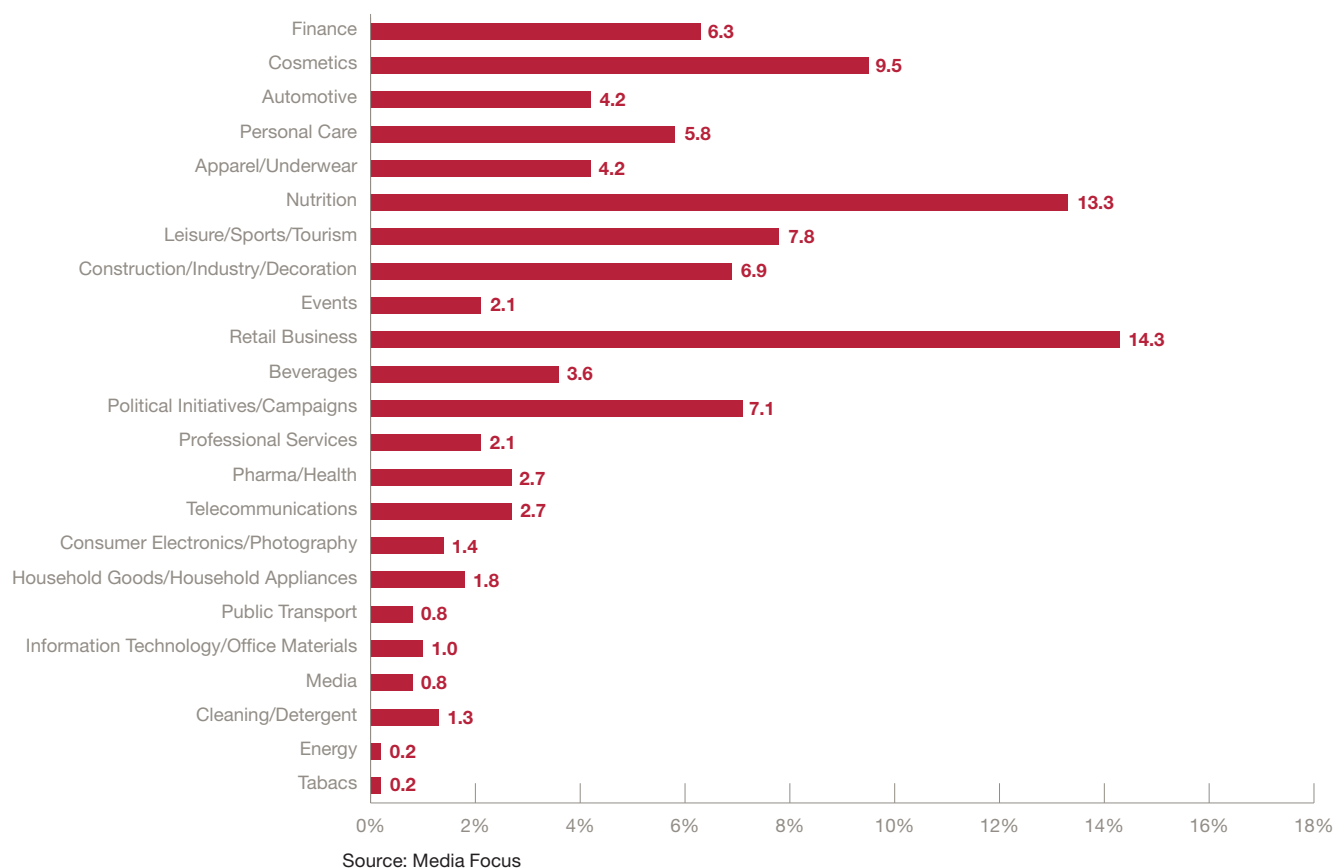
Switzerland	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2012–16 CAGR
Print Circulation	2.0	-0.6	-3.3	-0.9	-3.2	-4.0	-4.0	-4.0	-5.0	-5.0	-4.4
Digital Circulation	N/a	N/a	N/a	N/a	100.0	100.0	50.0	100.0	116.7	46.2	80.2
Total Circulation	2.0	-0.6	-3.3	-0.9	-3.0	-3.8	-3.7	-3.2	-3.1	-3.2	-3.4

Source: PricewaterhouseCoopers AG; Wilkowsky Gruen Associates; WEMF; Stiftung Werbestatistik Schweiz; Media Focus; Swiss Media Association

Consumer Magazine Advertising

- The overall consumer magazine advertising market in Switzerland showed remarkable recovery in 2010 and throughout 2011 and grew by 1.5 percent. We believe that the overall consumer magazine advertising market will start to decline during 2012–2016. For this period, we expect spending to decrease at a 4.2 percent compound annual rate, from CHF 689 million in 2011 to CHF 556 million in 2016.
- Print advertising will remain the main source of income for consumer magazine publishers. Consumer magazine print advertising is expected to decrease from CHF 667 million in 2011 to CHF 527 million in 2016, a minus 4.6 percent compound annual rate. This conservative forecast takes into account the fragility of the current financial and economic situations in Western Europe.
- In 2011, the major contributors to consumer magazine print gross advertising revenues were retail business, and the nutrition and cosmetics sectors. These sectors account for 37.1 percent of total consumer magazine print gross advertising. In comparison to 2011, in 2012 the top three sectors accounted for 36.5 percent, which is similar, overall, to 2011. However, in 2011, the top three sectors were financial services, cosmetics and automotive. Thus, automotive and financial services have been replaced by retail business and nutrition.
- We expect the digital advertising market in Switzerland to outpace print advertising growth during the coming years. Increasingly, readers and advertisers are migrating to the Internet and making use of smartphone and especially tablet applications. Digital advertising is expected to grow from CHF 22 million in 2011 to CHF 29 million in 2016, a compound annual growth rate of 5.5 percent.

2011 Print Advertising in Popular, Finance and Economics Press, in percent



- Digital platforms are appealing to advertisers because they permit video advertising and provide access to online stores where readers can directly purchase advertised products. The ability to advertise in a shopping environment increases the effectiveness of an ad.
- With broadband penetration increasing and with mobile platforms proliferating, we expect digital readership to continue to expand, in the process propelling digital advertising.

Consumer Magazine Advertising Market (CHF millions)

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2012-16 CAGR
Switzerland											
Print Advertising	722	730	607	659	667	595	560	548	538	527	-4.6
Digital Advertising	9	15	15	20	22	21	20	23	25	29	5.5
Total Advertising	731	745	622	679	689	616	580	571	563	556	-4.2

Source: PricewaterhouseCoopers AG; Wilkowsky Gruen Associates; WEMF; Stiftung Werbestatistik Schweiz; Media Focus; Swiss Media Association

Consumer Magazine Advertising Market Growth (%)

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2012-16 CAGR
Switzerland											
Print Advertising	6.0	1.1	-20.3	7.9	1.2	-10.7	-6.0	-2.0	-2.0	-2.0	-4.6
Digital Advertising	28.6	40.0	0.0	25.0	9.1	-5.0	-2.0	10.0	12.0	14.0	5.5
Total Advertising	6.3	1.9	-19.8	8.4	1.5	-10.6	-5.9	-1.6	-1.4	-1.3	-4.2

Source: PricewaterhouseCoopers AG; Wilkowsky Gruen Associates; WEMF; Stiftung Werbestatistik Schweiz; Media Focus; Swiss Media Association

The Swiss Consumer Magazine Publishing Market Compared to Western Europe

- The Swiss consumer magazine market accounts for around 4.4 percent of the Western European market in 2011 and won market share compared to other western countries in the last four years.
- In Western Europe, declines during the next three years will offset gains in 2015 and 2016, and spending of CHF 25.2 billion in 2016 will be 0.2 percent lower, on a compound annual basis, than the CHF 25.6 billion in 2011.
- France had the largest market in 2011, at CHF 5.7 billion, followed by Germany at CHF 5.2 billion, the UK at CHF 3.8 billion, and Italy at CHF 3.7 billion. Together, these four countries comprised 63 percent of EMEA's consumer magazine market.
- The French market fell 1.2 percent in 2011, as a 2.6 percent drop in print advertising and a 1.8 percent decrease in print circulation spending offset large increases in digital spending. We expect steeper declines in the near term as economic conditions weaken, and more modest declines in later years, as digital spending becomes a more important component of the overall market. Spending will drop to CHF 5.3 billion in 2016, a 1.0 percent compound annual decrease from 2011.
- Germany edged up 0.8 percent in 2011. We expect a virtually flat market during the next five years as gains in advertising barely offset declines in circulation spending.
- The UK market fell 0.3 percent in 2011. A 6.3 percent drop in print advertising was nearly offset by strong growth in digital. We expect a sharper drop in 2012 and a further decline in 2013 before the market rebounds in 2014, fuelled by a surging digital market. Overall spending will increase at a 0.3 percent compound annual rate to CHF 3.9 billion in 2016.
- Italy's consumer magazine market has declined during each of the past five years, and we expect ongoing declines during each of the next five years, as a result of a weak economy. Spending will fall at a 1.6 percent compound annual rate to CHF 3.4 billion in 2016.
- Overall, in Western Europe, we observe that besides the economic cycle, declines in unit circulation are hurting advertising because the reach of print titles is steadily declining. Print magazines are losing share to the Internet and to television.
- Despite the downturn in 2011 and poor prospects for 2012, the underlying market is not as weak as it was in 2008 and 2009, and there has been increased activity with respect to launches in Western Europe. There were a number of cross-border launches that capitalised on a title's established appeal. In 2011, Forbes launched in Denmark, Finland, France, Germany, Italy, Norway, Switzerland, the UK, the Czech Republic, and South Africa. The BBC launched "Top Gear" magazine in Finland and Portugal, and "BBC History Magazine" in Italy, Sweden, and Hungary. In 2012, "Vogue" plans to launch in the Netherlands, "Weight Watchers" in Sweden, and "GQ" in Turkey. New launches of popular titles should help support the print advertising market in Western Europe.

Swiss Consumer Magazine Publishing Market Compared to Western Europe (CHF millions)

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2012-16 CAGR
Switzerland	1,201	1,212	1,074	1,127	1,124	1,035	983	961	941	921	-3.9
Western Europe	29,516	28,722	25,890	25,868	25,562	25,212	25,005	24,977	25,054	25,244	-0.2

Source: PricewaterhouseCoopers AG; Wilkowsky Gruen Associates; WEMF; Stiftung Werbestatistik Schweiz; Media Focus; Swiss Media Association

Swiss Consumer Magazine Publishing Market Growth Compared to Western Europe (%)

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2012-16 CAGR
Switzerland	4.5	0.9	-12.8	4.7	-0.3	-7.9	-5.0	-2.3	-2.1	-2.1	-3.9
Western Europe	0.3	-2.7	-9.9	-0.1	-1.2	-1.4	-0.8	-0.1	0.3	0.8	-0.2

Source: PricewaterhouseCoopers AG; Wilkowsky Gruen Associates; WEMF; Stiftung Werbestatistik Schweiz; Media Focus; Swiss Media Association

11 Newspaper Publishing

Index	
Executive Summary	95
Market Overview	95
Newspaper Advertising	98
Newspaper Circulation	99
The Swiss Newspaper Publishing Market Compared to Western Europe	102



Executive Summary

Definition

- The newspaper publishing market comprises spending on daily print newspapers by advertisers and readers and advertising on newspaper websites and mobile device sites. Spending by readers includes newsstand and kiosk purchases, subscriptions, payments for newspapers delivered to mobile devices and fees to access online content.
- Circulation numbers exclude free daily newspapers and weekend editions, unless otherwise stated.

Market size and growth in Switzerland

- We expect the Swiss newspaper publishing market to decrease from CHF 2.2 billion in 2011 to CHF 1.7 billion in 2016, a compound annual decline of 4.8 percent.
- In comparison, the EMEA market will grow by a projected 0.3 percent compound annual growth rate, and Western Europe by 0.01 percent compounded annually. For Western Europe, we expect newspaper publishing revenues to increase from CHF 45.5 billion in 2011 to CHF 45.6 billion in 2016.

Market size and growth by component

- Spending on print advertising is the principal component of the market, with revenues of CHF 1.3 billion in

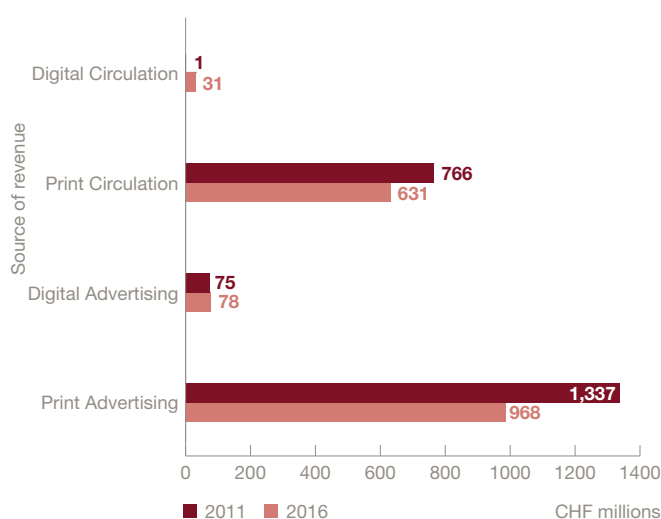
2011, representing 61 percent of total spending. We expect a decrease to CHF 1.0 billion in 2016, a 6.3 percent compound annual decline.

- We expect print circulation spending, the second largest component, representing 35 percent of total spending, to decrease from CHF 766 million in 2011 to CHF 631 million in 2016, a 3.8 percent compound annual decrease.
- Spending on digital advertising is expected to rise from CHF 75 million in 2011 to CHF 78 million in 2016, a 0.8 percent compound annual increase.
- Spending on digital circulation is expected to become an entirely new market segment, with revenues reaching CHF 31 million in 2016.

Principal drivers

- Improved economic conditions in 2014 will have a positive impact on both advertising and circulation spending; as a result of current economic conditions we expect a negative impact for 2012 and 2013, although improving economic conditions during the latter part of the forecast period will result in moderate decrease.
- Nevertheless, under the influence of the migration of readers to the Internet and changing consumer behaviour, circulation and advertising spending will continue to decrease.
- Price increases, especially for Sunday newspapers, compensate in the short term for declines in circulation, but cannot be counted on going forward; therefore, we expect that print circulation revenue will decrease further and only be partly compensated by digital circulation.
- Mobile devices, such as eReaders, tablets and smartphones, are starting to represent a new outlet for circulation and related advertising revenues. As new readership usage patterns have not been established, publishers need to experiment to find the optimal usability and attractiveness of such applications to their readership.
- Applications can cater to the specific needs of the readerships through the integration of additional content, related third-party content, video interviews and photo series.

Newspaper Publishing Market



Source: PricewaterhouseCoopers AG; Wilkofsky Gruen Associates; WEMF; Stiftung Werbestatistik Schweiz; Media Focus; Swiss Media Association

Market Overview

- The Swiss newspaper publishing market is small compared to neighbouring markets in Germany, France and Italy. However, with a total number of 194 news-

paper titles in 2011 (2010: 193), no other country in Europe has such a high-density coverage of newspaper titles in relationship to the total population. Despite the financial crisis, Switzerland continues to be a typical “print press country”. However, the circulation numbers have been decreasing for years and we expect that this process will continue in the years ahead.

- The newspaper publishing market in Switzerland is thus characterised by its size, but also by its geographical and linguistic boundaries and the political system of direct democracy, with most decisions being taken at local and regional levels. Therefore, local and regional news have a specific function and importance, both as communication channels as well as an official means of publishing of decisions, amendments and announcements of local or regional relevance to the public.
- Nevertheless, due to continuous consolidation activity, the titles of only a handful of publishers comprise the vast majority of total market circulation. In Switzerland today, a few publishers dominate, such as AZ Medien, AG für die Neue Zürcher Zeitung, Südostschweiz, Ringier and Tamedia.
- In the last couple of years, a number of publishers started to make use of their newly developed newsrooms. In March 2010 for example, Ringier started its Zurich Newsroom operations, and in September 2010, AZ Medien started their Newsroom operations in Aarau, as an integrated part of their completely renewed AZ media centre. The next step in this development process could be fully integrated editorial under common management, such as at 20 Minutes from Tamedia.
- Publishers are also searching for growth outside of publishing. Ringier, for example, considers the entertainment area and digital business of strategic importance. It has created four areas of entertainment: radio, films, events and services, and continues to expand its service offerings in these areas. Recent acquisitions include ticketing services and music event organisations. Other areas of expansion are sports marketing. Here, Ringier announced in June 2011 a 50-50 joint venture with Infront Sports & Media AG, to exploit the Swiss sports market by providing marketing and consulting services to sport event organisations and athletes. InfrontRingier began its operating activities with an exclusive mandate from Swiss Olympic, involving evaluating and examining a potential Swiss bid for the Olympic Winter Games of 2022, including the assessment of which areas of Switzerland have the best chances of providing the ideal winter sports environment. In 2011, InfrontRingier secured all marketing and sponsoring rights for the Swiss Football league from 2012/2013 onwards. On the other hand, for example in 2012, AG für die NZZ has invested in the SEF group, organiser of the Swiss Economic Forum.
- With a few exceptions, Swiss publishers are expanding into digital services. This involves creating digital editions for tablets and smartphones on the one hand, and acquiring stakes in digital platforms on the other. In some cases this also involves divesting print titles that are no longer considered to be of strategic importance, or for which the critical mass in terms of readership and advertising volume is deemed to be difficult to reach.
- Following the examples of the “New York Times” and the “Financial Times”, all major publishers show an increasing interest in the creation of a freemium paywall. In the most common version of this business model, it is possible to access a number of articles per month for free before a payment is required for further access. Since January 6, 2011, the “Schaffhauser Nachrichten” has restricted access to the online newspaper edition to paying subscribers only. In 2012, “Neue Zürcher Zeitung” started a freemium paywall, 20 articles per month are free before a payment is required (so-called metered model). Other publishers are still investigating or planning paid online subscription models. We expect other publishers to install such paywalls starting in 2013, depending on the success of the “Neue Zürcher Zeitung” experience.
- Subscribers to “Die Südostschweiz” automatically have access to the epaper version for online and tablet (Android and Apple). A smartphone version has also been released. The Südostschweiz Medien tablet version integrates the media offerings of Radio Grischa and Tele Südostschweiz.
- As with Südostschweiz Medien, most major Swiss publishers have launched tablet editions of their newspaper titles. In some cases these are independent applications that are refreshed twice a day, and in others these involve daily epaper versions of the regular newspaper. In all cases the tablet versions of the daily newspapers cannot be accessed for free.
- Sunday newspapers are also available through tablet applications and usually require paid subscriptions. A one-year subscription to the “NZZ am Sonntag”, for example, costs CHF 160 for the tablet edition, versus CHF 228 for the paper edition, a discount of roughly 30 percent. But individual copies of Sunday newspapers can also be acquired. For example, AZ Medien’s application allows readers to download individual Sunday newspaper copies as an alternative to its paid subscription model.

Newspaper Publishing Market by Component (CHF millions)

Switzerland	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2012–16 CAGR
Print Advertising	1,765	1,676	1,309	1,341	1,337	1,208	1,105	1,050	1,008	968	-6.3
Digital Advertising	62	67	59	67	75	61	59	63	69	78	0.8
Total Advertising	1,827	1,743	1,368	1,408	1,412	1,269	1,164	1,113	1,077	1,046	-5.8
Print Circulation	760	780	777	774	766	749	725	696	664	631	-3.8
Digital Circulation	0	0	0	0	1	3	6	12	22	31	98.7
Total Circulation	760	780	777	774	767	752	731	708	686	662	-2.9
Total Advertising and Circulation	2,587	2,523	2,145	2,182	2,178	2,021	1,895	1,822	1,763	1,707	-4.8

Source: PricewaterhouseCoopers AG; Wilkowsky Gruen Associates; WEMF; Stiftung Werbestatistik Schweiz; Media Focus; Swiss Media Association; MACH Basic 2012–2

Newspaper Publishing Market Growth by Component (%)

Switzerland	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2012–16 CAGR
Print Advertising	4.6	-5.0	-21.9	2.4	-0.3	-9.6	-8.5	-5.0	-4.0	-4.0	-6.3
Digital Advertising	21.3	8.8	-12.9	14.1	11.5	-18.7	-3.3	6.8	9.5	13.0	0.8
Total Advertising	5.1	-4.6	-21.6	2.9	0.3	-10.1	-8.2	-4.4	-3.2	-2.9	-5.8
Print Circulation	0.1	2.6	-0.4	-0.4	-1.0	-2.3	-3.2	-3.9	-4.7	-5.0	-3.8
Digital Circulation	N/a	N/a	N/a	N/a	N/a	200.0	100.0	100.0	83.3	40.9	98.7
Total Circulation	0.1	2.6	-0.4	-0.4	-0.9	-2.0	-2.8	-3.0	-3.2	-3.5	-2.9
Total Advertising and Circulation	3.6	-2.5	-15.0	1.7	-0.2	-7.2	-6.2	-3.9	-3.2	-3.1	-4.8

Source: PricewaterhouseCoopers AG; Wilkowsky Gruen Associates; WEMF; Stiftung Werbestatistik Schweiz; Media Focus; Swiss Media Association; DoubleClick; Google; MACH Basic 2012–2

Publishers' expansion into digital in Switzerland (selection)

- In 2011, Ringier and Qualipet, a leading Swiss pet shop chain with 76 stores across Switzerland, founded Qualipet Digital AG, a new joint venture. The newly formed company will expand Qualipet's mail order business into digital offerings, including an online and mobile pet shop, classifieds, service contact points, online advice and a community for animal lovers. The new qualipet.ch offers more than 10,000 products for sale online.
- On June 27, 2011, Ringier announced it had bought a 60 percent participation in DeinDeal.ch, an online group buying platform, owned by Goodshine AG. The remaining 40 percent continues to be held by the founders and investors of DeinDeal.ch. Just one day later, Tamedia announced a similar deal. In conjunction with Fashion Friends (in which Tamedia holds a 25 percent stake), Tamedia launched scoup.ch, an online platform for discounted deals in fashion, gastronomy, beauty, leisure and wellness. Tamedia has a 75 percent share in the joint venture. The founders of Fashion Friends hold the remaining 25 percent. In March 2012, Tamedia announced it would discontinue scoup.ch to focus on the development of Fashion Friends.
- In January 2012, AG für die Neue Zürcher Zeitung acquired a minority interest in adwebster, an online advertising network in Switzerland.
- At the beginning of 2012, a new joint venture between cash (Ringier) and bank zweipuls AG started operations. Under the "cash" brand, it will provide independent online financial and economic information services and online banking and transaction services supported by personal savings, investment and pension advisory services.
- In August 2012, 20 Minuten (Tamedia) announced the acquisition of 25.8 percent of TicinoOnline SA, a news portal focused on the Ticino region.
- In August 2012, AG für die Neue Zürcher Zeitung announced an investment in Coupon+, a company that brings together providers and customers as a direct marketing tool for companies.

- In September 2012, Ringier and Tamedia acquired job.ch, the leading job portal in Switzerland. The intention is to manage this company as a joint venture. Tamedia intends to bring Jobup AG into the new joint venture. Jobup AG includes the three job portals AL-PHA.CH, jobwinner.ch and jobup.ch.
- In 2011, the daily newspaper category was hit hardest by the decline in advertising at minus 2.0 percent. In contrast to daily newspapers, Sunday print advertising increased by 3.4 percent in 2011. Based on the first nine months of 2012, the decline in print advertising was mainly driven by daily newspapers, followed by the Sunday newspapers and the regional weekly press.

Newspaper Advertising

- The Swiss print advertising market was quickly able to recover from the recession in 2009 and 2010. However, the instability of the euro began to have a negative impact on spending on newspaper advertising starting in November 2011. There has been a decline in each month compared to the previous year. In 2011, the results for the first 10 months were positive, but the year finished in the minus (–0.3) due to major drops in revenue in November and December. For the next two years we expect a further decline before the negative trend weakens.
- Total newspaper advertising is expected to decline from CHF 1,412 million in 2011 to 1,046 million in 2016, a 5.8 percent annual decrease.
- The main drivers are, on the one hand the current economic situation and the uncertainty within the eurozone and, on the other, the transfer of advertising spending to different advertising channels, a trend which is partly also driven by technology.
- In 2012, the major sectors contributing to gross revenues from online display advertising were financial products, automotive, services, telecomm, retail business, political initiatives and campaigns. Together, these six sectors constituted more than 50 percent of total gross online display advertising expenditure.
- The switch of classifieds from print to online also continued into 2012. So, for example, the revenue from job ads declined an estimated 20 percent for the full year 2012 in newspapers as opposed to the job portals, where revenue will achieve around the same level in the financial year 2012 as in the financial year 2011.
- At the same time, it was recognised that income from display advertising is also under pressure, partly as a result of the economic situation, but also due to additional digital advertising offerings. We believe that the digital advertising market for display advertising will recover in the medium term, partly as a result of an improved economic situation and further transfer from print to digital circulation. However, one of the major challenges for the industry is the strong growth in mobile traffic.

Newspaper Advertising Market by Component (CHF millions)

Switzerland	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2012–16 CAGR
Print Advertising	1,765	1,676	1,309	1,341	1,337	1,208	1,105	1,050	1,008	968	–6.3
Digital Advertising	62	67	59	67	75	61	59	63	69	78	0.8
Total Advertising	1,827	1,743	1,368	1,408	1,412	1,269	1,164	1,113	1,077	1,046	–5.8

Source: PricewaterhouseCoopers AG; Wilkowsky Gruen Associates; WEMF; Stiftung Werbestatistik Schweiz; Media Focus; Swiss Media Association; DoubleClick; Google; MACH Basic 2012–2

Newspaper Advertising Market Growth by Component (%)

Switzerland	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2012–16 CAGR
Print Advertising	4.6	–5.0	–21.9	2.4	–0.3	–9.6	–8.5	–5.0	–4.0	–4.0	–6.3
Digital Advertising	21.3	8.8	–12.9	14.1	11.5	–18.7	–3.3	6.8	9.5	13.0	0.8
Total Advertising	5.1	–4.6	–21.6	2.9	0.3	–10.1	–8.2	–4.4	–3.2	–2.9	–5.8

Source: PricewaterhouseCoopers AG; Wilkowsky Gruen Associates; WEMF; Stiftung Werbestatistik Schweiz; Media Focus; Swiss Media Association; DoubleClick; Google; MACH Basic 2012–2

Newspaper Circulation

Newspaper Circulation Market by Component (CHF millions)

Switzerland	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2012–16 CAGR
Print Circulation	760	780	777	774	766	749	725	696	664	631	-3.8
Digital Circulation	0	0	0	0	1	3	6	12	22	31	98.7
Total Circulation	760	780	777	774	767	752	731	708	686	662	-2.9

Source: PricewaterhouseCoopers AG; Wilkowsky Gruen Associates; WEMF; Stiftung Werbestatistik Schweiz; Media Focus; Swiss Media Association; DoubleClick; Google; MACH Basic 2012–2

Newspaper Circulation Market Growth by Component (%)

Switzerland	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2012–16 CAGR
Print Circulation	0.1	2.6	-0.4	-0.4	-1.0	-2.3	-3.2	-3.9	-4.7	-5.0	-3.8
Digital Circulation	N/a	N/a	N/a	N/a	N/a	200.0	100.0	100.0	83.3	40.9	98.7
Total Circulation	0.1	2.6	-0.4	-0.4	-0.9	-2.0	-2.8	-3.0	-3.2	-3.5	-2.9

Source: PricewaterhouseCoopers AG; Wilkowsky Gruen Associates; WEMF; Stiftung Werbestatistik Schweiz; Media Focus; Swiss Media Association; DoubleClick; Google; MACH Basic 2012–2

- Newspaper circulation is expected to decrease by 2.9 percent compounded annually, resulting in revenues of CHF 662 million in 2016, down from CHF 767 million in 2011. This reflects a decrease in print circulation, which will be partly compensated by digital circulation. We expect digital circulation to generate CHF 31 million in 2016.
- The average subscription price for daily newspapers increased from CHF 320.86 in 2007 to CHF 374 in 2012, a compound annual growth rate of 3.1 percent.

We expect prices to increase even further in order to compensate for declines in circulation and corresponding advertising inventory, but we do not believe that prices can increase to compensate the full extent of losses. In fact, there will be a limit to price increases in the future. While part of the loss in print circulation will be compensated by digital circulation, with the price for digital 30 percent to 40 percent lower than a print subscription, the increase in digital circulation will clearly not compensate losses due to reductions in print circulation.

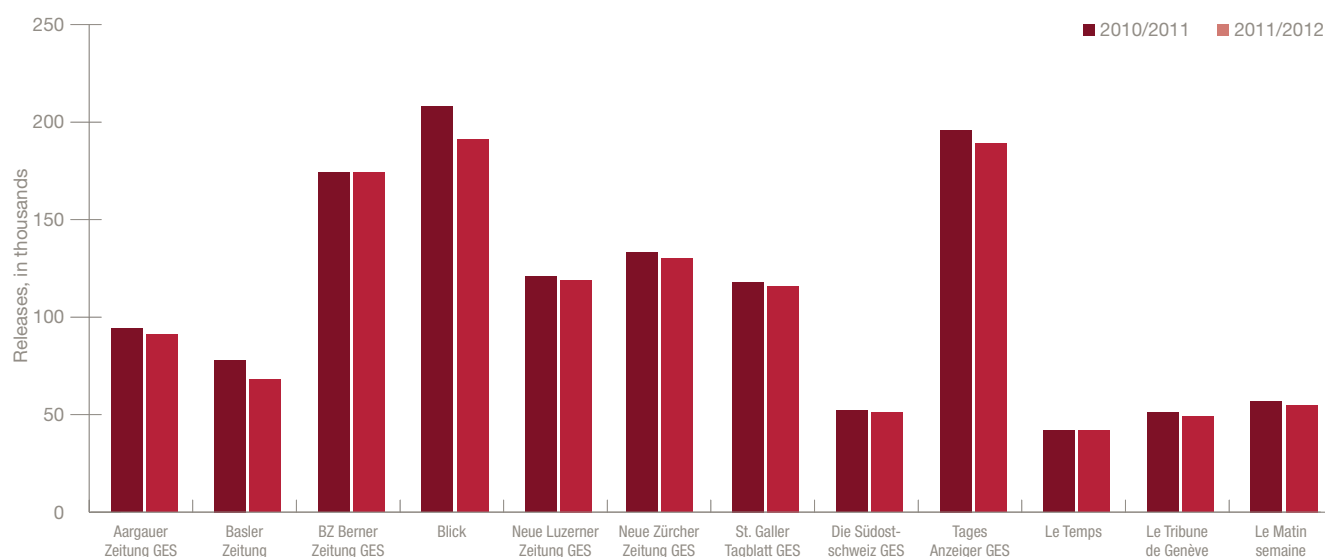
The Top Three Newspaper Net Readerships (thousands)

German-speaking part of Switzerland	MACH Basic 2009–2	MACH Basic 2010–2	MACH Basic 2011–2	MACH Basic 2012–2	Development 2011–2012 (%)
“20 Minuten”	1,417	1,315	1,381	1,397	1.2
“Blick”	649	628	622	613	-1.4
“Blick am Abend”	358	495	635	633	-0.3

Source: WEMF

- The free newspaper, “20 Minuten”, continues to top the list in net readership of German-language Swiss newspapers by a wide margin and built on its lead. “Blick am Abend”, also a free newspaper, is second on the list. However, “Blick” und “Blick am Abend” together have fewer readers than “20 Minuten”.
- After reaching its peak in 2009, in the midst of the financial crisis, “20 Minuten” has not been able to achieve the same level again. In 2012, net readership was 1,397,000 for the versions in the German-speaking part of Switzerland, and 507,000 in the French-speaking part. The combined circulation of the German (“20 Minuten”) and French (“20 minutes”) version of “20 Minuten” reached 1,904,000 readers in 2012 (excluding “20 Minuten Friday” and “20 minuti”).

Newspaper Paid Circulation 2010/2011, 2011/2012 (Selection)



Source: WEMF, Swiss Media Association

- Among the paid newspapers in the German and French-speaking parts of Switzerland, overall paid circulation numbers decreased again compared to the prior year. In contrast to the circulation numbers, the readership for selected titles such as “Südostschweiz”, “Aargauer Zeitung” and “Blick” remained stable, although the tendency for the latter is one of slow, but steady decline. “Tages Anzeiger” achieved a plus of 7.6 percent.

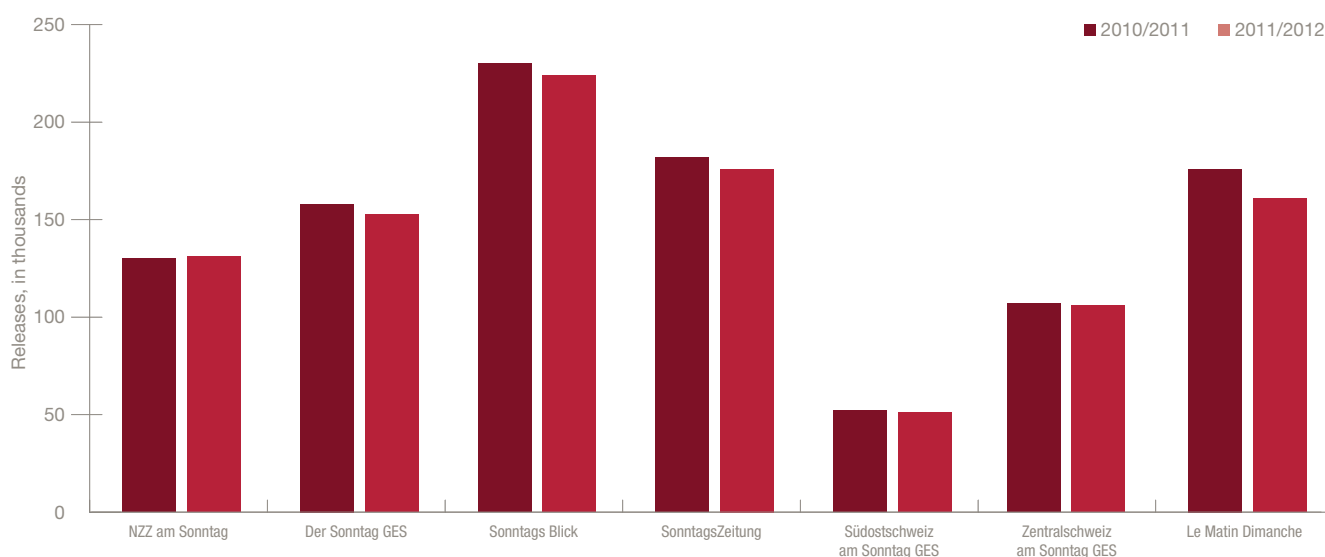
Daily Newspaper Net Readership (thousands)

	MACH Basic 2009–2	MACH Basic 2010–2	MACH Basic 2011–2	MACH Basic 2012–2	Development 2011–2012 (%)
French-speaking part of Switzerland					
24 Heures éd. Totale	229	231	223	233	4.5
Tribune de Genève	159	140	138	136	-1.4
Nouvelliste	114	115	116	117	0.9
La Liberté	87	93	87	98	12.6
L'Express	60	57	61	54	-11.5
Le Matin semaine	246	251	266	245	-7.9
Le Temps	137	132	119	115	-3.4

Source: WEMF MACH-Basic 2012–2, Net Reach Total, GES

- In the French-speaking part of Switzerland, “La Liberté” and “24 Heures” were able to increase their readership significantly. Overall, the majority of the daily newspapers lost net readership compared to last year.

Sunday Newspaper Paid Circulation 2010/2011, 2011/2012 (Selection)



Source: WEMF, Swiss Media Association

Sunday Newspaper Net Readership (thousands)

German-speaking part of Switzerland	MACH Basic 2009-2	MACH Basic 2010-2	MACH Basic 2011-2	MACH Basic 2012-2	Development 2011-2012 (%)
NZZ am Sonntag	492	505	490	529	8.0
Der Sonntag, GES	370	364	352	331	-6.0
Sonntags Blick	891	870	825	805	-2.4
SonntagsZeitung	835	771	758	738	-2.6
Südostschweiz am Sonntag	107	106	109	107	-1.8
Zentralschweiz am Sonntag	n/a	174	184	182	-1.1

Source: WEMF MACH-Basic 2012-2, Net Reach Total, GES

Sunday Newspaper Net Readership (thousands)

French-speaking part of Switzerland	MACH Basic 2009-2	MACH Basic 2010-2	MACH Basic 2011-2	MACH Basic 2012-2	Development 2011-2012 (%)
Le Matin Dimanche	520	511	526	502	-4.6

Source: WEMF MACH-Basic 2012-2, Net Reach Total, GES

- Except for “NZZ am Sonntag” (net readership and circulation numbers), in comparison to last year, all of the “traditional” Sunday newspapers lost ground. The recent newcomers “Die Südostschweiz am Sonntag” and “Zentralschweiz am Sonntag” were able to attract more readers in 2011, compared to the current year.
- “Le Matin Dimanche” followed the same negative trend, losing 24,000 readers in comparison to last year.

The Swiss Newspaper Publishing Market Compared to Western Europe

- The brief rebound in the newspaper market in Western Europe in 2010 was not sustained in 2011, with spending falling 2.3 percent. We expect declines to continue in 2012 and 2013, followed by modest gains during 2014-16. Spending will rise at a 0.01 percent compound annual rate to CHF 45.6 billion in 2016 from CHF 45.5 billion in 2011.
- In 2011, print advertising volumes fell in Western Europe 4.2 percent, following an 0.8 percent increase in 2010. We expect print advertising to decrease during the next three years and then grow at modest rates to CHF 20 billion in 2016, which will, however, be 1.0 percent lower, on a compound annual basis, down from CHF 21 billion in 2011.
- In Western Europe, digital newspaper advertising is estimated to total CHF 2.3 billion in 2016, a 9.3 percent compound annual increase from CHF 1.5 billion in 2011. Gains in digital will partly offset declines in print. Total newspaper advertising will decline at a 1.0 percent compound annual rate to CHF 22.3 billion in 2016 from CHF 22.5 billion in 2011.
- Print circulation spending will decrease from CHF 22.9 billion in 2011 to CHF 22.2 billion in 2016, a 0.5 percent compound annual decline.
- Germany and the United Kingdom were the largest newspaper markets in 2011, at CHF 10.8 billion and CHF 7.8 billion, respectively. The German market was flat in 2011; declines in print advertising were offset by gains in digital advertising and in circulation spending. We expect that declines in print advertising will continue to be offset by modest gains in print circulation spending and an expanding digital market. Advertising spending will increase to CHF 11.0 billion in 2016, a 0.4 percent compound annual gain on 2011.
- UK market revenues fell 8.0 percent in 2011, the result of an 11.1 percent decrease in print advertising and a 6.1 percent decrease in print circulation spending. In addition to a weak economy, the UK market was hurt by the abrupt closing of the “News of the World” in July 2011 following the telephone hacking scandal – creating a void that News International filled the following February by launching the “Sun on Sunday”. Continued declines in print circulation and near-term decreases in print advertising will lead to a 1.6 percent compound annual decrease during the next five years down to CHF 7.2 billion in 2016.
- The size of Switzerland’s newspaper market is similar to those of the Austrian, Belgian, Dutch and Swedish markets. However, Switzerland counted almost 8.0 million inhabitants in 2011, versus 8.4 million for Austria, 11.0 million for Belgium, 16.7 million for The Netherlands and 9.5 million for Sweden.
- Whereas newspaper publishers in Austria, France and The Netherlands are more dependent on subscription revenue, publishers in Switzerland, Belgium and Italy rely to a much larger extent on advertising. In Germany, Sweden and the United Kingdom, both forms of revenue are more or less equally balanced.
- We expect economic conditions to remain weak in the near term in Western Europe, which will contribute to ongoing declines in print advertising during the next two years.
- In addition to the impact of the economy, the newspaper market has been hurt by long-term declines in unit circulation, which reduce the appeal of newspapers as an advertising medium. Consumers are using the Internet more and more to access information and have thus decreased their print purchases.
- The launch of free dailies in the previous decade boosted unit circulation and, through 2007, offset declines in paid unit circulation. The decline in advertising, beginning in 2008, led to a number of closures and cutbacks in distribution, which further hurt print advertising.
- The free daily market continued to struggle in 2011. Adevarul de Seara in Romania closed 39 titles, Leggo in Italy closed 10 titles, and ADN in Spain closed 9 titles. Beyond these, there were a number of other closings of free dailies, including Urban in Denmark and City in Italy. Many free dailies that continued publishing lost readers in 2011, including “20minutos” and “Qué!” in Spain and “Metro” and “Sp!ts” in the Netherlands. France is the exception to this pattern. “Metro” announced it would expand distribution from 30 cities to 60 cities in 2012. “20minutes”, which added 20 cities in early 2011, then announced it would add 8 more markets in 2012. “Heute” in Austria, “MetroXpress” and “24 Timer” in Denmark, and “De Pers” in the Netherlands also recorded circulation gains in 2011.
- Even if the economy had not contributed to the decline in the circulation of the free dailies during the past four years, we believe a shakeout would have occurred as readers were shifting from print to the Internet, resulting in a declining readership base that could not support a growing number of print editions.

- We also expect paid circulation to continue to decline in Western Europe as readership shifts from print newspapers to digital media.
- Improved economic conditions will provide a lift for the overall advertising market during the latter part of the forecast period, and print newspapers should benefit, although the ongoing loss of print readers will limit print gains.
- Print advertising will also benefit from being sold in a bundle with digital advertising. In the UK, for example, “The Times” offers free advertising on its iPad editions to advertisers who buy space in the print edition.
- In sharp contrast to their print versions, newspapers are experiencing substantial growth in traffic to their Web sites. Nearly half of Internet users in Europe visit newspaper Web sites. In the UK, the number of visitors to the “Mail Online” site rose more than 70 percent in 2011. Rising broadband penetration will continue to boost Internet usage and traffic to newspaper Web sites, which in turn will propel digital advertising.

Swiss Newspaper Publishing Market Compared to Western Europe (CHF millions)

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2012–16 CAGR
Switzerland	2,587	2,523	2,145	2,182	2,178	2,021	1,895	1,822	1,763	1,707	-4.8
Western Europe	52,735	50,847	46,328	46,516	45,454	44,914	44,699	44,745	45,051	45,558	0.01

Source: PricewaterhouseCoopers AG, Wilkofsky Gruen Associates, WEMF, Stiftung Werbestatistik Schweiz, Media Focus, Swiss Media Association, MACH Basic 2012–2

Swiss Newspaper Publishing Market Growth Compared to Western Europe (%)

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2012–16 CAGR
Switzerland	3.6	-2.5	-15.0	1.7	-0.2	-7.2	-6.2	-3.9	-3.2	-3.1	-4.8
Western Europe	3.2	-3.6	-8.9	0.4	-2.3	-1.2	-0.5	0.1	0.7	1.1	0.01

Source: PricewaterhouseCoopers AG; Wilkofsky Gruen Associates; Stiftung Werbestatistik Schweiz; Affichage Holding; Clear Channel Outdoor; JC Decaux; Goldbach Group; Neo Advertising; Livesystems

12 Methodology and Fair Use

How we derive the data

Historical information

Historical information is obtained principally from confidential and proprietary sources. In instances where third-party sources are consulted and their information is used directly – from such sources as government agencies, trade associations, or related entities that seek to have their data disseminated in the public domain – the sources of such information are explicitly cited. In instances where the information is used indirectly, as part of the calculus for the historical data, the sources are proprietary. In instances where no reliable historical data can be obtained, assumptions are made based on industry expert judgment.

Forecast information

Recent trends in industry performance are analysed, and the factors underlying those trends are identified. The factors considered are economic, demographic, technological, institutional, behavioural, competitive, and other drivers that may affect each of the entertainment and media markets. Models are then developed to quantify the impact of each factor on industry spending. A forecast scenario for each causative factor is then created, and the contribution of each factor on a prospective basis is identified. These proprietary mathematical models and analytic algorithms are used in the process to provide an initial array of prospective values. Our professional expertise and institutional knowledge are then applied to review and adjust those values if required. The entire process is then examined for internal consistency and transparency vis-à-vis prevailing industry wisdom. Forecasts for 2012–2016 are also based on an analysis of the dynamics of each segment in Western Europe and on the factors that affect those dynamics. We provide compound annual growth rates (CAGRs) that cover the 2012–2016 forecast period. In the calculation of CAGRs, 2011 is the beginning year, with five growth years during the forecast period: 2012, 2013, 2014, 2015 and 2016. The end year is 2016. The formula is:

$$\text{CAGR} = 100 * ((\text{Value in 2016} / \text{Value in 2011})^{(1/5)} - 1)$$

How we report the data in each chapter

Segment spending consists of advertising and end-user spending related directly to entertainment and media content. The introduction to each chapter begins with a definition of the spending streams that are included in that segment. We do not include spending on hardware or on services that may be needed to access content. End-user spending is counted at the consumer or end-user level – not

at the wholesale level – and includes retail markups when applicable. Advertising spending is measured net of agency commissions, where possible. In addition to annual spending figures, we also present data that is measured at a single point in time, such as TV subscriptions, Internet subscriptions, mobile subscriptions, and newspaper unit circulation. In those instances, we show annual averages rather than year-end totals because annual averages more accurately connect the impact of those figures to annual spending.

Rounding

The rounding of revenues, especially in the lower million range, may lead to variations in the calculation of CAGRs and individual totals.

Inflation

Across all chapters, figures are reported in nominal terms reflecting actual spending transactions and therefore include the effects of inflation.

Exchange rates

All figures are presented in Swiss francs based on the average 2011 exchange rate held constant for each historical year and forecast year. This means the figures reflect industry trends and are not distorted by fluctuations in international exchange rates. However, when comparing the different European markets, the effect of the strong Swiss franc comes into effect.

The exchange rates used for the individual countries in Western Europe are set forth in the table on the next page.

Real GDP growth

The chart on page 105 shows historical and projected growth rates for real GDP in Switzerland.

Fair Use

Use of Outlook data

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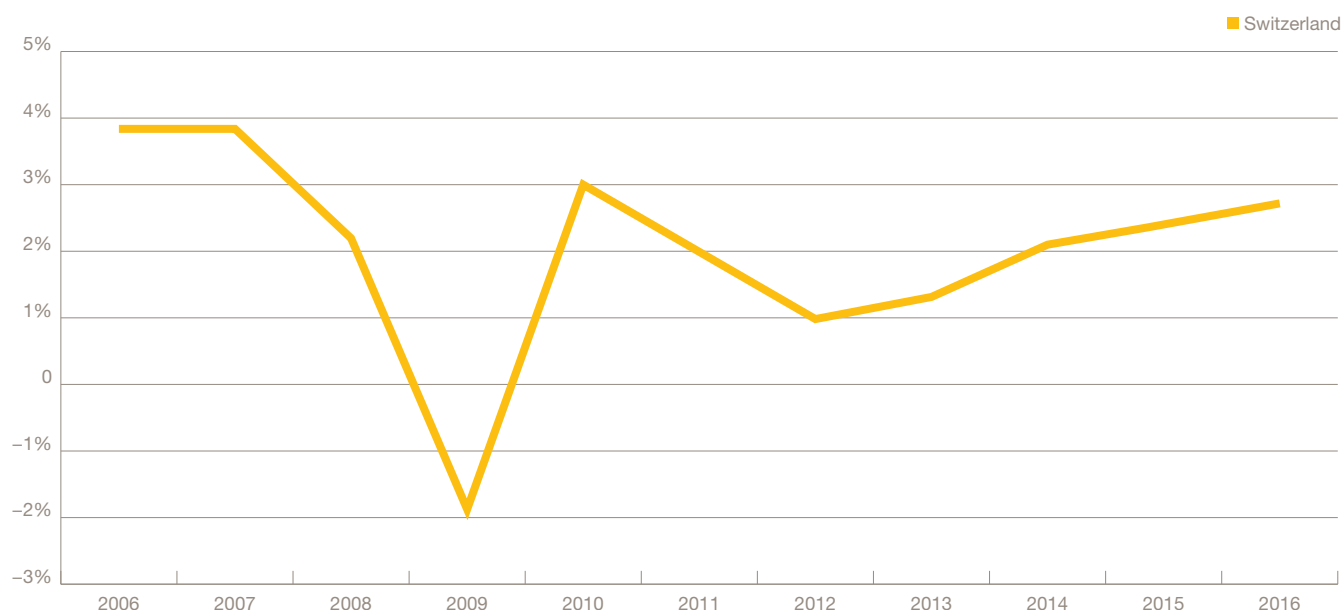
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Exchange rates per CHF (2011 average)

Western Europe	Currency	Exchange rate
Austria	Euro	0.8104
Belgium	Euro	0.8104
Denmark	Krone	6.0533
Finland	Euro	0.8104
France	Euro	0.8104
Germany	Euro	0.8104
Greece	Euro	0.8104
Ireland	Euro	0.8104
Italy	Euro	0.8104
Netherlands	Euro	0.8104
Norway	Krone	6.3171
Portugal	Euro	0.8104
Spain	Euro	0.8104
Sweden	Krona	7.3099
Switzerland	Franc	1.0000
United Kingdom	Pound sterling	0.7028

North America		
United States of America	US Dollar	1.1279

Real GDP Growth, Switzerland



Source: SECO; KOF; BAK; SNB; PricewaterhouseCoopers

13 Glossary

Advertising systems	Advertising systems are digital billboards at squares as well as in streets or public buildings (e.g. cinemas, train stations, etc.).
Affiliate Internet advertising	Affiliate Internet advertising encompasses Internet ads which are placed on a high number of Web sites which are typically linked to an affiliate network. Affiliate Internet advertising typically is settled on a performance basis (i.e. cost per click or cost per acquisition).
Cable Television (CATV)	CATV is a system of providing television to consumers via signals transmitted to TV sets through fixed optical fibres or coaxial cables. In contrast to the traditional over-the-air broadcasting method no antenna is needed.
Classification	Classification refers to the average number of copies of a newspaper distributed in a day.
Classified (Internet) advertising	Classified (Internet) advertising differs from standard advertising in that it allows private individuals (not simply companies or corporate entities) to solicit sales for products and services. Classified (Internet) advertising is usually text-only and can consist of as little as the type of item being sold and a telephone number to call for more information. Classified (Internet) advertising is called such because it is generally grouped within the publication under headings classifying the product or service being offered. Typical classes are cars, real estate or job offerings.
Codec	A codec is a device or computer programme capable of encoding and/or decoding a digital data stream or signal. A codec encodes a data stream or signal for transmission, storage or encryption, or decodes it for playback or editing. Codecs are used in videoconferencing, streaming media and video editing applications.
Code Division Multiple Access (CDMA)	CDMA (Code-Division Multiple Access) refers to any of several protocols used in second-generation (2G) and third-generation (3G) wireless communications. CDMA is a form of multiplexing, which allows numerous signals to occupy a single transmission channel, optimising the use of available bandwidth. The technology is used in ultra-high-frequency (UHF) cellular telephone systems in the 800-MHz and 1.9-GHz bands.
DAB / DAB+	Digital Audio Broadcasting (DAB) is a digital radio technology for broadcasting radio stations, used in several countries, particularly in Europe. As of 2006, approximately 1,000 stations worldwide broadcast in the DAB format. An upgraded version of the system was released in February 2007, which is called DAB+. DAB is not forward compatible with DAB+, which means that DAB-only receivers will not be able to receive DAB+ broadcasts. DAB+ is approximately twice as efficient as DAB due to the adoption of the AAC+ audio codec, and DAB+ can provide high quality audio with as low as 64kbit/s
Digital Terrestrial Television (DTT)	DTT is a technological evolution and advance from analogue terrestrial television. It provides more capacity, better picture quality, and lower operating costs for broadcast and transmission after the initial upgrade costs. DTT uses aerial broadcasts to a conventional antenna instead of a satellite dish or cable connection.
Display Internet Advertising	Display Internet advertising appears on Web pages in many forms, including web banners. These banners can consist of static or animated images, as well as interactive media that may include audio and video elements (these audio and video elements are typically referred to as Rich Media). Adobe Systems Flash or.gif are the preferred presentation formats for such interactive advertisements.

Digital Radio Mondiale (DRM)	Digital Radio Mondiale is a set of digital audio broadcasting technologies designed to work over the bands currently used for AM broadcasting, particularly shortwave. DRM can fit more channels than AM, at higher quality, into a given amount of bandwidth, using various MPEG-4 codecs.
Enhanced Data rates for GSM Evolution (EDGE)	Enhanced Data rates for GSM Evolution (EDGE) (also known as Enhanced GPRS (EGPRS), or IMT Single Carrier (IMT-SC), or Enhanced Data rates for Global Evolution) is a backward-compatible digital mobile phone technology that allows improved data transmission rates, as an extension on top of standard GSM. EDGE is considered a 3G radio technology and is part of ITU's 3G definition. EDGE was deployed on GSM networks beginning in 2003. EDGE is standardised by 3GPP as part of the GSM family, and it is an upgrade that provides more than three-fold increase in both the capacity and performance of GSM/GPRS networks. EDGE can be used for any packet switched application, such as an Internet connection. EDGE-delivered data services create a broadband Internet-like experience for the mobile phone user.
Evolved High-Speed Packet Access (HSPA+)	HSPA+ provides HSPA data rates up to 56 Mbit/s on the downlink and 22 Mbit/s on the uplink. Future revisions of HSPA+ support up to 168 Mbit/s using multiple carriers.
Federal Gaming Board (FGB)	The FGB is the Swiss statutory supervisory authority responsible for monitoring compliance with casino regulations, and issues the necessary directives for the implementation of the Gaming Act. In cases of violation, the Board also acts as the prosecuting authority and may issue rulings. It also assesses and levies gaming tax.
Financial and business press	Financial and business press address an audience with particular interests in economic and financial topics.
Free-to-air services (FTA)	FTA services are broadcasted unencrypted and may be received via any suitable receiver. FTA television channels can be delivered either by satellite or by broadcast via unencrypted on UHF or VHF bands.
Fibre to the Home (FTTH)	Fibre to the Home is the installation and use of optical fibre from a central point directly to individual buildings, such as residences, apartment buildings and businesses to provide unprecedented high-speed Internet access and/or other bandwidth-intensive services. In Switzerland, the FTTH connection includes all necessary in-house installations.
Gigabits per second (Gbps)	See Megabits per second (Mbps).
Global System for Mobile (GSM)	GSM (Global System for Mobile communication) is a digital mobile telephony system that is widely used in Europe and other parts of the world. GSM uses a variation of time division multiple access (TDMA) and is the most widely used of the three digital wireless telephony technologies (TDMA, GSM, and CDMA). GSM digitises and compresses data, then sends it down a channel with two other streams of user data, each in its own time slot. It operates at either the 900 MHz or 1800 MHz frequency band.
HD Radio	HD Radio is the trademark for iBiquity's in-band on-channel (IBOC) digital radio technology used by AM and FM radio stations to transmit audio and data via a digital signal in conjunction with their analogue signals. It was selected by the United States Federal Communications Commission (FCC) in 2002 as a digital audio broadcasting method for the United States and is the only digital system approved by the FCC for digital AM/FM broadcasts in the United States. Other digital radio systems include FMeXtra, Digital Audio Broadcasting (DAB), Digital Radio Mondiale (DRM30, DRM+), and Compatible AM Digital (CAM-D).

High-definition Television (HDTV)	HDTV refers to images having resolution substantially higher than traditional television systems. HDTV has up to two million pixels per frame, roughly five times the previous standard. Today HDTV is digitally broadcast using video compression.
High speed packet access (HSPA)	High Speed Packet Access is a collection of two mobile telephony protocols, High Speed Downlink Packet Access (HSDPA) and High Speed Uplink Packet Access (HSUPA), that extends and improves the performance of existing WCDMA protocols. A further standard, Evolved HSPA (also known as HSPA+), was released late in 2008 with subsequent adoption worldwide into 2010.
International Telecommunication Union (ITU)	The ITU (International Telecommunication Union) is the United Nations' specialised agency for information and communication technologies (ICTs). ITU allocates global radio spectrum and satellite orbits, develops the technical standards that ensure networks and technologies seamlessly interconnect, and strives to improve access to ICTs to underserved communities worldwide.
Internet advertising	Wired and mobile Internet advertising consists of spending by advertisers on paid-search, display, classified, and other online formats as well as advertising delivered to mobile phones via formats designed for mobile handset screens.
Internet Protocol Television (IPTV)	IPTV is a system through which TV content is delivered through the architecture and networking methods of the Internet Protocol Suite instead of being delivered through traditional broadcast, satellite, or cable.
Kilobits per second (Kbps)	See Megabits per second (Mbps).
Long-Term Evolution (LTE)	Long Term Evolution (LTE) is a 4G wireless broadband technology developed by the Third Generation Partnership Project (3GPP), an industry trade group. 3GPP engineers named the technology "Long Term Evolution" because it represents the next step (4G) in a progression from GSM, a 2G standard, to UMTS, the 3G technologies based upon GSM. LTE provides significantly increased peak data rates, with the potential for 100 Mbps downstream and 30 Mbps upstream, reduced latency, scalable bandwidth capacity, and backwards compatibility with existing GSM and UMTS technology. Future developments could yield peak throughput on the order of 300 Mbps.
Megabits per second (Mbps)	Mbps stands for millions of bits per second or megabits per second and is a measure of bandwidth (the total information flow over a given time) on a telecommunications medium. Depending on the medium and the transmission method, bandwidth is also sometimes measured in the Kbps (thousands of bits or kilobits per second) range or the Gbps (billions of bits or gigabits per second) range.
MMO(RP)GS	A massively multiplayer online (role-playing) game (MMO[RP]G) is a type of computer game that enables hundreds or thousands of players to simultaneously interact in a game world they are connected to via the Internet. Typically this kind of game is played in an online, multiplayer-only persistent world. MMO(RP)Gs create a persistent universe where the game continues playing regardless of whether or not anyone else is. Since these games strongly or exclusively emphasise multiplayer gameplay, few of them have any significant single-player aspects or client-side artificial intelligence. As a result, players cannot "beat" MMO(RP)Gs in the typical sense of single-player games, but instead may be challenged to organise complex tasks, involving various online players ("raids"), whose identities are expressed via individual symbolic figures or shapes ("avatars").

Mobile Internet Advertising	Advertising delivered to mobile phones via formats designed for mobile handset screens. Does not include text message (SMS) advertising.
Mobile TV	Mobile TV usually means TV content watched on a small handheld device. One can distinguish between subscription-based broadcasts in mobile phone networks or received FTA via terrestrial television stations. Some devices can also download contents from the Internet (e.g. recorded TV programmes and podcasts) for later viewing.
MPEG-4	MPEG-4 is method of defining compression of audio and visual (AV) digital data. It was introduced in late 1998 and designated a standard for a group of audio and video coding formats and related technology agreed upon by the ISO/IEC Moving Picture Experts Group (MPEG). Uses of MPEG-4 include compression of AV data for web (streaming media) and CD distribution, voice (telephone, videophone) and broadcast television applications.
OFCOM	Federal Office of Communications (German: BAKOM, French: OFCOM, Italian: UFCOM. Regulates the telecommunications and broadcast market in Switzerland.
Pay per view (PPV)	PPV is a service by which a consumer can purchase certain TV content (e.g. movies or sports events) to view in their homes. The service provider broadcasts these events at the same time to all consumers who ordered them.
Popular press	Regularly, weekly or infrequently published print magazines which address a wide target audience and which are to accessible everybody.
Public radio licence fee	A public radio licence fee is an official duty levied in many countries for the reception of television content. It is a form of tax to fund public broadcasting, allowing the providers to transmit radio contents without, or with limited, funding from commercials.
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RTVG	Swiss federal law on radio and television.
Satellite TV	Satellite TV services are delivered by the provider through communications satellite and received by the consumer through a satellite dish and set-top box. In many areas of the world a wide range of TV channels are provided, often to remote areas that are not serviced by terrestrial or cable providers.
Search Advertising	In Internet marketing, search advertising, also called paid search, is a method of placing online advertisements on Web pages that show results from search engine queries. Through the same search-engine advertising services, ads can also be placed on Web pages with other published content. Search advertisements are targeted to match key search terms (called keywords) entered on search engines.
Special interest press	The special interest press addresses particular interests of the audience, for example hobbies, culture, architecture, design, environment, education, health, etc.
Spectrum management	Spectrum management is the combination of administrative and technical procedures necessary to ensure the efficient utilisation of the radio-frequency spectrum by all radiocommunication services defined in the ITU Radio Regulations and the operation of radio systems, without causing harmful interference.

Subscription TV	Subscription-based TV refers to services usually provided by either analogue and digital cable or satellite, but also increasingly by digital terrestrial methods. Today, most subscription television services offer multiplex packages, where several channels of programming are offered rather than just one.
Technical press	The technical press addresses the audience of a particular professional category with specific job-related interests, for example services, sciences, trade and industry, public interests, agriculture, etc.
Time Division Multiple Access (TDMA)	TDMA is a technology used in digital cellular telephone communication that divides each cellular channel into three time slots in order to increase the amount of data that can be carried.
Ultra High Frequency (UHF)	UHF and VHF are the most commonly used frequency bands for transmission of radio and television signals. Some mobile phones also transmit and receive within the UHF spectrum. UHF is widely used by public service agencies for two-way radio communication, usually using narrowband frequency modulation.
Universal Mobile Telecommunications Service (UMTS)	UMTS is a third-generation (3G) broadband, packet-based transmission of text, digitised voice, video, and multimedia at data rates up to 2 megabits per second (Mbps). UMTS offers a consistent set of services to mobile computer and phone users, no matter where they are located in the world. UMTS is based on the GSM communication standard. It is also endorsed by major standards bodies and manufacturers as the planned standard for mobile users around the world. Once UMTS is fully available, computer and phone users can be constantly attached to the Internet wherever they travel and, as they roam, will have the same set of capabilities. Users will have access through a combination of terrestrial wireless and satellite transmissions. Until UMTS is fully implemented, users can use multi-mode devices that switch to the currently available technology (such as GSM 900 and 1800) where UMTS is not yet available.
Universal Service Obligation	The purpose of the universal service is to guarantee that a basic telecommunications services offer is made available to all sections of the population and in all the regions of the country. These services must be affordable, reliable and of a certain quality. The universal service includes telephony, telefax, data transmission, broadband Internet connections, access to the emergency services, public payphones and the provision of special services for the disabled.
Very High Frequency (VHF)	Common uses for VHF are FM radio broadcast, television broadcast, land mobile stations (emergency, business, and military), long range data communication with radio modems, amateur radio, marine communications, air traffic control communications and air navigation systems.
Video on demand (VOD)	VOD allows consumers to select and watch video content on demand. VOD systems either stream content through a set-top box for real time viewing or download and store content for viewing at any time.
Wideband code division multiple access (W-CDMA)	W-CDMA is an air interface standard found in 3G mobile telecommunications networks. It is the basis of Japan's NTT DoCoMo's FOMA service and the most commonly used member of the UMTS family and sometimes used as a synonym for UMTS. While not an evolutionary upgrade on the airside, it uses the same core network as the 2G GSM networks deployed worldwide, allowing dual-mode operation along with GSM/EDGE; a feature it shares with other members of the UMTS family.

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