

The Late Beginning of Digital Television in Serbia

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1. Executive Summary

The aim of this work is to give an overview of the Serbian broadcasting market and regulative framework related to the introduction of digital TV. Special emphasis is given to the programme and editorial standards of PSB and its ability, readiness and plans for the digital switchover.

Digital television introduces many technical innovations and gives significant benefits to both the audience and the broadcasting industry. Switchover from analogue to digital broadcasting is, however, more than a technical migration, and brings a number of significant obstacles.

Digital TV has already made serious penetration into the European market. Serbia, however, lags far behind. Broadcasters offer no genuine DTT platforms and regulation is inadequate. The public broadcaster has only started experimenting with a digital signal, while other commercial broadcasters have not shown any interest in offering this service to their audiences. In this sense, PSB is leading the way in implementing digital terrestrial broadcasting and is waiting for the state to decide on the ways in which it will support digital development. State institutions still have not recognized the importance of timely regulations, because they are mostly preoccupied with solving the inherited media chaos. Reforms of the media sector are slow and inefficient, and media laws are still not fully implemented.

The introduction of DTT creates a highly competitive environment, challenging legitimacy and the existence of PSB. While established PSBs, such as the BBC, made serious efforts in transforming themselves into public service providers, Serbian public service television RTS is still solving problems in analogue broadcasting, and fighting for its political, economical and editorial independence.

Serbian regulators still need to adjust the laws and develop a digital switchover strategy. Authorities should formulate and publicise their vision of long-term spectrum management (including principles and procedures for digital frequency distribution) and digital broadcasting developments, while the public debate should include wider and more professional participants. Both market players and consumers should be encouraged to accelerate switchover by promoting the benefits of digitalisation and reducing their switchover cost.

2. Introduction

Digital technology is rapidly penetrating the European broadcasting market. A significant increase in the capacity and adaptability of networks creates numerous opportunities for the improvement of existing services in broadcasting and the introduction of new ones. Digital broadcasting brings many advantages compared to analogue broadcasting: the potential for better image (including high definition television) and sound quality; lower transmission costs or the ability to carry more channels or services; better efficiency in spectrum use; etc. With digital broadcasting, the audience has a wider range of content in its offerings through various transmission platforms and the freedom to select the services one at a time and in a form convenient to them. However, digitalization is more than a mere technical migration; it is a process with social, political and economical consequences.

The switchover to digital television puts the spotlight on the public service broadcaster: will it survive and be able to fulfil its social role in a multi-channel environment? The European tradition sees public broadcasters as guardians of modern democracy, enabling citizens to participate in public debate and the social decision-making process. Its role is considered especially important in young democracies and countries in transition, such as Serbia.

The primary goal of this research is to provide an overview of the present situation in the Serbian broadcasting sector, and to investigate the readiness of the public broadcaster and policy makers, as well as their plans and activities, for the new digital broadcasting era.

Digitalization will bring many changes to the media market and user behaviour - making individual consumers more powerful and more important than ever in choosing when, what and how they watch TV programs. Market forces could drive the process of digitalization, so the first part of our chapter will give an overview of the media landscape. Fast-growing, and yet one of the least developed in Europe, the Serbian media industry has the important challenge of introducing new services and business models. Most of the data on the market and audience shares of Serbian television networks are obtained through audience measurement and advertising market data.

The second part of the chapter refers to regulatory policies and the ability of policy makers to prevent any market distortions through transparent, justified and timely regulations. Much attention is focused on the Broadcasting Act, the most important law regulating the broadcasting sector. This part also reviews the possibilities for the future development of Serbian broadcasting, taking into consideration the Broadcasting Development Strategy.

The third part refers to the legal status, funding and editorial policies of the public broadcaster, with an emphasis on its role in the new technological context. Special focus is given to programme production and trends for utilizing digital potential. Necessary data is collected primarily through interviews with editorial staff and secondarily from internal documents.

Finally, our last chapter gives conclusions and recommendations that could represent a future policy framework for the process of the digital switchover in Serbia.

In Serbia, regulators still lack a comprehensive approach to the introduction of digital broadcasting, strategic orientation for switch on and switchover policy and concrete action plans. Existing texts do not define the relation between different digital delivery mechanisms (satellite, terrestrial and cable when these networks are rolled out) and do not recognise the specifics of the Serbian broadcasting market. Different elements of the broadcasting environment and the market need to be analysed in order to develop public policies to sustain the take up of DTT and the regulatory model adopted for transition. Future development and penetration of digital television will depend on features of the broadcasting background, such as the degree of interest and proactive attitude of all terrestrial broadcasters, both PSBs and the terrestrial commercial channels. Optimal decisions derive from national situations, but accelerating the process is usually regarded as an optimal policy.

3. The Multi-channel and Digital Media Landscape

3.1 Media Landscapes - Shape and Trends

The Serbian political landscape throughout 1990s was marked by armed conflicts in the territory of the former Yugoslavia and the former communist political system. For more than a decade, Serbia was governed by the authoritarian regime of Slobodan Milošević and his socialist party. Involvement in civil wars in Slovenia, Croatia, Bosnia and Kosovo, ending with the disintegration of the former Yugoslavia, led to years of isolation, holding back the democratization of Serbian society. Most of the constitutionally proclaimed human rights and freedoms, including the freedom of expression, were suspended. Understanding the power of media, Milosevic made sure most popular mass media were strictly controlled, making them one of the pillars of his regime.

During the 1990s, the media were a tool for political propaganda, rather than a profitable, responsible industry. Several hundred broadcast media operated either with temporary licenses or no licenses at all, and there was no genuine regulation whatsoever. Hyper-competition led to a significant decrease in program quality, imposing the imperative of ratings and the need to attract audiences with low quality entertainment programmes. State-owned media outlets were strictly controlled by the ruling regime, whereas commercial media gained access to the market depending on their political affiliation. New entrants to the market appeared as a result of political decisions and not as a result of coherent media policy and deregulation. During the 1990s, the state broadcaster *RTS* was under the direct control of the Milošević regime. It was the major instrument for achieving national mobilisation and sustaining public support for the nationalist policy of the regime. Basic professional standards were suspended, objective information replaced by propaganda, "the paranoia of threat, danger and revenge was brought into every household."¹

Democratic changes took place in Serbia much later than in the rest of Eastern Europe. Presidential elections that took part in September 2000 brought victory to the democratic coalition and marked the end of more than a decade of Milosevic's rule. After democratic changes in October 2000, reform of the media sector began, with media policy being developed for the first time. Early, optimistic expectations that the reform efforts would be implemented quickly and efficiently proved unrealistic. The transformation of Serbian media sector faced serious obstacles, especially in the field of media regulation and its implementation. Authorities were slow in giving up on media control and have repeatedly demonstrated an unwillingness to resolve some longstanding issues. The inefficiency of the Serbian legislature and the lack of political willingness have caused serious delays in the process of establishing a public service broadcaster and independent regulatory authorities in the field of broadcasting and telecommunications.

Presently, at the end of 2007, the Serbian broadcasting market is still characterised by intense competition and controversial regulatory practices. The Serbian media industry is considered to be one of the "most unsettled and unregulated"² in Europe. The first public competitions for national and regional frequencies and licenses were completed in April 2006 and June 2007

¹ P.Plavšić, M.Radojković and R. Veljanovski, "Toward Democratic Broadcasting," Belgrade, Soros Yugoslavia Foundation, 1993

² EUMAP report for Serbia 2005, available at http://www.eumap.org/topics/media/television_europe/national/serbia/media_ser1.pdf, (accessed on 8 May 2007)

respectively. Five commercial television channels are operating with national licenses acquired for a period of eight years, supplemented with two public service television channels with national coverage. In line with the provisions of the Broadcasting Act³, formerly state-owned and controlled broadcaster, *Radio Television of Serbia*, was divided and transformed into a national PSB and PSB of Vojvodina. The public radio and television of Novi Sad, with two television and two regional radio channels, were transformed into a PSB for the northern Serbian province. The former Yugoslavia had a broadcasting system that was characterised by strong local broadcasting companies in the administrative centre of each republic and in both Serbian provinces. Together with the network of local municipal radio stations, the system has nurtured a culture of strong local broadcasting. Because Vojvodina has a unique multiethnic population, its former regional broadcasting centre was given the status of provincial public service broadcaster. The decision to introduce regional PSB for Vojvodina reflected the belief of the government at the time that a national PSB would not manage to serve provincial multinational audience, and also indicated that provincial authorities feared that their political interests would be endangered if only national PSB and commercial broadcasters covered the province's territory.

The most important commercial market player is *Television Pink*, followed by *TV B92*, once the symbol of the resistance to the authoritarian regime. New entrants into the national market include *Television Avala*, *Television Košava*, *Happy TV*⁴ and television *Fox*. Their licenses were issued in August 2006 for a period of eight years. *BK Telekom*, once third in terms of audience share, lost its license and was shut down in April 2006.⁵ *Super TV* is a regional broadcaster for the province of Vojvodina, while *Art TV*, *Metropolis*, *Studio B*, *Enter TV*, *SOS* and *Television Plus* broadcast in the Belgrade area. Radio stations *B92*, *Index*, *Radio S*, *Roadstar* and *Fokus* won national commercial radio licenses, and 14 stations were issued radio licenses to cover the Belgrade area⁶. Twenty-six television stations won regional broadcasting licenses in June 2007 for a period of eight years. Other local broadcasters are still waiting for decisions on their license and frequency tenders.

Once the tenders for local television and radio stations are finalized, the Serbian broadcast market will have seven national television stations, 42 regional and 160 local television stations, as well as eight national radio station, 52 regional stations, and 390 local radio stations⁷. The number of broadcasters was decided according to the technical maximum and analogue air bands available in Serbia. However, the Serbian advertising market, worth around €130 million, is considered to be insufficient to support such a large number of broadcasters. The Serbian Broadcasting Development Strategy, and consequently the tender for national licenses, was not projected according to the media and information needs of the citizens of Serbia. The Broadcasting Council did not take into account the level of development and economic sustainability of the broadcasting market when deciding licensing issues. Licenses awarded in line with financial interests of the few media owners and political interests have been the object of criticism by civil

³ Articles 76 and 85, Broadcasting Act, *Official Gazette of the Republic of Serbia*, No. 42/2002

⁴ TV Košava and Happy TV share one frequency with national coverage.

⁵ After a highly controversial decision of the Council of the Republican Broadcasting Agency, disputed by civil society and professional associations, and twice annulled by the Supreme Court. The decision was seen as politically motivated, since the television strongly supported its owner, Bogoljub Karić, who was a presidential candidate in the 2004 elections.

⁶ A list of all licensed TV and radio broadcasters is available at http://www.ratel.org.yu/index.php?page=dozvole&target=dozvola_za_stanicu&item=25&get_treerot=7&lang=srp, accessed on May 8th, 2007.

⁷ According to the Broadcasting Development Strategy, until 2013. The number above represents an aggregate number of commercial and public licenses.

society and independent media experts. The Independent Journalists' Association of Serbia (IJAS) and Association of Independent Electronic Media (ANEM) have repeatedly warned the Broadcasting Agency that lack of appropriate tender criteria will result in awarding licenses according to unprofessional rationales.

Soon after the licenses were issued, the press discovered that *Television Pink*, the strongest commercial broadcaster, had lent a substantial amount of money to new national licensee *Television Kosava*, which was used to pay *Kosava's* license fee. The audit company investigating the case concluded that this was not prohibited behaviour in the market.⁸ However, had RBA seriously considered the financial viability of *Television Kosava*, it is most likely that it would have awarded the license to some other broadcaster. Serious doubt remains as to why *Kosava* was awarded the license, and whether this was meant to safeguard the market from more serious competitors, such as *German RTL*, which was also competing in the tender and did not win the concession. On top of all this comes the fact that awarded licensees did not receive a precise set of programming requirements, leaving domestic media production with low quality programming.⁹

The Serbian legal framework lacks specific legal texts that would define anti-concentration and ownership transparency rules. The Broadcasting Act contains few ownership rules and provisions, and even those are in some parts insufficient and obsolete in comparison with European trends and the situation of the market. Commercial television and radio stations must have a majority of their shares, at least 51 per cent, owned by domestic residents or companies. Foreign ownership is limited to up to 49 per cent. Article 42 of the Broadcasting Act forbids any republican, provincial, or regional authority, or political organisations to own media outlets.¹⁰ So far, significant foreign capital was invested in *RTV B92*, a joint-stock company, with around 49 percent of shares owned by foreign funds; *Television Fox*, with 49 per cent of ownership by News Corp; and *Radio Beta RFI*, with 49 per cent owned by *Radio France International*.

The privatisation of regional and local media owned by municipalities, which should be finalised by the end of the year, is carried out according to rules issued by the Ministry of Culture¹¹. Companies that will participate in tender or public auction for capital privatization must provide continuity in broadcasting services for the next five years. Municipalities can no longer be owners of local and regional media, and privatization must be carried out according to media anti-concentration rules¹². However, due to the delays in law implementation, the privatisation of numerous media outlets is most likely to be postponed.

Serbia has been slow in concluding the privatisation process of state-owned companies, especially if these have been important factors of political power and influence. This is the case with a number of public enterprises that have yet to be privatised, as well with local media that are under state ownership and whose privatisation has been pending for five years. The long tradition of local media being funded by municipalities makes it hard for those media to develop a commercial rationale and survive in the market. The state and regulatory agency have failed to develop efficient subsidies mechanisms to fund contents that are not commercially viable and the

⁸ Available at <http://www.rra.org.yu/srpski/ief-pink-kosava.pdf> (accessed on 8 May 2007)

⁹ Professional magazine *Republika*, no. 388-389, September 2006

¹⁰ However, licenses were given to several media owned by politicians or by people with clear political attachment

¹¹ Guidelines for the privatisation of radio and/or television stations founded by local and regional communities, *Official Gazette of the Republic of Serbia*, No. 51/2005

¹² Articles 98-103, Broadcasting Act, *Official Gazette of the Republic of Serbia*, No. 42/2002

market is not transparent enough, leaving both journalists and citizens exposed to the financial and political interests of new owners. Media are left between state influence and the market in which all stakeholders firmly believe that the media are there to serve either the state or profit. No one is considering or discussing the interests of citizens.

Media ownership is highly diversified, with more than 600 broadcasters. However, three broadcast companies hold more than 75 per cent of both the audience and the advertising market. Diversity of owners and sources did not provide for diversity of content and high quality productions.

Two most important commercial players in the broadcasting market are Television Pink and *Television B92*. *Television Pink* was established in 1994 and is today, by far, the most important commercial broadcaster in terms of both audience share and advertising market share, attracting 40-45 percent of total television advertising revenues¹³. It is part of the Pink International Company, the largest media corporation in South East Europe. The corporation expanded its business outside Serbia, establishing *Pink BIH* (Bosnia and Herzegovina), and *Pink M* (Montenegro). Programme production is focused on entertainment, but it produces also daily news and political talk shows, attracting millions of viewers in the entire region.

Television Pink was established in 1994 as an offspring of highly popular folk music radio, *Radio Pink*. It is owned by Željko Mitrović who was close to Milošević family in the late 1990s and was a member of Yugoslav Left, a political party founded by Milosevic's wife Mirjana Marković. After political changes took place, *Television Pink's* owner discarded his political affiliation, positioning himself as a businessman close to democratic circles. His company had paid a one-off tax of approximately 1.2 million Euros, since the new authorities considered it had gained significant benefits and profits from its privileged position.

Television B92 started broadcasting in 2000, growing out of *Radio B92*, a symbol of resistance to the Milošević regime. *Television B92* is a rare example of a commercial station with a strong sense of public interest, trying to combine its high professional standards and market success. The Company's Internet portal (with several interactive platforms) is one of the most visited news web sites in the region,¹⁴ winning 1000th place among all websites in the world¹⁵. Besides Media Development Loan Fund and Salink Ltd. Kipar, the domestic owners of *B92* include the B92 Trust and small individual shareholders comprising the management and employees of B92.

Out of 2.5 million television households, it is estimated that around 30 percent have some form of multi-channel television access, mostly analogue cable television.¹⁶ The penetration of cable television is increasing on a yearly basis. Total number of users grew from 420,000 in 2004 to 540,000 in 2005 and around 700,000 in 2006. Consequently, subscription generated revenue almost doubled over a one-year period - from approximately €13 million in 2004 to €22 million

¹³ Information available at <http://www.rtvpink.com/kompanija/> (accessed on 4 June 2007)

¹⁴ B92 home page available at <http://www.b92.net/indexs.phtml>, (accessed on 4 June 2007)

¹⁵ This position is the value of daily traffic rank trend. For example, Yahoo.com wins 1st place, while B92.net has 1000th position. B92 daily rank trends grew from 20000th place in 2002 to 1000th place in 2007. Information available at <http://www.alexa.com> (accessed 4 June 2007)

¹⁶ Usage of ITC in Republic of Serbia - Republički zavod za statistiku Srbije, 2007

in 2005 (1,051 million of dinars in 2004 to 1,792.7 million dinars in 2005)¹⁷. The price for basic monthly subscription is approximately 455 dinars, approximately five euros.

Some 40 cable operators were issued licenses¹⁸ in January 2007 by the Republican Agency of Telecommunications (hereafter, RATEL). RATEL is in charge of issuing a general authorization to anyone whose intention is to operate a public telecommunications network or provide public telecommunications services under this regime, provided that such a person has met or agreed to meet all the requirements prescribed for that network or service.¹⁹

The Republican Broadcasting Agency issues licences for cable and satellite broadcasting of programmes without calling a public tender, at the request of the holder of a cable distribution system (hereinafter CDS), i.e. the holder of a terrestrial satellite station.²⁰ The obligation to obtain a broadcasting licence does not apply to programmes for which the Council has awarded a terrestrial broadcasting licence for the area in which the CDS is situated, whereby the CDS holder is obliged to distribute the public service programmes via its system free of charge and for programmes which can be received via free (unencrypted) satellite distribution in the territory of the Republic of Serbia.²¹

Serbia Broadband (hereafter SBB), is the largest cable and broadband operator in Serbia, holding around 50 percent of the cable market. It is a privately owned company. According to the data available from the Serbian Business Registers Agency²², SBB is owned by an unknown Serbian company Adria Cable Ltd., a subsidy of the Netherlands based Adria Cable B. V.

SBB delivers a portfolio of around 200 free to air TV channels, along with high-speed cable Internet and analogue Pay TV platform. As of April 2006, SBB is also offering satellite digital DTH (direct to home) service. Its main competitors are Ikom, (a privately owned cable and Internet operator that emerged from five local cable operators owned by US based Trenton International LLC²³.) and PTT Srbija cable service (state owned post service company), holding a major part of the rest of the market. Cable operators offer domestic (national and regional) TV channels along with international channels such as *Discovery*, *CNN*, *BBC*, *National Geographic*, *MTV*, *HBO*, *Eurosport*, etc. Neighbour channels, due to the language similarity, are also offered (for example, Croatian *HRT* or Bosnian *OBN*). Several domestic, mostly thematic channels are available exclusively through cable (*Auto Plus*, *Stankom*, *Sport Klub*, *Spectrum*, *Kopernikus*, *KTV Zrenjanin*, *Kanal D*, etc.). Most of cable operators offer Internet services as well.

¹⁷ Audience reach and revenues of cable distributors available at

http://www.ratel.org.yu/index.php?page=statistika&target=s_KDS&item=80&get_treerot=10&lang=srp (accessed 8 May 2007)

¹⁸ List of all licensed cable operators is available at

http://www.ratel.org.yu/index.php?page=dozvole&target=odobrenje_kds&item=95&get_treerot=7&lang=srp (accessed on 8 May 2007)

¹⁹ Article 38, Telecommunication Law, *Official Gazette of the Republic of Serbia*, No. 44/2003

²⁰ Separate telecommunication law determines the conditions which decide whether the holder of the CDS (i.e. terrestrial satellite station) has met the requests regarding the mounting, use and maintenance of telecommunication equipment determined in keeping. Article 40, Broadcasting Act, *Official Gazette of the Republic of Serbia*, No. 42/2002

²¹ Article 40, Broadcasting Act, *Official Gazette of the Republic of Serbia*, No. 42/2002

²² Information available at <http://www.apr.sr.gov.yu/> (accessed on 29 October 2007)

²³ Ibid.

One of the most powerful companies in Serbia, and the provider of the entire telecommunication infrastructure, is Telekom Srbija. It is Serbia's only landline telecommunications operator, and is owned by two stakeholders: "PTT Srbija," a state-owned and controlled company (80 percent of ownership) and the Greek company "OTE" (20 percent of ownership). Telekom Srbija also provides services for mobile phone communication as MTS, along with two companies: "Telenor" and the Austrian company "Mobilkom". The company itself has two major web portals, "Na dlanu" and "Mondo," which provide news, entertainment, blogs, etc. and in December 2006 launched a third generation of mobile phones in commercial use. Telecom's WAP portal Mondo was launched in 2005 and is visited by 100 thousand users per day, offering a variety of contents. With the introduction of a new generation of mobile phones, Mondo was redesigned offering additional, multimedia packages. The 3G network enables fast data transfer (384 kbit/s) and thus, several new, advanced services - video calls, movie trailers, video streaming of TV programmes, news or sport events in real time, playing video games online. So far, the 3G package has attracted some 30 thousand users. Serbia has an average of 74 percent mobile penetration.²⁴ Mobile media are winning popularity, as over a three year period both the total number of users and amount of yearly revenues nearly doubled (see Table 1).

Table 1. Mobile Media Penetration 2003-2005

Year	Number of users (in millions)	Revenues (in million Euros)
2003	3.28	255.5
2004	4.34	295.5
2005	5.51	400
2006	6.64	650

Source: *Statistical data on mobile media*, RATEL, Belgrade 2006

Aleksandra Smiljanić, Minister of Telecommunications, has said that in 2006 revenues from telecommunications amounted to nearly €1.3 billion, or 40 per cent more than in 2005, half of which were collected from mobile phone services, 34.7 per cent from land line services, while the rest was generated by cable TV and internet services.²⁵

SMS (Short Message Service) communication almost doubled, as MMS (Multimedia Messaging Service) was introduced only in 2004 (see Table 2). Mobile operators provide several other multimedia services, such as EDGE, GPRS or WAP Internet access.

Table 2. Total Number of Sent SMS and MMS 2003-2005

Year	SMS (in millions)	MMS (in millions)
2003	1192	0
2004	1602	5.75
2005	2093	11.5

Source: *Statistical data on mobile media*, RATEL, Belgrade 2006

Telekom Serbia is the most important provider of telecommunication and owns the backbone of the telecommunication infrastructure in Serbia. Much later than its counterparts in Europe,

²⁴ Information available at <http://wirelessfederation.com/news/category/serbia/> (accessed August 22, 2007)

²⁵ Speech given at Economic Summit 2007, available at http://www.paragrafnet.net/vesti/181007_b.html (accessed on October 29, 2007)

Telekom Srbija will be the first provider in Serbia to introduce a triple-play offer - high speed Internet, television and telephone in one package. Similar plans were announced by the biggest cable provider, SBB (Serbia Broadband). It will be introduced at the end of 2008. Telekom Serbia also plans to use its current infrastructure to start developing a digital terrestrial broadcasting network. In the absence of state plans and activities it will give Telekom Serbia a head start and dominant position in the future in terms of content distribution platforms.

New media are slowly penetrating the audience, with only 24 percent of the population above the age of 15 using the Internet²⁶. Public authorities are slow in recognising the importance, both economic and social, of participation in a global network of information. With a quarter of the population using the Internet in 2006, Serbia lags behind not only developed countries, but also new EU members. Less than half of the population, 41 percent, owns a computer, due to a low level of disposable income. Internet penetration is also determined by income, regional differences, age, gender and education. The Internet is more quickly adopted by a male, urban, younger (between 15 and 29), educated population with higher incomes (€150 per month and more). In this way, participation in global network is still the privilege of some, rather than a strategic goal. Most of the consumers access the Internet at home (84.3 percent) and one quarter at the work place. (These data include consumers who have access both at home and at work) 77 percent of Internet users still access through a slow and expensive dial-up connection. Other types of access are far less used – broadband cable modem is used by 14 percent, ADSL nine percent, and wireless access by only four percent of consumers²⁷.

3.1.1 Digital Television Market

Serbia has not yet launched plans for a digital switchover. *RTS*, the national public broadcaster, was the first institution that experimented with a digital signal, but the platform has no original programme. Serbia Broadband – SBB, a cable and Internet company, was the first commercial operator to introduce satellite digital broadcasting in Serbia in 2006. The platform has around 40,000 subscribers.

In line with the provisions of the Broadcasting Act,²⁸ which stipulate that one of the obligations of the public service broadcasters is to draft and duly fulfil plans to transfer to new digital technologies, and in the absence of an active state strategy for digital switchover, Radio Television of Serbia and its Technical Department have launched the pilot project "Digital terrestrial broadcasting of *RTS* programs." The project started in July 2002, and in the next three years all the necessary tests and digital transmission trials were conducted. It was concluded that digital signal reach within the territory of Serbia was more efficient than initially presumed. In 2005, *RTS* had launched two digital terrestrial transmitters, through the 27 and 31 UHF channels. The digital signals cover a wider territory of Belgrade and Novi Sad, with a potential audience of approx. 1,500,000 viewers. *RTS* is broadcasting its TV and radio channels and one experimental TV channel.

However, the digital package does not offer different content than the one already available through the analogue terrestrial network. Additionally, the project was not followed by an awareness-raising campaign and the public in Serbia remains absolutely uninformed about

²⁶ Results of Internet penetration and use of Internet in Serbia in 2006 is available at http://www.bos.org.yu/cepit/materijali/Internet_u_Srbiji_2006.pdf (accessed on May 8, 2007)

²⁷ Survey of the Internet penetration in 2006 is available at http://www.bos.org.yu/cepit/materijali/Internet_u_Srbiji_2006.pdf (accessed on May 8 2007)

²⁸ Article 78, Broadcasting Act, *Official Gazette of the Republic of Serbia*, No. 42/2002

terrestrial digital technologies and the possibility of receiving digital television. Finally, digital terrestrial receivers are still not available in the Serbian market. The company "Telefonija" has initiated the import of terrestrial digital receivers and developed a Serbian version of the software, but in the absence of marketing efforts the equipment was never released for sale. As a consequence, RTS has digital terrestrial broadcasting, but the platform has no original content and no audience.

As of April 2006, SBB is offering satellite digital DTH (direct to home) service, commercially called Total TV, offering four different commercial packages with more than 50 television channels, including domestic and regional terrestrial and international pay TV channels. Service also includes 200 free-to-air channels available via Eutelsat's W2, Astra and Hotbird satellites. Consumers must own a digital satellite receiver, a smart card and an antenna, all provided by SBB free of charge with a two year contract. The entire Total TV platform adopted DVB technical standards. The program is guarded by a NDS smart card specially designed for the SBB Company, translated into Serbian and adjusted to the Total TV brand. It enables shared scrambling and descrambling with partner companies *Television Pink*, *ITV Partner* from Bulgaria and *NTV* from Slovenia.

The DTH platform in Serbia has some 40 thousand subscribers; SBB's objective is to reach homes in Serbia that had low quality reception of the analogue signal or those without access to cable operators. The price of basic package ranges from DIN 590 to 1730 (app. €7- €22) and the extra package can cost from DIN 200 to 410 (app. €2.5- €5) per month. SBB plans to introduce a digital cable platform by the end of the year. The biggest obstacle to expanding commercial digital broadcasting independently of the state supported initiatives is the price of available set-top boxes, requiring the investment of several million euros.²⁹

In spite of its "kitsch programmes for the masses" reputation, *Television Pink* expanded its programme offerings and its brand world-wide through two international satellite television operations: *Pink Plus* and *Pink Extra*, with TV content available over Hotbird satellite for Europe. The *Pink Plus* package is dedicated mostly to Serbian emigrants, and has a somewhat different program content than terrestrial *TV Pink*, with several shows designed for the target population. *Pink Extra* was launched as a satellite channel in 2003. It is a music channel that complements the *Pink Plus* package. *Pink BIH* and *Pink International* produce additional programming for this package. The direct broadcasts via satellite are based on a proprietary transport stream (encrypted) requiring proprietary reception equipment provided by the company Media System GmbH.³⁰ Both Pink satellite packages, along with another nine theme channels - *Pink Movies*, *Pink Kids*, *Pink Music*,³¹ are available on digital platform, through SBB Total TV.

There are no programmes produced for digital platforms. Programme offerings in Serbia are poor and of a low quality level, including mainly domestic reruns and foreign acquisitions. The situation in analogue broadcasting will most likely be repeated in the digital sphere, and the development of digital broadcasting will for many years remain a technical issue, not one of content.

²⁹ SBB and the development of its services were enabled mainly by the equity investment of The Overseas Private Investment Corporation (OPIC). The Investment Funds Program is designed to support the creation and capitalization of long-term, private equity funds in emerging markets. The funds are structured as limited partnerships or limited liability companies.

³⁰ Available at www.rtvpink.com/english/?act=satellite-tv

³¹ Pink is the only broadcasting company offering and packing both analogue general television channels and theme channels.

3.2 Audience Share and Changing Audience/ users Behaviours

Television is by far the most important medium in terms of advertising market share and audience consumption. The media market was worth approximately €115 million in 2006, growing continuously at an annual rate of 20 percent (approximately €15-20 million per year). Of all the money spent on advertising in 2006, 61 percent went to television, 21 percent to print media, four percent to radio and 12 percent to outdoor advertising.

Television in Serbia in the last five years was the supreme medium in terms of market share, but its influence is slowly decreasing. Print and outdoor outlets are becoming more and more interesting to advertisers, whereas the Internet is still not recognised as an important advertising medium (see Table 3).

Table 3. Trends in Market Segmentation- Breakdown by Media (in %)

Year	Television	Radio	Print	Outdoor	Other (Internet, cinema...)
2006	60.9	4.3	21.3	12.2	1.3
2005	63	4	20	12	1
2004	65	4	19	11	1
2003	66	4	18	11	1
2002	72	6	12	10	/

Source: *Serbian television scene overview*, AGB Nielsen Media Research, Belgrade 2006

RTS1, the first public service television channel,³² is the most popular, winning the greatest share of audiences in 2006. In spite of being PSB and having a public service remit, the channel is constantly promoting its popular content, competing with its commercial rival, *Television Pink*, which receives similar audience attention. *B92*, although third, has three times less audience share than the first channel of *RTS*. The newly established *Avala* and *Fox* have insignificant audience share figures, due to the fact that their signal became available only at the end of 2006 and at the beginning of 2007. It will take a few years for new channels to win loyal audiences and become serious competitors (see Table 4). The first program of *RTS* attracted more than four million people daily in 2006, who on average spent 130 minutes watching this television channel.³³ The most important commercial station, *Television Pink*, attracted more than 3,700 thousand viewers daily for two hours. *B92* and the second program of *RTS* have similar audience reach, around 2,800 thousand, for approximately one hour.

Table 4. Average Audience Share of the Most Important TV channels 2003 – 2006 (population 4+)

Year	RTS1	PINK	B92	RTS2
2003	19.5	21.9	3.4	7.4
2004	20.1	22.0	5.3	8.2
2005	22.4	22.5	6.8	6.3
2006	27.4	23.3	9.1	6.7

Source: *Serbian television scene overview*, AGB Nielsen Media Research, Belgrade 2006

³² RTS has two television channels, making it the most significant broadcaster in the country.

³³ The Serbian television audience spends around 3.5 hours a day watching TV programmes.

Combined, television channels with national coverage attract three quarters of the audience, both in reach and audience share. Local, regional and foreign media in turn reach one quarter of the population on a regular basis (see Table 5).

Table 5. Audience Reach and Audience Share - November 2006 (population 4+)

Type of television	Audience reach (%)	Audience share (%)
National	75.5	76.5
Local	43.8	8.8
Foreign- neighbour	20	5.0
Foreign- international	16.3	4.1
Domestic regional	10.6	1.1
Cable domestic	7.4	0.9

Source: *Audience measurements of local TV stations in Serbia in 2006*, AGB Nielsen Media Research, IREX and Strategic marketing and media research, Belgrade January 2007

Over 90 percent of the population turns to TV as its most important source of information, with an average daily viewing time of 278 minutes.³⁴ The programming of *RTSI* is popular among the older generation, the most numerous population in Serbia,³⁵ and is often described as "stiff and rigid." Pink and B92 are popular among the younger generation - B92 especially among the highly educated population. The public broadcaster has highly popular news and drama programmes, while TV Pink, according to the audience survey, has the most popular entertainment, music and movie programming. B92 has the most popular sports programmes and quiz entertainment shows. As a source of information, the audience has the least trust in TV Pink, while its confidence is equally distributed between RTS and B92.³⁶ Serious research of new media and their influence on audience behaviour has yet to be conducted.

4. Regulatory Framework and State Policies

At the beginning of twenty first century, in 2002 and 2003, the first significant laws were adopted to attempt to regulate media chaos. The Broadcasting Act was adopted in July 2002, replacing the outdated Law on Radio and Television that had been in force since 1991. For the first time, the law introduced an independent regulatory authority, the Republican Broadcasting Agency (RBA), a regulator with wide competencies in broadcasting. Although the Broadcasting Act has been adopted in 2002, due to the controversial appointment of the RBA Council and their disputed membership, the Republican Broadcasting Agency became fully operational only in 2005. The Telecommunications Act that was adopted in May 2003 regulates the technical aspects of broadcasting, including the allocation of frequencies. The law is enforced by the Republican Agency of Telecommunication (RATEL), which was established in May 2005.

The slow pace of media reform and the lack of the capacity of state administration to develop progressive media policy has left the Serbian media sphere and media market with a number of

³⁴ EUMAP report for Serbia 2005, available at http://www.eumap.org/topics/media/television_europe/national/serbia/media_ser1.pdf (accessed 8 May, 2007)

³⁵ Demographics show that Serbia's population is among oldest in Europe, with an average age of 40.7 years, with 15.7 percent of the population above 65.

³⁶ Data on audience survey provided by Srđan Bogosavljević, Director of Strategic Marketing Media Research, press conference in Media Center, Belgrade, June 2007.

problems. The most important provisions of the Broadcasting Act were implemented only at the beginning of 2006. The first official tender for analogue frequency allocation was announced in January 2006. The tender for national frequencies was concluded in 2006, followed by strong criticism from a number of domestic and international actors.³⁷ In April 2006, the state broadcaster RTS was formally transformed into a public service broadcaster (hereafter PSB). However, in spite of visible improvement in its editorial and overall professional standards, RTS is still criticised for failing to fulfil the main roles of a PSB. It is influenced more by political interests than those of its citizens. Privatization and transformation of local state media are still pending. The high number of media outlets reflects regulatory chaos rather than a prospering media market.

The government of the Republic of Serbia and its relevant ministries – the Ministry of Culture in charge of media and the newly established Ministry for Telecommunications and Informational Society in charge of telecommunications - is given the authority by the law to strategically regulate media and telecommunications.

The Broadcasting Act incorporates a number of European broadcasting standards: the dual broadcasting model – recognising the equal importance and co-existence of public and commercial broadcasters, an independent regulatory body with wide competencies, a system of licensing for commercial broadcasters, compulsory programme standards and general regulations of the broadcasting market³⁸. The Act prohibits media concentration and sets several basic principles, such as freedom of expression, professionalism and independence of broadcasters, rational spectrum usage as a limited resource, application of international norms in this sector and the full affirmation of citizens' rights and freedoms, especially freedom of expression and pluralism of opinion³⁹.

The broadcasting regulator, RBA, is in charge of the following: defining broadcasting development strategy, control of the implementation of Broadcasting Act, issuing of broadcasting licenses, proclaiming technical, organizational and program standards, implementation of broadcasting policy through compulsory regulations, supervising broadcasting institutions and sanctioning of inadequate performance.⁴⁰ RBA is authorized to issue warnings to broadcasters or to revoke their licenses, for a short-term of 30 days or permanently.

The Agency is funded from broadcasters' license fees. The problem is that the Government approves its budget and can therefore execute control over its financial operations. Additionally, if the income gathered from the licensing fees is greater than the Agency's expenses, additional money is given to the state budget and is not invested back in the broadcasting industry.⁴¹

In 2002, the two members of the first RBA Council resigned immediately after elections due to violations of the electoral procedure in the case of other two members. This blocked the work of the Council until 2003, when new public authorities, after general elections, amended the

³⁷ Licenses were awarded according to a set of imprecise and legally questionable criteria disrespecting procedure and transparency requests, and were disputed by both legal experts and media professionals. It was argued that a lack of standards leaves the regulator open to political interference.

³⁸ S. Milivojević, "Zakon o radiodifuziji: Promene pre primene" (Broadcasting Act: Changing before applying), professional magazine "Republika", Belgrade, September 2006, pp. 6-7.

³⁹ Article 3 of Broadcasting Act

⁴⁰ Article 8 of Broadcasting Act

⁴¹ This is significant amount of money, up to several million euros, and could be invested in digital broadcasting development.

Broadcasting Act in order to appoint members of the Council. Finally, the Council was fully operational in 2005. Due to an idle RBA Council, several Broadcasting Act provisions could not be fulfilled.

RBA and its Council are often criticised by media professionals, journalist associations and international organizations. The representatives of the Council of Europe and the Organization for Security and Cooperation in Europe stated on several occasions that they are alarmed by the activities of the RBA Council and the lack of responsibility and transparency in their work. Over the course of the past two years RBA was mainly occupied with frequency allocation and licensing of commercial operators, and they have failed to execute any other activities proscribed by the law, including programme monitoring and assessment if the programme produced and broadcast fulfils public service remit.

Serbia belongs to a group of countries where a regulatory framework for the launch of digital terrestrial television (hereafter DTT) has not yet been established and the use of other digital television platforms is at a very early stage.

The existing legal framework does not provide comprehensive regulation or a policy framework for digital broadcasting. Relevant legal texts, primarily the Broadcasting Act and Telecommunications Act, give general principles for the development of new technologies in broadcasting. The Broadcasting Act deals with digital broadcasting in only a couple of provisions. It gives authority to the Broadcasting Agency to issue both analogue and digital broadcasting licenses. Article 11 states that "the Agency shall issue a license for broadcasting a program via terrestrial, cable or satellite transmission, either digital or analogue, in a procedure and according to criteria laid down by this Law."

It also stresses that one of the obligations of the public service broadcasters is to "ensure the use and development of modern technical and technological standards in program production and broadcasting, and draft and duly fulfil plans for transferring to new digital technologies." (Article 78)

The Republican Broadcasting Agency at the end of 2005 adopted the Broadcasting Development Strategy for the Republic of Serbia until 2013, which sets up the basis for digital broadcasting policy development and determines technical specifications for future digital broadcasting. This is the first policy document that acknowledges the importance of digital television for the future development of broadcasting.

Considering that the document covers the period until 2013, it fails to provide a number of policy guidelines necessary for the successful launch and subsequent switchover to digital television transmission. However, it does points out that "it is necessary to regulate digital broadcasting comprehensively by a new law or by amending the existing one," and that "the application of digital terrestrial broadcasting should follow the preparation of the program and adoption of the national plan for the transition to digital broadcasting." It also stated that, although according to the Broadcasting Act (Article 78) only the public broadcasting service institutions are obliged to transfer to new digital technologies, the Agency would make efforts to provide equal access for all interested broadcasters to experimental digital channels.

The Broadcasting Development Strategy had suggested that the Telecommunications Agency and the relevant Ministry adjust the Frequency Allocation Plan to provide for special bandwidth intended for experimental digital broadcasting. The existing Frequency Allocation Plan, adopted

by the Government of the Republic of Serbia, recognizes resolutions adopted by the first session of the Regional Radio communication Conference for the planning of the digital terrestrial broadcasting service within the frequency bands 174-230 MHz and 470-862 MHz (RRC-04).

The second session of the Regional Radio communication Conference (RRC-06) held in Geneva from May 15th to June 16th 2006, resulted in new Frequency Plans for digital broadcasting and analogue broadcasting during the transition period. The new plans define digital terrestrial broadcasting in Regions 1 and 3 (Europe, Africa and Islamic Republic of Iran) in VHF and UHF frequency bands. The conference also determined the period of transition, which began on June 17th 2006 and will end on June 17th 2015. Participation of the Serbian delegation outlined future development of digital broadcasting in Republic of Serbia for the next 40 to 50 years. The present level of technology enables the formation of 4-6 multiplex channels. Therefore, the territory of the Republic of Serbia has potential coverage by 32-48 national television and 12-16 radio programs. 56 to 84 channels will cover the area of Belgrade.

Table 6. Results of Four Planning Sessions of RRC-06- Breakdown by VHF Frequency Band

	Fourth planning				Third planning				Second planning				First planning			
	T-DAB		DVB-T		T-DAB		DVB-T		T-DAB		DVB-T		T-DAB		DVB-T	
ADM.	yes	no	yes	no	yes	No	yes	no	yes	no	yes	no	Yes	no	yes	no
SERBIA	20	0	81	0	20	0	81	0	20	0	79	2	18	2	74	7

Source: Report on participation of Serbian delegation on RRC -06, RATEL, Belgrade 2006

Table 7. Results of Four Planning Sessions of RRC-06- Breakdown by UHF Frequency Band

	Fourth planning		Third planning		Second planning		First planning	
	DVB-T		DVB-T		DVB-T		DVB-T	
ADM.	yes	no	Yes	no	yes	no	Yes	no
SERBIA	739	0	746	0	744	2	697	50

Source: Report on participation of Serbian delegation on RRC -06, RATEL, Belgrade 2006

The Republican Telecommunications Agency RATEL is currently developing a Frequency Plan for digital broadcasting in Serbia, and the new Ministry for Telecommunication and Information Society, together with the new team at the Ministry of Culture,⁴² have announced plans to adjust the existing legal framework to EU standards, including digitalisation of the broadcasting field. However, all the efforts are directed towards the technical aspects of broadcasting, packaging and delivering mechanisms. Neither plans nor policies are being made to support the development of high quality programme production. Principles and procedures for digital frequency/multiplex distribution are not yet on the agenda because the digital development strategy is still being developed.

Serbia lacks a comprehensive approach to the introduction of digital broadcasting, strategic orientation for switch on and switchover policy, and concrete action plans. Existing texts do not define the relation between different digital delivery mechanisms (satellite, terrestrial and cable when these networks are rolled out) and do not recognize the specifics of the Serbian broadcasting market. Different elements of the broadcasting environment and the market need to be analyzed in order to develop public policies to sustain the take up of DTT and the regulatory

⁴² New Serbian Government has been appointed in May 2007.

model adopted for transition. Future development and penetration of digital television depends on features of the broadcasting background of the country, such as the reception pattern and the degree of penetration of multi channel television, as well as the degree of interest and proactive attitude of the terrestrial broadcasters, specifically the PSB and the terrestrial commercial channels.

Table 8. Key Policy Documents (Approved and Expected) Relevant to Digitalisation

Year	Institution	Document	Author	Status
2002	Parliament of Republic of Serbia	Broadcasting Act	Expert team and Republican Broadcasting Agency	Policy adopted In 2002. Amended in 2004, 2005 and 2006. Effective from October 11, 2006
2003	Parliament of Republic of Serbia	Telecommunication Law	Expert team and Republican Agency of Telecommunication	Policy adopted in 2003. Amended in 2006. Effective from May 5, 2006.
2005	Parliament of Republic of Serbia	Broadcasting Development Strategy	Republican Broadcasting Agency	Strategy effective from December 27, 2005. Covering period 2005-2013.

5. Public Service Television Programming in the Digital Context

Broadcasting started in Serbia in 1929, when *Radio Belgrade* was established. Television was launched in 1958. A second television channel was introduced in 1972, and a third in 1989. *RTS* was established in 1992 and was a large, state-owned company with three units: Belgrade headquarters, *RTV Vojvodina* (for the province of Vojvodina) and *RTV Priština* (for the provinces of Kosovo and Metohija).

The 1990s were particularly turbulent times for *RTS*. It was seen as a symbol of the Milošević regime and in support of the ruling party. "With its exceptionally high ratings in the early 1990s, *RTS* was initially the major instrument for achieving national mobilization and sustaining public support for the nationalist policy of the regime."⁴³ During the NATO attack in 1999, on the 23rd of April, *RTS* headquarters were bombed, killing 16 staff members. *RTS* also suffered great

⁴³ EUMAP report for Serbia 2005, available at http://www.eumap.org/topics/media/television_europe/national/serbia/media_ser1.pdf (accessed 8 May 2007)

material damage, estimated at €530 million,⁴⁴ as a collection of transmitting equipment was destroyed. On October 5th, protesters rushed into the building of RTS. Seeing it as an instrument of the authoritarian regime, they set it on fire.

Reform of RTS started in 2002, when the Broadcasting Act foresaw its transformation from a state-owned into a public service broadcaster, financed and controlled by the general public. In order to achieve the high broadcasting standards expected of a PSB, RTS has to solve many problems concerning technical, financial and personnel issues. Production technical equipment is out-of-date; the company is burdened by €47 million in debt (€25 million to the state, and €22 million to commercial providers)⁴⁵ and has over four thousand employees.

In 2002, RTS was transformed into two separate public broadcasters: RTS, a broadcasting institution with national coverage, and RTV Vojvodina, a broadcasting institution with regional coverage in the Serbian Northern Province. RTS has two television channels (RTS1 and RTS2), four radio channels (Radio Belgrade First program, Radio Belgrade Second program, Radio Belgrade Third program and Belgrade 202), RTS SAT (satellite program) and RTS Internet. Research and Music production centres (PGP RTS) are also part of the organization.

Programme content is available through several platforms:

- Analogue radio and television broadcasting
- Satellite broadcasting with content from terrestrial broadcasting and several specialised shows, designed for Serbian emigrants.
- Internet, online live broadcasting of certain television and radio programmes plus a historical programme archive
- Online access to selected television programmes: RTS keeps its daily news bulletins Dnevnik 1, Dnevnik 2 and Sport plus available online for two additional days
- Podcast – individual *Radio Belgrade1* programmes available in podcast format
- RSS, specialised content available on mobile phones
- Pilot program of DVB-T
- News bulletin - daily news sent by email to users' desktops⁴⁶

Broadcasting in the former Yugoslavia was very advanced in comparison to other communist countries. Television Belgrade was called the 'BBC of Balkans,' and together with other television centers it nurtured high quality productions and a strong sense of leadership in technological development. Besides a news programme staff and news programme standards that were completely changed during the 1990s, RTS has kept its technical staff that was in charge of development of the whole broadcasting system during this period. According to the Law on Radio Television that was adopted in 1992, RTS was in charge of developing the broadcasting sector in Serbia. This actually meant that it leased and serviced transmitting facilities for all new broadcasters. Its facilities were severely destroyed during NATO bombings in 1999. In order to continue functioning since 2000, RTS, with the assistance of the European Union, has invested a total of 4.5 million Euros in broadcasting infrastructure reconstruction and modernization of the station's computer network. It is the most prepared institution for the adoption of new technologies and developing technical capacity for digital transmission. They are in an advanced phase of preparation and are showing more understanding of digital television than any other state institution in Serbia. It will be the most important partner for the state when the government

⁴⁴ RTS Annual Report for 2006, <http://www.rts.co.yu/pdf/izvestaj06.pdf> (accessed May 31, 2007)

⁴⁵ Ibid.

⁴⁶ Content platforms available at www.rts.co.yu

decides to proceed with digital strategy development and digital switchover, since most of the Serbian broadcast transmitting network is still owned and managed by *RTS*. However, its programme production is far behind its technical capacities and all platforms actually carry existing analogue content.

RTS provides online access to an archive database of most of its television programmes that have been broadcast. The broadcaster is digitalising only the content that is available in the outdated formats at the moment, but stresses plans to digitalise its complete archives within the next ten years.

RTS incorporates music production, PGP *RTS*, which produces domestic folk, pop and rock music, as well as music for children and Symphonic and Jazz Orchestra, Choir and the National Orchestra. Their engagement is described as a mixture of the modern and traditional, maintaining cultural heritage. *RTS* thus figures as a part of the cultural and creative industry. However, *RTS* is performing poorly when it comes to homemade culture and art programmes and shows. It rarely produces high quality programmes, and should be employing and developing new talents and setting the standards for other broadcasters. It is also failing to make a positive influence on independent producers, commissioning mostly reality entertainment programmes.

The first program of television traditionally wins the largest audience and has a leading position in ratings and audience share (see Table 9).

Table 9. Average Ratings 2004-2006, Breakdown by Television Network (in %)

Year	RTS 1	RTS 2	PINK	B92
2004	3.8	1.5	4.1	1
2005	4.5	1.2	4.4	1.3
2006	5.2	1.3	4.4	1.7

Source: *RTS annual report for 2006*, AGB Nielsen Media Research, Belgrade 2006

In 2006, *RTS* had the highest audience share, with 35 percent, compared to its closest competitors- television *Pink* had 23, and television *B92* nine percent. The most popular programme formats produced by *RTS* are drama, news and entertainment programmes.⁴⁷

RTS is obliged by the Broadcasting Act to “encompass programmes with informative, cultural, art, educational, religious, scientific, children's, entertaining, sports and other content, ensuring the satisfaction of the needs of citizens and other persons and the fulfilment of their rights in terms of broadcasting,” as stipulated in Article 77. Programmes must be diverse and balanced, to ensure democratic values and the respect of human rights and cultural, national, ethnical or political pluralism.⁴⁸

Of its total annual broadcasting time, as all other broadcasters, PSB should broadcast at least 50 percent of programmes produced in Serbian, out of which at least 50 percent must be produced by the broadcaster itself. Programming should be structured to provide adequate amounts of information, education and entertainment.

⁴⁷ Audience measurements of local TV stations in Serbia in 2006, AGB Nielsen Media Research, IREX and Strategic marketing and media research, Belgrade January 2007

⁴⁸ Article 77. of Broadcasting Act

In line with Article 74 of the Broadcasting Act, the public broadcasting service institutions are obliged to have at least ten percent of their programmes be produced by independent productions annually.

Internally, the Programming Board - a consultative body, giving recommendations to the Governing Board and Director General - should review program and editorial standards. The Programming Board is the body that ensures that the interests of the general public are respected and protected.⁴⁹ The *RTS* Programming Board in the latest Annual Report has concluded that there has been significant improvement in program content; it claims that it will continue to critically monitor all PSB activities in the best interest of all citizens.⁵⁰ However, the Programming Board is not operating transparently and doesn't have regular communication with the public. This consultative body was described in Article 92 of the Broadcasting Act, and has 19 members elected by a national Parliament for a three year period. Seven members are deputies and 12 are proposed by the RBA Council. They are representatives of professional media organisations and the civil sector. It does not have any feedback from the audience on how well *RTS* serves their needs and it did not commission any independent research of programme structure, quality or its diversity. Most importantly, it has never critically monitored *RTS* programmes.

RTS broadcasts 72 hours of programmes daily on *RTS1*, *RTS2* and its satellite network. *RTS1* is oriented mainly towards news and current affairs programmes (35 percent of content), drama serials and series (24 percent) and entertainment (17 percent). Education, documentary, children and sport programmes are reserved for its second channel. Sport takes up around a quarter of *RTS2* content, whereas films take up 14 percent, music 12 percent and education ten percent. Children programming participates with eight percent and culture with six percent (see Table 10). These are figures for broadcast programmes, whereas figures that reflect produced programmes are not available.

Table 10. RTS1 and RTS 2 Program Structure in 2006 - Breakdown by Genres

Type of program	in (%)
News and current affairs	24
Films, drama series, cartoons	19
Sport	15
Entertainment	9
Education, science	9
Music	8
Documentary	7
Youth	5
Commercial	4
Total	100

Source: *RTS annual report for 2006*, AGB Nielsen Media Research, Belgrade 2006

⁴⁹ Article 92., Broadcasting Act

⁵⁰ *RTS Annual Report for 2006*, <http://www.rts.co.yu/pdf/izvestaj06.pdf> (accessed 31May 2007)

⁵⁰ Ibid.

It is unclear how many hours of different programme formats *RTS* produces annually, since the figures given by their annual report include foreign and independent productions, reruns and live transmissions of sports and other events.

It is worrying that the education and children programmes that *RTS* quotes as *the most successful programmes it has aired in 2006 are actually foreign acquisitions (BBC's Big Cat Diary, the Japanese cartoon Yu-Gi-Oh!, 1970s Disney cartoons)*⁵¹. Additionally, the Annual report does not include any assessment of the quality of programmes produced by *RTS*; it only gives the most popular programmes that it broadcasted and that won the highest ratings.

The most significant home produced programmes of *RTS* are traditionally news programmes and drama series. Its landmark programme is *Dnevnik 2*, a daily news bulletin, scheduled at 19.30 and running since the inception of *RTS*. It was and still is by far, the most popular informative content, having twice as much audience than the competition (see Table 11). Weekly audience reach of *Dnevnik 2* in 2006 was over 5 million.

Table 11. Audience Share of News Bulletins in 2005 and 2006 - Breakdown by Television Network (in %)

	Dnevnik 2, RTS 1	Nacionalni dnevnik, Pink	Vesti u 18.30, B92
2005	15	9	5
2006	16	8	6

Source: *RTS annual report for 2006*, AGB Nielsen Media Research, Belgrade 2006

RTS web site and other multimedia content increasingly win popularity. In 2006, the official *RTS* web site had over one million three hundred individual visits (twice as much as in 2005). Record access was made during the election period in January 2007, with 123,000 visitors daily and 500,000 active pages and links. The terrestrial programming of *RTS 1* and *RTS 2* attract around 28,000 users daily online. Programs are downloaded from online sites by 5,000 users daily and an additional 1,000 users receive RSS and subscribe to Podcast editions of radio daily news.⁵² This is not substantial activity for the number of users media sites usually receive, but one has to bear in mind that fast connections and broadband Internet services are available only to 7.3 percent of the households in Serbia.⁵³ *RTS* provides its drama and music content on video and DVD.

With regard to technological developments, the *RTS* official website emphasises that special attention will be given to the development of content for new platforms such as the Internet and digital broadcasting.⁵⁴ However, *RTS* does not state any elaborate plans for content production for the future, nor the content that shall be produced for or adjusted to digital platforms. So far, all the attention related to new technologies and their development has been directed towards technical aspects. *RTS* has just been recently transformed into a PSB and has yet to develop a culture of focusing most of its strengths on programme production. It is still struggling to increase the percentage of its income dedicated to programmes, and the production of programmes for digital platforms is still very far away in the future. New technologies require a significant amount of investment. The structure of financial expenses displayed in the table below shows that in the last year *RTS* spent only five percent of its available funds on investment. The company

⁵¹ Ibid.

⁵² Ibid.

⁵³ Statistical Office of the Republic of Serbia, Usage of ICT in Serbia 2007.

⁵⁴ Available at www.rts.co.yu/rtb_buduc.asp (accessed on 20 July 2007)

still spends a huge portion of funds, more than one third, on personnel salaries, while the same amount is dedicated to production and the acquisition of programmes (see Table 12). Current funding is insufficient to allow for the *RTS* to adopt new digital technologies. The only department that has been involved with digital broadcasting development so far has been the technical department of *RTS*.

Table 12. RTS Financial Expenses in 2006- (in thousands of dinars)

Type of expense	Value (dinars)	Structure (%)
Program production and acquisition	2,510,000	35.2
Personnel	2,651,000	37.2
Support services	1,610,000	22.6
Investments	362,000	5.1
Total	7,133,000	100

Source: *RTS annual report for 2006*, Radio television of Serbia, Belgrade 2006

Program acquisition and production cost €23.8 million in 2006. One third of this money was spent for *RTS* programme production, including education, art and entertainment. Similar amount was spent for producing sport programmes. A quarter was spent on film purchases and ten percent on independent productions, as required by law (see Table 13). It is not clear what the proportion between foreign and domestic acquisitions is.

Table 13. RTS Programme Production Expenses in 2006

Type of program	Structure of expense (in %)
<i>RTS</i> programme production	35
Sport	32
Film	23
Other production	10

Source: *RTS annual report for 2006*, Radio television of Serbia, Belgrade 2006

The license fee that citizens pay on a monthly basis is the primary source of income for *RTS*. Money is collected by public enterprise Elektroprivreda Srbije, along with an electricity bill. All households owning television or radio sets are obliged to pay DIN 350 (app. €4.5). The total license fee income for 2006 was around €50 million, or €4.2 million per month. *RTV Vojvodina* is by law⁵⁵ entitled to 70 percent of the total subscription fee gathered in the province. Another 1.5 percent of the generated fees go to the republican fund for cinema development. It is estimated that there are around 3 million television households in Serbia. The base of subscribers obliged to pay the license fee amounts to around 2.5 million households, but only 60 percent of these regularly pay a fee. Other sources of income are commercials (and other forms of sales income), and in 2006 a transition fund provided by the Government (see Table 14).

Table 14. RTS Financial Income in 2006

Type of expense	Value (dinars)	Structure (%)
Subscription fees	4.100.000	57.5

⁵⁵ Article 83., Broadcasting Act

Commercials/sales	1.900.000	26.6
Transition fund	1.133.000	15.9
Total	7.133.000	100

Source: *RTS annual report for 2006*, Radio television of Serbia, Belgrade 2006

In line with the provisions of the Broadcasting Act that stipulate that one of the obligations of public service broadcasters is to draft and duly fulfil plans of transferring to new digital technologies, and in the absence of an active state strategy for the digital switchover, *Radio Television of Serbia* and its Technical Department have launched the pilot project "Digital terrestrial broadcasting of RTS programmes." The project was started in July 2002, and in the next three years conducted all the necessary tests and digital transmission trials. It was concluded that the digital signal reach within the territory of Serbia was more efficient than initially presumed. In 2005, *RTS* launched two digital terrestrial transmitters through UHF channels 27 and 31. The digital signals cover a wider territory of Belgrade and Novi Sad, with a potential audience of approx. 1,500,000 viewers. *RTS* broadcasts its TV and radio channels and one experimental TV channel.

The audience has no significant impact on PSB content provision, as there are only a few interactive platforms provided. The official *RTS* web site offers forum for public debate and a section called "Ask the general manager," but with no serious exchange of opinion. In order to fulfil its remit as a public service, *RTS* needs more transparency and a more active relationship with its audience.

6. Conclusions

Throughout the last two decades, public television in Europe has faced many challenges: financial difficulties, fast changes caused by technological innovations, liberalisation and a highly competitive environment. Media pluralism did not, on the audience's side, bring significant qualitative changes in programme content. There is still a lack of much-needed diversity in programme content. Commercial broadcasters tend to treat the audience as consumers rather than members of a democratic society. In countries in transition, reforms to the media sector turned out to be even more complicated. Formerly state-owned broadcasters, now transformed into public service institutions, are still under strong political and economic influences. The dual broadcasting model is seen as a part of European democratic and cultural heritage. Public television has to undergo serious changes in order to be seen as a defender of public rights.

Changes in the global media scene are visible even in small media markets such as Serbia. The Serbian media scene is predominantly shaped by two factors: hyper competition and regulatory chaos during the 1990s and the slow and inefficient reforms after democratic changes in 2000. Authorities have been slow to give up media influence, making initial steps of media reform unsuccessful. The Broadcasting Act, which was adopted in 2002, is the first important law to regulate the media sector, introducing a dual broadcasting system, licensing of commercial broadcasters, general program standards, advertising issues and anti-concentration instruments. So far, it was changed five times in line with the political climate and lost most of its initial democratic potential.

The public tender for frequency allocation for terrestrial broadcasting was finalised only in 2006. Along with PSB channels, five commercial television and five radio stations won licenses for

national broadcasting, along with 25 regional television stations, while local media are still waiting for privatization. Frequency allocation was done without serious market analysis, and analysis of the programme offerings and audience demand were not respected. The number of broadcasters was determined only according to the technical characteristics of the spectrum, without consideration of the capacity of the media market to support this large number of outlets. RBA often refuses to recognise its direct influence on media market.

The broadcast media market is one of the fastest-growing industries. Commercial broadcasters emerged during the legislative void of the 1990s. It is estimated that at least 800 electronic media were operating in the media market at the time. Such a large number of outlets operating in a small media market reflected regulative and market chaos. Programme quality was left a question mark. It was expected that a new regulatory body would intervene mostly in the segment where the market had failed - in satisfying public needs for quality information and quality programming. Transparency of ownership remains an unsolved issue and anti-concentration instruments have yet to be implemented.

Several outlets still managed to survive the chaotic situation and establish themselves in the market. Still, worth €115 million in 2006, the Serbian media market lags behind not only developed European countries, but regional ones as well. Television is the most important medium, both in terms of revenue and public influence. It is still the main source of information for most people. New media are slowly penetrating. The Internet is used by one quarter of the population, while three quarters own a mobile phone.

The introduction of DTT presents another challenge for the Serbian broadcasting industry. Serbian regulatory bodies are far from establishing a coherent policy framework, and broadcasting institutions have made no serious attempts to introduce digital TV in the market. *RTS* has only made technical experiments with a digital terrestrial signal, and the platform has neither an original programme nor an audience. Other commercial broadcasters showed no interest in offering this platform to the audience. DTH service is available, as is TV-on-demand for analogue broadcasting. *Television Pink*, the most important commercial player, is the only network that introduced thematic channels via DTH in SBB's Total TV package. The programme content of most of television channels is available through several interactive platforms, including RSS, Internet and Podcast, but has no content different from that already available through analogue broadcasting.

None of the existing media Laws recognize the importance and challenges of the digital switchover. The only document dealing with this matter is the Broadcasting Development Strategy. DTT is mentioned only in one article and offers only general recommendations. The technical plan for frequency allocation of digital signals relies mostly on Plans developed in two sessions of the Regional Radio-communication Conference (RRC 2004 - 2006). As stated in the Strategy, RBA expects PSB to be the leader in introducing new technologies, but to enable experimenting with digital signals to other commercial broadcasters. A detailed strategy has yet to be developed in order to answer all the challenges brought by the introduction of the new technology.

Serbia lags behind developed European countries with regard to the development of digital broadcasting. No date has been set for the general switchover from analogue signal to digital transmission. The existing legal framework and policy documents do not provide for the progressive regulation and development of digital broadcasting. However, even without state initiative, broadcasters, cable and satellite operators are already introducing new digital services.

RTS is in an advanced phase of preparation and is showing more understanding of contemporary developments regarding digital television than any other state institution. It will be the most important partner for the state when it decides to proceed with digital strategy development and digital switchover, since most of the Serbian broadcast transmitting network is still owned and managed by *RTS*. It has yet to become a genuine service for citizens, but it is, and will remain, an important contributor to the media scene.

7. Recommendations

- Serbian regulators should adjust laws and develop a digital switchover strategy. This should involve plans prior to the digital switchover for monitoring the entire process while it lasts, with constant monitoring after it is introduced. Timely regulative action is necessary.
- Both market players and consumers should be encouraged to accelerate the switchover by promoting the benefits of digitalisation and reducing switchover costs.
- Authorities should formulate and publicise their vision of long-term spectrum management (including principles and procedures for digital frequency distribution) and digital broadcasting developments. The public debate should become a wider and more professional forum.
- The state should provide equal opportunities for all market players to participate in the process. All stakeholders should be included. In order to encourage a faster, more cost-efficient switchover, public and market players should coordinate their actions and have some degree of information about each other. It would be beneficial for market players to conduct common research on consumer behaviour and expectations. The concepts of digital television, digital sets or analogue turn-off are often confusing for some population groups, and information and awareness campaigns are necessary.
- The state should establish a Digital Switchover Fund that would be used for the implementation of the switchover strategy.
- In the process of digitalization, special attention should be given to the public broadcaster. An entire multiplex (4-6 channels) should be assigned to the PSB. Regulative bodies should provide the PSB with political independence and sustainability.
- The PSB should use digital technologies to introduce a wider range of services and programmes (for example e-government, education or health-care services) and transform itself into a public service provider. It should increase the quota for independent productions. Special attention should be focused on minors, minorities and local communities.
- There should be more transparency in the operations and decision-making process of the PSB.

References

- Belgrade Open School, Group of authors (M. Petrovic, M. Sitarski, T. Milovanovic, N.Radovic) "Internet in Serbia in 2006: empirical study of PC and Internet penetration", Belgrade, 2007, available at http://www.bos.org.yu/cepit/materijali/Internet_u_Srbiji_2006.pdf (accessed 8 May 2007)
- Broadcasting Act, *Official Gazette of Serbia*, 42/2002, 97/2004, 76/2005, 79/2005, 62/2006, 85/2006, 86/2006, available at http://www.parlament.sr.gov.yu/content/cir/akta/akta_detalji.asp?Id=45&t=Z# (accessed on 31 May, 2007)
- Broadcasting Development Strategy until 2013, *Official Gazette of Serbia*, 115/2005.
- Data on audience survey provided by Srđan Bogosavljević, Director of Strategic Marketing and Media Research, Press conference, Media Center, Belgrade, June 2007.
- Data on Internet site daily traffic rank trends available at www.alexa.com
- Data on usage of ICT in Serbia 2007, Statistical Office of the Republic of Serbia
- Data on media ownership available at Serbia Business Registry, www.apr.sr.gov.yu
- Ignjatović, S. "Kablovski distributeri u Srbiji" (*Cable operators in Serbia*), Professional magazine "Link", Novi Sad, no. 53, May 2007, pages 32-33.
- Interview with Igor Jecl, Telekom Srbija Chief Officer Services Division, Belgrade, 29 August 2007.
- Interview with Ivana Garić, Ministry of Culture, Media department, Belgrade, 11 July 2007.
- Interview with Predrag Đurđević, SBB Head of Technical Department, Belgrade, 12 July 2007.
- List of Cable operators, Republican Telecommunication Agency, 2006, available at http://www.ratel.org.yu/index.php?page=dozvole&target=odobrenje_kds&item=95&get_treerot=7&lang=srp (accessed 8 May 2007)
- List of mobile phone operators, Republican Telecommunication Agency, 2006, available at http://www.ratel.org.yu/index.php?page=statistika&target=s_mobilna&item=78&get_treerot=10&lang=srp (accessed on 8 May, 2007)
- List of TV and radio broadcasters, Republican Telecommunication Agency, 2006, available at http://www.ratel.org.yu/index.php?page=dozvole&target=dozvola_za_stanicu&item=25&get_treerot=7&lang=srp (accessed on 8 May 2007)
- Milivojević S., "Television across Europe 2005: Report for Serbia", EUMAP, Budapest, 2006, available at http://www.eumap.org/topics/media/television_europe/national/serbia/media_ser1.pdf (accessed 8 May 2007)
- Milivojevic, S., "Zakon o radiodifuziji: Promene pre primene" (*Broadcasting Act: Changing before applying*), professional magazine "Republika", no. 388-389, Belgrade, September 2006, p.6-7.
- Milošević M, "Medijsko tržište u Srbiji" (*Serbian media market*), Professional magazine Republika, Belgrade, no. 388-389, September 2006.
- Plavšić P., M. Radojković and R. Veljanovski, "Toward Democratic Broadcasting", Belgrade, Soros Yugoslavia Foundation, 1993
- Public Information Law, *Official Gazette of Serbia*, 43/2003, 61/2005, available at http://www.parlament.sr.gov.yu/content/lat/akta/akta_detalji.asp?t=Z&Id=84# (accessed 31 May 2007)
- Radio Television of Serbia Annual Report for 2006, Radio Television of Serbia, 2007, available at <http://www.rts.co.yu/pdf/izvestaj06.pdf> (accessed 31 May 2007)
- Republican Agency of Telecommunication "Report on participation of Serbian delegation on RRC -06" Belgrade, 2006.

Research "*Audience measurements of local TV stations in Serbia in 2006*", AGB Nielsen Media Research, IREX and Strategic marketing and media research, Belgrade, 2007.

Research "*Serbian television scene overview*", AGB Nielsen, Belgrade 2006, available at <http://www.agbnelsen.com/whereweare/localnews.asp?id=165&country=Serbia&newstype=L&mode=full&lang=local> (accessed 8 May 2007)

Smiljanić A., Minister of Telecommunications and Informational Society, speech given at Economic Summit 2007, available at http://www.paragrafnet.net/vesti/181007_b.html (accessed 29 October 2007)

Statistical data on audience reach and revenues of cable distributors' research, Republican Telecommunication Agency, 2006, available at http://www.ratel.org.yu/index.php?page=statistika&target=s_KDS&item=80&get_treerot=10&lang=srp (accessed on 8 May 2007)

Statistical data on mobile phone market research, Republican Telecommunication Agency, 2006, available at http://www.ratel.org.yu/index.php?page=statistika&target=s_mobilna&item=78&get_treerot=10&lang=srp (accessed 8 May 2007)

Statistical data on mobile, landline phone, cable and Internet market research, Republican Telecommunication Agency, available at http://www.ratel.org.yu/index.php?page=static&item=51&get_treerot=10&lang=srp (accessed 8 May 2007)

Statistical data on Serbian mobile phone ratio, Wireless federation, 2007, available at <http://wirelessfederation.com/news/category/serbia/> (accessed 22 August 2007)

Telecommunication Law, Official Gazette of Serbia, 44/2003, 36/2006, available at http://www.parlament.sr.gov.yu/content/lat/akta/akta_detalji.asp?t=Z&Id=90# (accessed 31May 2007)

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