

Standard Summary Project Fiche – IPA centralised programmes

Project number 16: Assistance to the digital broadcasting switchover in Serbia

1. Basic information

- 1.1 CRIS Number: 2009/021-765**
- 1.2 Title:** Assistance to the digital broadcasting switchover in Serbia
- 1.3 ELARG Statistical code:** 02.10
- 1.4 Location:** Republic of Serbia

Implementing arrangements:

- 1.5 Contracting Authority:** EU Delegation to the Republic of Serbia
- 1.6 Implementing Agency:** EU Delegation to the Republic of Serbia
- 1.7 Beneficiary** (including details of project manager):

The project will be implemented by the Ministry of Telecommunications and Information Society, in partnership with the Ministry of Culture, RATEL (National Telecommunications Agency) and RRA (National Broadcasting Agency).

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The project manager will be Professor Irini Reljin, Assistant Minister of Telecommunications and Information Society for telecommunications.

Project Management Unit will be formed within the Ministry of Telecommunications and Information Society during 2009. The Ministry of Telecommunications and Information Society will initiate in 2009 the creation of a Working Group composed of expert representatives of the Ministry of Telecommunications and Information Society, Ministry of Culture, National Telecommunications Agency, National Broadcasting Agency and EC Delegation. Its role will be to prepare and update all relevant background information (on the project implementation, final beneficiaries, indicators, etc.) and give recommendations to the Steering Committee.

The Steering Committee will be established after project starts and the membership will be decided in the early stage of project implementation. The role of the Steering Committee would be to decide on the references for tendering and to monitor project implementation.

Financing:

- 1.8 Overall cost (VAT excluded)¹: 13.750.000 EUR**
- 1.9 EU contribution: 10.500.000 EUR**
- 1.10 Final date for contracting: 2 years after signature of the FA**
- 1.11 Final date for execution of contracts: 4 years after signature of the FA**
- 1.12 Final date for disbursements: 5 years after signature of the FA**

2 Overall Objective and Project Purpose

2.1 Overall Objective

Successfully maintain citizens' access to information after the switch off of analogue broadcasting in Europe

2.2 Project purpose:

Introducing European digital television standards in Serbia

2.3 Link with AP/NPAA / EP/ SAA

Council Decision of 18 February 2008 on the principles, priorities and conditions contained in the European Partnership with Serbia including Kosovo as defined by United Nations Security Council Resolution 1244 of 10 June 1999 and repealing Decision 2006/56/EC².

The European Partnership emphasizes that Serbia should “start the implementation of the EU framework for electronic communications and continue alignment with the *acquis communautaire* for the audiovisual sector and start the approximation to the *acquis* on the audiovisual sector and improve transparency and accountability, particularly of the Republican Broadcasting Agency”.

Stabilisation and Association Agreement between the European Communities and their Member States, of the one part, and the Republic of Serbia, of the other part³.

The article 106 concerning Electronic communications networks and services, stipulates that the “cooperation shall primarily focus on priority areas related to the *acquis communautaire*

¹ The total cost of the project should be net of VAT and/or other taxes. Should this not be the case, the amount of VAT and the reasons why it should be considered eligible should be clearly indicated (see Section 7.6)

² 2008/213/EC: Council Decision of 18 February 2008 on the principles, priorities and conditions contained in the European Partnership with Serbia including Kosovo as defined by United Nations Security Council Resolution 1244 of 10 June 1999 and repealing Decision 2006/56/EC, “Official Journal L 080, 19/03/2008 P. 0046–0070”, p. 10, available at: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2008:080:0046:0070:EN:PDF>

³ *Stabilisation and Association Agreement between the European Communities and their Member States, of the one part, and the Republic of Serbia, of the other part*, ratified on September 9, 2008 by the National Assembly of the Republic of Serbia, p. 49, available at: <http://www.seio.sr.gov.yu/code/navigate.asp?Id=20>

in this field. The Parties shall, in particular, strengthen cooperation in the area of electronic communications networks and electronic communications services, with the ultimate objective of the adoption by Serbia of the *acquis* in the sector three years after the entry into force of this Agreement”.

National Programme for Integration with European Union (NPI), part III, chapter 10⁴

The Ministry of Telecommunications and Information Society has set up as a medium term priority to implement the Strategy of transition from analogue to digital broadcasting of radio and television programme.

In the field of audiovisual policy, in the period until 2015 it is necessary that Serbia provides a full application of the laws harmonised with the *acquis communautaire* and finish transition from analogue to digital system of broadcasting.

2.4 Link with MIPD

Commission decision on a Multi-annual Indicative Document (MIPD) 2009-2011 for Serbia⁵

The MIPD sets as main priorities in the socio-economic requirements the improvement of infrastructures in order to promote business related activities and public services and to facilitate economic and cultural links within Europe. The area of information and communication technology has to be developed as one of the cornerstones of future economic growth.

Moreover the EU will support the Media to develop a real independent, high quality public broadcasting service and a regulatory environment in line with European standards.

2.5 Link with National Development Plan (where applicable)

Not applicable.

2.6 Link with national/ sectoral investment plans (where applicable)

The National strategy for the accession to the European Union⁶

The strategy stresses that the broadcasting system suffered great damage during the 1999 bombing. It also highlights another issue which is the unregulated situation in the use of radio frequencies. Several hundreds of broadcasting ultra-shortwave sound stations and television stations operate without appropriate licenses. The main reason is that the Broadcasting Law and the Telecommunications Law are not being implemented, as well as the lack of accompanying legal regulations.

⁴ *National Programme for Integration with European Union (NPI)*, adopted in October 2008, pp. 330-333, available at: http://web.uzzpro.gov.rs/kzpeu/dokumenti/mpi/mpi_october2008_en.pdf

⁵ *Commission decision on a Multi-annual Indicative Document (MIPD) 2008-2010 for Serbia*, pp. 18 and 21, available at: http://ec.europa.eu/enlargement/pdf/mipd_serbia_2008_2010_en.pdf

⁶ *National strategy of Serbia for Serbia and Montenegro's accession to the European Union*, pp. 109-111, June 2005, available at: <http://www.seio.sr.gov.yu/code/navigate.asp?Id=73>

As regards broadcasting systems, it is necessary to regulate the use of radio-frequency spectrum, which requires a Plan of Frequency Distribution that would comply with international regulations. At the Regional Conference on Radio Communications RRC04-06⁷, the schedule of activities for the preliminary stage of submitting applications and trial planning, new digital distributions (The Digital Plan), and submitting the data for the existing and planned analogue distributions (The Analogue Plan, which would be protected during the transitional period). Proposal for the Digital and Analogue Distribution Application should be prepared. It would be provided by the Proposal for the Comprehensive Digital Plan that will be adopted at the conference in 2006. In order to resolve the problem of the reconstruction of public broadcasting service, a separate act that would define the establishment of a fund should be passed. At the conference of the ITU Member States' governments, the ITU Resolution 126⁸ on the Reconstruction of Public Broadcasting Service was passed. The future development of broadcasting services should be based exclusively on digital technologies.

The Broadcasting Development Strategy in the Republic of Serbia by 2013 (*Official Gazette RS* no. 115/2005)⁹ foresees that the future development of broadcasting transmitted or broadcasted via satellite, terrestrial or cable will be solely based on digital technologies, since digital technologies for terrestrial broadcasting enable a better use of existing frequency resources and a greater resistance to the degradation of reception quality.

The Strategy stresses the need for comprehensive regulation of digital broadcasting by means of a new law or by its amendment, since the digital broadcasting, on the contrary to the analogue, "presents a system with a substantial number of chain participants, from programme production to broadcasting (content provider, multiplex provider, transmission provider, broadcast provider)".

The Strategy for the development of telecommunications in the Republic of Serbia from 2006 to 2010 (*Official Gazette RS* no. 99/06)¹⁰ comprises legal, institutional, economic and technical aspects of development in the field of telecommunications, and sets as one of the main strategic goals the switchover to digital broadcasting.

The Government of the Republic of Serbia adopted on January 22nd, 2008, the **Basic Principles for Preparation of the Strategy**.

The Ministry for Telecommunications and Information Society has drafted the **Strategy for Switchover from Analogue to Digital Broadcasting of Radio and Television Programmes in the Republic of Serbia** and the **Action Plan for Strategy Implementation**, as an integral part of this Strategy document. The Strategy with Action Plan was adopted on July 2nd, 2009 by the Government of the Republic of Serbia.

The Strategy defines the framework for switchover from analogue to digital broadcasting of television programs based on modern achievements in digital broadcasting as well as in the

⁷ RRC04-06- Regional Radio Communication Conference-2004

⁸ PP-02-ITU Plenipotentiary Conference 2002, Marakesh, 2002

⁹ *The Broadcasting Development Strategy in the Republic of Serbia by 2013*, pp. 30-38, available at: <http://media.parlament.org.ua/uploads/files/f88.pdf>

¹⁰ *The Strategy for the development of telecommunications in the Republic of Serbia from 2006 to 2010*, available at:

http://www.ratel.rs/index.php?page=regulativa&target=r_strategija&item=40&get_treerot=9&lang=eng

related areas, in order to provide better quality and efficient broadcasting of television, radio, multimedia and other contents of great value for end users.

The Strategy sets basic strategic guidelines for introducing digital television and radio programs in the Republic of Serbia in order to introduce and develop digital electronic communications, as a primary national interest. The Strategy was drafted in accordance with the Conclusions of Regional Radiocommunication Conference (RRC06), organized by International Telecommunication Union (ITU) and held in Geneva in May and June 2006 that set the date for the switchover from analogue to digital broadcasting in Europe to be at the latest on the 17th of June 2015. The Recommendation of European Commission to Member States COM (2005) 204 suggested that the analogue switch-off and switchover to digital broadcasting should be at the beginning of 2012.

April 4th, 2012 is set to be the date of analogue switch-off and switchover to digital broadcasting of television programs in the Republic of Serbia.

The Ministry of Telecommunications and Information Society has drafted the Action Plan that determines the competences of the responsible institutions and important deadlines for the process of digitalization.

Following the experiences of other countries concerning terrestrial digital broadcasting and the fast evolution of technologies, the Strategy will stress that Serbia has opted for T-DAB¹¹, DVB-T2¹² and MPEG4 standards¹³.

3. Description of project

3.1 Background and justification:

Commercial broadcasting is a recent, but prolific, industry in Serbia. For the past 20 years, new radio and television channels, either with various temporary licences or without any licence at all, have boomed to the point of congesting the spectrum. This reflects the chaotic policy of the previous decade, when licenses were granted arbitrarily and mainly for political purposes. Many media also just took advantage of the regulatory void to start operating without any license. Immediately after former president Slobodan Milošević's regime was ousted in 2000, the Federal Ministry of Telecommunications called for a moratorium on granting new broadcasting permits. The moratorium was a temporary decision, intended to prevent new stations appearing and to halt any further deterioration in the utilisation of the spectrum, but did not have its intended effect. According to data released by the Broadcasting Agency in July 2005, 172 radio stations, 10 television stations and 39 radio and television stations started broadcasting after the suspension of the issue of new broadcast licences in July 2002. Due to the arbitrariness of the licensing regime and the frequent changes of institutional remits, with many temporary arrangements, all electronic media operated without proper licenses. There was no control of the technical aspects of their work, and the financial sources sustaining this medley were not publicly known.

¹¹ Terrestrial - Digital Audio Broadcasting

¹² Digital Video Broadcasting –Terrestrial 2

¹³ Justification of the **Selection of the Standards for digital broadcasting** can be found in ANNEX VIII.

In the past few years the legislative framework ensuring media freedom as one of the core democratic rights was adopted, namely the Broadcasting Law in 2002, Public Information Law in 2003, Law on Telecommunications in 2003, Law on Free Access to Information of Public Importance in 2004, Law on Advertising in 2005, ratification of the European Convention on Transfrontier Television and drafting of the Law on Media Concentration. However there is a paramount need for further enhancement of professional standards in the new media, especially as regards to the digitisation process. Therefore a Working Group has been established for the revision of existing laws as for instance the Broadcasting law.

At present, according to the article 11 of the Law on Broadcasting (“Official Gazette of the Republic of Serbia”, no. 42/2002, 97/22004, 76/2005, 79/2005, 62/2006, 85/2006, 86/2006) National Broadcasting Agency (Republička Radiodifuzna Agencija RRA) is the authority to issue licenses for analogue or digital broadcasting of programmes via terrestrial, cable or satellite broadcasting. RRA has started issuing in 2006 and is still issuing licenses for the analogue terrestrial broadcasting with a validity period of eight years going beyond the deadline for the switch off of analogue broadcasting. Licenses for analogue or digital cable or satellite broadcasting are not being issued. Moreover, in accordance with the article 78 of the *Law on Broadcasting* stipulating the development of technical and technological standards in producing and broadcasting of programmes, and preparing and carrying out the switchover to new digital technology in the foreseen timeframe, the public service broadcaster RTS (Radio Television Serbia) has launched an experimental digital terrestrial broadcasting from Avala and Iriški Venac.

The current technical situation regarding analogue broadcasting is very unsatisfactory as in 1999 the primary transmitter network has been destroyed or partially damaged, as well as the link systems for the transmission of signals from the studio to the transmitter. The reconstruction of primary and secondary distribution networks have been done partially in order to pull off the pressing need for broadcasting. According to the article 85 of the Broadcasting Law, the broadcasting infrastructure owned by the Republic of Serbia via an agreement is given for usage to the public service broadcaster RTS.

The Government of the Republic of Serbia adopted on December 25th, 2008 the information with a conclusion to separate the broadcasting technology from RTS - the broadcasting technology encompasses the primary and secondary distribution networks, systems and equipment owned by the Republic of Serbia and given for usage to RTS. The aim was to form a new enterprise that will be in charge of the broadcasting technology and in charge in the time to come of the digitisation process in Serbia. Therefore in February 2009, the Ministry of Telecommunications and Information Society has appointed, in a restricted tender procedure, *FACTIS consulting* with a project assignment to define the adequate model to establish the enterprise “Broadcasting infrastructure”, identify the resources (material and human) which will go into the new enterprise “Broadcasting infrastructure”, produce the financial plan and organisation chart of the enterprise “Broadcasting infrastructure”, define the founding capital for the enterprise “Broadcasting infrastructure” and produce the draft/proposal of the Founding Act of the enterprise “Broadcasting infrastructure”.

According to the conclusions of the Regional Radio-communication Conference (ITU RRC-06) held in June 2006 in Geneva, the transition period from analogue to digital broadcasting, which began on June 17th, 2006, should end on June 17th, 2015. Furthermore in 2005, the European Commission has recommended to its Member states to switch-off the analogue

service by the end of 2012¹⁴. Serbia has committed during the Regional Radio-communication Conference (ITU RRC-06) to start the digitisation process and to switch off the analogue broadcasting by 2015. Since Serbia is surrounded by EU member states and the broadcasting of radio and television programme cannot be restricted to the territory of one country, it is of paramount importance to synchronise the switchover from analogue to digital radio and television programme broadcasting with the neighbouring countries in order to prevent mutual interferences and difficulties in implementing digital broadcasting. Given that there is no protection of analogue frequencies, the digital broadcasting which is stronger than the analogue one, will overlap with the analogue signal and therefore impede citizens in Serbia to receive broadcasting of television and radio programmes.

The switchover to digital broadcasting has numerous advantages. The digital radio broadcasting is using more rationally and efficiently the radio-frequency bands. This will enable a variety of offers and a wider market for the producers of programmes. Moreover the reception of digital signals is less exposed to the influence of disturbances, providing a better audio and picture quality. It also uses less energy, decreases the broadcasting expenses and the harmful influence on the environment. Finally, it enables interactivity and other services that render programmes accessible to different minority groups, people with disabilities, elderly people.

Digitisation will provide better quality of sound and picture, greater variety of contents, more radio and television programmes, new services for users with disabilities and for senior citizens, enhanced additional services, portable and mobile programme reception , as well as convergence of services.

Digitisation will give service providers options for adjusting content to the needs of different target groups, interactivity, potential to provide services on demand, lower broadcasting costs and convergence of services¹⁵.

The process of switchover from analogue to digital broadcasting of radio and television programs has been planned as a market oriented process, based on the principles of transparency, non-discrimination, market equality and technical neutrality, with clearly defined objectives and procedures for the existing operators of broadcasting services and program content providers.

Economic impacts and effects are very important for individual participants and stakeholders in the digitalization process, above all for the producers of program content, network operators, equipment manufacturers and state institutions. The Strategy and the Action Plan for its implementation will propose a method and dynamics for the switchover process, bearing in mind the dependency of technical, regulatory, social and economic elements, as well as the dependency between the program contents and the bringing of the digitalization process closer to the citizens of the Republic of Serbia.

The business sector will benefit from digitisation by gaining potential for creating new jobs, which will, in turn, result in opening of new posts.

¹⁴ On September 29th, 2005, the European Commission adopted the Recommendation on Digital Switchover in the Beginning of 2012 (COM (2005) 461).

¹⁵

The State will benefit from more efficient utilization of radio frequency spectrum, exploitation of the newly freed part of the spectrum for implementing new services, promotion of technology development and new jobs, improved competition and more opportunities for enhanced creativity and preservation of cultural identity.

Digital dividend is a frequency range or available bit rate that will be released once the process of digital switchover is completed (owing to the better use of the frequency spectrum). The aforementioned frequency range can be used, among other things, for the realization of converged services that is the services which bundle broadcasting, information technology and telecommunication services. The digital dividend realization will create the preconditions for:

- larger number of digital terrestrial television channels (compared with analogue television) on national, provincial, regional and local levels, both in standard resolution - SDTV¹⁶ and high resolution - HDTV¹⁷,
- Stereo and surround sound,
- More audio channels accompanying one video recording,
- Possibility of sending more than one video content at the same time
- Programme Guide - EPG¹⁸.

Services to be provided through the digital dividend can be divided in three categories:

1. Communications Services

- Wireless broadband services,
- DVB-H19: digital television service adjusted to the reception by handheld devices
- Public safety services, such as wireless emergency services
- Communications services for military purposes.

2. Information Services

- Better choice of programme contents in specialized areas (politics, history, children programmes, sports...)
- EPG, the electronic programme guide, much faster and more interactive than the regular teletext guide.

3. Interactive Services

Interactive television is a two-way flow of information, which enables communication between viewers and broadcasters, as well as the following group of digital services:

- Electronic commerce (Home Shopping)
- Electronic banking (Telebanking)
- Interactive games and quiz shows (Game Shows)
- Information on demand
- Video on demand
- Internet Services
- Voting

¹⁶ SDTV – Standard Definition TV

¹⁷ HDTV – High Definition TV

¹⁸ EPG - Electronic Programme Guide

¹⁹ DVB-H - Digital Video Broadcasting – Handheld

The provision of interactive services will be enabled after the process of digitisation of terrestrial television is completed in the entire territory of the Republic of Serbia. The scope and content of interactive services that are to be offered to users/viewers will depend on the preferences of television stations and their programme plans and business objectives.

3.2 Assessment of project impact, catalytic effect, sustainability and cross border impact

The Government of the Republic of Serbia adopted on December 25th, 2008 the information with a conclusion to separate the broadcasting technology from RTS. The aim was to form a new enterprise that will be in charge of the broadcasting technology and in charge in the time to come of the digitisation process in Serbia. Therefore in February 2009, the Ministry of Telecommunications and Information Society has appointed, in a restricted tender procedure, *FACTIS consulting* with a project assignment to define the adequate model to establish the enterprise “Broadcasting infrastructure”, identify the resources (material and human) which will go into the new enterprise “Broadcasting infrastructure”, produce the financial plan and organisation chart of the enterprise “Broadcasting infrastructure”, define the founding capital for the enterprise “Broadcasting infrastructure” and produce the draft/proposal of the Founding act of the enterprise “Broadcasting infrastructure”.

FACTIS consulting has now submitted their report and it is awaiting approval, which is expected in June 2009.

3.3 Results and measurable indicators:

COMPONENT I: INSTITUTIONAL AND LEGAL FRAMEWORK FOR THE SWITCHING TO DIGITAL TV BROADCASTING IN SERBIA

Expected result 1.1:

- National legal framework harmonised with the *acquis communautaire*

Measurable indicator for reviewing progress includes:

- Number and quality of enforced legislation (laws and bylaws) related to the digital TV

Expected result 1.2:

- Public information campaign with citizens acquainted with the radio and television digitisation process

Measurable indicator for reviewing progress includes:

- Citizens’ understanding of the digitisation process

COMPONENT II: IMPROVEMENT OF THE TECHNICAL CONDITIONS FOR DIGITAL BROADCASTING

Expected result 2:

- Broadcasting technology equipment acquired and installed

Measurable indicator for reviewing progress includes:

- Number and scope of digital equipment installed.

3.4 Activities:

COMPONENT I: INSTITUTIONAL AND LEGAL FRAMEWORK FOR THE SWITCHING TO DIGITAL TV BROADCASTING IN SERBIA

Activities related to Result 1.1

1. Establishment of the institutional setup for the digitisation process (coordination mechanisms, monitoring and evaluation of the process)
2. Assessment of the conditions related to the scope of coverage of digital TV
3. Estimation of the costs related to the switching off the analogue broadcasting
4. Revision of the legal framework for the introduction of digital technologies in Serbia
5. Preparation of bylaws for the digitisation process (property, ownership, maintenance of the equipment for digital broadcasting , budgeting)
6. Preparation of the Plan for digitisation (phases and coverage)

The goal is to create conditions for development of the freedom of information and media pluralism, through further harmonisation of the Serbian legal framework with international and specifically EU and Council of Europe standards, as well as strengthening the institutional setup and additional assessment of the necessary provisions for the digital broadcasting switch off. New services will be introduced in the audiovisual sector so that interactive services and other contents are developed, with preservation and promotion of cultural differences and realization of rights of the persons with disabilities.

Activities related to Result 1.2

The information and publicity campaign is targeted at the general public²⁰.

1. Setting coordination process among relevant stakeholders (roles and responsibilities in information campaign)
2. Conducting survey prior the launch of information campaign
3. Informing the citizens on the reasons for digitisation process
 - a. *TV campaign*
 - b. *Print brochures*
 - c. *Leaflets*
 - d. *TV discussions*
 - e. *Internet presentation*
 - f. *Free phone line*
4. Conducting survey on the results of information campaign

The success of the switchover from analogue to digital broadcasting of television programme largely depends on the general public participation in the digitisation process²¹, that is, on a comprehensive promotional campaign that will be primarily directed towards the general public, with the aim to:

- Inform the citizens about the definition and nature of digital television and about the reasons for the switchover from analogue to digital broadcasting of television programmes;

²⁰ A separate corporate campaign, aimed at content providers, will be run.

²¹ It is planned that the Serbian Government is to subsidize the switchover to the tune of 15 – 40 M€, which will go towards the cost of providing “set-top boxes” for existing subscribers (up to 25€ per household). The Government is committed to providing free facilities to disadvantaged groups of the community.

- Educate the citizens about the benefits of digital television and potential ways of using new possibilities offered by new technologies;
- Provide all citizens of the Republic of Serbia with right to information on dynamics and other details of the switchover from analogue to digital broadcasting of television programme, and to offer assistance to citizens in the process of digital switchover.

Promotional activities will include organization of informative meetings with key participants in this process, press conferences, public discussions, round tables and symposia, radio and TV programme production, publishing of articles in newspapers, and also informational Web site setup and Internet promotion, printing of brochures and promotions on billboard advertisements, establishing of a call centre that will provide information for citizens, and so forth.

The process of broadcasting sector digitisation, and especially the period of transition from analogue to digital programme broadcasting, is a very complex process that entails cooperation and coordination of all its participants, which are indirectly or directly involved in that process.

COMPONENT II: IMPROVEMENT OF THE TECHNICAL CONDITIONS FOR DIGITAL BROADCASTING

Activities related to Result 2

1. Instalment, testing and deploy of the digital broadcasting equipment
 - a. *Main station for forming of multiplex*
 - b. *Network for transmitting from main station to transmitting station based on RR links and IP technology*
 - c. *Transmitters, various power*
 - d. *Antenna system with combiners and cables*
 - e. *Remote controlled system for surveillance control and management*
2. Training of the relevant technical personnel in the Public Utility Company, “Broadcasting Infrastructure”, this is expected to be established by September 2009.

The process of analogue to digital switchover in radio and television broadcasting has been planned as a market oriented process, based on the principles of transparency, non-discrimination, market subsidiary and technical neutrality, with clearly defined objectives and procedures for the existing operators of broadcasting services and programme contents providers.

Digitisation will contribute to better (more profitable) utilization of the limited public resource of broadcasting frequencies in the Republic of Serbia, and at the same time provide users with access to a larger number of different radio and television programmes, and the availability of different services.

List of equipment can be found in Annex VI; these assets will remain the property of the state and will be leased to the operating company.

Contracting arrangements are as follows:

Number of contracts²²: One service contract and one supply contract.

Tendering procedures: international restricted tender

IPA Contract values: Service contract: 2,500,000 euro and supply contract: 8,000,000 euro.

3.5 Conditionality and sequencing:

The conditions that need to be fulfilled prior to the implementation of the project are the adoption of the Strategy for Switchover from Analogue to Digital Broadcasting of Radio and Television Programmes in the Republic of Serbia and the Action Plan for Strategy Implementation²³ and Stakeholders' consensus on the model of digitisation process.

The contracts will be tendered in parallel, and the project is conditional upon a fully operational Public Utility Company "Broadcasting Infrastructure" being in place at the time of tender.

3.6 Linked activities

The Ministry of Telecommunications and Information Society is in the process of concluding an agreement with IREX (International Research and Exchanges Boards). IREX will provide the Ministry with short-term consultancy and organise conferences and study tours related to the digitisation process. Projects will be related to three fields of activity, namely analysis of the economic aspects of the digitisation process, public promotion and study visit.

The project will last until the end of 2010.

3.7 Lessons learned

The proposed project does not build upon any other projects, therefore in the process of digitisation Serbia has taken into account the best practices of the neighbouring countries such as Slovenia, Croatia, Bulgaria, FYROM, Montenegro and of the countries that have already started the switchover process from analogue to digital broadcasting as for instance Austria, Finland, Sweden and are planning to switch off the analogue broadcasting by 2011.

The neighbouring countries have planned the switch off as follow:

- Slovenia-December 2010 latest
- Croatia- December 2010 latest
- Bulgaria- December 2012 latest
- Montenegro- December 2012 latest
- Macedonia-December 2015 latest

Concerning spectrum planning, the neighbouring countries assigned the highest priority to international coordination.

²² There is expected to be an additional supplies contract from national co-financing that will be used to procure equipment listed as item 4 in Annex VI. The list is an indicative and will be finalised before the project commences.

²³ These documents will stress the commitment of the Government to support and finance digitisation.

As regards the compression standard chosen by almost all the countries in the region is MPEG-4 (H.264 AVC) due to its low bit rate, compatibility with IPITV and DVB-H and its necessity for wider HDTV implementation.

DVB-T2 has been chosen as broadcasting standard since it has a higher bit rate available in 8/7 MHz channel, lower sensitivity to disturbances, by its direct implementation two phases of standard switching will be avoided

Maps showing the deadlines for switchover are given in the annexe VII.

4. Indicative Budget (amounts in EUR)

Digitalisation			SOURCES OF FUNDING									
			TOTAL EXP.RE	IPA COMMUNITY CONTRIBUTION		NATIONAL CONTRIBUTION					PRIVATE CONTRIBUTION	
ACTIVITIES	IB	INV	EUR	EUR	% (2)	Total EUR	% (2)	Central EUR	Regional / Local EUR (y)	IFIs EUR (z)	EUR (d)	% (2)
	(1)	(1)	(a) = (b) + (c) + (d)	(b)		(c) = (x) + (y) + (z)		(x)		(z)		
contract 1 (TA)	x		2,500,000	2,500,000	100%	0	0%	0				–
Contract 2 (Supplies)		x	8,000,000	8,000,000	100%	0	0%	0				
Contract 3 (Supplies)		x	3,250,000		0%	3,250,000 ²⁴	100%	3,250,000				–
TOTAL IB			2,500,000	2,500,000	100%		0%					
TOTAL INV			11,250,000	8,000,000	71%	3,250,000	29%	3,250,000				
TOTAL PROJECT			13,750,000	10,500,000	76%	3,250,000	24%	3,250,000				

(1) In the Activity row use "X" to identify whether IB or INV; (2) Expressed in % of the **Total** Expenditure (column (a))

²⁴ The national co-financing will be used to procure equipment listed as item 4 in Annex VI. The list is an indicative and will be finalised before the onset of the project.

5. Indicative Implementation Schedule (periods broken down per quarter)

Contracts	Start of Tendering	Signature of contract	Project Completion
Contract 1.1	N+1Q	N+4Q	N+13Q
Contract 1.2	N+1Q	N+4Q	N+13Q
Contract 1.3	N+1Q	N+4Q	N+13Q

All projects will be ready for tendering in the 1st Quarter following the signature of the FA.

6. Cross cutting issues (where applicable)

6.1 Equal Opportunity

The project will have a positive impact on equal opportunities. It is foreseen during the project implementation to advance inclusion so that no citizen is left behind no matter where they are located in Serbia.

6.2 Environment

The project will have a positive impact on the environment. The reception of digital signals is less exposed to the influence of disturbances, providing a better audio and picture quality. It also uses less energy, decreases the broadcasting expenses and the harmful influence on the environment.

6.3 Minorities

As the purpose of the project is to introduce digital services for citizens, for example some services will be available in minority languages. Many vulnerable groups do not have access to services they are entitled to due to a lack of information on rights/entitlements, inability to deal with application procedures.

ANNEX I: Logical framework matrix in standard format

LOGFRAME PLANNING MATRIX FOR Project Fiche		Programme name and number	
Assistance to the digital broadcasting switchover in Serbia		Contracting period expires 2 years after signature of the Financing Agreement	Disbursement period expires 5 years after signature of the Financing Agreement
		Total budget : 13.75 MEUR	IPA budget: 10.5MEUR
Overall objective	Objectively verifiable indicators	Sources of Verification	
Successfully maintain citizens' access to information after the switch off of analogue broadcasting in Europe	<ul style="list-style-type: none"> • Range of media available to citizens • Number of citizens accessing information through digital TV broadcasting 	<ul style="list-style-type: none"> • Media Monitor reports • Progress Report of the European Commission 	
Project purpose	Objectively verifiable indicators	Sources of Verification	Assumptions
Introducing European digital television standards in Serbia	<ul style="list-style-type: none"> • Quality of digital TV service 	<ul style="list-style-type: none"> • Government decisions • Progress Report of the European Commission • Reports of the relevant media stakeholders 	Media production improved to higher level
Results	Objectively verifiable indicators	Sources of Verification	Assumptions
1.1 National legal framework harmonised with the <i>acquis communautaire</i> 1.2 Citizens acquainted with the radio television digitisation process 2. Broadcasting technology equipment acquired and installed	<ul style="list-style-type: none"> • Number and quality of enforced legislation (laws and bylaws) related to the digital TV • Number and scope of digital equipment installed • Citizens' understanding of the digitisation process 	<ul style="list-style-type: none"> • Official Journal of the Republic of Serbia • Project reports • Government decisions • Equipment deploy report • Survey reports 	Media companies providing better quality services to citizens

Activities	Means & Costs	Assumptions
<p>1.1 : Institutional and legal framework for the switching to digital TV broadcasting in Serbia</p> <ul style="list-style-type: none"> • Establishment of the institutional setup for the digitisation process (coordination mechanisms, monitoring and evaluation of the process) • Assessment of the conditions related to the scope of coverage of digital TV • Estimation of the costs related to the switching off the analogue broadcasting • Revision of the legal framework for the introduction of digital technologies in Serbia • Preparation of bylaws for the digitisation process (property, ownership, maintenance of the equipment for digital broadcasting , budgeting) • Preparation of the Plan for digitisation (phases and coverage) <p>1.2: Information and communication campaign</p> <ul style="list-style-type: none"> • Setting coordination process among relevant stakeholders (roles and responsibilities in information campaign) • Conducting survey prior the launch of information campaign • Informing the citizens on the reasons for digitisation process <p>2 :Improvement of the technical conditions for digital broadcasting</p> <ul style="list-style-type: none"> • Instalment, testing and deploy of the digital broadcasting equipment <ul style="list-style-type: none"> ○ <i>Main station for forming of multiplex, Network for transmitting from facility to transmitting station based on RR links and IP technology, Transmitters, various power, Antenna system with combiners and cables, Remote controlled system for surveillance control and management</i> • Training of the relevant technical personnel <ul style="list-style-type: none"> ○ <i>TV campaign, brochures & leaflets, TV discussions, Internet presentation, Free phone line</i> <p>Conducting survey on the results of information campaign</p>	<p>Service contract for harmonization process and institutional setup advisory services and communication and information campaign (including surveys)</p> <p>Supply contract for digital TV equipment instalment and training</p> <ul style="list-style-type: none"> • 2.5 MEUR Service contract • 8 MEUR Supply contract • 3.25 MEUR Supply contract (co-funding) 	<ul style="list-style-type: none"> • Adoption of the Strategy for Switchover from Analogue to Digital Broadcasting of Radio and Television Programmes in the Republic of Serbia and the Action Plan for Strategy Implementation • Stakeholders consensus on the model of digitisation process • Available and sufficient number of technicians willing to gain new skills

Precondition: The public utility company “Broadcasting Infrastructure” is setup and adequately staffed.

ANNEX II: amounts (in million €) Contracted and disbursed by quarter for the project

Contracted	N+4Q	N+5Q	N+6Q	N+7Q	N+8Q	N+9Q	N+10Q	N+11Q	N+12Q	N+13Q	Total
Contract 1.1 TA	2.5										2.5
Contract 2.1 Supplies	8										8
Cumulated	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5
Disbursed											
Contract 1.1 TA	0.5		0.44		0.44		0.44		0.43	0.25	2.5
Contract: 2.1 Supplies	4.8									3.2	8
Cumulated	5.3	5.3	5.74	5.74	6.18	6.18	6.62	6.62	7.05	10.5	10.5

ANNEX III: Description of Institutional Framework

The Ministry of Telecommunications and Information Society is, *inter alia*, authorized to: prepare the proposed policy in the field of telecommunications and draft telecommunication development strategy in the Republic of Serbia; set the Draft Radio Frequency Bands Allocation Plan and adopt the Radio Frequency Assignment Plan at the proposal of the Republic Telecommunications Agency; decide, pursuant to the Radio Frequency Bands Allocation Plan, on the numbers of licenses issued for public telecommunication networks, terms of duration of these licenses and services for which, under the Law on Telecommunications, a limited number of licenses may be issued, as well as set minimum requirements for issuing these licenses, including the minimum amount of the one-off fee charged upon issuing licenses; supervise the application of the Law on Telecommunications and regulations adopted pursuant to the Law.

The field of public information falls within the sphere of competence of the **Ministry of Culture** – Department for the Media and the Republic Broadcasting Agency. The Department for the Media supervises the enforcement of media laws.

The Republic Telecommunications Agency is competent, *inter alia*, to regulate more specifically and supervise the conduct of activities in the field of telecommunications, stimulate interconnection between telecommunication networks, set requirements and resolve disputes relating to interconnection, set special requirements for network access and/or leased lines, regulate more specifically the terms of use of the radio frequency spectrum and prepare the Draft Radio Frequency Bands Allocation Plan and Draft Radio Frequency Assignment Plan; supervise the radio frequency spectrum utilization, assign radio frequencies, issue licenses for specific telecommunication activities to telecommunication operators; prepare and conduct the public bidding procedure for issuing specific licenses, sets the special tariff regime and monitors the implementation of tariff policy in the conditions of underdeveloped competition; attend to other affairs falling within its sphere of competence as stipulated by the said Law.

The Republic Broadcasting Agency (RBA) was established by the *Law of Broadcasting (Official Gazette RS no. 42/02, 97/04, 76/05, 79/05, 62/06, 85/06 and 86/06)*, in conformity with the Council of Europe Recommendation R(2000)23 on independence and functions of regulatory authorities for the broadcasting sector, as an independent organization exercising public authorities, with the objective of providing the prerequisites for efficient implementation and promotion of the set broadcasting policy in the Republic of Serbia in a manner appropriate for democratic society. RBA is competent for supervising the enforcement of the Law, issuing broadcasting licenses pursuant to the Radio Frequency Assignment Plan, stipulating binding rules for broadcasters, supervising the broadcasters' work, conducting affairs in the field of broadcasting with the aim of protecting minors, enforcing regulations on authors' and related rights and preventing the broadcasting of programs that contain information inciting discrimination, hatred or violence against individuals or groups of individuals on the grounds of their belonging or not belonging to a particular race, religion, ethnical group or sex.

Following the positive experiences of the majority of European countries, it has been planned to establish, at the very beginning of the transition period, an enterprise which will manage the transmission infrastructure that will be taken away from the Broadcasting Company of the Radio Television of Serbia in order to make up the broadcasting system of the Republic of Serbia. For that purpose the Ministry of Telecommunications and Information Society, in a

restricted tender procedure, has appointed *Factis consulting* to propose the model of separating the digital technology from RTS by April 2009. Their task is to define the adequate model to establish the **Public enterprise “Broadcasting infrastructure”**²⁵: the status will be changed according to “separation with establishing” model or direct establishment of the Public enterprise by the Government of the Republic of Serbia, identify the resources (material and human) which will go into the new Public enterprise “Broadcasting infrastructure”, produce the financial plan and organisation chart of the Public enterprise “Broadcasting infrastructure”, define the founding capital for the Public enterprise “Broadcasting infrastructure” and produce the draft/proposal of the Founding act of the Public enterprise “Broadcasting infrastructure”.

Regulatory framework for the programme content:

The Broadcasting Act prescribes general obligations of the broadcasters in relation to programme contents, according to which all broadcasters have an obligation to respect international and national standards for programme content. The broadcasters should provide for production and broadcasting of quality programmes, both from the technical point of view, and from the programme content point of view.

The Broadcasting Act also defines the obligations of the main public broadcasting sector stakeholders, above all with the aim of achieving general interest.

²⁵ This Public Utility Company is expected to be established by September 2009.

ANNEX IV: Reference to laws, regulations and strategic documents

Reference list of relevant laws and regulations

Law on Telecommunications (*Official Gazette RS* no. 44/2003, 36/2006) is based on the European Union (EU) regulatory framework. The principles upon which the regulation of relations in the field of telecommunications rests include, inter alia, stimulation of competition, cost-effectiveness and efficiency in performing activities in the field of telecommunications, protection of the users' interests, ensuring maximum telecommunication service quality, rational and cost-effective utilization of the radio frequency spectrum, provision of interconnection under equal terms. Making standards compulsory, especially as an a priori blanket measure, is contrary to the principle of Technological Neutrality (Better Regulation and Article 28-30 of the Treaty) as well as to the 2002 electronic communications directives which is announced by Serbia a bit further down for 2009 (EU regulatory framework list p.25). The possibilities to impose a standard or part thereof, including for TV and whether on the broadcast side or the receiving side, is very limited by this framework and subject to conditions whose over-riding effect is to be demonstrated.

Law on broadcasting (*Official Gazette RS* no. 42/2002, 97/2004, 76/2005, 79/2005, 62/2006, 85/2006, 86/2006) sets the conditions and means for fulfilment of broadcasting activities, in accordance with international conventions and standards, establishment of National Broadcasting Agency, as well as establishment of the public broadcasting service, establishment of conditions and procedure for issuing of licenses for radio and television programme broadcasting. It is also regulated that the public broadcasting service are bound to guarantee the usage and development of modern and efficient systems in the production and broadcasting of programmes, as well as to realize the switchover to new digital technologies.

Law on Public Information (“Official Gazette of the Republic of Serbia”, No. 43/2003, 61/2005) regulates the right to public information as the right to free expression of thoughts, as well as the rights and obligations of the participants in the public information process. Namely, the right to public information specifically comprises of the freedom of expression of thoughts, the freedom to collect, investigate, publish and disseminate ideas, information and thoughts, the freedom to print and distribute newspapers and other public media, the freedom to produce and broadcast radio and television programmes, the freedom to receive ideas, information and thoughts, as well as the freedom to found legal entities dealing in public information. This Act has recognized the need for protecting the interests of people with disabilities, and has also stipulated that the Republic, the Autonomous Province, and local self-governments provide one part of the means or other conditions for unobstructed exercising of their rights within the public information process, and especially the right of freedom to receive ideas, information and thoughts.

The Law on electronic communications has been drafted and will be adopted by the end of 2009.

This Law will regulate among others the network infrastructure, the radiofrequencies spectrum, the digital radio and television, the technical licences and standardisation.

Reference to AP /NPAA / EP / SAA

Commission staff working document Serbia 2008 Progress report accompanying the Communication from the Commission to the European Parliament and Council Enlargement Strategy and Main Challenges 2008-2009²⁶

In the area of audiovisual policy the Progress Report states that “The allocation of national frequencies by the Republic Broadcasting Agency in 2006 is still controversial and continues to raise issues of transparency and accountability. A number of decisions have been contested before the courts. Allocation of regional and local frequencies has been ongoing, with a number of appeals pending.

Preparations in the area of information society and media are at an early stage and further efforts are needed to meet European standards. The capacity of the regulatory bodies remains below strength. There are particular concerns in the audiovisual sector”.

Council Decision of 18 February 2008 on the principles, priorities and conditions contained in the European Partnership with Serbia including Kosovo as defined by United Nations Security Council Resolution 1244 of 10 June 1999 and repealing Decision 2006/56/EC²⁷

The European Partnership emphasizes that Serbia should “start the implementation of the EU framework for electronic communications and continue alignment with the *acquis communautaire* for the audiovisual sector and start the approximation to the *acquis* on the audiovisual sector and improve transparency and accountability, particularly of the Republican Broadcasting Agency”, as well as “start approximation to the *acquis* on the audiovisual sector and improve transparency and accountability, particularly of the Republican Broadcasting Agency”.

Stabilisation and Association Agreement between the European Communities and their Member States, of the one part, and the Republic of Serbia, of the other part²⁸

The article 106 concerning Electronic communications networks and services, stipulates that the “cooperation shall primarily focus on priority areas related to the *acquis communautaire* in this field. The Parties shall, in particular, strengthen cooperation in the area of electronic communications networks and electronic communications services, with the ultimate objective of the adoption by Serbia of the *acquis* in the sector three years after the entry into force of this Agreement”.

National Programme for Integration with European Union (NPI), part III, chapter 10²⁹

²⁶ Commission staff working document Serbia 2008 Progress report accompanying the Communication from the Commission to the European Parliament and Council Enlargement Strategy and Main Challenges 2008-2009, 5 November 2008, pp. 46-47, available at: http://ec.europa.eu/enlargement/pdf/press_corner/key_documents/reports_nov_2008/serbia_progress_report_en.pdf

²⁷ 2008/213/EC: Council Decision of 18 February 2008 on the principles, priorities and conditions contained in the European Partnership with Serbia including Kosovo as defined by United Nations Security Council Resolution 1244 of 10 June 1999 and repealing Decision 2006/56/EC, “Official Journal L 080 , 19/03/2008 P. 0046–0070”, p. 10, available at: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2008:080:0046:0070:EN:PDF>

²⁸ Stabilisation and Association Agreement between the European Communities and their Member States, of the one part, and the Republic of Serbia, of the other part, ratified on September 9, 2008 by the National Assembly of the Republic of Serbia, p. 49, available at: <http://www.seio.sr.gov.yu/code/navigate.asp?Id=20>

²⁹ National Programme for Integration with European Union (NPI), adopted in October 2008, pp. 330-333, available at: http://web.uzzpro.gov.rs/kzpeu/dokumenti/npi/npi_october2008_en.pdf

The Ministry of Telecommunications and Information Society has set up as a medium term priority to implement the Strategy of transmission from analogue to digital broadcasting of radio and television programme.

In the field of audiovisual policy, in the period until 2015 it is necessary that Serbia provides a full application of the laws harmonised with the *acquis communautaire* and finish transition from analogue to digital system of broadcasting.

Reference to MIPD

The Commission decision on a Multi-annual Indicative Document (MIPD) 2009-2011 for Serbia³⁰ sets as main priorities in the socio-economic requirements the improvement of infrastructures in order to promote business related activities and public services and to facilitate economic and cultural links within Europe. The area of information and communication technology has to be developed as one of the cornerstones of future economic growth.

Moreover the EU will support the Media to develop a real independent, high quality public broadcasting service and a regulatory environment in line with European standards.

Reference to National Development Plan

Not applicable.

Reference to national / sectoral investment plans

The National strategy for the accession to the European Union³¹

The strategy stresses that the broadcasting system suffered great damage during the bombing. Another issue is the unregulated situation in the use of radio frequencies. Several hundreds of broadcasting ultra-shortwave sound stations and television stations operate without appropriate licenses.

As regards broadcasting systems, it is necessary to regulate the use of radio-frequency spectrum, which requires a Plan of Frequency Distribution that would comply with international regulations. At the Regional Conference on Radio Communications RRC04-06³², the schedule of activities for the preliminary stage of submitting applications and trial planning, new digital distributions (The Digital Plan), and submitting the data for the existing and planned analogue distributions (The Analogue Plan, which would be protected during the transitional period). Proposal for the Digital and Analogue Distribution Application should be prepared. It would be provided by the Proposal for the Comprehensive Digital Plan that will be adopted at the conference in 2006. In order to resolve the problem of the reconstruction of public broadcasting service, a separate act that would define the establishment of a fund should be passed. At the conference of the ITU Member States' governments, an ITU Resolution 126³³ on the Reconstruction of Public Broadcasting Service was passed, while we have the 2003 General Project for the Reconstruction of Public Broadcasting System. The

³⁰ *Commission decision on a Multi-annual Indicative Document (MIPD) 2008-2010 for Serbia*, pp. 18 and 21, available at: http://ec.europa.eu/enlargement/pdf/mipd_serbia_2008_2010_en.pdf

³¹ *National strategy of Serbia for Serbia and Montenegro's accession to the European Union*, pp. 109-111, June 2005, available at: <http://www.seio.sr.gov.yu/code/navigate.asp?Id=73>

³² RRC04-06- Regional Radio Communication Conference-2004

³³ PP-02-ITU Plenipotentiary Conference 2002, Marakesh, 2002

future development of broadcasting services should be based exclusively on digital technologies.

The Broadcasting Development Strategy in the Republic of Serbia by 2013 (*Official Gazette RS* no. 115/2005)³⁴ foresees that the future development of broadcasting transmitted or broadcasted via satellite, terrestrial or cable will be solely based on digital technologies, since digital technologies for terrestrial broadcasting enable a better use of existing frequency resources and a greater resistance to the degradation of reception quality.

The Strategy stresses the need for comprehensive regulation of digital broadcasting by means of a new law or by its amendment, since the digital broadcasting, on the contrary to the analogue, “presents a system with a substantial number of chain participants, from programme production to broadcasting (content provider, multiplex provider, transmission provider, broadcast provider)”.

The Strategy for the development of telecommunications in the Republic of Serbia from 2006 to 2010 (*Official Gazette RS* no. 99/06)³⁵ comprises legal, institutional, economic and technical aspects of development in the field of telecommunications, and sets as one of the main strategic goals the switchover to digital broadcasting.

The Government of the Republic of Serbia adopted on January 22nd, 2008, the **Basic Principles for Preparation of the Strategy**.

The Ministry for Telecommunications and Information Society has drafted the **Strategy for Switchover from Analogue to Digital Broadcasting of Radio and Television Programmes in the Republic of Serbia** and the **Action Plan for Strategy Implementation**, as an integral part of this Strategy document. The Strategy with Action Plan was adopted on July 2nd, 2009 by the Government of the Republic of Serbia.

The Strategy defines the framework for switchover from analogue to digital broadcasting of television programs based on modern achievements in digital broadcasting as well as in the related areas, in order to provide better quality and efficient broadcasting of television, radio, multimedia and other contents of great value for end users.

The Strategy sets basic strategic guidelines for introducing digital television and radio programs in the Republic of Serbia in order to introduce and develop digital electronic communications, as a primary national interest. The Strategy was drafted in accordance with the Conclusions of Regional Radiocommunication Conference (RRC06), organized by International Telecommunication Union (ITU) and held in Geneva in May and June 2006 that set the date for the switchover from analogue to digital broadcasting in Europe to be at the latest on the 17th of June 2015. The Recommendation of European Commission to Member States COM (2005) 204 suggested that the analogue switch-off and switchover to digital broadcasting should be at the beginning of 2012.

April 4th, 2012 is set to be the date of analogue switch-off and switchover to digital broadcasting of television programs in the Republic of Serbia.

The Ministry of Telecommunications and Information Society has drafted the Action Plan that determines the competences of the responsible institutions and important deadlines for the process of digitalization.

³⁴ *The Broadcasting Development Strategy in the Republic of Serbia by 2013*, pp. 30-38, available at: <http://media.parlament.org.ua/uploads/files/f88.pdf>

³⁵ *The Strategy for the development of telecommunications in the Republic of Serbia from 2006 to 2010*, available at: http://www.ratel.rs/index.php?page=regulativa&target=r_strategija&item=40&get_treeroot=9&lang=eng

Following the experiences of other countries concerning terrestrial digital broadcasting and the fast evolution of technologies, the Strategy will stress that Serbia has opted for T-DAB³⁶, DVB-T2³⁷ and MPEG4 standards³⁸.

EU regulatory framework

The EU regulatory framework that was taken into consideration during the preparation of this project:

- Art. 28-30 of the Treaty, in the light of Better Regulation principles.

The EU regulatory framework that was taken into consideration during the preparation of this draft Law on Electronic Communications:

- Electronic communications package: Parliament & Council Directives 2002/19/EC (access and interconnection directive), 2002/20/EC (authorisations), 2002/21/EC (framework directive), 2002/22/EC (universal service directive), and Commission Directive 2002/77/EC on liberalisation of services.

The EU regulatory framework that was taken into consideration during the process of designing the Strategy for Analogue to Digital Switchover in the Republic of Serbia, which was adopted on July 2nd, 2009 by the Government of the Republic of Serbia, is as follows:

- Directive on Audiovisual Media Services - Directive 2007/65/EC of the European Parliament and of the Council of 11 December 2007 amending Council Directive 89/552/EEC on the coordination of certain provisions laid down by law, regulation or administrative action in Member States concerning the pursuit of television broadcasting activities (Text with EEA relevance)
- Communication from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions on accelerating the transition from analogue to digital broadcasting (COM(2005) 204);
- Conclusions of the Council and of the Representatives of the Governments of the Member States, Meeting within the Council of 26 June 2000 concerning the Communication from the Commission on Principles and guidelines for the Community's audiovisual policy in the digital age (2000/C 196/01);
- Council Resolution of 6 May 2003 on accessibility of cultural infrastructure and cultural activities for people with disabilities (2003/C 134/05);
- Council Conclusions of 17 December 1999 on the protection of minors in the light of the development of digital audiovisual services (2000/C 8/06);
- Council Resolution of 21 January 2002 on the development of the audiovisual sector (2002/C 32/04);
- Recommendation 2006/952/EC of the European Parliament and of the Council of 20 December 2006 on the protection of minors and human dignity and on the right of reply in relation to the competitiveness of the European audiovisual and on-line information services industry;
- Recommendation No. R (99) 1 of the Committee of Ministers to Member States on Measures to Promote Media Pluralism;

³⁶ Terrestrial - Digital Audio Broadcasting

³⁷ Digital Video Broadcasting –Terrestrial 2

³⁸ Justification of the **Selection of the Standards for digital broadcasting** can be found in ANNEX VIII.

- Recommendation Rec(2003)9 of the Committee of Ministers to member states on measures to promote the democratic and social contribution of digital broadcasting;
- Recommendation Rec(2007)3 on the remit of public service media in the information society.

Communication from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of Regions on the transition from analogue to digital broadcasting (from digital ‘switchover’ to analogue ‘switch-off’)³⁹ recognises the advantages of switching from analogue to digital broadcasting systems and gives basic guidelines for the switchover process.

Communication from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of Regions on accelerating the transition from analogue to digital broadcasting⁴⁰, followed by the working Document SEC(2005) 661 that contains detailed information on the transition from analogue to digital broadcasting in the Member States.

In September 2005 the European Commission published the Communication COM (2005) 461 in order to establish priorities for digital switchover in the context of the ITU Regional Radio-communication Conference held in Geneva in 2006.

In order to achieve the common approach to use of the spectrum released by the digital switchover, the European Commission published the Communication COM(2007) 700 providing guidelines for as efficient as possible use of the spectrum through digital dividend.

³⁹ **Communication from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of Regions on the transition from analogue to digital broadcasting (from digital ‘switchover’ to analogue ‘switch-off’)**, Brussels, 17.9.2003, COM(2003) 541 final, available at: http://ec.europa.eu/information_society/policy/ecomms/doc/info_centre/communic_reports/switchover/acte_en_vf.pdf

⁴⁰ **Communication from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of Regions on accelerating the transition from analogue to digital broadcasting**, Brussels, 24.05.2005, COM(2005) 204 final, available at: http://ec.europa.eu/information_society/policy/ecomms/doc/info_centre/communic_reports/switchover/com_2005_0204_f_en_acte.pdf

ANNEX V: Details per EU funded contract

For *TA contracts*: account of tasks expected from the contractor

- Establishment of the institutional setup for the digitisation process (coordination mechanisms, monitoring and evaluation of the process)
- Assessment of the conditions related to the scope of coverage of digital TV
- Estimation of the costs related to the switching off the analogue broadcasting
- Revision of the legal framework for the introduction of digital technologies in Serbia
- Preparation of bylaws for the digitisation process (property, ownership, maintenance of the equipment for digital broadcasting , budgeting)
- Preparation of the Plan for digitisation (phases and coverage)
- Setting coordination process among relevant stakeholders (roles and responsibilities in information campaign)
- Conducting survey prior the launch of information campaign
- Informing the citizens on the reasons for digitisation process
 - *TV campaign*
 - *Print brochures*
 - *Leaflets*
 - *TV discussions*
 - *Internet presentation*
 - *Free phone line*
- Conducting survey on the results of information campaign

ANNEX VI: Necessary equipment for the reconstruction of Phase I of the transmitting system in Serbia

Considering that in near future we are expecting intensive digitisation of transmitting TV signals through network of ground transmitters, it is necessary to rebuild complete system for this purpose. System should consist of several technological units

- Facility for forming of multiplex
- Network for transmitting from facility to transmitting station based on RR links and IP technology
- Transmitters, various power
- Antenna system with combiners and cables
- Remote controlled system for surveillance control and management.

The location of this equipment is yet to be determined⁴¹.

Technology equipment

- **TV transmitters (indicative budget: 3M€)**

Digital service

Equipment	Amount
Tnasmitters for terrestrial digital video broadcasting	22

The power of the DVB-T2 transmitters will be determined in due time.

- **Multifunctional transmission network (indicative budget: 1.5M€)**

I. Equipment	Capacity	Amount
RR Links	1x155 Mb/s	3 set
RR Links	2x155 Mb/s	6 set
RR Links	4x155 Mb/s	1 set

Set include STM⁴² 1+1 network, antenna, waveguide, pressurization, uninterrupted power supply.

⁴¹ The FACTIS report contains an inventory of the current assets of RTS (the Serbian Public Service Broadcaster); however no map is available showing their location, as it is being updated. The map will show the proposed locations of the new transmitters and antennae. The map will also depict their broadcasting zones. The map is expected to be ready by the end of 2009.

II. Terminal and network equipment (indicative budget: 2M€)

- Encoders and decoder SD
- Encoders and decoders HD
- Multiplexers, Remultiplexers, interface
- Routers
- Net management (services, monitoring, control, management)

3. Antenna systems (indicative budget: 3.5M€)

- UHF antenna systems with coaxial cables, accessories and multiplexers

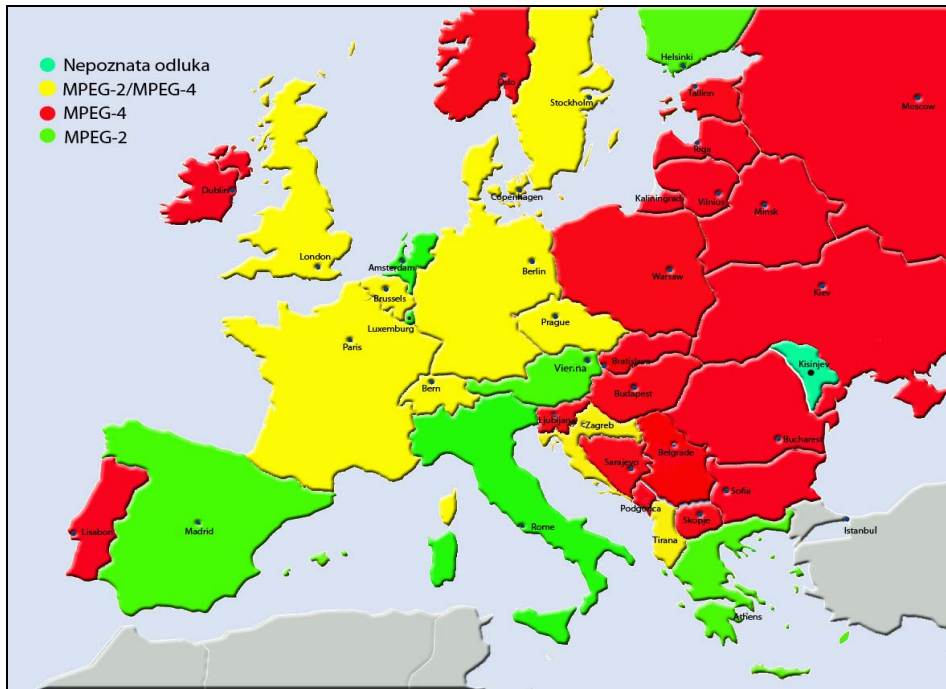
4. Communication and control-measurement equipment (indicative budget: 3.5M€)⁴³

- Equipment and suitable software for remote control, monitoring and measurement.
- Equipment for monitoring and measurement on transmitting sites and equipment for monitoring and measurement in control centre and headquarter.

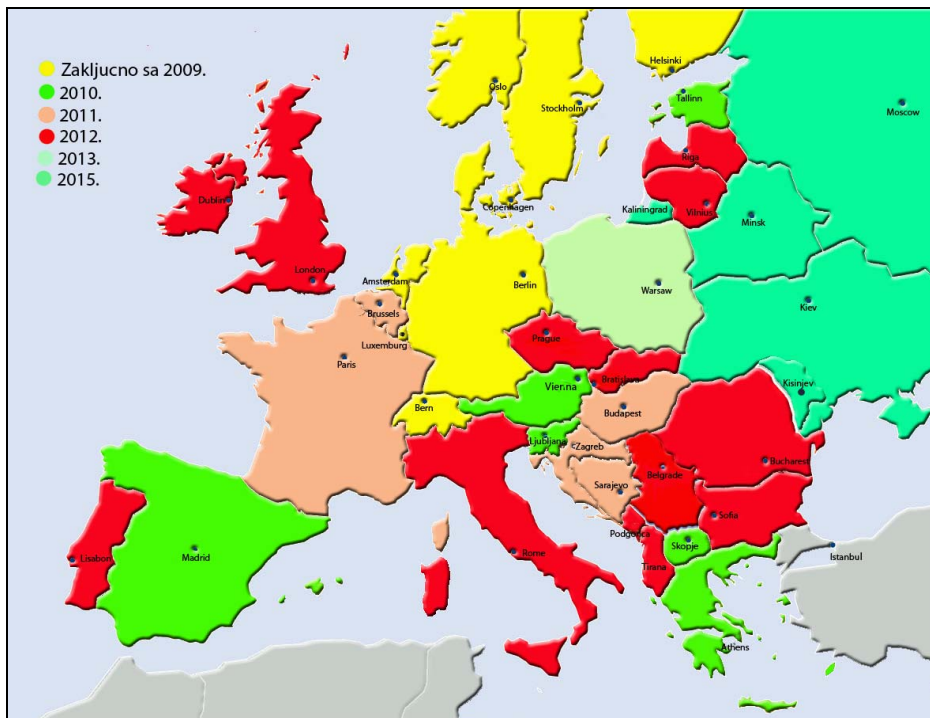
⁴² Synchronous Transport Module

⁴³ It is proposed that this will be provided through national co-financing; however this may change according to availability of equipment.

ANNEX VII: Maps



Map 1: Compression standards in Europe



Map 2: deadlines for Switchover from analogue to digital broadcasting in Europe